MARYLAND ENVIRONMENTAL SERVICE

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Governor

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Director

October 7, 2000

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HARBOR DEVELOPMENT

Mr. Frank Hamons, Manager
Harbor Development
Maryland Port Administration
The Maritime Center II
2310 Broening Highway
Baltimore, Maryland 21224-6621

Re: MPA Contract No. 500912P - Furnace Bay Groundwater Assessment and Modeling Report

Dear Mr. Hamons:

The Maryland Environmental Service (MES) herewith submits six (6) copies of the report entitled " Stancill's Inc. Furnace Bay Site Groundwater Assessment and Modeling Report." The report is in two volumes. Volume one consists of the technical report and Appendix A. Volume 2 consists of Appendices B through F.

If you have any questions regarding the report, or wish to schedule a meeting to discuss the report, please contact me in Annapolis at (410) 974-7295.

Sincerely,

William E. Chicca
Director,
Program Development and
Engineering Support

Enclosures:

cc: Robert Miller, Esq.
Wayne Young

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STANCILL'S INC.
FURNACE BAY SITE
GROUNDWATER ASSESSMENT
AND MODELING REPORT

Prepared For:

Maryland Port Administration
The Maritime Center II
2310 Broening Highway
Baltimore, Maryland 21224-6621

Prepared By:

Maryland Environmental Service
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Volume 1 of 2

October 2002

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Volume 2

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1.0 Executive Summary and Conclusions

Stancill's Inc. is an active sand, gravel and earthen materials mining and processing facility located in Cecil County at 499 Mountain Hill Road, Perryville, Maryland 21903. The approximately 130-acre site is situated in the western part of Cecil County, adjacent to Principio Creek at the junction of Principio Creek and Furnace Bay.

In 2000, the site was the subject of a preliminary assessment to evaluate the feasibility of using the property as an upland containment site for dredged material from the Upper Bay channels. That study found that if the quarry were mined to the maximum extent proposed, which involves continued excavation to a maximum depth of -70ft below mean sea level, the site has the potential to provide up to 9.6 million cubic yards (MCY) of air space capacity if filled to elevation +90. Information was not available as to the quantity of air space available on the site based upon the topography at the time of the study.

At an annual average rate for maintenance dredging in the Upper Bay channels (400,000 CY per year), the 9.6 MCY of potential air space capacity could potentially provide 34 years of service. Preliminary cost estimates for material placement using hydraulic and mechanical placement means was approximately $12.23 and $19.82 per cubic yard, respectively. The previous report indicates that each potential method of dredged material placement would be logistically challenging.

The preliminary study of the site shows the site to be underlain by layers of sandy material, gravels and clays in variable thickness. Depths to the top of the bedrock ranged from about 40 feet to about 100 feet. Soil tests indicate that the in-place permeability of the Claey Silt / Sandy Silt deposits beneath the site to be in the range of 10^{-6} cm/sec. Groundwater in the pit area was found about 2 feet beneath the quarry floor. The preliminary hydrogeologic assessment shows the direction of groundwater flow in the area to be in a southwesterly direction, towards Principio Creek and Furnace Bay. Within the immediate vicinity of the site, groundwater flow is in a radial pattern, flowing into the quarry, where areas have been excavated to below the water level in the adjacent surface waters. A survey of wells in the vicinity showed that a total of 17 wells have been permitted within a one-half mile radius of the quarry, (two of which have not been built). One of the identified wells is located on the Stancill property and provides potable and sanitary water for site office activities. None of the off-site wells were found to be downgradient of the property. Because of their location and low yields, the previous study concludes that placement of clean dredged material from the Upper Bay channels at the site would pose little risk to contamination to existing or permitted potable wells in the vicinity. However, the report recommended additional groundwater study to characterize current groundwater conditions and to determine the potential effects of placement of dredged material in the site on groundwater flow direction in the area and groundwater quality.

To better define potential groundwater effects as a result of placement of dredged material in the site, MPA contracted with MES to conduct additional studies. The purpose of the studies is to define current groundwater conditions in the area, including groundwater flow direction and water quality and to predict potential impacts on groundwater flow direction and water quality that may result from placement of dredged material at the site. MES contracted with KCE Engineering and URS Corporation to provide technical and engineering assistance in conducting the studies.

KCE Engineering was contracted to develop a current topographic survey of the site, to install a pumping well and piezometers at selected locations on the site and to collect representative groundwater samples for testing in a commercial laboratory. KCE Engineering was also tasked with monitoring groundwater levels in the newly installed well / piezometers over a six-month time period. In the field, the well, which was drilled into bedrock, failed to produce water. Therefore, the well was converted to a piezometer. A continuous water level recorder was installed in one piezometer, and monthly readings were collected from the remaining piezometers. KCE Engineering also performed tests to determine aquifer physical and chemical characteristics, including vertical and horizontal permeability of the soils within the perimeter buffer area. The information would then be used in developing and calibrating the groundwater model of the area.

In addition, KCE Engineering reviewed regulatory files and developed a comprehensive inventory of permitted wells that have been installed in the vicinity of the Stancill site. A total of 158 permitted wells were identified in an area surrounding the Stancill site. The area extends 2 miles north and south of the center of the Stancill site, and 1 mile east and west. KCE Engineering also obtained well completion reports for the wells to determine the geology of the well locations. None of the wells, with the exception of the potable well installed on the site to provide water for sanitary purposes, are located immediately downgradient of the site.

URS Corporation was contracted to develop and calibrate a three-dimensional groundwater flow model of the site, and then use the aquifer information and groundwater data as input to a groundwater fate and transport model. The model would then be used to predict potential changes in on groundwater flow direction and water quality that would result if clean dredged material were placed in the site. URS staff observed the installation of the monitoring well and piezometers and the collection of the groundwater samples. URS staff also performed slug tests on all of the newly installed piezometers to determine well yields.

To simulate water quality characteristics of percolate through dredged material, MES collected representative samples of dredged material from the Upper Bay region that have been deposited in the Courthouse Point dredged material containment facility located south of Chesapeake City in Cecil County. The collected dewatered dredged material was then subjected to two leaching procedures to produce simulated percolate water. Percolate water would be produced when a portion of the precipitation, which falls on the quarry site infiltrates through the dredged material. One leaching protocol that was employed is the Toxicity Characteristic Leaching Procedure (TCLP), which is the specified test protocol used to simulate leachate characteristics of solid waste to determine if the solid waste is a hazardous waste under the provisions of the Federal Resource Conservation and Recovery Act (RCRA). The results of TCLP testing are recognized as being a conservative assessment of potential leaching characteristics, due to the aggressive nature of the leaching procedure. Therefore, the resulting liquid from the TCLP test protocol is considered to be a very conservative simulation of the percolate that may be produced as precipitation passes through the dredged material. The second leaching protocol employed was conducted using deionized water as the leaching media. Samples of percolate from both leaching procedure were submitted to a commercial laboratory and analyzed to determine the concentration of specific constituents. The analytical results were then provided to URS for use as input parameters to the groundwater model.

URS Corporation used the collected data and other information to develop a conceptual geologic and hydrogeologic model of the site. The conceptual models then served as the basis for the groundwater model of the area. URS developed the model using MODFLOW, a finite-difference numerical groundwater flow model and MODPATH, a particle-tracking package used in conjunction with MODFLOW. Because of varying aquifer hydraulic properties, and the vertical/horizontal extent of the placed constituents, URS used a Modular Three-Dimensional Multispecies Transport Model (MT3D) to simulate site-specific transport and to evaluate the flow of constituents in groundwater beneath the Stancill quarry. Predictive runs were made to simulate potential transport of three indicator parameters; chloride, Total Dissolved Solids (TDS) and Iron in the groundwater that would develop after placement of dredged material at the site.

The modeling results confirm that under current excavated site conditions, the site generally serves as a groundwater sink, with radial flow of groundwater into the quarry, where it is used in the materials washing and grading operations. Model results show possible leakage from the southwest portion of the site to Principio Creek and Furnace Bay. The model indicates that when the site is filled with dredged material, the groundwater flow pattern is altered. Under filled conditions, the direction of groundwater flow is in the direction of Principio Creek and Furnace Bay, with little potential for upgradient groundwater movement. The transport model shows that constituents in groundwater will discharge into Principio Creek and Furnace Bay, which are located immediately west of the site. The model predicts that no impacts to upgradient groundwater water quality would occur as a result of placement of dredged material in the site.

The groundwater model as developed for the site includes four layers; three layers within the saprolite and the fourth layer in the bedrock. The model run simulates a 100-year time period after placement of the dredged material. To be conservative, URS elected to use the simulated percolate data derived from the TCLP leaching protocol as compared to percolate developed using the deionized water leaching procedure. The model results predict that the concentration of TDS in the groundwater within the saprolite layer after placement of dredged material would increase over time from a range of 100 to 500 mg/l to a maximum of 3,700 mg/l within the site boundaries. Chloride levels would rise from approximately 7 mg/l to 20.6 mg/l within the site boundaries, and Iron would increase from approximately 0.2 mg/l to .55 mg/l. The model predicts that these steady-state maximum concentrations would be experienced within 8 to 10 years after placement of the dredged material. The report concludes that because of the aggressive nature of the TCLP procedure, the simulated input concentrations overestimate the constituent concentrations that will be leached from the dredged material. Further, the model results do not consider adsorption and chemical precipitation of Iron and TDS as groundwater passes through the soil media, which may result in lower actual concentrations of constituents in the groundwater than predicted by the model.

Using the current site information provided by the 2002 topographic survey, MES determined that the site presently possesses an available air space capacity of 7.2 million cubic yards (MCY). This air space capacity was based upon the same berm configuration suggested by Gahagan & Bryant Associates (GBA) in the 2000 Feasibility Study of the site. This configuration includes a berm constructed to a maximum elevation of +90 feet, and the bermed area filled to that elevation. If the site was used to contain only dewatered material, berm construction is not necessary and placing and grading compacted material to a higher elevation over the site could achieve additional air space capacity. MES assumed a site configuration that placed and compacted dredged material at

3:H to 1:V slopes, with benches constructed every 30 feet of elevation over the +90 base. Under this site configuration, MES determined that the site could potentially provide up to 10.4 MCY of air space capacity. If 4:H to 1:V slopes are used, and with a maximum elevation of 148 feet, the site could provide up to 8.6 MCY of air space capacity

Based upon the results of the current site assessment and groundwater modeling effort, MES concludes the following:

- Groundwater in the vicinity of the property, under the current excavated site conditions, flows in a radial manner into the quarry site.

- Upon filling of the site with dredged material, the direction of groundwater flow in the area will change, with groundwater flowing west, in the direction of Principio Creek and Furnace Bay.

- No upgradient movement of groundwater is predicted to occur under the re-established groundwater flow regime that will develop once the site is filled with dredged material.

- With the exception of the existing production well on the site, which is used for on-site office and shop activities, no potable wells currently exist in the downgradient area between the Stancill site and Principio Creek / Furnace Bay.

- Because of the location of the site immediately proximate to Principio Creek and Furnace Bay, there is little or no probability that a potable well would be sited in the future within the downgradient area between the site and Principio Creek / Furnace Bay.

- Based upon the current site topography, the Stancill site presently offers an air space capacity of 7.2 MCY if filled to an elevation of +90, or up to 10.4 MCY of air space capacity using dewatered dredged material placed, compacted and contoured over the site to a maximum elevation of +158 feet with 3:H to 1:V slopes.

- Groundwater quality impacts in would be experienced if dredged material were placed in the site. Groundwater modeling results indicate that TDS levels in groundwater at the site are predicted to rise to a maximum expected concentration of 3,700 mg/l; chloride levels in the groundwater are predicted to rise to an expected maximum concentration of 20.6 mg/l; and Iron concentrations in groundwater are predicted to increase to an expected maximum concentration of 0.55 mg/l.

- The predicted maximum concentration of 3,700 mg/l for TDS exceeds the current SMCL standard of 500 mg/l.

- After placement of dredged material in the Furnace Bay site to a level above the elevation of groundwater in the area, any constituents leached from the dredged material that enters the groundwater will flow in the direction of and express themselves in Principio Creek and Furnace Bay.

- With the exception of the existing production well on the site, no existing upgradient or downgradient potable wells were identified that would potentially be affected by placement of dredged material in the Stancill site.

- The predicted values were obtained from the groundwater model when conservative water quality input data based upon TCLP percolate date were used as input data. Actual groundwater concentrations are expected to be less than the predicted values.

- The predicted water quality impacts to the groundwater are expected to manifest themselves within 10-years of placement of dredged material in the site.

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, prospective effects to groundwater from placement of dredged material at the Stancill's Inc. site at Furnace Bay would not result in predicted conditions that would preclude the site's further consideration as a potential upland placement site for management of dredged material.

2.0 Stancill's Inc. Site at Furnace Bay

Stancill's Inc. is a commercial sand, gravel and earthen material mining facility located in Cecil County at 499 Mountain Hill Road, Perryville, Maryland 21903. The site is in the western part of Cecil County, adjacent to Principio Creek, at the point where Principio Creek flows into Furnace Bay. The site has been used for mining of earthen materials on a continuous basis since November 1972. Soil borings indicate that the site can continue to extract and process marketable material at the current rate for an additional 5 to 7 years. Additional marketable material exists on the site, but it is located in perimeter buffer areas or areas where excavation depths would increase production costs and reduce competitive marketability of the finished product. Current on-site operations include mining, washing, screening, grading and stockpiling of the various excavated materials for sale as product. Facilities are also available on-site for blending and mixing different materials to meet the specifications for a customer order. The site also has an on-site truck scale and office building. Buffer areas have been maintained along Mountain Hill Road and along the southern property boundary. Figure 2.1 is a current aerial photo of the site.

The site includes approximately 130 acres of land, approximately 100 acres of which is currently used for extraction and processing of sands, gravels, clay and other earth materials, and for the stockpiling of finished materials for marketing. The remaining portion of the site includes buffer areas to adjoining properties, Principio Creek and a wetland area between the high speed railroad tracks and the mining area. The wetland is fed by an unnamed tributary to Principio Creek, which flows across the property parallel to the railroad lines. The processed materials are commercially marketed throughout the Northeast U.S. region. The site is bordered on the west by Principio Creek, and Furnace Bay, undeveloped private land to the south; Mountain Hill Road to the East, and the high-speed railroad tracks to the North.

The site includes a series of ponds and impoundments used to contain and treat the water used in the mining and mineral processing operations. The berms were constructed exclusively from on-site materials excavated at the site. Water needed for the washing and grading of excavated materials is pumped from an on-site pond to the processing area. Effluent from the processing operations is then pumped to an upper elevation pond for removal of suspended particulates through gravity separation. No flocculents are used in the gravity separation process. Any overflow from the upper settling pond would discharge by gravity to the lower elevation pond, where the pumping facilities return the water to the processing plant. The on-site materials processing operations completely reuses all water on site. There is no discharge to surface waters of the State from the Furnace Bay site.

The fine particulates and other materials, which are produced during the materials processing operations, accumulate in the upper settling pond. A portion of this settled material is periodically removed from the upper pond by means of a dragline or excavator. This periodic removal of accumulated material from the upper pond restores its settling capacity. The removed material is marketed or placed as fill in lower elevation excavated areas on the site.

Under the provisions of the Surface Mining Permit issued by MDE, once commercial mining activities cease, reclamation of the site becomes necessary. The approved site reclamation plan includes the option of re-contouring the site using fill material. Dewatered dredged material can potentially serve as suitable fill material.

Figure 2.1 Current Aerial Photo of Stancill's Inc.

Upland placement of dredged material offers the potential to affect ground and surface waters in the vicinity, as various constituents in the material become mobilized and released to the environment. This mobilization may occur as a result of the disturbance of the sediments or as a result of chemical changes that occur as dredged materials dry out and the sulfur species oxidize. Water percolating through the dried material may become acidified by the oxidized sulfur and dissolve various constituents in the dredged material. Any site that is proposed for use as a dredged material placement site must be studied to determine the potential for adverse effects to groundwater and surface water in the area.

Soil borings conducted on the site confirm the presence of clay and other fine material beneath the Furnace Bay site. This is typical of marine deposit geologic formations found in Coastal Plain formations. Silts and clays, because of their small particle size and dense structure when compacted, have the ability to retard the flow of groundwater. The presence of such materials on the site may provide a level of protection to groundwater beneath the site, and serve to contain on site any pollutants that may potentially be present in the dredged material placed in the site.

To assess the potential for impacts to groundwater in the area, including any off-site wells in the vicinity of the site, that may occur as a result of placement of dredged material in the Stancill pit, MPA contracted with MES to conduct a study of the site. The study would include an assessment of current groundwater conditions and development of a groundwater model to predict any changes that may occur as a result of placement of dredged material in the site.

3.0 Summary of Previous Studies

During 2000, the site was the subject of a preliminary assessment to evaluate the feasibility of using the property as an upland containment site for dredged material from the Upper Bay channels. That study found that the site has the potential to provide up to 9.6 million cubic yards (MCY) of air space capacity if fully mined to the planned configuration and the site were then backfilled to elevation +90. This volume calculation assumes continued mining of the site to a maximum depth of –70 feet below mean sea level (MSL). Using a 30% reduction in volume for cut sediment after consolidation, the 9.6 MCY of air space capacity can contain approximately 13.6 MCY of cut quantity of dredged material. Thus, the site after completion of mining activities could contain up to 13.6 MCY of cut dredged material after raising the dikes to an elevation of +90 feet above MSL. At the annual rate of maintenance dredging of the Upper Bay channels (400,000 CY per year), the 9.6 MCY of air space capacity could potentially provide 34 years of service. Preliminary cost estimates for material placement using hydraulic and mechanical placement means was approximately $12.23 and $19.82 per cubic yard, respectively.

The earlier site study in 2000 indicates that either placement method offers technical challenges. Hydraulic placement could be impaired by long pumping distances, extensive shallow water and recreational boating issues, potential icing conditions as well as return flow effluent discharge issues. Mechanical placement would be similarly challenging, involving location of barge unloading facilities, as well as extensive trucking requirements and traffic issues.

With respect to site geology, the study conducted during 2000 found the site to be located in the Atlantic Coastal Plain Physiographic Province. Soil borings show the site to be underlain by layers of sandy material, gravels and clays in variable thickness. Depths to the top of the bedrock ranged from about 40 feet to about 100 feet. Soil tests indicate that the in-place permeability of the Clay Silt / Sandy Silt deposits beneath the site to be in the range of 10^{-6} cm/sec. Groundwater in the pit area was found to be shallow; being encountered about 2 feet beneath the quarry floor.

A preliminary hydrogeologic assessment found the general direction of groundwater flow in the area is in a southwesterly direction, flowing into Principio Creek and Furnace Bay. The study found that within a five-mile radius of the site, 2,600 well permits have been issued, and 112 wells were identified as Public or Industrial well that would be expected to have a large withdrawal rate. Within a one-half mile radius of the quarry, 17 wells have been permitted (two of which have not been built). None of the off-site wells are located downgradient of the property, between the site and Principio Creek or Furnace Bay. The study concluded that because the proximate wells located upgradient of the site are drilled into bedrock and do not include large capacity production wells, they would have a limited radius of influence, and that placement of clean dredged material from the Upper Bay channels at the site would pose little risk to contamination of potable wells in the vicinity.

The study identified groundwater as an issue that would require additional study. The depth of some on-site excavations is near the mean low water elevations in Furnace Bay, and likely below the elevation of the surficial unconfined aquifer at the site location. These deep excavations on the property likely serve as groundwater "sinks," resulting in the flow of groundwater into the site. Placement of dredged material by either hydraulic or mechanical methods in the site could

potentially result in effects on groundwater beneath the property and in the vicinity of the site. In addition, depending upon the depth of the excavation and the number of aquifers breached by the mineral extraction operations, the potential exists for inter-aquifer movement of groundwater. Once filled to capacity, groundwater flow directions in the site area would be altered, offering the potential to affect groundwater quality in the immediate region. The study concluded that a site geotechnical assessment would be necessary to adequately assess current groundwater conditions as well as the hydrogeologic suitability of the site to serve as a containment facility, and the potential effects on groundwater resources in the area that may result from placement of dredged material.

4.0 Groundwater Study Approach

MES developed a plan for the assessment of groundwater at the Furnace Bay site to assist in determining the feasibility of using the property as a dredged material containment facility. The plan was subsequently reviewed and approved by the MPA and the study authorized through the provisions of an existing Intergovernmental Agreement between MES and MPA. This study plan includes the following component elements:

1. An assessment of current groundwater conditions in the vicinity of the site. The assessment would include a determination of the rate and direction of groundwater flow at the site under the current configuration and a determination of existing groundwater quality.

2. Development of a current topographic map of the site.

3. Development of a hydrogeologic assessment of the site to determine subsurface conditions.

4. Development of a three-dimensional groundwater flow model of the site and the immediate area that reflects current groundwater conditions and conditions that would develop if the site were filled with dredged material.

5. Development of a predictive groundwater model to determine potential impacts to groundwater quality due to percolation of precipitation through dredged material deposited at the site.

MES contracted with KCE Engineering, Inc. to provide engineering services to MES during the investigation of the Stancill site. KCE was contracted to provide the following work elements as part of the site study:

1. Install one groundwater monitoring well and up to 9 piezometers at selected locations on the site to specified depths.

2. Conduct a current topographic survey of the site to provide boundary conditions to the groundwater model and current available air space volume.

3. Collect representative groundwater samples and provide laboratory analyses of the groundwater for identified constituents.

4. Measure and record groundwater elevations in the wells and piezometers for a six-month time period to determine groundwater level fluctuations over time.

5. Determine vertical and horizontal permeability in the upgradient surficial soils found in the perimeter buffer area on the site.

6. Conduct a detailed inventory of permitted wells in the vicinity of the site.

MES contracted with URS Corporation to develop a comprehensive groundwater model of the site. URS was contracted to provide the following specific work:

1. Develop a conceptual geologic model of the site.

2. Develop a conceptual hydrogeologic interpretation of the site.

3. Develop a MODFLOW three-dimensional groundwater flow model of the site to simulate current conditions and conditions that will develop as a result of placement of dredged material in the site

4. Develop a three-dimensional groundwater transport model of the site to predict changes in groundwater quality as a result of placement of dredged material in the site.

To provide necessary input data to the groundwater transport model, MES would collect samples of dredged material that would be representative of materials likely to be placed in the Stancill quarry. MES decided to collect samples of dredged material that had been previously placed in the Courthouse Point dredged material containment facility. This material originated from the Upper Bay channels (North of Pool's Island and South of Sassafras) and was placed in the dredged material containment site during the 96-97 dredging effort.

The collected samples would then be subjected to a leaching procedure to produce a liquid fraction that is intended to simulate percolate water that would form when precipitation passes through dredged material. The selected leaching procedure is identified as the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP procedure has been promulgated by the Federal Environmental Protection Agency, and is used as the definitive protocol for determining if a solid waste is a hazardous waste by exhibiting the characteristic of toxicity. The TCLP test is designed to simulate the leaching that takes place in a sanitary landfill, where aggressive leaching conditions can be experienced. The leaching uses a buffered acetic acid solution. The resultant liquid would then be analyzed for specific constituents and the data provided to URS Corporation for use as input data in the groundwater transport predictive model.

The investigative efforts and modeling reports would be completed by the contractors and provided to MES for assessment. MES staff would then review the studies to assess the potential effects on groundwater in the area that may result as a result of using the site as a dredged material placement facility.

5.0 Study Protocols and Procedures

5.1 KCE Engineering, Inc.

MES contracted with KCE Engineering to perform the site soils and groundwater investigative effort. The specific scope of work included the following:

- Development of a current topographic survey of the area (approximately 140 total acres). The survey will be to the 2-foot contour level of precision. The topographic information will be used as input information to the groundwater assessment and model.

- Installation of up to nine (9) groundwater piezometers and one pumping well and collection of hydrogeologic information at or near the Stancills, Inc. property in Cecil County. During piezometer and well installation, soil-boring information will be logged to determine subsurface conditions and materials at the site. A 72-hour pumping test will be performed on the pumping well. Budget provisions are included to enable a second 72-hour pumping test to be performed in the event that geologic conditions at the site necessitate an additional well and pumping test. Hydrogeologic information to be collected includes the following:

    - Soil identification and classification
    - In-situ permeability and transmissivity
    - Well yield and drawdown characteristics
    - Inventory and field verification of water supply wells within a one-mile distance of the site boundary.
    - Climatic data for the area, including evapotranspiration and precipitation data.

- Installation of a continuous recorder and monthly observation of water levels in the piezometers to measure groundwater elevations for up a six-month period to determine groundwater elevations over time. A sample of the groundwater beneath the site will be collected for laboratory testing. A sample will be collected from each of the piezometers and from the pumping well. Each sample will be analyzed separately. Chemical analyses of the groundwater will be performed for the following constituents:
    - Field determination of dissolved oxygen (DO), pH, temperature, conductivity and Oxidation Reduction Potential (ORP).
    - Sodium
    - Potassium
    - Calcium
    - Magnesium
    - Bicarbonates
    - Chloride
    - Sulfate and Sulfide
    - Nitrate-Nitrogen
    - Iron
    - Manganese
    - Arsenic
    - Cadmium

- Chromium
- Copper
- Lead
- Zinc
- Nickel
- Selenium
- Total Petroleum Hydrocarbons
- Nitrate-Nitrite-Nitrogen
- Total Nitrogen
- Total Kjeldahl Nitrogen
- Alkalinity
- Ammonia Nitrogen
- Chemical Oxygen Demand
- Dissolved Solids
- Total Phosphorous
- Total Organic Carbon
- Carbon Dioxide
- Ferrous Iron
- Methane

The location of the piezometers and the selected well site are shown on Figure 5.1. Well completion reports, laboratory analysis sheets and recorded water levels are included as Appendix A to this report.

5.2 URS Corporation

MES contracted with URS Corporation to develop and calibrate the groundwater models necessary to assess groundwater flow in the area and predict potential changes to groundwater in the area if dredged material were placed at the site. The specific scope of work included the following:

- Development of a predictive groundwater model to estimate groundwater conditions and flow directions in the vicinity of the Furnace Bay site after placement of dredged material. Subtasks include:
  - Oversight of well/piezometer installation and field testing and assessment of data gathered during field investigative activities.
  - Development of a conceptual geologic model of the site that is based upon the field investigative activities.
  - Development of a conceptual hydrologic model of the site that is based upon the results of the field investigative activities.
  - Development and calibration of a MODFLOW Groundwater Flow Model of the site based upon the conceptual geologic and hydrogeologic interpretations.
  - Development of a MT3DMS transport model to model the transport and degradation of three chemical compounds to simulate potential groundwater impacts as a result of placement of dredged material in the site.

MARYLAND ENVIRONMENTAL SERVICE

FURNACE BAY
WELL LOCATIONS
FIGURE 5.1

PATH

The conceptual geologic model is included as Appendix B to this Report. The conceptual hydrogeologic model is included as Appendix C to this report. The Groundwater Flow Model is included as Appendix D to this report. The Transport Model is included as Appendix E to this report. The current site topographic map is included as Appendix F.

5.3 Maryland Environmental Service

MES reviewed prior studies and geologic information regarding the site and met with the subcontractors and the property owner to select appropriate areas within the Stancill quarry for installation of the pumping well and piezometers. MES supervised field activities and testing efforts undertaken by the selected subcontractors at the site and reviewed and evaluated the resultant data and other work products.

In addition, MES obtained representative samples of dewatered dredged material for analytical testing and production of simulated percolate water. Analytical results from testing of the percolate data was used provided to URS Corporation and subsequently used as input data to the groundwater model.

MES used the current topographic survey information provided by KCE Engineering to determine the current air space capacity available in the Stancill quarry. In addition, MES developed an alternative final site configuration to determine the additional site air space capacity that could be provided.

Finally MES evaluated the results of the groundwater assessment and modeling effort. Based upon this assessment, MES then prepared the final report regarding the potential impacts to groundwater as a result of placement of dredged material in the Stancill quarry.

6.0 Field Investigations and Activities

6.1 Piezometer Installation & Testing

KCE Engineering installed the well and piezometers on the site during October and November of 2001. The installed piezometers were designated PZ 1 through PZ 9. However, the pumping well, which was drilled to a depth of approximately 90 feet below the bottom of the quarry floor, did not produce water, which would be necessary to determine the aquifer characteristics necessary as input data to the model. This information would be determined by a pump test of the well. After discussion with URS, it was decided that there was a high probability that installation of another well in a different location within the quarry may produce another dry hole. Since the necessary aquifer information could be determined by slug testing the nine newly installed piezometers, a decision was made to abandon the well pump test task and to slug test all of nine piezometers. The results from the slug tests will provide the necessary aquifer data. The slug test results can be found in Appendix C. URS Corporation conducted the slug tests on the nine piezometers during late November 2001. Piezometer information is summarized in Table 6.1, below. The well completion reports are included in Appendix A to this report.

Table 6.1 - Piezometer Information

Number	Installed Depth	Material Description
PZ 1	25 Feet	Brown silty sand; brown sandy clay
PZ 2	40 Feet	Light brown sand & gravel; light Brown silty sand
PZ 3	20 Feet	Light brown silty sand
PZ 4	25 Feet	Light brown silty sand
PZ 5	20 Feet	Light brown silty sand
PZ 6	20 Feet	Light brown silty sand
PZ 7	20 Feet	Light brown silty sand
PZ 8	40 Feet	light brown to dark brown silty sand
PZ 9	90 Feet	0 to 40 ft. - Light brown to dark brown silty sand 40 to 90 ft. - Light brown to dark brown silty sand with a trace of red clay

On November 6, 2001, KCE Engineering collected representative samples of groundwater from each of the nine piezometers and submitted the groundwater samples to Martel Laboratories for analyses. Additional field measurements for Dissolved Oxygen, pH, Temperature, Conductivity and Oxidation Reduction Potential were taken in the field for each piezometer at the same time that the groundwater samples were collected. Table 6.2 contains a summary of the analytical test results of the groundwater. The laboratory analytical sheets and Chain of Custody Forms are included in Appendix A of this report.

Table 6.2: Analytical Results from Sampling Wells at Stancill Quarry

Parameter	Detection Limit	Units	Minimum Concentration	Maximum Concentration	Median Concentration	Average Concentration	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5	PZ-6	PZ-7	PZ-8	PZ-9
Methane, dissolved	0.0005	mg/L	0.00053	0.2	0.0063	0.052	0.2	0.0011	0.066	0.09	0.0063	0.0011	0.00053	<0.0005	<0.0005
Carbon Dioxide	1	mg/L	8	140	20	35.111	140	9	24	8	60	16	20	14	25
Total Petroleum Hydrocarbons	2	mg/L	ND	ND	ND	ND	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sulfide	0.1	mg/L	ND	ND	ND	ND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate - Nitrite Nitrogen	0.05	mg/L	0.12	1.7	0.29	0.500	0.23	0.35	0.12	<0.05	<0.05	<0.05	1.7	0.18	0.42
Kjeldahl Nitrogen (Total)	0.5	mg/L	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ammonia Nitrogen	0.2	mg/L	ND	ND	ND	ND	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chemical Oxygen Demand	20	mg/L	21	230	49	70.429	230	21	<20	71	65	49	36	21	<20
Phosphorous (total)	0.05	mg/L	0.09	0.65	0.33	0.359	0.49	0.26	0.17	0.57	0.65	0.55	0.33	0.12	0.09
TOC (Total Organic Carbon)	0.1	mg/L	1.8	22	6.9	9.567	20	5	6.9	22	5.9	14	7.2	3.3	1.8
Sodium	0.5	mg/L	3.6	13	7.5	7.500	5.8	13	7	4.9	9	3.6	8.2	7.5	8.5
Potassium	5	mg/L	ND	ND	ND	ND	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	0.5	mg/L	2.8	9.7	5.5	5.578	5.5	5.9	8	5.6	9.7	3.6	4.8	4.3	2.8
Magnesium	0.5	mg/L	0.9	8.3	2	2.533	1.3	1.9	2	2.3	8.3	2.1	2.4	0.9	1.6
Iron	0.01	mg/L	0.27	120	4.5	16.979	120	5.7	0.89	7.6	11	2.5	4.5	0.27	0.35
Manganese	0.01	mg/L	0.04	4.2	0.12	0.616	0.26	0.12	0.11	0.35	4.2	0.3	0.09	0.07	0.04
Arsenic	0.005	mg/L	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	0.0005	mg/L	0.0005	0.0007	0.0006	0.001	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005
Chromium	0.005	mg/L	0.007	0.09	0.035	0.036	0.09	0.018	<0.005	0.047	0.011	0.035	0.047	<0.005	0.007
Copper	0.005	mg/L	0.008	0.027	0.018	0.017	0.02	0.008	0.01	0.027	0.023	0.018	0.014	<0.005	<0.005
Lead	0.005	mg/L	0.007	0.027	0.014	0.017	0.027	0.007	<0.005	0.025	0.016	0.012	0.012	<0.005	<0.005
Zinc	0.01	mg/L	0.03	0.12	0.05	0.053	0.12	0.05	0.03	0.06	0.05	0.04	0.07	0.03	0.03
Nickel	0.005	mg/L	0.007	0.037	0.011	0.014	0.015	0.007	0.008	0.014	0.019	0.011	0.037	0.007	0.009
Selenium	0.005	mg/L	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bicarbonates (as CaCO3)	1	mg/L	4	39	25	23.250	39	<1	18	<1	32	<1	<1	4	<1
Chloride	2	mg/L	6	25	14	15.222	15	13	14	10	13	6	25	19	22
Sulfate	5	mg/L	6.1	41	16	16.333	17	16	6.7	41	20	20	9.2	6.1	11
Nitrate Nitrogen	0.05	mg/L	0.1	1.7	0.2	0.500	0.2	<0.05	0.1	<0.05	<0.05	<0.05	1.7	0.1	0.4
Nitrite Nitrogen	0.02	mg/L	0.02	0.35	0.03	0.102	0.03	0.35	0.02	<0.02	0.03	<0.02	<0.02	0.08	<0.02
Total Nitrogen	0.05	mg/L	0.12	1.7	0.29	0.500	0.23	0.35	0.12	<0.05	<0.05	<0.05	1.7	0.18	0.42
Alkalinity, total (as CaCO3)	1	mg/L	4	39	25	23.250	39	<1	18	<1	32	<1	<1	4	<1
Solids (dissolved)	1	mg/L	18	210	62	79.444	210	54	64	18	140	50	69	48	62
Iron (ferrous)	0.01 OR 60						indeterminate								
Iron (Ferric by Calculation)	60						indeterminate								

Iron (ferrous) and Iron (Ferric by Calculation) results were indeterminate

ND = Non detect

On November 6, 2001KCE Engineering also commenced measuring and recording the water level in each of the piezometers. This water level recordation effort continued on a monthly basis until May 30, 2002. On December 11, 2001, KCE Engineering installed a continuous water level monitor in PZ6 and commenced recordation of water levels on an hourly basis. A summary of the results of water level monitoring is found in Table 6.4.

Table 6.3
Field Measurements

Ground Water Monitoring					
Stancill Quarry, Furnace Bay					
Field Measurements of Water Samples taken on November 6, 2001					
Project # 01116.00					
Peizometer #	Dissolved Oxygen (mg/l)	pH	Temperature (°C)	Conductivity (S/cm)	Oxidation Reduction Potential ORP (mV)
PZ 1	3.10	5.77	14.06	0.496	-16
PZ 2	5.88	5.26	15.60	0.099	183
PZ 3	4.26	5.29	14.28	0.200	-8
PZ 4	4.03	5.33	16.57	0.077	132
PZ 5	3.80	5.38	13.77	0.247	97
PZ 6	5.95	4.70	12.76	0.087	277
PZ 7	7.37	4.61	12.86	0.142	277
PZ 8	8.76	5.18	12.14	0.101	252
PZ 9	7.52	4.87	12.14	0.119	270

Table 6.4 Monthly Water Level Readings

Monthly Ground Water Levels

Stancill Quarry, Furnace Bay

November 2001 through May 2002

Project # 01116.00

Peizometer #	Elevation of PVC Casing (ft) amsl	Tape Reading (Depth in Feet)							Ground Water Elevation (Feet)						
		Nov. 6	Dec. 11	Jan.8	Feb.6	Mar. 7	April 3	May 30	Nov. 6	Dec. 11	Jan.8	Feb.6	Mar. 7	April 3	May 30
PZ 1	23.51	16.43	16.41	16.87	16.87	16.95	16.74	16.84	7.08	7.10	6.64	6.64	6.56	6.77	6.67
PZ 2	13.94	4.89	5.02	5.64	4.96	5.29	4.50	4.56	9.05	8.92	8.30	8.98	8.65	9.44	9.38
PZ 3	21.86	18.07	18.58	18.62	18.77	18.84	18.44	18.63	3.79	3.28	3.24	3.09	3.02	3.42	3.23
PZ 4	13.59	12.28	13.83	13.44	14.06	14.22	12.97	13.71	1.31	-0.24	0.15	-0.47	-0.63	0.62	-0.12
PZ 5	38.24	24.59	24.66	24.81	24.74	24.83	24.55	24.58	13.65	13.58	13.43	13.50	13.41	13.69	13.66
* PZ 6	11.04	8.15	9.18	9.41	9.85	10.49	9.82	10.13	2.89	1.86	1.63	1.19	0.55	1.22	0.91
PZ 7	8.69	6.62	7.78	7.41	8.02	8.19	7.48	8.1	2.07	0.91	1.28	0.67	0.50	1.21	0.59
PZ 8	100.66	61.85	61.88	62.22	62.40	62.60	62.70	62.89	38.81	38.78	38.44	38.26	38.06	37.96	37.77
PZ 9	18.35	15.13	16.18	16.14	16.77	17.09	16.45	16.9	3.22	2.17	2.21	1.58	1.26	1.90	1.45

* Level Logger installed on December 11, 2001 to observe continuous water levels

6.2 Site Survey and Placement Capacity

On November 16, 2001, KCE contracted for an aerial topographic photo of the site to be taken. KCE Engineering then used the aerial photo to develop a current topographic map of the site. A topographic map at a scale of 1 inch = 100 feet was prepared. The data was collected in a digital AutoCAD release format and stored on a CD. A copy of the topographic map of the site is included as Appendix F to this report. MES then employed the current topographic information to determine the air space capacity currently available at the site. For comparative purposes, MES used the same site configuration that was suggested by Gahagan & Bryant Associates (GBA) in the Feasibility Study of the site that was conducted in 2000. That site configuration includes an earthen berm constructed from on-site materials to a maximum elevation of +90 feet. That volume was also based upon an assumption that the site had been excavated to a depth of –70 feet below MSL, which is the configuration approved in the current mining permit. The berm was used since the GBA study included examining the feasibility of hydraulic placement of dredged material in the site.

Using the current site information provided by the 2001 topographic survey and employing the GBA site configuration, MES determined that the site presently possesses an available air space capacity of 7.2 MCY. However, if the site was used to contain only dewatered material, berm construction is not necessary. In addition, by placing material in compacted lifts and grading the compacted material to a higher elevation over the site, additional air space capacity can be provided. MES assumed several finished site configurations that includes the +90 foot elevation as the base and then steps in with a 10-foot bench to place additional material. Using 4H to 1:V side slopes and constructing 10-foot benches at every 30-foot increase in elevation to a maximum elevation of +148 feet above MSL, MES determined that the site could potentially provide up to 8.6 MCY of air space capacity based upon the current topography (Figure 6.1). With 3:H to 1:V slopes and benches ever 30 feet of increased elevation over the +90 foot berm, MES found that the site could currently provide up to 10.4 MCY of air space capacity (Figure 6.2). The final site configuration suggested by GBA is shown as Figure 6.3, and the MES suggested modified site configurations are shown as Figures 6.1 and 6.2.

6.3 Permeability Test

To determine to ability of groundwater to move through the soil material within the perimeter buffer area along Mountain Hill Road, additional permeability data was required. To obtain this information, on June 4, 2002 KCE Engineering installed two soil test borings in the overburden material at the Stancill site. The soil borings were cased with 4-inch diameter PVC casings. The first test boring, designated Well No. 1, was drilled to a depth of approximately 45 feet below ground surface. The second soil boring, designated Well No. 2 was drilled to a depth of approximately 25 feet below ground surface. On June 5, 2002, horizontal and vertical permeability tests were performed on the two wells. Data was recorded in the field following the falling head testing method and calculation procedures as specified in ASTM D 6391-99. This test procedure was designed to determine the permeability values that are the maximum possible in the vertical direction and the minimum possible in the horizontal direction. The test protocol description and calculations are included in Appendix A to this report. The time-weighted average permeability results for the overburden material in the buffer area are summarized in Table 6.5.

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Using the current site information provided by the 2001 topographic survey and employing the GBA site configuration, MES determined that the site presently possesses an available air space capacity of 7.2 MCY. However, if the site was used to contain only dewatered material, berm construction is not necessary. In addition, by placing material in compacted lifts and grading the compacted material to a higher elevation over the site, additional air space capacity can be provided. MES assumed several finished site configurations that includes the +90 foot elevation as the base and then steps in with a 10-foot bench to place additional material. Using 4H to 1:V side slopes and constructing 10-foot benches at every 30-foot increase in elevation to a maximum elevation of +148 feet above MSL, MES determined that the site could potentially provide up to 8.6 MCY of air space capacity based upon the current topography (Figure 6.1). With 3:H to 1:V slopes and benches ever 30 feet of increased elevation over the +90 foot berm, MES found that the site could currently provide up to 10.4 MCY of air space capacity (Figure 6.2). The final site configuration suggested by GBA is shown as Figure 6.3, and the MES suggested modified site configurations are shown as Figures 6.1 and 6.2.

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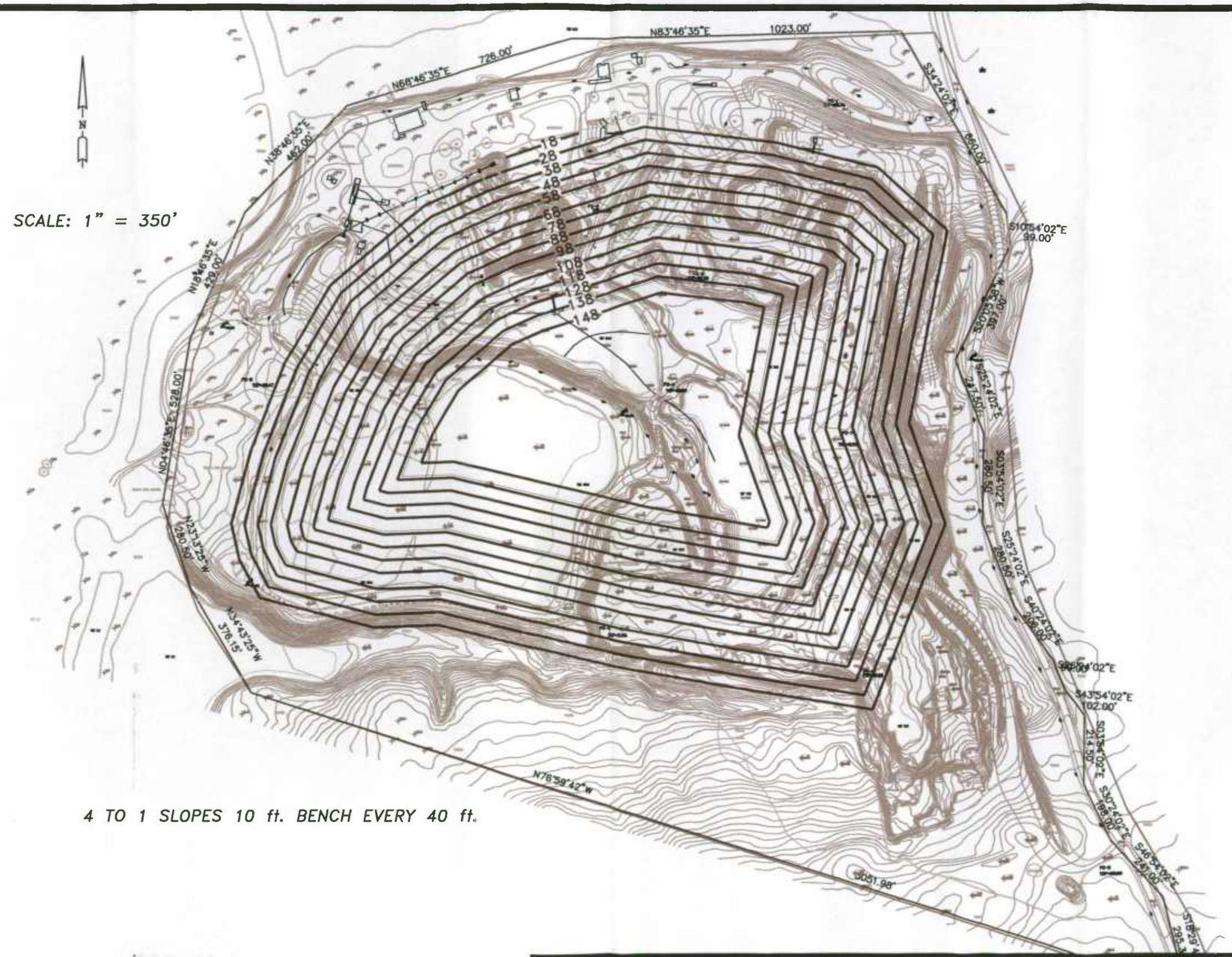


4 TO 1 SLOPES 10 ft. BENCH EVERY 40 ft.

PHOTOGRAMMETRY BY

HARFORD AERIAL SURVEYS, INC.

DATE OF PHOTOGRAPHY: NOVEMBER 16, 2001

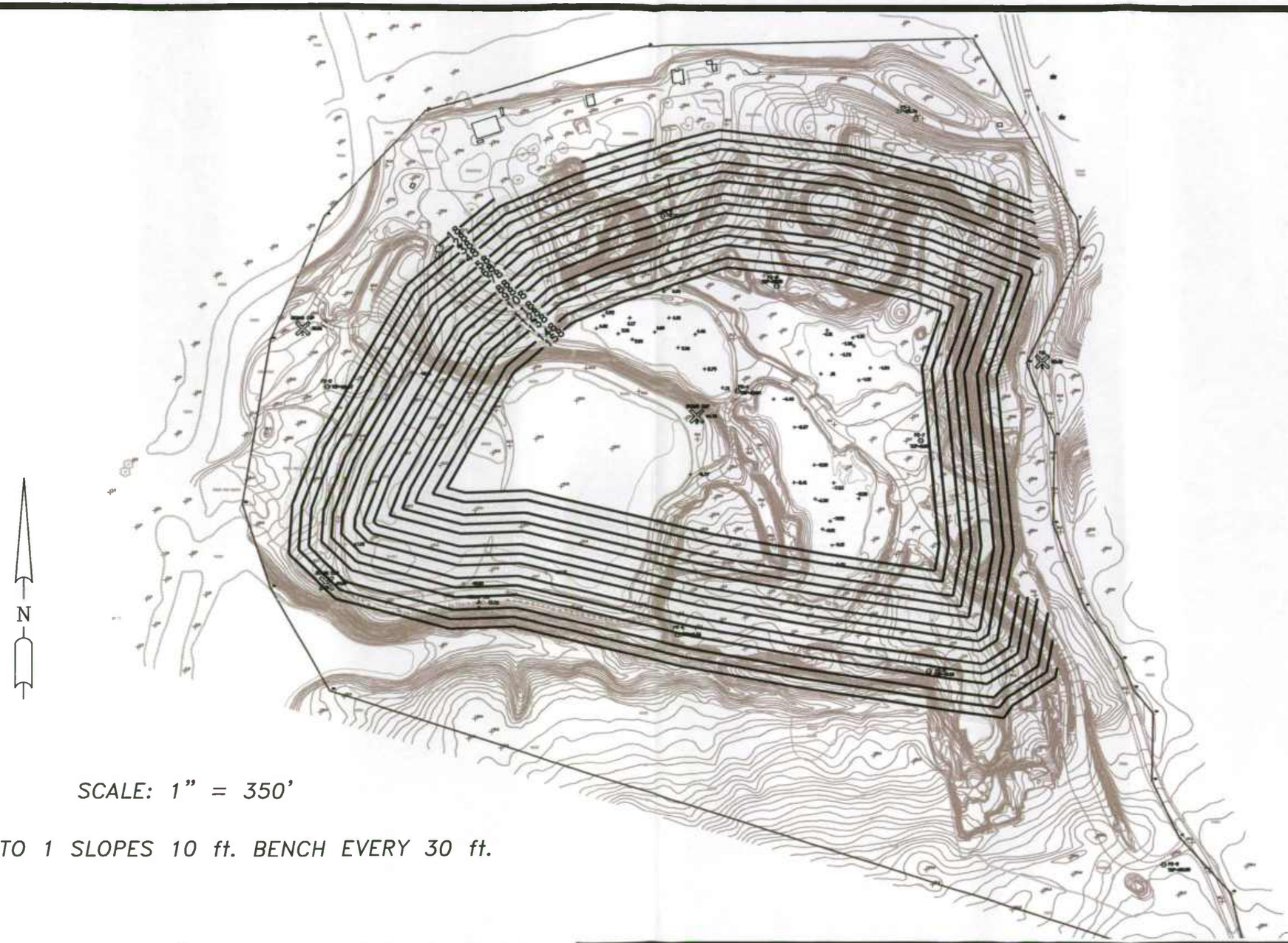
MARYLAND ENVIRONMENTAL SERVICE

STANCILL QUARRY

CECIL COUNTY, MARYLAND

FIGURE 6.1

I:\FURNACEBAY\NEWDIKE.DWG



SCALE: 1" = 350'

3 TO 1 SLOPES 10 ft. BENCH EVERY 30 ft.

PHOTOGRAMMETRY BY
HARFORD AERIAL SURVEYS, INC.
DATE OF PHOTOGRAPHY: NOVEMBER 16, 2001

MARYLAND ENVIRONMENTAL SERVICE

STANCILL QUARRY
CECIL COUNTY, MARYLAND
FIGURE 6.2

J:\FURNACEBAY\NEWDIKE3.DWG

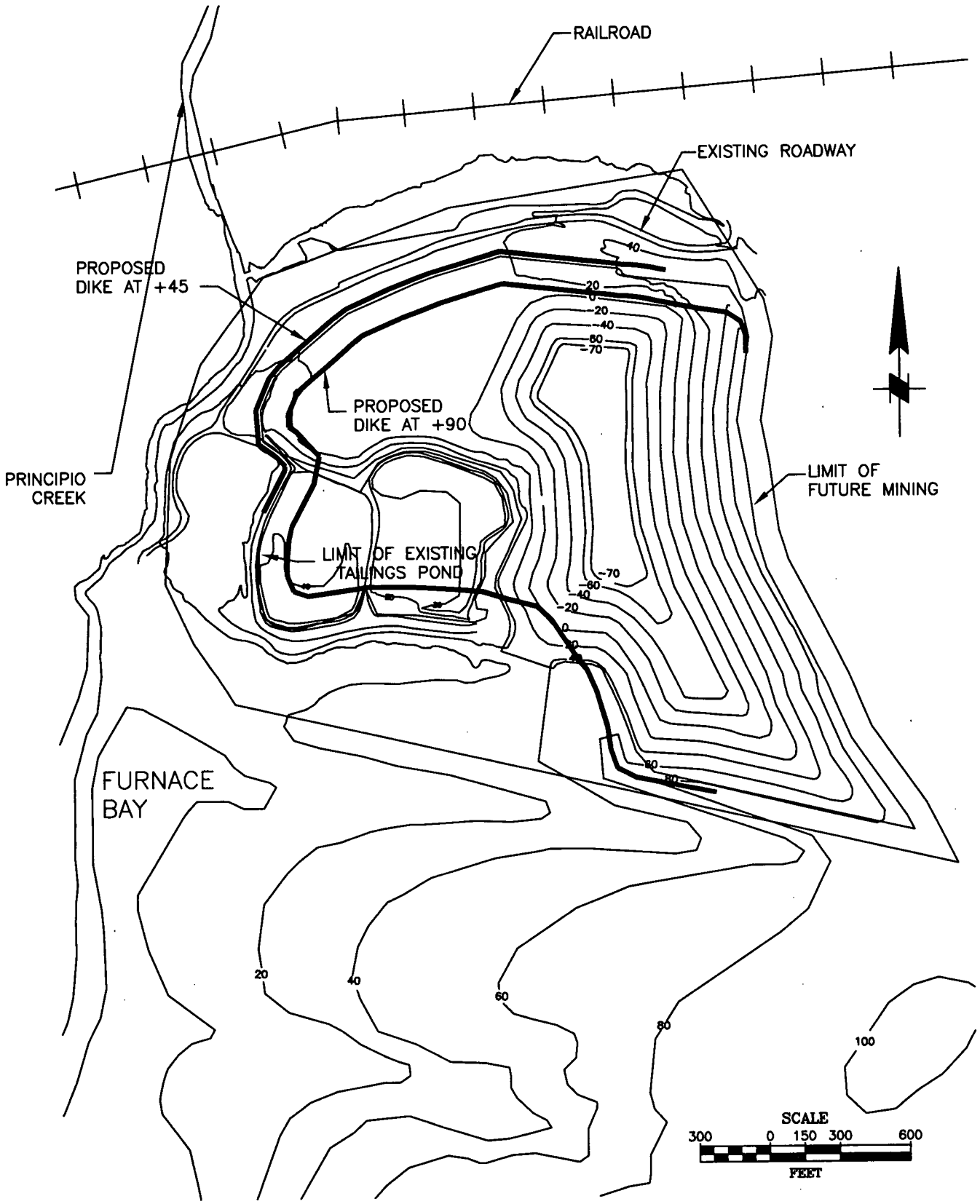


Figure 6.3 – GBA FINAL SITE CONFIGURATION – 2000

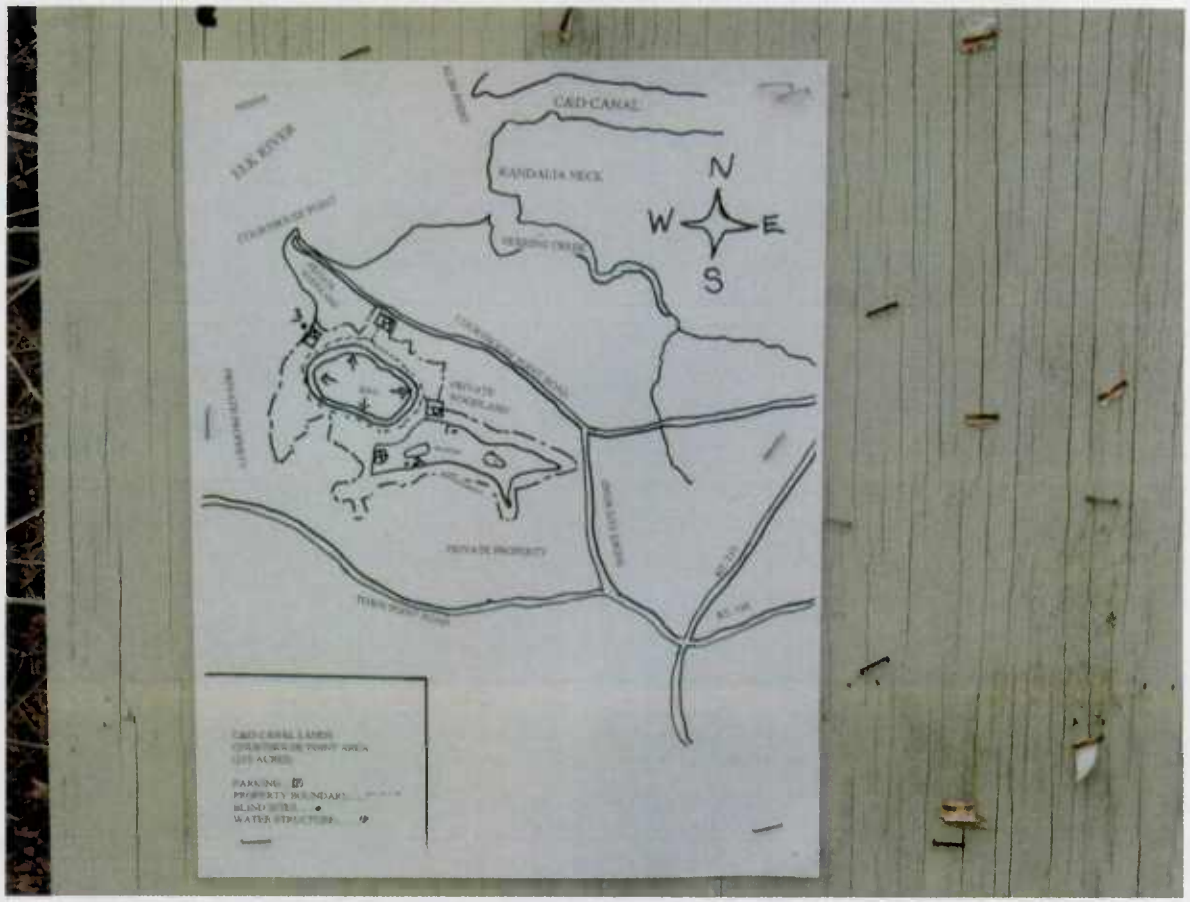
Table 6.5 - Overburden Permeability Data

Well No.	Depth	Vertical Permeability	Horizontal Permeability
1	45 Feet	1.80×10^{-3} cm/sec	2.37×10^{-3} cm/sec
2	25 Feet	5.80×10^{-4} cm/sec	1.47×10^{-4} cm/sec

6.4 Dredged Material Sampling & Characterization Procedures

On February 20, 2002, MES collected representative samples of dredged material from the Courthouse Point dredged material containment facility located in Cecil County, south of Chesapeake City. Figure 6.4 is a photo of the Courthouse Point dredged material containment site location map and Figure 6.5 illustrates the site.

Figure 6.4 Courthouse Point DMCF Site Map



The facility was constructed by and is maintained by the US Army Corps of Engineers (COE), Philadelphia District as a dredged material containment facility. The containment site is used to manage dredged material removed from the Upper Bay approach channels to the C&D Canal. A COE representative advised MES that the COE had recently rebuilt one of the dikes. This process resulting in the mixing of some of the dredged material at the facility. This would serve to provide a more homogeneous soil sample for analytical testing purposes.

Figure 6.5 Courthouse Point Site Photo

Since the exact origins of the dredged material that would be placed at the proposed study area is unknown; other than the fact that the material will be clean, and due to the geographical and hydrological features of the bay, sediment characteristics are likely to vary significantly. Therefore, rather than determining composite samples or delineating representative project segments from a specific dredging area, a general composite sample was collected from an area where dredged material from multiple sources has already been deposited. The Courthouse Point site is believed to be a desirable collection point due to it being an ideal composite sample.

The primary objective of this elutriate testing is to adequately and accurately characterize the dredging and reference area. Since the reference area is rather broad, it is believed that an accurate composite sample could be collected from the Courthouse Point containment facility. The Courthouse Point site contains an ideal composite sample that would represent dredged material collected from multiple clean areas of the bay. A sample from this area would accurately represent clean sediments for use in the chemical transport model.

In order to adequately characterize the dredge material five samples and a duplicate were collected from Courthouse point. Sample collection consisted of adequate sampling equipment appropriate to the site and the study, and non-contaminating sampling apparatus capable of obtaining representative samples. This equipment consisted of a stainless steel shovel and bucket. The shovel was used to collect the sample and thee bucket was used to mix grab samples of dredged material. The samples placed in the bucket were mixed using the shovel. The samples where then placed in the appropriate containers then shipped to laboratory for analysis.

In order to prevent cross contamination all sampling equipment was decontaminated between sample collection efforts. The decontamination consisted of triple rinsing the equipment using an Alconox solution and then rinsed with de-ionized water.

The samples were preserved using the appropriate chemicals and refrigeration so that the sample integrity was not compromised. Following the sample collection, they were placed in the appropriate sample containers and stored in coolers on ice at 4° C until they are shipped to the laboratory.

6.5 Dredged Material Sample Analysis & Results

The sediment samples were then submitted to Atlantic Coast Laboratories (ACL) for analytical testing and leaching to produce simulated percolate water. To simulate water quality characteristics representative of percolate water that would be produced at the Stancill site, MES directed ACL to subject the collected sediment samples to two different leaching procedures. Percolate water would be produced when a portion of the precipitation that falls on the quarry site infiltrates through the dredged material and eventually reaches groundwater beneath the site. This percolate water would then combine with groundwater beneath the site and move along with the general groundwater in the area. Depending upon the chemical characteristics of the percolate water, groundwater quality beneath the site may be affected. Samples of percolate from both leaching procedure were submitted to a commercial laboratory and analyzed to determine the concentration of specific constituents. The analytical results were then provided to URS. Selected chemical constituent data would be used as input parameters to the groundwater predictive model.

One leaching protocol that was employed is known as the Toxicity Characteristic Leaching Procedure (TCLP). This is the test protocol specified in State and Federal regulations that is used to simulate leachate characteristics of solid waste to determine if the solid waste is a hazardous waste under the provisions of the Federal Resource Conservation and Recovery Act (RCRA). The results of TCLP testing are recognized as being a conservative assessment of potential leaching characteristics, due to the aggressive nature of the leaching procedure, which uses a buffered acid extract solution. Therefore, the resulting liquid from the TCLP test protocol is considered to be a very conservative simulation of the percolate that may be produced as precipitation passes through the dredged material. The analytical results obtained from testing of the TCLP percolate is shown in Table 6.6.

Table 6.6 - TCLP Percolate Data Test Results

Parameter	Detection Limit	Units	SS-1	SS-2	DUP	SS-3	SS-4	SS-5
TCLP								
Bicarbonate, Alkalinity	1	mg/L	170	165	130	170	891	840
Carbon dioxide	1.25	mg/L	ND	ND	ND	6.25	ND	1.25
Chloride	0.39	mg/L	ND	24.8	19.4	ND	ND	ND
Ferrous Iron	0.02	mg/L	ND	ND	ND	ND	ND	ND
Nitrate	0.06	mg/L	2.14	ND	ND	0.372	ND	ND
Nitrate/Nitrite	0.08	mg/L	2.14	ND	ND	0.372	ND	ND
Total Dissolved Solids	10	mg/L	4,262	4,402	4,394	4,204	4,409	4,441
Sulfate	0.38	mg/L	91.5	129	120	115	18.2	78
Total Alkalinity-Titration	1	mg/L	170	165	130	170	891	840
Ammonia	0.2	mg/L	0.28	0.46	0.21	0.73	ND	ND
Chemical Oxygen Demand	10	mg/L	5,440	5,630	5,450	5,240	5,570	5,540
Phosphorous, total	0.02	mg/L	0.06	0.05	0.05	0.06	0.07	0.06
Total Kjeldahl Nitrogen	0.2	mg/L	1.4	0.85	0.7	1.9	0.77	0.78
Nitrogen, total	0.2	mg/L	3.5	0.85	0.7	2.3	0.77	0.78
Total Organic Carbon	100	mg/L	1,894	1,943	1,947	1,896	1,939	1,932
Methane		ug/L	2	2	2	2	2	2
Arsenic	0.1	mg/L	ND	0.15	0.12	ND	ND	ND
Chromium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Cadmium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Lead	0.1	mg/L	ND	ND	ND	ND	ND	ND
Selenium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Calcium	5	mg/L	15	15	16	13	7.5	21.1
Copper	0.1	mg/L	ND	ND	ND	ND	ND	0.36
Nickel	0.1	mg/L	0.16	ND	ND	0.16	ND	0.44
Iron	0.5	mg/L	ND	0.66	ND	ND	ND	ND
Magnesium	0.5	mg/L	6	12	11	6.2	2.6	4.96
Manganese	0.1	mg/L	6.5	11	11	7.1	3.8	3.71
Sodium	10	mg/L	1,182	1,114	1,072	1184	1180	1143
Zinc	0.1	mg/L	0.67	0.45	0.41	0.89	0.33	0.65
Total Petroleum Hydrocarbons	5.5	mg/L	21	ND	ND	9.7	ND	ND
Sulfide	0.03	mg/L	ND	ND	ND	ND	ND	ND

The second leaching protocol employed was conducted using deionized water as the leaching media. The analytical results obtained from testing of the deionized water percolate are shown in Table 6.7 below.

Table 6.7 – ASTM Leaching Protocol Test Results

ASTM Leachate								
Sodium	0.2	mg/L	2.76	9.6	14	2.95	7.6	7.61
Bicarbonate, Alkalinity	1	mg/L	4	1	1	6	6	4.2
Carbon Dioxide	1.25	mg/L	ND	2.5	3.75	6.25	ND	1.25
Dissolved Oxygen	1	mg/L	6.1	5.82	5.74	6.08	MISSING	
Redox Potential		mg/L	155	147	153	155	91	144
Specific Conductance	1.08	mg/L	212	269	260	187	53	190
Total Alkalinity- Titration	1	mg/L	4	1	1	6	6	4.2
pH		mg/L	6.31	6.16	6.15	6.58	8.00	6.64
Chemical Oxygen Demand	10	mg/L	ND	ND	ND	ND	ND	ND
Total Organic Carbon	1	mg/L	2.3	ND	1	2.1	ND	1.3
Sulfide	0.03	mg/L	ND	ND	ND	ND	0.05	0.06

A comparison of the analytical results obtained from testing the two simulated percolate water clearly shows significant differences. Table 6.8 is a comparison table for specific constituents that are significantly impacted depending upon the percolate simulation protocol employed.

Table 6.8 – TCLP and ASTM Leaching Test Results Comparison

COMPARISON OF TCLP VS ASTM FOR SELECT PARAMETERS

TCLP
ASTM Leachate- using DI

Parameters	SS-1		SS-2		DUP	
Sodium	2.76	1,182	9.6	1,114	14	1,072
Bicarbonate, Alkalinity	4	170	1	165	1	130
Carbon Dioxide	ND	ND	2.5	ND	3.75	ND
Total Alkalinity- Titration	4	170	1	165	1	130
Chemical Oxygen Demand	ND	5,440	ND	5,630	ND	5,450
Total Organic Carbon	2.3	1,894	ND	1,943	1	1,947
Sulfide	ND	ND	ND	ND	ND	ND
	SS-3		SS-4		SS-5	
Sodium	2.95	1,184	7.6	1,180	7.61	1,143
Bicarbonate, Alkalinity	6	170	6	891	4.2	840
Carbon Dioxide	6.25	6	ND	ND	1.25	1
Total Alkalinity- Titration	6	170	6	891	4.2	840
Chemical Oxygen Demand	ND	5,240	ND	5,570	ND	5,540
Total Organic Carbon	2.1	1,896	ND	1,939	1.3	1,932
Sulfide	ND	ND	0.05	ND	0.06	ND

As is evident from the comparative table, the TCLP percolate data represents a very aggressive leaching protocol. The Sodium concentration in the simulated percolate produced using the TCLP procedure is approximately 500 times greater than that in the percolate produced using the DI procedure. The chemical oxygen demand and total organic carbon concentrations in the percolate produced using the TCLP leaching procedure show similar order of magnitude differences from the concentrations found in the percolate produced using the DI leaching procedure. From this, one can conclude that the simulated leachate produced using the TCLP procedure represents a "worst case" scenario of leaching that may result if dredged material were placed in the Stancill quarry.

7.0 Modeling Efforts

MES provided URS Corporation with copies of all information and data collected during the field investigation of the Stancill site at Furnace Bay. URS Corporation then utilized this information in developing a groundwater model of the site. URS Corporation developed a conceptual geologic model of the site and a conceptual hydrogeologic model of the site. These models were then used to develop a three-dimensional MODFLOW groundwater model of the site. Once the groundwater flow model was developed and calibrated, URS Corporation developed a MT3D transport model to predict potential groundwater changes for three indicator parameters that may occur if dredged material were used to fill the Stancill quarry.

7.1 Conceptual Geologic Interpretation

In April 2002, URS Corporation submitted a report entitled "Conceptual Geologic Interpretation of the Stancill Quarry Site, Cecil County, Maryland." The report is based upon geologic information available in the literature for the Cecil County area as well as site-specific information gathered during the current and past studies of the site.

The report shows the Stancill site to be located southeast of the fall line, the boundary between the Atlantic Coastal Plain Physiographic Province and the Appalachian Piedmont Province. The Fall Line, which is located approximately one-half mile north and west of the site, trends in a northeast-southwest direction.

The site is located within the Atlantic Coastal Plain Physiographic Province and is an active surface mine, producing sand, gravels, clays and other materials. The top of the saprolite, which is the weathered in place surface of the basement rock in the area, slopes towards the south and east. The local bedrock dip direction is to the south-southeast, with a gradient of approximately 100 feet per mile.

Three geologic units in the area of the site were mapped based upon their age and physical properties. These units are as follows:

- Post-Cretaceous stream-laid deposits;
- Cretaceous Age non-marine sediments; and
- Paleozoic Age crystalline rock residuum (saprolite), which overlies the crystalline basement rock complex.

Boring information show the thickness of the sediments beneath the site range up to 150 feet. These sediments consist of interbedded layers of silt, sand, gravels and clay. Test data show the Cretaceous and post-Cretaceous sediments to exhibit low permeability. However, due to their variability, both horizontally as well as vertically, these deposits cannot be correlated over even short distances over the site. This variance is the result of the meandering nature of the streams, including the downcutting that occurs during periods of marine regression.

URS Corporation concluded that poorly consolidated Quaternary/Tertiary fluviatile deposits originally mantled the site. These post-Cretaceous deposits have been substantially removed over the years as a result of mining operations. The site appears to be uniformly underlain by a low permeability saprolite, the weathered residuum of the crystalline bedrock, which separates the surficial deposits from the underlying bedrock. The saprolite is the residue left in place after the more soluble iron and manganese-rich minerals of the metamorphic rocks have been altered to clay minerals by the physical and chemical processes of weathering. The weathering process converts the more soluble materials into clay minerals and the saprolite forms a tough, dense silty-clayey zone of low permeability over the crystalline basement rock complex.

The crystalline basement complex bedrock consists of metamorphosed volcanic rocks, chiefly interlayered quartz amphibolite and gneiss. This bedrock complex is the principal domestic water source in the vicinity of the quarry. The Cretaceous deposits, between the Quaternary/Tertiary deposits and the saprolite were not encountered in all boreholes on the site. This suggests that the Cretaceous sediments were deeply eroded by marine regression that occurred in this area during Tertiary/Quaternary time.

Water within the bedrock is found in pores, partings and fractures. These openings are of two types: primary, which form at the same time as the rock; and secondary, which form as the result of dynamic earth forces. Primary openings in the crystalline rocks in the Piedmont are generally less than 1 percent of the total volume and have little effect on the storage and movement of water. Secondary porosity, represented by fractures, joints, faults and other openings formed by physical weathering, are the main sources of water to wells in the vicinity of the quarry site. Typical well yields from wells installed in this crystalline rock average 11 gallons per minute (gpm).

A copy of the conceptual geologic interpretation report is found in Appendix B of this report.

7.2 Conceptual Hydrogeologic Interpretation

URS Corporation submitted a report entitled "Conceptual Hydrogeologic Interpretation of the Stancill Quarry Site, Cecil County, Maryland" dated May 2002. The conceptual hydrogeologic interpretation is based upon an assumed filling of the Stancill site to a height of + 90 feet. URS Corporation states that this site configuration is assumed to be a "worst case" scenario for groundwater modeling purposes. The model also assumes that the dredged material that would be placed in the quarry would likely consist of finer grained materials, such as fine sands, silts and clays, with occasional coarser grained materials. This assumption is consistent with materials typically encountered during maintenance dredging projects.

Geologic information on the area shows the site to be within ½ mile of the nearest exposure of crystalline basement rocks along Principio Creek. Therefore, the site shares aspects of both the Piedmont and Coastal Plain. URS Corporation identified the Cretaceous deposits found at the site and indicates that the deposits appear to correspond to the Potomac Group. Further, URS Corporation finds that the lithologic character of the deposits found at the Stancill site correspond to the middle Potomac confining unit, which consists predominantly of silt and clay.

Water level data collected over the period of the study were used to develop groundwater contours of the area. These water level contours consistently show that groundwater flow is inward towards the quarry from all directions toward the lowest elevation pond located within the boundaries of the quarry. However, during the initial site assessment performed in 2000, water levels recorded from temporary wells installed within the quarry showed a groundwater gradient to the south, spreading laterally as it moves in a southern direction. Data obtained from well E-6, which was installed in the southwestern portion of the quarry, suggests the possibility of leakage of groundwater from the quarry at that point.

Recharge to the quarry includes precipitation that falls directly onto the site as well as groundwater that flows in a radial pattern into the quarry. Discharges from the quarry consist of natural evaporation, water that is consumed in the processing of the earthen materials excavated from the quarry and marketed, and possible leakage from the bermed settling ponds, which are located at the higher elevations within the quarry.

The materials found at the Stancill site from bottom to top consist of the following:

- Crystalline igneous and metamorphic rocks of great but unknown thickness;
- Saprolite material, the residuum of the crystalline rock that has weathered in place;
- Non-marine sediments of early Cretaceous age of the Potomac Group; and
- Unconsolidated non-marine deposits overlying the Potomac Group believed to be of Tertiary/Quaternary age.

The hydraulic conductivity of these upper layer units ranges from 10^{-4} to 10^{-6} cm/sec. The average value that was determined from slug testing nine piezometers PZ-1 through PZ-9 is 3.6×10^{-3} cm/sec.

Specific conductance measured in PZ-1 through PZ-9 on November 6, 2001 indicate that the specific conductance of the quarry groundwaters were slightly lower that the specific conductance of the crystalline rock aquifers of Cecil County, but slightly higher than specific conductance measured in Potomac Group aquifers in the County. The range of pH in the nine boreholes, as measured in the field on November 6, 2001, and listed in Table 6.3, were found to be comparable to those cited in the literature. The laboratory results for 32 constituents obtained from tests of the groundwater were found to be generally within the range of sample results obtained from crystalline rock aquifers. The iron content of water collected from borehole PZ-1 was reported to be 120 mg/l, which is nearly five times higher that the highest iron value reported for Cecil County, which is 24 mg/l. The highest manganese concentration, 4.2 mg/l, was found in borehole PZ-5, which can be compared to approximately 2 mg/l reported for Cecil County.

The physical boundaries developed for the model consist of natural drainage basins that enclose the Stancill site. Approximately three quarters of the site is surrounded by creeks and tidal embayments that provide local recharge or receive water from the surficial aquifer.

A copy of the conceptual hydrogeologic interpretation report is found in Appendix C of this report.

7.3 MODFLOW Groundwater Flow Model

In July, 2002, URS Corporation submitted a report entitled "MODFLOW Flow Model Report of the Stancill Quarry Site, Cecil County, Maryland." The report describes development of the model to simulate groundwater and the capture of groundwater constituents at the Stancill site. The computer programs MODFLOW, which is a finite difference numerical groundwater flow modeling code, and MODPATH, which is a particle-tracking package that is used in conjunction with MODFLOW, were used to develop the groundwater model of the Stancill site.

Due to insufficient site-specific information, URS Corporation was unable to develop a comprehensive water budget for the site. Therefore, the water budget used for model input is based upon studies that were conducted at Aberdeen Proving Ground, which is located 10 miles southwest of the quarry. The Aberdeen site budget includes precipitation information, evapotranspiration, and infiltration to underlying aquifers. Table 7.1 summarizes the input parameters were used in the MODFLOW model:

The site-specific groundwater model also requires delineation of specific site boundaries for inclusion in the model. Water in the form of creeks and tidal embayments that constitute natural drainage basins surround approximately 75% of the site.

Table 7.1 – Summary of Model Input Parameters

Model Input Parameter	Measured or Selected Value
Average annual precipitation	45 inches per year (1969 – 1990); 48 to 49 inches per year 1989 to 1990
Total evapotranspiration rate	25 to 28 inches per year
Average annual recharge to the aquifers	12 to 13 inches per year
Pond evaporation rate	33.14 inches per year
Permeability in the saprolite	1×10^{-4} cm/sec to 1×10^{-6} cm/sec
Potomac Group permeability	1.1×10^{-6} cm/sec to 5.6×10^{-6} cm/sec
Surficial soil hydraulic conductivity	8.85×10^{-3} cm/sec to 9.50×10^{-6} cm/sec, average hydraulic conductivity 3.57×10^{-3} cm/sec

Because the Stancill quarry is surrounded by identified topographic features and configurations, URS Corporation selected the following physical boundaries to be used in the groundwater model:

- The northern boundary of the model is located slightly north of the quarry, and is composed of Long Pond and its associated stream channels extending east and west of the pond.

- The western and southwestern boundaries in the model consist of the tidal portions of Principio Creek and Furnace Bay.
- The southern boundary of the model is the drainage basin divide that is located immediately south of the site.
- The eastern boundary of the model is the drainage basin divide located east of Mountain Hill Road.

The model boundaries encompass an area that is nearly rectangular, with dimensions approximately 3,450 feet wide by 2,800 feet long. The model assumes that once the quarry is filled with dredged materials, any discharges from the site will be to the surface waters that surround approximately two thirds of the Stancill site. The water table surface of the surficial aquifer is the upper boundary of the MODFLOW model. The base of the model is located approximately 150 feet into the bedrock, within the crystalline rock complex that underlies the unconsolidated materials of the surficial aquifer and saprolite.

The finite difference grid for the model consists of 73 rows and 71 columns at the longest and widest regions of the model area. Because the available data is distributed throughout the area being modeled, model grids were evenly spaced at 40 feet by 40 feet throughout the model area.

The groundwater model of the Stancill site consists of four layers. The top two layers of the model are located in the sedimentary units. Layer 1 initially, is mostly within the Quaternary Age deposits to calibrate the model to present day conditions. After calibration of the model, layer 1 includes the dredged material that was assumed to have been placed in the quarry. The dredged material was added to layer 1 after the model was calibrated to simulate current conditions. Layer 2 is mostly within the Cretaceous Age deposits beneath the site. Layer 3 is mostly within the saprolite zone, and layer 4 is mostly within the crystalline bedrock. To increase model efficiency, contacts between the model layers as identified above do not precisely follow the layers identified in the conceptual geologic and hydrogeologic interpretations as developed by URS Corporation. URS states that since hydraulic conductivity and other model parameters can be changed for individual cells in the model area, model areas that are approximate to the mapped geologic layers should not significantly influence the results produced by the model.

General head boundary conditions were used to represent the model boundaries with the coastal water bodies, while the river reaches were modeled using the MODFLOW river package. The model was calibrated using vertical and horizontal hydraulic conductivity values that are typical for coastal plain deposits. The maximum value for hydraulic conductivity that was used in the model of the Stancill site is 25 feet per day, which is characteristic of a clean sand material.

Sensitivity analysis was performed during model calibration. This analysis shows that the most sensitive parameter used in the model is the change in horizontal conductivity in layer 1.

URS concludes that given the data available, the model provides a consistent regional representation of the overall flow in the Stancill quarry. Further, URS concludes that it can be deduced from the MODPATH simulations that Furnace Bay would receive constituents that may become mobilized from dredged materials that are placed within the quarry.

MES examined the input parameters to the model and the assumptions that were employed by URS Corporation for the Stancill site and finds them to be reasonable. These input parameter values and assumptions are supported either by data from site specific testing, or were selected from published literature for similar materials or conditions. Based upon the assessment of the input information and assumptions, MES concludes that the model results constitute a reasonable representation of the overall groundwater flow in the Stancill quarry site that currently exists as well as the conditions that may develop after placement of dredged material in the site.

A copy of the MODFLOW Groundwater Flow Model report is included as Appendix D to this report.

7.4 MT3D Transport Model

In July 2002, URS Corporation submitted a report entitled "MT3D Transport Model Report of the Stancill Quarry Site, Cecil County, Maryland." The report details the groundwater chemical fate and transport modeling of specific indicator parameters that may be affected in the groundwater beneath the site as a result of placement of dredged material in the quarry. URS Corporation employed the model to predict the transport of chloride, Total Dissolved Solids (TDS) and iron in the groundwater. The objective of the modeling effort is to identify the potential impacts, if any that would result from the placement of dredged material in the site.

The conceptual hydrogeologic model and field investigations indicate that under current mined conditions, the groundwater at the site flows into the quarry from all sides, with the possibility for some leakage from the elevated spoil ponds. Further, the groundwater flow model anticipates that after the site is filled with dredged material, groundwater flow will be in a westerly direction towards the nearest surface water discharge point, Furnace Bay.

URS Corporation selected chloride, TDS and iron as being typical of dissolved constituents that may be mobilized from dredged material placed at the site. Once mobilized, these constituents have a high probability of entering groundwater as a constituent of the percolate, which passes through the sediments and underlying materials. Since the dredged material would be placed over the entire quarry, the constituents would be expected to be evenly distributed throughout the quarry.

Because site specific data shows varying aquifer hydraulic properties, and the vertical/horizontal extent of the placed constituents, URS determined that a three dimensional groundwater model was needed to simulate site-specific transport and to evaluate the flow of constituents in groundwater beneath the Stancill quarry. URS selected a Modular Three-Dimensional Multispecies Transport Model (MT3DMS) model for the project.

Data sources used by URS Corporation in the modeling effort included the following:

- Field and laboratory data collected from the Chesapeake Bay for prior year's Upper Bay dredging projects;
- Site maps and background site information collected during the study effort;
- Sediment test results from material collected at the Courthouse Point dredged material containment facility; and

- Leachate test results performed on material collected from the Courthouse Point site to simulate percolate water passing through dredged material.

URS Corporation initiated a solute-transport model using the calibrated MODFLOW groundwater flow model that was constructed to simulate groundwater conditions that would develop after dredged material was placed in the site. URS Corporation employed model input parameters that would provide a worst-case scenario of the potential transport of the selected parameters within the aquifers beneath the site. Only dissolved phases of chloride, TDS and iron were modeled. The models that were developed were constructed to simulate the primary transport processes, which are advection and hydrodynamic dispersion. Other transport processes, including adsorption, speciation and dissolution/precipitation were not simulated.

URS elected to use the simulated percolate concentration values that were derived from the TCLP testing of the sediment samples collected from the Courthouse Point site. Due to the aggressive nature of the leaching procedure, which includes the use of buffered acetic acid as the leaching media, the resulting constituent concentrations found in the percolate would be expected to be higher than the results derived when deionized water is used as the leaching media. Thus, considering the aggressive leaching procedure used, and the exclusion of adsorption, speciation and dissolution/precipitation effects, the model results would be expected to represent a very conservative assessment of groundwater conditions that may develop as a result of placement of dredged material in the site.

Table 7.2 below is a summary of the MT3DMS Model input parameters. The table includes a description of the parameter, the value or range of values that are available and the selected value. The table also describes the source from which the data was derived.

The origination of the model source inputs was assumed to be at a point in time 34 years in the future, when the quarry would be full of dredged material, assuming uniform placement at approximately 400,000 CY per year. In reality, groundwater influences can be expected to commence concomitant with placement of dredged material. The rate of change in groundwater quality would be expected to change as the amount of dredged material placed in the quarry increases. To be conservative, the initial and continuing input source concentration used in the model was the maximum concentration that was observed for that constituent in the simulated percolate. This fixed input concentration was then used to evaluate the constituent flow pattern and potential for off-site migration. The three constituents, chloride, TDS and Iron were modeled for their dissolved phases only in the saturated zone, using the primary transport mechanisms of advection and hydrodynamic dispersion.

The MT3DMS groundwater model incorporates the following basic general assumptions common to such models:

- A porous-media model can approximate the flow patterns in the surficial aquifer, saprolite and bedrock;
- All contaminants are in a dissolved form;
- Density effects are ignored;
- Uniform anisotropy is assumed;
- Dissolved contaminants do not hinder advective groundwater movement;
- Recharge and constituent source input are constant through time; and

- Leachate test results provide conservative estimates of future percolate concentrations.

Table 7.2 - MT3DMS Model Input Parameters

Parameter	Value or Range	Value Selected	Units	Primary Source
Model input Concentration: Chloride TDS Iron	LT 0.39 – 24.8 4,204 – 4,441 LT 0.5 to 0.66	24.8 4,441 0.66	Mg/l (All species)	Leachate tests of sediment samples (all species)
Effective Porosity – Unconfined	0.10 to 0.15	0.15		Literature values
Effective Porosity – Confined	0.00005 to 0.005	0.0002		Literature values
Longitudinal Dispersivity (Ld)	20 to less than 200	30	Feet	Literature values
Transverse Dispersivity	1% to 10% of Ld	3	Feet	Literature values
Vertical Dispersivity	1% to 10% of Ld	0.3	Feet	Literature values
Diffusion Coefficient Iron	$1.72e^{-4}$ to $2.0\ e^{-4}$	0	Sq. ft/day	Literature values Considered negligible
Coefficient of Retardation		0		Assumes no retardation
Adsorption Coefficient		0		Assumes no adsorption
Degradation rate – Dissolved		0		Assumes no decay because Constituents are inorganic

Model calibration is intended to provide reasonable estimates for uncertain model input data such that model predictions match observed data to the degree possible, given site conditions and the distribution of site chemical data. Initial Dispersivity is typically estimated based upon the shape of the contaminant plume. Since no material has been placed in the quarry, there is no current plume of contaminants, and the source area will include the entire quarry area. In addition, site-specific data on confined and unconfined aquifer effective porosity. Therefore, appropriate values were selected from published literature.

Dispersivity and effective porosity values were modified on an iterative manner in order to produce simulated plumes of a reasonable shape, given the characteristics of the site. The model was considered to be calibrated when the shape and concentrations of the simulated chloride, TDS and Iron distributions approximated those assumed using "best engineering judgment."

The calibrated transport model was then used to predict future constituent concentrations based upon the worst-case scenario. For each of the transport model runs, the model solution behavior was checked for the following:

- Convergence of flow and transport solutions;
- Stability; and
- Mass balance.

The flow and transport model runs were converged to less than 5% mass error, in general. URS Corporation states that these solution errors have a negligible influence on the predicted results because of the uncertainties in the model input data.

Model sensitivity analysis was conducted by varying the dispersivity and effective porosity values and evaluating the impacts of these changes on model results. The results of the sensitivity analysis showed that the equilibrium concentrations of the modeled constituents measured at a downgradient location are most sensitive to changes in dispersivity. A change by a factor of 3.3 in dispersivity results in a 14 percent increase in the constituent equilibrium concentration for chloride at the downgradient observation point.

The simulation results for the three constituents modeled are presented in Table 7.3. The observation point for the model results is located at the southwest boundary of the property, adjacent to Principio Creek where it enters Furnace Bay. The maximum concentration of the predicted constituents in the groundwater is found in Layer 2, which is within the Cretaceous Age sedimentary deposits beneath the site. The model results predict that the concentration of TDS in the groundwater within Layer 2 after placement of dredged material would increase over time from a range of 100 to 500 mg/l to a maximum of 3,700 mg/l within the site boundaries. Chloride levels would rise from approximately 7 mg/l to 20.6 mg/l within the site boundaries, and Iron would increase from approximately 0.2 mg/l to .55 mg/l.

The model predicts that these steady-state maximum concentrations in the groundwater would be experienced within 8 to 10 years after placement of the dredged material. URS Corporation reiterates the fact that the aggressive nature of the TCLP procedure results in input constituent concentrations that overestimate the concentrations that will likely be leached from the dredged material. Further, because the model does not consider adsorption and chemical precipitation of Iron and TDS as groundwater passes through the soil media, the model results are conservative. The actual concentrations of constituents in the groundwater would be expected to be lower that those predicted under the worst-case scenario produced by the model.

Secondary Maximum Contaminant Level (SMCL) guideline concentrations for various constituents have been established under the provisions of the Safe Drinking Water Act. The SMCL guidelines apply to constituents that affect the aesthetic qualities of drinking water, such as taste, color or odor. Drinking water with constituents at levels above the SMCL may not be pleasant to drink but are not recognized as causing health problems. The SMCL for TDS is currently 500 mg/l. Therefore, all of the predicted values for TDS exceed the current guideline. The current SMCL for chloride is 250 mg/l. None of the predicted values for chloride approach this limit. The SMCL for iron is currently 0.3 mg/l. URS Corporation reports that the average background concentration of dissolved iron in groundwater in the general area is 17 mg/l. Therefore, a predicted increase in the iron concentration of 0.55 mg/l in

groundwater would not be considered to be a significant impact. The only significant impact to groundwater that was observed by the various model runs is the predicted increase in the concentration of TDS.

Table 7.3 - Model Results Summary

Modeled Constituent	Input Concentration	Predicted Concentration			
		Layer 1	Layer 2	Layer 3	Layer 4
Chloride	24.8 mg/l	15.9 mg/l	20.6 mg/l	15.9 mg/l	7.5 mg/l
TDS	4,441 mg/l	2,820 mg/l	3,700 mg/l	2,720 mg/l	1,380 mg/l
Iron	0.66 mg/l	0.42 mg/l	0.55 mg/l	0.41 mg/l	0.21 mg/l

As a general rule, because of the potential for groundwater impacts resulting from surface activities, the surficial groundwater aquifer is not available for installation of potable wells. Potable wells in the area are typically sited in the deeper, protected bedrock formations. In addition, the site is located immediately proximate to an estuarine body of water. The model predicts that after the site is filled, the groundwater flow will be in the direction of Principio Creek and Furnace Bay, and that the constituents in the groundwater will enter those water bodies. No potable wells, with the exception of the production well on the Stancill site, which is used for sanitary purposes on the property, are located within the predicted impact area. The model does not predict any upgradient migration of groundwater from the site. Therefore, there is low probability of any impact to potable wells from the placement of dredged material at the site.

A copy of the MT3D Transport Model Report is included as Appendix E to this report.

8.0 Findings and Conclusions

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, MES concludes the following:

- Groundwater in the vicinity of the property, under the current excavated site conditions, flows in a radial manner into the quarry site.

- Upon filling of the site with dredged material, the direction of groundwater flow in the area will change, with groundwater flowing west, in the direction of Principio Creek and Furnace Bay.

- No upgradient movement of groundwater is predicted to occur under the re-established groundwater flow regime that will develop once the site is filled with dredged material.

- With the exception of the existing production well on the site, which is used for on-site office and shop activities, no potable wells currently exist in the downgradient area between the Stancill site and Principio Creek / Furnace Bay.

- Because of the location of the site immediately proximate to Principio Creek and Furnace Bay, there is little or no probability that a potable well would be sited in the future within the downgradient area between the site and Principio Creek / Furnace Bay.

- Based upon the current site topography, the Stancill site presently offers an air space capacity of 7.4 MCY if filled to an elevation of +90, or up to 10.4 MCY of air space capacity using dewatered dredged material placed, compacted and contoured over the site with 3:H : 1V side slopes and benches, constructed to a maximum elevation of +158 above MSL.

- Groundwater quality impacts in would be experienced if dredged material were placed in the site. Groundwater modeling results indicate that TDS levels in groundwater at the site are predicted to rise to a maximum expected concentration of 3,700 mg/l; chloride levels in the groundwater are predicted to rise to an expected maximum concentration of 20.6 mg/l; and Iron concentrations in groundwater are predicted to increase to an expected maximum concentration of 0.55 mg/l.

- The predicted maximum concentration of 3,700 mg/l for TDS exceeds the current SMCL guideline of 500 mg/l.

- The predicted maximum concentration of 0.55 mg/l for Iron in groundwater exceeds the current SMCL guidelines of 0.3 mg/l, but the increase is insignificant when compared to the current average concentration of Iron in groundwater in the area, which is 17 mg/l.

- The predicted maximum concentration of 20.6 mg/l for chloride in groundwater does not exceed the current SMCL guidelines of 250 mg/l.

- After placement of dredged material in the Furnace Bay site to a level above the elevation of groundwater in the area, any constituents leached from the dredged material that enters the

groundwater will flow in the direction of and express themselves in Principio Creek and Furnace Bay.

- With the exception of the existing production well on the site, no existing upgradient or downgradient potable wells were identified that would potentially be affected by placement of dredged material in the Stancill site.

- The predicted values were obtained from the groundwater model when conservative water quality input data based upon TCLP percolate date were used as input data. Actual groundwater concentrations are expected to be less than the predicted values.

- The predicted water quality impacts to the groundwater are expected to manifest themselves within 10-years of placement of dredged material in the site.

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, prospective effects to groundwater from placement of dredged material at the Stancill's Inc. site at Furnace Bay would not result in predicted conditions that would preclude the site's further consideration as a potential upland placement site for management of dredged material.

APPENDIX A

A-1 Well Completion Reports

A-2 Water Level Readings

A-3 Permeability Tests

A-4 Well Inventory

A-5 Lab Analyses

A-1 WELL COMPLETION REPORTS

C|1 | 03942 (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Test PZ-1 Stancills

ST/CO USE ONLY — DATE Received MM DD YY

DATE WELL COMPLETED: MM 10 DD 22 YY 01

Depth of Well: 25 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE- 94 - 4933

OWNER: STANCILLS INC.

STREET OR RFD: 499 MOUNTAIN HILL Rd TOWN: PERRYVILLE, MD 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
brown silty sand w/ trace of gravel	0	16	
brown sandy clay	15	25	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: MC D 041

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: __ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL (Circle one): CEMENT CM / BENTONITE CLAY BC

NO. OF BAGS: 4 NO. OF POUNDS: 400

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 13 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	2	15

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	15	25
2			
3			

SLOT SIZE 1: .010 2: ___ 3: ___

DIAMETER OF SCREEN: 2" (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 13' to 25'

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING ft.

WHEN PUMPING ft.

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

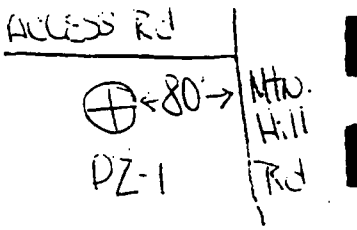
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 2.5' (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Y	301	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE – 94 – 4933
2	3 6			70 fill in this form completely 79

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name 76 License No. 81

Firm Name

Address

Signature Date 10-10-01

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL 2 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE– 94– 4933 70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL

8 COUNTY 21 PZ-1

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

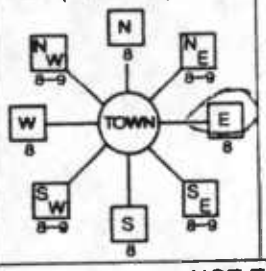
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 20 37

DISTANCE FROM ROAD 1 T

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 CO SIGNATURE 10-16-02 EXP. DATE

43 MM DD YY 48

NORTH GRID 634 000 50 55 EAST GRID 1075 000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER

1. MUNICIPAL
2.
3.

X

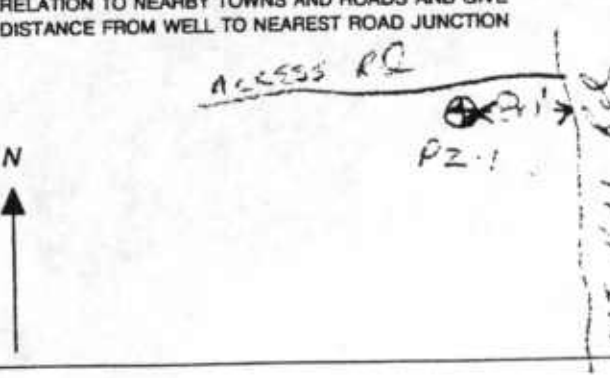
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1,070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1 03943 — SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test - PZ-2 Stancill

ST/CO USE ONLY DATE Received MM DD YY (8–13)

DATE WELL COMPLETED MM DD YY: 10-23-01 (15–20)

Depth of Well: 40 (22–26) (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE 94 4934 (28–37)

OWNER: Stancills Inc (last name first name)

STREET OR RFD: 299 Mountain Hill Rd TOWN: PERRYVILLE, MD 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown sand and gravel	0	20	✓
lt. brown silty sand	20	40	✓

NUMBER OF UNSUCCESSFUL WELLS: None

WELL HYDROFRACTURED: yes [Y] no (N)

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M 6D 041

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: __ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one): CEMENT [CM] (45 46) BENTONITE CLAY [BC] (45 46)

NO. OF BAGS: 8 NO. OF POUNDS: 800

GALLONS OF WATER: 48

DEPTH OF GROUT SEAL (to nearest foot): from 0 (48 TOP 52) ft. to 28 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2 (63 64)	30 (66–70)

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1 2) DEPTH (nearest ft.)

EACH SCREEN			
1	PL (8 9)	30 (11–15)	40 (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 .010 2 ___ 3 ___

DIAMETER OF SCREEN 2" (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 28 to 40 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE LOG INDICATOR

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) (8 9)

PUMPING RATE (gal. per min.) (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING (17–20) ft.

WHEN PUMPING (22–25) ft.

TYPE OF PUMP USED (for test) (27)

[A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describ below) [J] jet [S] submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES (NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

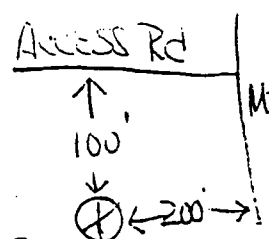
PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above (48) / [–] below (49) LAND SURFACE 2.5' (nearest foot) (50 51)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY/TEMP NO. IF ANY

B 1	3017	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE- 94 - 4934 (70 fill in this form completely 79)

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name M D 47 76 License No. 81

Firm Name

Address

Signature Date 11-10-01

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

B 3 LOCATION OF WELL

PZ-2

8 COUNTY 21

23 SUBDIVISION 42

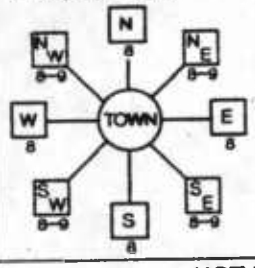
SECTION 44 46 LOT 48 50

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 M I 76 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N W 32 E WEST EAST S SOUTH

34 200 37

DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 14

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 [I] INDUSTRIAL, COMMERICIAL, DEWATERING
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [G] GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 10-16-02

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 633 000 50 55 EAST GRID 1074 000 57 63

APPROXIMATE DEPTH OF WELL 40 FEET 24 28

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER

1. municipal
2.
3.

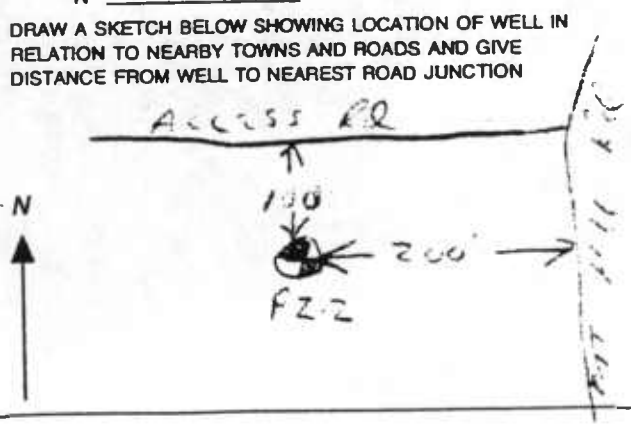
WRITE THE BOX NUMBER FROM THE MAP HERE

E

N

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE- 94- 4934 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

C 1 | 03944 — SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test PZ-3 Stancills

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE- 94 - 4935

ST/CO USE ONLY
DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 10-22-01

Depth of Well 20 (TO NEAREST FOOT)

OWNER STANCILLS INC. (first name)
STREET OR RFD 497 MOUNTAIN HILL RD (last name) TOWN PERRYVILLE MD 21903
SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown silty sand	0	20	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M 0 D 0 4 7

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] no [N]

TYPE OF GROUTING MATERIAL (Circle one) CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 2 NO. OF POUNDS 200

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP ft. to 8 BOTTOM ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: [ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	2	10

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: [ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	10	20
2			
3			

SLOT SIZE 1 .010 2 3

DIAMETER OF SCREEN 2" (NEAREST INCH)

GRAVEL PACK from 8 to 20

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST
C 3

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING ft.

WHEN PUMPING ft.

TYPE OF PUMP USED (for test)
- [A] air
- [P] piston
- [T] turbine
- [C] centrifugal
- [R] rotary
- [O] other (describe below)
- [J] jet
- [S] submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

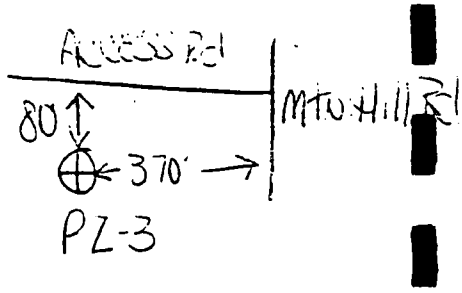
CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) [+] above [−] below LAND SURFACE 2.5' (nearest ft.)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY/TEMP NO. IF ANY

3 1	3[illegible]	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE- 94 - 4935 (70–79) fill in this form completely

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name 76 License No. 81 M D 047

Firm Name

Address 21041

Signature Date 10 10 01

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE- 94- 4935 (70 71 72 73 74 75 76 77 78 79)

B 3 LOCATION OF WELL

PZ-3

8 COUNTY 21

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

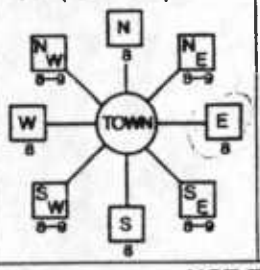
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N W 32 E WEST S EAST SOUTH

34 370 37 DISTANCE FROM ROAD

ENTER FT OR MI 38 39 FT

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 43 MM DD YY 48 CO SIGNATURE 10-16-02 EXP. DATE

NORTH GRID 633 000 50 55 EAST GRID 1074 000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER

1. [illegible]
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

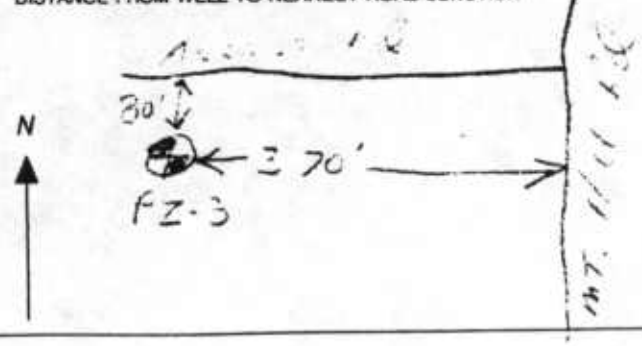
E 1070

N 630

000
000

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

C1 03945

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Test PZ-4 Stancills

ST/CO USE ONLY
DATE Received MM DD YY (8–13)

DATE WELL COMPLETED: MM 10 DD 24 YY 01 (15–20)

Depth of Well: 25 (TO NEAREST FOOT) (22–26)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE 94 4936 (28–37)

OWNER: STANCILLS INC (last name) (first name)

STREET OR RFD: 449 MOUNTAIN HILL RD TOWN: PERRYVILLE, MD 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown silty sand	0	25	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M D 0 4 7

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: — — D — — —

SITE SUPERVISOR (sign. of driller or journeyman responsible for nitrogen if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y (44) / no N (44)

TYPE OF GROUTING MATERIAL (Circle one): CEMENT CM (45, 46) BENTONITE CLAY BC (45, 46)

NO. OF BAGS 4 NO. OF POUNDS 400

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (to nearest foot) from 0 (48) TOP (52) ft. to 13 (54) BOTTOM (56) ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60–81)	2 (63–64)	15 (66–70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (1–2)

EACH SCREEN	TYPE	DEPTH from	DEPTH to
1	PL (8–9)	15 (11–15)	25 (17–21)
2	(23–24)	(26–30)	(32–38)
3	(38–39)	(41–45)	(47–51)

SLOT SIZE 1: .010 2: 3:

DIAMETER OF SCREEN 2 (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 13 to 25 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (70) (E.R.O.S.) (72) W Q (74–76)
TELESCOPE LOG

C 3 (1–2)

PUMPING TEST
HOURS PUMPED (nearest hour) (8–9)

PUMPING RATE (gal. per min.) (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING (17–20) ft.

WHEN PUMPING (22–25) ft.

TYPE OF PUMP USED (for test) (27)
- A air
- P piston
- T turbine
- C centrifugal
- R rotary
- O other (describe below)
- J jet
- S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

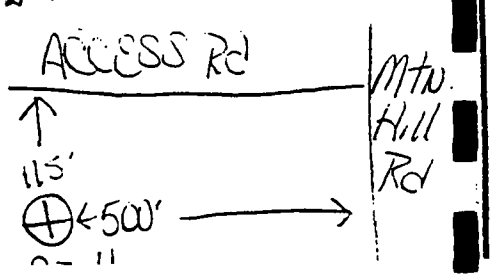
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height): + above (46) / – below (49) LAND SURFACE 2.5 (50–51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY/TEMP NO. IF ANY

B 1 | 30[illegible] | SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE – 94 – 4936

70 fill in this form completely 79

Date Received (APA): 8 MM DD YY 13

OWNER INFORMATION

15 Last Name | Owner | First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name | M 76 | D License No. 81

Firm Name

Address

Signature | Date 10-14-01

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

22

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET 24 28

APPROXIMATE DIAMETER OF WELL 5 NEAREST INCH

METHOD OF DRILLING (circle one)

30 37

BORED (or Augered) | JETTED | Jetted & DRIVEN

AIR-ROTary | AIR-PERcussion | ROTARY (Hydraulic Rotary)

CABLE | REVerse-ROTary | DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

39

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 __ __ - __ __ - __ __ __ __ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE – 94 – 4936 70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL

8 COUNTY Cecil 21 PZ-4

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

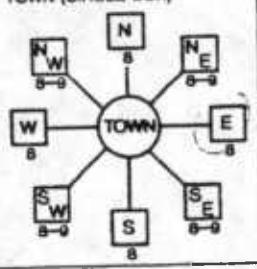
52 NEAREST TOWN [illegible] 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N | W WEST 32 | E EAST | S SOUTH

34 500 37

DISTANCE FROM ROAD ft

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 43 MM DD YY 48 CO SIGNATURE EXP. DATE 10-16-02

NORTH GRID 633 000 50 55 EAST GRID 1674 000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER

1. [illegible]
2.
3.

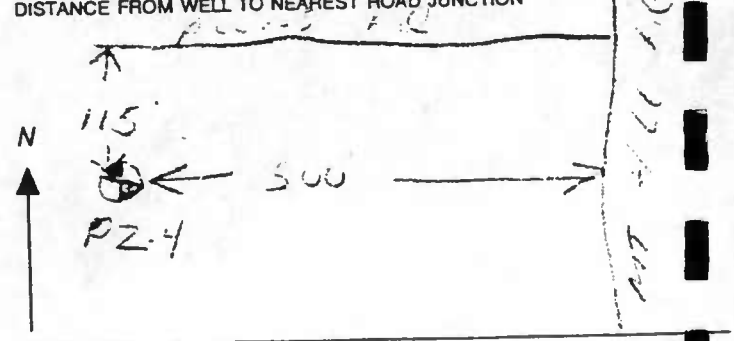
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1 03946 — SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Test PZ-5 Stancills

ST/CO USE ONLY — DATE Received MM DD YY

DATE WELL COMPLETED: MM DD YY 10-23-01

Depth of Well: 20 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE - 94 - 4937

OWNER: STANCILLO, INC.

STREET OR RFD: 469 Mountain Hill Rd — TOWN: PERRYVILLE, MD 21903

SUBDIVISION: ____ SECTION: ____ LOT: ____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown silty sand	0	20	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M ED 047

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: __ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL (Circle one): CEMENT CM — BENTONITE CLAY BC

NO. OF BAGS: 2 — NO. OF POUNDS: 200

GALLONS OF WATER: 12

DEPTH OF GROUT SEAL (to nearest foot): from 0 TOP ft. to 8 BOTTOM ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	2	10

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	10	20
2			
3			

SLOT SIZE 1: .010 2: ____ 3: ____

DIAMETER OF SCREEN: 2 (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 8 to 20

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T ____ (E.R.O.S.) ____ W Q ____

TELESCOPE CASING ____ LOG INDICATOR ____ OTHER DATA ____

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): ____

PUMPING RATE (gal. per min.): ____

METHOD USED TO MEASURE PUMPING RATE: ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING: ____ ft.

WHEN PUMPING: ____ ft.

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

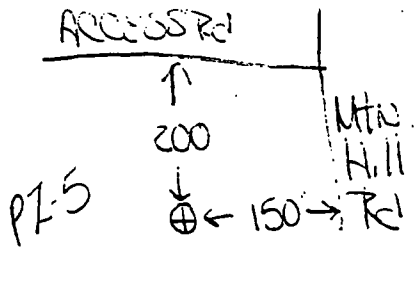
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE: 2.5 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY TEMP NO. 1 AN1

B 1 [illegible] SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER CE – 94 – 4937

fill in this form completely

Date Received (APA) [illegible]

OWNER INFORMATION

Last Name [illegible] Owner First Name

Street or RFD [illegible]

Town [illegible] State MD Zip

DRILLER INFORMATION

Driller's Name [illegible] M D License No. [illegible]

Firm Name [illegible]

Address [illegible]

Signature [illegible] Date 10-19-01

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) [illegible]

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) [illegible]

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 [I] INDUSTRIAL, COMMERICIAL, DEWATERING
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [G] GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET

APPROXIMATE DIAMETER OF WELL 6" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 – – – – – – – – 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP

PERMIT No. CE– 94– 4937

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

PZ-5

COUNTY [illegible]

SUBDIVISION

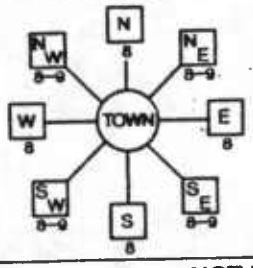
SECTION LOT

NEAREST TOWN [illegible]

MILES FROM TOWN (enter 0 if in town) M I

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD [illegible]

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 150 ENTER FT OR MI

TAX MAP: 35 BLK: [illegible] PARCEL [illegible]

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 10-17-01 CO SIGNATURE EXP. DATE 10-16-02

NORTH GRID 633 000 EAST GRID 1077 000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. [illegible]
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

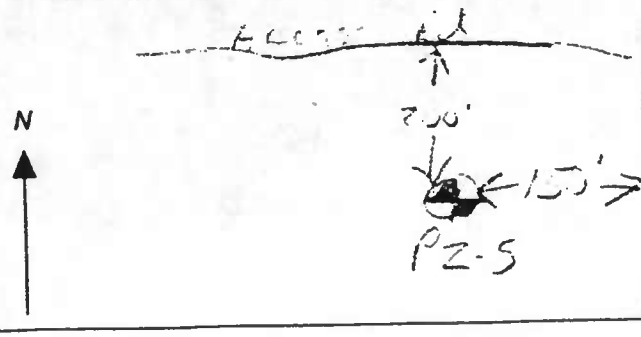
E [illegible]

N [illegible]

X

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C1 03947

SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test PZ-6 Stancills

ST/CO USE ONLY
DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY: 10-23-01

Depth of Well: 20 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE - 94 - 4938

OWNER: STANCILLS, INC (last name)
STREET OR RFD: 499 MOUNTAIN HILL RD (first name)
TOWN: PERRYVILLE, MD 21903
SUBDIVISION: SECTION: LOT:

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown silty sand	0	20	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M G D 0 4 7

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: — — D — — —

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM — BENTONITE CLAY BC

NO. OF BAGS 2 — NO. OF POUNDS 200

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. TOP to 8 ft. BOTTOM (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST STEEL — CO CONCRETE — PL PLASTIC — OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	2	10

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST STEEL — BR BRASS BRONZE — HO OPEN HOLE — PL PLASTIC — OT OTHER

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	10	20
2			
3			

SLOT SIZE 1 .010 2 — 3 —

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 8 to 20

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T — (E.R.O.S.) — W Q

TELESCOPE — LOG INDICATOR — OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING ft.

WHEN PUMPING ft.

TYPE OF PUMP USED (for test)

A air — P piston — T turbine — C centrifugal — R rotary — O other (describe below) — J jet — S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

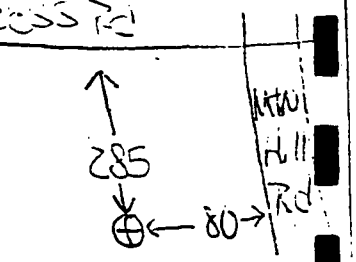
+ above / − below LAND SURFACE: 2.5 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

ACCESS RD



EMERGENCY/TEMP NO. IF ANY

B 1	3021	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE- 94 - 4938 (70 fill in this form completely 79)

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name M 76 D License No. 81

Firm Name

Address

Signature Date 10-10-01

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE - 94 - 4938 (70 71 72 73 74 75 76 77 78 79)

B 3 LOCATION OF WELL

8 COUNTY 21 PZ-6

23 SUBDIVISION 42

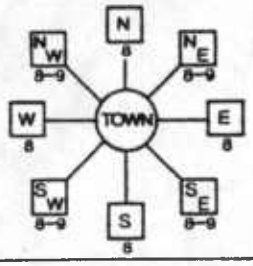
SECTION 44 46 LOT 48 50

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N W 32 E WEST EAST S SOUTH

34 80 37

DISTANCE FROM ROAD FT

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 8/2

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 10-16-02

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 633 000 50 55 EAST GRID 1675 000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. Municipal
2.
3.

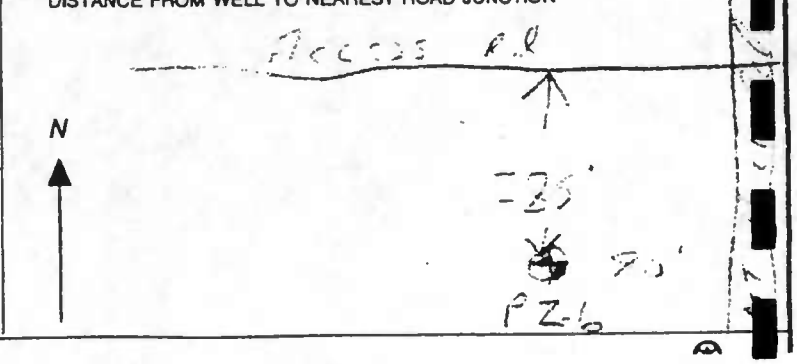
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 650

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

C 1 03948 SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test PZ-7 Stancills

ST/CO USE ONLY DATE Received MM DD YY (8–13)

DATE WELL COMPLETED MM DD YY: 10-24-01 (15–20)

Depth of Well (22–26): 20 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE- 94- 4939 (28–37)

OWNER: STANCILLS INC (last name, first name)

STREET OR RFD: 499 MOUNTAIN HILL RD TOWN: PERRYVILLE MD 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown silty sand	0	20	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N (circled N)

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M 6047

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y (44) / no N (44) (circled Y)

TYPE OF GROUTING MATERIAL (Circle one): CEMENT CM (45, 46) (circled CM) BENTONITE CLAY BC

NO. OF BAGS: 2 NO. OF POUNDS: 200

GALLONS OF WATER: 12

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP, 48–52) to 8 ft. (BOTTOM, 54–58) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60–61)	2 (63–64)	10 (66–70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (1–2)

EACH SCREEN		DEPTH (nearest ft.)	
1	PL (8–9)	10 (11–15)	20 (17–21)
2	(23–24)	(26–30)	(32–38)
3	(38–39)	(41–45)	(47–51)

SLOT SIZE 1: .010 2: 3:

DIAMETER OF SCREEN: 2 (NEAREST INCH) (56–60)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 8 to 20 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 TELESCOPE CASING — 72 LOG INDICATOR — 74 75 76 OTHER DATA

C 3 (1–2) PUMPING TEST
HOURS PUMPED (nearest hour) (8–9)

PUMPING RATE (gal. per min.) (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING (17–20) ft.

WHEN PUMPING (22–25) ft.

TYPE OF PUMP USED (for test) (27)
- A air
- P piston
- T turbine
- C centrifugal
- R rotary
- O other (describe below)
- J jet
- S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO (circled NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

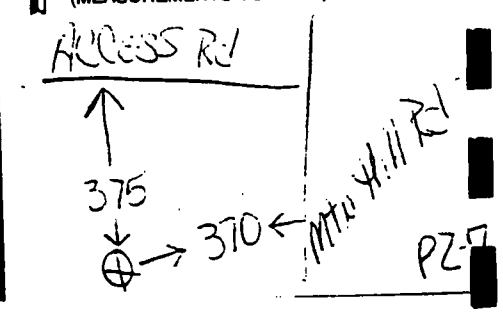
PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height): + above (49) / – below (49) LAND SURFACE 2.5 (nearest foot) (50–51)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY/TEMP NO. IF ANY

1	2	3	6	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE- 94 - 4939 (70 79) fill in this form completely

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name 76 License No. 81 M 6 D 47

Firm Name

Address

Signature Date

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

22

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE- 94- 4939 (70 71 72 73 74 75 76 77 78 79)

B 3 LOCATION OF WELL

8 COUNTY 21 PZ-7

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

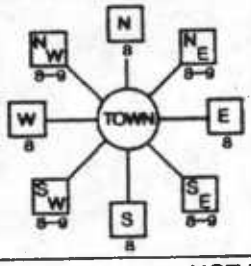
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 370 37

DISTANCE FROM ROAD #

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: PARCEL 121

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 10-17-01 10-16-02

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 633 000 (50 55) EAST GRID 1074 000 (57 63)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER

1.

2.

3.

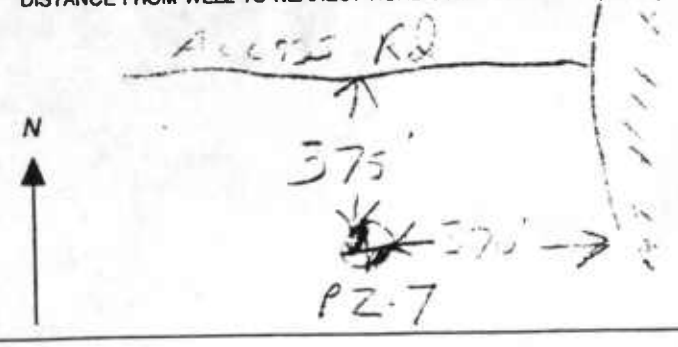
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

03949

SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Test PZ-8 Stancills

CO USE ONLY
DATE Received MM DD YY

DATE WELL COMPLETED: 10-25-07

Depth of Well: 40 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE 94 4940

OWNER: Stancills Inc. (last name / first name)

STREET OR RFD: 499 Mountain Hill Rd

TOWN: Perryville MD 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown to dark brown silty sand	0	40	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED: yes Y / no N

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: MD D 47

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: ___ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL (Circle one): CEMENT CM / BENTONITE CLAY BC

NO. OF BAGS: 9 NO. OF POUNDS: 900

GALLONS OF WATER: 54

DEPTH OF GROUT SEAL (to nearest foot): from 0 TOP ft. to 28 BOTTOM ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: PL

Nominal diameter top (main) casing (nearest inch): 2

Total depth of main casing (nearest foot): 30

OTHER CASING (if used) — EACH CASING: diameter (inch), depth (feet) from / to

SCREEN RECORD
screen type or open hole — insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	30	40
2			
3			

SLOT SIZE 1: .010 2: ___ 3: ___

DIAMETER OF SCREEN: 2 (NEAREST INCH)

GRAVEL PACK (IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68): from 28 to 40

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q

TELESCOPE CASING / LOG INDICATOR / OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING ft.

WHEN PUMPING ft.

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

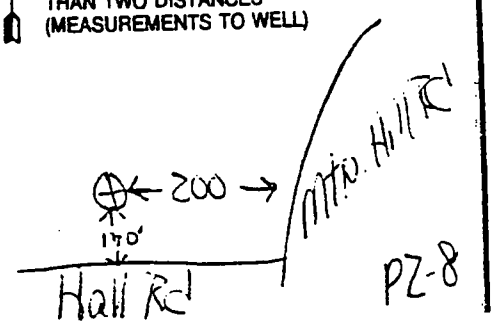
CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 25 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



EMERGENCY/TEMP NO. IF ANY

B 1 | 30[illegible] | SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER
CE – 94 – 4940
fill in this form completely

Date Received (APA) [illegible] (8 MM DD YY 13)

OWNER INFORMATION

15 Last Name [illegible] Owner First Name 34

36 Street or RFD [illegible] 55

57 Town [illegible] 70 State [illegible] 72 Zip [illegible] 76

DRILLER INFORMATION

Driller's Name [illegible] 76 License No. M D 49 81

Firm Name [illegible]

Address [illegible]

Signature [illegible] Date [illegible]

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) [illegible] 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) [illegible] 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 (24 28) FEET

APPROXIMATE DIAMETER OF WELL _____ NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other _____

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 __ __ – __ __ – __ __ __ __ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP (54 63)

PERMIT No. CE– 94– 4940 (70 71 72 73 74 75 76 77 78 79)

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

8 COUNTY [illegible] 21 PZ-8

23 SUBDIVISION [illegible] 42

SECTION [illegible] (44 46) LOT [illegible] (48 50)

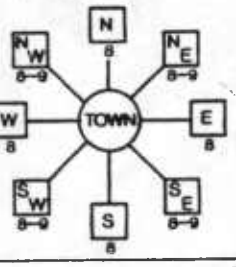
52 NEAREST TOWN [illegible] 71

MILES FROM TOWN (enter 0 if in town) [illegible] (73 76 77 78) M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD [illegible] 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 300 37 DISTANCE FROM FROM ROAD

ENTER FT OR MI FT (38 39)

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil COUNTY NO.

STATE SIGNATURE _____ INSERT S → (41)

DATE ISSUED 10-17-01 (43 MM DD YY 48) CO SIGNATURE [illegible] EXP. DATE 10-16-02

NORTH GRID 632 000 (50 55) EAST GRID 1074 000 (57 63)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER
1. [illegible]
2.
3.

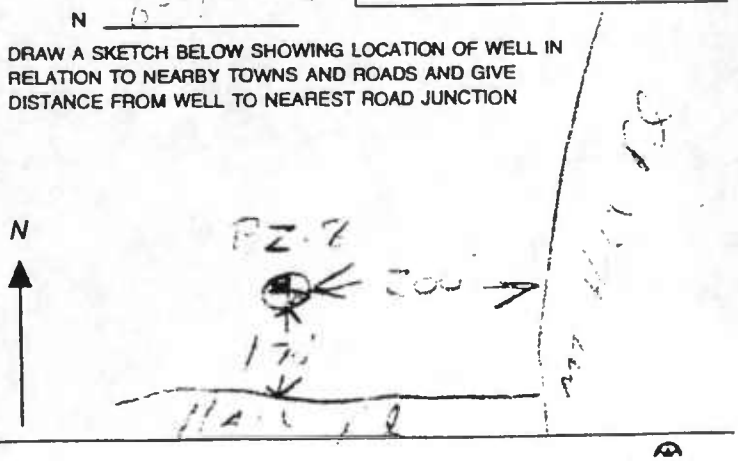
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N [illegible]

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



EMERGENCY/TEMP NO. IF ANY

B 1 | 3[illegible] | SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE- 94 - 4941

70 fill in this form completely 79

Date Received (APA) 8 MM DD YY 13

OWNER INFORMATION

15 Last Name | Owner | First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name 76 License No. 81 M - D 047

Firm Name

Address

Signature Date

B 2 WELL INFORMATION

1 2

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- 22 I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) | JETTED | Jetted & DRIVEN

30 AIR-ROTary | AIR-PERcussion | ROTARY (Hydraulic Rotary)

37 CABLE | REVerse-ROTary | DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER GAP 54 63

PERMIT No. CE - 94 - 4941 70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL

8 COUNTY 21 PZ-9

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

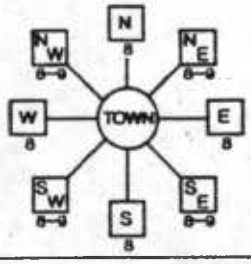
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78 M I

B 4

1 2

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 20 37

DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 101

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME | COUNTY NO.

STATE SIGNATURE | INSERT S → 41

DATE ISSUED 10-17-01 | 10-16-02

43 MM DD YY 48 | CO SIGNATURE | EXP. DATE

NORTH GRID 633 000 50 55 | EAST GRID 1075 000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER
1.
2.
3.

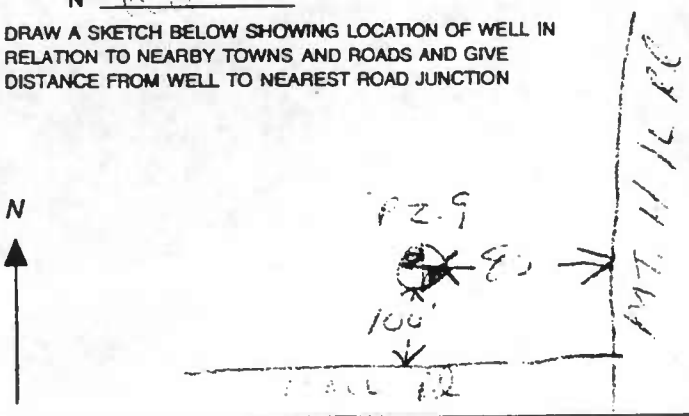
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1 03950 SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test PZ-9 Stancills

WT/CO USE ONLY
DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 10-23-01

Depth of Well 90 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE 94 4941

OWNER Stancills Inc (last name / first name)

STREET OR RFD 499 Mountain Hill Rd TOWN Perryville, MD 21903

SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
lt. brown to dark brown silty sand	0	40	✓
lt. brown to dk. brown silty sand w/ trace of red clay	40	95	✓

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M6 D047

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. __ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 24 NO. OF POUNDS 2400

GALLONS OF WATER 136

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 78 ft. (TOP / BOTTOM)

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL	2	80

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 DEPTH (nearest ft.)

EACH SCREEN			
1	PL	80	90
2			
3			

SLOT SIZE 1 .010 2 ___ 3 ___

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 from 78 to 90

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) ___

PUMPING RATE (gal. per min.) ___

METHOD USED TO MEASURE PUMPING RATE ___

WATER LEVEL (distance from land surface)

BEFORE PUMPING ___ ft.

WHEN PUMPING ___ ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

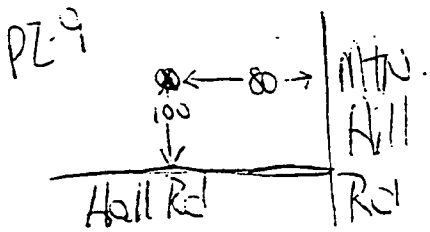
PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 2.5 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 89-00000229.00	**Log of Boring P-1** Sheet 1 of 1

Date(s) Drilled	10/22/2000 - 10/22/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	21.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft.	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
20	0							(FILL)					
								Firm SAND, black, dry (SP)					
	5							GRAVEL (yellow) mixed with cobbles (GC)					
								Medium to fine SAND, dark brown to black, dry (SM)					
10	10							Silty SAND, light brown, moist (SM)					
								Silty SAND, light brown, mixed with clay, wet (SM)					
	15							Sandy CLAY, brown, wet (CL)					
0	20												
	25												
-10	30												
	35												
	40												

URS

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 69-00000229.00	**Log of Boring P-2** Sheet 1 of 1

Date(s) Drilled	10/24/2000 - 10/24/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	25.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	12.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							(FILL)					
10								coarse GRAVEL, loose (GM)					
	5							Silty fine SAND, light brown, moist (SM)					
	10							Silty fine SAND, light brown, wet (SM)					
0													
	15							Silty fine SAND, light brown, very wet (SM)					
	20							Silty fine SAND mixed with soft clay, light brown, very wet (SC)					
-10													
	25												
	30												
-20													
	35												
	40												

URS

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 89-00000229.00	**Log of Boring P-3** Sheet 1 of 2

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	45.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	19.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							general quarry fill (sand and gravel)					
	5							SAND, brown, mixed with gravel (quarry fill) (SP)					
-10	10												
	15												
-0	20							Silty fine SAND, light brown, dry, stiff (SM)					
	25							Silty fine SAND, light brown, moist, soft (SM)					
-10	30							Silty fine SAND, light brown, very wet (SM)					
	35							fine SAND, white, moist, stiff (SC)					
-20	40												

Report: GEO_10A_GAINTK File: MES.GPJ, 8/5/2002 P-3

URS

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-3

Elevation, feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	SAMPLES: Sampling Resistance, Blows / 6 in.	SAMPLES: SPT N-Value, Blows / ft	SAMPLES: Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS: Liquid Limit	ATTERBERG LIMITS: Plastic Limit	ATTERBERG LIMITS: Plasticity Index	REMARKS AND OTHER TESTS
	40							SAPROLITE, dark brown, dry, very dense					
	45												
-30	50												
	55												
-40	60												
	65												
-50	70												
	75												
-60	80												
	85												

URS

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 89-00000229.00	**Log of Boring P-4** Sheet 1 of 1

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	11.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							fill (sand and gravel)					
10								SAND, some fine to medium, dark brown, dry, soft (SP)					
	5												
								Silty SAND, light brown, wet (SM)					
	10							Silty SAND, light brown, very wet (SM)					
0													
	15												
	20												
-10													
	25												
	30												
-20													
	35												
	40												

URS

Report: GEO_10A_GAITH; File: MES.GPJ; 8/5/2002 P-4

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-5

Sheet 1 of 1

Date(s) Drilled	10/22/2000 - 10/22/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	38.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							fill (sand and gravel)					
								SAND, some silt, brown to light brown, dry, firm (SP)					
	5												
30								medium to coarse GRAVEL, dark green, dry to moist (GM)					
								Silty SAND, light brown, moist (SM)					
	10							Silty SAND, trace clay, light brown, very wet (SM)					
	15												
20													
	20												
	25												
10													
	30												
	35												
0													
	40												

URS

Report: GEO_10A_GAINT; File: MES.GPJ; 8/5/2002 P-5

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 89-00000229.00	**Log of Boring P-6** Sheet 1 of 1

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	8.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							Sand, white, recently excavated area					
								Silty SAND with some fine gravels, light brown, moist (SM)					
	5							Medium to coarse GRAVEL, dark green, moist (GM)					
0								Silty sand with gravel, light brown, very wet (SP)					
	10												
	15												
-10													
	20												
	25												
-20													
	30												
	35												
-30													
	40												

Report: GEO_10A_GAITH; File: MES.GPJ; 9/5/2002 P-6

URS

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 69-00000229.00	**Log of Boring P-7** Sheet 1 of 1

Date(s) Drilled	10/24/2000 - 10/24/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	6.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	Plastic Limit	Plasticity Index	REMARKS AND OTHER TESTS
	0							fill (sand and gravel)					
								Silty SAND, light brown, dry, soft (SM)					
	5							Silty SAND with fine gravel, light brown, moist (ML)					
0													
	10							Silty SAND, trace clay, light brown, very wet (SM)					
	15												
-10													
	20												
	25												
-20													
	30												
	35												
-30													
	40												

URS

Project: MES Stancill Quarry **Project Location:** Cecil County, Maryland **Project Number:** 89-00000229.00	**Log of Boring P-8** Sheet 1 of 3

Date(s) Drilled	10/22/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	95.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	98.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	SAMPLES: Sampling Resistance, Blows / 6 in.	SAMPLES: SPT N-Value, Blows / ft	SAMPLES: Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS: Liquid Limit	ATTERBERG LIMITS: Plastic Limit	ATTERBERG LIMITS: Plasticity Index	REMARKS AND OTHER TESTS
	0							(TOPSOIL) Soil, dark brown					
								CLAY, light brown, some silt, dry (CL)					
	5												
90													
	10							CLAY, light brown to orange, dry, firm (CL)					
	15							SAND, light brown to brown, dry, firm (SP)					
80													
	20							silty SAND, light brown, some gravel, dry, firm (SM)					
	25												
70													
	30												
	35												
60													
	40												

Report: GEO_10A_GAITH; File: MES.GPJ; 6/5/2002 P-8

URS

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-8

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	SAMPLES Sampling Resistance, Blows / 6 in.	SAMPLES SPT N-Value, Blows / ft	SAMPLES Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS Liquid Limit	ATTERBERG LIMITS Plastic Limit	ATTERBERG LIMITS Plasticity Index	REMARKS AND OTHER TESTS
	40							silty SAND, light brown, some gravel, trace clay, moist, firm (SM)					
	45												
50													
	50												
	55												
40													
	60												
	65							Brown, silty SAND with reddish clay, moist, stiff to very stiff (SM)					
30													
	70												
	75												
20													
	80												
	85												

Report: GEO_10A_GAITH; File: MES.GPJ; 6/5/2002 P-8

URS

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-8

Elevation, feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	SAMPLES: Sampling Resistance, Blows / 6 in.	SAMPLES: SPT N-Value, Blows / ft	SAMPLES: Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS: Liquid Limit	ATTERBERG LIMITS: Plastic Limit	ATTERBERG LIMITS: Plasticity Index	REMARKS AND OTHER TESTS
10													
	90												NO SIGNIFICANT WATER ENCOUNTERED
	95												
0													
	100												
	105												
-10													
	110												
	115												
-20													
	120												
	125												
-30													
	130												

URS

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-8

Elevation, feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	SAMPLES: Sampling Resistance, Blows / 6 in.	SAMPLES: SPT N-Value, Blows / ft	SAMPLES: Recovery, in.	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS: Liquid Limit	ATTERBERG LIMITS: Plastic Limit	ATTERBERG LIMITS: Plasticity Index	REMARKS AND OTHER TESTS
10													
	90												NO SIGNIFICANT WATER ENCOUNTERED
	95												
0													
	100												
	105												
-10													
	110												
	115												
-20													
	120												
	125												
-30													
	130												

Report: GEO_10A_GAITH; File: MES.GPJ; 6/5/2002 P-8

URS

A-2 WATER LEVEL READINGS

Instrument type : LT-Levelogger 26800
Instrument number : 26800-SO#34615
Location : Piezometer #6 Stancill Quarry
Sample mode : T

Channel 1 : LEVEL
Reference : 0.00 ft
Range : 32.80 ft
Master level : 0.00 ft

Channel 2 : TEMPERATURE
Reference : -20.00 DEG C
Range : 100.00 DEG C

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
1	01/08/2002	20:00:00	10.06	11.42	30.01	34.06	2.90	7.16	1.70
2	01/09/2002	8:00:00	9.93	11.17	29.86	33.89	2.73	7.20	1.74
3	01/09/2002	20:00:00	9.72	11.25	29.68	33.69	2.53	7.19	1.73
4	01/10/2002	8:00:00	9.84	11.4	29.81	33.83	2.67	7.17	1.71
5	01/10/2002	20:00:00	9.86	11.09	29.81	33.83	2.67	7.19	1.73
6	01/11/2002	8:00:00	9.76	11.37	29.84	33.87	2.71	7.05	1.59
7	01/11/2002	20:00:00	9.92	11.08	29.84	33.87	2.71	7.21	1.75
8	01/12/2002	8:00:00	10.07	11.35	29.83	33.86	2.70	7.37	1.91
9	01/12/2002	20:00:00	9.82	10.98	29.83	33.86	2.70	7.12	1.66
10	01/13/2002	8:00:00	9.6	11.09	29.72	33.73	2.57	7.03	1.57
11	01/13/2002	20:00:00	9.96	11.22	29.72	33.73	2.57	7.39	1.93
12	01/14/2002	8:00:00	10.17	11	30.14	34.21	3.05	7.12	1.66
13	01/14/2002	20:00:00	9.98	11.19	30.14	34.21	3.05	6.93	1.47
14	01/15/2002	8:00:00	9.92	11.21	30.05	34.11	2.95	6.97	1.51
15	01/15/2002	20:00:00	10.04	11.18	30.05	34.11	2.95	7.09	1.63
16	01/16/2002	8:00:00	10.28	11.1	30.21	34.29	3.13	7.15	1.69
17	01/16/2002	20:00:00	10.23	11.17	30.21	34.29	3.13	7.10	1.64
18	01/17/2002	8:00:00	9.98	11	29.97	34.02	2.86	7.12	1.66
19	01/17/2002	20:00:00	10.03	10.69	29.97	34.02	2.86	7.17	1.71
20	01/18/2002	8:00:00	10.09	11.03	30.14	34.21	3.05	7.04	1.58

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
21	01/18/2002	20:00:00	10.22	10.83	30.14	34.21	3.05	7.17	1.71
22	01/19/2002	8:00:00	10.18	10.86	30.21	34.29	3.13	7.05	1.59
23	01/19/2002	20:00:00	9.77	11.06	29.80	33.82	2.66	7.11	1.65
24	01/20/2002	8:00:00	10.07	11.04	30.14	34.21	3.05	7.02	1.56
25	01/20/2002	20:00:00	10.15	10.89	30.14	34.21	3.05	7.10	1.64
26	01/21/2002	8:00:00	9.93	11.03	30.11	34.17	3.01	6.92	1.46
27	01/21/2002	20:00:00	9.83	10.85	30.11	34.17	3.01	6.82	1.36
28	01/22/2002	8:00:00	10.2	10.73	30.38	34.48	3.32	6.88	1.42
29	01/22/2002	20:00:00	10.33	10.58	30.38	34.48	3.32	7.01	1.55
30	01/23/2002	8:00:00	10.13	10.95	30.38	34.48	3.32	6.81	1.35
31	01/23/2002	20:00:00	9.87	10.67	30.38	34.48	3.32	6.55	1.09
32	01/24/2002	8:00:00	9.66	10.54	30.11	34.17	3.01	6.65	1.19
33	01/24/2002	20:00:00	9.55	10.75	30.11	34.17	3.01	6.54	1.08
34	01/25/2002	8:00:00	9.93	10.61	29.67	33.68	2.52	7.41	1.95
35	01/25/2002	20:00:00	10.1	10.79	29.67	33.68	2.52	7.58	2.12
36	01/26/2002	8:00:00	10.16	10.54	30.30	34.39	3.23	6.93	1.47
37	01/26/2002	20:00:00	10.11	10.77	30.30	34.39	3.23	6.88	1.42
38	01/27/2002	8:00:00	10.13	10.64	30.22	34.30	3.14	6.99	1.53
39	01/27/2002	20:00:00	10.07	10.53	30.22	34.30	3.14	6.93	1.47
40	01/28/2002	8:00:00	10	10.7	30.15	34.22	3.06	6.94	1.48
41	01/28/2002	20:00:00	9.88	10.41	30.15	34.22	3.06	6.82	1.36
42	01/29/2002	8:00:00	9.87	10.37	30.15	34.22	3.06	6.81	1.35
43	01/29/2002	20:00:00	9.86	10.68	30.15	34.22	3.06	6.80	1.34
44	01/30/2002	8:00:00	9.82	10.42	30.15	34.22	3.06	6.76	1.30
45	01/30/2002	20:00:00	10.03	10.73	30.15	34.22	3.06	6.97	1.51
46	01/31/2002	8:00:00	10.14	10.71	30.03	34.08	2.92	7.22	1.76
47	01/31/2002	20:00:00	10.01	10.65	30.03	34.08	2.92	7.09	1.63
48	02/01/2002	8:00:00	9.69	10.4	29.89	33.93	2.77	6.92	1.46
49	02/01/2002	20:00:00	9.75	10.65	29.89	33.93	2.77	6.98	1.52
50	02/02/2002	8:00:00	10.14	10.63	30.33	34.42	3.26	6.88	1.42
51	02/02/2002	20:00:00	10.19	10.52	30.39	34.49	3.33	6.86	1.40

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
52	02/03/2002	8:00:00	10.02	10.47	30.10	34.16	3.00	7.02	1.56
53	02/03/2002	20:00:00	9.68	10.55	30.10	34.16	3.00	6.68	1.22
54	02/04/2002	8:00:00	9.49	10.65	29.79	33.81	2.65	6.84	1.38
55	02/04/2002	20:00:00	9.63	10.44	29.79	33.81	2.65	6.98	1.52
56	02/05/2002	8:00:00	10.01	10.43	30.36	34.46	3.30	6.71	1.25
57	02/05/2002	20:00:00	9.84	10.35	30.18	34.25	3.09	6.75	1.29
58	02/06/2002	8:00:00	9.94	10.61	30.33	34.42	3.26	6.68	1.22
59	02/06/2002	20:00:00	9.83	10.38	30.18	34.25	3.09	6.74	1.28
60	02/07/2002	8:00:00	9.59	10.57	30.01	34.06	2.90	6.69	1.23
61	02/07/2002	20:00:00	9.41	10.4	29.86	33.89	2.73	6.68	1.22
62	02/08/2002	8:00:00	9.6	10.53	30.09	34.15	2.99	6.61	1.15
63	02/08/2002	20:00:00	9.6	10.51	30.06	34.12	2.96	6.64	1.18
64	02/09/2002	8:00:00	9.94	10.31	30.42	34.53	3.37	6.57	1.11
65	02/09/2002	20:00:00	10.05	10.35	30.48	34.59	3.43	6.62	1.16
66	02/10/2002	8:00:00	9.93	10.6	30.27	34.36	3.20	6.73	1.27
67	02/10/2002	20:00:00	9.35	10.31	29.83	33.86	2.70	6.65	1.19
68	02/11/2002	8:00:00	9.31	10.47	29.80	33.82	2.66	6.65	1.19
69	02/11/2002	20:00:00	9.8	10.6	30.21	34.29	3.13	6.67	1.21
70	02/12/2002	8:00:00	9.69	10.31	30.06	34.12	2.96	6.73	1.27
71	02/12/2002	20:00:00	9.49	10.37	29.89	33.93	2.77	6.72	1.26
72	02/13/2002	8:00:00	9.7	10.65	30.06	34.12	2.96	6.74	1.28
73	02/13/2002	20:00:00	9.96	10.63	30.30	34.39	3.23	6.73	1.27
74	02/14/2002	8:00:00	10.08	10.36	30.45	34.56	3.40	6.68	1.22
75	02/14/2002	20:00:00	10.01	10.67	30.39	34.49	3.33	6.68	1.22
76	02/15/2002	8:00:00	9.9	10.31	30.27	34.36	3.20	6.70	1.24
77	02/15/2002	20:00:00	9.59	10.65	30.01	34.06	2.90	6.69	1.23
78	02/16/2002	8:00:00	9.42	10.46	29.89	33.93	2.77	6.65	1.19
79	02/16/2002	20:00:00	9.26	10.49	29.71	33.72	2.56	6.70	1.24
80	02/17/2002	8:00:00	9.26	10.6	29.77	33.79	2.63	6.63	1.17
81	02/17/2002	20:00:00	9.49	10.59	29.98	34.03	2.87	6.62	1.16
82	02/18/2002	8:00:00	9.77	10.27	30.27	34.36	3.20	6.57	1.11

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
83	02/18/2002	20:00:00	9.84	10.59	30.27	34.36	3.20	6.64	1.18
84	02/19/2002	8:00:00	9.84	10.55	30.30	34.39	3.23	6.61	1.15
85	02/19/2002	20:00:00	9.71	10.57	30.21	34.29	3.13	6.58	1.12
86	02/20/2002	8:00:00	9.53	10.37	30.06	34.12	2.96	6.57	1.11
87	02/20/2002	20:00:00	9.22	10.55	29.80	33.82	2.66	6.56	1.10
88	02/21/2002	8:00:00	9.18	10.46	29.83	33.86	2.70	6.48	1.02
89	02/21/2002	20:00:00	9.23	10.42	29.86	33.89	2.73	6.50	1.04
90	02/22/2002	8:00:00	9.29	10.3	29.95	33.99	2.83	6.46	1.00
91	02/22/2002	20:00:00	9.41	10.35	30.04	34.10	2.94	6.47	1.01
92	02/23/2002	8:00:00	9.46	10.39	30.15	34.22	3.06	6.40	0.94
93	02/23/2002	20:00:00	9.44	10.55	30.15	34.22	3.06	6.38	0.92
94	02/24/2002	8:00:00	9.59	10.27	30.27	34.36	3.20	6.39	0.93
95	02/24/2002	20:00:00	9.53	10.43	30.24	34.32	3.16	6.37	0.91
96	02/25/2002	8:00:00	9.52	10.22	30.24	34.32	3.16	6.36	0.90
97	02/25/2002	20:00:00	9.29	10.56	30.04	34.10	2.94	6.35	0.89
98	02/26/2002	8:00:00	9	10.27	29.80	33.82	2.66	6.34	0.88
99	02/26/2002	20:00:00	8.7	10.31	29.62	33.62	2.46	6.24	0.78
100	02/27/2002	8:00:00	8.86	10.49	29.71	33.72	2.56	6.30	0.84
101	02/27/2002	20:00:00	8.9	10.25	29.83	33.86	2.70	6.20	0.74
102	02/28/2002	8:00:00	9.21	10.31	30.09	34.15	2.99	6.22	0.76
103	02/28/2002	20:00:00	9.28	10.59	30.21	34.29	3.13	6.15	0.69
104	03/01/2002	8:00:00	9.55	10.26	30.45	34.56	3.40	6.15	0.69
105	03/01/2002	20:00:00	9.59	10.53	30.51	34.63	3.47	6.12	0.66
106	03/02/2002	8:00:00	9.61	10.31	30.54	34.66	3.50	6.11	0.65
107	03/02/2002	20:00:00	9.17	10.35	30.12	34.19	3.03	6.14	0.68
108	03/03/2002	8:00:00	8.69	10.52	29.68	33.69	2.53	6.16	0.70
109	03/03/2002	20:00:00	8.73	10.3	29.74	33.75	2.59	6.14	0.68
110	03/04/2002	8:00:00	9.03	10.3	30.04	34.10	2.94	6.09	0.63
111	03/04/2002	20:00:00	9.23	10.34	30.18	34.25	3.09	6.14	0.68
112	03/05/2002	8:00:00	9.49	10.35	30.42	34.53	3.37	6.12	0.66
113	03/05/2002	20:00:00	9.39	10.49	30.30	34.39	3.23	6.16	0.70

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
114	03/06/2002	8:00:00	9.4	10.57	30.44	34.55	3.39	6.01	0.55
115	03/06/2002	20:00:00	9.24	10.39	30.18	34.25	3.09	6.15	0.69
116	03/07/2002	8:00:00	9.33	10.63	30.27	34.36	3.20	6.13	0.67
117	03/07/2002	20:00:00	9.29	10.49	30.27	34.36	3.20	6.09	0.63
118	03/08/2002	8:00:00	9.43	10.49	30.42	34.53	3.37	6.06	0.60
119	03/08/2002	20:00:00	9.4	10.41	30.36	34.46	3.30	6.10	0.64
120	03/09/2002	8:00:00	9.39	10.65	30.39	34.49	3.33	6.06	0.60
121	03/09/2002	20:00:00	9	10.32	30.01	34.06	2.90	6.10	0.64
122	03/10/2002	8:00:00	9.07	10.6	30.12	34.19	3.03	6.04	0.58
123	03/10/2002	20:00:00	9.22	10.32	30.24	34.32	3.16	6.06	0.60
124	03/11/2002	8:00:00	9.46	10.54	30.48	34.59	3.43	6.03	0.57
125	03/11/2002	20:00:00	9.32	10.29	30.33	34.42	3.26	6.06	0.60
126	03/12/2002	8:00:00	9.19	10.49	30.21	34.29	3.13	6.06	0.60
127	03/12/2002	20:00:00	9.06	10.57	30.12	34.19	3.03	6.03	0.57
128	03/13/2002	8:00:00	8.86	10.33	29.95	33.99	2.83	6.03	0.57
129	03/13/2002	20:00:00	8.67	10.3	29.80	33.82	2.66	6.01	0.55
130	03/14/2002	8:00:00	8.89	10.24	30.04	34.10	2.94	5.95	0.49
131	03/14/2002	20:00:00	8.93	10.26	30.04	34.10	2.94	5.99	0.53
132	03/15/2002	8:00:00	8.91	10.54	30.01	34.06	2.90	6.01	0.55
133	03/15/2002	20:00:00	8.77	10.53	29.86	33.89	2.73	6.04	0.58
134	03/16/2002	8:00:00	8.74	10.59	29.86	33.89	2.73	6.01	0.55
135	03/16/2002	20:00:00	9.09	10.27	30.15	34.22	3.06	6.03	0.57
136	03/17/2002	8:00:00	9.39	10.24	30.42	34.53	3.37	6.02	0.56
137	03/17/2002	20:00:00	9.34	10.31	30.39	34.49	3.33	6.01	0.55
138	03/18/2002	8:00:00	9.21	10.28	30.24	34.32	3.16	6.05	0.59
139	03/18/2002	20:00:00	9.2	10.31	30.24	34.32	3.16	6.04	0.58
140	03/19/2002	8:00:00	9.34	10.36	30.36	34.46	3.30	6.04	0.58
141	03/19/2002	20:00:00	9.32	10.31	30.33	34.42	3.26	6.06	0.60
142	03/20/2002	8:00:00	9.11	10.4	30.09	34.15	2.99	6.12	0.66
143	03/20/2002	20:00:00	8.89	10.34	29.92	33.96	2.80	6.09	0.63
144	03/21/2002	8:00:00	9.07	10.32	30.04	34.10	2.94	6.13	0.67

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure-Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
145	03/21/2002	20:00:00	8.79	10.62	29.71	33.72	2.56	6.23	0.77
146	03/22/2002	8:00:00	9.33	10.31	30.15	34.22	3.06	6.27	0.81
147	03/22/2002	20:00:00	9.43	10.43	30.15	34.22	3.06	6.37	0.91
148	03/23/2002	8:00:00	9.53	10.57	30.21	34.29	3.13	6.40	0.94
149	03/23/2002	20:00:00	9.35	10.63	29.98	34.03	2.87	6.48	1.02
150	03/24/2002	8:00:00	9.59	10.45	30.15	34.22	3.06	6.53	1.07
151	03/24/2002	20:00:00	9.51	10.51	30.04	34.10	2.94	6.57	1.11
152	03/25/2002	8:00:00	9.71	10.28	30.21	34.29	3.13	6.58	1.12
153	03/25/2002	20:00:00	9.81	10.28	30.27	34.36	3.20	6.61	1.15
154	03/26/2002	8:00:00	9.79	10.32	30.24	34.32	3.16	6.63	1.17
155	03/26/2002	20:00:00	9.35	10.3	29.92	33.96	2.80	6.55	1.09
156	03/27/2002	8:00:00	9.5	10.27	30.01	34.06	2.90	6.60	1.14
157	03/27/2002	20:00:00	9.61	10.32	30.09	34.15	2.99	6.62	1.16
158	03/28/2002	8:00:00	9.74	10.33	30.21	34.29	3.13	6.61	1.15
159	03/28/2002	20:00:00	9.63	10.27	30.09	34.15	2.99	6.64	1.18
160	03/29/2002	8:00:00	9.71	10.33	30.12	34.19	3.03	6.68	1.22
161	03/29/2002	20:00:00	9.5	10.53	29.92	33.96	2.80	6.70	1.24
162	03/30/2002	8:00:00	9.42	10.25	29.83	33.86	2.70	6.72	1.26
163	03/30/2002	20:00:00	9.63	10.26	30.01	34.06	2.90	6.73	1.27
164	03/31/2002	8:00:00	9.7	10.49	30.09	34.15	2.99	6.71	1.25
165	03/31/2002	20:00:00	9.53	10.53	29.92	33.96	2.80	6.73	1.27
166	04/01/2002	8:00:00	9.44	10.49	29.86	33.89	2.73	6.71	1.25
167	04/01/2002	20:00:00	9.62	10.26	29.98	34.03	2.87	6.75	1.29
168	04/02/2002	8:00:00	9.78	10.27	30.12	34.19	3.03	6.75	1.29
169	04/02/2002	20:00:00	9.53	10.21	29.89	33.93	2.77	6.76	1.30
170	04/03/2002	8:00:00	9.42	10.29	29.83	33.86	2.70	6.72	1.26

Stancill Quarry, Furnace Bay						
Project # 01116.00						
Instrument type : LT-Levelogger 26800						
Instrument number : 26800-SO#34615						
Location : Piezometer #6 Stancill Quarry						
Sample mode : T						
Channel 1 : LEVEL						
Reference : 0.00 ft						
Range : 32.80 ft						
Master level : 0.00 ft						
Channel 2 : TEMPERATURE						
Reference : -20.00 DEG C						
Range : 100.00 DEG C						
No.	**Date**	**Time**	**Channel 1 (ft)**	**Channel 2 (deg. C)**	**Barometric Pressure in water column equivalent (ft)**	**Compensated Water Level (ft)**
1	12/11/2001	12:00:00	10.62	12.17	1.44	9.18
2	12/11/2001	13:00:00	10.63	12.12	1.44	9.19
3	12/11/2001	14:00:00	10.6	12.09	1.44	9.16
4	12/11/2001	15:00:00	10.6	12.08	1.44	9.16
5	12/11/2001	16:00:00	10.61	12.08	1.44	9.17
6	12/11/2001	17:00:00	10.65	12.12	1.43	9.22
7	12/11/2001	18:00:00	10.68	12.09	1.43	9.25
8	12/11/2001	19:00:00	10.68	12.07	1.43	9.25
9	12/11/2001	20:00:00	10.69	12.1	1.43	9.26
10	12/11/2001	21:00:00	10.72	12.09	1.43	9.29
11	12/11/2001	22:00:00	10.7	12.09	1.43	9.27
12	12/11/2001	23:00:00	10.73	12.1	1.43	9.30
13	12/12/2001	0:00:00	10.73	12.12	1.43	9.30
14	12/12/2001	1:00:00	10.72	12.09	1.43	9.29
15	12/12/2001	2:00:00	10.72	12.09	1.43	9.29
16	12/12/2001	3:00:00	10.74	12.13	1.42	9.32
17	12/12/2001	4:00:00	10.73	12.15	1.42	9.31
18	12/12/2001	5:00:00	10.75	12.11	1.42	9.33
19	12/12/2001	6:00:00	10.75	12.1	1.42	9.33
20	12/12/2001	7:00:00	10.77	12.1	1.42	9.35
21	12/12/2001	8:00:00	10.78	12.07	1.42	9.36
22	12/12/2001	9:00:00	10.79	12.2	1.42	9.37
23	12/12/2001	10:00:00	10.78	12.11	1.42	9.36
24	12/12/2001	11:00:00	10.76	12.14	1.42	9.34
25	12/12/2001	12:00:00	10.73	12.12	1.41	9.32
26	12/12/2001	13:00:00	10.7	12.1	1.41	9.29
27	12/12/2001	14:00:00	10.67	12.12	1.41	9.26
28	12/12/2001	15:00:00	10.64	12.1	1.41	9.23
29	12/12/2001	16:00:00	10.64	12.09	1.41	9.23
30	12/12/2001	17:00:00	10.64	12.09	1.41	9.23
31	12/12/2001	18:00:00	10.61	12.07	1.41	9.20
32	12/12/2001	19:00:00	10.62	12.07	1.41	9.21
33	12/12/2001	20:00:00	10.64	12.08	1.41	9.23
34	12/12/2001	21:00:00	10.6	12.11	1.40	9.20
35	12/12/2001	22:00:00	10.59	12.08	1.40	9.19

36	12/12/2001	23:00:00	10.55	12.13	1.40	9.15
37	12/13/2001	0:00:00	10.53	12.18	1.40	9.13
38	12/13/2001	1:00:00	10.5	12.11	1.40	9.10
39	12/13/2001	2:00:00	10.47	12.12	1.40	9.07
40	12/13/2001	3:00:00	10.42	12.09	1.40	9.02
41	12/13/2001	4:00:00	10.39	12.08	1.40	8.99
42	12/13/2001	5:00:00	10.38	12.12	1.40	8.98
43	12/13/2001	6:00:00	10.35	12.13	1.40	8.95
44	12/13/2001	7:00:00	10.35	12.1	1.39	8.96
45	12/13/2001	8:00:00	10.33	12.11	1.39	8.94
46	12/13/2001	9:00:00	10.32	12.08	1.39	8.93
47	12/13/2001	10:00:00	10.31	12.12	1.39	8.92
48	12/13/2001	11:00:00	10.29	12.08	1.39	8.90
49	12/13/2001	12:00:00	10.26	12.08	1.39	8.87
50	12/13/2001	13:00:00	10.24	12.07	1.39	8.85
51	12/13/2001	14:00:00	10.21	12.08	1.39	8.82
52	12/13/2001	15:00:00	10.18	12.08	1.39	8.79
53	12/13/2001	16:00:00	10.2	12.12	1.38	8.82
54	12/13/2001	17:00:00	10.18	12.17	1.38	8.80
55	12/13/2001	18:00:00	10.21	12.1	1.38	8.83
56	12/13/2001	19:00:00	10.21	12.13	1.38	8.83
57	12/13/2001	20:00:00	10.19	12.08	1.38	8.81
58	12/13/2001	21:00:00	10.19	12.13	1.38	8.81
59	12/13/2001	22:00:00	10.16	12.06	1.38	8.78
60	12/13/2001	23:00:00	10.18	12.05	1.38	8.80
61	12/14/2001	0:00:00	10.19	12.07	1.38	8.81
62	12/14/2001	1:00:00	10.18	12.09	1.37	8.81
63	12/14/2001	2:00:00	10.19	12.1	1.37	8.82
64	12/14/2001	3:00:00	10.18	12.09	1.37	8.81
65	12/14/2001	4:00:00	10.18	12.09	1.37	8.81
66	12/14/2001	5:00:00	10.19	12.14	1.37	8.82
67	12/14/2001	6:00:00	10.19	12.12	1.37	8.82
68	12/14/2001	7:00:00	10.17	12.07	1.37	8.80
69	12/14/2001	8:00:00	10.18	12.1	1.37	8.81
70	12/14/2001	9:00:00	10.18	12.09	1.37	8.81
71	12/14/2001	10:00:00	10.15	12.19	1.37	8.78
72	12/14/2001	11:00:00	10.11	12.17	1.36	8.75
73	12/14/2001	12:00:00	10.09	12.07	1.36	8.73
74	12/14/2001	13:00:00	10.02	12.11	1.36	8.66
75	12/14/2001	14:00:00	10	12.18	1.36	8.64
76	12/14/2001	15:00:00	9.98	12.06	1.36	8.62
77	12/14/2001	16:00:00	9.96	12.04	1.36	8.60
78	12/14/2001	17:00:00	9.93	12.05	1.36	8.57
79	12/14/2001	18:00:00	9.93	12.07	1.36	8.57
80	12/14/2001	19:00:00	9.93	12.08	1.36	8.57
81	12/14/2001	20:00:00	9.9	12.21	1.35	8.55
82	12/14/2001	21:00:00	9.93	12.12	1.35	8.58
83	12/14/2001	22:00:00	9.94	12.03	1.35	8.59
84	12/14/2001	23:00:00	9.99	12.09	1.35	8.64
85	12/15/2001	0:00:00	10	12.09	1.35	8.65
86	12/15/2001	1:00:00	10.05	12.05	1.35	8.70
87	12/15/2001	2:00:00	10.09	12.07	1.35	8.74

88	12/15/2001	3:00:00	10.13	12.07	1.35	8.78
89	12/15/2001	4:00:00	10.15	12.06	1.35	8.80
90	12/15/2001	5:00:00	10.2	12.09	1.34	8.86
91	12/15/2001	6:00:00	10.26	12.09	1.34	8.92
92	12/15/2001	7:00:00	10.33	12.07	1.34	8.99
93	12/15/2001	8:00:00	10.38	12.08	1.34	9.04
94	12/15/2001	9:00:00	10.43	12.08	1.34	9.09
95	12/15/2001	10:00:00	10.44	12.11	1.34	9.10
96	12/15/2001	11:00:00	10.5	12.08	1.34	9.16
97	12/15/2001	12:00:00	10.5	12.09	1.34	9.16
98	12/15/2001	13:00:00	10.5	12.07	1.34	9.16
99	12/15/2001	14:00:00	10.5	12.05	1.34	9.16
100	12/15/2001	15:00:00	10.5	12.04	1.33	9.17
101	12/15/2001	16:00:00	10.54	12.14	1.33	9.21
102	12/15/2001	17:00:00	10.57	12.07	1.33	9.24
103	12/15/2001	18:00:00	10.62	12.07	1.33	9.29
104	12/15/2001	19:00:00	10.67	12.05	1.33	9.34
105	12/15/2001	20:00:00	10.66	12.07	1.33	9.33
106	12/15/2001	21:00:00	10.68	12.04	1.33	9.35
107	12/15/2001	22:00:00	10.66	12.01	1.33	9.33
108	12/15/2001	23:00:00	10.68	12.13	1.33	9.35
109	12/16/2001	0:00:00	10.66	12.04	1.32	9.34
110	12/16/2001	1:00:00	10.68	12.08	1.32	9.36
111	12/16/2001	2:00:00	10.66	12.05	1.32	9.34
112	12/16/2001	3:00:00	10.69	12.05	1.32	9.37
113	12/16/2001	4:00:00	10.69	12.06	1.32	9.37
114	12/16/2001	5:00:00	10.73	12.16	1.32	9.41
115	12/16/2001	6:00:00	10.72	12.01	1.32	9.40
116	12/16/2001	7:00:00	10.72	12.05	1.32	9.40
117	12/16/2001	8:00:00	10.75	12.04	1.32	9.43
118	12/16/2001	9:00:00	10.76	12.17	1.31	9.45
119	12/16/2001	10:00:00	10.73	12.08	1.31	9.42
120	12/16/2001	11:00:00	10.73	12.07	1.31	9.42
121	12/16/2001	12:00:00	10.69	12.21	1.31	9.38
122	12/16/2001	13:00:00	10.66	12.07	1.31	9.35
123	12/16/2001	14:00:00	10.63	12.02	1.31	9.32
124	12/16/2001	15:00:00	10.65	12.08	1.31	9.34
125	12/16/2001	16:00:00	10.63	12.1	1.31	9.32
126	12/16/2001	17:00:00	10.64	12.17	1.31	9.33
127	12/16/2001	18:00:00	10.61	12.19	1.31	9.30
128	12/16/2001	19:00:00	10.6	12.05	1.30	9.30
129	12/16/2001	20:00:00	10.63	12.09	1.30	9.33
130	12/16/2001	21:00:00	10.59	12.1	1.30	9.29
131	12/16/2001	22:00:00	10.57	12.01	1.30	9.27
132	12/16/2001	23:00:00	10.55	12.17	1.30	9.25
133	12/17/2001	0:00:00	10.52	12.03	1.30	9.22
134	12/17/2001	1:00:00	10.5	12.1	1.30	9.20
135	12/17/2001	2:00:00	10.48	12.1	1.30	9.18
136	12/17/2001	3:00:00	10.46	12.05	1.30	9.16
137	12/17/2001	4:00:00	10.43	12.01	1.29	9.14
138	12/17/2001	5:00:00	10.39	12.01	1.29	9.10
139	12/17/2001	6:00:00	10.39	12.04	1.29	9.10

140	12/17/2001	7:00:00	10.37	12.07	1.29	9.08
141	12/17/2001	8:00:00	10.36	12.05	1.29	9.07
142	12/17/2001	9:00:00	10.31	12	1.29	9.02
143	12/17/2001	10:00:00	10.29	12	1.29	9.00
144	12/17/2001	11:00:00	10.24	12.14	1.29	8.95
145	12/17/2001	12:00:00	10.17	12.01	1.29	8.88
146	12/17/2001	13:00:00	10.12	12.05	1.28	8.84
147	12/17/2001	14:00:00	10.05	12.01	1.28	8.77
148	12/17/2001	15:00:00	10	12.01	1.28	8.72
149	12/17/2001	16:00:00	9.96	12.02	1.28	8.68
150	12/17/2001	17:00:00	9.96	12.05	1.28	8.68
151	12/17/2001	18:00:00	9.9	12.04	1.28	8.62
152	12/17/2001	19:00:00	9.87	12.05	1.28	8.59
153	12/17/2001	20:00:00	9.83	12.17	1.28	8.55
154	12/17/2001	21:00:00	9.79	12.07	1.28	8.51
155	12/17/2001	22:00:00	9.76	12.09	1.28	8.48
156	12/17/2001	23:00:00	9.67	12.05	1.27	8.40
157	12/18/2001	0:00:00	9.65	12.07	1.27	8.38
158	12/18/2001	1:00:00	9.6	12	1.27	8.33
159	12/18/2001	2:00:00	9.53	12.01	1.27	8.26
160	12/18/2001	3:00:00	9.47	12.12	1.27	8.20
161	12/18/2001	4:00:00	9.43	12.02	1.27	8.16
162	12/18/2001	5:00:00	9.41	12.01	1.27	8.14
163	12/18/2001	6:00:00	9.47	12	1.27	8.20
164	12/18/2001	7:00:00	9.51	12.05	1.27	8.24
165	12/18/2001	8:00:00	9.58	12.07	1.26	8.32
166	12/18/2001	9:00:00	9.63	11.97	1.26	8.37
167	12/18/2001	10:00:00	9.67	12.04	1.26	8.41
168	12/18/2001	11:00:00	9.7	11.97	1.26	8.44
169	12/18/2001	12:00:00	9.7	12.01	1.26	8.44
170	12/18/2001	13:00:00	9.74	12.03	1.26	8.48
171	12/18/2001	14:00:00	9.74	11.99	1.26	8.48
172	12/18/2001	15:00:00	9.77	12.01	1.26	8.51
173	12/18/2001	16:00:00	9.82	12.04	1.26	8.56
174	12/18/2001	17:00:00	9.86	12.02	1.25	8.61
175	12/18/2001	18:00:00	9.87	12.01	1.25	8.62
176	12/18/2001	19:00:00	9.9	12.09	1.25	8.65
177	12/18/2001	20:00:00	9.91	11.99	1.25	8.66
178	12/18/2001	21:00:00	9.95	12.16	1.25	8.70
179	12/18/2001	22:00:00	9.96	11.97	1.25	8.71
180	12/18/2001	23:00:00	9.98	12.03	1.25	8.73
181	12/19/2001	0:00:00	9.99	11.97	1.25	8.74
182	12/19/2001	1:00:00	10	11.99	1.25	8.75
183	12/19/2001	2:00:00	10.04	12.03	1.25	8.79
184	12/19/2001	3:00:00	10.06	11.99	1.24	8.82
185	12/19/2001	4:00:00	10.06	12.11	1.24	8.82
186	12/19/2001	5:00:00	10.08	11.99	1.24	8.84
187	12/19/2001	6:00:00	10.08	12.01	1.24	8.84
188	12/19/2001	7:00:00	10.09	12.01	1.24	8.85
189	12/19/2001	8:00:00	10.11	12	1.24	8.87
190	12/19/2001	9:00:00	10.13	12.03	1.24	8.89
191	12/19/2001	10:00:00	10.12	11.96	1.24	8.88

192	12/19/2001	11:00:00	10.08	12.02	1.24	8.84
193	12/19/2001	12:00:00	10.05	12	1.23	8.82
194	12/19/2001	13:00:00	10.04	11.97	1.23	8.81
195	12/19/2001	14:00:00	10	12	1.23	8.77
196	12/19/2001	15:00:00	10	12.02	1.23	8.77
197	12/19/2001	16:00:00	9.98	12.05	1.23	8.75
198	12/19/2001	17:00:00	9.95	11.99	1.23	8.72
199	12/19/2001	18:00:00	9.95	11.95	1.23	8.72
200	12/19/2001	19:00:00	9.94	12.01	1.23	8.71
201	12/19/2001	20:00:00	9.93	11.97	1.23	8.70
202	12/19/2001	21:00:00	9.91	12.03	1.22	8.69
203	12/19/2001	22:00:00	9.89	11.99	1.22	8.67
204	12/19/2001	23:00:00	9.87	12.13	1.22	8.65
205	12/20/2001	0:00:00	9.86	12.01	1.22	8.64
206	12/20/2001	1:00:00	9.84	12	1.22	8.62
207	12/20/2001	2:00:00	9.84	11.98	1.22	8.62
208	12/20/2001	3:00:00	9.84	11.97	1.22	8.62
209	12/20/2001	4:00:00	9.85	12.12	1.22	8.63
210	12/20/2001	5:00:00	9.88	11.99	1.22	8.66
211	12/20/2001	6:00:00	9.93	12	1.22	8.71
212	12/20/2001	7:00:00	9.92	11.94	1.21	8.71
213	12/20/2001	8:00:00	9.97	11.99	1.21	8.76
214	12/20/2001	9:00:00	10.02	11.97	1.21	8.81
215	12/20/2001	10:00:00	10.04	12.01	1.21	8.83
216	12/20/2001	11:00:00	10.05	11.99	1.21	8.84
217	12/20/2001	12:00:00	10.01	11.93	1.21	8.80
218	12/20/2001	13:00:00	10.01	12.03	1.21	8.80
219	12/20/2001	14:00:00	10.02	11.97	1.21	8.81
220	12/20/2001	15:00:00	10.05	11.97	1.21	8.84
221	12/20/2001	16:00:00	10.07	11.99	1.20	8.87
222	12/20/2001	17:00:00	10.09	12.01	1.20	8.89
223	12/20/2001	18:00:00	10.1	12.01	1.20	8.90
224	12/20/2001	19:00:00	10.1	11.99	1.20	8.90
225	12/20/2001	20:00:00	10.11	12.05	1.20	8.91
226	12/20/2001	21:00:00	10.09	12.05	1.20	8.89
227	12/20/2001	22:00:00	10.08	11.97	1.20	8.88
228	12/20/2001	23:00:00	10.08	11.96	1.20	8.88
229	12/21/2001	0:00:00	10.08	11.95	1.20	8.88
230	12/21/2001	1:00:00	10.08	12.01	1.19	8.89
231	12/21/2001	2:00:00	10.08	11.97	1.19	8.89
232	12/21/2001	3:00:00	10.12	11.96	1.19	8.93
233	12/21/2001	4:00:00	10.13	12	1.19	8.94
234	12/21/2001	5:00:00	10.16	12.07	1.19	8.97
235	12/21/2001	6:00:00	10.15	11.97	1.19	8.96
236	12/21/2001	7:00:00	10.18	11.94	1.19	8.99
237	12/21/2001	8:00:00	10.21	12.07	1.19	9.02
238	12/21/2001	9:00:00	10.23	11.93	1.19	9.04
239	12/21/2001	10:00:00	10.24	12.02	1.19	9.05
240	12/21/2001	11:00:00	10.24	11.98	1.18	9.06
241	12/21/2001	12:00:00	10.23	12	1.18	9.05
242	12/21/2001	13:00:00	10.23	11.92	1.18	9.05
243	12/21/2001	14:00:00	10.24	12.05	1.18	9.06

244	12/21/2001	15:00:00	10.29	11.96	1.18	9.11
245	12/21/2001	16:00:00	10.3	11.93	1.18	9.12
246	12/21/2001	17:00:00	10.34	11.94	1.18	9.16
247	12/21/2001	18:00:00	10.37	11.98	1.18	9.19
248	12/21/2001	19:00:00	10.4	11.96	1.18	9.22
249	12/21/2001	20:00:00	10.42	11.96	1.17	9.25
250	12/21/2001	21:00:00	10.45	11.99	1.17	9.28
251	12/21/2001	22:00:00	10.44	11.95	1.17	9.27
252	12/21/2001	23:00:00	10.46	11.97	1.17	9.29
253	12/22/2001	0:00:00	10.47	11.99	1.17	9.30
254	12/22/2001	1:00:00	10.49	11.93	1.17	9.32
255	12/22/2001	2:00:00	10.5	12.01	1.17	9.33
256	12/22/2001	3:00:00	10.52	11.96	1.17	9.35
257	12/22/2001	4:00:00	10.53	11.94	1.17	9.36
258	12/22/2001	5:00:00	10.54	12.09	1.17	9.37
259	12/22/2001	6:00:00	10.54	12.09	1.16	9.38
260	12/22/2001	7:00:00	10.55	11.94	1.16	9.39
261	12/22/2001	8:00:00	10.57	11.94	1.16	9.41
262	12/22/2001	9:00:00	10.6	12	1.16	9.44
263	12/22/2001	10:00:00	10.61	11.99	1.16	9.45
264	12/22/2001	11:00:00	10.58	12	1.16	9.42
265	12/22/2001	12:00:00	10.56	11.93	1.16	9.40
266	12/22/2001	13:00:00	10.53	11.95	1.16	9.37
267	12/22/2001	14:00:00	10.53	12.05	1.16	9.37
268	12/22/2001	15:00:00	10.5	11.94	1.15	9.35
269	12/22/2001	16:00:00	10.51	11.97	1.15	9.36
270	12/22/2001	17:00:00	10.5	11.97	1.15	9.35
271	12/22/2001	18:00:00	10.51	12.07	1.15	9.36
272	12/22/2001	19:00:00	10.48	11.93	1.15	9.33
273	12/22/2001	20:00:00	10.48	12	1.15	9.33
274	12/22/2001	21:00:00	10.49	11.96	1.15	9.34
275	12/22/2001	22:00:00	10.48	12.01	1.15	9.33
276	12/22/2001	23:00:00	10.46	11.99	1.15	9.31
277	12/23/2001	0:00:00	10.44	12.05	1.14	9.30
278	12/23/2001	1:00:00	10.42	12	1.14	9.28
279	12/23/2001	2:00:00	10.43	12.03	1.14	9.29
280	12/23/2001	3:00:00	10.4	11.93	1.14	9.26
281	12/23/2001	4:00:00	10.38	11.99	1.14	9.24
282	12/23/2001	5:00:00	10.39	11.92	1.14	9.25
283	12/23/2001	6:00:00	10.35	11.92	1.14	9.21
284	12/23/2001	7:00:00	10.33	11.97	1.14	9.19
285	12/23/2001	8:00:00	10.33	11.98	1.14	9.19
286	12/23/2001	9:00:00	10.33	11.96	1.14	9.19
287	12/23/2001	10:00:00	10.3	11.91	1.13	9.17
288	12/23/2001	11:00:00	10.26	11.96	1.13	9.13
289	12/23/2001	12:00:00	10.19	11.91	1.13	9.06
290	12/23/2001	13:00:00	10.16	11.89	1.13	9.03
291	12/23/2001	14:00:00	10.14	12.05	1.13	9.01
292	12/23/2001	15:00:00	10.14	11.98	1.13	9.01
293	12/23/2001	16:00:00	10.12	12.06	1.13	8.99
294	12/23/2001	17:00:00	10.09	11.95	1.13	8.96
295	12/23/2001	18:00:00	10.08	12.05	1.13	8.95

296	12/23/2001	19:00:00	10.06	11.89	1.12	8.94
297	12/23/2001	20:00:00	10.02	11.91	1.12	8.90
298	12/23/2001	21:00:00	9.99	11.89	1.12	8.87
299	12/23/2001	22:00:00	9.96	11.89	1.12	8.84
300	12/23/2001	23:00:00	9.91	12.02	1.12	8.79
301	12/24/2001	0:00:00	9.93	11.92	1.12	8.81
302	12/24/2001	1:00:00	9.88	11.88	1.12	8.76
303	12/24/2001	2:00:00	9.89	12.01	1.12	8.77
304	12/24/2001	3:00:00	9.88	11.92	1.12	8.76
305	12/24/2001	4:00:00	9.87	11.98	1.11	8.76
306	12/24/2001	5:00:00	9.88	11.87	1.11	8.77
307	12/24/2001	6:00:00	9.89	12.02	1.11	8.78
308	12/24/2001	7:00:00	9.87	11.89	1.11	8.76
309	12/24/2001	8:00:00	9.92	11.97	1.11	8.81
310	12/24/2001	9:00:00	9.92	11.94	1.11	8.81
311	12/24/2001	10:00:00	9.91	11.93	1.11	8.80
312	12/24/2001	11:00:00	9.89	11.93	1.11	8.78
313	12/24/2001	12:00:00	9.87	12.01	1.11	8.76
314	12/24/2001	13:00:00	9.87	12.04	1.11	8.76
315	12/24/2001	14:00:00	9.87	11.91	1.10	8.77
316	12/24/2001	15:00:00	9.87	11.86	1.10	8.77
317	12/24/2001	16:00:00	9.87	11.93	1.10	8.77
318	12/24/2001	17:00:00	9.89	11.93	1.10	8.79
319	12/24/2001	18:00:00	9.92	11.89	1.10	8.82
320	12/24/2001	19:00:00	9.94	11.92	1.10	8.84
321	12/24/2001	20:00:00	9.98	11.87	1.10	8.88
322	12/24/2001	21:00:00	10.01	11.89	1.10	8.91
323	12/24/2001	22:00:00	10.01	11.93	1.10	8.91
324	12/24/2001	23:00:00	10.01	12.05	1.09	8.92
325	12/25/2001	0:00:00	10.01	11.89	1.09	8.92
326	12/25/2001	1:00:00	10.04	11.88	1.09	8.95
327	12/25/2001	2:00:00	10.06	11.86	1.09	8.97
328	12/25/2001	3:00:00	10.05	11.99	1.09	8.96
329	12/25/2001	4:00:00	10.07	11.88	1.09	8.98
330	12/25/2001	5:00:00	10.1	11.87	1.09	9.01
331	12/25/2001	6:00:00	10.1	11.86	1.09	9.01
332	12/25/2001	7:00:00	10.12	11.85	1.09	9.03
333	12/25/2001	8:00:00	10.16	11.89	1.08	9.08
334	12/25/2001	9:00:00	10.18	11.88	1.08	9.10
335	12/25/2001	10:00:00	10.16	11.85	1.08	9.08
336	12/25/2001	11:00:00	10.14	11.83	1.08	9.06
337	12/25/2001	12:00:00	10.1	11.88	1.08	9.02
338	12/25/2001	13:00:00	10.11	11.89	1.08	9.03
339	12/25/2001	14:00:00	10.09	11.85	1.08	9.01
340	12/25/2001	15:00:00	10.07	11.85	1.08	8.99
341	12/25/2001	16:00:00	10.08	11.83	1.08	9.00
342	12/25/2001	17:00:00	10.07	11.87	1.08	8.99
343	12/25/2001	18:00:00	10.09	12.01	1.07	9.02
344	12/25/2001	19:00:00	10.11	11.85	1.07	9.04
345	12/25/2001	20:00:00	10.12	11.87	1.07	9.05
346	12/25/2001	21:00:00	10.11	11.87	1.07	9.04
347	12/25/2001	22:00:00	10.11	11.85	1.07	9.04

348	12/25/2001	23:00:00	10.11	11.86	1.07	9.04
349	12/26/2001	0:00:00	10.08	11.89	1.07	9.01
350	12/26/2001	1:00:00	10.06	11.79	1.07	8.99
351	12/26/2001	2:00:00	10.05	11.85	1.07	8.98
352	12/26/2001	3:00:00	10.03	11.93	1.06	8.97
353	12/26/2001	4:00:00	9.99	11.85	1.06	8.93
354	12/26/2001	5:00:00	9.99	11.84	1.06	8.93
355	12/26/2001	6:00:00	9.99	11.93	1.06	8.93
356	12/26/2001	7:00:00	10.01	11.83	1.06	8.95
357	12/26/2001	8:00:00	10.03	11.96	1.06	8.97
358	12/26/2001	9:00:00	10	11.89	1.06	8.94
359	12/26/2001	10:00:00	9.95	11.87	1.06	8.89
360	12/26/2001	11:00:00	9.92	12.01	1.06	8.86
361	12/26/2001	12:00:00	9.89	11.81	1.05	8.84
362	12/26/2001	13:00:00	9.85	11.85	1.05	8.80
363	12/26/2001	14:00:00	9.83	11.83	1.05	8.78
364	12/26/2001	15:00:00	9.81	11.86	1.05	8.76
365	12/26/2001	16:00:00	9.8	11.87	1.05	8.75
366	12/26/2001	17:00:00	9.78	11.86	1.05	8.73
367	12/26/2001	18:00:00	9.78	11.83	1.05	8.73
368	12/26/2001	19:00:00	9.79	11.81	1.05	8.74
369	12/26/2001	20:00:00	9.8	11.84	1.05	8.75
370	12/26/2001	21:00:00	9.8	11.88	1.05	8.75
371	12/26/2001	22:00:00	9.81	11.88	1.04	8.77
372	12/26/2001	23:00:00	9.82	11.81	1.04	8.78
373	12/27/2001	0:00:00	9.81	11.95	1.04	8.77
374	12/27/2001	1:00:00	9.8	11.96	1.04	8.76
375	12/27/2001	2:00:00	9.8	11.83	1.04	8.76
376	12/27/2001	3:00:00	9.8	11.78	1.04	8.76
377	12/27/2001	4:00:00	9.78	11.83	1.04	8.74
378	12/27/2001	5:00:00	9.77	11.79	1.04	8.73
379	12/27/2001	6:00:00	9.77	11.85	1.04	8.73
380	12/27/2001	7:00:00	9.81	11.8	1.03	8.78
381	12/27/2001	8:00:00	9.81	11.81	1.03	8.78
382	12/27/2001	9:00:00	9.83	11.89	1.03	8.80
383	12/27/2001	10:00:00	9.8	11.81	1.03	8.77
384	12/27/2001	11:00:00	9.79	11.89	1.03	8.76
385	12/27/2001	12:00:00	9.76	11.79	1.03	8.73
386	12/27/2001	13:00:00	9.73	11.97	1.03	8.70
387	12/27/2001	14:00:00	9.74	11.81	1.03	8.71
388	12/27/2001	15:00:00	9.74	11.94	1.03	8.71
389	12/27/2001	16:00:00	9.74	11.77	1.02	8.72
390	12/27/2001	17:00:00	9.77	11.79	1.02	8.75
391	12/27/2001	18:00:00	9.77	11.73	1.02	8.75
392	12/27/2001	19:00:00	9.79	11.76	1.02	8.77
393	12/27/2001	20:00:00	9.81	11.81	1.02	8.79
394	12/27/2001	21:00:00	9.81	11.85	1.02	8.79
395	12/27/2001	22:00:00	9.82	11.81	1.02	8.80
396	12/27/2001	23:00:00	9.83	11.77	1.02	8.81
397	12/28/2001	0:00:00	9.85	11.81	1.02	8.83
398	12/28/2001	1:00:00	9.83	11.91	1.02	8.81
399	12/28/2001	2:00:00	9.84	11.77	1.01	8.83

400	12/28/2001	3:00:00	9.84	11.76	1.01	8.83
401	12/28/2001	4:00:00	9.81	11.77	1.01	8.80
402	12/28/2001	5:00:00	9.81	11.79	1.01	8.80
403	12/28/2001	6:00:00	9.82	11.75	1.01	8.81
404	12/28/2001	7:00:00	9.79	11.75	1.01	8.78
405	12/28/2001	8:00:00	9.81	11.85	1.01	8.80
406	12/28/2001	9:00:00	9.81	11.75	1.01	8.80
407	12/28/2001	10:00:00	9.77	11.85	1.01	8.76
408	12/28/2001	11:00:00	9.75	11.81	1.00	8.75
409	12/28/2001	12:00:00	9.7	11.83	1.00	8.70
410	12/28/2001	13:00:00	9.67	11.87	1.00	8.67
411	12/28/2001	14:00:00	9.65	11.72	1.00	8.65
412	12/28/2001	15:00:00	9.65	11.81	1.00	8.65
413	12/28/2001	16:00:00	9.64	11.89	1.00	8.64
414	12/28/2001	17:00:00	9.67	11.86	1.00	8.67
415	12/28/2001	18:00:00	9.71	11.81	1.00	8.71
416	12/28/2001	19:00:00	9.73	11.75	1.00	8.73
417	12/28/2001	20:00:00	9.77	11.74	0.99	8.78
418	12/28/2001	21:00:00	9.77	11.77	0.99	8.78
419	12/28/2001	22:00:00	9.78	11.7	0.99	8.79
420	12/28/2001	23:00:00	9.77	11.92	0.99	8.78
421	12/29/2001	0:00:00	9.78	11.8	0.99	8.79
422	12/29/2001	1:00:00	9.78	11.86	0.99	8.79
423	12/29/2001	2:00:00	9.81	11.94	0.99	8.82
424	12/29/2001	3:00:00	9.8	11.68	0.99	8.81
425	12/29/2001	4:00:00	9.81	11.8	0.99	8.82
426	12/29/2001	5:00:00	9.78	11.75	0.99	8.79
427	12/29/2001	6:00:00	9.79	11.91	0.98	8.81
428	12/29/2001	7:00:00	9.78	11.75	0.98	8.80
429	12/29/2001	8:00:00	9.78	11.69	0.98	8.80
430	12/29/2001	9:00:00	9.78	11.89	0.98	8.80
431	12/29/2001	10:00:00	9.81	11.87	0.98	8.83
432	12/29/2001	11:00:00	9.79	11.89	0.98	8.81
433	12/29/2001	12:00:00	9.75	11.68	0.98	8.77
434	12/29/2001	13:00:00	9.74	11.7	0.98	8.76
435	12/29/2001	14:00:00	9.74	11.87	0.98	8.76
436	12/29/2001	15:00:00	9.76	11.69	0.97	8.79
437	12/29/2001	16:00:00	9.78	11.7	0.97	8.81
438	12/29/2001	17:00:00	9.82	11.79	0.97	8.85
439	12/29/2001	18:00:00	9.87	11.87	0.97	8.90
440	12/29/2001	19:00:00	9.9	11.89	0.97	8.93
441	12/29/2001	20:00:00	9.94	11.7	0.97	8.97
442	12/29/2001	21:00:00	9.95	11.83	0.97	8.98
443	12/29/2001	22:00:00	9.96	11.7	0.97	8.99
444	12/29/2001	23:00:00	9.97	11.67	0.97	9.00
445	12/30/2001	0:00:00	9.97	11.87	0.96	9.01
446	12/30/2001	1:00:00	9.98	11.81	0.96	9.02
447	12/30/2001	2:00:00	10.01	11.81	0.96	9.05
448	12/30/2001	3:00:00	10.03	11.72	0.96	9.07
449	12/30/2001	4:00:00	10.05	11.85	0.96	9.09
450	12/30/2001	5:00:00	10.05	11.77	0.96	9.09
451	12/30/2001	6:00:00	10.06	11.67	0.96	9.10

452	12/30/2001	7:00:00	10.08	11.75	0.96	9.12
453	12/30/2001	8:00:00	10.09	11.84	0.96	9.13
454	12/30/2001	9:00:00	10.12	11.75	0.96	9.16
455	12/30/2001	10:00:00	10.13	11.66	0.95	9.18
456	12/30/2001	11:00:00	10.12	11.71	0.95	9.17
457	12/30/2001	12:00:00	10.09	11.84	0.95	9.14
458	12/30/2001	13:00:00	10.08	11.71	0.95	9.13
459	12/30/2001	14:00:00	10.07	11.83	0.95	9.12
460	12/30/2001	15:00:00	10.08	11.79	0.95	9.13
461	12/30/2001	16:00:00	10.09	11.75	0.95	9.14
462	12/30/2001	17:00:00	10.08	11.66	0.95	9.13
463	12/30/2001	18:00:00	10.11	11.84	0.95	9.16
464	12/30/2001	19:00:00	10.12	11.64	0.94	9.18
465	12/30/2001	20:00:00	10.15	11.62	0.94	9.21
466	12/30/2001	21:00:00	10.15	11.69	0.94	9.21
467	12/30/2001	22:00:00	10.15	11.81	0.94	9.21
468	12/30/2001	23:00:00	10.17	11.87	0.94	9.23
469	12/31/2001	0:00:00	10.16	11.79	0.94	9.22
470	12/31/2001	1:00:00	10.16	11.73	0.94	9.22
471	12/31/2001	2:00:00	10.18	11.81	0.94	9.24
472	12/31/2001	3:00:00	10.22	11.68	0.94	9.28
473	12/31/2001	4:00:00	10.17	11.65	0.93	9.24
474	12/31/2001	5:00:00	10.17	11.79	0.93	9.24
475	12/31/2001	6:00:00	10.19	11.62	0.93	9.26
476	12/31/2001	7:00:00	10.18	11.75	0.93	9.25
477	12/31/2001	8:00:00	10.21	11.62	0.93	9.28
478	12/31/2001	9:00:00	10.23	11.75	0.93	9.30
479	12/31/2001	10:00:00	10.23	11.83	0.93	9.30
480	12/31/2001	11:00:00	10.2	11.81	0.93	9.27
481	12/31/2001	12:00:00	10.17	11.64	0.93	9.24
482	12/31/2001	13:00:00	10.15	11.76	0.93	9.22
483	12/31/2001	14:00:00	10.14	11.61	0.92	9.22
484	12/31/2001	15:00:00	10.12	11.63	0.92	9.20
485	12/31/2001	16:00:00	10.12	11.6	0.92	9.20
486	12/31/2001	17:00:00	10.14	11.59	0.92	9.22
487	12/31/2001	18:00:00	10.18	11.61	0.92	9.26
488	12/31/2001	19:00:00	10.18	11.61	0.92	9.26
489	12/31/2001	20:00:00	10.19	11.61	0.92	9.27
490	12/31/2001	21:00:00	10.18	11.81	0.92	9.26
491	12/31/2001	22:00:00	10.2	11.77	0.92	9.28
492	12/31/2001	23:00:00	10.17	11.62	0.91	9.26
493	01/01/2002	0:00:00	10.19	11.63	0.91	9.28
494	01/01/2002	1:00:00	10.2	11.79	0.91	9.29
495	01/01/2002	2:00:00	10.2	11.6	0.91	9.29
496	01/01/2002	3:00:00	10.21	11.6	0.91	9.30
497	01/01/2002	4:00:00	10.2	11.59	0.91	9.29
498	01/01/2002	5:00:00	10.19	11.61	0.91	9.28
499	01/01/2002	6:00:00	10.21	11.59	0.91	9.30
500	01/01/2002	7:00:00	10.23	11.75	0.91	9.32
501	01/01/2002	8:00:00	10.24	11.62	0.91	9.34
502	01/01/2002	9:00:00	10.26	11.75	0.90	9.36
503	01/01/2002	10:00:00	10.27	11.64	0.90	9.37

504	01/01/2002	11:00:00	10.26	11.66	0.90	9.36
505	01/01/2002	12:00:00	10.23	11.63	0.90	9.33
506	01/01/2002	13:00:00	10.22	11.58	0.90	9.32
507	01/01/2002	14:00:00	10.22	11.6	0.90	9.32
508	01/01/2002	15:00:00	10.23	11.6	0.90	9.33
509	01/01/2002	16:00:00	10.24	11.6	0.90	9.34
510	01/01/2002	17:00:00	10.26	11.59	0.90	9.36
511	01/01/2002	18:00:00	10.28	11.59	0.89	9.39
512	01/01/2002	19:00:00	10.31	11.61	0.89	9.42
513	01/01/2002	20:00:00	10.34	11.75	0.89	9.45
514	01/01/2002	21:00:00	10.34	11.64	0.89	9.45
515	01/01/2002	22:00:00	10.37	11.59	0.89	9.48
516	01/01/2002	23:00:00	10.36	11.73	0.89	9.47
517	01/02/2002	0:00:00	10.36	11.57	0.89	9.47
518	01/02/2002	1:00:00	10.38	11.63	0.89	9.49
519	01/02/2002	2:00:00	10.38	11.52	0.89	9.49
520	01/02/2002	3:00:00	10.43	11.66	0.88	9.55
521	01/02/2002	4:00:00	10.4	11.73	0.88	9.52
522	01/02/2002	5:00:00	10.43	11.67	0.88	9.55
523	01/02/2002	6:00:00	10.42	11.59	0.88	9.54
524	01/02/2002	7:00:00	10.43	11.56	0.88	9.55
525	01/02/2002	8:00:00	10.46	11.65	0.88	9.58
526	01/02/2002	9:00:00	10.48	11.55	0.88	9.60
527	01/02/2002	10:00:00	10.47	11.55	0.88	9.59
528	01/02/2002	11:00:00	10.46	11.55	0.88	9.58
529	01/02/2002	12:00:00	10.43	11.7	0.88	9.55
530	01/02/2002	13:00:00	10.39	11.57	0.87	9.52
531	01/02/2002	14:00:00	10.37	11.75	0.87	9.50
532	01/02/2002	15:00:00	10.35	11.7	0.87	9.48
533	01/02/2002	16:00:00	10.36	11.71	0.87	9.49
534	01/02/2002	17:00:00	10.35	11.66	0.87	9.48
535	01/02/2002	18:00:00	10.36	11.6	0.87	9.49
536	01/02/2002	19:00:00	10.36	11.73	0.87	9.49
537	01/02/2002	20:00:00	10.33	11.73	0.87	9.46
538	01/02/2002	21:00:00	10.34	11.8	0.87	9.47
539	01/02/2002	22:00:00	10.29	11.78	0.86	9.43
540	01/02/2002	23:00:00	10.32	11.57	0.86	9.46
541	01/03/2002	0:00:00	10.29	11.65	0.86	9.43
542	01/03/2002	1:00:00	10.26	11.55	0.86	9.40
543	01/03/2002	2:00:00	10.27	11.69	0.86	9.41
544	01/03/2002	3:00:00	10.2	11.71	0.86	9.34
545	01/03/2002	4:00:00	10.22	11.69	0.86	9.36
546	01/03/2002	5:00:00	10.22	11.52	0.86	9.36
547	01/03/2002	6:00:00	10.19	11.62	0.86	9.33
548	01/03/2002	7:00:00	10.19	11.58	0.85	9.34
549	01/03/2002	8:00:00	10.22	11.65	0.85	9.37
550	01/03/2002	9:00:00	10.21	11.67	0.85	9.36
551	01/03/2002	10:00:00	10.18	11.48	0.85	9.33
552	01/03/2002	11:00:00	10.14	11.71	0.85	9.29
553	01/03/2002	12:00:00	10.1	11.58	0.85	9.25
554	01/03/2002	13:00:00	10.04	11.51	0.85	9.19
555	01/03/2002	14:00:00	10.02	11.52	0.85	9.17

556	01/03/2002	15:00:00	10.01	11.63	0.85	9.16
557	01/03/2002	16:00:00	10	11.5	0.85	9.15
558	01/03/2002	17:00:00	10.01	11.7	0.84	9.17
559	01/03/2002	18:00:00	10.02	11.48	0.84	9.18
560	01/03/2002	19:00:00	10.03	11.65	0.84	9.19
561	01/03/2002	20:00:00	10.04	11.48	0.84	9.20
562	01/03/2002	21:00:00	10.06	11.59	0.84	9.22
563	01/03/2002	22:00:00	10.05	11.52	0.84	9.21
564	01/03/2002	23:00:00	10.07	11.4	0.84	9.23
565	01/04/2002	0:00:00	10.05	11.48	0.84	9.21
566	01/04/2002	1:00:00	10.03	11.47	0.84	9.19
567	01/04/2002	2:00:00	10.05	11.48	0.83	9.22
568	01/04/2002	3:00:00	10.09	11.63	0.83	9.26
569	01/04/2002	4:00:00	10.08	11.49	0.83	9.25
570	01/04/2002	5:00:00	10.13	11.6	0.83	9.30
571	01/04/2002	6:00:00	10.15	11.55	0.83	9.32
572	01/04/2002	7:00:00	10.19	11.43	0.83	9.36
573	01/04/2002	8:00:00	10.21	11.65	0.83	9.38
574	01/04/2002	9:00:00	10.24	11.51	0.83	9.41
575	01/04/2002	10:00:00	10.26	11.46	0.83	9.43
576	01/04/2002	11:00:00	10.25	11.45	0.82	9.43
577	01/04/2002	12:00:00	10.23	11.55	0.82	9.41
578	01/04/2002	13:00:00	10.2	11.59	0.82	9.38
579	01/04/2002	14:00:00	10.19	11.46	0.82	9.37
580	01/04/2002	15:00:00	10.19	11.57	0.82	9.37
581	01/04/2002	16:00:00	10.2	11.57	0.82	9.38
582	01/04/2002	17:00:00	10.2	11.61	0.82	9.38
583	01/04/2002	18:00:00	10.2	11.67	0.82	9.38
584	01/04/2002	19:00:00	10.21	11.64	0.82	9.39
585	01/04/2002	20:00:00	10.21	11.43	0.82	9.39
586	01/04/2002	21:00:00	10.2	11.52	0.81	9.39
587	01/04/2002	22:00:00	10.23	11.62	0.81	9.42
588	01/04/2002	23:00:00	10.21	11.57	0.81	9.40
589	01/05/2002	0:00:00	10.19	11.53	0.81	9.38
590	01/05/2002	1:00:00	10.22	11.55	0.81	9.41
591	01/05/2002	2:00:00	10.22	11.46	0.81	9.41
592	01/05/2002	3:00:00	10.23	11.68	0.81	9.42
593	01/05/2002	4:00:00	10.22	11.47	0.81	9.41
594	01/05/2002	5:00:00	10.22	11.46	0.81	9.41
595	01/05/2002	6:00:00	10.23	11.47	0.80	9.43
596	01/05/2002	7:00:00	10.24	11.63	0.80	9.44
597	01/05/2002	8:00:00	10.25	11.63	0.80	9.45
598	01/05/2002	9:00:00	10.26	11.52	0.80	9.46
599	01/05/2002	10:00:00	10.27	11.54	0.80	9.47
600	01/05/2002	11:00:00	10.26	11.58	0.80	9.46
601	01/05/2002	12:00:00	10.24	11.61	0.80	9.44
602	01/05/2002	13:00:00	10.2	11.63	0.80	9.40
603	01/05/2002	14:00:00	10.19	11.45	0.80	9.39
604	01/05/2002	15:00:00	10.17	11.6	0.79	9.38
605	01/05/2002	16:00:00	10.15	11.64	0.79	9.36
606	01/05/2002	17:00:00	10.15	11.45	0.79	9.36
607	01/05/2002	18:00:00	10.18	11.47	0.79	9.39

608	01/05/2002	19:00:00	10.18	11.35	0.79	9.39
609	01/05/2002	20:00:00	10.19	11.62	0.79	9.40
610	01/05/2002	21:00:00	10.16	11.35	0.79	9.37
611	01/05/2002	22:00:00	10.16	11.39	0.79	9.37
612	01/05/2002	23:00:00	10.13	11.49	0.79	9.34
613	01/06/2002	0:00:00	10.12	11.71	0.79	9.33
614	01/06/2002	1:00:00	10.12	11.56	0.78	9.34
615	01/06/2002	2:00:00	10.11	11.56	0.78	9.33
616	01/06/2002	3:00:00	10.1	11.54	0.78	9.32
617	01/06/2002	4:00:00	10.07	11.51	0.78	9.29
618	01/06/2002	5:00:00	10.06	11.6	0.78	9.28
619	01/06/2002	6:00:00	10.06	11.49	0.78	9.28
620	01/06/2002	7:00:00	10.06	11.55	0.78	9.28
621	01/06/2002	8:00:00	10.02	11.39	0.78	9.24
622	01/06/2002	9:00:00	10.01	11.41	0.78	9.23
623	01/06/2002	10:00:00	10.01	11.57	0.77	9.24
624	01/06/2002	11:00:00	9.95	11.41	0.77	9.18
625	01/06/2002	12:00:00	9.9	11.49	0.77	9.13
626	01/06/2002	13:00:00	9.85	11.52	0.77	9.08
627	01/06/2002	14:00:00	9.77	11.39	0.77	9.00
628	01/06/2002	15:00:00	9.67	11.58	0.77	8.90
629	01/06/2002	16:00:00	9.6	11.6	0.77	8.83
630	01/06/2002	17:00:00	9.56	11.52	0.77	8.79
631	01/06/2002	18:00:00	9.47	11.38	0.77	8.70
632	01/06/2002	19:00:00	9.5	11.34	0.76	8.74
633	01/06/2002	20:00:00	9.49	11.35	0.76	8.73
634	01/06/2002	21:00:00	9.49	11.63	0.76	8.73
635	01/06/2002	22:00:00	9.51	11.55	0.76	8.75
636	01/06/2002	23:00:00	9.49	11.43	0.76	8.73
637	01/07/2002	0:00:00	9.52	11.54	0.76	8.76
638	01/07/2002	1:00:00	9.53	11.5	0.76	8.77
639	01/07/2002	2:00:00	9.56	11.33	0.76	8.80
640	01/07/2002	3:00:00	9.58	11.52	0.76	8.82
641	01/07/2002	4:00:00	9.58	11.43	0.76	8.82
642	01/07/2002	5:00:00	9.58	11.51	0.75	8.83
643	01/07/2002	6:00:00	9.6	11.55	0.75	8.85
644	01/07/2002	7:00:00	9.62	11.58	0.75	8.87
645	01/07/2002	8:00:00	9.64	11.58	0.75	8.89
646	01/07/2002	9:00:00	9.65	11.35	0.75	8.90
647	01/07/2002	10:00:00	9.65	11.57	0.75	8.90
648	01/07/2002	11:00:00	9.65	11.43	0.75	8.90
649	01/07/2002	12:00:00	9.65	11.32	0.75	8.90
650	01/07/2002	13:00:00	9.64	11.42	0.75	8.89
651	01/07/2002	14:00:00	9.65	11.45	0.74	8.91
652	01/07/2002	15:00:00	9.66	11.39	0.74	8.92
653	01/07/2002	16:00:00	9.68	11.51	0.74	8.94
654	01/07/2002	17:00:00	9.71	11.5	0.74	8.97
655	01/07/2002	18:00:00	9.74	11.39	0.74	9.00
656	01/07/2002	19:00:00	9.76	11.4	0.74	9.02
657	01/07/2002	20:00:00	9.81	11.47	0.74	9.07
658	01/07/2002	21:00:00	9.81	11.51	0.74	9.07
659	01/07/2002	22:00:00	9.84	11.41	0.74	9.10

660	01/07/2002	23:00:00	9.86	11.29	0.73	9.13
661	01/08/2002	0:00:00	9.87	11.37	0.73	9.14
662	01/08/2002	1:00:00	9.91	11.51	0.73	9.18
663	01/08/2002	2:00:00	9.93	11.55	0.73	9.20
664	01/08/2002	3:00:00	9.97	11.35	0.73	9.24
665	01/08/2002	4:00:00	9.98	11.52	0.73	9.25
666	01/08/2002	5:00:00	10	11.29	0.73	9.27
667	01/08/2002	6:00:00	10.03	11.52	0.73	9.30
668	01/08/2002	7:00:00	10.05	11.33	0.73	9.32
669	01/08/2002	8:00:00	10.09	11.25	0.73	9.36
670	01/08/2002	9:00:00	10.09	11.29	0.72	9.37
671	01/08/2002	10:00:00	10.12	11.45	0.72	9.40
672	01/08/2002	11:00:00	10.11	11.52	0.72	9.39

A-3 PREMEABILITY TEST

KCE ENGINEERING, INC.

RECEIVED
JUN 21 2002
ES/WMP DIV.

STANCILLS INC. QUARRY
PERMEABILITY TESTS

On June 4, 2002, two soil test borings were installed in the overburden at the Stancills Inc. Quarry. The first test boring, designated Well No.1 was drilled to approximately 45 feet deep. The second boring (Well No. 2) was drilled to approximately 25 feet deep. Both test wells were installed and completed in accordance with American Society for Testing and Materials (ASTM) Standard D 6391 - 99. Four-inch diameter PVC casing was used to case the wells. No water was encountered during drilling of the test borings.

On June 5, 2002, vertical and horizontal permeability tests were conducted on the two test wells. Data was recorded in the field using the falling head method as specified in ASTM D 6391 - 99. This method was designed to determine permeability values that are the maximum possible in the vertical direction and the minimum possible for the horizontal direction.

Vertical permeability tests were conducted first. For the test on Well No. 2, the entire length of the PVC casing was filled with water. The temperature of the water was recorded in order to allow for kinematic viscosity adjustments in the calculations. The depth to water versus time was then recorded at various increments. For the vertical permeability test on Well No. 1, the PVC casing was filled to as high a depth as possible. It was not possible to fill the casing of Well No. 1 to its top due to a more permeable layer that was encountered at the bottom of this boring. Otherwise, the vertical permeability test proceeded in the same manner as for Well No. 2.

After completion of each vertical permeability test, the on-site drill rig was used to extend the depth of each test well below the bottom of the PVC casing. The wells were deepened within the inside diameter of the installed casing, to depths as specified in ASTM D 6391 - 99. Upon completion of deepening of the wells and removal of any residual water, horizontal permeability test data were obtained using the same procedures used for the vertical permeability tests.

Using the formulae in ASTM D 6391 - 99, vertical and horizontal permeability values were calculated for each well. This was accomplished by calculating the permeability for each recorded time interval and then determining the time-weighted average permeability for each test, as specified in ASTM D 6391 - 99.

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STANCILLS INC. QUARRY

TIME-WEIGHTED AVERAGE
PERMEABILITY SUMMARY

WELL NO.	VERTICAL PERMEABILITY	HORIZONTAL PERMEABILITY
1 (~~25~~ 45 ± FT DEEP)	1.80×10^{-3} CM/SEC	2.37×10^{-3} CM/SEC
2 (~~45~~ 25 ± FT DEEP)	5.80×10^{-4} CM/SEC	1.47×10^{-4} CM/SEC

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

WELL NO. 1 | K_1 (VERTICAL)

$G_1 = (\pi d^2 / 11 D_1)\,[1 + a(D_1/4b_1)]$

$d = 10.16$ cm

$D_1 = 10.16$ cm

$b_1 = 1847.1$ cm − 1393.2 cm (1405.9 − STAGE 2) = 453.9 cm (STAGE 1) = 441.2 (STAGE 2)

$a = 0$

G_1 (STAGE 1) $= [\pi (10.16)^2 / 11 (10.16)] = \pi(10.16)/11 = 2.90$

20 TEST DIAMETERS = 20 × 10.16 cm = 203.2 ← USE (MAX)

$\therefore H_1 = H + 203.2 = H_2$

$$K_1 = \frac{0.907}{1.011}(2.90)\left[\ln\left(\frac{H_1}{H_2}\right)\right]/(t_2 - t_1) = 2.603 \times \frac{\ln \frac{H_1}{H_2}}{(t_2 - t_1)} \text{ cm/sec.}$$

Δt (SEC)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_1 (cm/sec) VERTICAL	K_1 (cm/sec)
0	—	—	252.2	—	—
36	36	252.2	233.9	5.45×10^{-3}	0.00545
51	15	233.9	230.9	2.24×10^{-3}	0.00224
68	17	230.9	227.8	2.07×10^{-3}	0.00207
84	16	227.8	224.8	2.16×10^{-3}	0.00216
106	22	224.8	221.8	1.59×10^{-3}	0.00159
131	25	221.8	218.7	1.47×10^{-3}	0.00147
161	30	218.7	215.7	1.20×10^{-3}	0.00120
204	43	215.7	212.6	8.76×10^{-4}	0.000876
240	36	212.6	209.6	1.03×10^{-3}	0.00103
289	49	209.6	206.5	7.92×10^{-4}	0.000792
	289 TOTAL				

TIME WEIGHTED AVERAGE K_1:

$K_1(t_2 - t_1)$
0.1961
0.0336
0.0352
0.0345
0.0350
0.0366
0.0360
0.0377
0.0370
0.0388
0.5205

$K_1' = \frac{0.5205}{289} = 0.00180 = 1.80 \times 10^{-3}$ cm/sec

WELL NO. 1 | K_2 (HORIZONTAL)

$L = 1405.9 - 1393.2 = 12.7$ cm

$D = 10.16$ cm

$b_2 = 447.6$ cm

$$F = 1 - (.5623\, e^{-1.566\, L/D}) = 1 - (.5623\, e^{-1.9575}) = 1 - (.5623 \times .1412) =$$

$$1 - .0794 = \boxed{0.9206}$$

$$G_5 = \frac{[4b_2/D + L/D] + [1 + (4b_2/D + L/D)^2]^{1/2}}{[4b_2/D - L/D] + [1 + (4b_2/D - L/D)^2]^{1/2}}$$

$$= \frac{[(4 \times 447.6)/10.16 + \frac{12.7}{10.16}] + \{1 + [(4 \times 447.6)/10.16 + \frac{12.7}{10.16}]^2\}^{1/2}}{[4 \times 447.6/10.6 - \frac{12.7}{10.16}] + \{1 + [(4 \times 447.6)/10.16 - \frac{12.7}{10.16}]^2\}^{1/2}}$$

$$= \frac{177.470 + (1 + 31495.769)^{1/2}}{167.656 + (1 + 28108.42)^{1/2}}$$

$$= \frac{177.470 + 177.473}{167.656 + 167.659} = \frac{354.943}{335.315} = \boxed{1.0585}$$

$$G_4 = \frac{12.7}{10.16} + [1 + (\frac{12.7}{10.16})^2]^{1/2} = \boxed{2.8508}$$

$$G_3 = 2 \ln(2.8508) + 0 = \boxed{2.0952}$$

$$G_2 = (10.16^2/16(.9206)(12.7)) \times 2.0952 = 1.1562$$

$$Re\, G_2 = \frac{0.866}{1.011}(1.1562) = 1.013$$

$$K_2 = 1.013 \frac{\ln(H_1/H_2)}{(t_2 - t_1)}$$

Δt (sec)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_2 (cm/sec)	K_2 (cm/sec)	$K_2 (t_2 - t_1)$
0	—	—	280.2	—	—	—
10	10	280.2	237.5	1.67×10^{-2}	0.0167	0.1675
19	9	237.5	231.4	2.93×10^{-3}	0.00293	0.0264
26	7	231.4	228.4	1.89×10^{-3}	0.00189	0.0132
35	9	228.4	225.3	1.52×10^{-3}	0.00152	0.0137
48	13	225.3	222.3	1.04×10^{-3}	0.00104	0.0136
58	10	222.3	219.2	1.42×10^{-3}	0.00142	0.0142
73	15	219.2	216.2	9.31×10^{-4}	0.000931	0.0140
94	21	216.2	213.1	6.97×10^{-4}	0.000697	0.0146
123	29	213.1	210.1	4.89×10^{-4}	0.000489	0.0142
	123					0.2914

$$K_2' = \frac{0.2914}{123} = 0.00237 = \boxed{2.37 \times 10^{-3}} \text{ cm/sec}$$

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

WELL NO. 2 | K_1 (VERTICAL)

$$R_t G_1 = \frac{\pi(10.16)}{11} \times \frac{0.949}{1.011} = 2.724$$

$$b_1 = 1847.1 - 764.5 = 1082.6 \text{ cm}$$

USE 2c TEST DIAMETERS ; $H_1 = H_2 = H + 203.2$

$$K_1 = 2.724 \times \frac{\ln \frac{H_1}{H_2}}{(t_2 - t_1)} \quad \text{cm/sec}$$

Δt (SEC)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_1 (cm/sec)	K_1 (cm/sec)	$K_1 (t_2 - t_1)$
0	—	—	967.7	—	—	—
68	68	967.7	673.6	1.45×10^{-2}	0.0145	0.9869
161	93	673.6	624.8	2.20×10^{-3}	0.00220	0.2049
232	71	624.8	597.1	1.74×10^{-3}	0.00174	0.1235
504	272	597.1	521.2	1.36×10^{-3}	0.00136	0.3703
1103	599	521.2	427.9	8.97×10^{-4}	0.000897	0.5373
1683	580	427.9	402.0	2.93×10^{-4}	0.000293	0.1708
3593	1910	402.0	347.1	2.09×10^{-4}	0.000209	0.4000
5347	1754	347.1	310.2	1.75×10^{-4}	0.000175	0.3062
	5347					3.0499

$$K_1' = \frac{3.0499}{5347}$$

$$K_1' = 0.000580 = \boxed{5.80 \times 10^{-4}} \text{ cm/sec}$$

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

WELL NO. 2 | K_2 (HORIZONTAL)

$L = 784.9 - 764.5 = 20.4$ cm

$D = 10.16$ cm

$$F = 1 - \left(.5623\, e^{\left(-1.546\left(\frac{20.4}{10.16}\right)\right)}\right) = 1 - \left(.5623\, e^{-3.144}\right) = 1 - 0.0431 = \boxed{0.9569}$$

$$G_4 = 20.4/10.16 + \left[1 + (20.4/10.16)^2\right]^{1/2} = \boxed{4.2510}$$

$$G_3 = 2 \ln(4.2510) + 0 = \boxed{2.8943}$$

$$G_2 = \left(\frac{10.16^2}{16(.9569)(20.4)}\right)(2.8943) = 0.9566$$

$$R_t G_2 = \frac{0.928}{1.011} \times 0.9566 = 0.8781$$

$$K_2 = 0.8781 \frac{\ln(H_1/H_2)}{t_2 - t_1}$$

Δt (sec)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_2 (cm/sec)	K_2 (cm/sec)	$K_2(t_2-t_1)$
0	—	—	988.1	—	—	—
83	83	988.1	928.7	6.56×10^{-4}	0.000656	0.0544
312	229	928.7	833.6	4.14×10^{-4}	0.000414	0.0949
609	297	833.6	741.2	3.47×10^{-4}	0.000347	0.1032
1024	415	741.2	643.7	2.98×10^{-4}	0.000298	0.1238
1484	460	643.7	564.4	2.51×10^{-4}	0.000251	0.1154
1834	350	564.4	518.7	2.12×10^{-4}	0.000212	0.0741
3039	1205	518.7	421.2	1.52×10^{-4}	0.000152	0.1828
4293	1254	421.2	380.3	7.15×10^{-5}	0.0000715	0.0897
5147	854	380.3	357.8	6.27×10^{-5}	0.0000627	0.0536
6685	1538	357.8	323.6	5.74×10^{-5}	0.0000574	0.0882
	6685					0.9801

TIME-WEIGHTED AVERAGE:

$$K_2' = \frac{0.9801}{6685} = 0.000147 = \boxed{1.47\times10^{-4}\ \text{cm/sec}}$$

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

PERMEABILITY TEST WELL
LOCATION MAP

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STANCILL QUARRY

CECIL COUNTY, MARYLAND

A-4 WELL INVENTORY

kce-stancil's

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	DEPTH	DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
CE700016	SMOKER, NO	D	GREENB	CARPENTER	630000	1080000	09/10/1969	53	45	48	15	7	20
CE700046	SLAYMAN, J	D		CARPENTER	625000	1075000	09/20/1969	100	100	95	10	40	60
CE710069	FRONHEISE	I		CARPENTER	630000	1080000	09/23/1970	67	61	62	30	13	42
CE710075	BLACKBURN,	D		MD 7	635000	1080000	10/26/1970	67	61	62	10	22	55
CE710079	BOOCHELLI,	D		MECHANICS	635000	1080000	10/19/1970	100	42	42	12	50	65
CE710101	DELANEY, WI	D	J J BABE	LITTLE RIVER	640000	1070000	11/07/1970	59	54	54	15	20	50
CE710238	RAPPOLD, E	D	GREENB	WOODALL	625000	1080000	09/03/1971	75	70	70	20	10	75
CE710270	PEEL, WALL	D	CARPEN	CARPENTERS	625000	1075000	06/04/1971	133	120	128	30	54	105
CE710307	SPENGLER,	D	GREEN B	WOODALL RD	625000	1080000	07/07/1971	137	127	132	12	15	20
CE720016	ZERBE, EUG	D	GREEN B	GREEN BANK	625000	1080000	08/08/1971	83	78	78	7	18	35
CE720085	CLEMENS, H	D	GREENB	CARPENTER	625000	1080000	02/01/1972	45	40	40	30	15	
CE720103	PORTER, GE	D		JACKSON ST	635000	1070000	12/08/1971	82	82	82	35	14	22
CE720104	PORTER, GE	D		WINCH RD	635000	1070000	12/08/1971	125	66	85	5	30	84
CE720105	PORTER, GE	D		WINCH RD	635000	1070000	12/10/1971	123	26	26	40	16	24
CE720194	TRIBBLE, LE	D		JACKSON ST	635000	1070000							
CE720354	SOMMERS, C	D		GREENBANK	630000	1080000	09/03/1972	75	70	70	20	1	75
CE730063	ANDRICHYN,	D	CHESNU	CARPENTER	625000	1080000	08/30/1972	78	74	73	30	16	54
CE730116	PORTER, GE	D		WINCH	635000	1070000	02/03/1975	82	54	54	2	25	70
CE730238	PORTER, GE	D		JACKSON ST	635000	1070000							

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	DEPTH	DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
✓ CE730366	VERDEL CON	I		NORTHEASTE	645000	1075000	05/22/1973	110	105	103	10	78	90
✗ CE730536	INGRAM, JAS	D		BURNT BARN	630000	1075000							
✓ CE730556	MARKUS, WA	D		RT 40	640000	1080000	10/10/1973	150	60	60	4	40	140
✗ CE730573	BRITTINGHA	D	GREENB	CARPENTER	625000	1080000							
✗ CE730578	MAST, VERN	D	GREENB	CARPENTER	625000	1080000							
✓ CE730659	SPADAFORA,	D		CARPENTERS	635000	1080000	01/08/1974	112	107	107	12	40	60
✓ CE730664	ROARK, PAT	D		WOODALL RD	630000	1080000	05/19/1974	90	85	85	5	40	90
✓ CE730741	PORTER, GE	D		JACKSON ST	635000	1075000	03/13/1974	260	65	65	2	30	180
✓ CE730822	DAVIS, CLAU	D		GREENSPRIN	635000	1080000	05/29/1974	70	65	65	20	18	40
✓ CE730827	JONES, IDW	D		GREENBANK	625000	1070000	06/06/1974	105	100	100	10	50	80
✓ CE731141	SLAYMAN, J	D		CARPENTERS	635000	1080000	05/07/1975	90	85	85	12	40	60
✓ CE731158	NOLL, CLAIR	D	GREEN B	WOODALL RD	630000	1080000	04/29/1975	105	98	100	15	23	42
✓ CE731195	ARMSTRONG	D		CARPENTERS	625000	1070000	09/03/1975	90	85	85	25	35	60
✓ CE731263	RODEHEAVE	D		CANVAS BAC	635000	1080000	08/09/1975	93	88	88	12	30	40
✓ CE731274	GLENN, GEO	D		BURNT BARN	635000	1070000	09/05/1975	167	160	162	35	93	125
✗ CE731295	CURRIN, LIN	D		MOUNTAIN HI	635000	1075000							
✓ CE731339	BETTER HO	D		MT VIEW RD	635000	1075000	10/22/1975	185	180	180	30	99	128
✓ CE731401	MCELYEA, W	D		MT VIEW RD	635000	1075000	02/09/1976	181	132	176	25	99	124
✓ CE731466	ALGAR, HAR	D		MD 7	630000	1070000	04/20/1976	127	20	20	5	30	80
✗ CE731478	KREIDER, S	D		MOUNTAIN HI	625000	1070000							
✓ CE731481	SIMPSON, E	D		MOUNTAIN HI	635000	1070000	12/09/1976	60	55	55	8	30	40

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	_DEPTH	_DEPTH	'REEN_1	/G_RATE	BEFORE	DURING
✓ CE731506	GRAY, FLOY	D		MOUNTAIN HI	625000	1070000	12/13/1976	65	60	60	10	35	45
✓ CE731588	HARRIS, DO	D		WOODALL RD	635000	1080000	08/31/1976	90	85	85	15	50	70
✓ CE731597	GOOD, ROD	D		EDGEWATER	635000	1080000	08/24/1976	40	35	35	8	5	20
✓ CE731598	WARRINGTO	D		PRINCIPIO	635000	1070000	05/03/1977	100	37	37	8	25	100
✓ CE731756	ROBINSON, L	D	GREENB	BURNT BARN	630000	1080000	10/06/1976	84	79	79	12	60	61
✓ CE731814	GREENE, DA	D		BURNT BARN	625000	1070000	01/24/1977	114	106	109	20	48	90
✓ CE731931	DAROIS, RO	D		GREENBANK	635000	1080000	03/31/1977	110	105	105	30	30	60
✓ CE731956	MAST JR, VE	D		WOODALL RD	635000	1080000	05/19/1977	50	45	45	20	5	25
✓ CE731957	BRITTINGHM,	D		WOODALL RD	635000	1080000	05/24/1977	90	85	85	6	10	50
✓ CE731996	MCVEY, GEO	D		WOODALL ST	635000	1080000	07/18/1977	70	65	65	10	40	50
✓ CE732063	GIRALDI, RO	D		JACKSON ST	635000	1070000	01/31/1978	144	25	25	4	20	144
✓ CE732089	TODT, PAUL	D		WOODALL RD	635000	1080000	10/14/1977	90	85	85	12	40	60
✓ CE732163	MELRATH, K	D		WOODALL RD	635000	1080000	09/22/1977	50	45	45	30	10	40
✓ CE732168	VANSICKEL,	D		OLD RT 7	635000	1070000	08/30/1977	244	106	106	2	80	244
✓ CE732272	ROGERSON,	D		MOUNTAIN HI	635000	1070000							
✓ CE732286	TRI STATE M	I		US RT 40	640000	1080000	01/26/1978	204	83	83	30	60	100
✓ CE732386	ROGERSON,	D		MOUNTAIN HI	630000	1075000	02/02/1978	177	167	167	30	110	160
✓ CE732518	BRITTINGHA	D		WOODALL	635000	1080000	06/06/1978	50	45	45	30	10	30
✓ CE732584	HUGHES, RO	D		WOODALL RD	630000	1080000	09/09/1978	40	35	35	8	25	35
✓ CE732605	IREY, DON	I	CRAFT H	CARPENTERS	625000	1080000	10/10/1978	70	61	65	30	19	30
✓ CE732664	FRAZIER, ZE	D		RT 7 PRINCIPI	635000	1070000	03/11/2000	700	100	100	1	60	210

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	_DEPTH	_DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
✓ CE732718	NIXDORF, JO	D		CLARK RD	635000	1080000	11/02/1978	150	145	145	15	60	90
✓ CE732724	PASCAL, VIR	D		GREENBANK	635000	1080000	11/09/1978	55	50	50	15	6	30
✓ CE732851	GARBER, CA	D		CARPENTERS	625000	1070000	02/22/1979	87	82	82	20	40	60
✓ CE732902	BOSTIC, STE	D		BURNT BARN	630000	1075000	04/20/1979	165	158	160	30	90	118
✓ CE732957	CHESTNUT P	I		CARPENTERS	629001	1079999	06/22/1979	93	86	88	45	68	84
✓ CE733062	FREEDY, JO	D	GREEN B	GREENBANK	630000	1080000	10/19/1979	132	127	127	30	32	65
✓ CE733091	RITTENHOUS	D		BURNT BARN	630000	1075000	10/22/1979	70	64	65	30	18	45
X CE733144	PORTER, GE	D		WINCH	635000	1070000							
✓ CE733161	GIBSON, GE	D		WINCH	640000	1070000	09/27/1979	143	20	20	5	25	143
✓ CE733164	TANNER, RO	D		EDGEWATER	635000	1080000	11/01/1979	60	55	55	20	5	30
✓ CE733203	NE WASTE W	I		CARPENTER	630000	1080000	11/12/1979	100	93	93	18	18	88
✓ CE733216	PAYNE, BAR	D		MD RT 7	635000	1080000	01/12/1980	138	133	133	5	75	80
X CE733278	SUIT, JIMMY	D		MD RT 7	635000	1080000							
✓ CE733290	CAMPBELL,	D		US RT 40	635000	1070000	02/05/1980	220	59	59	3	70	150
✓ CE733378	LEWIS, LIND	D		RED TOAD RD	645000	1080000	07/18/1980	95	27		40	40	60
No Permits ✓ CE733480	VICKERS, EU	D		CECIL AVE	630000	1080000	10/02/1980	95	90	90	15	5	35
X CE733502	MD DEPT OF	I		US RT 40	639000	1076000							
✓ CE733520	PORTER, GE	D		WINCH RD	645000	1075000	08/16/1980	120	61	61	50	30	40
✓ CE733625	NEWSWANG	D	CHESTN '	CARPENTERS	625000	1080000	11/18/1980	81	74	76	15	13	25
X CE733646	STATE HIGH	I		US 40	639000	1077000							
✓ CE733759	WARRINGTO	D		RT 7	636000	1071000	07/13/1981	160	36	36	5	40	160

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	_DEPTH	_DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
CE733921	CLARK, STA	D	GREEN B	GREEN BANK	630000	1080000							
CE733987	STANCILLS I	I		MOUNTAIN HI	633000	1074000	09/01/1981	210	90	90	11	20	80
CE810228	KNISELY EU	D	GREENB	KIRK RD	628000	1080000	03/03/1982	49	43	44	20	12	21
CE810281	SINE SEWAR	D		PRINCIPIO FU	635000	1070000	04/28/1982	168	69	69	20	60	100
CE810339	CARPENTER	P	CARPEN	CARPENTERS	625024	1079648	06/24/1982	90	71	80	50	23	84
CE810345	BURTON W R	D		CARPENTERS	631000	1080000	07/23/1982	77	70	70	10	20	50
CE810431	RAYSON GLE	D		MOUNTAIN HI	629000	1075000	10/02/1982	120	115	115	15	20	120
CE810473	GRAY E G	D		MOUNTAIN HI	635000	1074000	11/04/1982	225	80	80	3	70	225
CE810708	MUSICK JOH	D		JACKSON ST	637000	1071000							
CE810741	IRACKI DENN	D		CHARTER HIL	628000	1072000	09/03/1983	60	55	55	12	40	50
CE810762	WOODS NOR	D		WINCH RD	638000	1071000							
CE810773	BARBERO JA	D		MOUNTAIN HI	630000	1077000	11/10/1983	175	158	170	10	98	150
CE810827	BARCLAY JR	D		MD RT 7	635000	1070000	10/25/1983	85	21	21	15	35	50
CE810955	OALS JAMES	D		WINCH RD	639000	1071000	03/13/1984	125			30	35	80
CE810976	RAYSON E G	D	POPLAR	POPLAR POIN	626000	1074000	04/02/1984	65	55	55	30	18	27
CE811135	BRADLEY RO	D	GREENB	KIRK RD	629000	1080000	11/05/1984	86	73	81	25	4	42
CE811223	PETERSON L	D	POPLAR	POPLAR POIN	626000	1073000	09/25/1984	63	56	56	15	23	32
CE811231	NEIDLEIN SO	D		JACKSON ST	638000	1070000	09/25/1984	160	30	30	5	15	160
CE811250	CRAIG WILLI	D		CHESTNUT P	627000	1080000	10/22/1984	50	46	46	40	19	40
CE811277	MCGUIRK RO	D		JACKSON ST	637000	1071000	11/28/1984	250	49	49	11	30	190
CE811340	ALEXANDER	D		MOUNTAIN HI	630000	1076000	01/07/1985	157	147	147	32	90	157

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	_DEPTH	_DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
✓ CE811480	FRONHEISE	I		CARPENTERS	629001	1079999	05/02/1985	85	80	80	15	40	60
✓ CE811544	MUSICK ARV	D		JACKSON ST	637000	1071000	05/21/1985	200	75	75	4	50	100
X CE811565	CARPENTER	P	CARPEN	CARPENTERS	625000	1079000				1			
✓ CE811593	MARSHALL E	D	POPLAR	POPLAR POIN	626000	1073000	08/07/1985	105	95	95	10	56	66
✓ CE811715	COOK KEITH	D	GREENB	WOODALL RD	630000	1080000	10/15/1985	116	106	111	30	38	94
✓ CE811805	HENDRICKS	D	GREENB	WOODALL RD	629000	1080000	10/18/1985	130	120	121	40	24	33
✓ CE812008	GROSS SIMO	D	GREENB	CLARK RD	630000	1079000	05/13/1986	146	136	136	40	38	120
✓ CE812034	LYON JERRY	D		PRINCIPIO FU	636000	1071000	04/04/1986	300	70	70	6	43	225
✓ CE812079	MONTGOME	D	EASTRID	MOUNTAIN HI	630000	1077000	06/21/1986	124	119	119	12	100	105
✓ CE812120	MYER FLOYD	D	GREENB	WOODALL RD	630000	1080000	05/16/1986	96	91	91	15	50	70
✓ CE812201	PETERSON L	D	POPLAR	POPLAR PT R	626000	1073000	11/13/1986	106	96	96	20	40	100
✓ CE812507	MCGUIRK MI	D		JACKSON ST	637000	1076000	10/23/1986	275	60	60	3	42	160
✓ CE812582	MONTGOME	D	EASTRID	MOUNTAIN HI	632000	1077000	02/18/1987	165	155	155	20	137	160
✓ CE812711	MILLER BOB	D		GILLEY RD	635000	1070000	01/13/1987	167	71	71	15	44	167
✓ CE812720	TATE ROGER	D		GILLEY RD	636000	1070000	01/14/1987	250	61	61	8	40	180
✓ CE812987	DIETER FRA	D		JACKSON ST	637000	1070000	06/03/1987	126	45	45	15	40	70
✓ CE812997	HUGHES RO	D	GREENB	84 KIRK RD	629000	1080000	07/23/1987	89	79	84	20	2	40
✓ CE813820	FRONHEISE	D	GREENB	GREEN BANK	630000	1080000	08/07/1988	138	128	128	20	48	90
✓ CE880487	ALBANESE J	D	MINOR 6	MOUNTAIN HI	632000	1076000	08/04/1989	140	130	130	20	90	130
✓ CE880695	JONE MERVI	D	GREENB	CARPENTER	629000	1078000	10/10/1989	175	165	165	20	80	140
✓ CE880696	JONE MERVI	D	GREENB	CARPENTER	629000	1078000	10/18/1989	145	135	135	18	70	110

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	DEPTH	DEPTH	'REEN_1	/G_RATE	BEFORE	DURING
CE880702	CHESTNUT P	P		CARPENTERS	629001	1079999	10/20/1989	105	95	95	12	60	85
CE880722	YORK BUILDI	T		WINCH ROAD	645000	1071000	09/29/1989	150	77	77			
CE880730	BAKER GEO	D		PRINCIPIO FU	635000	1070000	08/30/1989	224	90	90	4	48	180
CE880772	BIEBER WER	D		POPLAR PT R	629000	1076000	10/11/1989	110	100	100	10	50	100
CE881149	JONES MER	D	GREEN B	GREEN BANK	629000	1078000	05/02/1990	140	130	130	30	60	120
CE881228	LUSK MARVI	D	GREENB	CLARK RD	630000	1079000	06/03/1990	195	185	185	25	95	120
CE881284	BOYCE CHA	D	GREENB	GREENBANK	629000	1078000	10/29/1990	156	146	151	20	55	100
CE881434	MCELYEA WI	D	GREENB	CARPENTERS	630000	1080000	10/31/1990	128	115	123	30	31	100
CE881819	GRAY EDWA	D		MOUNTAIN HI	634000	1075000	05/23/1991	300	86	86	2	50	210
CE882179	SOTHALL JA	D	GREENB	WOODALL RD	630000	1079000	01/14/1992	148	138	138	30	44	100
CE882206	SETTLEMYR	D	GREENB	CLARK RD	630000	1080000	01/09/1992	171	161	161	25	60	140
CE882359	JACKSON JA	D		MT HILL	634000	1075000	05/01/1992	600	110	110	1	95	470
CE882367	GIFFORD RA	D	GREENB	WOOD ALL R	629000	1080000	09/17/1992	129	119	119	20	40	90
CE882439	ROGERS JO	D	GREEN B	GREEN BANK	629000	1078000	08/05/1992	127	117	117	10	80	110
CE882440	BEAMAN RO	D	GREEN B	GREEN BANK	639000	1078000	05/12/1992	126	116	116	10	65	105
CE882600	CRAFT HAVE	I	CRAFT H	CARPENTER	627629	1079346	08/27/1992	77	67	67	10	45	70
CE920188	BAY COUNT	D	GREENB	WOOD ALL R	630000	1080000	01/21/1993	166	156	156	15	65	140
CE920290	RIDER RONA	D	GREENB	CLARK RD	630000	1079000	04/25/1993	178	168	168	15	45	100
CE920320	CONRAD TH	D	GREENB	WOODALL RD	630000	1080000	04/27/1993	140	130	130	10	55	100
CE920322	HOLMAN WIN	D	GREENB	GREENBANK	629000	1079000	07/20/1993	150	140	140	20	80	120
CE920328	MORRISON P	D	GREENB	39 GREENBA	630000	1079000	05/19/1993	118	112	113	30	40	80

PER	OWNER_N	USE_FO	SUBDI	ROAD_NA	RID27	RID27	ION_DATE	_DEPTH	_DEPTH	'REEN_1	IG_RATE	BEFORE	DURING
CE920334	GROSS BAR	D	GREENB	64 WOODALL	630000	1079000	05/20/1993	151	147	147	15	52	80
CE920416	GILBERT RIC	D		JACKSON ST	638000	1070000	08/26/1993	200	40	40	8	41	165
CE880815	BENDER CO	D	GREENB	CLARK RD.	630000	1079000	10/04/1989	155	145	145	20	52	100
CE881241	ROBINS JAM	D	GREENB	WOODALL RD	629000	1080000	07/02/1990	120	110	110	15	60	95
CE920414	RITTER JEFF	D	GREEN B	GREEN BANK	629000	1080000	07/28/1993	1	80	80	20	60	80
CE920441	RHODES RO	D	GREENB	GREENBANK	630000	1079000	09/10/1993	132	127	127	25	30	60
CE942502					627472	1071771							
CE930380	BEDDOE MIC	D	GREENB	WOODALL RD	630000	1080000	07/25/1994	127	123	123	25	37	80
CE930296	BLACK HILL	I		MCKINNEYTO	626000	1078000	03/16/1994	241	231	231	30	162	230
CE930094	FORSMAN B	D		MOUNTAIN HI	635000	1075000	09/23/1993	61	51	51	5	45	55
CE930041	WOOD DAVI	D	GREEN B	CLARK RD	630000	1077000	10/15/1993	185	175	175	15	85	160
CE930039	BROWN JOA	D	GREENB	WOODALL RD	631000	1080000	12/03/1993	139	129	129	20	60	120
CE944326					629001	1079999	01/18/2001	100	80	80			

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
PERMIT NUMBER- CE 70-0016
****

ISSUE DATE- 07/18/69
MO DA YR

DRILLER
ID. NUMBER- 139

ISSUED TO DRILLER-
DONALD S NEWNAM

CECILTON MARYLAND

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
SMOKER, NORMAN

INTERCOURSE PENNA 17

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

NONE.

THIS PERMIT IS VALID UNTIL
07/18/70. A WELL COMPLETION
REPORT MUST BE SUBMITTED
TO THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG. ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

S 1 5247

(SEQ. NO.)

THESE NUMBERS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

DATE RECEIVED (DWR USE ONLY)

OWNER: Smoker [illegible] (COL. 19 LAST NAME)

STREET OR RFD: (COL. 36) 10-0016

POST OFFICE: In [illegible] Penna. 17554 (COL. 37)

07 1000 3000

B 2 DRILLER INFORMATION

(SEQ. NO.)

Donald S. Newman (FIRST NAME, DRILLER, LAST NAME) — IDENTITY NUMBER 13

STREET OR RFD

Cecilton Maryland (POST OFFICE) — ZIP CODE

DATE OF APPLICATION 7/15/67

B 3 WELL INFORMATION

(SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

(MUST HAVE STATE HEALTH DEPT. APPROVAL)

T TEST

APPROXIMATE DEPTH OF WELL 100 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE ROTARY

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL

(SERIAL NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE))

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

ARMORED VIBRATORY PERMIT NUMBER

ENGINEER (WRITE DISTRICT NUMBER)

FORCE

HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

B 5

Cecil COUNTY DEPT. OF HEALTH

Supervising Sanitarian

APPROVED

DWR USE ONLY

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION: [illegible]

SECTION

LOT

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

B 5 DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

(SEQ. NO.)

N NORTH — E EAST — NE NORTHEAST — SE SOUTHEAST

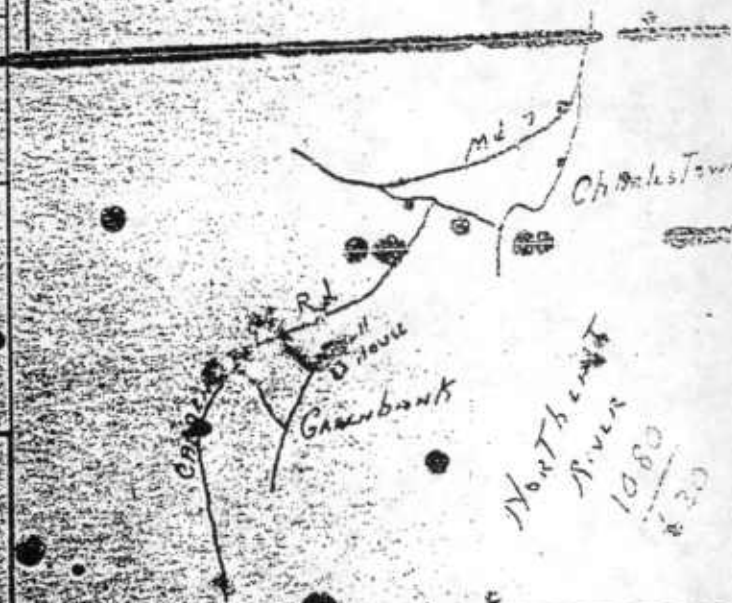
S SOUTH — W WEST — NW NORTHWEST — SW SOUTHWEST

NEAR WHAT ROAD: Carpenter Pt. Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E — WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. ON THE SKETCH DISTANCE MAY BE APPROXIMATE, BUT MUST BE DIMENSIONED.



LATITUDE 39 26 [illegible]

LONGITUDE 0 7 6 0 0 0 0

ELEVATION AT WELL HEAD (FEET) 0 0 4 [illegible]

DEPARTMENT OF WATER RESOURCES
ANNAPOLIS, MARYLAND

DRILLERS IDENTIFICATION

POST OFFICE

GROUTING RECORD

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

CASING RECORD

PUMPING TEST

PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED FOR MEASURING PUMPING RATE

WATER LEVEL: DISTANCE FROM BEND CONTROL

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX)

AIR

BOTTOM

CENTRIFUGAL

ROTARY

JET

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LOCATION IN BOX — SEE ABOVE) A, C, J, P, R, S, T, O

GALLONS PER MINUTE (NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

BELOW

(NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT-LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

Well → X

Smoker House

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-70-0046 *
****

ISSUE DATE- 08/18/69
MO DA YR

ISSUED TO DRILLER-
VERNON KIRK
RD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

SLAYMAN, JAMES
CARPENTER RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

NONE.

THIS PERMIT IS VALID UNTIL 08/18/70. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

WR-W-3 3-66

B 1 2903 (SEQ. NO.) SEQUENCE NO. (DWR USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (DWR USE ONLY)

081469

OWNER: Slayman James (COL 15 LAST NAME)

STREET OR RFD: Carpenter Rd 70-0046 (COL 36)

POST OFFICE: Charlestown Md. (COL 57)

B 2 DRILLER INFORMATION

(SEQ. NO.)

Vernon Kirk (FIRST NAME, DRILLER, LAST NAME) IDENTITY NUMBER 159

Rd #1 (STREET OR RFD)

Perryville, Md 21903 (POST OFFICE, ZIP CODE)

DATE OF APPLICATION: August 11, 1969

B 3 WELL INFORMATION

(SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) DOMESTIC, HOME (CIRCLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 160 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

(CABLE) REVERSE ROTARY

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (T) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER

ENGINEER REVIEW (WRITE DISTRICT NO. IN BOX) FORCE WRITE INITIALS IN BOX

CONDITIONS: A E N F G W Q

B 4 LOCATION

(SEQ. NO.)

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER DISTANCE FROM TOWN)

B 5 DIRECTION FROM TOWN

(SEQ. NO.)

(CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST

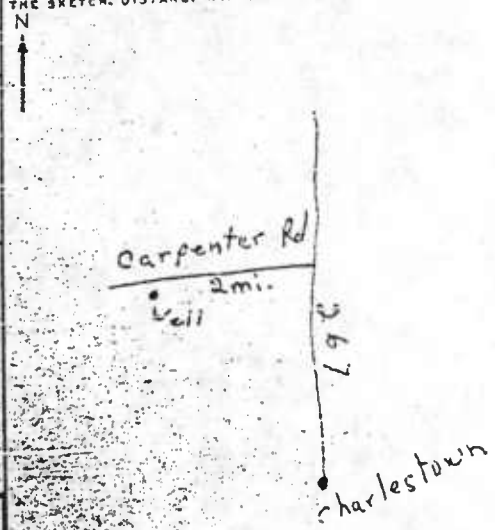
S SOUTH (W) WEST NW NORTHWEST

NEAR WHAT ROAD: Carpenter Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING IN THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



107

B 5 HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

CONTINUED

(SEQ. NO.)

STATE DEPARTMENT OF HEALTH (CIRCLE BOX IF STATE HEALTH)

MO. DAY

DATE 081469

APPROVED BY: David S. Moore (P)

TITLE: Supervising Sanitarian

COUNTY DEPT. OF HEALTH: Cecil

LATITUDE: 39 34 20 (DEG MIN SEC)

LONGITUDE: 075 59 00

ELEVATION AT WELL HEAD (FEET): 0040

B 6 (DWR USE ONLY)

SPECIAL CONDITIONS

ORIGINAL

700-27

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
WELL COMPLETION REPORT

70-0046

DEPTH OF WELL

WELL NUMBER (A TO BE PUNCHED)

DATE RECEIVED (BY HOME OFFICE)

DATE WELL COMPLETED

OWNER Sla man
LAST NAME

POST OFFICE

FOREST OR RED

WELL DESCRIPTION

WELL LOG

STATE THE KIND OR FORMATIONS PENETRATED, SHOW COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WATER BEARING
top soil	0	2	
Clay red	2	9	
sand & gravel	9	100	

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM FT. TO FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
CASING TYPES (INSERT APPROPRIATE CODE BELOW)
S T STEEL
C O CONCRETE
P L PLASTIC
O T OTHER

MAIN CASING TYPE: S T
NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 6
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 100

OTHER CASING (IF USED)
DIAMETER
DEPTH (FEET) FROM TO

SCREEN RECORD
SCREEN TYPE (INSERT APPROPRIATE CODE BELOW)
S T STEEL
B R BRASS OR BRONZE
H O OPEN HOLE
P L PLASTIC
O T OTHER

DEPTH (NEAREST WHOLE FOOT) FROM TO

CIRCLE APPROPRIATE BOXES
WELL HAS BEEN ABANDONED AND SEALED
WELL COMPLETED
WELL LOCATION
DRILLER CERTIFIES THAT HE HAS CHECKED THE WELL AND THE INFORMATION ABOVE IS CORRECT
DRILLER
ADDITIONAL COMMENTS

WATER LEVEL
BEFORE PUMPING
WHEN PUMPING 22 60

TYPE OF PUMPED USED
A AIR 27
C CENTRIFUGAL 27
J JET 27
P 27
R 27
S SUBMERSIBLE 27

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE) A, C, J, P, R, S
29 5

CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON) 31 15
PUMP HORSE POWER 37 ¼
PUMP COLUMN LENGTH (NEAREST FOOT) 42 85

CASING HEIGHT (CIRCLE APPROPRIATE AND ENTER CASING)
+ ABOVE
− BELOW
49
LAND SURFACE
50

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE (SUCH AS BUILDINGS, FARMS, AND/OR OTHER LANDMARKS) AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0069 *
****

ISSUE DATE- 09/21/70
MO DA YR

ISSUED TO DRILLER-
DONALD S NEWNAM

DRILLER
ID. NUMBER- 136

CECILTON MD

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
FRONHEISER, ROBERT
RD 1
PERRYVILLE MD (CHESTNUT POINT [illegible])

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A ~~DOMESTIC~~ COMMERCIAL SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

GROUND WATER [illegible]
CE66GAP020

THIS PERMIT IS VALID UNTIL 03/21/71. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

(2) CHANGE CARDS PROCESSED:
FLD. Ø5
FLD Ø4

DWR COPY

10-2-[illegible]

B | 9478 (SEQUENCE NO. DWR USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (DWR USE ONLY): 092170

OWNER: Fronheiser, Robert (COL 35 LAST NAME)

STREET OR RFD: Chestnut Point Marina R.D. #1 71 0069 (COL 36)

POST OFFICE: Perryville, Md. (COL 37)

B 2 DRILLER INFORMATION

Donald S. Newnam (FIRST NAME, DRILLER, LAST NAME) IDENTITY NUMBER: 138

STREET OR RFD: Cecilton, Md.

POST OFFICE: ZIP CODE:

DATE OF APPLICATION: 9/18/70

B 3 WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- MUST HAVE STATE HEALTH DEPT. APPROVAL
- T TEST

APPROXIMATE DEPTH OF WELL: 70 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR ROTARY AIR PERCUSSION ROTARY

CABLE REVERSE ROTARY

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER

ENGINEER REVIEW (WRITE DISTRICT NO. IN BOX) FORCE WRITE INITIALS IN BOX

CONDITIONS: U

B 4 LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

SECTION LOT

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

B 5 DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE SOUTHEAST

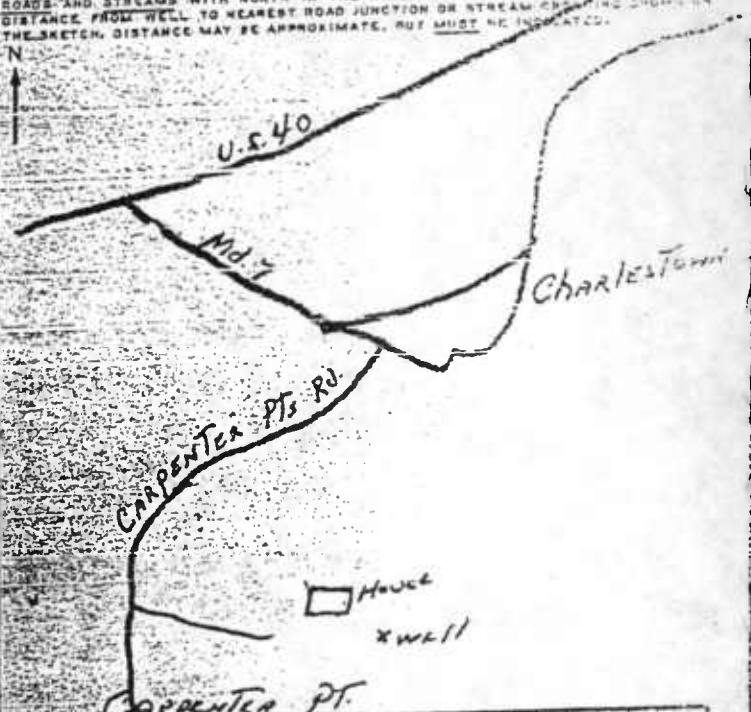
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST

NEAR WHAT ROAD: Carpenter Pt. Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S EAST E WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1/2

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ... DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



B 5 CONTINUED

HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

Cecil COUNTY DEPT. OF HEALTH

STATE DEPARTMENT OF HEALTH (CIRCLE BOX IF STATE HEALTH)

LATITUDE: 39 33 10 (DEG MIN SEC)

LONGITUDE: 076 00 20

APPROVED BY: David S. Moore (P) TITLE: Supervising Sanitarian

ELEVATION AT WELL HEAD (FEET): 0020

092170

(DWR USE ONLY)

71-0069

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG. ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

DEPTH OF WELL

POST OFFICE

WELL DESCRIPTION

GROUTING RECORD
WELL HAS BEEN GROUTED (DIRECT APPROPRIATE BOX)

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

CASING RECORD

CASING TYPE

NOMINAL DIAMETER (MAIN) CASING (NEAREST INCH)

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET)

SCREEN RECORD

OR BRONZE

PLASTIC

OTHER

DEPTH (NEAREST WHOLE FOOT)

WATER LEVEL

TYPE OF PUMPED USE

AIR

CENTRIFUGAL

PUMP INSTALLATION

TYPE OF PUMP

CAPACITY

GALLONS PER MINUTE

PUMP HORSE POWER

PUMP COLUMN LENGTH

CASING HEIGHT

ABOVE

BELOW

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND SURFACE (INDICATE NOT LESS THAN TWO DISTANCES) (MEASUREMENTS TO WELL).

CIRCLE APPROPRIATE BOX

EGG INDICATOR

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0075 *
****

ISSUE DATE- 10/02/70
MO DA YR

DRILLER
ID. NUMBER-

ISSUED TO DRILLER- DONALD S NEWNAM

CECILTON MD

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- BLACKBURN, W
RD
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
04/02/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

B 1 6347

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (DWR USE ONLY): 100170

OWNER: Blackburn, W

STREET OR RFD: RD

POST OFFICE: North East, Maryland

CE-71-0075

B 2 DRILLER INFORMATION

Donald S. Newnam — IDENTITY NUMBER: 138

STREET OR RFD: Cecilton, Maryland

POST OFFICE: 9/28/70

DATE OF APPLICATION

B 3 WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — DOMESTIC, HOME (CIRCLE OR HOUSE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- T — TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 90 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN

AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

B 4 LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN):

B 5 DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH — E EAST — NE NORTHEAST — SE SOUTHEAST

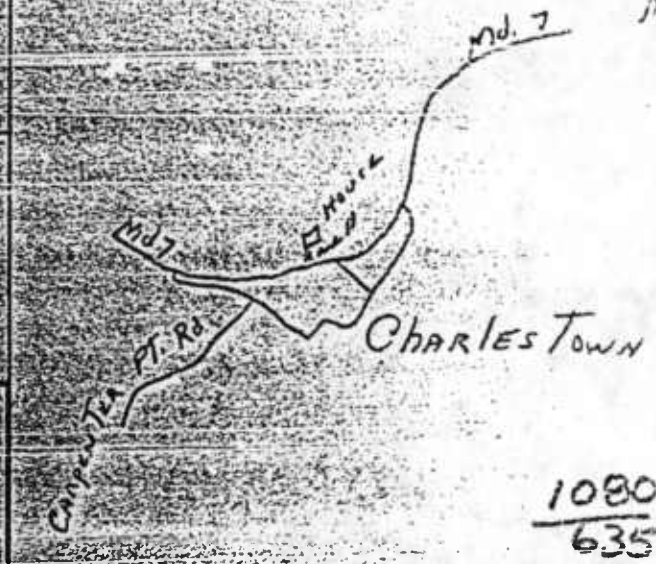
S SOUTH — W WEST — NW NORTHWEST — SW SOUTHWEST

NEAR WHAT ROAD: Md. 7

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E — WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ... DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



1080
635

B 5 HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

Cecil — COUNTY DEPT. OF HEALTH

LATITUDE: 39 34 40 (DEG MIN SEC)

LONGITUDE: 75 59 00

ELEVATION AT WELL HEAD (FEET): 0020

Donald S. Moore

TITLE: Supervising Sanitarian

DWR USE ONLY

102-76

71-0075

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

DEPTH OF WELL

ORDER

STREET OR RED

WELL DESCRIPTION

GROUTING RECORD

DEPTH OF GROUT SEAL

CASING RECORD

STEEL

CONCRETE

OTHER

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

OTHER CASING

DEPTH (FEET)

FROM

62

SCREEN RECORD

OPEN HOLE

PUMPING DATE

WATER LEVEL

TYPE OF PUMPED USED

AIR

CENTRIFUGAL

PUMP INSTALLED

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

ABOVE

BELOW

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

Blackburn
Hoover

Md 7

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 5437 — SEQUENCE NO. (DWR USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 OF ALL CARDS)

DATE RECEIVED (DWR USE ONLY)

OWNER: SOUCHELLI — JOHN
COL 15 LAST NAME

STREET OR RFD: 1 — CE-71-0079
COL 36

POST OFFICE: NORTH EAST — MD
COL 57

100570

B 2 — DRILLER INFORMATION

MAURICE BROWN — IDENTITY NUMBER 39
FIRST NAME — DRILLER — LAST NAME

2
STREET OR RFD

NOTTINGHAM, PA 19362
POST OFFICE — ZIP CODE

DATE OF APPLICATION: Sept 30 1970

B 3 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 400

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (M) DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- MUST HAVE STATE HEALTH DEPT. APPROVAL
- X (EXT)

APPROXIMATE DEPTH OF WELL: 72 to 100 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN
AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)
CABLE — ENVIRONMENTAL ROTARY

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 4 — LOCATION OF WELL

COUNTY: CECIL (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT

NEAREST TOWN: NORTH EAST

MILES FROM TOWN (ENTER 0 IF IN TOWN): 4

B 5 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

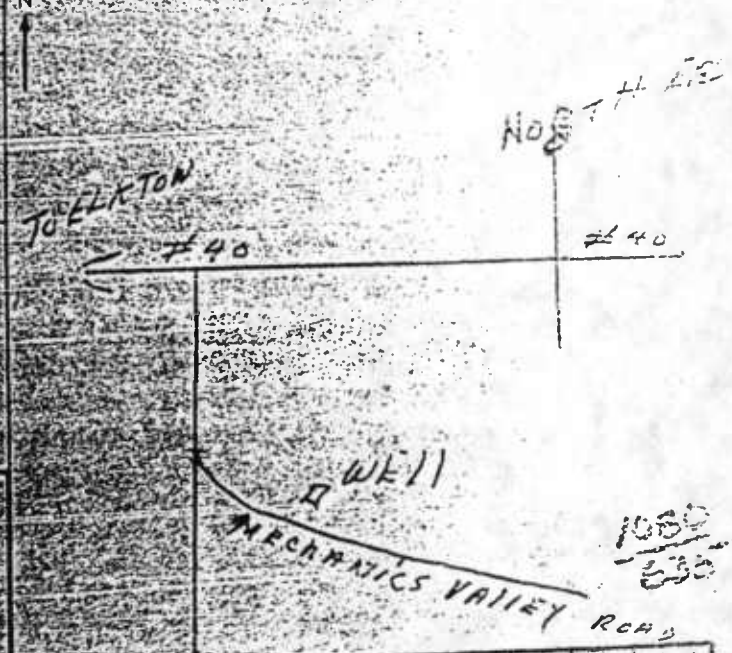
N NORTH — (E) EAST — NE NORTHEAST — SE
S SOUTH — W WEST — NW NORTHWEST — SW

NEAR WHAT ROAD: MECHANICS VALLEY

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E — WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ALL DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



1080
635

HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

COUNTY DEPT. OF HEALTH: Cecil

TITLE: Supervising Sanitarian

LATITUDE: 39 37 10 (DEG MIN SEC)

LONGITUDE: 0 7 5 55 50 (DEG MIN SEC)

ELEVATION AT WELL HEAD (FEET): 0220

(DWR USE ONLY)

102 78

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0070 *
****

ISSUE DATE- 10/06/70
MO DA YR

DRILLER
ID. NUMBER- 39

ISSUED TO DRILLER-
MAURICE BROWN
2
NOTTINGHAM PA 19362

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
BOOCHELLI, JOHN
1
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL DEEPEN AN EXISTING WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL 04/06/71. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DRK COPY

WELL COMPLETION REPORT

PUMPING TEST

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)

PISTON

TURBINE

CENTRIFUGAL

ROTARY

OTHER (DESCRIBE BELOW)

SUBMERSIBLE

PUMP INSTALLED

LOCATION OF WELL ON LOT

HOUSE

TL-0079

Basalt dark in color very hard

72-100'

← 96 →

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0101 *
****

ISSUE DATE- 10/28/70
MO DA YR

ISSUED TO DRILLER-
CHARLES HAMILTON JR
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
DELANEY, WILLIAM W
RD 1
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
J J BABEC SUBDIVISION, SECTION- , LOT- 11 ,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
04/28/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

WR-W-3 3-80

B | J | 5132 (SEQ. NO.) — SEQUENCE NO. (DWR USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (DWR USE ONLY)

102870

OWNER (COL. 15 LAST NAME) Delaney Wilbur
STREET OR RFD (COL. 38) Rt 1
POST OFFICE (COL. 57) North East, Md.

CE-01-0101

B | 2 — DRILLER INFORMATION
(SEQ. NO.)
FIRST NAME: Charles Hamilton Jr. — DRILLER LAST NAME: Rt 1 Box 320 — CERTIFICATE NUMBER: 112
STREET OR RFD: North East, Md. 21078
POST OFFICE — ZIP CODE
DATE OF APPLICATION: 10-23-70

B | 3 — WELL INFORMATION
(SEQ. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 8
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 400

USE FOR WATER (CIRCLE APPROPRIATE BOX)
D DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
F FARMING (AGRICULTURE, IRRIGATION)
I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
M MUNICIPAL WATER SUPPLY
P PRIVATE WATER COMPANY
} MUST HAVE STATE HEALTH DEPT. APPROVAL
T TEST

APPROXIMATE DEPTH OF WELL: 100 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (INCLUDED) JETTED DRIVEN
AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
AIR-ROTARY
REVERSE ROTARY
CABLE
DRIVE-SHOVEL

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
N NO, WELL WILL NOT REPLACE AN EXISTING WELL
Y YES, WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S YES, WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
D YES, WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER TO BE REPLACED OR DEEPENED IF AVAILABLE

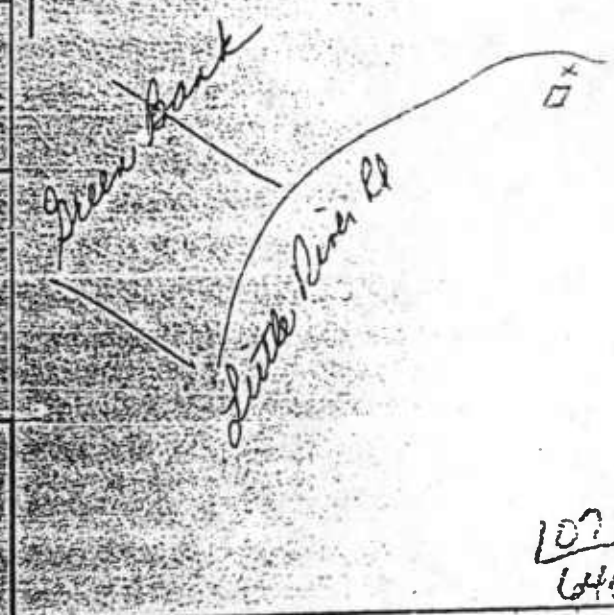
NOTICE OF ISSUANCE BY DRILLER (DWR USE ONLY)
APPROPRIATION PERMIT NUMBER
ENGINEER REVIEW (WRITE DISTRICT NO. IN BOX) — FORCE — TITLE (WRITE IN BOX)
DATE ISSUED
COMPLETION

B | 4 — LOCATION OF WELL
(SEQ. NO.)
COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION: J. J. Baker
SECTION
NEAREST TOWN: North East
MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

B | 5 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
(SEQ. NO.)
N NORTH — E EAST — NE NORTHEAST — SE
S SOUTH — W WEST — NW NORTHWEST — SW

NEAR WHAT ROAD: Little River
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — E — W
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING IN THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



100
640

HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)
B | 5 | REQUIRED
Cecil COUNTY DEPT. OF HEALTH
STATE OF MARYLAND DEPARTMENT OF HEALTH
APPROVED BY: Donald S. Hume
TITLE: Supervising Sanitarian
LATITUDE: 39 31 31 11 (DEG MIN SEC)
LONGITUDE: 076 00 40
ELEVATION AT WELL HEAD (FEET): 0010

DWR USE ONLY

102 94

STATE OF MARYLAND

WELL COMPLETION REPORT

PUMPING TEST

WATER LEVEL

PUMP INSTALLED

LAND SURFACE

LOCATION OF WELL ON LOT

PROPERTY LINE

6'

PARKING LOT

71-00101

yellow clay	0-2
sand	2-22
white clay	22-30
sand	30-42
red clay	42-55
coarse gravel	55-59

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0238 *
****

ISSUE DATE- 04/30/71
MO DA YR

DRILLER
ID. NUMBER- 112

ISSUED TO DRILLER- PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- RAPPOLD, EDWARD

NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

NONE.

THIS PERMIT IS VALID UNTIL
10/28/71 A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DNR COPY

71-0238

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

6709

OWNER: Rapson

POST OFFICE: North East Md.

DRILLER INFORMATION

DATE: 4-19-71

LICENSE NUMBER: 112

FIRST NAME: CHAS. HAMILTON JR

LAST NAME

SIGNATURE: Charles H. Hamilton Jr

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 8 GPM

AVERAGE DAILY QUANTITY (GALLONS PER DAY)

USE FOR WATER

FARMING, AGRICULTURE, IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

PUBLIC WATER SUPPLY

NEW LIVE WATER SUPPLY

TEST

APPROXIMATE DEPTH OF WELL: 110 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED

ROTARY

DRIVE POINT

CABLE

REPLACEMENT OR DEEPENED WELLS

THIS WELL WILL REPLACE AN EXISTING WELL

THIS WELL WILL BE ABANDONED AND SEALED

WELL WILL BE ABANDONED AT A DISTANCE

WELL WILL BE ABANDONED AT A DISTANCE

DO NOT WRITE IN THIS SPACE (FOR DRILLER'S USE ONLY)

ENGINEER REVIEW

DISTRICT NO.

DRAWN S.G.W.C.C.

HEALTH DEPARTMENT APPROVAL

APPROVED

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: Elkton

MILES FROM TOWN

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH, E EAST, NE NORTHEAST, SE SOUTHEAST, S SOUTH, W WEST, NW NORTHWEST

NEAR WHAT ROAD: Wilmdell

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS, STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCES FROM ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW THE WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL LOCATOR

N

North East River

BOX NUMBER: 1080 / 620

NORTH COORDINATE: 625000

COORDINATE: 708000

FEET

0/5 15/5

0/0 5/0

FOR USE ONLY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

71-0238

C 1 3738 (SEQ. NO.)

DATE RECEIVED (OWR USE ONLY): 091472

DATE WELL COMPLETED: 9-3-71

DEPTH OF WELL (TO NEAREST FOOT): 75

017G3Z1

OWNER: Rupert (LAST NAME)

POST OFFICE: Ellicott

STREET OR RFD:

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING

DESCRIPTION (SEE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Red clay & sand & gravel	0	30	
Red clay	30	65	
sand	65	75	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (S C)

NO. OF BAGS: 3 NO. OF POUNDS:

GALLONS OF WATER: 15

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM: 0 FT. TO: 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES — INSERT APPROPRIATE CODE BELOW: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: ST | NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 4 | TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 70

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE — INSERT APPROPRIATE CODE BELOW: ST STEEL, BR BRASS OR BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (SEQ. NO.)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
	ST	70	75

SLOTS (IN.): 018 2. 3.

DIAMETER OF SCREEN (NEAREST INCH):

GRAVEL PACK: FROM TO

IF WELL DRILLED WAS A: F

CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

C — COPY OF ELECTRIC LOG ATTACHED

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED PERMIT TO DRILL WELL, AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

(PERSON) CHAS. HAMILTON

Charles Hamilton

DOWN USE ONLY (NOT TO BE FILLED IN BY DRILLER)

LOG INDICATOR: 74-75, 76 OTHER AVAILABLE

PUMPING

HOURS PUMPED (TO NEAREST HOUR):

PUMPING RATE (GALLONS PER MINUTE):

METHOD USED TO MEASURE PUMPING RATE:

WATER LEVEL (DISTANCE BELOW LAND SURFACE)

BEFORE PUMPING: 17

WHEN PUMPING: 75

TYPE OF PUMPED USED: A AIR, P PISTON, C CENTRIFUGAL, R ROTARY, J JET, L

PUMP INSTALLATION

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE):

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON):

PUMP HORSE POWER:

PUMP COLUMN LENGTH (NEAREST FOOT):

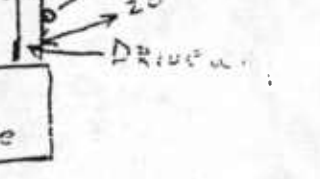
CASING HEIGHT (CIRCLE APPROPRIATE AND ENTER LAND SURFACE)

+ ABOVE / − BELOW: 1

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURES (SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER WELLS) AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-3870 *
****

ISSUE DATE- 05/25/71
MO DA YR

DRILLER
ID. NUMBER- 188

ISSUED TO DRILLER- SHORE WELL DRLRS INC

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- PEEL, WALLACE
RD 1
NEWARK DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
CARPENTERS PT SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
11/25/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

71-027

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

2837

Feet, Wallace

RD #1

Newark Delaware

DRILLER INFORMATION

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION: Carpenters Pt

SECTION

NEAREST TOWN: Charles Town

MILES FROM TOWN (BETWEEN IF IN TOWN): 6

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

NORTH / EAST / NORTHEAST / SOUTHEAST

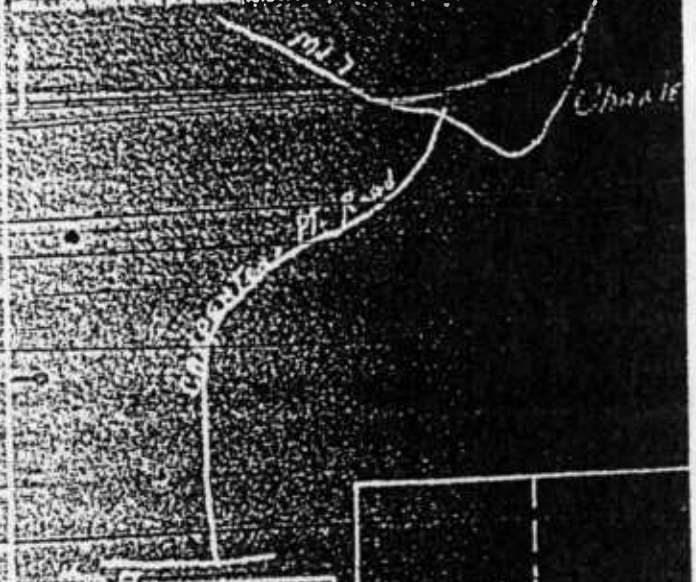
SOUTH / WEST / NORTHWEST / SOUTHWEST

Carpenters Pt. Rd

IN WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH / SOUTH / EAST / WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 5 1

SKETCH OF WELL IN RELATION TO NEARBY TOWN, ROADS AND STREAMS, AND GIVE DISTANCE FROM WELL TO NEARBY ROAD OR STREAM SHOWING SHOWS ON THE SKETCH. ALSO SHOW BY MEANS OF AN ARROW FROM THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070 / 620

0/5 5/5

0/0 5/0

71-0270

C 1 7445

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

DATE RECEIVED (OWR USE ONLY): 06087

DATE WELL COMPLETED: 6/4/72

DEPTH OF WELL: 133 (TO NEAREST FOOT)

OWNER: Peel, Wallace (LAST NAME)

POST OFFICE: Newark, Maryland

STREET OR RFD: #1

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WATER BEARING
0/2 top soil			
2/10 red-clay-sand			
10/63 yellow sand-clay			
63/108 red-white-yellow clay			
108/120 fine yellow sand			
120/133 coarse yellow sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES [T] NO [N]

TYPE OF GROUTING MATERIAL (CIRCLE ...): CEMENT [C M] 40 40; BENTONITE CLAY [B C] 45 46

NO. OF BAGS _____ NO. OF POUNDS _____

GALLONS OF WATER _____

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM _____ FT. TO _____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): [S T] STEEL; [C O] CONCRETE; [P L] PLASTIC; [O T] OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	120

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	120	128

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): [S T] STEEL; [B R] BRASS OR BRONZE; [H O] OPEN HOLE; [P L] PERSTC; [O T] OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

	FROM	TO
S T	128	133

SLOT SIZE 1. 15 2. 3.

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: P

OWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

CIRCLE APPROPRIATE BOXES

[A] A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

[E] ELECTRIC LOG OBTAINED

[C] COPY OF ELECTRIC LOG ATTACHED

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME: Donald S. Newman

(PLEASE PRINT)

SIGNATURE: [signature]

WATER LEVEL

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED

[A] AIR; [C] CENTRIFUGAL; [J] JET

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX - SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

[+] ABOVE; [-] BELOW

LAND SURFACE 1

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER ... INDICATE NOT LESS THAN TWO DISTANCE (MEASUREMENTS TO WELL).

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-71-0507 *
****

ISSUE DATE- 06/25/71
MO DA YR

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER
ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- SPENGLER, RICHARD
RD 3
TOMAQUA PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
12/25/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

71-0307

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
APPLICATION FOR PERMIT

B 1 2857

OWNER Stanley Rickard

STREET OR RFD RD #3

POST OFFICE Tomaqua Penna.

B 1 CONTINUED — DRILLER'S INFORMATION

DATE 6/23/71 LICENSE NUMBER 139

FIRST NAME Donald S. LAST NAME Newcomer

SIGNATURE Donald S. Newcomer

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P PRIVATE WATER COMPANY

T TEST

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED OR DUG — JETTED — DRIVEN

AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

R THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER

ENGINEER REVIEW DISTRICT NO.

B 14 — HEALTH DEPARTMENT APPROVAL

STATEWIDE (CIRCLE BOX)

COUNTY NAME Cecil COUNTY NO.

DATE 0 6 2 4 7 1 APPROVED BY

(DWR USE ONLY)

B 15 — SPECIAL CONDITIONS

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN

B 4

N NORTH

S SOUTH

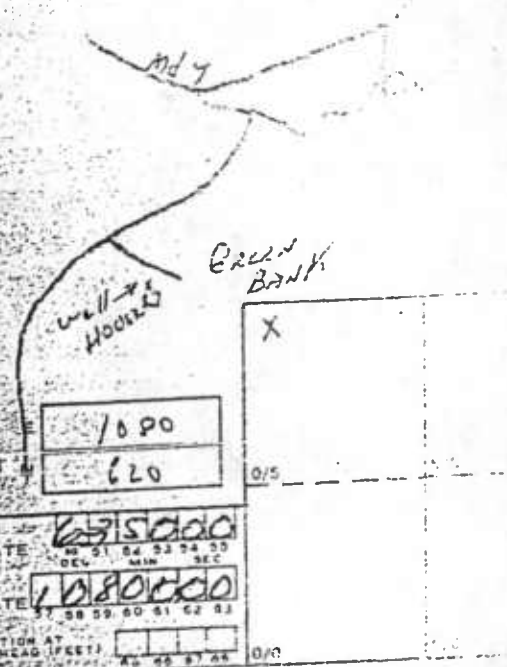
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD (ENTER DISTANCE IN CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL WITH STREAMS WITH NORTH IN THE DIRECTION OF THE WELL. ROAD JUNCTION OR STREAM CROSSING CLOSEST TO THE WELL LOCATION IN THE BOX BELOW AND THE FOLLOWING

N



BOX NUMBER 1080 620

NORTH CORDINATE 615000

EAST CORDINATE 1080000

ELEVATION AT WELLHEAD (FEET)

ORIGINAL

71-0307

WR-W-F 6/70

C | 1 | 7938 — SEQUENCE NO. (OWN USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
WELL COMPLETION REPORT

DATE RECEIVED (OWN USE ONLY): 071271

DATE WELL COMPLETED: 7/7/71 — 070771

DEPTH OF WELL: 137 (TO NEAREST FOOT)

OWNER: Spengler, Richard (LAST NAME)

POST OFFICE: [illegible]

STREET OR RFD: R.D. #3

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/10 yellow clay			
10/35 yellow sand-clay			
35/106 red-white clay			
106/132 fine yellow sand-clay			
132/135 coarse yellow sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (YES) / N (NO)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M (43 40) — BENTONITE CLAY B C (45 46)

NO. OF BAGS _____ NO. OF POUNDS _____

GALLONS OF WATER _____

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM _____ FT. TO _____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	127

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	125	132

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C 2 (BEG. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN	FROM	TO
1 S T	132	137
2		
3		

SLOT SIZE 1: 15 2: _____ 3: _____

DIAMETER OF SCREEN _____ (NEAREST INCH)

GRAVEL PACK FROM _____ TO _____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

OWN USE ONLY (NOT TO BE FILLED IN BY DRILLER): T TELESCOPE CASING — E.R.O.S.H. LOG INDICATOR — W-Q OTHER DATA AVAILABLE

WATER LEVEL: [illegible]

BEFORE PUMPING _____

WHEN PUMPING _____

TYPE OF PUMPED USED: A AIR — C CENTRIFUGAL — J JET — [illegible]

PUMP INSTALLED

TYPE OF PUMP (WHITE APPROPRIATE BOX — SEE ABOVE: A, C, J, [illegible])

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON) _____

PUMP HORSE POWER _____

PUMP COLUMN LENGTH (NEAREST FOOT) _____

CASING HEIGHT (CIRCLE APPROPRIATE AND ENTER [illegible])

+ ABOVE / − BELOW — LAND SURFACE 1

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS [illegible] SEPTIC TANKS, AND/OR OTHER LAND MARKS [illegible] INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

Spengler House

CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

B — ELECTRIC LOG OBTAINED

C — COPY OF ELECTRIC LOG ATTACHED

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME: Donald S. Newnam

SIGNATURE: Donald S. Newnam

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0016
****

ISSUE DATE- 07/13/71
MO DA YR

DRILLER
ID. NUMBER-

ISSUED TO DRILLER-
SLAUCH, R W & SONS
RD 1 BOX 11
OXFORD PA 19363

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
ZERBE, EUGEN
GREEN BANK RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
01/13/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

72-0016

B | L | 7076

STATE OF NEW HAMPSHIRE
DEPARTMENT OF PUBLIC HEALTH
STATE OF NEW HAMPSHIRE
APPLICATION FOR PERMIT TO ...

DATE RECEIVED (OWN USE ONLY)

OWNER: ZERBE

STREET OR RFD: GREEN BANK RD

POST OFFICE: CHARLESTOWN

B | 1 | CONTINUED

DRILLER INFORMATION

DATE: JULY 12-71

LICENSE NUMBER: 66

FIRST NAME: LEON

DRILLER

LAST NAME: SLAUGH

SIGNATURE: Leon T. Slaugh

B | 2

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC USE (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P PRIVATE WATER COMPANY

T TEST

APPROXIMATE DEPTH OF WELL: 60 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

CORED (OR SUCKED) JETTED DRIVEN

AIR ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

REVERSE ROTARY DRIVE-POINT

OTHER (MACHINE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

R THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

W THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL IS DEEPENED AN EXISTING WELL (PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (OWN USE ONLY)

ENGINEER REVIEW DISTRICT NO.

TRANSMISSIVITY

STORAGE COEFFICIENT

A B E N S S G W Q C L U

FORCE

CONDITIONS

B | 4 | CONTINUED

HEALTH DEPARTMENT APPROVAL

COUNTY NAME

COUNTY NO.

APPROVED BY

B | 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN

B | 4

SEQ. NO.

N NORTH

S SOUTH

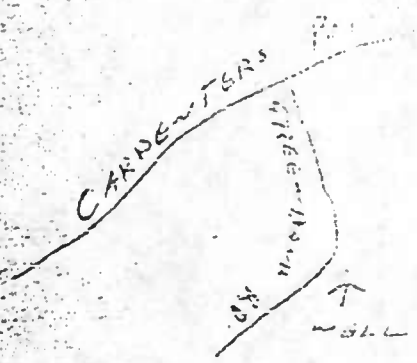
NEAR WHAT ROAD: GREEN

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF THE WELL AND STREAMS WITH NORTH IN THE DIRECTION OF THE ROAD. ROAD JUNCTION OR STREAM CROSSING SHOWN IN THE WELL LOCATION IN THE BOX BELOW AND THE BOX ...

N



BOX NUMBER: E 1080 N 620

NORTH CORDINATE: 1150000

EAST CORDINATE: 1080000

ELEVATION AT WELL HEAD (FEET)

OFFICE ONLY

ORIGINAL

WR-WQ 3/70

C11 8399 (SEQUENCE NO. FOR WRWUSE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-9 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

72-0016

WELL COMPLETION REPORT

DATE RECEIVED (FOR WRWUSE ONLY): 081671

DATE WELL COMPLETED: AUG. 8-71 (2 8 0 8 7 1)

DEPTH OF WELL (TO NEAREST FOOT): 83

OWNER: ZERBE (LAST NAME)

STREET OR RFD: GREEN BANK RD.

POST OFFICE: CHASE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER-BEARING (USE ADDITIONAL SHEETS IF NECESSARY)

DESCRIPTION	FEET FROM	FEET TO	CIRCLE IF WATER BEARING
BROWN CLAY	0	7	
ORANGE SANDY CLAY	7	30	
WHITE CLAY	30	34	
RED CLAY	34	45	
WHITE CLAY	45	47	
GRAY CLAY	47	64	
FINE WHITE SAND	64	80	←
#10 SAND	80	84	←

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES Y (44) NO N (45)

TYPE OF GROUTING MATERIAL (CIRCLE BOXES): CEMENT C M (45 46); BENTONITE CLAY B C (55 56)

NATURAL CLAY CLOSED TIGHT AROUND CASING

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER ____

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM ____ FT. TO ____ FT. (48 52 54 55)

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL S T; CONCRETE C O; PLASTIC P L; OTHER O T

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T (60 61)	5 (63 64)	78 (66 70)

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL S T; BRASS OR BRONZE B R; OPEN HOLE H O; PLASTIC P L; OTHER O T

C 2

(SEC. NO.) STAINLESS

EACH SCREEN	DEPTH (NEAREST WHOLE FOOT) FROM	TO
3 1	73 (15 17)	83 (21)

SLOT SIZE 10 (38 39 41)

DIAMETER OF SCREEN 5 (NEAREST INCH) (58 60)

GRAVEL PACK FROM ____ TO ____ NATURAL DEVELOPMENT

IF WELL DRILLED WAS A FLOWING WELL (CIRCLE BOX): 66 F

FOR WRWUSE ONLY (NOT TO BE FILLED IN BY DRILLER)

CIRCLE APPROPRIATE BOXES

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

B ELECTRIC LOG OBTAINED

C COPY OF ELECTRIC LOG ATTACHED

WHEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED PERMIT UNDER WHICH WELL WAS DRILLED AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND INFORMATION AND BELIEF.

DRILLER'S NAME: LEON T. SLAUGH

PRINT NAME

PUMPING

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE (GALLONS PER MIN. TO NEAREST ...)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (FEET BELOW LAND SURFACE)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (CIRCLE BOXES): AIR A; BAILER B; CENTRIFUGAL C; NUTATING N; JET J; SUBMERSIBLE S

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE: A, C, J, P, ...)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

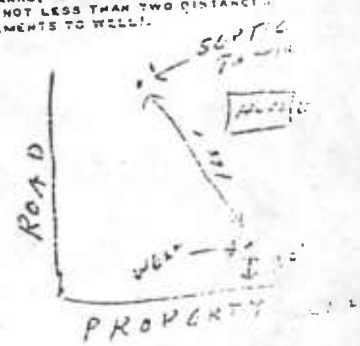
CASING HEIGHT (CIRCLE OR INDICATE AND ENTER CASING HEIGHT)

+ ABOVE / − BELOW LAND SURFACE 2 (49 50 51)

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

104-0

****
* PERMIT NUMBER- CE-72-0085 *
****

ISSUE DATE- 08/24/71
MO DA YR

ISSUED TO DRILLER-
PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
CLEMENS, HAROLD
2208 ARCH RD
NORRISTOWN PA 19401

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/24/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

72-0085

STATE OF KANSAS
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG. TOPEKA, KANSAS
APPLICATION FOR PERMIT TO DRILL

B 1 5592

(DATE RECEIVED — DWR USE ONLY)

OWNER: Clearwater

STREET OR RFD: 2208 Arch Ave

POST OFFICE: Hamilton, Kansas

B 1 CONTINUED — DRILLER INFORMATION

DATE: 8-19-91

LICENSE NUMBER: 1132

DRILLER: Charles Hamilton Jr.

FIRST NAME: Charles — LAST NAME: Hamilton

SIGNATURE: Charles H. Hamilton Jr.

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 8

AVERAGE DAILY QUANTITY REQUIRED (GALLONS PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P PRIVATE WATER COMPANY

Y YES

APPROXIMATE DEPTH OF WELL: 100 (FEET)

APPROXIMATE DIAMETER OF WELL: 4" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED OR AUGERED — JETTED — DRIVEN

AIR ROTARY — AIR PERCUSSION — ROTARY — HYDRAULIC ROTARY

CABLE — REVERSE ROTARY — DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

R THIS WELL WILL BE PLACED WITHIN ___ SECOND ___ YARDS

D THIS WELL WILL BE DEEPENED (IF AVAILABLE, STATE PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED)

NOTE: TO BE FILLED IN BY DRILLER

ENGINEER REVIEW (STATE ENG.)

PERMIT NUMBER

RATE: N S P W Q C L U

CONDITIONS

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED

CEDED

COUNTY NAM: Washington — COUNTY NO.

DATE: 10-7-91

APPROVED BY

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN: Clifton

MILES FROM TOWN (CENTER OF WELL)

B 4

N NORTH — E EAST

S SOUTH — W WEST

NEAREST ROAD: Corporate

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N

DISTANCE FROM ROAD (CENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND THE ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE MAP

N

X

BOX NUMBER: E 1080 N 620

NORTH CORDINATE: 625000 (DEG MIN SEC)

EAST CORDINATE: 1080000

GROUND ELEVATION AT WELL HEAD (FEET)

DWR USE ONLY

B 5 SPECIAL CONDITIONS

72-0085

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

C 1 2281 (SEQUENCE NO. (SOWRUSE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-9 ON ALL CARDS)

DATE RECEIVED (SOWRUSE ONLY) D 9 1 4 72

DATE WELL COMPLETED 2-1-72

DEPTH OF WELL 45

24 1 72

OWNER A. Clemens

LAST NAME POST OFFICE

STREET OR RFD

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Pebbly Dark Gravel	0	20	
Gravel & Sand	20	45	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES NO

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 2 NO. OF POUNDS

GALLONS OF WATER 10

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 15 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE (INSERT APPROPRIATE CODE BELOW)

S T STEEL C O CONCRETE P L PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	40

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
EACH CASING			

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW)

S T STEEL B R BRASS OR BRONZE H O OPEN HOLE P L PLASTIC O T OTHER

C 2

DEPTH (NEAREST WHOLE FOOT)

		FROM	TO
EACH SCREEN	S T	40	45

SLOT SIZE

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL (CIRCLE BOX) F

TOWN USE ONLY (NOT TO BE FILLED IN BY DRILLER)

WELL CODE CASING LOG INDICATOR OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

B ELECTRIC LOG OBTAINED

C COPY OF ELECTRIC LOG ATTACHED

WHEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT TO DRILL WELL AND THAT INFORMATION CONTAINED ON THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND INFORMATION AND BELIEF.

DRILLER'S NAME Chas Hancock Jr.

SIGNATURE Charles H. Hancock Jr.

WATER LEVEL

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USE

A AIR

C CENTRIFUGAL

J JET

PUMP INSTALLATION

TYPE OF PUMP (WRITE APPROPRIATE BOX – SEE ABOVE: A, C, J)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

+ ABOVE

– BELOW 1

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURES, SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER WELLS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

HOUSE 45'

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0103
****

ISSUE DATE- 09/07/71
MO DA YR

DRILLER
ID. NUMBER- 33

ISSUED TO DRILLER- BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/07/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

WH-W-3-5-73

B 1 3466

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

72- 0103

DATE RECEIVED (DWR USE ONLY) 090773

OWNER Porter
COL. 10 LAST NAME

STREET OR RFD
COL. 26

POST OFFICE Forsyville, Md.
COL. 37

B 1 CONTINUED — DRILLER INFORMATION

LICENSE NUMBER 39

FIRST NAME — DRILLER — LAST NAME

SIGNATURE

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 100

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 90 FEET

APPROXIMATE DIAMETER OF WELL 10 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (BY AUGERED) — DRIVEN
AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)
CABLE — REVERSE ROTARY — DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- A THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL
- P PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

DO NOT TO BE SILLED IN BY DRILLER (DWR USE ONLY)

HEALTH DEPARTMENT APPROVAL

COUNTY NAME — COUNTY NO.

APPROVED

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN Rising

MILES FROM TOWN (ENTER C IN BY TOWN)

B 4 — DIRECTION FROM

N NORTH — E EAST — N E NORTHEAST
S SOUTH — W WEST — N W NORTHWEST

NEAR WHAT ROAD 279

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N — SOUTH S — E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 80

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROAD STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO DRAW WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL

BOX NUMBER E 1050 N 670

NORTH CORDINATE 670000

EAST CORDINATE 1055000

ELEVATION AT WELL HEAD (FEET)

0/5 — 0/0 — 5/0

(DWR USE ONLY)

105-05

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

WELL COMPLETION REPORT

72-0103

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (OWNER USE ONLY): 12/5/71

DEPTH OF WELL: 82' (TO NEAREST FOOT)

012778

OWNER: LAST NAME

STREET OR RED: P. O. BOX 29 POST OFFICE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
CLAY	0	10'	
SAND + GRAVEL	10	78	X
GRAVEL	78	82'	X

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M 45-46; BENTONITE CLAY B C 45-46

NO. OF BAGS 3 NO. OF POUNDS

GALLONS OF WATER 15

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 6 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6"	82'

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

C 2

DEPTH (NEAREST WHOLE FOOT): FROM 82' TO 82'

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK FROM TO

WELL DRILLED WAS A FLOWING WELL (CIRCLE BOX)

OWNER USE ONLY (NOT TO BE FILLED IN BY DRILLER)

OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES

WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

COPY OF ELECTRIC LOG ATTACHED

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT ... WELL ... THAT INFORMATION CONTAINED ... ACCURATE AND COMPLETE ... KNOWLEDGE INFORMATION ...

DRILLER'S NAME: MAURICE E. BROWN

Maurice E. Brown

C 3

PUMPING TEST

HOURS PUMPED (TO NEAREST FOOT)

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE ...)

BEFORE PUMPING 14

WHEN PUMPING 22

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX)

A AIR; P PISTON; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE ... BOX — SEE ABOVE: A, C, J, P, R, S, T, ...)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

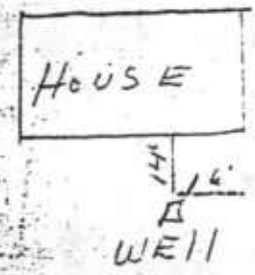
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE; − BELOW

LAND SURFACE 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0104 *
****

ISSUE DATE- 09/07/71
MO DA YR

ISSUED TO DRILLER- BROWN, H E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 39

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/07/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

72-0104

B 1 3483

DATE RECEIVED 09 07 72

OWNER: [illegible]

ADDRESS: [illegible]

PROPERTY OFFICE: [illegible], Md.

B 1 CONTINUED — DRILLER INFORMATION

DATE: 9-21-72 — LICENSE NUMBER: 39

[illegible] B. [illegible]
FIRST NAME — DRILLER — LAST NAME

SIGNATURE: Maurice E Brown

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY RECORD (GALLONS PER DAY): 400

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC HOME (CIRCLE OR DOUBLE HOUSEHOLD USE ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- MUST HAVE STATE HEALTH DEPT. APPROVAL
- T TEST

APPROXIMATE DEPTH OF WELL: 90 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED OR AUGERED (PUSHED) — DRIVEN

AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC-ROTARY) — DRIVE-POINT

CABLE — REVERSE ROTARY

THIS WELL WILL BE

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- R THIS WELL WILL REPLACE AN EXISTING WELL
- A THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL BE USED ONLY WHEN NEEDED AS STANDBY
- D THIS WELL WILL BE DEEPENED FROM WELL [illegible] (FACILITY NUMBER OF WELL)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

DRILLER NOTES — DISTRICT NO. — LICENSE — W.Q. — C. — CPU

HEALTH DEPARTMENT APPROVAL

COUNTY NAME — COUNTY NO.

0 8 0 2 9 1

APPROVED BY

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN CENTER

B 4 — DIRECTION

N NORTH — E EAST — NE NORTHEAST

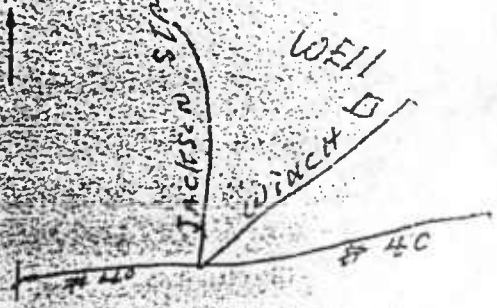
S SOUTH — W WEST — NW NORTHWEST

NEAR WHAT ROAD: Jackson Station Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH — WEST

DISTANCE FROM ROAD CENTER (DISTANCE AND CIRCLE APPROPRIATE BOX): 120'

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL



BOX NUMBER: E 1070 N 630

NORTH COORDINATE: 635000

EAST COORDINATE: 1070000

ELEVATION AT WELL HEAD (FEET):

(DWR USE ONLY)

105-05

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

72-0104

C M 9922

(THIS NUMBER TO BE PUNCHED IN COLS. 1-6 ON ALL CARDS)

DATE RECEIVED (DWR USE ONLY) 012773

DATE WELL COMPLETED 12 05 72

DEPTH OF WELL (TO NEAREST FOOT)

OWNER (LAST NAME) POTOCT

POST OFFICE

STREET OR RFD R.D. 1 P.O. BOX 210

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Sndy & Gravel	0	62	X
Gray Granite	62	125	X

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER ____

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM ____ FT. TO ____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE ____ NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) ____ TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) ____

OTHER CASING (IF USED) DIAMETER (INCH) ____ DEPTH (FEET) FROM ____ TO ____

SCREEN RECORD

SCREEN OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

MANUFACTURER (REQ. NO.) ____ DEPTH (NEAREST WHOLE FOOT) FROM 85 TO 125

SLOT SIZE ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

FROM ____ TO ____

GRAVEL PACK ____

WELL WAS FILLED WITH (CIRCLE BOX) ____

DRILLER USE ONLY (NOT TO BE FILLED IN BY DRILLER)

WATER LEVEL

BEFORE PUMPING ____ WHEN PUMPING ____

TYPE OF PUMPED USED

A AIR; C CENTRIFUGAL; J JET

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE): A, C, J, P, S

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) ____

PUMP HORSE POWER ____

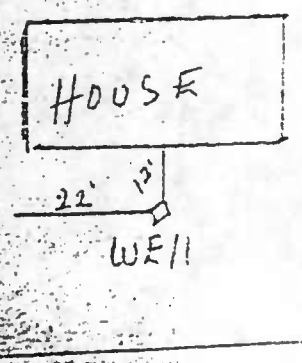
PUMP COLUMN LENGTH (NEAREST FOOT) ____

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING) + ABOVE; − BELOW LAND SURFACE ____

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

WELL WAS ABANDONED AND SEALED WHEN WELL WAS COMPLETED

CASING WAS PULLED OR PULLED

YES ____ NO ____ WELL LOG ATTACHED

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE REPORT, EXCEPT TO THE EXTENT, AND THAT THE INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO MY BEST KNOWLEDGE AND BELIEF.

DRILLER'S NAME ____

SIGNATURE Maurice Brown

Maurice Brown

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0105 *
****

ISSUE DATE- 09/07/71
MO DA YR

ISSUED TO DRILLER- BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 39

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL 03/07/72. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

72-0105

B 1 3464

DATE RECEIVED (DW USE ONLY)

OWNER

TENANT

POST OFFICE

B 1 CONTINUED — DRILLER INFORMATION

LICENSE NUMBER

DATE

FIRST NAME — DRILLER — LAST NAME

SIGNATURE

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC (ONE FAMILY OR SINGLE HOUSEHOLD UNIT ONLY)
- FARMING, KITCHEN GARDEN, IRRIGATION
- INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- MUNICIPAL WATER SUPPLY
- PRIVATE WATER COMPANY
- TEST

(MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROX. MAX. DEPTH OF WELL 90 (FEET)

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING (CIRCLE APPROPRIATE METHOD)

WORK — CABLE — SHAFT — ROTARY — DRIVEN — HYDRAULIC ROTARY — REVERSE ROTARY — DRIVE POINT — OTHER

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- NEW WELL REPLACES EXISTING WELL
- EXISTING WELL TO BE PLUGGED, GROUTED AND SEALED
- DEEPENED WELL
- NEW WELL

HEALTH DEPARTMENT APPROVAL

COUNTY NAME — COUNTY NO.

APPROVED BY

(DW USE ONLY)

B 3 — LOCATION

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4 — DIRECTION FROM (CIRCLE APPROPRIATE BOX)

N NORTH — E EAST — NE NORTHEAST

S SOUTH — W WEST — NW NORTHWEST

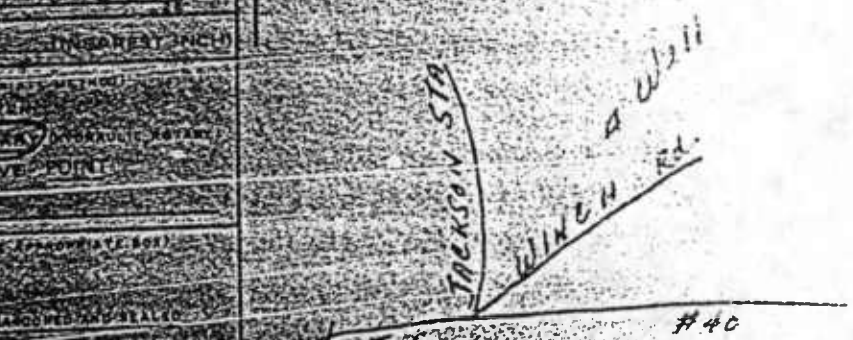
NEAR WHAT ROAD: Winch Road

WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCES TO ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW ROAD NAMES. WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N



BOX NUMBER 4070 / 630

NORTH COORDINATE 63500

EAST COORDINATE 70700

ELEVATION (FEET)

0/0 — 15/5 — 5/0

(DW USE ONLY)

205-05

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

WELL COMPLETION REPORT

C 1 9923 — SEQ. NO.

CE-72-0105

DATE RECEIVED: 01 27 72

DATE WELL COMPLETED: DEC 16, 1971

DEPTH OF WELL: 123 (TO NEAREST FOOT)

DRILLER'S IDENTIFICATION NO.: 72 10 71

OWNER: PORTER, GEORGE

POST OFFICE: PERRYVILLE

STREET OR RFD: 1

WELL DESCRIPTION

WELL LOG

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WATER BEARING
SAND & GRAVEL	0	20	
GRAY GRANITE	20	123	X

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS: 4 NO. OF POUNDS:

GALLONS OF WATER: 26

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 6 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE (INSERT APPROPRIATE CODE BELOW): STEEL S T; CONCRETE C O; PLASTIC P L; OTHER O T

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	26

OTHER CASING (IF USED)

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

INSERT APPROPRIATE CODE BELOW: STEEL S T; BRASS OR BRONZE B R; OPEN HOLE O H; PLASTIC P L; OTHER O T

DEPTH (NEAREST WHOLE FOOT): 26 TO 123

CIRCLE APPROPRIATE BOX:

DRILLER'S LOG (ATTACHED)

COPY OF ELECTRIC LOG (ATTACHED)

WATER COLOR MAY HAVE BEEN CHANGED WITH ELECTRIC LOG, BUT WATER BEARING ZONES MAY NOT HAVE BEEN CHANGED BY ELECTRIC LOG. ALL WATER BEARING ZONES MUST BE CORRECT. REASON: WELL WAS DISINFECTED BEFORE ELECTRIC LOG WAS RUN.

SIGNATURE OF OWNER

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM SURFACE)

BEFORE PUMPING: 16

WHEN PUMPING: 24

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX): AIR A; PISTON P; CENTRIFUGAL C; ROTARY R; JET J; SUBMERSIBLE S

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE CODE BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

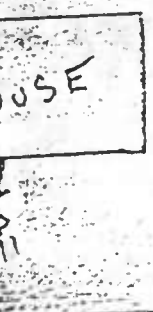
CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE +; BELOW −

LAND SURFACE: 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

N. SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0194 *
****

ISSUE DATE- 11/09/71
MO DA YR

DRILLER
ID. NUMBER- 236

ISSUED TO DRILLER- DELMARVA DRLG CO INC
P O BOX 125
BRIDGEVILLE DE 19933

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

TRIBBLE, LEE R
RD 1
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL 05/09/72. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

NO CR

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

APPLICATION FOR PERMIT TO WELL

B 1 2649

72-0194

OWNER: FOIBLE LEE R

STREET OR RFD: RD I

POST OFFICE: PERRYVILLE MD

B 1 CONTINUED — DRILLER INFORMATION

LICENSE NUMBER: 236

DATE: 5/4/72

FIRM NAME: Castle Hardy

DRILLER LAST NAME: Kelley

SIGNATURE: Lloyd Kelley

B 2 — WELL INFORMATION

10

600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD ONLY)

FARMING, AGRICULTURE, IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

PUBLIC WATER SUPPLY — MUST HAVE STATE HEALTH DEPT. APPROVAL

OTHER (EXPLAIN)

FEET

APPROXIMATE DEPTH OF WELL: 120 FEET

APPROXIMATE DIAMETER OF WELL: 2 1/2 (NEAREST INCH)

METHOD OF DRILLING USED

DRIVEN

DRILLED

DRIVE POINT

CABLE

OTHER (EXPLAIN)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

NO

YES

HEALTH DEPARTMENT APPROVAL

COUNTY NAME

COUNTY NO.

B 3

COUNTY: CECIL

SUBDIVISION

SECTION

NEAREST TOWN: PERRYVILLE

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTION FROM (CIRCLE APPROPRIATE BOX)

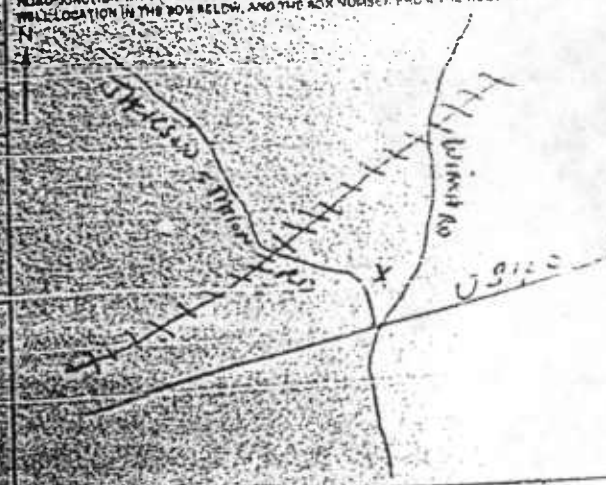
NORTH, EAST, SOUTH, WEST, NORTHEAST, NORTHWEST

NEAR WHAT ROAD: JACKSON STATION

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS, STREAMS WITH ARROW IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL MAP.



BOX NUMBER: E 1070 N 630

NORTH COORDINATE: 655000

EAST COORDINATE: 1070000

DNR USE ONLY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

100-52

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-72-0354 *
****

ISSUE DATE- 05/03/72
MO DA YR

DRILLER
ID. NUMBER- 112

ISSUED TO DRILLER-
PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
SOMMERS, C E
567 NEWTOWN RD
NEWTOWN SQ PA 19073

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL 11/03/72. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DNR COPY

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 04336

72 0354

DATE RECEIVED (DWR USE ONLY): 050372

OWNER: Lommerd

STREET OR RFD: 567 Newtown Rd.

POST OFFICE: Newtown Sq, Pa 19073

DRILLER INFORMATION

B 1 CONTINUED

DATE: 4-25-72

LICENSE NUMBER: 112

DRILLER FIRST NAME: CHAS. DRILLER LAST NAME: HAMILTON JR.

SIGNATURE: Charles H. Hamilton Jr

WELL INFORMATION

B 2

MAXIMUM PUMPING RATE GALLONS PER MINUTE: 8

AVERAGE DAILY QUANTITY PER RECORD (GALLONS PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(D) DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD ONLY)

(F) FARMING AND FUTURE IRRIGATION

(G) GROUP TRIBE, COMMUNITY, STATE AND FEDERAL GOVERNMENT

(M) MUNICIPAL WATER SUPPLY (MUST HAVE STATE HEALTH DEPT. APPROVAL)

(P) PRIVATE WATER COMPANY

(I) OTHER

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD ONLY)

BORED (IN CONSOLIDATED ROCK) (IN SAND)

ROTARY (HYDRAULIC ROTARY)

ROCK DRILL (CIRCLE NUMBER OF BITS USED)

CABLE

DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(R) NEW WELL TO REPLACE EXISTING WELL

(A) THIS WELL WILL BE ABANDONED

(B) THIS WELL WILL BE USED AS A STANDBY

(D) THIS WELL WILL BE DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

PERMIT NO.

DATE REVIEWED

DISTRICT NO.

GRID LOCATION

TOWN

COUNTY

DATE PERMIT APPROVED

PERMIT EXPIRES (SEASONS)

COUNTY NO.

APPROVED BY

B 3

COUNTY: Chester

SUBDIVISION

SECTION

NEAREST TOWN: Chesterbrook

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTION FROM WELL (CIRCLE APPROPRIATE BOX)

N NORTH

E EAST

S SOUTH

W WEST

NE NORTHEAST

NW NORTHWEST

SE SOUTHEAST

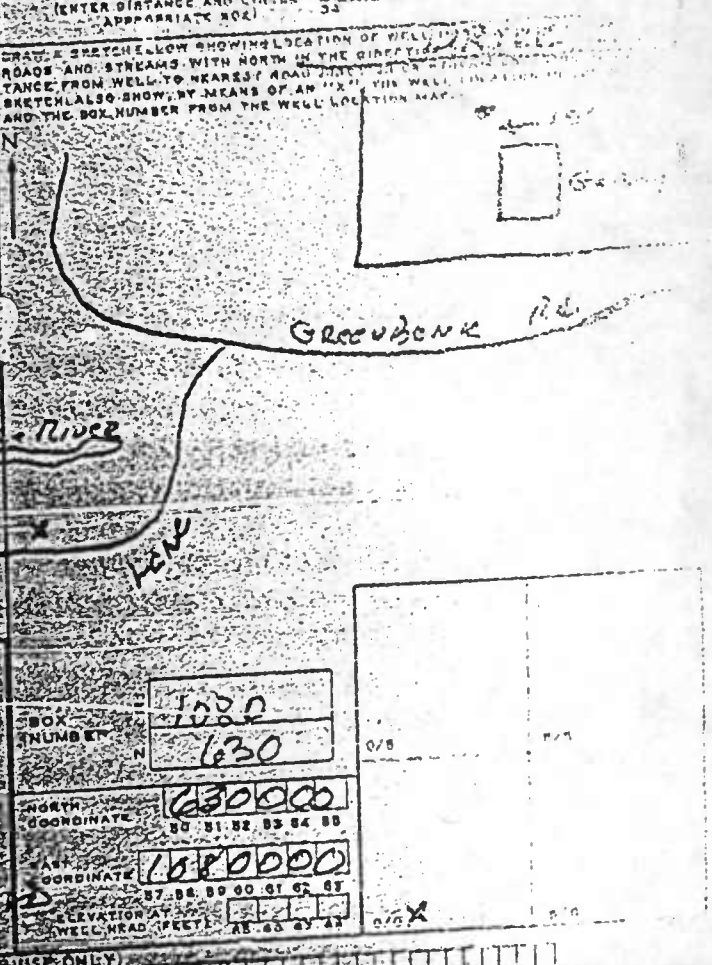
SW SOUTHWEST

NEAR WHAT ROAD: Greenbank

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 300

GRAPHIC SKETCH SHOWING LOCATION OF WELL, DRIVEWAYS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE WELL. ENTER DISTANCE FROM WELL TO NEAREST ROAD INTERSECTION. THIS WELL LOCATION SKETCH ALSO SHOWS, BY MEANS OF AN "X", THE WELL LOCATION MAP AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1002 630

NORTH COORDINATE: 630000

EAST COORDINATE: 1680000

ELEVATION AT WELL HEAD (FEET)

DWR USE ONLY

106-59

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

WELL COMPLETION REPORT

72-0354

C 1 06247 — SEQUENCE NO. (DWR USE ONLY) — (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (DWR USE ONLY): 040273

DATE WELL COMPLETED: 8/3/72 (040372)

DEPTH OF WELL (TO NEAREST FOOT): 75

DRILLER'S IDENTIFICATION: C. E.

OWNER (LAST NAME): Somers

STREET OR RFD: 367 Medford Rd

POST OFFICE: Reisterstown

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Red clay			
sand, gravel	0	30	
red clay	30	65	
sand	65	75	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 3 NO. OF POUNDS:

GALLONS OF WATER:

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	4	70

OTHER CASING (IF USED)

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) BRASS OR BRONZE (B R) OPEN HOLE (H O) PLASTIC (P L) OTHER (O T)

DIAMETER	DEPTH (NEAREST WHOLE FOOT) FROM	TO
ST	70	75

DIAMETER OF SCREEN (NEAREST INCH):

GRAVEL PACK: FROM TO

TYPE WELL (PICKLED WAS A PLUGGING WELL) (CIRCLE BOX): P

CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRICAL OBSTACLE

P — TEST WELL CONVERTED TO PRODUCTION WELL

IF WORKS EXCEPT IF ABOVE HAVE BE EMPLOYED IN THE CONDITIONS STATED ON THE DRILLER'S PERMIT TO DRILL WELL. I HAVE MADE THE INFORMATION IN THIS REPORT TO THE BEST OF MY KNOWLEDGE.

DRILLER'S NAME: [illegible]

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER): DATE RECEIVED; OTHER DATA AVAILABLE

PUMPING TEST

HOURS PUMPED FOR WATER LEVEL

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE BELOW SURFACE) BEFORE PUMPING: N/A WHEN PUMPING: 75

TYPE OF PUMPED USED (FOR PUMPING TEST): AIR (A) PISTON (P) CENTRIFUGAL (C) ROTARY (R) JET (J) SUBMERSIBLE (S)

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, E, J, C, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON):

PUMP HORSE POWER:

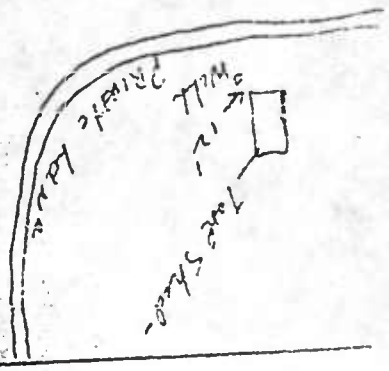
PUMP COLUMN LENGTH (NEAREST FOOT):

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT) ABOVE (+) / BELOW (−) LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

N — SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



107-20

DWR COPY
STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CC-73-0063 *
****

ISSUE DATE- 08/11/72
MO DA YR

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER
ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
ANDRICHYN, CHARLES
CARPENTERS PT
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
CHESNUT POINT SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/11/73. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

EMERGENCY NO. (If any) –

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE 72-0063

FILE IN THIS FORM TOMORROW

B 1 04988 SEQUENCE NO. (DWR USE ONLY)
1 2 3 (SEQ. NO.) 6
THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (DWR USE ONLY)
081172

OWNER: Andrichyn, Charles (COL 15 LAST NAME)
STREET OR RFD: Carpenters Pt. (COL 56)
POST OFFICE: Perryville, Md. (COL 57)

B-13

DRILLER INFORMATION

B 1 CONTINUED
1 2 3 (SEQ. NO.) 6

DATE: 8/7/72
LICENSE NUMBER: 138 (77 60)

Donald S. Newnam
FIRST NAME DRILLER LAST NAME

SIGNATURE: Donald S. Newnam

LOCATION OF WELL

B 3
1 2 3 (SEQ. NO.) 6

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION: Chesnut Point (23)
SECTION: (44 46) LOT: (48)
NEAREST TOWN: Charles Town (52)
MILES FROM TOWN (ENTER 0 IF IN TOWN): 7 (73)

WELL INFORMATION

B 2
1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10 (8 12)
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T YESY

MUST HAVE STATE HEALTH DEPT. APPROVAL

22

APPROXIMATE DEPTH OF WELL: 100 (24 28) FEET
APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)
41 52

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER: (54 63) ENGINEER REVIEW DISTRICT NO. (65)
FORCE: (67 68) WRITE INITIALS IN BOX
CONDITIONS: A E N S G W Q C L U (70 71 72 73 74 75 76 77 78 79)

HEALTH DEPARTMENT APPROVAL

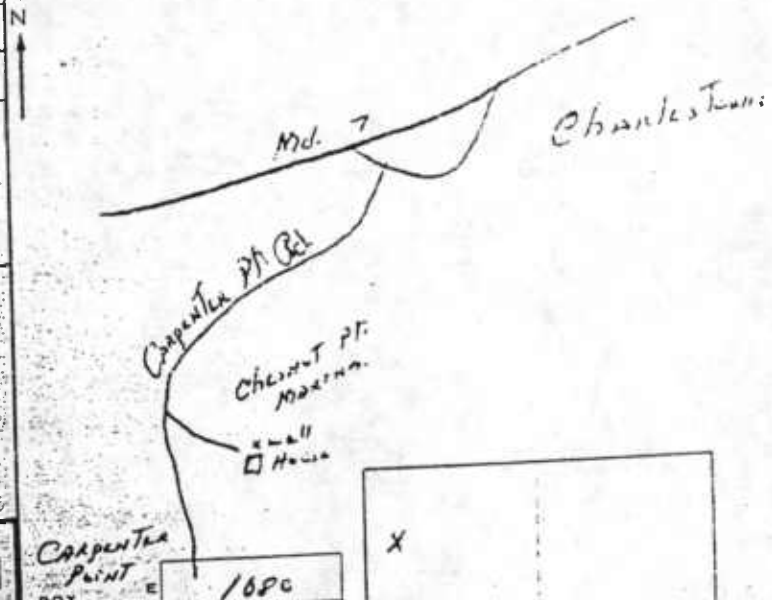
B 4 CONTINUED
1 2 3 (SEQ. NO.) 6
41 S STATE HEALTH (CIRCLE BOX)
COUNTY NAME: Cecil COUNTY NO.
DATE: MO. DAY YR. 0 8 0 8 7 2 (43 45)
APPROVED: [signature]

SPECIAL CONDITIONS B-63

B 5
1 2 3 (SEQ. NO.) 6

(DWR USE ONLY)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND SHOW DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 N 620

X
0/5 5/5
0/0 5/0

NORTH COORDINATE: 625000 (50 51 52 53 54 55)
EAST COORDINATE: 1080000 (57 58 59 60 61 62 55)
ELEVATION AT WELL HEAD (FEET): (65 66 67 68)

107-99

ORIGINAL

BR - W-4 9/71

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

WELL COMPLETION REPORT

C 1 00472 — SEQUENCE NO. (DWR USE ONLY)

DATE RECEIVED (DWR USE ONLY): 09 01 72

DATE WELL COMPLETED: 8/30/72

DEPTH OF WELL: 78

73-00 63

OWNER: Andrichyn, Charles (LAST NAME)

STREET OR RFD: Carpenter Point

POST OFFICE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/17 red-white clay sand			
17/62 yellow-white clay-sand			
62/78 coarse yellow-white sand			

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M (45 46) — BENTONITE CLAY B C (45 46)

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER ____

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM ____ FT. TO ____ FT. (48 52 54 58) (ENTER 0 IF FROM SURFACE)

CASING RECORD
CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T (60 61)	4 (63 64)	74 (66 70)

OTHER CASING (IF USED)
EACH CASING

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	71	73

SCREEN RECORD
SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C 2 (1 2 3 (SEQ. NO.) 6)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN

		FROM	TO
1	S T (8 9)	73 (11 15)	78 (17 21)
2	(23 24)	(26 30)	(32 35)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1. 15 2. ____ 3. ____

DIAMETER OF SCREEN 3 (56 60) (NEAREST INCH)

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX 68 F

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING — (E.R.O.S.) (72) LOG INDICATOR — W Q (74 75 76) OTHER DATA AVAILABLE

WATER LEVEL

TYPE OF PUMPED USED
A AIR (27) — C CENTRIFUGAL (27) — J (27) — S

PUMP INSTALLED
TYPE OF PUMP (WHITE APPROPRIATE BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON) 37

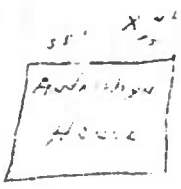
PUMP HORSE POWER 37

PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
+ ABOVE — − BELOW (49) — LAND SURFACE (50 51) NEAREST FOOT

LOCATION OF WELL ON LOT
N

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOXES
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Donald S. Newnam

SIGNATURE: Donald S. Newnam

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-73-0116 *
****

ISSUE DATE- 09/15/72
MO DA YR

DRILLER
ID. NUMBER-

ISSUED TO DRILLER-
BROWN, W E & SONS
RFD 2
NOTTINGHAM PA 19362

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL 03/15/73. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

WR-W3 3/71

EMERGENCY NO. (If any) –

B 1 03222 SEQUENCE NO. (DWR USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

Ce-73-0116
FILE IN THIS [illegible]

DATE RECEIVED (DWR USE ONLY)
091572
8-13

OWNER PORTER
COL 15 LAST NAME

STREET OR RFD
COL 36

POST OFFICE PERRYVILLE, MD.
COL 57

B 1 CONTINUED
1 2 3 (SEQ. NO.) 6

DRILLER INFORMATION

DATE SEPT. 5, 1972 LICENSE NUMBER 39
77 80

MAURICE BROWN
FIRST NAME DRILLER LAST NAME

SIGNATURE Maurice Brown

B 2
1 2 3 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5
8 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 350
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(D) DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

22

M MUNICIPAL WATER SUPPLY
P PRIVATE WATER COMPANY
} MUST HAVE STATE HEALTH DEPT. APPROVAL

T TEST

APPROXIMATE DEPTH OF WELL 70 FEET
24 26

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION (ROTARY) (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(N) THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)
41 52

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER G A P
54 63

ENGINEER REVIEW DISTRICT NO.
55

FORCE WRITE INITIALS IN BOX
67 68

CONDITIONS A E N S G W Q C L U
70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED
1 2 3 (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

41 S STATE HEALTH BOX
COUNTY NAME Cecil
COUNTY NO.

DATE MO. 09 DAY 13 YR. 72
43 45

APPROVED [signature] MD
(WSM)

B 5 SPECIAL CONDITIONS 8-63
1 2 3 (SEQ. NO.) 6

(DWR USE ONLY)

B 3
1 2 3 (SEQ. NO.) 6

LOCATION OF WELL

COUNTY CECIL
4 (DO NOT ABBREVIATE)

SUBDIVISION —
23

SECTION —
44 46

LOT
52

NEAREST TOWN PERRYVILLE MD.
52

MILES FROM TOWN (ENTER 0 IF IN TOWN) 3
73

B 4
1 2 3 (SEQ. NO.) 6

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

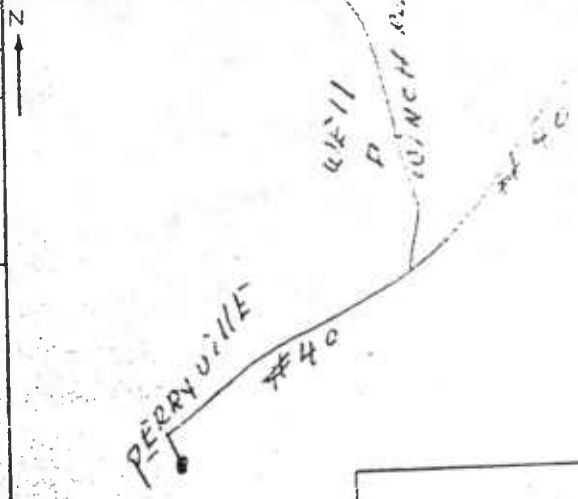
(N) NORTH E EAST NE NORTHEAST SE
S SOUTH W WEST NW NORTHWEST SW
6 8 9

NEAR WHAT ROAD WINCH
11

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH (N) SOUTH (S) EAST (E) WEST (W)
32 32 32

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 80
34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. [illegible] TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING [illegible] SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX [illegible] AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1070
N 630

X
0/5 5/5

NORTH COORDINATE 635000
50 51 52 53 54 55

EAST COORDINATE 1070000
57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET)
65 66 67 68

0/0 5/0

107-50

ORIGINAL

WR - W-4 9/71

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

73-0116

07655 (SEQUENCE NO. DWR USE ONLY)

DATE RECEIVED (DWR USE ONLY): October 13, 1972

DATE WELL COMPLETED

DEPTH OF WELL: 124

OWNER: Porter (LAST NAME)

STREET OR RFD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATION PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Sandy Gravel	0	8'	
Blue Granite	8'	124'	—

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT (C N) BENTONITE CLAY

NO. OF BAGS 4 NO. OF POUNDS

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 4 FT. TO 21 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (C O) CONCRETE, (P L) PLASTIC, (O T) OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	21

OTHER CASING (IF USED)

EACH CASING

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (B R) BRASS OR BRONZE, (H O) OPEN HOLE, (P L) PLASTIC, (O T) OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN

		FROM	TO
1	H O	21	124
2			
3			

SLOT SIZE 1. ___ 2. ___ 3. ___

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX (F)

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING; (E.P.O.S.) LOG INDICATOR; W Q OTHER DATA AVAILABLE

WATER LEVEL

DEPTH 18

TYPE OF PUMPED USED

A AIR

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX) (TELL ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

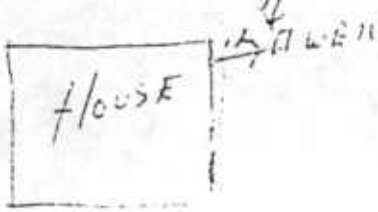
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

(+) ABOVE (−) BELOW

LAND SURFACE 2 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

- [A] A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- [E] ELECTRIC LOG OBTAINED
- [P] TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT) MAURICE BROWN

SIGNATURE Maurice Brown

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL.

****
* PERMIT NUMBER- CE-73-0366 *
****

ISSUE DATE- 04/19/73
MO DA YR

ISSUED TO DRILLER-

LEONARD WELL DRLG
BOX 742 BUSH STREET
WHITE MARSH MD 21162

DRILLER
ID. NUMBER- 32

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

VERDEL CONSTRUCTION
7307 HARFORD RD
BALTIMORE MD 21234

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF BELVIDERE

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. DEPARTMENT REPRESENTATIVES SHALL HAVE ACCESS TO THE WELL TO CONDUCT SCIENTIFIC TESTS AND MEASUREMENTS DURING DRILLING.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

GROUNDWATER APPROPRIATION
PERMIT NUMBER- CE73GAP015

THIS PERMIT IS VALID UNTIL
10/19/73. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

EMERGENCY NO. (If any) –

DNR-13

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 6322 (SEQUENCE NO. (DWR USE ONLY))
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

CC-73 0366

DATE RECEIVED (DWR USE ONLY) 041673

OWNER: Verdel Construction
COL 15 LAST NAME

STREET OR RFD: 7307 Harford Rd
COL 36

POST OFFICE: Baltimore Md 21234
COL 57

B 1 CONTINUED
1 2 3 (SEQ. NO.) 6

DRILLER INFORMATION

DATE: 4/10/73 10/18/72 LICENSE NUMBER: 32
77 80

Wm. Leonard
FIRST NAME DRILLER LAST NAME

SIGNATURE: Wm. Leonard

B 2
1 2 3 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5
8 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 3000
14 22

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 150 FEET
24 28

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

39

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)
41 52

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER: 0E73GAP015 (G A P)
54 63

ENGINEER REVIEW DISTRICT NO.
65

FORCE: CW (WRITE INITIALS IN BOX)
67 68

CONDITIONS: A E N 3 G W Q C L U
70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED
1 2 3 (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

41 3 STATE HEALTH (CIRCLE BOX)

Cecil
COUNTY NAME COUNTY NO.

DATE: MO. 04 DAY 12 YR. 73
43 45

APPROVED BY: (WSM)

B 5
1 2 3 (SEQ. NO.) 6

SPECIAL CONDITIONS 8-69 (DWR USE ONLY)

LOCATION OF WELL

B 3
1 2 3 (SEQ. NO.) 6

COUNTY: Cecil
SUBDIVISION
SECTION
NEAREST TOWN: Belvidere
MILES FROM TOWN
DIRECTION FROM TOWN

B 4
1 2 3 (SEQ. NO.) 6

N NORTH E EAST
S SOUTH W WEST

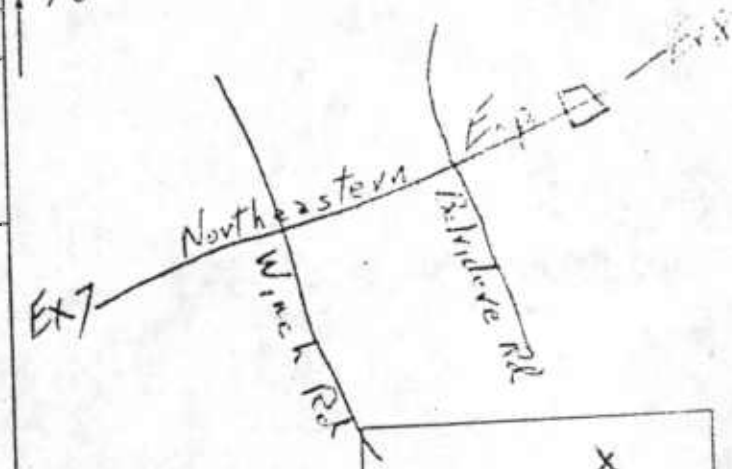
NEAR WHAT ROAD: Northeastern Exp (Cecil)
11

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N S
32

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 300
34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION. IF STREAM SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

For construction water only



BOX NUMBER: E 1070 N 640

NORTH COORDINATE: 645000
50 51 52 53 54 55

EAST COORDINATE: 1075000
57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET)
65 66 67 68

0/5 5/5
0/0 5/0

ORIGINAL

WR-W-4 9/71

C 1 2180

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD
WELL COMPLETION REPORT

053073 5/22/73 110

CE-73-0366

Verdell Construction
7307 Harford Rd

Sand + Gravel	0	10
Grey Clay	10	15
Gravel	15	45
Grey Clay	45	63
Clay + Gravel	63	66
Grey Clay	66	70
Gravel + Sand	70	85
Grey Clay + Sand	85	95
Sand	95	110 ✓

GROUTING RECORD

2 200

60

DEPTH OF GROUT SEAL 0 40

CASING RECORD

MAIN CASING TYPE: S T — 4 — 105

OTHER CASING

SCREEN RECORD

C 2

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN: 1 P L — FROM 103 — TO 110

SLOT SIZE 1. 20 2. ___ 3. ___

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK FROM 100 TO 110

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX 69 F

OWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

70 TELESCOPE CASING — 72 LOG INDICATOR — 74 75 76 OTHER DATA AVAILABLE

WATER LEVEL 78 90

TYPE OF PUMP

PUMP INSTALLED

CASING HEIGHT 2

LOCATION OF WELL ON LOT

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME W. Frank
(PLEASE PRINT) Wm. Leonard
SIGNATURE Wm. Leonard

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

****
* PERMIT NUMBER- CE-73-0556 *
****

ISSUE DATE- 08/18/73
MO DA YR

ISSUED TO DRILLER-
DIFILIPPO, C JR
5 BRINTON WAY,GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
MARKUS, WALTER
RD 3 BX 302
NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/18/74. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

EMERGENCY NO. (If any) –

B 1 5121 (SEQUENCE NO. (DWR USE ONLY))

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE USED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

73 0556

DATE RECEIVED (DWR USE ONLY) 08 15 73

OWNER (COL. 13 - LAST NAME) Mazkas

STREET OR RFD (COL. 30) R.D. 3 Box 302

POST OFFICE (COL. 40) North East, Md. 21901

6-13

B 1 CONTINUED 1 2 3 (SEQ. NO.) 6

DRILLER INFORMATION

DATE August 15, 1973 LICENSE NUMBER 350

Constantine DiFilippo (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE Constantine DiFilippo

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN North East

MILES FROM TOWN

B 2 1 2 3 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 8 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 14 800 20

B 4 DIRECTIONS

NEAR WHAT ROAD Rt 40

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N

DISTANCE IN MILES (ENTER DISTANCE AND FRACTION APPROXIMATE ONLY) ~~1/4 FEET~~ 1500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(D) DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

[F] FARMING, AGRICULTURE, IRRIGATION

[I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

22 [M] MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

[P] PRIVATE WATER COMPANY

[T] TEST

APPROXIMATE DEPTH OF WELL 24 150 28 (FEET)

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

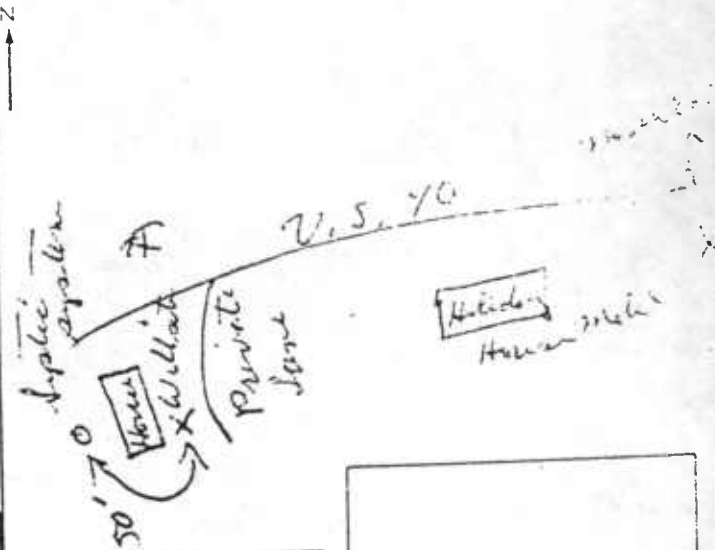
BORED (OR AUGERED) JETTED DRIVEN

30-37 AIR-ROTARY (AIR-PERCUSSION) ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

DRAW A SKETCH BELOW SHOWING ROADS AND STREAMS WITH NORTH IN THE TANCE FROM WELL TO NEAREST SKETCH ALSO SHOW, BY MEANS AND THE BOX NUMBER FROM THE



REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(N) THIS WELL WILL NOT REPLACE AN EXISTING WELL

[Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

[D] THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

41 52

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER C A P 54 63 ENGINEER REVIEW DISTRICT NO. 65

FORCE 87 88 WRITE INITIALS IN BOX

CONDITIONS A E N S G W Q C L U 11 70 71 72 73 74 75 76 77 78 79

BOX NUMBER E 1080 N 640

NORTH COORDINATE 64000 50 51 52 53 54 55

EAST COORDINATE 108000 57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET) 65 66 67 68

X

B 4 CONTINUED 1 2 3 (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

41 [S] STATE HEALTH (CIRCLE BOX) Cecil COUNTY NAME COUNTY NO.

DATE MO. 08 DAY 15 73 APPROVED BY John E. Byers M.D. (WSM)

43

B 5 1 2 3 (SEQ. NO.) 6 SPECIAL CONDITIONS 8-63 (DWR USE ONLY)

ORIGINAL

ENTERED 1 0 9 A 4

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE
WELL COMPLETION

C 1 8917

73-0556

10/10/73

101073

Markus
R.d. 3. Box 102

Topsoil 0 3
Sandy gravel 3 50
Gray granite 50 150

DEPTH OF GROUT SEAL

CASING RECORD

S T 6 60

OTHER CASING

SCREEN RECORD

INSERT APPROPRIATE CODE BELOW

C 2

EACH SCREEN

DEPTH FROM

H O 60 150

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING

LOG INDICATOR

OTHER DATA AVAILABLE

LOCATION OF WELL

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT) CONSTANTINE DiFilippo

SIGNATURE Constantine DiFilippo

ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/13/73
MO DA YR

PERMIT NUMBER- CE-72-0659

DRILLER
ID. NUMBER- [illegible]

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

SPADAFORA, JAMES W
538 BUTTONWOOD ST
READING PA 19601

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 05/13/74. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any)

B 1 6837 SEQUENCE NO. (DWR USE ONLY)

1 2 3 (SEQ. NO.) 6

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-0659

DATE RECEIVED (DWR USE ONLY) 111273

OWNER: SPaDafora, James W. (COL 15 LAST NAME)

STREET OR RFD: 538 Buttonwood ST. (COL 36)

POST OFFICE: Reading Pa 19601 (COL 57)

6-13

B 1 CONTINUED (SEQ. NO.) 6

DRILLER INFORMATION

DATE: 10-5-73 LICENSE NUMBER: 159 (77 80)

Vernon W. Kirk (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE: Vernon W. Kirk

B 2 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5 (8 12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 100 (24 28) FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

(CABLE) REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41 52)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION PERMIT NUMBER (54) ENGINEER REVIEW DISTRICT NO. (63) (65)

FORCE (67-68) WRITE INITIALS IN BOX CONDITIONS A E N S W Q C L U (70 71 72 73 74 75 76 77 78 79)

B 4 CONTINUED (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

(S) STATE HEALTH (CIRCLE BOX) Cecil COUNTY NAME COUNTY NO.

DATE: 110873 (43) APPROVED: [signature] (WAS)

B 5 (SEQ. NO.) 6

TOTAL CONDITIONS 8-63 (DWR USE ONLY) (63)

B 3 (SEQ. NO.) 6

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION: (25)

SECTION: (44)

NEAREST TOWN: Charlestown (52)

MILES FROM TOWN (ENTER 0 IF IN TOWN): 2 (73)

B 4 (SEQ. NO.) 6

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST N E NORTHEAST

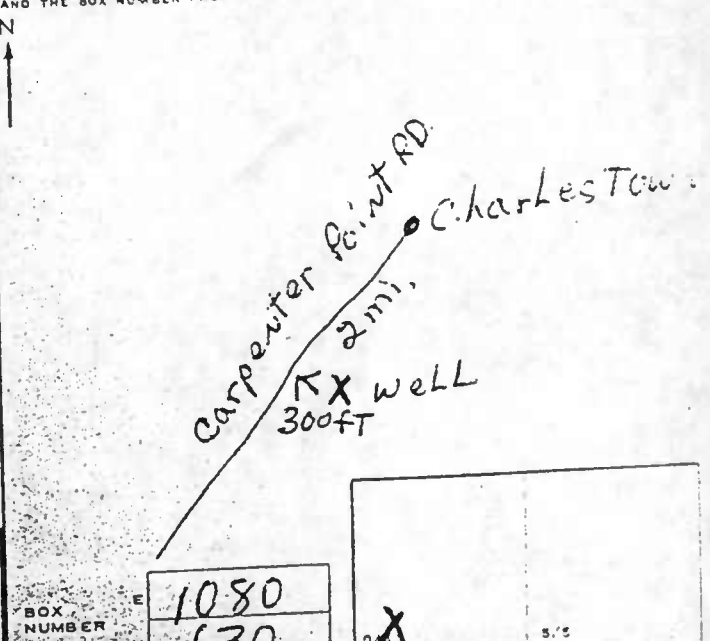
(S) SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD: Carpenters Point RD. (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N (32) (S) (33)

DISTANCE FROM ROAD (CNT. DISTANCE AND CIRCLE APPROPRIATE BOX): 300 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATIONS TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 N 630

NORTH COORDINATE: 635000 1080 (50 51 52 53 54 55)

EAST COORDINATE: 1080000 630 (57 58 59 60 61 62 63)

ELEVATION AT WELL READ (FEET) (05 66 67 68)

0/0 X 5/5

0/0 5/0

ORIGINAL

ENTERED 110 00

C | C | 6449 (SEQ. NO.)

SEQUENCE NO. (DWR USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

DATE RECEIVED (DWR USE ONLY) 020574

DATE WELL COMPLETED 010874

DEPTH OF WELL

730659

OWNER [illegible] LAST NAME

POST OFFICE

STREET OR RFD [illegible]

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
[illegible]	0	30	
not legible			
white clay & sand	30	80	
red clay	80	100	✓
white sand	100	112	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M — BENTONITE CLAY B C

NO. OF BAGS 3 — NO. OF POUNDS

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 2 FT. TO 15 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW)

S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	107

OTHER CASING (IF USED)

EACH CASING

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW)

S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN

		FROM	TO
1	S T	107	112
2			
3			

SLOT SIZE 1. ___ 2. ✓ 3. ___

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA AVAILABLE

C 3

PUMPING TEST

HOURS PUMPED

PUMPING RATE GALLONS PER MINUTE

METHOD USED MEASURE PUMPING RATE

WATER LEVEL

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR — C CENTRIFUGAL — J JET

PUMP INSTALLED

TYPE OF PUMP (WHITE APPROPRIATE BOX — SEE ABOVE: A, C, J, R, S)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE — − BELOW — LAND SURFACE

LOCATION OF WELL ON LOT

SNOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

X Well

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) Vernon W. Kirk

SIGNATURE Vernon W. Kirk

Orig

DRILLER

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/19/73
MO DA YR

PERMIT NUMBER- CE-73-0664

DRILLER
LIC. NUMBER- 112

ISSUED TO DRILLER-

PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

ROARK, PATTON H
RD 1
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN.

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 05/19/74. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

730664

ENGROCKET NO. (IN 8-13)

B 1 1651 — SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 OF ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY): 111973

OWNER: Koark — Patton
COL 18 LAST NAME

STREET OR RFD: RD 1
COL 36

POST OFFICE: Perryville, Md.
COL 57

8-13

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 11-5-73 — LICENSE NUMBER: 112 (77–80)

CHAS. HAMILTON
FIRST NAME — DRILLER — LAST NAME

SIGNATURE: Charles H. Hamilton Jr.

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10 (5–12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 100 (24–26) FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN
AIR-ROTARY — AIR-PERCUSSION — (ROTARY) (HYDRAULIC ROTARY)
CABLE — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER — ENGINEER REVIEW DISTRICT NO.

FORCE — WRITE INITIALS IN BOX — CONDITIONS: A E N S G W Q C L U

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: Charleston

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4 (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

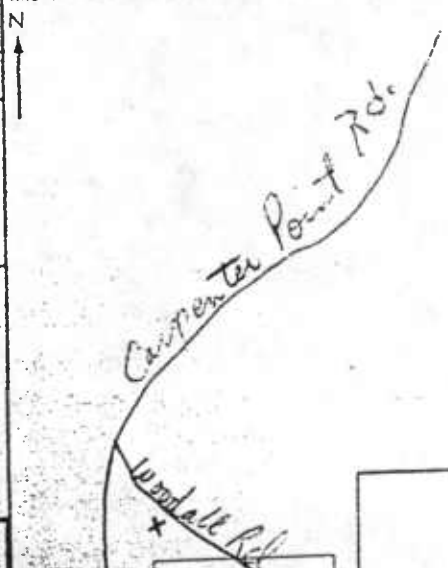
N NORTH — (E) EAST — NE NORTHEAST
S SOUTH — W WEST — NW NORTHWEST

NEAR WHAT ROAD: Woodall Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) — SOUTH (S) — EAST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 52

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ... TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING ... SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 — N 630

NORTH COORDINATE: 630000 (50–55)

EAST COORDINATE: 1080000 (57–63)

ELEVATION AT WELL HEAD (FEET): (65–68)

0/5 — 5/5 — 0/0 — 5/0

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX): S — COUNTY NAME: CECIL — COUNTY NO.

DATE: MO. DAY YR. 11 16 73 — APPROVED BY: John M. Tezos, M.D. (WHD)

B 5 (SEQ. NO.) — SPECIAL CONDITIONS 4-63 (WRA USE ONLY)

ORIGINAL

ENTERED 110 05

730664

WR-W-4 9/71

C 1 4997 (SEQ. NO.)

SEQUENCE NO. (DWR USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (DWR USE ONLY): 48127A

DATE WELL COMPLETED: 5-19-74

DEPTH OF WELL: 90

051974

OWNER: Roark (LAST NAME)

STREET OR RFD:

Patter

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Sand & Gravel	0	30	
Red Clay	30	70	
White Clay Sand & Gravel mixed	70	90	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUT NO. MATERIAL (CIRCLE)

CEMENT (C M) 45 46 — BENTONITE CLAY (B C) 45 46

NO. OF BAGS 4 — NO. OF POUNDS

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S I STEEL, C O CONCRETE, P L PLASTIC, O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	85

OTHER CASING (IF USED)

EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL, B R BRASS OR BRONZE, H O OPEN HOLE, P L PLASTIC, O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN

		FROM	TO
1	S T	85	90
2			
3			

SLOT SIZE 1. 010 2. 3.

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX 68 F

DWR USE ONLY (NOT TO BE FILLED IN BY DRILLER) (C.R.O.S.)

70 CASING — 72 LOG INDICATOR — W O 74 75 76 OTHER DATA AVAILABLE

WATER LEVEL

TYPE OF PUMPED USED

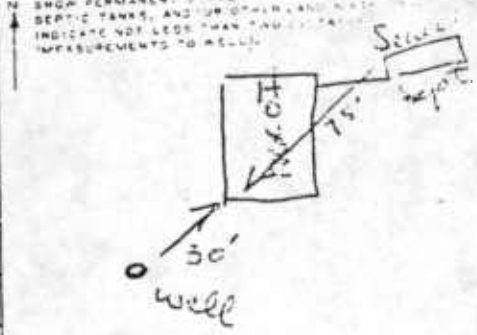
PUMP INSTALLED

CASING HEIGHT

+ ABOVE / − BELOW — 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.



CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

ENTERED 1 1 2 0 1

DRILLERS NAME (PLEASE PRINT) CHAS. HAMILTON JR

SIGNATURE Charles H. Hamilton Jr.

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 02/11/74
MO DA YR

PERMIT NUMBER- CE-73-074

DRILLER
ID. NUMBER- 38

ISSUED TO DRILLER- BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY- PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF JACKSON

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GROUTING WELL.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 08/11/74. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

730741

EMERGENCY NO. (If any)

B 1 2054 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY) 021174

OWNER Porter George
COL 15 LAST NAME

STREET OR RFD
COL 35

POST OFFICE Perryville, Md
COL 57

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE Feb 5, 1974 LICENSE NUMBER 38

MAURICE E. BROWN & Sons
FIRST NAME DRILLER LAST NAME

SIGNATURE Larry A. Brown

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 400

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 125' FEET

APPROXIMATE DIAMETER OF WELL 6" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER

ENGINEER REVIEW DISTRICT NO.

FORCE WRITE INITIALS IN BOX CONDITIONS A E N S G W Q C L U

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Jackson

MILES FROM TOWN (ENTER OUT IN TOWN) 1½

B 4 (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

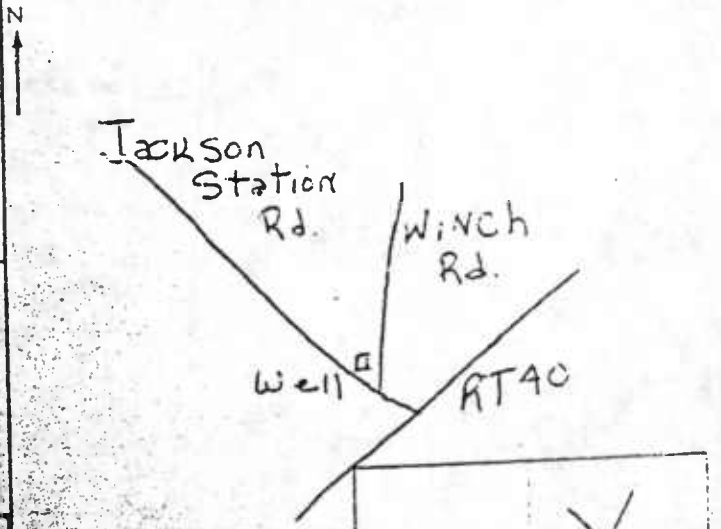
N NORTH E EAST NE NORTHEAST
S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD Jackson Station Rd & Winch Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1070 N 630

NORTH COORDINATE 635000

EAST COORDINATE 1075000

ELEVATION AT WELL HEAD (FEET)

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX) Cecil COUNTY NAME COUNTY NO.

DATE MO. DAY YR. 020874

William A. Sumner APPROVED BY

SPECIAL CONDITIONS B-63 (WRA USE ONLY)

ENTERED

ORIGINAL

73-0741

DNR 214 9/71

C 1 1632 (SEQ. NO.)

SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): 040973

DATE WELL COMPLETED: MARCH 13 1974

DEPTH OF WELL (TO NEAREST FOOT): 260'

OWNER: Porter George (LAST NAME)

STREET OR RFD: Perryville, Md. (POST OFFICE)

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Clay	0	8	
Gravel	8	40	✓
Sand	40	45	✓
Gravel	45	51	✓
Clay	51	62	
Serpentine	62	91	✓
Granite	91	260	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS: 5 NO. OF POUNDS:

GALLONS OF WATER: 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 25 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6"	65'

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN		FROM	TO
1	H O	65'	260'
2			
3			

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.)

TELESCOPE CASING; LOG INDICATOR; OTHER DATA AVAILABLE

WATER LEVEL

BEFORE PUMPING: 30

WHEN PUMPING: 130

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; C CENTRIFUGAL; J JET; P ROTARY

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

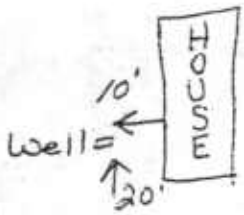
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER IN NEAREST FOOT): + ABOVE; − BELOW; LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT) MAURICE E. BROWN & Sons

SIGNATURE Larry A. Brown

ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 04/25/74
MO DA YR

PERMIT NUMBER- CE-73-0822

ISSUED TO-DRILLER- KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
DAVIS, CLAUDE R
GREENSPRING RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- G , LOT- 10 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GROUTING WELL.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
10/25/74 A WELL COMPLETION
REPORT MUST BE SUBMITTED
TO THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-0822

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

5345

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2 & 3 ON ALL CARDS)

OWNER: Davis Claude R.
STREET OR RFD: Greenspring Rd., Holloway
POST OFFICE: Charlestown, Md.

DRILLER INFORMATION

LICENSE NUMBER: 159

Vernon W. Kirk

SIGNATURE: Vernon W. Kirk

WELL INFORMATION

MAXIMUM PUMPING RATE: 5

AVERAGE DAILY QUANTITY NEEDED: 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 80

METHOD OF DRILLING USED

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

COUNTY: Cecil

SUBDIVISION:

SECTION: G

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN):

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

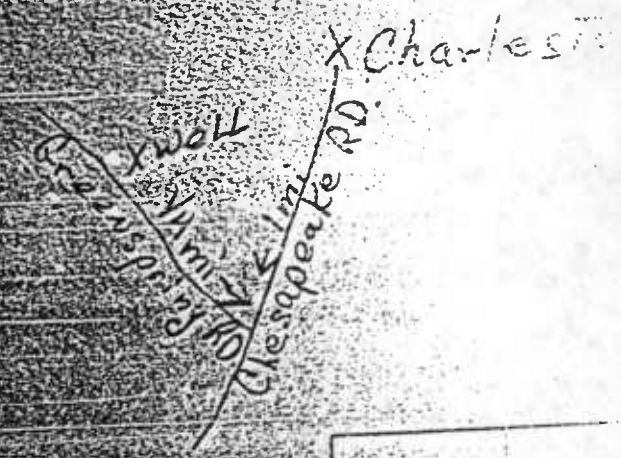
NORTH / EAST / NORTHEAST / SOUTH / WEST / SOUTHWEST

NEAREST ROAD: Greenspring Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH / SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE TOP. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOULD BE SHOWN BY MEANS OF AN "X", THE WELL LOCATION MAP AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



1080

630

6390000

1180000

X

73-0822

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 1999 (SEQ. NO.)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-5 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): 8 01 2 74

DATE WELL COMPLETED: 5-29-74 (05 29 74)

DEPTH OF WELL: 70 (TO NEAREST FOOT)

OWNER: Davis, Claude R.

LAST NAME

POST OFFICE: Charlestown

STREET OR RFD: Gree Spring RD.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WHICH IS WATER BEARING
Brown sand + gravel	0	20	
White clay + sand	20	70	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 4 NO. OF POUNDS: 376

GALLONS OF WATER: 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 5 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES: INSERT APPROPRIATE CODE BELOW — S T (STEEL), C O (CONCRETE), P C (PLASTIC), O T (OTHER)

MAIN CASING TYPE	NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	65

OTHER CASING (IF USED): DIAMETER (INCH) — DEPTH (FEET) FROM TO

SCREEN RECORD

INSERT APPROPRIATE CODE BELOW — S R (STEEL), O (GREEN OPEN HOLE OR BRONZE), P C (PLASTIC), O T (OTHER)

DEPTH (NEAREST WHOLE FOOT): S T 65 TO 70

6 (NEAREST INCH)

PUMPING TEST

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: (DISTANCE ...)

BEFORE PUMPING: 18

WHEN PUMPING: 40

TYPE OF PUMPING USED (CIRCLE APPROPRIATE BOX)

A AIR, P PISTON, C CENTRIFUGAL, R ROTARY, J JET, S SUBMERSIBLE

Bailer

PUMP INSTALLER

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE: A, C, J, P, R, ...)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

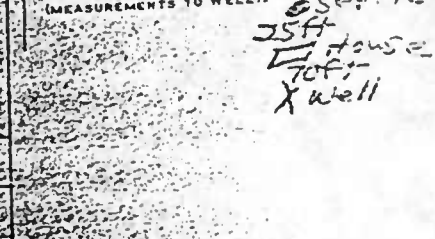
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE / BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

0827

ISSUE DATE- 05/01/74
MO DA YR

PERMIT NUMBER- CE-73-0817

DRILLER
ID. NUMBER- 15[illegible]

ISSUED TO DRILLER-
KIRK, VERNON W
RED 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
JONES, IDWAL
1537 CHICHESTER AVE
LINWOOD PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- , LOT- 9 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GROUTING WELL.
2. LOCATE WELL AT LEAST [illegible] FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
[illegible]
[illegible]
[illegible]

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

730827

EMERGENCY NO. (IN WELL)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B 1 6851

SEQUENCE NO. (TOWN USE ONLY)

1 2 3 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

DATE RECEIVED (TOWN USE ONLY)

$5.00

OWNER Jones
COL 15 LAST NAME

STREET OR RFD 1537 Chichester Ave
COL 34

POST OFFICE Linwood Pa
COL 57

DRILLER INFORMATION

B 1 CONTINUED

DATE 4/27/79 LICENSE NUMBER 159

Vernon W. Kirk
FULL NAME DRILLER LAST NAME

SIGNATURE Vernon W. Kirk

WELL INFORMATION

B 2

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5

AVERAGE DAILY QUANTITY (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

B 3

1 2 3 (SEQ. NO.)

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

1 2 3 (SEQ. NO.)

DIRECTION FROM (CIRCLE APPROPRIATE)

N NORTH E EAST N E NORTHEAST

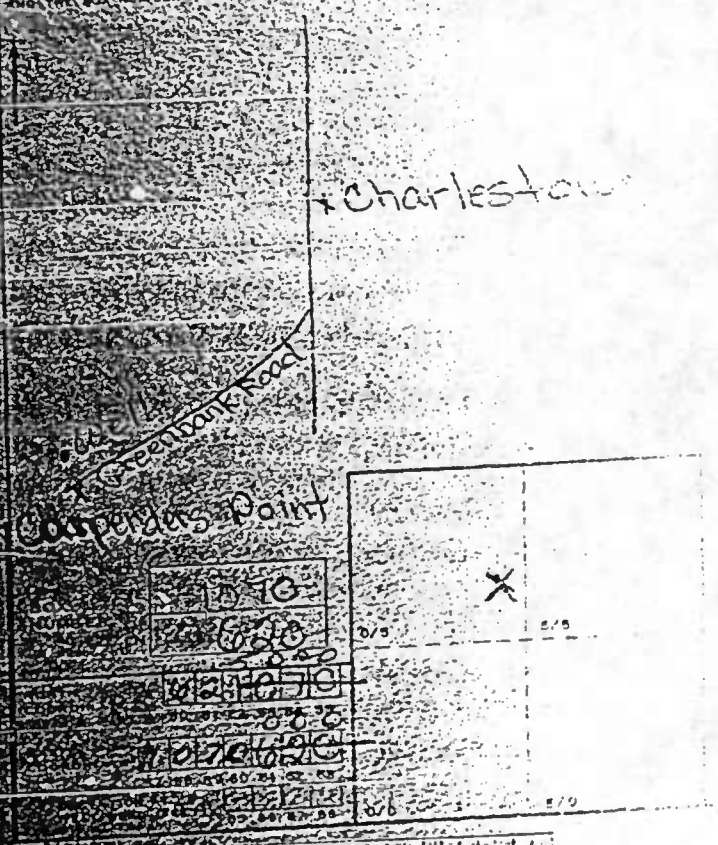
S SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD Greenbank Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 70

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM OR SKETCH ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION IN AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



730827

DNR 213 8/71

C 3443

(THIS NUMBER IS TO BE PUNCHED IN COLS. 1-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 8-8-74

DATE WELL COMPLETED 6-5-74

DEPTH OF WELL 105 (TO NEAREST FOOT)

DRILLER'S IDENTIFICATION

OWNER: JAMES T DWAI

STREET OR RFD: 1527 Chichester Ave

POST OFFICE: Lawndale

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATION PENETRATED, THEIR DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FROM	TO	CHECK IF WATER BEARING
Brown sand gravel	0	30	
red clay	30	70	
white clay & sand	70	105	

GROUTING RECORD

WELL WAS WELL GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 25 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE: WEBBT; STEEL S T; CONCRETE C O; PLASTICS P L; OTHER O T

MAIN CASING TYPE: S T

NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH): 6

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 100

OTHER CASING

DIAMETER (NEAREST INCH) DEPTH (NEAREST FOOT) FROM TO

SCREEN RECORD

TYPE: STEEL S T; BRASS BRONZE B R; OPEN HOLE H O; PLASTICS P L; OTHER O T

DIAMETER (NEAREST APPROPRIATE GAUGE)

DEPTH (NEAREST WHOLE FOOT) FROM TO

S T 100 105

CIRCLE APPROPRIATE BOXES

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 50

WHEN PUMPING 80

TYPE OF PUMPING EQUIPMENT USED (FOR PUMPING TEST)

A AIR; P PISTON; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERGIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT) + ABOVE; − BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS DWELLING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES MEASUREMENTS TO WELL).

ENTERED [illegible]

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 03/17/75
MO DA YR

PERMIT NUMBER- CE-73-1141

DRILLER
ID. NUMBER- [illegible]

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
SLAYMAN, JAMES

CHARSTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARSTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 09/17/75. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1141

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B 1 0036 SEQUENCE NO. (THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 03 25 75

OWNER Slayman, James
COL 15 LAST NAME

STREET OR RFD
COL 56

POST OFFICE Charstown, Md
COL 57

B 1 CONTINUED

DRILLER INFORMATION

3-12-75

LICENSE NUMBER 159

Vernon W. Kirk
FIRST NAME DRILLER LAST NAME

SIGNATURE Vernon W. Kirk

B 2

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

300

USE PER WATER (CIRCLE APPROPRIATE BOX)

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED IN WELL (APPROPRIATE METHOD)

[illegible]

[illegible]

[illegible]

[illegible]

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

[illegible]

[illegible]

[illegible]

[illegible]

B 3

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Charstown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTION (CIRCLE APPROPRIATE BOX)

N NORTH E EAST N E NORTHEAST

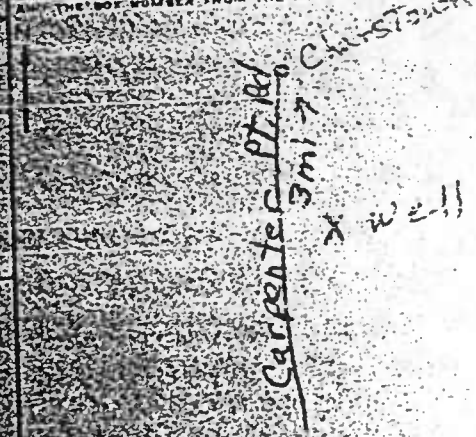
S SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD Carpenters Pt.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N NORTH S E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 60

DRAW A SKETCH BELOW FLOWING LOCATION OF WELL IN RELATIONSHIP TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ROAD. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1080 N 630

X

630000

1080000

WRA USE ONLY

73-1141

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 5811

DATE RECEIVED: 052078

DATE WELL COMPLETED: 5-7-75

DEPTH OF WELL: 90 (TO NEAREST FOOT)

050775

OWNER: Slayman, James

POST OFFICE: Charstown

STREET OR RFD: Charstown

WELL DESCRIPTION

WELL LOG

DESCRIPTION	FROM	TO	CHECK IF WATER BEARING
gravel + sand	0	20	
red clay	20	50	
yellow clay + sand	50	80	
white sand	80	90	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT, BENTONITE CLAY

NO. OF BAGS: 4 NO. OF POUNDS: 376

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES: INSERT APPROPRIATE CODE BELOW

S T — CONCRETE — PLASTIC — OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	85

OTHER CASING (IF USED): DIAMETER (INCH) — DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPES: INSERT APPROPRIATE CODE BELOW

S T — BRASS OR BRONZE — OPEN HOLE — PLASTIC — OTHER

DEPTH (NEAREST WHOLE FOOT): FROM 85 TO 90

6 (NEAREST INCH)

CIRCLE APPROPRIATE BOXES

HOURS PUMPED (TO NEAREST FOOT)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST FOOT)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM)

BEFORE PUMPING: 40

WHEN PUMPING: 60

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR — P PISTON — C CENTRIFUGAL — R ROTARY — J JET — S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

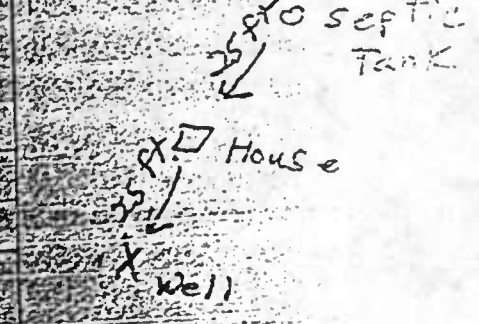
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE — − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 04/21/75
MO DA YR

PERMIT NUMBER- CE-73-1158

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 128

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY

NOLL, CLAIR W
2 WEST PINE ST
FLEETWOOD PA 19522

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS [illegible] CODES ON APPLICATION

[illegible]

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73 1158

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

DANES STATE OFFICE BUILDING, ANNAPOLIS, MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

B 1 3849

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

DATE RECEIVED (WRA USE ONLY)

OWNER (COL. 19-LAST NAME) Hill Clark W

STREET OR RFD (COL. 36) 2 West Pine Street

POST OFFICE (COL. 37) Elkwood Pa 18501

DRILLER INFORMATION

B 1 CONTINUED

DATE 4/19/72 LICENSE NUMBER 130

FIRST NAME Donald S LAST NAME Newman

DRILLER

SIGNATURE Donald S Newman

WELL INFORMATION

B 2

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC OR DOMESTIC-COMMERCIAL

FARMING AREA FOR IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

MUNICIPAL WATER SUPPLY

PRIVATE WATER COMPANY

DEPTH OF WELL 70

APPROXIMATE DIAMETER OF WELL

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

CABLE

ROTARY

DRIVEN

REVERSE ROTARY OR HYDRAULIC

CASING

B 3

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTIONS (USE NORTH, SOUTH, EAST, WEST)

N NORTH E EAST

S SOUTH W WEST

NORTHWEST

NEAR WHAT ROAD Woodhill Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW. TAKE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOWS BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

16.00	
6.00	0/0
6300000	
7708000	X
0/0	0/0

73-1158

GNR 214 9/71

C | 1 | 6292 (SEQUENCE NO. WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 05 08 75

DATE WELL COMPLETED 4/29/75

DEPTH OF WELL 105 (TO NEAREST FOOT)

042975

OWNER Spill, Clair W. (LAST NAME) (FIRST NAME)

POST OFFICE

STREET OR RED 2 West Pine St.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/20 yellow clay sand			
20/35 yellow sand clay			
35/85 gray clay sand			
85/97 white yellow clay sand			
97/105 coarse white gray sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) N

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M 40 45 BENTONITE CLAY B C 45 48

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 FT. TO 52 FT. 54 58

CASING RECORD

CASING TYPES INSERT APPROPRIATE CODE BELOW

R T STEEL C O CONCRETE

P L PLASTIC O T OTHER

MAIN CASING TYPE | NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH) | TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

98 (50 51 53 54 56 70)

OTHER CASING (USED) DIAMETER (INCH) | DEPTH (FEET) 75 100

SCREEN RECORD

INSERT APPROPRIATE CODE BELOW

S T STEEL B R BRASS OR BRONZE H O OPEN HOLE

P O PLASTIC O T OTHER

DEPTH (NEAREST WHOLE FOOT)

105

C | 3

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE ...)

BEFORE PUMPING 17

WHEN PUMPING 22 42

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR 27 P PISTON

C CENTRIFUGAL 27 R ROTARY 27

J JET 27 S SUBMERSIBLE 27

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES

CAPACITY GALLONS PER MINUTE (TO NEAREST GALLON) 31

PUMP HORSE POWER 37

PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE

− BELOW 49

LAND SURFACE 50 51 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 05/28/75
MO DA YR

PERMIT NUMBER- CE-73-1195

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

ARMSTRONG, KARREN
BX-291B
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
11/24/75 AFTER COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND

WATER RESOURCES COMMISSION

TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

73-1195

0042

SEQUENCE NO. (OFFICE USE ONLY)

DATE RECEIVED (OFFICE USE ONLY)

OWNER (COL. 10 LAST NAME) Armstrong, Robert

STREET OR RFD (COL. 35) Box 218

POST OFFICE (COL. 67) Perryville, Md.

65387

DRILLER INFORMATION

B 1 (CONTINUED) (SEQ. NO.)

DATE 5-19-75

LICENSE NUMBER 159

FIRST NAME Vernon W. LAST NAME Kirk

DRILLER

SIGNATURE Vernon W. Kirk

WELL INFORMATION

B 2 (SEQ. NO.)

MAXIMUM PUMPING RATE (GPM PER MINUTE) 3

MAXIMUM PUMPING RATE (GPD) 300

USE FOR WATER (CHECK APPROPRIATE BOX)

(B) DOMESTIC OR COUNTY (SINGLE FAMILY ONLY)

(F) FARMING, AGRICULTURE, IRRIGATION

(G) INDUSTRIAL OR COMMERCIAL

STATE AND FEDERAL GOVERNMENT

(H) PUBLIC WATER SUPPLY

(LIST DATE STATE NEEDS DOC. APPROVAL)

(P) PRIVATE WATER

(T) TEST

ESTIMATE DEPTH OF WELL 80

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CHECK APPROPRIATE METHOD)

DRIVEN

(R) ROTARY (HYDRAULIC ROTARY)

(C) CIRCULATION

DRIVE POINT

(D) DRILL

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELL (CHECK APPROPRIATE)

DEEPENED

REPLACEMENT (OLD WELL TO BE ABANDONED AND SEALED)

B 3 (SEQ. NO.)

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4 (SEQ. NO.)

DIRECTION (CIRCLE APPROPRIATE BOX)

N NORTH E EAST N E NORTHEAST

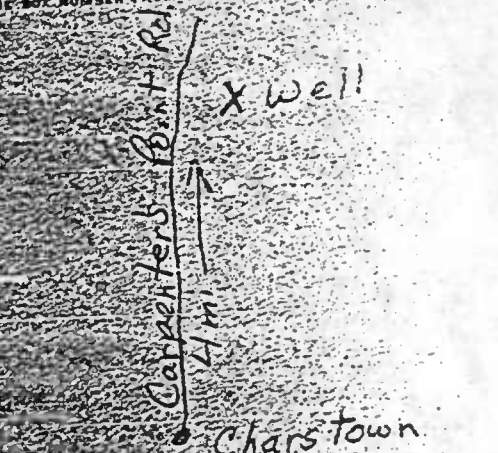
S SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD Carpenters Point Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE TOP OF THE SKETCH. ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER 1070

6930

X

0.25000

0.00005

73-1195

DNR 314-6/71

C 1 9077 (SEQUENCE NO. ARRANGE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 5-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD.
WELL COMPLETION REPORT

DATE RECEIVED (INWARDS ONLY): 1 2 3 — 8-13

DATE WELL COMPLETED: 9-3-75

DEPTH OF WELL: 90 (TO NEAREST FOOT)

0903 75

OWNER: Armstrong, Karren (LAST NAME)

POST OFFICE: Rec...

STREET OR RFD: BX 2918

C 3

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand + gravel	2	30	
Red clay	30	60	
White clay + sand	60	90	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 3 NO. OF POUNDS: 282

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 15 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE	NOMINAL DIAMETER (OF MAIN CASING NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	85

OTHER CASING (IF USED): DIAMETER, DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPE (INSERT APPROPRIATE CODE BELOW): (F J) BRASS OR BRONZE (B R) OPEN HOLE (H O) PLASTIC (P L) OTHER (O T)

DEPTH (NEAREST WHOLE FOOT): FROM S T 85 TO 90

PUMPING TEST

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE GALLONS PER MINUTE (TO NEAREST ...)

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL (DISTANCE TO ...): BEFORE PUMPING 35; WHEN PUMPING 60

TYPE OF PUMPED USED (FOR PUMPING TEST): (A) AIR (B) PISTON (C) CENTRIFUGAL (F) ROTARY (J) JET (S) SUBMERSIBLE — Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE ... BOX — SEE ABOVE: A, C, J, P, R, S, T, ...)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

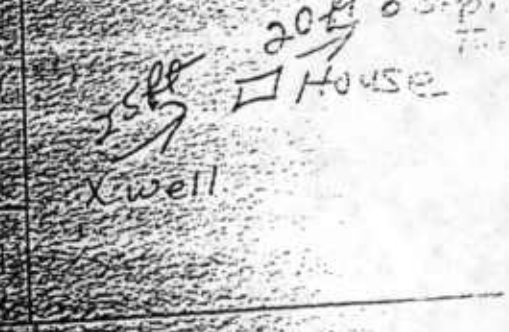
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE ... AND ENTER CASING HEIGHT): (+) ABOVE (−) BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SUBSTITUTE SEPTIC TANKS, AND/OR OTHER LAND MARKS ... INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



ENTERED

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE 07/28/75
MO DA YR

PERMIT NUMBER- CE-T3-1263

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

RODEHEAVER, HUEY
CANVAS BACK LA
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN.

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 01/28/76. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. IF ANY

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

JAMES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

73-1263

B 1 0 2 1 3

(THIS NUMBER IS TO BE PUNCHED IN COL. 8-8 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)

7-28-75

OWNER (COL. 15 LAST NAME) Rotteaver, Huey

STREET OR RFD (COL. 36) Canvas Back La

POST OFFICE (COL. 57) Charles Town, Md

B 2 CONTINUED

DRILLER INFORMATION

DATE 7-21-75

LICENSE NUMBER 159

Vernon W. Kirk

FIRST NAME DRILLER LAST NAME

SIGNATURE Vernon W. Kirk

WELL INFORMATION

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTION AND/OR (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST

S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD Canvas Back La

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 40

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

ONE FAMILY OR COUNTRY HOUSEHOLD (ONLY ONE)

FARMING, GARDEN, IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

MUNICIPAL WATER SUPPLY

PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

OTHER

APPROXIMATE DEPTH OF WELL 80 (FEET)

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR ROTARY

OTHER (DESCRIBE)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. TAKE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOWING, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

1080

630

6350

1690

X

DNR-21C 6/71

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

73-1263

C 1 3332 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 8-13 — 8-9-75 DATE WELL COMPLETED — DEPTH OF WELL 93 (TO NEAREST FOOT)

DATE RECEIVED 8-13 — 08/09/75

OWNER Rodeheaver, Huey — POST OFFICE Charles

STREET OR RTD Charlestown

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
red clay	2	80	
white clay, sand & gravel	80	93	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) — Y — N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) — CEMENT (C) (M) — BENTONITE CLAY (B) (C)

NO. OF BAGS 3 — NO. OF POUNDS 282

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 2 FT. TO 20 FT.

(CENTER OUT FROM SURFACE)

CASING RECORD

CASING TYPE (INSERT APPROPRIATE CODE BELOW) — (S) (T) STEEL — (C) (O) CONCRETE — (P) (L) PLASTIC — (O) (T) OTHER

MAIN CASING TYPE: S T — NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH): 6 — TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 88

OTHER CASING (IF USED)

DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) — (S) (T) STEEL — (B) (R) BRASS OR BRONZE — (H) (O) OPEN HOLE — (P) (L) PLASTIC — (O) (T) OTHER

	NOMINAL DIAMETER (NEAREST WHOLE INCH)	DEPTH (NEAREST WHOLE FOOT) FROM	TO
	6	88	93

CIRCLE APPROPRIATE BOXES

DRILLER

PUMPING RATE

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL

BEFORE PUMPING

WHEN PUMPING 30

TYPE OF PUMP USED (FOR PUMPING TEST)

(A) AIR — (J) JET — (C) CENTRIFUGAL — (N) NUTATING — (J) JET — (S) SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE ABOVE BOX — SEE ABOVE: A, C, J, N, S)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT) — (+) ABOVE — (−) BELOW — LAND SURFACE — (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

ENTERED

DNR-127

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

PERMIT NUMBER- CE-73-1274

ISSUE DATE- 07/30/75
MO DA YR

DRILLER
ID. NUMBER- 130

ISSUED TO DRILLER- SHORE WELL DRLRS INC

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

GLENN, GEORGE
605 RIVERVIEW RD
CLAYMONT DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

2. THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 01/28/76. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1274

ENERGENCY NO. (If any)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

S 1 3883 (SEQUENCE NO. WRA USE ONLY)

TYPES NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 9-19-75

OWNER: Glenn, George (COL 15 LAST NAME)

STREET OR RFD: 605 Riverview Rd. (COL 36)

POST OFFICE: Claymont, Delaware (COL 57)

B 1 CONTINUED — DRILLER INFORMATION

DATE: 7/28/75 — LICENSE NUMBER: 138

DRILLER: Donald S. Newnam (FIRST NAME, LAST NAME)

SIGNATURE: Donald S. Newnam

B 21 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- X — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY (MUST HAVE STATE HEALTH DEPT. APPROVAL)
- P — PRIVATE WATER COMPANY

APPROXIMATE DEPTH OF WELL: 135 (FEET)

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- CABLE TOOL — CHOKE OR REVERSED, WET, DRY, DRIVEN
- ROTARY — AIR, REVERSE ROTARY, HYDRAULIC ROTARY, ROTARY, ON ROCK POINT
- OTHER (DESCRIBE)

PERMANENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- PW — THIS WELL WILL NOT REPLACE ANY EXISTING WELL
- R — THIS WELL WILL REPLACE AN EXISTING WELL THAT WILL BE ABANDONED AND SEALED
- D — THIS WELL WILL BE DEEPENED AT THE SAME SITE AS AN EXISTING WELL (REPLACEMENT PROCEDURE IF AVAILABLE)

HOW TO REFILL AND PLUG WELL (WRA USE ONLY)

B 2 3 — (SEC. NO.)

COUNTY: Cecil (DO NOT ABBREVIATE)

SUBDIVISION:

SECTION:

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN):

B 4 — DIRECTION FROM ROAD (CIRCLE APPROPRIATE BOX)

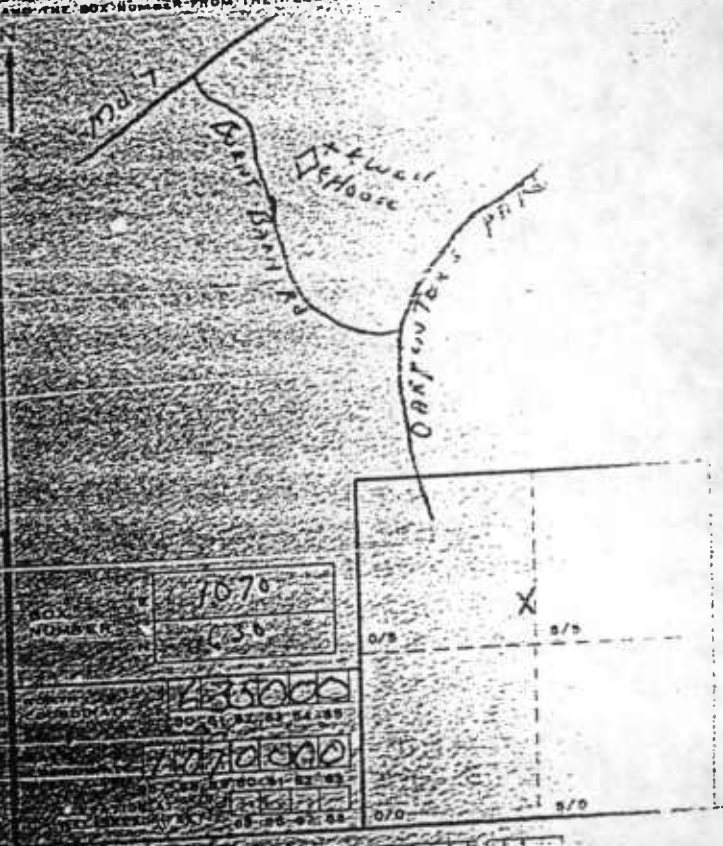
- N NORTH, E EAST, NE NORTHEAST, SE
- S SOUTH, W WEST, NW NORTHWEST, SW

NEAR WHAT ROAD: Burnt Bark Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, SOUTH, EAST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070 / 636

NORTH COORDINATE: 636000

EAST COORDINATE: 1070000

73-1274

C 1 9752 (SEQ. NO.) SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 09 11 75

DATE WELL COMPLETED 9/5/75

DEPTH OF WELL 167 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO. 09 01 75

OWNER Glenn, George (LAST NAME) (FIRST NAME)

POST OFFICE

STREET OR RFD 605 Riverview Road

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 fill			
2/6 yellow clay-sand			
65/75 white clay			
75/105 white clay-sand			
105/132 fine white sand-clay			
132/151 yellow-white clay			
151/167 coarse yellow-white sand			

CIRCLE APPROPRIATE BOX

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT C M BENTONITE CLAY B C

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM FT. TO FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW) S T STEEL C O CONCRETE P C PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T		160

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
		158	162

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) S Y STEEL W N BRASS OR BRONZE H O OPEN HOLE P C PLASTIC O T OTHER

DEPTH (NEAREST WHOLE FOOT) 162 167

PUMPING TEST

C 3 (SEQ. NO.)

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 93

WHEN PUMPING 125

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)

A AIR P PISTON

C CENTRIFUGAL R ROTARY

J JET S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

CAPACITY GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE / − BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 10/03/75
MO DA YR

PERMIT NUMBER- CE-73-1339

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

BETTER HOMES INC
479 ROBERTSWAY
ABERDEEN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID ONLY IF
04/03/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1339

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B 1 6553
(SEQ. NO.)
(THIS NUMBER IS TO BE MUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)

OWNER (COL. 15 - LAST NAME): Better Homes Inc. and Lewis Construction

STREET OR RFD (COL. 36): 478 Robertsway

POST OFFICE (COL. 57): Aberdeen, Maryland

B 1 CONTINUED (SEQ. NO.)

DATE: 10/1/75

LICENSE NUMBER: 136

DRILLER: Donald S. Newman (FIRST NAME) (LAST NAME)

SIGNATURE: Donald S. Newman

B 2 (SEQ. NO.)

WELL INFORMATION

MAX. PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY

F FARMING - AGRICULTURE - IRRIGATION

I INDUSTRIAL - COMMERCIAL - STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

(MUST HAVE STATE HEALTH DEPT. APPROVAL)

T TEST

APPROXIMATE DEPTH OF WELL: 175 FEET

APPROXIMATE DIAMETER OF WELL: 6 INCHES

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD BOX)

(BORED OR AUGERED) (TEST PIT OR SHALLOW DUG WELL)

(AIR ROTARY) (AIR PERCUSSION) (HYDRAULIC ROTARY)

(REVERSE ROTARY) (DRIVE POINT)

CABLE

(OTHER (DESCRIBE))

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(THIS WELL WILL NOT REPLACE AN EXISTING WELL)

(THIS WELL WILL REPLACE AN EXISTING WELL) (BORED AND DRILLED) (WAS SEALED)

(THIS WELL WILL BE DEEPENED) (WAS PREVIOUSLY DRILLED AT THE SAME LOCATION)

(OR PLACED IN SERVICE IN THE FOLLOWING WATERSHED)

B 3 (SEQ. NO.)

COUNTY: Cecil

SUBDIVISION:

SECTION:

NEAREST TOWN: Chesapeake City

MILES FROM TOWN (ENTER 0 IF IN TOWN):

B 4 (SEQ. NO.)

DIRECTION (CIRCLE APPROPRIATE BOX)

N NORTH | E EAST | NE NORTHEAST

S SOUTH | W WEST | NW NORTHWEST

NEAR WHAT ROAD: Mt. View Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N | SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST STREAMS WITH NORTH IN THE DIRECTION OF THE MAP. ENTER DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

GRID NUMBER: 1070 / 230

6565000

1075000

73-1339

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C T 9230

DATE RECEIVED (WRA USE ONLY): 11 3 75

DATE WELL COMPLETED: 10/22/75

DEPTH OF WELL (TO NEAREST FOOT): 185

OWNER: Better Homes Inc. LAST 479 Roberts Rd

POST OFFICE

STREET OR RFD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IN WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/1 top soil			
1/22 yellow clay-sand			
22/125 yellow-white clay			
125/158 red-white clay			
158/179 white clay-sand			
179/185 coarse white sand			

GROUTING RECORD

WELL WAS GEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ TO ____ (ENTER DEPTH FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE: S T; NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH): 4; TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 180

OTHER CASING IN USE (PUMPING DOWN): S T 2½; DEPTH (FEET) FROM 155 TO 180

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

DIAMETER (INCHES): ____ DEPTH (NEAREST WHOLE FOOT): S T 180 185

CIRCLE APPROPRIATE BOXES

C | 3

BLANK LINE

HOURS PUMPED (FOR REPORTING)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST WHOLE FOOT)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: DISTANCE FROM LAND SURFACE

BEFORE PUMPING 55

WHEN PUMPING 120

TYPE OF PUMP USED (FOR PUMPING TEST): A AIR; P PISTON; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE; − BELOW; LAND SURFACE 1 INCHES FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

House

X well

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 12/29/75-
MO DA YR

PERMIT NUMBER- CE-75-1401

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 158

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

MCELYEA, WILLIAM
BX 33 RD 1
ELKTON MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
06/29/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1401

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TOWER STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B1 6505

22955

OWNER: McElyea, William

STREET OR RFD: Box 33 RD 1

POST OFFICE: Elkton, Maryland

B1 SCHEDULED

DRILLER INFORMATION

DATE: 12/9/75

LICENSE NUMBER: 138

Donald S. Newnam

DRILLER

Donald S. Newnam

B2 WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(A) ONE (SINGLE OR DOUBLE) HOUSEHOLD UNIT ONLY

(F) FARMING, AGRICULTURE, IRRIGATION

(I) INDUSTRIAL (COMMERCIAL, STATE AND FEDERAL GOVERNMENT)

(M) MUNICIPAL WATER SUPPLY

(X) PRIVATE WATER COMPANY

(MUST HAVE STATE HEALTH DEPT. APPROVAL)

DEPTH OF WELL: 200 (FEET)

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

DRIVEN

AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)

REVERSE ROTARY DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(R) THIS WELL WILL REPLACE AN EXISTING WELL

(W) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

(D) THIS WELL WILL REPLACE A WELL THAT WILL BE DEEPENED AT A LATER DATE

(E) THIS WELL WILL BE DEEPENED ON SAME SITE AS EXISTING WELL (IF AVAILABLE)

B3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B4 DIRECTIONS

(CIRCLE APPROPRIATE BOX)

(N) NORTH (E) EAST (NE) NORTHEAST

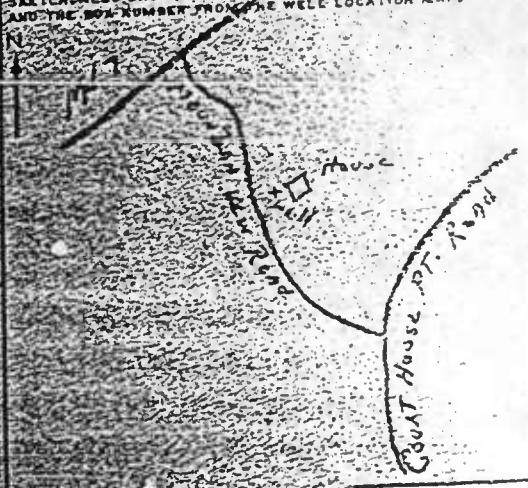
(S) SOUTH (W) WEST (NW) NORTHWEST

NEAR WHAT ROAD: Mt. View Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): (N) NORTH (S) SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE TOP OF THE SKETCH. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM. ON THE SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070 / 630

6135000

10075000

73-1401

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD.
WELL COMPLETION REPORT

C 1 1 1438 (SEQUENCE NO. WRA USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 02 3 76

DATE WELL COMPLETED 2/9/76

DEPTH OF WELL 181 (TO NEAREST FOOT)

DRILLER'S IDENTIFICATION

OWNER McIyea, William
LAST NAME
POST OFFICE
STREET OR RFD Box 33 Rd #1

WELL DESCRIPTION

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 fill			
2/32 yellow clay-sand			
32/71 yellow-white clay			
71/164 white-yellow-gray clay-sand			
164/181 coarse yellow-white sand			

CIRCLE APPROPRIATE BOXES

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES V NO N
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT C M BENTONITE CLAY B C
NO. OF BAGS NO. OF POUNDS
GALLONS OF WATER NO ANNULAR SPACE
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM FT. TO FT.
(IF FROM SURFACE)

CASING RECORD
CASING TYPES INSERT APPROPRIATE CODE BELOW
S T STEEL C O CONCRETE
P L PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	132

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	129	176

SCREEN RECORD
SCREEN TYPE OR OPEN HOLE INSERT APPROPRIATE CODE BELOW
S T STEEL B R BRASS OR BRONZE H O OPEN HOLE
P L PLASTIC O T OTHER

DEPTH (NEAREST WHOLE FOOT)

	FROM	TO
S T	176	181

C 2

PUMPING TEST
HOURS PUMPED (TO NEAREST ...)
PUMPING RATE (GALLONS PER MINUTE TO NEAREST ...)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE FROM ...)
BEFORE PUMPING 25
WHEN PUMPING 124

TYPE OF PUMPED USED (FOR PUMPING TEST)
A AIR P PISTON
C CENTRIFUGAL R ROTARY
J JET S SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER OR BOX - SEE ABOVE: A, C, I, P, R, S, T, O)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES V NO
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON)
PUMP HORSE POWER
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
+ ABOVE
- BELOW
LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 03/17/76
MO DA YR

PERMIT NUMBER- CE-73-1466

DRILLER
ID. NUMBER- 250

ISSUED TO DRILLER- DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
ALGAR, HARRY
RT 7
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS [illegible] OM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 09/17/76. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE DEPARTMENT WITHIN 30 DAYS [illegible] COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1466

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B 1 7010

SEQUENCE NO. (WRA USE ONLY)

DATE RECEIVED (WRA USE ONLY)

OWNER: Abad

STREET OR RFD: Rt. 7,

031776 POST OFFICE: Perryville, Md.

B 1 CONTINUED

DRILLER INFORMATION

DATE: March 15, 1976 LICENSE NUMBER: 250

Lorenzo D. Lippo

DRILLER FIRST NAME LAST NAME

SIGNATURE: Lorenzo D. Lippo

WELL INFORMATION

KIND OF DRILLING WATER PRESENT IN WELL: Yes

GRAVEL DRILL QUANTITY NEEDED (GALLONS)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)

FARMING, AGRICULTURE, IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

MUNICIPAL WATER SUPPLY

PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 INCHES (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

AIR ROTARY, ROTARY, DRIVE POINT

B 2

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: Perryville

MILES FROM TOWN (ENTER 0 IF IN TOWN)

B 4

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

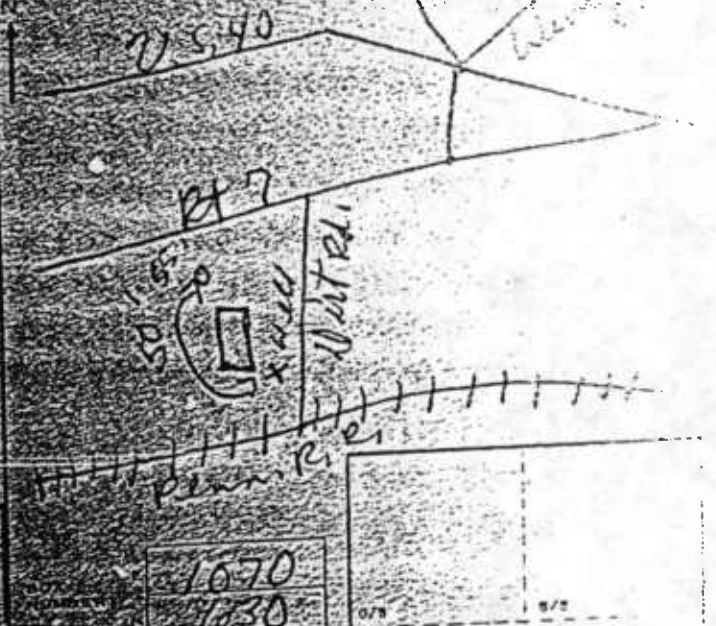
NORTH, EAST, NORTHEAST, SOUTH, WEST, NORTHWEST

NEAR WHAT ROAD: Md 7

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1/8

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN RELATION TO THE 001 NUMBER FROM THE WELL LOCATION MAP.



1070
630
130000
170000
X

73-1466

DNR 214 7/71

C | 1 | 9583 (SEQUENCE NO. WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): 060476

DATE WELL COMPLETED: 6/20/76

DEPTH OF WELL: 127 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO.

OWNER: Algar (LAST NAME) — Henry (FIRST NAME)

STREET OR RFD: Rt. 7 — POST OFFICE: Unionville, Md.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Topsoil	0	5	
Gravel & Sand	5	15	
Gray granite	15	127	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (YES) N (NO)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M — BENTONITE CLAY B C

NO. OF BAGS: 3 — NO. OF POUNDS: 282

GALLONS OF WATER: 15

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES: INSERT APPROPRIATE CODE BELOW — S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	20

OTHER CASING (IF USED): DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE: INSERT APPROPRIATE CODE BELOW — S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C | 2 (SEQUENCE)

DEPTH (NEAREST WHOLE FOOT): FROM 20 TO 127

C | 3 (SEQUENCE)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE: Air/Water

WATER LEVEL (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 30

WHEN PUMPING: 80

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)

A AIR — P PISTON — C CENTRIFUGAL — R ROTARY — J JET — S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES Y — N

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

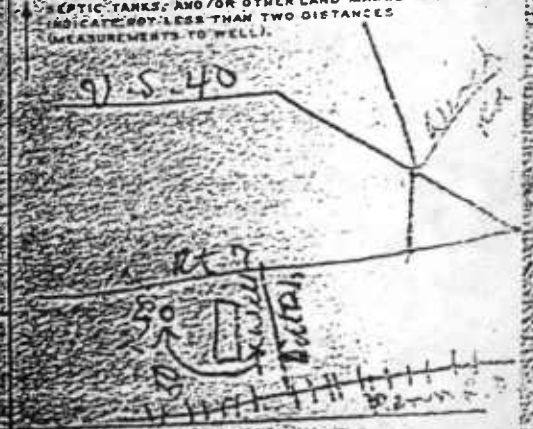
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE — − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

N SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 04/06/76
NO DAYS

PERMIT NUMBER- CE-73-1481

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 1[illegible]

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SIMPSON, EDGAR H
11327 RED LION RD
WHITE MARSH MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. CONFIRM SPECIFIC LOCATION FOR WELL WITH HEALTH DEPARTMEN
2. LOCATE WELL AT LEAST 150 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
10/06/76 [illegible] COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1481

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAKES STATE OFFICE BLDG. ANNAPOLIS, MD. 21401

APPLICATION FOR PERMIT TO DRILL WELL

S 1 0070 (SEQUENCE NO. (WRA USE ONLY))

1 2 3 (SEQ. NO.) 6

(THIS NUMBER IS TO BE PRINTED IN COL. 1-4 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)

OWNER Simpson Edgar H (COL. 13, LAST NAME)

STREET OR RFD 11327 Red Lion Rd (COL. 36)

POST OFFICE White Marsh, Md (COL. 37)

$20.00

S 1 CONTINUED

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 6

DATE 4-5-76

LICENSE NUMBER 159 (77) (80)

Vernon (FIRST NAME) Kirk (LAST NAME) DRILLER

SIGNATURE Vernon W. Kirk

S 2

WELL INFORMATION

1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

H HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

WASHED (DRILLERS) JETTED DRIVEN

AIR ROTARY AIR PERCUSSION ROTARY HYDRAULIC ROTARY

MUD ROTARY DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

R THIS WELL WILL NOT BE USED AN EXISTING WELL

THE EXISTING WELL WILL BE ABANDONED AND SEALED

THE WELL WILL BE DEEPENED

THE WELL WILL BE DEEPENED AND THE EXISTING WELL WILL BE ABANDONED AND SEALED

S 3

1 2 3 (SEQ. NO.)

COUNTY 3

SUBDIVISION 29

SECTION 44

NEAREST TOWN Perryville 50

MILES FROM TOWN (ENTER 0 IF IN TOWN)

S 4

1 2 3 (SEQ. NO.)

N NORTH E EAST N E NORTHEAST

S SOUTH W WEST N W NORTHWEST

8 9

NEAR WHAT ROAD mountain

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N (NORTH) 52

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE TOP OF THE PAGE. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM. THE SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

mountain

1 mi

Perryville 8 mi

BOX NUMBER 1070

630

X

635000

610000

5/6

6/6

73-1481

C 1 5531 (GRID NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD.
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 010677

DATE WELL COMPLETED 12-9-76

DEPTH OF WELL 60 (TO NEAREST FOOT)

OWNER Simpson, Edgar H

STREET OR RFD 11327 Red Lion RD. POST OFFICE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand	2	20	
Red clay	20	40	
White sand	40	60	✓

CIRCLE APPROPRIATE BOXES

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW) S T STEEL C O CONCRETE P L PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	55

OTHER CASING (IF USED) DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) S T STEEL B R BRASS OR BRONZE H O OPEN HOLE P L PLASTIC O T OTHER

DEPTH (NEAREST WHOLE FOOT) FROM 55 TO 60

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: BEFORE PUMPING 30

WHEN PUMPING 40

TYPE OF PUMPED USED (FOR PUMPING TEST) A AIR P PISTON C CENTRIFUGAL R ROTARY J JET S SUBMERSIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

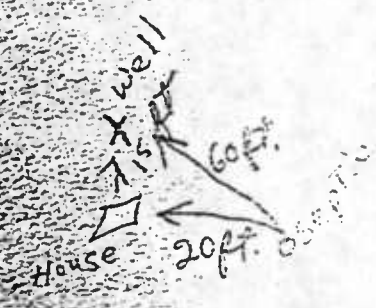
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT) + ABOVE − BELOW LAND SURFACE / (NEAREST FOOT)

LOCATION OF WELL ON LOT

N SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE 05/05/10
MO DA YR

PERMIT NUMBER- CE-73-1506

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY
GRAY, FLOYD
305 LANDING LA
ELKTON MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

2. THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
[illegible] COMPLETION [illegible]
REPORT [illegible] TO
THE DEPARTMENT [illegible] 30 DAYS
AFTER COMPLETION [illegible]

[illegible] ACHS
[illegible] MARYLAND
[illegible] RESOURCES
WATER [illegible] ADMINISTRATION

73-1506

EMERGENCY NO. (IF ANY)

B 1 0055

SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6

(THIS NUMBER IS TO BE PUNCHED IN COLA. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TABES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)

050876

OWNER: Gray Floyd (COL. 18 LAST NAME)

STREET OR RFD: 305 Landing Lane (COL. 35)

POST OFFICE: Elkton, Md (COL. 57)

B 1 CONTINUED

DRILLER INFORMATION

DATE: 4-26-76

LICENSE NUMBER: 159 (77 80)

Vernon W. Kirk (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Vernon W. Kirk

B 2

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (S) ONE (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- FARMING, AGRICULTURE, IRRIGATION
- INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- MUNICIPAL WATER SUPPLY
- PRIVATE WATER COMPANY
- MUST HAVE STATE HEALTH DEPT. APPROVAL
- TEST

ROXIMATE DEPTH OF WELL: 70

ROXIMATE DIAMETER OF WELL: 6

METHOD OF DRILLING USED

DRIVEN

ROTARY, HYDRAULIC ROTARY

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3

COUNTY: Cecil (DO NOT APPROXIMATE)

SUBDIVISION

SECTION

NEAREST TOWN: Perryville

MILES FROM TOWN (ENTER 0 IF IN TOWN): 4

B 4

DIRECTION FROM (CIRCLE APPROPRIATE BOX)

(N) NORTH (E) EAST (N E) NORTHEAST

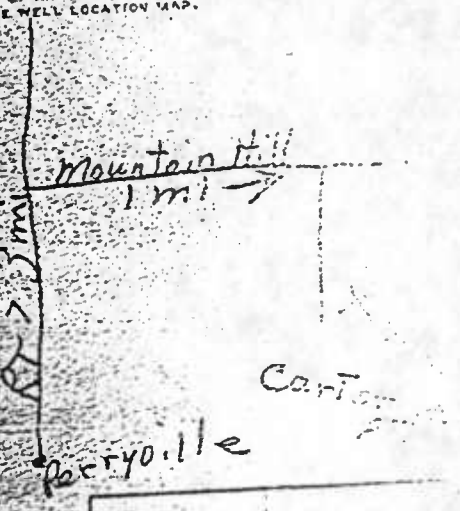
(S) SOUTH (W) WEST (N W) NORTHWEST

NEAR WHAT ROAD: Mountain Hill

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) SOUTH (S) EAST (E)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 60

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. TRACE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



X

BOX NUMBER: 1070 / 620

NORTH COORDINATE: 620000

EAST COORDINATE: 1010000

0/5 8/5

0/0 8/0

WELL LOCATION

73-1506

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TABES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C | L | 2979 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): 010677

DATE WELL COMPLETED: 12-13-76

DEPTH OF WELL: 65 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO.

OWNER: Gray Floyd (LAST NAME)

POST OFFICE: Elkton, Md.

STREET OR RFD: 305 Landing La.

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CIRCLE WATER BEARING
Top soil	0	2	
Brown sand + gravel	2	20	
White clay	20	45	
Brown sand	45	65	✓

GROUTING RECORD — WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y / N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) / BENTONITE CLAY (B C)

NO. OF BAGS: 4 NO. OF POUNDS: 376

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 0 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD — CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T / C O CONCRETE / P L PLASTIC / O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	60

OTHER CASING (IF USED): DIAMETER (INCH) / DEPTH (FEET) FROM / TO

SCREEN RECORD — SCREEN TYPE (INSERT APPROPRIATE CODE BELOW): S T STEEL / B R BRASS OR BRONZE / H O OPEN HOLE / P L PLASTIC / O T OTHER

DEPTH (NEAREST WHOLE FOOT): S T 60 65

C S

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: DISTANCE FROM LAND SURFACE
BEFORE PUMPING: 25
WHEN PUMPING: 45

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR / P PISTON / C CENTRIFUGAL / R ROTARY / J JET / S SUBMERSIBLE

Bailer

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE CODE BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y / N

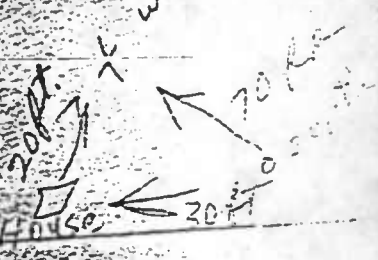
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE / − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 06/17/76
MO DA YR

PERMIT NUMBER- CE-73-1588

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER- KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- HARRIS, DONALD S
17 ONAWAY PL
NEW CASTLE DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/31/76 - WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

BY
HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73- 1588

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TOWER STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

SEQUENCE NO. (WRA USE ONLY): 0059

(THIS NUMBER IS TO BE ENTERED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): 061576

OWNER (COL. 10 LAST NAME): Harris Donald S

STREET OR RFD (COL. 36): 17 Onaway Pl., Garfield Park

POST OFFICE (COL. 57): New Castle, Del

B 1 — DRILLER INFORMATION

DATE: 6-7-76

LICENSE NUMBER: 159

FIRST NAME: Vernon W. LAST NAME: Kirk

SIGNATURE: Vernon W Kirk

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

AGRICULTURE IRRIGATION

INDUSTRIAL COMMERCIAL STATE AND FEDERAL GOVERNMENT

PUBLIC WATER SUPPLY

PRIVATE WATER COMPANY

WRA REVIEW STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 75 FEET

APPROXIMATE DIAMETER OF WELL: NEAREST INCH

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

CABLE TOOL AUGER DRIVEN

AIR HAMMER AIR ROTARY

MUD ROTARY

AIR ROTARY

MUD

DRILLING

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3 — LOCATION

COUNTY: Cecil

SUBDIVISION:

SECTION: LOT

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 3

B 4 — DIRECTION (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST

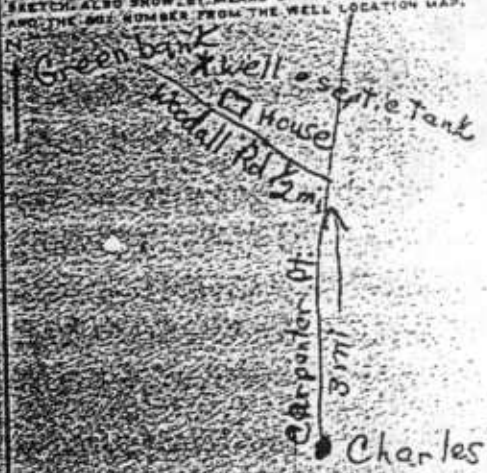
S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD: Woodall Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ESTIMATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. THIS SKETCH ALSO SHOWS BY MEANS OF AN "X" THE WELL LOCATION IN THE SQUARE AND THE SQ. NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1080 / 630

X

ELEVATION ALT. 0/0

RECORD

73-1588

DNR 212 8/71

C 1 8070 (SEQ. NO.)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DEPTH OF WELL: 90 (TO NEAREST FOOT)

DATE WELL COMPLETED: 8-31-76

DRILLERS IDENTIFICATION NO.

SEQUENCE NO. (WRA USE ONLY): 092770

083176

OWNER: Harris, Donald (LAST NAME)

POST OFFICE: New Castle

STREET OR RFD: 17 Ohaway Pl

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
top soil	0	2	
red clay	2	30	
yellow clay + sand	30	55	
white sand	55	90	✓

CIRCLE APPROPRIATE BOXES

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (YES) N (NO)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M — BENTONITE CLAY B C

NO. OF BAGS: 6 — NO. OF POUNDS: 564

GALLONS OF WATER: 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 30 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	85

OTHER CASING (IF USED): DIAMETER (INCH) — DEPTH (FEET) FROM

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

DEPTH (NEAREST WHOLE FOOT): FROM 85 TO 90

C 3

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 50

WHEN PUMPING: 70

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR — P PISTON — C CENTRIFUGAL — R ROTARY — J JET — S SUBMERSIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE CODE BOX — SEE ABOVE): A, C, J, P, R, S, T

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y (YES) N (NO)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

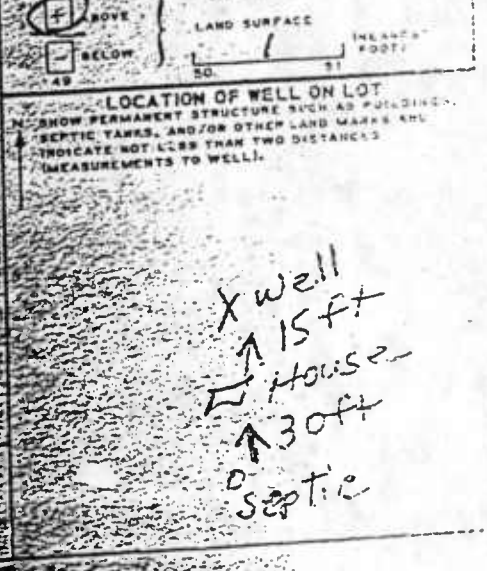
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE — − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



X well
↑ 15 ft
House
↑ 30 ft
Septic

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 06/25/76
MO DA YR

PERMIT NUMBER- CE-73-1597

DRILLER
ID. NUMBER- 199

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
GOOD, RODNEY C
P O BX 27
SILVER SPRING PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY.
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/25/76 OR WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1597

EMERGENCY NO. (If any)

B 1 0060 SEQUENCE NO. (WRD USE ONLY)

(SEQ. NO.)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TANES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)

0 6 2 5 7 6

OWNER: Good Rodney C (COL. 15 - LAST NAME)

STREET OR RFD: PO Box 27 (COL. 36)

POST OFFICE: Silver Spring Pa (COL. 57)

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 6-14-76

LICENSE NUMBER: 159

FIRST NAME: Vernon DRILLER LAST NAME: Kirk

SIGNATURE: Vernon W Kirk

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- (F) FARMING, AGRICULTURE, IRRIGATION
- (I) INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- (M) MUNICIPAL WATER SUPPLY
- (P) PRIVATE WATER COMPANY } MUST HAVE STATE HEALTH DEPT. APPROVAL
- (T) TEST

APPROXIMATE DEPTH OF WELL: 70 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (MACHINE) JETTED DRIVEN

AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE ROTARY DRIVE POINT

(KEY TECHNIQUE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

(R) THIS WELL WILL REPLACE AN EXISTING WELL (Point)

(D) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

(N) NEW WELL

(E) EXISTING WELL TO BE DEEPENED

(A) ALTERNATE WELL TO BE PERFORATED OR DEEPENED IF AVAILABLE

NOTE TO BE FILLED IN BY DRILLER (WRA USE ONLY)

DATE WELL COMPLETED

DATE WELL APPROVAL

B 3 (SEQ. NO.)

LOCATION

COUNTY: Cecil

SUBDIVISION:

SECTION:

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN):

B 4 (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE

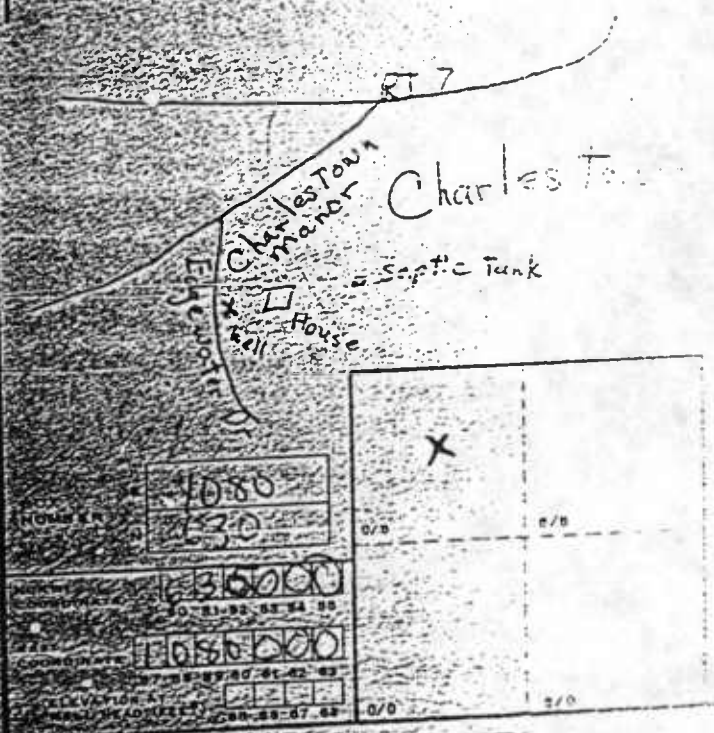
S SOUTH W WEST NW NORTHWEST SW

NEAR WHAT ROAD: Edgewater

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 20

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



NORTHING: 4080 430

EASTING: 6350000

ELEVATION: 1050000

ENTERED

23-1597

DNR 214 9/71

C | 5047 (SEQUENCE NO. OPEN COR ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE WELL COMPLETED: 8-24-76

DEPTH OF WELL: 40 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO.

002778

OWNER: Good, Rodney (LAST NAME) (FIRST NAME)

STREET OR RFD: PO BX 27

POST OFFICE: Silver Spring

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
brown sand + gravel	2	15	
yellow clay + sand	15	30	
Brown sand + gravel	30	40	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (YES) N (NO)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 3 NO. OF POUNDS: 282

GALLONS OF WATER: 18

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T (STEEL) C O (CONCRETE) P L (PLASTIC) O T (OTHER)

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	35

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T (STEEL) B R (BRASS OR BRONZE) H O (OPEN HOLE) P L (PLASTIC) O T (OTHER)

DEPTH (NEAREST WHOLE FOOT): FROM 35 TO 40

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR):

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON):

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (DISTANCE FROM LAND SURFACE):

BEFORE PUMPING: 5

WHEN PUMPING: 20

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR, P PISTON, T TURBINE, C CENTRIFUGAL, R ROTARY, J JET, S SUBMERGED, Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, B)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y (YES) N (NO)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON):

PUMP HORSE POWER:

PUMP COLUMN LENGTH (NEAREST FOOT):

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE / − BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

N SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

X well 15 ft
House 20 ft
Septic

ENTERED

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 06/28/76
MO DA YR

PERMIT NUMBER- CE-73-1598

ISSUED TO DRILLER-

PRESTON & HAMILTON 1
15 N PARADISE ROAD
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

WARRINGTON, JOHN
RD 1 BX 223
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY.
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/28/76 A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1598

1572

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)

OWNER: WARRINGTON
COL. 10 - LAST NAME

062876

STREET OR RFD: RD1 Box 225
COL. 36

POST OFFICE: Perryville, Md. 21903
COL. 57

B 1 CONTINUED — DRILLER INFORMATION

DATE: 3-3-76

LICENSE NUMBER: 112

Charles H. Hamilton, Jr.
FIRST NAME — DRILLER — LAST NAME

SIGNATURE: Charles H. Hamilton Jr.

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- O — SANITARY (INCLUDES DOMESTIC HOUSEHOLD UNIT ONLY)
- S — FARMING
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- (MUST HAVE STATE HEALTH DEPT. APPROVAL)
- X — OTHER

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) — DRIVEN
JETTED — DRIVEN-JETTED — ROTARY — HYDRAULIC ROTARY
AIR ROTARY — REVERSE ROTARY — DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE)
- N — THIS WELL WILL REPLACE AN EXISTING WELL
- W — THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S — THIS WELL WILL BE USED AS A STANDBY
- O — THIS WELL WILL BE DEEPENED OR AVAILABLE FOR FUTURE DEEPENING

RIGHT TO ENTER WITHIN YOUR SITE
- YES
- NO

B 3

COUNTY: Cecil

SUBDIVISION:

SECTION:

NEAREST TOWN: Perryville

MILES FROM TOWN CENTER (IN TOWN)

B 4 — DIRECTION (CIRCLE APPROPRIATE BOX)

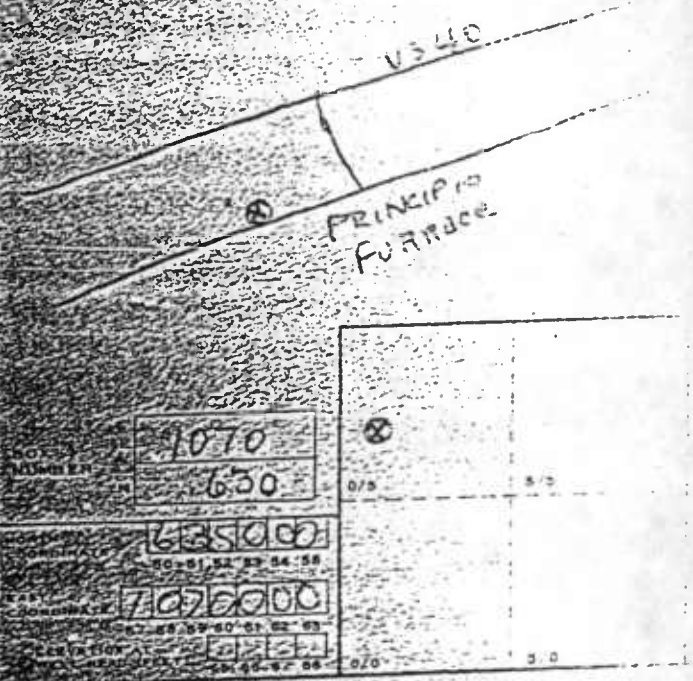
- N NORTH
- E EAST
- N/E NORTHEAST
- S SOUTH
- W WEST
- N/W NORTHWEST

NEAR WHAT ROAD: Principio

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL, NEAREST ROADS, AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. TAKE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070 630

COORDINATES: 635000 / 1070000

ELEVATION

73-1598

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

SEQUENCE NO. (WRA USE ONLY) 3109 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 0781 77

DATE WELL COMPLETED 5-3-77

DEPTH OF WELL 100 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO. 0 5 0 3 7 7

OWNER Warrington (LAST NAME)

STREET OR RFD RD 1, Box 223 POST OFFICE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
clay & rock	0	35	
granite	35	100	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS 6 NO. OF POUNDS 600

GALLONS OF WATER ~~3-36~~ 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 0 FT. TO 36 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	37

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): ST STEEL, BR BRASS OR BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (SEQ. NO.)

EACH SCREEN	DEPTH (NEAREST WHOLE FOOT) FROM	TO
HO	37	100

DIAMETER OF SCREEN (NEAREST INCH)

WAS USE GROUT NOT TO BE FILLED IN BY DRILLER

C 3

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST ...)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM ...)

DEFORE PUMPING 60

WHEN PUMPING 100

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)

(A) AIR, (F) PISTON, (C) CENTRIFUGAL, (R) ROTARY, (J) JET, (S) SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER BOX — SEE ABOVE: A, C, J, P, R, S, T, B)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES (Y) NO

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

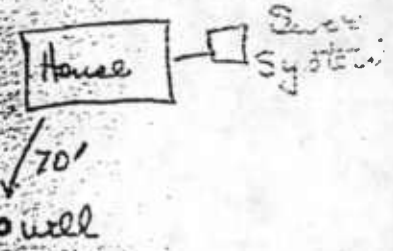
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

(+) ABOVE (−) BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/28/76
MO DA YR

PERMIT NUMBER- CE-77-1756

DRILLER
ID. NUMBER-

ISSUED TO DRILLER-
DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
ROBINSON, LEROY
GREENBANK
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT- 3 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/23/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (IF ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

LE-73-1756

B 1 1276 (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)

092876

OWNER Robinson Leroy (COL 17 LAST NAME)

STREET OR RFD Greenbank (COL 35)

POST OFFICE Charlestown, Md. (COL 57)

DRILLER INFORMATION

B 1 CONTINUED (SEQ. NO.)

DATE Sept. 22, 1976 LICENSE NUMBER 250

Constantine DiFilippo (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE Constantine DiFilippo

WELL INFORMATION

B 2 (SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 8

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (G A P) ENGINEER REVIEW DISTRICT NO.

FORCE WRITE INITIALS IN BOX CONDITIONS A E N S G W Q C L U

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED (SEQ. NO.)

STATE HEALTH (CIRCLE BOX) S

COUNTY NAME Cecil COUNTY NO.

DATE MO. 09 DAY 24 YR. 76

APPROVED BY Wm. A. Sumner (P)

LOCATION OF WELL

B 3 (SEQ. NO.)

COUNTY Cecil

SUBDIVISION Greenbank

SECTION

NEAREST TOWN Charlestown

MILES FROM TOWN 2

DIRECTION FROM TOWN

B 4 (SEQ. NO.)

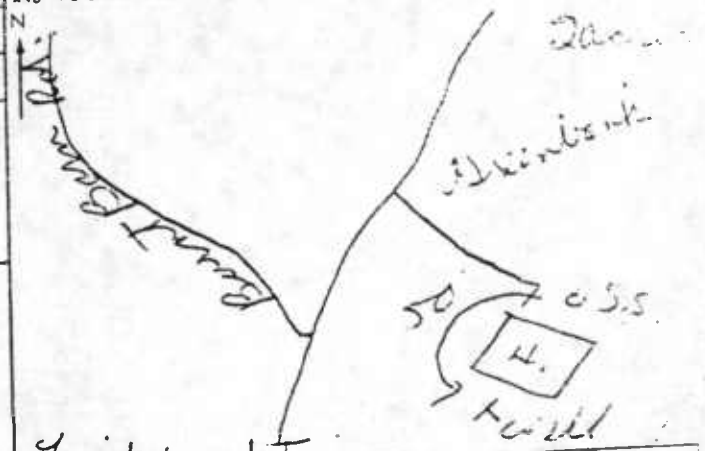
N NORTH E EAST N E NORTHEAST
S SOUTH W WEST N W NORTHWEST S W

NEAR WHAT ROAD Burnt Barn

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N S E W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 3

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD. ... SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



First hard top rd.

BOX NUMBER E 1080 N 630

NORTH COORDINATE 670000

EAST COORDINATE 1080000

ELEVATION AT WELL HEAD (FEET)

X

B 5 (SEQ. NO.) SPECIAL CONDITIONS 8-63 (WRA USE ONLY)

ORIGINAL

DNR 214 9 71

C 1 2535 (SEQ. NO.) SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

73-1756

DATE RECEIVED (WRA USE ONLY): 110977

DATE WELL COMPLETED: Oct 6 '76 — 100676

DEPTH OF WELL: 84 (TO NEAREST FOOT)

DRILLER IDENTIFICATION NO.: CE 72

OWNER: Robinson (LAST NAME) — Leroy (FIRST NAME)

STREET OR RFD: Greenbank — POST OFFICE: Charlestown, MD.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
topsoil & gravel	0	30	
clay white	30	60	
white Sand	60	70	
coarse sand	70	84	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 7 NO. OF POUNDS: 700

GALLONS OF WATER: 42

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 40 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (C D) CONCRETE, (P L) PLASTIC, (O T) OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	79

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (B R) BRASS OR BRONZE, (H O) OPEN HOLE, (P L) PLASTIC, (O T) OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN		FROM	TO
1	S T	79	84
2			
3			

SLOT SIZE 1. ___ 2. ___ 3. ___

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK: FROM ___ TO ___

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; W O OTHER DATA AVAILABLE

C 3 (SEQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST ...)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST ...)

METHOD USED TO MEASURE PUMPING RATE: bailer

WATER LEVEL (DISTANCE ...)

BEFORE PUMPING: 60

WHEN PUMPING: ~~60~~ 61

TYPE OF PUMPED USED (FOR PUMPING TEST): (A) AIR, (B) BOTTOM, (C) CENTRIFUGAL, (R) ROTARY, (J) JET, (S) SUBMERSIBLE, bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE ... BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

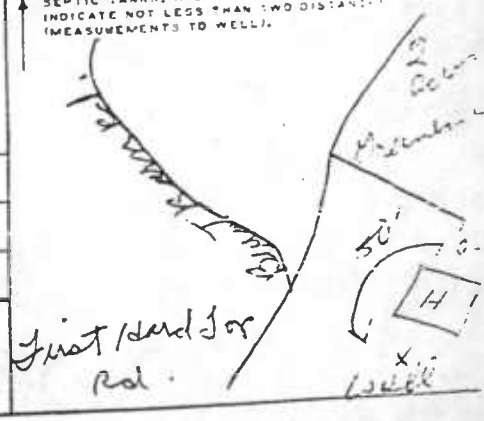
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): (+) ABOVE, (−) BELOW — LAND SURFACE 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS ... SEPTIC TANKS, AND (OR OTHER LAND MARKS) AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

- (A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- (E) ELECTRIC LOG OBTAINED
- (P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Constantine DiFilippo

SIGNATURE: Constantine DiFilippo

ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/10/76
MO DA YR

PERMIT NUMBER- CE-73-1814

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- [illegible]

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

GREENE, DAVID
PERRY PT
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 05/10/77. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

B 1 0601 (SEQ. NO.)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-1814

DATE RECEIVED (WRA USE ONLY)

111076

OWNER: Greene, David (COL 15 LAST NAME)

STREET OR RFD: Perry Pt. (COL 56)

POST OFFICE: Perryville, Maryland (COL 57)

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 11/5/76 LICENSE NUMBER: 138

Donald S. Newnam (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Donald S. Newnam

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- O HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER: G A P

ENGINEER REVIEW DISTRICT NO.

FORCE: WRITE INITIALS IN BOX

CONDITIONS: A E N S G W Q C L U

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE)

SUBDIVISION

SECTION

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER O. F. IN TOWN)

B 4 (SEQ. NO.)

DIRECTION FROM TOWN

N NORTH E EAST N E NORTHEAST S E

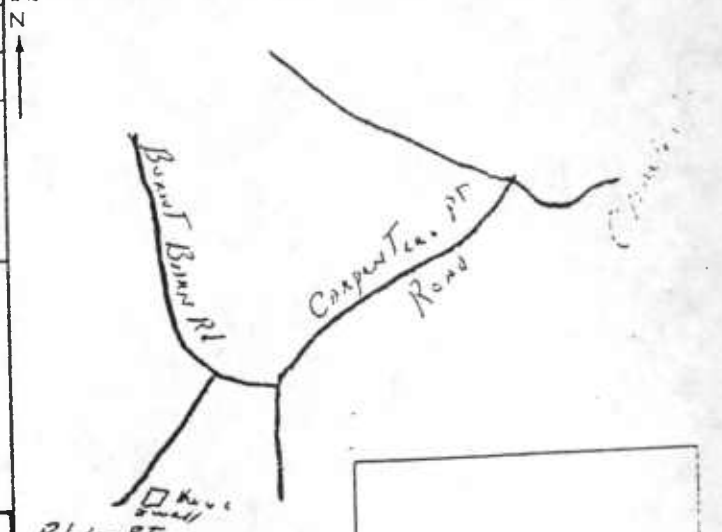
S SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD: Burnt Barn Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S EAST E WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN PERMIT ... ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ... TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING ... SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1070 N 620

NORTH COORDINATE: 625000

EAST COORDINATE: 1070000

ELEVATION AT WELL HEAD (FEET)

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX): S

COUNTY NAME: Cecil COUNTY NO.

DATE: MO. DAY YR. 11 09 76

APPROVED BY: Wm. A. Sumner

B 5 (SEQ. NO.)

SPECIAL CONDITIONS 8-63 (WRA USE ONLY)

ORIGINAL

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 3134 (SEQ. NO.) (SEQUENCE NO. WRA USE ONLY)
THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

DEPTH OF WELL CE-73-1814

DATE RECEIVED (WRA USE ONLY) 012677

DATE WELL COMPLETED 012471

(TO NEAREST FOOT)

DRILLERS IDENTIFICATION

OWNER Green, David (LAST NAME) Perry Pt. (FIRST NAME)

POST OFFICE

STREET OR RFD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
2/2 top soil			
2/25 yellow-white clay-sand-gravel			
25/60 yellow sand-clay			
60/95 red-white clay			
95/114 coarse white-yellow sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M BENTONITE CLAY B C

NO. OF SACKS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM FT. TO FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW)

S T STEEL C O CONCRETE P L PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	106

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	24 304	104	189

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW)

S T STEEL B R BRASS OR BRONZE H O OPEN HOLE P L PLASTIC O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN	FROM	TO
1 S T	109	114
2		
3		

SLOT SIZE 1. 10 2. 3.

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W O OTHER DATA AVAILABLE

C 3 SEQ. NO.

PUMPING TEST

NO. OF PUMPING TESTS

PUMPING RATE (GALLONS PER MINUTE)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: DISTANCE

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR P PISTON C CENTRIFUGAL R ROTARY J JET S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER BOX — SEE ABOVE: A, C, J, R, P, S, T)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

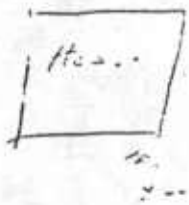
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE − BELOW LAND SURFACE

LOCATION OF WELL ON LOT

N SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT) Donald S. Newnam

SIGNATURE Donald S. Newnam

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 03/04/77
MO DA YR

PERMIT NUMBER- CE-73-1931

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER- KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

DAROIS, ROGER E
950 HILLSWOOD RD
BELAIR MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 09/04/77. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) —

B 1 7014 SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY) 030977

OWNER Darcis E Roger (COL 15 LAST NAME)

STREET OR RFD 950 Hillswood Rd (COL 36)

POST OFFICE Belair, Md. (COL 57)

73-1931

6-13

B 1 CONTINUED — DRILLER INFORMATION

1 2 3 (SEQ. NO.) 6

DATE 9-25-77 LICENSE NUMBER 159 (77 80)

Vernon W. Kirk (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE Vernon W. Kirk

B 2 — WELL INFORMATION

1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3 (6 12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

22 — M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 90 (2A 28) FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

39 — PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41 52)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (54 63) — G A P — ENGINEER REVIEW DISTRICT NO. (65)

FORCE (67 68) — WRITE INITIALS IN BOX — CONDITIONS (70 71 72 73 74 75 76 77 78 79) — A E N S G W Q C L U — U

B 4 CONTINUED — HEALTH DEPARTMENT APPROVAL

1 2 3 (SEQ. NO.) 6

41 S STATE HEALTH (CIRCLE BOX) — COUNTY NAME Cecil — COUNTY NO.

DATE MO. 03 DAY 01 YR. 77 (43 48) — APPROVED BY Wm. R. Sumner (P)

B 3 — LOCATION OF WELL

1 2 3 (SEQ. NO.) 6

COUNTY Cecil (DO NOT ABBREVIATE)

SUBDIVISION (23)

SECTION (44 46)

NEAREST TOWN Charles Town (52)

MILES FROM TOWN ENTER DIRECTION (53)

B 4 — DIRECTION FROM ROAD (CIRCLE APPROPRIATE BOX)

1 2 3 (SEQ. NO.) 6

N NORTH — E EAST — N E NORTHEAST

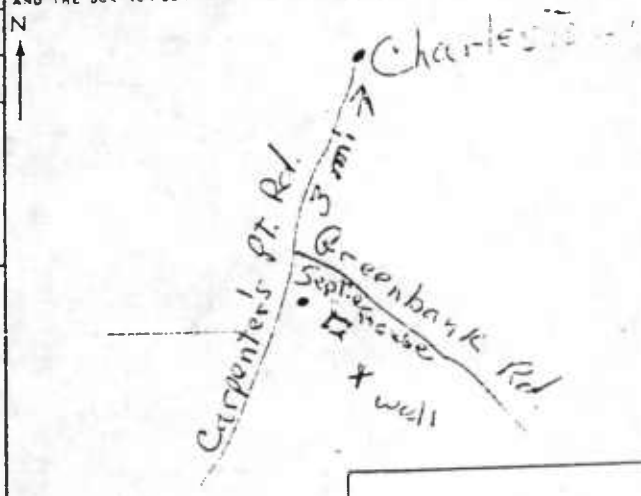
S SOUTH — W WEST — N W NORTHWEST

NEAR WHAT ROAD Greenbank Rd. (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N (32) SOUTH S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 75 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1080 N 630

X 0/5

NORTH COORDINATE 635000 (50 51 52 53 54 55)

EAST COORDINATE 1080000 (57 58 59 60 61 62 63)

ELEVATION AT WELL HEAD (FEET) (65 66 67 68)

0/0

B 5 — SPECIAL CONDITIONS 8-63 (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6

ORIGINAL

GNR 214 9/71

C | 1 | 3627 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): 040677

DATE WELL COMPLETED: 5-31-77

DEPTH OF WELL: 110 (TO NEAREST FOOT)

DRILLER'S QUENT: 73-1931

OWNER: Darois Roger E. (LAST NAME)

STREET OR RFD: 950 Hillswood Rd.

POST OFFICE: Belair Md

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand & gravel	2	32	
red clay	32	92	
white sand & clay	92	100	
white sand	100	110	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (YES) — N (NO)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) — BENTONITE CLAY (B C)

NO. OF BAGS: 3 — NO. OF POUNDS: 282

GALLONS OF WATER: 18

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 15 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T (STEEL) — C O (CONCRETE) — P L (PLASTIC) — O T (OTHER)

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	105

OTHER CASING (IF USED)

EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T (STEEL) — B R (BRASS OR BRONZE) — H O (OPEN HOLE) — P L (PLASTIC) — O T (OTHER)

C | 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN

		FROM	TO
1	S T	105	110
2			
3			

SLOT SIZE 1. ___ 2. ✓ 3. ___

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK — FROM — TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): T (TELESCOPE CASING) — (E.R.O.S.) (LOG INDICATOR) — W O (OTHER DATA AVAILABLE)

PUMPING TEST

WATER LEVEL

BEFORE PUMPING: 20

WHEN PUMPING: 60

TYPE OF PUMPED USED (FOR PUMPING TEST): A (AIR) — C (CENTRIFUGAL) — J (JET) — Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

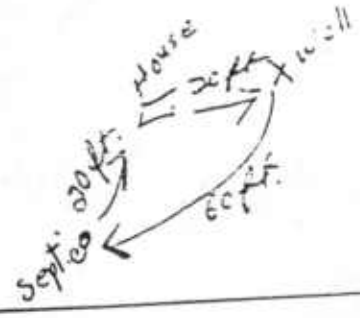
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT: + ABOVE — − BELOW — LAND SURFACE — 1 — NEAREST FOOT

LOCATION OF WELL ON LOT

N — SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND GROUTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Vernon W. Kirk

SIGNATURE: Vernon W. Kirk

ORIGINAL

DNR 13

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 03/31/77
MO DA YR

PERMIT NUMBER- CE-73-1956

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 1..

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
MAST JR, VERNON G
RT 3 BX 532
NEW HOLLAND PA 17557

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/28/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

68

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 6957 SEQUENCE NO. (WRA USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)
033177
8-13

OWNER: Mast, Vernon G. Jr. (COL 15 LAST NAME) (FIRST NAME)
STREET OR RFD: Rt. 3 Box 532 (COL 36)
POST OFFICE: New Holland, Pa. 17557 (COL 57)

73-1956

DRILLER INFORMATION

B 1 CONTINUED (SEQ. NO.)
DATE: 3-14-77
LICENSE NUMBER: 159 (77 80)
Vernon W. Kirk (FIRST NAME) (DRILLER) (LAST NAME)
SIGNATURE: Vernon W. Kirk

WELL INFORMATION

B 2 (SEQ. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3 (8 12)
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 60 (24 28) FEET
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)
APPROPRIATION PERMIT NUMBER: (54 63) GAP
ENGINEER REVIEW DISTRICT NO.: (65)
FORCE: (67 66) WRITE INITIALS IN BOX
CONDITIONS: A E N S G W D C L U (70 71 72 73 74 75 76 77 78 79)

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED (SEQ. NO.)
41 S STATE HEALTH (CIRCLE BOX)
COUNTY NAME: Cecil
COUNTY NO.:
DATE: MO. DAY YR. 03 28 77 (43 48)
APPROVED BY: Wm. A. Sumner (P)
3/28/77

B 5 (SEQ. NO.)
SPECIAL CONDITIONS 6-63 (WRA USE ONLY)

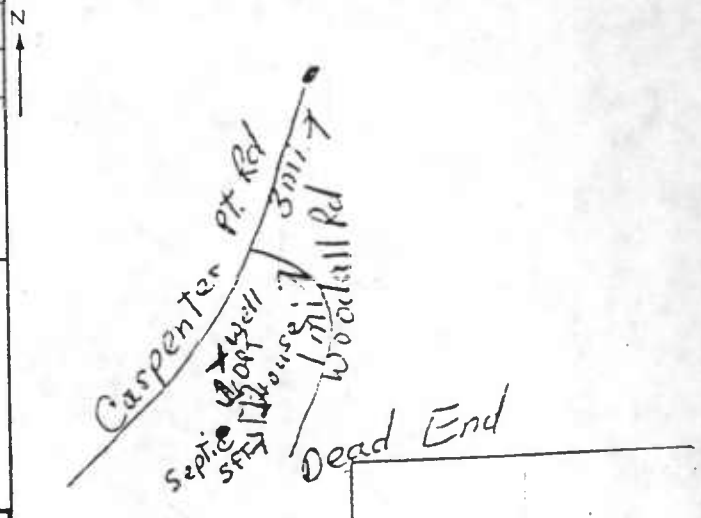
LOCATION OF WELL

B 3 (SEQ. NO.)
COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION: (22)
SECTION: (44)
NEAREST TOWN: Charles Town (52)
MILES FROM TOWN: (73)

DIRECTION FROM TOWN

B 4 (SEQ. NO.)
N NORTH E EAST NE NORTHEAST
S SOUTH W WEST NW NORTHWEST SW
NEAR WHAT ROAD: Woodall Rd (11)
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH SOUTH EAST WEST
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50 (24)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD, JUNCTION OR STREAM CROSSING. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 N 630
NORTH COORDINATE: 635000 (50 51 52 53 54 55)
EAST COORDINATE: 1080000 (57 58 59 60 61 62 63)
ELEVATION AT WELL HEAD (FEET): (65 66 67 68)

X 0/5 5/5 0/0 5/0

ORIGINAL

C 1 4691 (SEQ. NO.) (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG. ANNAPOLIS, MD. 21401

WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): 62177

DATE WELL COMPLETED: 5-19-77 (051977)

DEPTH OF WELL: 50 (TO NEAREST FOOT)

73-1956

OWNER: Mast Jr, Vernon G. (LAST NAME)

POST OFFICE: New Holland, Pa.

STREET OR RFD: RT 3 BX532

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
sand+gravel	2	20	
white clay	20	40	
white sand	40	50	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y (circled) N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) CENTER OF CLAY (B C)

NO. OF BAGS: 4 NO. OF HOLES: 37½

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T (circled) CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE: S T — NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH): 6 — TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 45

OTHER CASING (IF USED) — EACH CASING: DIAMETER (INCH) — DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T (circled) BRASS OR BRONZE; B R; H O OPEN HOLE; P L PLASTIC; O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT) — EACH SCREEN

		FROM	TO
1	S T	45	50
2			
3			

SLOT SIZE 1. ✓ 2. ___ 3. ___

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK: FROM ___ TO ___

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): T TELESCOPE CASING; (E.P.O.S.) LOG INDICATOR; W O OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES

- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Vernon W. Kirk

SIGNATURE: Vernon W. Kirk

C 3

PUMPING TEST

WATER LEVEL: BEFORE PUMPING: 5; WHEN PUMPING: 25

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; C CENTRIFUGAL; J JET; P ROTARY; Bailer

PUMP INSTALLED

TYPE OF PUMP: WRITE APPROPRIATE CAPTION IN BOX — SEE ABOVE

DRILLER WILL INSTALL TYPE (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

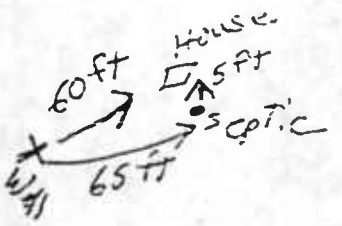
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE; − BELOW; LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

1957

ISSUE DATE- 03/31/77
MO DA YR

PERMIT NUMBER- CE-73-1957

DRILLER
ID. NUMBER-

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

BRITTINGHM, THOMAS

CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/28/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 6958 — SEQUENCE NO. (WRA USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

73-1957

DATE RECEIVED (WRA USE ONLY)
033177

OWNER: Brittinghm Thomas (COL 15 LAST NAME)
STREET OR RFD: (COL 36)
POST OFFICE: Charlestown, Md (COL 57)

B 1 CONTINUED (SEQ. NO.) 6

DRILLER INFORMATION

DATE: 3-14-77 LICENSE NUMBER: 159 (77 80)
Vernon W. Kirk (FIRST NAME / DRILLER / LAST NAME)
SIGNATURE: Vernon W. Kirk

B 2 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3 (8 12)
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T YEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 70 (24 26) FEET
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER: (54 63)
ENGINEER REVIEW DISTRICT NO.: (65)
FORCE: (67 68) WRITE INITIALS IN BOX
CONDITIONS: A E N S G W Q C L U (70 71 72 73 74 75 76 77 78 79)

B 4 CONTINUED (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX): S (41)
COUNTY NAME: Cecil
COUNTY NO.:
DATE: MO. 03 DAY 28 YR. 77 (43 48)
APPROVED BY: Wm A. Sumner (P)

B 3 LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION:
SECTION:
NEAREST TOWN: Charlestown
MILES FROM TOWN: 4

B 4 DIRECTION FROM TOWN

N NORTH, E EAST, N E NORTHEAST, S SOUTH, W WEST, N W NORTHWEST

NEAR WHAT ROAD: Woodall Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST W
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO THE ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

BOX NUMBER: E 1080, N 630

NORTH COORDINATE: 635000 (50 51 52 53 54 55)
EAST COORDINATE: 1080000 (57 58 59 60 61 62 63)
ELEVATION AT WELL HEAD (FEET): (65 66 67 68)

X 0/5 0/0

B 5 (SEQ. NO.) 6 — SPECIAL CONDITIONS 6-63 (WRA USE ONLY)

ORIGINAL

C 1 4692 (SEQ. NO.) (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS MD. 21401

WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 062177

DATE WELL COMPLETED 5-24-77

052477

DEPTH OF WELL 90 (TO NEAREST FOOT)

DRILLER'S IDENTIFICATION NO. 157

73-1957

OWNER Britting Ham, Thomas (LAST NAME)

POST OFFICE Charles Town, Md.

STREET OR RFD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
sand & gravel	2	20	
white clay & sand	20	50	
Blue clay	50	80	
white sand	80	90	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW) S T STEEL C O CONCRETE P L PLASTIC O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	85

OTHER CASING (IF USED)

EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) S T STEEL B R BRASS OR BRONZE H O OPEN HOLE P L PLASTIC O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT) EACH SCREEN

		FROM	TO
1	S T	85	90
2			
3			

SLOT SIZE 1. ✓ 2. ___ 3. ___

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX 68 F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER) T TELESCOPE CASING (E.R.O.S.) LOC INDICATOR W O A OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) Vernon W. Kirk

SIGNATURE Vernon W. Kirk

C 3

PUMPING TEST

HOURS PUMPED TO NEAREST

PUMPING RATE GALLONS PER MINUTE TO NEAREST

METHOD OF PUMPING RATE Bailer

WATER LEVEL: DISTANCE FROM

BEFORE PUMPING 10

WHEN PUMPING 50

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR P PISTON C CENTRIFUGAL R ROTARY J JET S SUBMERSIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, Z)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) Y N

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

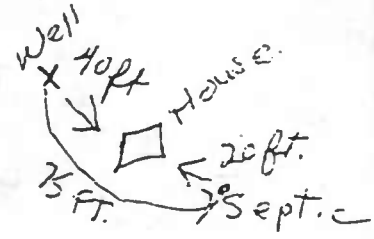
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE − BELOW LAND SURFACE

LOCATION OF WELL ON LOT

N SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 05/04/77
MO DA YR

PERMIT NUMBER- CE-73-1996

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-
MCVEY, GEORGE B
2639 LONGFELLOW
WILMINGTON DE 19808

THIS WELL IS TO BE LOCATED IN CECIL COUNTY.
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
11/04/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

B 1 0035 (WRA USE ONLY)

1 2 3 (SEQ. NO.) 0

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)

050477

OWNER: McVey, George B. (COL 15 LAST NAME)

STREET OR RFD: 2639 Longfellow (COL 36)

POST OFFICE: Wilmington De 19808 (COL 57)

73-1996

B 1 CONTINUED — DRILLER INFORMATION

1 2 3 (SEQ. NO.) 0

DATE: 4-25-77 LICENSE NUMBER: 159 (77 80)

Vernon W. Kirk (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE: Vernon W. Kirk

B 2 — WELL INFORMATION

1 2 3 (SEQ. NO.) 0

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3 (8 12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 100 (24 28) FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN

30-37 AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

(CABLE) — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41 62)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (54 G A P) — ENGINEER REVIEW DISTRICT NO. (65)

FORCE (67 68) WRITE INITIALS IN BOX — CONDITIONS (A E N S G W Q C L U) (70 71 72 73 74 75 76 77 78 79)

B 3 — LOCATION OF WELL

1 2 3 (SEQ. NO.) 0

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION (22)

SECTION (44 46)

NEAREST TOWN: Charles Town (52)

MILES FROM TOWN (ENTER 0 IF IN TOWN) (77)

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

1 2 3 (SEQ. NO.) 0

N NORTH — E EAST — N E NORTHEAST — S E

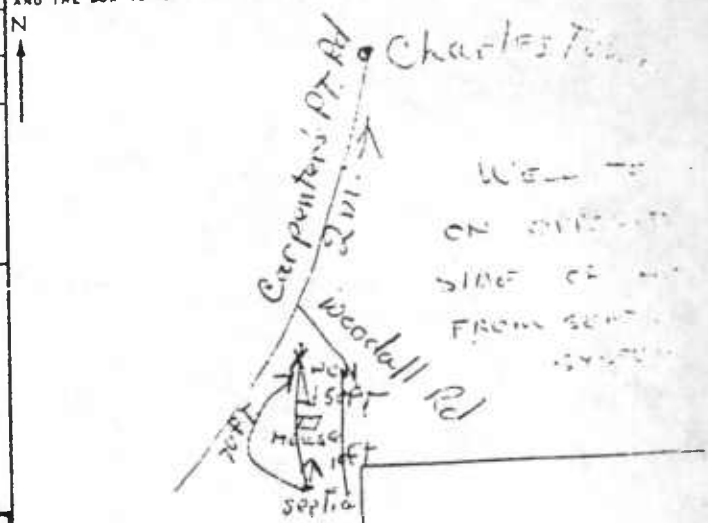
(S) SOUTH — W WEST — N W NORTHWEST — S W

NEAR WHAT ROAD: Woodall St. (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N (32) — (S) (33) — E (34)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ... TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING ... SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 — N 636

NORTH COORDINATE: 635000 (50 51 52 53 54 55)

EAST COORDINATE: 1080000 (57 58 59 60 61 62 63)

ELEVATION AT WELL HEAD (FEET) (65 66 67 68)

X

B 4 CONTINUED — HEALTH DEPARTMENT APPROVAL

1 2 3 (SEQ. NO.) 0

41 (S) STATE HEALTH (CIRCLE BOX) — COUNTY NAME: Cecil — COUNTY NO.

DATE: MO. 05 DAY 03 YR. 77 (43 48) — APPROVED BY: Wm. A. Sumner (P)

B 5 — SPECIAL CONDITIONS 8-83 (WRA USE ONLY)

1 2 3 (SEQ. NO.) 0

ORIGINAL

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS MD. 21401
WELL COMPLETION REPORT

C 1 2508 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)

DATE WELL COMPLETED: 7-18-77 (07 18 77)

DEPTH OF WELL (TO NEAREST FOOT): 70

73 1896

OWNER: McVey, George B.

STREET OR RFD: 2639 Longfellow POST OFFICE: Wilmington, De

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING (USE ADDITIONAL SHEETS IF NECESSARY)

DESCRIPTION	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand gravell	2	20	
Red clay	20	40	
white clay	40	50	
blue clay	50	60	
white sand	60	70	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING WATER AT 2 FEET: CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 4 NO. OF GALLONS: 376

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM: 2 FT. TO: 15 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T; CONCRETE (C O); PLASTIC (P L); OTHER (O T)

MAIN CASING TYPE: S T

NOMINAL DIAMETER FOR MAIN CASING (NEAREST INCH): 6

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 65

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T; BRASS OR BRONZE (B R); OPEN HOLE (H O); PLASTIC (P L); OTHER (O T)

C 2 (SEQ. NO.)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	S T	65	70
2			
3			

SLOT SIZE: 1. ____ 2. ✓ 3. ____

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK: FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING: T; LOG INDICATOR (E.R.O.S.): ; OTHER DATA AVAILABLE: W Q

PUMPING TEST

METHOD OF PUMPING: Bailer

WATER LEVEL: BEFORE PUMPING 40; WHEN PUMPING 50

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; C CENTRIFUGAL; P PISTON; J JET; Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX – SEE ABOVE): A C P J

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

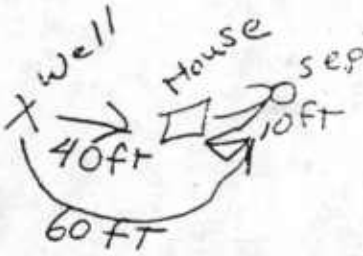
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER DISTANCE): + ABOVE; − BELOW; LAND SURFACE: 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES, SEPTIC TANKS, AND OTHER WELLS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.



CIRCLE APPROPRIATE BOXES

- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Vernon W. Kirk

SIGNATURE: Vernon W Kirk

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 06/10/77
MO DA YR

PERMIT NUMBER- CE-73-2063

ISSUED TO DRILLER-

PRESTON & HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
I.D. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

GIRALDI, ROBERT T
RD 1
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/10/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

96
58

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 7127 (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 061077

OWNER: Giraldi (COL 13 LAST NAME) Robert T. [illegible]

STREET OR RFD: RD 1 (COL 36)

POST OFFICE: Perryville, Md. 21903 (COL 57) 642-6330

73-2063

6-13

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 5-2-77 LICENSE NUMBER: 112

Charles H. Hamilton, Jr. (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Charles H. Hamilton, Jr.

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER: G A P

ENGINEER REVIEW DISTRICT NO.

FORCE: WRITE INITIALS IN BOX

CONDITIONS: A E N S G W Q C L U

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX): S

COUNTY NAME: Cecil COUNTY NO.

DATE: MO. 06 DAY 09 YR. 77

APPROVED BY: Wm. A. Sumner (P)

B 5 (SEQ. NO.) SPECIAL CONDITIONS 6-63 (WRA USE ONLY)

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: Perryville

MILES FROM TOWN (ENTER CIRCLE APPROPRIATE BOX): 3

B 4 (SEQ. NO.)

DIRECTION FROM TOWN

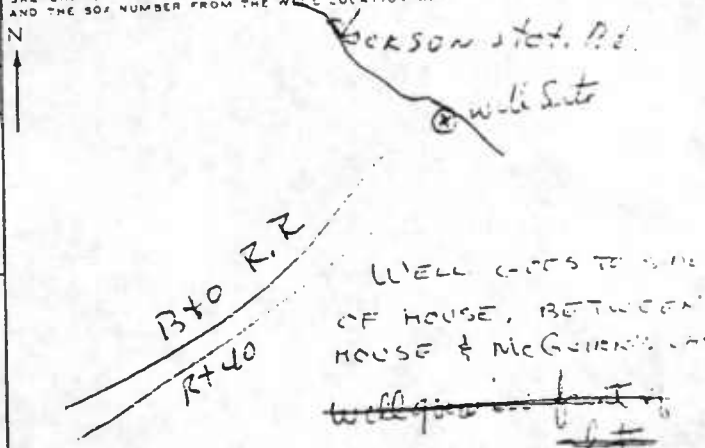
N NORTH E EAST NE NORTHEAST
S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD: Jackosn Station Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 75

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AN INDICATE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



WELL GOES TO SIDE OF HOUSE, BETWEEN HOUSE & McGUIRE'S LANE

~~well goes in front of lot~~

BOX NUMBER: E 1070 N 630

NORTH COORDINATE: 635000

EAST COORDINATE: 1070000

ELEVATION AT WELL HEAD (FEET)

0/5 5.5

0/0 5.0

ORIGINAL

DNR 214 3/71

C 1 2880 (SEQUENCE NO. WRA USE ONLY)

1 2 3 (SEQ. NO.) 8

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILE IN THIS [illegible]

73-2063

DATE RECEIVED (WRA USE ONLY) APR 27 1978

DATE WELL COMPLETED 1/31/78 — 01 31 78

DEPTH OF WELL 144 (TO NEAREST FOOT)

DRILLER IDENTIFICATION NO.

OWNER Zerardi (LAST NAME) Carl (FIRST NAME)

STREET OR RFD RD 1 POST OFFICE Pikesville

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Clay	0	24	
Gabbro	24	144	—

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 2 NO. OF POUNDS 200

GALLONS OF WATER 10

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 0 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	25

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

C 2 (SEQ. NO.)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	H O	25	144
2			
3			

SLOT SIZE 1. ____ 2. ____ 3. ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.) W O

TELESCOPE CASING — LOG INDICATOR — OTHER DATA AVAILABLE

C 3

PUMPING TEST

WATER LEVEL: BEFORE PUMPING ____ WHEN PUMPING 144

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; B [illegible]; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERGED

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX – SEE ABOVE): A, C, J, P, R, S

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) ____

PUMP HORSE POWER ____

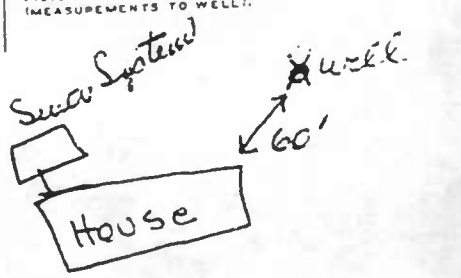
PUMP COLUMN LENGTH (NEAREST FOOT) ____

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER DATA) + ABOVE / − BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) CHAS. HAMILTON, JR.

SIGNATURE Charles H. Hamilton

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

72-2089

ISSUE DATE- 06/23/77
MO DA YR

PERMIT NUMBER- CE-73-2089

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

TODT, PAUL F
RT 1 BX 279
LEESPORT PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/23/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) -

DNR-131 (7-73)

B 1 7008 SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 5

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-70-

DATE RECEIVED (WRA USE ONLY)

062377

8-13

OWNER Todt, Paul F. (COL 15 LAST NAME)

STREET OR RFD RT #1 Box 279 (COL 38) 73-2089

POST OFFICE Leesport, Penna. (COL 57)

B 1 CONTINUED (SEQ. NO.) 6

DRILLER INFORMATION

DATE 6-15-77 LICENSE NUMBER 159 (77 80)

Vernon W. Kirk (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE Vernon W. Kirk

B 2 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3 (8 12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D NOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL 90 (24 28) FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41 52)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (54 63) G A P

ENGINEER REVIEW DISTRICT NO. (85)

FORCE (87 88) WRITE INITIALS IN BOX

CONDITIONS (70 71 72 73 74 75 76 77 78 79) A E N S G W Q C L U

B 4 CONTINUED (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

41 3 STATE HEALTH (CIRCLE BOX)

COUNTY NAME Cecil COUNTY NO.

DATE MO. 06 DAY 22 TH. 77 (43 48)

Wm. A. Sumner (P) APPROVED BY

B 3 (SEQ. NO.) 6

LOCATION OF WELL

COUNTY Cecil (8)

SUBDIVISION (23)

SECTION (44)

NEAREST TOWN Charles Town (52)

MILES FROM TOWN 4

B 4 (SEQ. NO.) 6

DIRECTION FROM TOWN

N NORTH E EAST NE NORTHEAST

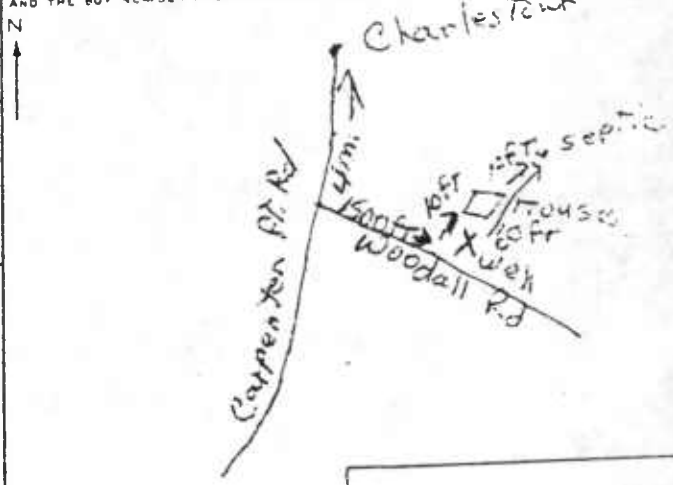
S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD Woodall Rd. (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N (32) S (32) E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 50 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE GRAPH. ... DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM ... SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1080 N 630

NORTH COORDINATE 635000 (50 51 52 53 54 55)

EAST COORDINATE 1080000 (57 58 59 60 61 62 63)

ELEVATION AT WELL HEAD (FEET) (65 66 67 68)

X

B 5 (SEQ. NO.) 6

SPECIAL CONDITIONS 8-83 (WRA USE ONLY) (63)

ORIGINAL

DNR 214 9/71

C 1 2219 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM ONLY — COUNTY NUMBER: 2089

DATE RECEIVED (WRA USE ONLY): 102677

DATE WELL COMPLETED: 10-14-77

DEPTH OF WELL (TO NEAREST FOOT): 90

CE-70-2089 / 159

OWNER: Todt, Paul F (LAST NAME / FIRST NAME)

STREET OR RFD: RT 1 BX 279 — POST OFFICE: Leesport, Pa.

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand & gravel	2	30	
red clay	30	50	
white clay & sand	50	75	
Blue clay	75	80	
white sand	80	90	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 5 NO. OF POUNDS: 470

GALLONS OF WATER: 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 25 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (C O) CONCRETE, (P L) PLASTIC, (O T) OTHER

MAIN CASING TYPE	NOMINAL DIAMETER (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	85

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): (S T) STEEL, (B R) BRASS OR BRONZE, (H O) OPEN HOLE, (P L) PLASTIC, (O T) OTHER

C 2 (SEQ. NO.)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	S T	85	90
2			
3			

SLOT SIZE 1. ____ 2. ✓ 3. ____

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK: FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.): TELESCOPE CASING; LOG INDICATOR; OTHER DATA AVAILABLE (W Q A)

C 3

PUMPING TEST

WATER LEVEL: BEFORE PUMPING 40; AFTER PUMPING 60

TYPE OF PUMPED USED (FOR PUMPING TEST): (A) AIR, (B) BAILER, (C) CENTRIFUGAL, (H) ROTARY, (J) JET, (S) SUBMERSIBLE — Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, C, J, H, B, S, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

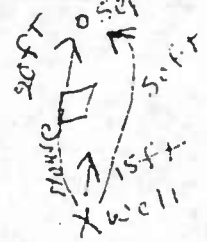
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): (+) ABOVE, (−) BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

(A) WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

(E) ELECTRIC LOG OBTAINED

(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Vernon Kirk

SIGNATURE: Vernon Kirk

ORIGINAL

EMERGENCY NO. (If any) –

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

B 1 7006 SEQUENCE NO. (WRA USE ONLY)
1 2 3 (SEQ. NO.) 8
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

73-2163

DATE RECEIVED (WRA USE ONLY) 080577

OWNER: ~~[illegible]~~ MELRATH, Kay
COL 15 LAST NAME

STREET OR RFD: 2626 Whitman
COL 36

POST OFFICE: Wilmington, Del.
COL 57

6-13

DRILLER INFORMATION

B 1 CONTINUED (SEQ. NO.) 6

DATE: 8-3-77 LICENSE NUMBER: 159 (77–80)

Vernon W. Kirk
FIRST NAME DRILLER LAST NAME

SIGNATURE: Vernon W. Kirk

WELL INFORMATION

B 2 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3 (8–12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING, AGRICULTURE, IRRIGATION
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- [M] MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
- [P] PRIVATE WATER COMPANY
- [T] TEST

22

APPROXIMATE DEPTH OF WELL: 80 (24–28) FEET

APPROXIMATE DIAMETER OF WELL: _____ (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
(CABLE) REVERSE-ROTARY DRIVE-POINT

30-37

OTHER (DESCRIBE) _____

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

39 (41–52)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER: G A P (54–63) ENGINEER REVIEW DISTRICT NO. (65)

FORCE (67–68) WRITE INITIALS IN BOX

CONDITIONS: A E N S G W O C L U (70–79)

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED (SEQ. NO.) 6

[S] STATE HEALTH (CIRCLE BOX) (41)

Cecil
COUNTY NAME COUNTY NO.

DATE: MO. 08 DAY 04 YR. 77 (43–48)

Wm. A. Sumner
APPROVED BY

B 5 (SEQ. NO.) 6

SPECIAL CONDITIONS 6-63 (WRA USE ONLY)

LOCATION OF WELL

B 3 (SEQ. NO.) 6

COUNTY: Cecil

SUBDIVISION: (23)

SECTION: (44)

NEAREST TOWN: Charlestown (52)

MILES FROM TOWN: 4

DIRECTION FROM TOWN

B 4 (SEQ. NO.) 6

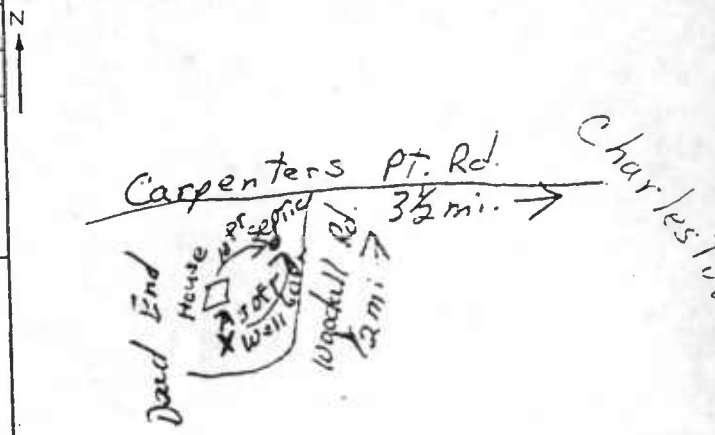
[N] NORTH [E] EAST [N E] NORTHEAST [S E] SOUTHEAST
(S) SOUTH [W] WEST [N W] NORTHWEST [S W] SOUTHWEST

NEAR WHAT ROAD: Woodall Rd. (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (32) SOUTH (32) EAST (40) WEST (40)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 70 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 N 630

NORTH COORDINATE: 636000 (50–55)

EAST COORDINATE: 1680000 (57–63)

ELEVATION AT WELL HEAD (FEET): (65–68)

X

ORIGINAL

DNR-214 (7-77)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 9454 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) 102677

DATE WELL COMPLETED 9-22-77

DEPTH OF WELL 50 (TO NEAREST FOOT)

SE 2163

OWNER Melrath, Kay (LAST NAME)

STREET OR RFD 2626 Whitman

POST OFFICE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand	2	20	
red clay	20	35	
white sand	35	50	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) — Y / N

TYPE OF GROUT NO. MATERIAL USED

CEMENT — C M — BENTONITE — S C

NO. OF BAGS 4 — NO. OF POUNDS 376

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 2 FT. TO 15 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES — INSERT APPROPRIATE CODE BELOW

S T — STEEL; C O — CONCRETE; P L — PLASTIC; O T — OTHER

MAIN CASING TYPE: S T

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 6

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 45

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE — INSERT APPROPRIATE CODE BELOW

S T — STEEL; B R — BRASS OR BRONZE; H O — OPEN HOLE; P L — PLASTIC; O T — OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN		FROM	TO
1	S T	45	50
2			
3			

SLOT SIZE 1. ____ 2. ____ 3. ✓

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING T — LOG INDICATOR (E.R.O.S.) — OTHER DATA AVAILABLE W D

WATER LEVEL

TYPE OF PUMP USED

A — AIR; C — CENTRIFUGAL; Bailer

PUMP INSTALLED

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

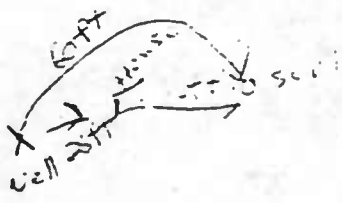
PUMP HORSE POWER

PUMP SETTING LENGTH (NEAREST FOOT)

CASING HEIGHT — ABOVE / BELOW

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES, SEPTIC TANKS, AND ROADS AND INDICATE NORTH. DIMENSIONS MEASURED FROM PROPERTY LINES.



CIRCLE APPROPRIATE BOXES

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) Vernon Kirk

SIGNATURE Vernon Kirk

ORIGINAL

EMERGENCY NO. (If any) –

B 1 8150 (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-2168

DATE RECEIVED (WRA USE ONLY)

OWNER (COL 15 LAST NAME): VANSICKEL HAROLD C

STREET OR RFD (COL 36): RFD #1 Box 420

POST OFFICE (COL 57): PERRYVILLE Md. 21902

080977

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 8-2-77 LICENSE NUMBER: 250

CONSTANTINE DiFILIPPO (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Constantine Di Filippo

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 8

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- O THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (CAP) — ENGINEER REVIEW DISTRICT NO.

FORCE — WRITE INITIALS IN BOX — CONDITIONS A E N S G W O C L U

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX) — COUNTY NAME: Cecil — COUNTY NO.

DATE: 08 05 77 (MO. DAY YR.) — APPROVED BY: Wm. A. Sumner (P)

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION

SECTION

NEAREST TOWN: PERRYVILLE

MILES FROM TOWN

B 4 (SEQ. NO.)

DIRECTION FROM TOWN

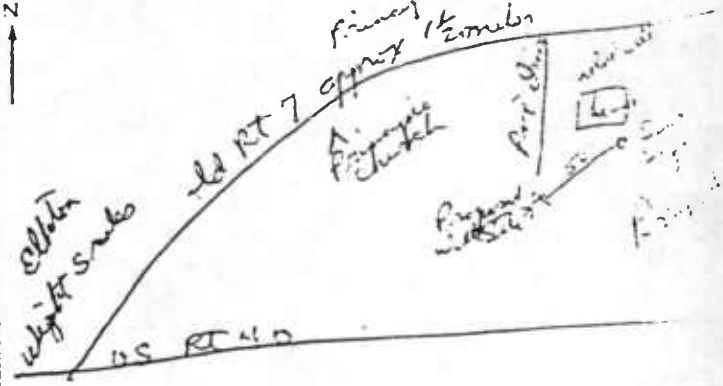
N NORTH E EAST NE NORTHEAST
S SOUTH W WEST SE SOUTHEAST

NEAR WHAT ROAD: OLD RT 7

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL RELATIVE TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ALSO SHOW DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. ON THE SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 107 N 636

NORTH COORDINATE: 1635000

EAST COORDINATE: 1070000

ELEVATION AT WELL HEAD (FEET)

B 5 (SEQ. NO.) SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

NR-214 (7-77)

F 1 8517 — SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 03 07 78

DATE WELL COMPLETED 8/30/77 (9 13)

9 13 30 77 (13 2)

DEPTH OF WELL 244 (TO NEAREST FOOT) 22 24

2168

250

OWNER Vansickel (LAST NAME) Harold C.

STREET OR RFD R. F. D. 1 Box 420 POST OFFICE Perryville, MD. 21902

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Topsoil	0	5	
Clay	5	40	
Sand & Gravel	40	70	
Clay	70	100	
Gray Granite	100	244	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS 12 NO. OF POUNDS 120

GALLONS OF WATER 72

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 0 FT. TO 80 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW) (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE (S T) NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 6 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 106

OTHER CASING (IF USED)

EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) (S T) STEEL (B R) BRASS OR BRONZE (H O) OPEN HOLE (P L) PLASTIC (O T) OTHER

C 2 (1 2 3 (SEQ. NO.) 8)

EACH SCREEN — DEPTH (NEAREST WHOLE FOOT) FROM — TO

1 (H O) 106 — 244

2 — 23 24 26 30 32 36

3 — 38 39 41 45 47 51

SLOT SIZE 1. ____ 2. ____ 3. ____

DIAMETER OF SCREEN ____ (NEAREST INCH) 53 54

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX (F) 68

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

70 TELESCOPE CASING — 72 (E.R.O.S.) LOG INDICATOR — 74 75 76 OTHER DATA AVAILABLE

PUMPING TEST

PUMPING RATE GALLONS PER MINUTE 2

METHOD OF MEASUREMENT Air/stopwatch

WATER LEVEL: BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED FOR PUMPING TEST (A) CENTRIFUGAL (C) JET (J) ROTARY (R) PLUNGER PUMP (S)

PUMP INSTALLED

TYPE OF PUMP (CIRCLE APPROPRIATE BOX — SEE ABOVE) A, C, J, R, S

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) (Y) (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

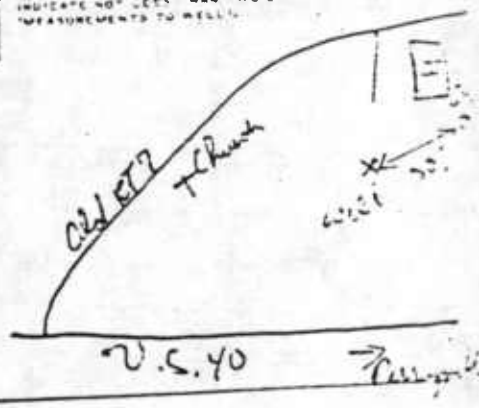
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT) (+) ABOVE (−) BELOW LAND SURFACE 1 FEET

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURES SUCH AS HOUSE, SEPTIC TANKS, AND OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTINCT MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOXES

(A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

(E) ELECTRIC LOG OBTAINED

(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME (PLEASE PRINT) Constantine DiFilippo

SIGNATURE Constantine DiFilippo

ORIGINAL

EMERGENCY NO. (If any) –

B 1 0788 SEQUENCE NO. (WRA USE ONLY)

1 2 5 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73 2272

DATE RECEIVED (WRA USE ONLY) 101377

OWNER (COL 15 LAST NAME) ROGERSON

STREET OR RFD (COL 36) 1112 STONEWOOD COURT

POST OFFICE (COL 57) WILMINGTON, DE. 19810

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE AUG. 23, 1977 LICENSE NUMBER 250

CONSTANTINE DiFILIPPO (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE Costantino DiFilippo

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 8

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P PRIVATE WATER COMPANY

T TEST

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER B A P

ENGINEER REVIEW DISTRICT NO.

FORCE WRITE INITIALS IN BOX

CONDITIONS A E N S G W O C L U

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX) S

COUNTY NAME Cecil COUNTY NO.

DATE MO. DAY YR. 10 10 77

APPROVED BY Wm. A. Sumner (A)

B 5 SPECIAL CONDITIONS 6-63 (WRA USE ONLY)

B 3 (SEQ. NO.) LOCATION OF WELL

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN Perryville

MILES FROM TOWN

B 4 (SEQ. NO.) DIRECTION FROM TOWN

N NORTH E EAST NE SE

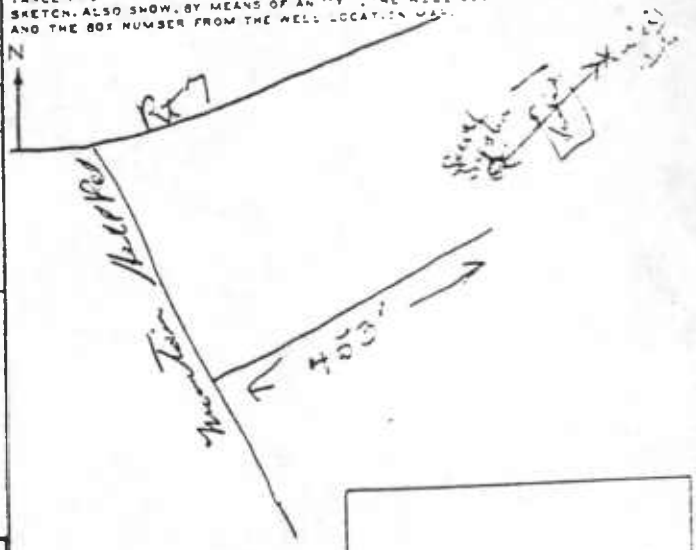
S SOUTH W WEST SW NW

NEAR WHAT ROAD MOUNTAIN

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 500

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL ... ROADS AND STREAMS WITH NORTH IN THE DIRECTION ... DISTANCE FROM WELL TO NEAREST ROAD JUNCTION ... SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1070 N 650

NORTH COORDINATE 635

EAST COORDINATE 1070

ELEVATION AT WELL HEAD (FEET)

ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 10/19/77
MO DA YR

PERMIT NUMBER- CE-73-2286

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY,GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER- 25

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

TRI STATE MOTOR TRAN
P O BX 188
RUBY SC

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

GROUNDWATER APPROPRIATION
PERMIT NUMBER- CE77GAP014

THIS PERMIT IS VALID UNTIL 04/19/78. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) –

DNR-131 (7/71)

B 1 8151 SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)

081877

8-13

OWNER: Tri State Motor Transit – Northwest Te... (COL 18 LAST NAME) (FIRST NAME)

73-2286

STREET OR RFD: P.O. Box 188 (COL 36)

POST OFFICE: Ruby, South Carolina (COL 57)

DRILLER INFORMATION

B 1 CONTINUED (SEQ. NO.) 6

DATE: 8-2-77 LICENSE NUMBER: 250 (77–80)

CONSTANTINE DiFILippo (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Constantine DiFilippo

WELL INFORMATION

B 2 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10 gpm (8–12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 2000 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT. (22)
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- T — TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 150 FEET (24–28)

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N — THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y — THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED (39)
- S — THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D — THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41–52)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER: CE77GAP014 (54–63) ENGINEER REVIEW DISTRICT NO. (65)

FORCE: RL (67–68) WHITE INITIALS IN BOX

CONDITIONS: A E N S G W Q C L U (70–79)

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED (SEQ. NO.) 6

41 S. STATE HEALTH (CIRCLE BOX)

Cecil (COUNTY NAME) (COUNTY NO.)

DATE: MO. 08 DAY 12 YR. 77 (43–48)

William A. Sumner (APPROVED BY) (B)

LOCATION OF WELL

B 3 (SEQ. NO.) 6

COUNTY: Cecil (DO NOT ABBREVIATE)

SUBDIVISION: (23)

SECTION: (44)

NEAREST TOWN: North East (52)

MILES FROM TOWN (ENTER DISTANCE FROM TOWN): 2

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

B 4 (SEQ. NO.) 6

N NORTH E EAST N E NORTHEAST

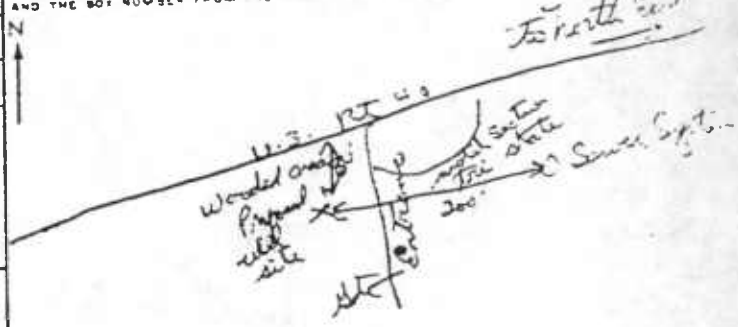
S SOUTH W WEST N W NORTHWEST

NEAR WHAT ROAD: U.S. Rt 40 (11)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N (32) SOUTH S (32) EAST E (32)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 80 (34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE ... AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



600 acres

BOX NUMBER: E 1080 N 640

NORTH COORDINATE: 640000 (50–55)

EAST COORDINATE: 1080000 (57–63)

ELEVATION AT WELL HEAD (FEET): (65–68)

0/5 5/5

X

0/0 5/0

B 5 (SEQ. NO.) 6

SPECIAL CONDITIONS 5-63 (WRA USE ONLY)

ORIGINAL

STATE OF MARYLAND
ER RESOURCES ADMINISTRATION
TE OFFICE BLDG., ANNAPOLIS, MD. 21401

WELL COMPLETION REPORT

73 2286

DEPTH OF WELL 204 (TO NEAREST FOOT)

TE MOTOR TRAN

188 POST OFFICE Ruby, South C

DESCRIPTION

Topsoil			
gravel/sand	8	-0	
Red Clay	30	60	
Schist	60	70	
Gray Granite	70	150	✓
Dk black granite	150	204	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX) CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 10 NO. OF POUNDS 1000

GALLONS OF WATER 60

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 50 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW) S T STEEL, C C CONCRETE, P L PLASTIC, O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	83

OTHER CASING (IF USED)

EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW) S T STEEL, B R BRASS OR BRONZE, H O OPEN HOLE, P L PLASTIC, O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT) FROM TO

EACH SCREEN

1	H O	83	204
2			
3			

SLOT SIZE 1. ___ 2. ___ 3. ___

DIAMETER OF SCREEN ___ (NEAREST INCH)

GRAVEL PACK FROM TO

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER) T TELESCOPE CASING, (E.P.O.S.) LOG INDICATOR, W D OTHER DATA AVAILABLE

C 3

PUMPING TEST

HOURS PUMPED TO NEAREST

PUMPING RATE GALLONS PER MINUTE TO NEAREST GALLON 30

METHOD USED TO MEASURE PUMPING RATE air stop

WATER LEVEL: DISTANCE FROM SURFACE

BEFORE PUMPING 60

WHEN PUMPING 100

TYPE OF PUMPED USED (FOR PUMPING TEST) A AIR, P PISTON, C CENTRIFUGAL, R ROTARY, J JET, S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE SYSTEM IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) Y N

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

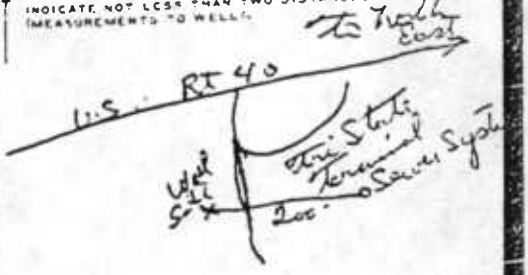
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE, − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) CONSTANTINE-DIFILIPPO

SIGNATURE Constantine DiFilippo

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 01/13/78
MO DA YR

PERMIT NUMBER- CE-73-2386

ISSUED TO DRILLER-

DELMARVA DRLG CO IN
CPO BOX 188
BRIDGEVILLE, DEL 19933

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

ROGERSON, HARRY
1112 STONEWOOD CT
WILMINGTON DE 19810

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/13/78. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

DNR-131 (7-77)

EMERGENCY NO. (If any) –

B 1 2180 — SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-2386

DATE RECEIVED (WRA USE ONLY) 011278

OWNER (COL 15 LAST NAME): HARRY ROGERSON

STREET OR RFD (COL 36): 1112 STONEWOOD CT

POST OFFICE (COL 57): WILMINGTON DE 19810

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 1-5-78 — LICENSE NUMBER: 143

FIRST NAME: EDWARD — LAST NAME: KELLEY

SIGNATURE: Edward Kelley

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 750

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY
- T TEST

(M, P: MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 190 FEET

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN

AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER — ENGINEER REVIEW DISTRICT NO.

FORCE — WRITE INITIALS IN BOX — CONDITIONS: A E N S G W Q C L U

B 4 CONTINUED

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX): S — COUNTY NAME: CEcil — COUNTY NO.

DATE (MO. DAY YR.): 0 1 1 0 7 8 — APPROVED BY: William C. Siemmes (Cor)

B 3 — LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION

SECTION — LOT

NEAREST TOWN: CHARLESTOWN

MILES FROM TOWN (ENTER 0 IF IN TOWN): 2½

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH — E EAST — NE NORTHEAST

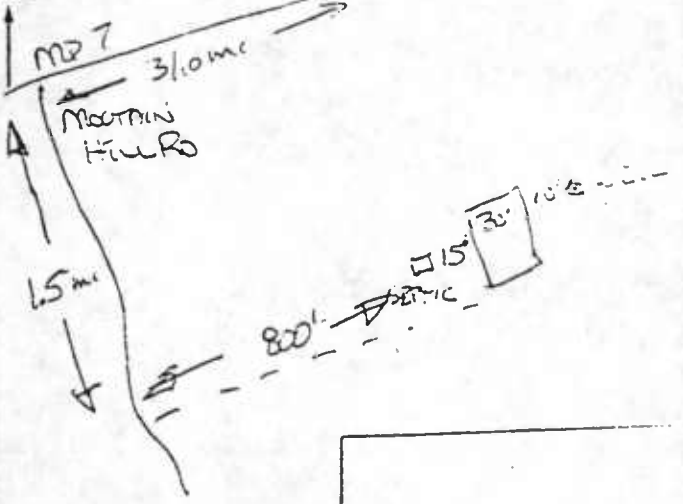
S SOUTH — W WEST — NW NORTHWEST

NEAR WHAT ROAD: MOUNTAIN HILL

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N — S — E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 900

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1070 N 630

NORTH COORDINATE: 630000

EAST COORDINATE: 1075000

ELEVATION AT WELL HEAD (FEET)

B 5 — SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

DNR-214 (7-77)

C 1 5754 (SEQ. NO.)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD.
WELL COMPLETION REPORT

73-23 86

DATE RECEIVED (WRA USE ONLY): MAR 28 1978

DATE WELL COMPLETED: 2/2/78

DEPTH OF WELL: 177 (TO NEAREST FOOT)

OWNER: Rogerson (LAST NAME)

STREET OR RFD: 112 Stonewood Ct

POST OFFICE: Harry Wilmington, De

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top Soil	0	1	
Yellow clay	1	6	
Tan fine to med. sand w/gravel	6	53	
Tan fine to med sand w/Iron ore	53	62	
Fine-coarse white sand w/Iron ore	62	81	
White clay w/gravel	81	90	
Red + white clay	90	105	
Med white sand	105	108	
Fine-med sand w/streaks of clay	108	156	
Fine-coarse white sand	156	183	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES / NO

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 6 NO. OF POUNDS: 600

GALLONS OF WATER: 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL, C O CONCRETE, P L PLASTIC, O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
P L	4	167

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL, B R BRASS OR BRONZE, H O OPEN HOLE, P L PLASTIC, O T OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN		FROM	TO
1	P L	167	177
2			
3			

SLOT SIZE 1. .06 2. ___ 3. ___

DIAMETER OF SCREEN: 4 (NEAREST INCH)

GRAVEL PACK: FROM 80 TO 20

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): T TELESCOPE CASING; (E.R.D.S.) LOG INDICATOR; W O OTHER DATA AVAILABLE

C 3

PUMPING TEST

PUMPING RATE: 30

METHOD: pumper

WATER LEVEL: BEFORE PUMPING 110; WHEN PUMPING 160

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR, P, C CENTRIFUGAL, R ROTARY, J JET, S

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE CODE BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

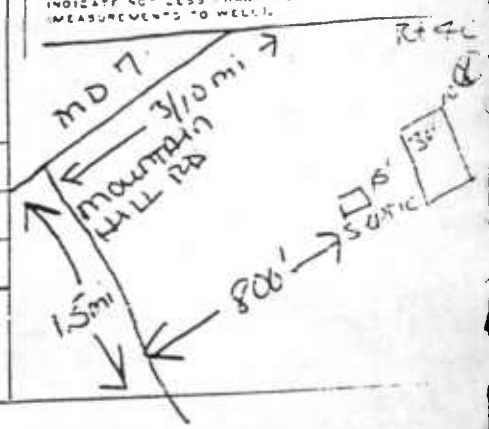
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE, − BELOW; LAND SURFACE 2

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- B — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Edward Kelley

SIGNATURE: Edward Kelley

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 05/16/78
MO DA YR

PERMIT NUMBER- CE-73-2516

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER- KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

BRITTINGHAM, THOMAS
GREENBANK
CHARLESTOWN MD 21914

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
11/16/78. A WELL CONSTRUCTION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (if any)

B 1 6966 SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (FILE NUMBER IN TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE 73-2518

DATE RECEIVED (WRA USE ONLY)

MAY 16 1978

OWNER: Brittingham, Thomas (COL 15 LAST NAME)

STREET OR RFD: Greenbank (COL 36)

POST OFFICE: Charlestown, Md. 21914 (COL 57)

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 5-1-78 LICENSE NUMBER: 159

Vernon W. Kirk (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Vernon W. Kirk

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — DOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- T — TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 80 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE ROTARY DRIVE POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE)

SUBDIVISION:

SECTION: LOT

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 4

B 4 (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

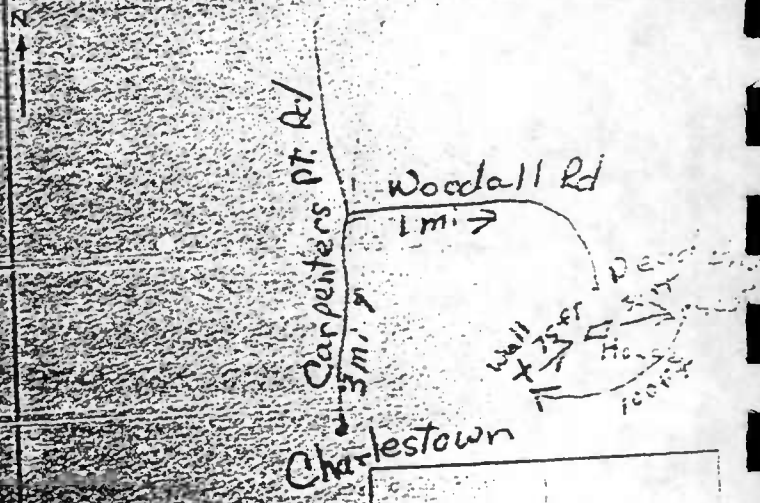
N NORTH, E EAST, NE NORTHEAST, SE SOUTHEAST, S SOUTH, W WEST, NW NORTHWEST, SW SOUTHWEST

NEAR WHAT ROAD: Woodall

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 30

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1080 / 630

NORTH COORDINATE: 636000

EAST COORDINATE: 1050000

ELEVATION AT WELL HEAD (FEET)

X

B 5

(WRA USE ONLY)

73-2518

DNR-214 (7-77)

C 1 0572 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): JUN 15 1978

DATE WELL COMPLETED: 6-6-78 (06 06 78)

DEPTH OF WELL (TO NEAREST FOOT): 50

DRILLERS IDENTIFICATION NO.: 15

OWNER: Brittingham, Thomas (LAST NAME)

STREET OR RFD: Green bank

POST OFFICE: Charlestown, Md

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand and gravel	2	50	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M — BENTONITE CLAY B C

NO. OF BAGS: 5 — NO. OF POUNDS: 470

GALLONS OF WATER: 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 15 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	45

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL — B R BRASS OR BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C 2

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN	FROM	TO
S T	45	50

PLOT SIZE: ✓

DIAMETER OF SCREEN: 6 (NEAREST INCH)

GRAVEL PACK

WELL DRILLED WAS A FLOWING WELL (CIRCLE BOX): P

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): O.S. — W.Q. — 74 75 76 OTHER DATA AVAILABLE

CASING INDICATOR

C 3

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 2

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 30

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 10

WHEN PUMPING: 30

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR — P PISTON — C CENTRIFUGAL — R ROTARY — J JET — S SUBMERSIBLE — Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES — NO

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

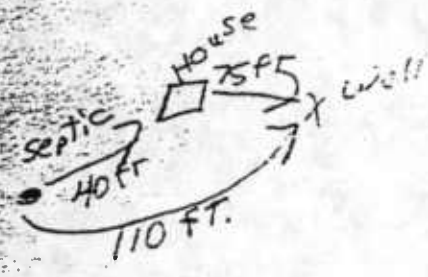
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE — − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

WELL WAS COMPLETED

ELECTRIC LOG DETAILED

DRILLER'S NAME: Vernon W. Kirk

Vernon W. Kirk

DNR 157

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

PERMIT NUMBER- CE-73-2584

ISSUE DATE- 06/29/78
MO DA YR

DRILLER
ID. NUMBER- 153

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
HUGHES, ROBERT W
302 E JOPPA RD
BALTIMORE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 12/29/78. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION WITHIN 30 DAYS AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) –

73 2584

B 1 6970 SEQUENCE NO. (WRA USE ONLY)

(SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 OF ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY) JUN 29 1978

OWNER: Hughes, Robert W (COL. 13 LAST NAME)

STREET OR RFD: 302 E Joppa Rd (COL. 56)

POST OFFICE: Baltimore, Md (COL. 57)

B 1 CONTINUED — DRILLER INFORMATION

DATE: 6-12-78 LICENSE NUMBER: 159

Vernon W Kirk (FIRST NAME / DRILLER / LAST NAME)

SIGNATURE: Vernon W Kirk

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 60 (FEET)

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR BUCKED) — JETTED — DRIVEN

AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE ROTARY — DRIVE POINT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

[illegible]

NOT TO BE FILLED IN BY DRILLER

[illegible]

HEALTH DEPARTMENT APPROVAL

[illegible]

B 3 — LOCATION OF WELL

COUNTY: Cecil

SUBDIVISION:

SECTION:

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 4

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

- N NORTH
- E EAST
- N E NORTHEAST
- S SOUTH
- W WEST
- N W NORTHWEST

NEAR WHAT ROAD: Woodall Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH / SOUTH / EAST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OF STREAM CROSSING THAT SKETCH. ALSO SHOW, BY PLANS OF AN "X", THE WELL LOCATION IN THE USE OF THE AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

BOX NUMBER: 1080 / 630

NORTH COORDINATE: 6380000

EAST COORDINATE: 7680000

WELL HEAD (FEET)

X

0/0

WRA USE ONLY

73-2584

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 3402 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 1-4 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): OCT 10 1978

DATE WELL COMPLETED: 9-9-78 (01 09 78)

DEPTH OF WELL: 40 (TO NEAREST FOOT)

DRILLER'S IDENTIFICATION NO.

OWNER: Hughes, Robert W. (LAST NAME, FIRST NAME)

STREET OR RFD: 302 E Joppa Rd. POST OFFICE: Balt.

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING.

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WATER BEARING
Top soil	0	2	
Brown sand + gravel	2	20	
white clay	20	30	
white sand	30	40	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES [Y] NO [N]

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT [C M] BENTONITE CLAY [B C]

NO. OF BAGS: 4 NO. OF POUNDS: 376

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD (CASING TYPES — INSERT APPROPRIATE CODE BELOW)

[S T] STEEL; [C O] CONCRETE; [P L] PLASTIC; [O T] OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	35

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD (SCREEN TYPE OR OPEN HOLE — INSERT APPROPRIATE CODE BELOW)

[S T] STEEL; [B R] BRASS OR BRONZE; [H O] OPEN HOLE; [P L] PLASTIC; [O T] OTHER

C 2 (SEQ. NO.)

EACH SCREEN	DEPTH (NEAREST WHOLE FOOT) FROM	TO
ST	35	40

SLOT SIZE: ✓

DIAMETER OF SCREEN: INCHES

WELL DRILLED WITH AIR: YES [Y] NO [N]

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): ELEVATION [E] WATER INDICATOR [W] OTHER DATA AVAILABLE [A]

CIRCLE APPROPRIATE BOXES

[W] WELL WAS DEVELOPED

[E] ELECTRIC LOG WAS RUN

[C] WELL WAS COMPLETED

[P] WELL CONSTRUCTION PERMIT

[A] ABOVE

[B] BELOW

[F] FRESH WATER

[S] SALT WATER

[U] UNKNOWN

[D] DRILLER'S REPORT

[T] TEST WELL

[L] LAND COMPANY

[R] RESEARCH

[O] OTHER

[N] NEW WELL

[R] REPLACEMENT WELL

[I] INVENTORY

[M] MONITORING WELL

[E] ELECTRIC LOG

[C] CASING

Bernard Kirk

Bernard Kirk

C 3 (SEQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR):

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON):

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL (DISTANCE BELOW LAND SURFACE):

BEFORE PUMPING: 25

WHEN PUMPING: 35

TYPE OF PUMP USED (FOR PUMPING TEST): [A] AIR; [B] BAILER; [C] CENTRIFUGAL; [R] ROTARY; [J] JET; [S] SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, C, J, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): [Y] [N]

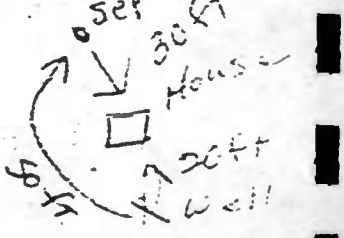
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON):

PUMP HORSE POWER:

PUMP COLUMN LENGTH (NEAREST FOOT): 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): [+] ABOVE; [−] BELOW LAND SURFACE: 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT (SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL).



ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 07/18/78
MO DA YR

PERMIT NUMBER- CE-73-2605

DRILLER
ID. NUMBER- 138

ISSUED TO DRILLER- SHORE WELL DRLRS INC

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

IREY, DON
RD 1 BOX 365
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, CRAFT HAVEN SUBDIVISION, SECTION- , LOT- , NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST [illegible] FROM ANY SEWAGE DISPOSAL SYSTEM.

[illegible] THE ABOVE CONDITIONS FROM CODES ON APPLICATION

GROUNDWATER APPROPRIATION
PERMIT NUMBER- CE69GAP004

THIS PERMIT IS [illegible] UNTIL 01/[illegible] A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION [illegible] IN 30 DAYS AFTER COMPLETION [illegible] WELL

HERBERT [illegible] SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any)

DNR-13T (7-77)

B 1 6546

SEQ. CHECK NO. (DNR USE ONLY)

1 2 3 (SEQ. NO.) 8 (THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DNR USE ONLY
CE 73 2605
FILL IN THIS SPACE

DATE RECEIVED (DNR USE ONLY)
JUL 17 1978
JUL 07 1978
JUL 12 1978

OWNER (COL. 18 LAST NAME) IREY, DON

STREET OR RFD (COL. 38) CRAFT HAVEN RD1 - BOX 365

POST OFFICE (COL. 57) PERRYVILLE, MARYLAND 21903

B 1 CONTINUED

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 8

DATE 6/9/78 LICENSE 138

FIRST NAME DONALD S. NEWMAN LAST NAME

SIGNATURE (DRILLER) Donald S. Newman

B 2

WELL INFORMATION

1 2 3 (SEQ. NO.) 8

ESTIMATED PUMPING RATE (GALLONS PER MINUTE) 30

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

T TEST

APPROXIMATE DEPTH OF WELL 70

APPROXIMATE DIAMETER OF WELL 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

DRIVEN (D) ROTARY (HYDRAULIC ROTARY)

DRILL-OUT

OTHER

B 3

LOCATION OF WELL

1 2 3 (SEQ. NO.) 8

COUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)

ELECTION DISTRICT Craft Haven

SECTION LOT

NEAREST TOWN Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN) 8

B 4

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE

S SOUTH W WEST NW NORTHWEST SW

NEAR WHAT ROAD Carpenters Point Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S EAST E WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 1/2

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. BY MEANS OF AN "X", THE WELL LOCATION IN THE ABOVE SECTION, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Charles Town

Carpenters Pt. Rd.

X well

Carpenter Point

BOX NUMBER 1080 620

COORDINATES

ELEVATION AT WELL HEAD (FEET)

DNR USE ONLY

DNR-214 (7-77)

C 1 9755 — SEQUENCE NO. (WRA USE ONLY) — (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FOR COUNTY NUMBER 73-2605

DATE RECEIVED (WRA USE ONLY) OCT 24 1978

DATE WELL COMPLETED 10/20/78

DEPTH OF WELL 70 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO. 100178

OWNER Levy Don — LAST NAME — FIRST NAME

POST OFFICE

STREET OR RFD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND, IF WATER BEARING.

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/58 yellow-white clay			
58/70 coarse yellow-white-brown sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM ____ FT. TO ____ FT. (WATER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL S T; CONCRETE C O; PLASTIC P L; OTHER O T

MAIN CASING TYPE: S T; NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 6; TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 65

OTHER CASING (IF USED): DIAMETER (INCH); DEPTH (FEET) FROM ____ TO ____

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL S T; BRASS OR BRONZE B R; OPEN HOLE H O; PLASTIC P L; OTHER O T

DEPTH (NEAREST WHOLE FOOT) FROM 65 TO 70

SLOTS ____ (NEAREST INCH)

FROM ____ TO ____

GRAVEL PACK

WELL DEVELOPED

(WRA USE ONLY) NOT TO BE FILLED IN BY DRILLER: W O

74 75 76 OTHER DATA AVAILABLE

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM LAND SURFACE): BEFORE PUMPING ____; WHEN PUMPING ____

TYPE OF PUMP USED FOR PUMPING TEST: A AIR; B BAILER; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER BOX — SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) ____

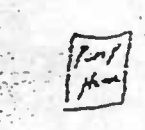
PUMP HORSE POWER ____

PUMP COLUMN LENGTH (NEAREST FOOT) ____

CASING HEIGHT (CIRCLE APPROPRIATE SIGN AND ENTER DATA TO NEAREST FOOT): + ABOVE, − BELOW LAND SURFACE ____

LOCATION OF WELL ON LOT

N. SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.



ORIGINAL

DNR 157

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 08/09/78
MO DA YR

PERMIT NUMBER- CE-73-2664

ISSUED TO DRILLER-

PRESTON & HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 113

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

FRAZIER, ZEWELL
213 LANDING LA
ELKTON MD 21921

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL 02/09/79. A WELL COMPLETION REPORT MUST BE SUBMITTED TO THE ADMINISTRATION WITHIN 30 DAYS AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) –

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-2664

S 1 1468 SEQUENCE NO. (WRA USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY)
AUG 09 1978

OWNER: Frazier Zewell
COL 15 LAST NAME
STREET OR RFD: c/o McCoy Bldrs., 213 Landing Lane
COL 56
POST OFFICE: Elkton, MD. 21921 398-9878
COL 87

B 1 CONTINUED (SEQ. NO.)
DRILLER INFORMATION
DATE: 8-1-78 LICENSE NUMBER: 112
Charles H. Hamilton, Jr.
FIRST NAME DRILLER LAST NAME
SIGNATURE: Charles H. Hamilton Jr.

B 2 (SEQ. NO.)
WELL INFORMATION
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
F FARMING, AGRICULTURE, IRRIGATION
I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
M MUNICIPAL WATER SUPPLY
P PRIVATE WATER COMPANY
MUST HAVE STATE HEALTH DEPT. APPROVAL
T TEST

APPROXIMATE DEPTH OF WELL: 100 FEET
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)
BORED (NO CASING) JETTED DRIVEN
AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE ROTARY DRIVE POINT
OTHER (SPECIFY)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
N THIS WELL WILL NOT REPLACE AN EXISTING WELL
T THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
D THIS WELL WILL DEEPEN AN EXISTING WELL
[illegible]

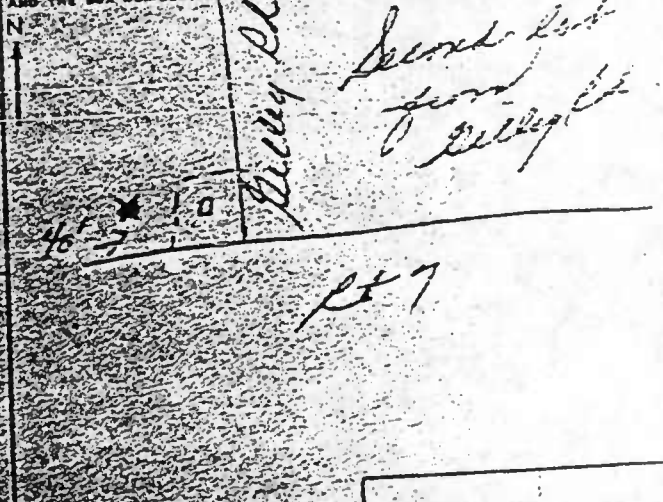
[illegible] TO BE FILLED IN BY DRILLER [illegible]

[illegible] HEALTH DEPARTMENT APPROVAL
[illegible]
DATE: 08 08 78
[illegible]

B 3 (SEQ. NO.)
LOCATION OF WELL
COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION:
SECTION: LOT:
NEAREST TOWN: Perryville
MILES FROM TOWN (ENTER 0 IF IN TOWN): 1

B 4 (SEQ. NO.)
DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
N NORTH E EAST NE NORTHEAST SE SOUTHEAST
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST
NEAR WHAT ROAD: Rt. 7
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N SOUTH S EAST WEST
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN. SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070
630
NORTH COORDINATE: 635000
EAST COORDINATE: 1070000
ELEVATION AT WELL HEAD (FEET)

X
0/5 5/5
0/0 5/0

(WRA USE ONLY)
B 5 [illegible]
ORIGINAL

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 3772 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS BOX — COUNTY NUM. — PERMIT NO. 73-2664

DATE RECEIVED (WRA USE ONLY): MAR 13 1979 / MAR 13 1979

DATE WELL COMPLETED: 12-14-78 (12 14 78)

DEPTH OF WELL: 165 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO.:

OWNER: G. McCoy Blair — LAST NAME: Fraser — FIRST NAME: Ester

POST OFFICE:

STREET OR RFD:

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING.

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CIRCLE WATER BEARING
Clay	0	15	
Gravel	15	65	
Clay	65	98	
Sand	98	165	

GROUTING RECORD

WELL WAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES [Y] NO [N]

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT [C M] — BENTONITE CLAY [B C]

NO. OF BAGS: 5 — NO. OF POUNDS: 500

GALLONS OF WATER: 25

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 45 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES — INSERT APPROPRIATE CODE BELOW: STEEL [S T] — CONCRETE [C O] — PLASTIC [P L] — OTHER [O T]

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	100

OTHER CASING (IF USED)

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE — INSERT APPROPRIATE CODE BELOW: STEEL [S T] — BRASS OR BRONZE [B R] — OPEN HOLE [H O] — PLASTIC [P L] — OTHER [O T]

SCREEN TYPE	DIAMETER (INCH)	DEPTH (NEAREST WHOLE FOOT) FROM	TO
HO	100	165	

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR):

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON):

METHOD USED TO MEASURE PUMPING RATE: Meter

WATER LEVEL (DISTANCE FROM LAND SURFACE):
BEFORE PUMPING: 25
WHEN PUMPING: 165

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX OR BOXES IF PUMPING TEST): AIR [A] — PISTON [P] — CENTRIFUGAL [C] — ROTARY [R] — JET [J] — SUBMERSIBLE [S]

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES [Y] NO [N]

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON):

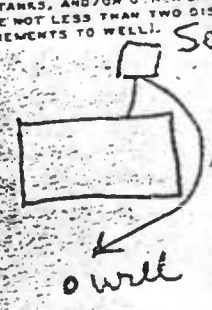
PUMP HORSE POWER:

PUMP COLUMN LENGTH (NEAREST FOOT):

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE [+] — BELOW [−] — LAND SURFACE: 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AS INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): 74-75-76 OTHER DATA AVAILABLE

Lane & Hartman
Charles Lane

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/26/78
MO DA YR

PERMIT NUMBER- CE-73-2718

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

NIXDORF, JOHN E
222 W LIBERTY ST
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/26/79. AFTER COMPLETION OF THE WELL
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

ROBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/26/78
MO DA YR

PERMIT NUMBER- CE-73-2718

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
NIXDORF, JOHN E
222 W LIBERTY ST
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
03/26/79 [illegible] WHEN COMPLETION [illegible]
REPORT MUST BE SUBMITTED TO [illegible]
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL [illegible]

[illegible] SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any)

B 1 6979 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DE-73- 2718

DATE RECEIVED (WRA USE ONLY)

OWNER (COL. 10 LAST NAME) Dixdorf, John E. (FIRST NAME)

STREET OR RFD (COL. 35) 222 W. Liberty St.

POST OFFICE (COL. 57) Lancaster, Pa. 17603

B 1 CONTINUED — DRILLER INFORMATION

DATE 9-11-78 LICENSE NUMBER 159

Vernon, Kirk (FIRST NAME) DRILLER (LAST NAME)

SIGNATURE Vernon Kirk

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

6 DOMESTIC (CIRCLE PLEASURE HOUSEHOLD UNIT ONLY)

7 FARMING, AGRICULTURE, IRRIGATION

8 INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

10 SINGLE LINE WATER SUPPLY

9 PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 90 FEET

APPROXIMATE DIAMETER OF WELL 6 (INCHES / INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

DRIVEN

ROTARY (HYDRAULIC ROTARY)

DRILL POINT

B 3 — LOCATION OF WELL

COUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

SECTION LOT

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN) 3

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST

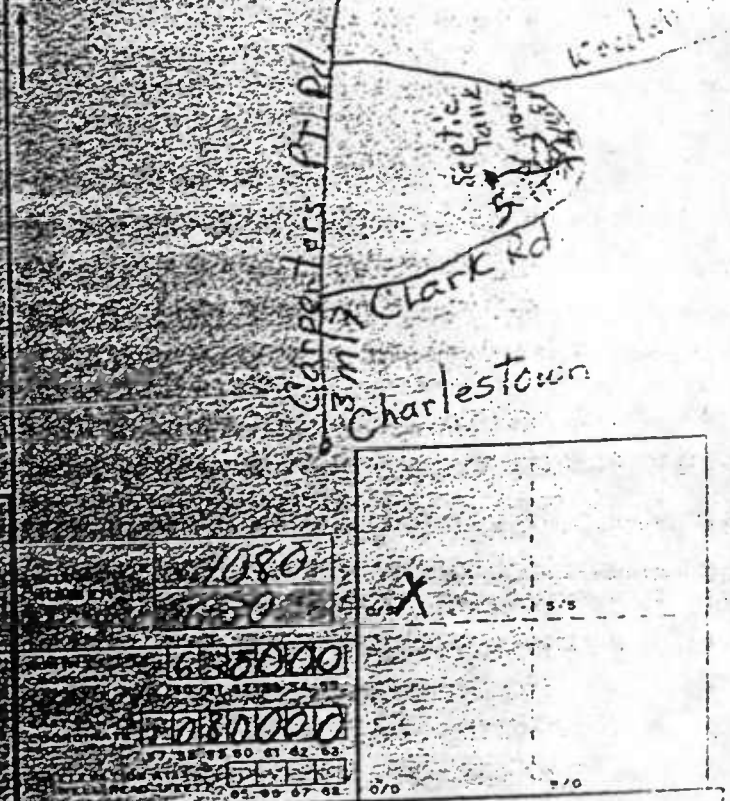
S SOUTH W WEST NW NORTHWEST

NEAR WHAT ROAD Clark Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N NORTH S SOUTH E EAST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEARBY ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



1080

635000

1800000

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 3142 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY) — (THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

FILL IN THIS FORM — COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY): 11-20-78

DATE WELL COMPLETED: 11 02 78

DEPTH OF WELL: 150 (TO NEAREST FOOT)

PERMIT NO. FROM: CE-23-2718

DRILLERS IDENTIFICATION NO.: 159

OWNER: Nixdorf, John E. (LAST NAME, FIRST NAME)

STREET OR RFD: 222 W. Liberty ST — POST OFFICE: Lancaster, Pa

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand + gravel	2	30	
red clay	30	70	
yellow clay	70	95	
blue clay	95	130	
white sand	130	150	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 6 NO. OF POUNDS: 564

GALLONS OF WATER: 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 9 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	145

OTHER CASING (IF USED): DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) BRASS OR BRONZE (B R) OPEN HOLE (K O) PLASTIC (P L) OTHER (O T)

C 2

DEPTH (NEAREST WHOLE FOOT) FROM	TO
145	150

(CIRCLE APPROPRIATE BOX)

PUMPING TEST

C 3

HOURS PUMPED (TO NEAREST HOUR): 4

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON): 15

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL (DISTANCE FROM LAND SURFACE): BEFORE PUMPING: 60 WHEN PUMPING: 90

TYPE OF PUMPED USED (FOR PUMPING TEST): AIR (A) PISTON (P) CENTRIFUGAL (C) ROTARY (R) JET (J) SUBMERSIBLE (S) Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

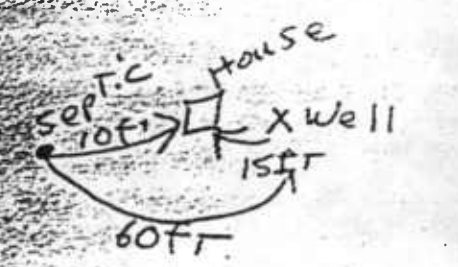
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE / − BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



(WRA USE ONLY) NOT TO BE FILLED IN BY DRILLER

Nancy K. K. Nancy K. K.

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

PERMIT NUMBER- CE-73-2724

ISSUE DATE- 09/28/78
MO DA YR

DRILLER
ID. NUMBER- 154

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
PASCAL, VIRGINIA
GREENBANK RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/28/79. A WELL [illegible]
REPORT MUST BE SUBMITTED [illegible]
THE [illegible] WITHIN 30 DAYS
AFTER COMPLETION [illegible] WELL

[illegible] HERBERT M. SACHS
[illegible] DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any) –

B 1 6978 SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-2724
FILE IN THIS SPACE

TYPE NUMBERS (TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY) Sep 8 '78

OWNER Pascal, Virginia (COL. 13 LAST NAME) FIRST NAME

STREET OR RFD Greenbank Rd (COL. 36)

POST OFFICE Charlestown, Md (COL. 57)

B 1 CONTINUED — DRILLER INFORMATION

DATE 9-11-78 LICENSE NUMBER 159

Vernon W Kirk (FIRST NAME) (LAST NAME) DRILLER

SIGNATURE Vernon W Kirk

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

H HOME (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY } (MUST HAVE STATE HEALTH DEPT. APPROVAL)

P PRIVATE WATER COMPANY

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) CABLE TOOL ROTARY (CIRCULATION) ROTARY HYDRAULIC ROTARY REVERSE ROTARY DOWNE POINT

OTHER (DESCRIBE)

TO BE REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3 — LOCATION OF WELL

COUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

SECTION LOT

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN) 3

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE SOUTHEAST

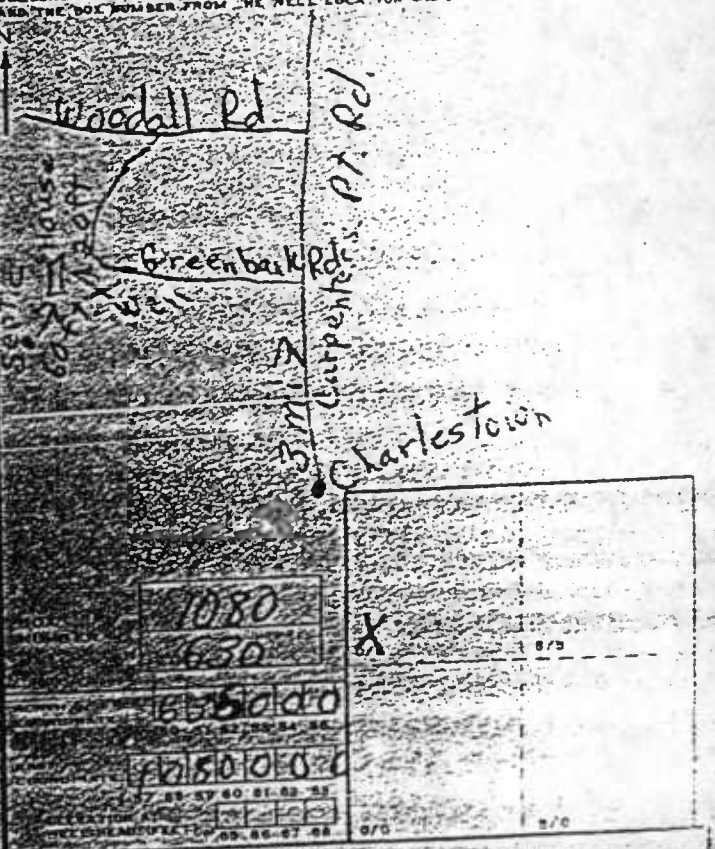
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST

NEAR WHAT ROAD Greenbank Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S EAST E WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS, AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN. IN THE SKETCH ALSO SHOW BY MARKING IN OF AREA THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



DNR-214 (7-77)

C 1 3049 (REQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

REQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS SPACE

COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY): 11-20-78

DATE WELL COMPLETED: 11-9-78 (110978)

DEPTH OF WELL: 55 (TO NEAREST FOOT)

PERMIT NO.: CE-73-2724

DRILLERS IDENTIFICATION NO.: 155

OWNER: Pascal, Virginia (LAST NAME) (FIRST NAME)

STREET OR RFD: Greenbank Rd. POST OFFICE: Charlestown, MD

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand	2	20	
red clay	20	40	
white sand	40	50	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES Y NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M BENTONITE CLAY B C

NO. OF BAGS: 4 NO. OF POUNDS: 376

GALLONS OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 15 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T CONCRETE; C O; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	50

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

C 2

DEPTH (NEAREST WHOLE FOOT)

	FROM	TO
S T	50	55

6

CIRCLE APPROPRIATE BOXES

DRILLERS NAME: Vernon K. K.

Vernon W. Kirk

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

OTHER DATA AVAILABLE

C 3

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 2

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 15

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 6

WHEN PUMPING: 30

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; P PISTON; T TURBINE; C CENTRIFUGAL; R ROTARY; J OTHER (DESCRIBE BELOW); J JET; S SUBMERSIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES Y N

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

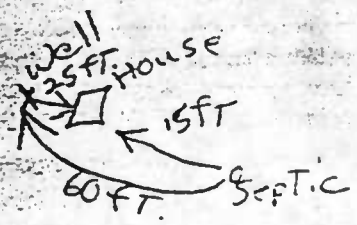
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE; − BELOW — LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 01/10/79
MO DA YR

PERMIT NUMBER- CE-73-2851

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
GARBER, CARL W
407 HILTON DR
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- , LOT- 26 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/10/79 [illegible] COMPLETION
REPORT MUST BE SUBMITTED TO
THE [illegible]
AFTER COMPLETION [illegible]

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (if any) –

B 1 6988 (SEQUENCE NO. WRA USE ONLY)

(SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-2851

DATE RECEIVED (WRA USE ONLY) JAN 01 1979

OWNER: Garber, Carl, W. (COL 15 LAST NAME)

STREET OR RFD: 407 Hilton Dr. (COL 36)

POST OFFICE: Lancaster, Pa. 17603 (COL 87)

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: 1-2-79 LICENSE NUMBER: 159

Vernon W. Kirk (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Vernon W. Kirk

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 200

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

K FARMING, AGRICULTURE, IRRIGATION

L INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M MUNICIPAL WATER SUPPLY

N PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 80 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

DRIVEN

KIN PERCUSSION

ROTARY (HYDRAULIC ROTARY)

REVERSE ROTARY

DRIVE POINT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

B 4 (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH, E EAST, N E NORTHEAST, S E SOUTHEAST

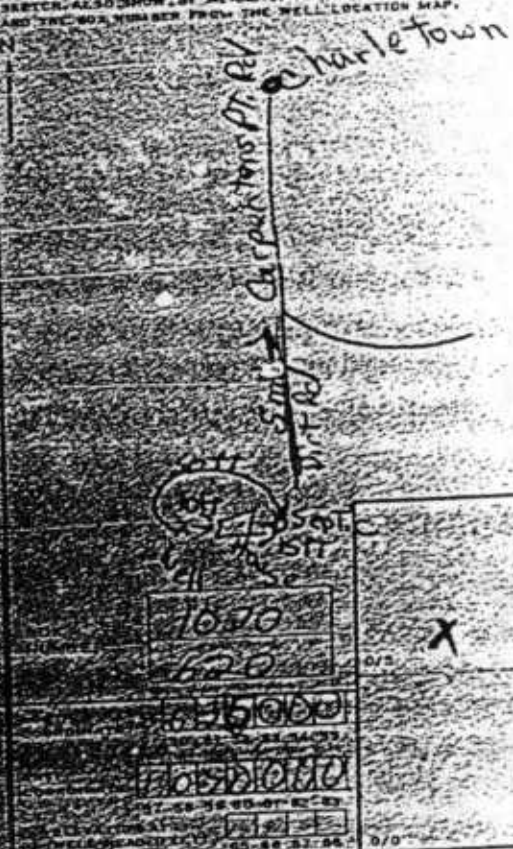
S SOUTH, W WEST, N W NORTHWEST, S W SOUTHWEST

NEAR WHAT ROAD: Carpenters Pt Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 150

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



X

C 1 1876 (SEQUENCE NO. (WRA USE ONLY))

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

2851

DATE RECEIVED (WRA USE ONLY): MAR 15 1979

DATE WELL COMPLETED: 2-22-79

DEPTH OF WELL: 87 (TO NEAREST FOOT)

022279

DRILLERS IDENTIFICATION NO. 159

OWNER: Garber, Carl W. (LAST NAME) (FIRST NAME)

STREET OR RFD: 407 Hilton Dr. POST OFFICE: Lancaster Pa.

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
top soil	0	2	
Brown sand + gravel	2	20	
red clay	20	50	
white clay	50	70	
white sand	70	87	✓

GROUTING RECORD — WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 5 NO. OF POUNDS: 470

GALLONS OF WATER: 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 25 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD — CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	82

OTHER CASING (IF USED): DIAMETER DEPTH (FEET)

SCREEN RECORD — SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) BRASS OR BRONZE (B R) OPEN HOLE (H O) PLASTIC (P L) OTHER (O T)

DEPTH (NEAREST WHOLE FOOT): FROM 82 TO 87

6

C 3

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 40

WHEN PUMPING: 60

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): AIR (A) PISTON (P) CENTRIFUGAL (C) ROTARY (R) JET (J) SUBMERSIBLE (S) Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE (+) BELOW (−) LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

[illegible]

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 04/03/79
MO DA YR

PERMIT NUMBER- CE-73-2902

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

BOSTIC, STEPHEN
BURNT BARN RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
[illegible] COMPLETION [illegible]
RECORD MUST BE SUBMITTED TO [illegible]
THE [illegible] WITHIN 30 DAYS
[illegible]

ROBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WHITE COPY

EMERGENCY NO. (If any) 73-2902

B 1 0563 (SEQ. NO.) (WRA USE ONLY)

1 2 3 (SEQ. NO.) 9
(WELL NUMBER IS TO BE PUNCHED IN COLS. 1-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY)
APR 04 1979

OWNER (COL. 18) LAST NAME: Bostic, ~~[illegible]~~ FIRST NAME: Stephen

STREET OR RFD (COL. 36): Burnt Barn Rd

POST OFFICE (COL. 57): Perryville, Maryland

B 1 CONTINUED

1 2 3 (SEQ. NO.) 8

DATE: 3/28/79

LICENSE NUMBER: 138

DRILLER FIRST NAME: Donald S. LAST NAME: Newman

SIGNATURE: Donald S. Newman

B 2 WELL INFORMATION

1 2 3 (SEQ. NO.) 8

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)
- F — FARMING, AGRICULTURAL, IRRIGATION
- C — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- (MUST HAVE STATE HEALTH DEPT. APPROVAL)
- T — OTHER

APPROXIMATE DEPTH OF WELL: 200 FEET

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

- DRIVEN
- AIR PERCUSSION
- ROTARY (HYDRAULIC ROTARY)
- REVERSE ROTARY
- DRIVE POINT

CASING

- STEEL
- PLASTIC

(IF CASING OR DEEPENED WELL) (CIRCLE APPROPRIATE BOX)

B 3

1 2 3 (SEQ. NO.)

LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION: 23

SECTION: 44

LOT: 41

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

B 4

1 2 3 (SEQ. NO.) 8

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

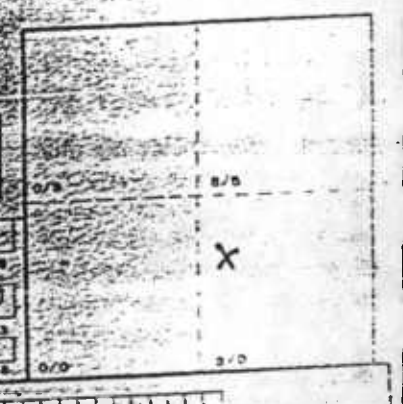
- N NORTH
- E EAST
- NE NORTHEAST
- SE SOUTHEAST
- S SOUTH
- W WEST
- NW NORTHWEST
- SW SOUTHWEST

NEAR WHAT ROAD: Burnt Barn Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 300

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS. IN NORTH IN THE DIRECTION OF THE ARROW, AND ESTIMATE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



1070
630
630000
075000

ORIGINAL

DNR-816 (7-77)

C 1 3009 (SEQ. NO.)

SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS [illegible]

DATE RECEIVED (WRA USE ONLY): APR 25 1979

DATE WELL COMPLETED: 4/20/79

042079

DEPTH OF WELL: 165 (TO NEAREST FOOT)

2902

DRILLERS IDENTIFICATION NO.: 133

OWNER: Bostic, Stephen

LAST NAME / FIRST NAME

STREET OR RFD: Burnt Barn Rd.

POST OFFICE: Perryville, Maryland

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/60 yellow sand-clay-gravel			
60/103 white clay-sand			
103/128 red-white clay-sand			
128/153 red-white-yellow clay			
153/165 coarse yellow-white sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES Y / NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M / BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER: NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ FT. TO ____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES: INSERT APPROPRIATE CODE BELOW — S T STEEL, C O CONCRETE, P L PLASTIC, O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	158

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	157	160

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE: INSERT APPROPRIATE CODE BELOW — S T STEEL, B R BRASS OR BRONZE, H O OPEN HOLE, P L PLASTIC, O T OTHER

C 2

DEPTH (NEAREST WHOLE FOOT)

	FROM	TO
S T	160	165

CIRCLE APPROPRIATE BOXES

Donald S. Newnam

[illegible]

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

1 2 3 4 — INDICATOR — 74-75 76 OTHER DATA AVAILABLE

C 3

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): ____

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): ____

METHOD USED TO MEASURE PUMPING RATE: bucket

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 90

WHEN PUMPING: 118

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR, P PISTON, C CENTRIFUGAL, P ROTARY, J JET, S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, [illegible])

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES / NO

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON): ____

PUMP HORSE POWER: ____

PUMP COLUMN LENGTH (NEAREST FOOT): ____

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE / − BELOW — LAND SURFACE

LOCATION OF WELL ON LOT

N — SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

X well

Hoist

ORIGINAL

DNR 137

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 05/15/79
MO DA YR

PERMIT NUMBER- CE-73-2957

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

CHESTNUT PT MARINA
CARPENTERS PT RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM DOES ON APPLICATION

GROUNDWATER APPROPRIATION NUMBER - CE66GAP020

IN 30 DAYS

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WHITE COPY

EMERGENCY NO. (If any)

B 1 0581 — SEQUENCE NO. (WRA USE ONLY)

(SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE 73-2957

FILL IN THIS SPACE ONLY

DATE RECEIVED (WRA USE ONLY) 5-14-79

OWNER (COL. 15) Chestnut Point Marina

STREET OR RFD (COL. 36) Carpenters Point Road

POST OFFICE (COL. 57) Perryville, Maryland

DRILLER INFORMATION

B 1 (CONTINUED) (SEQ. NO.)

DATE 3/19/79 — LICENSE NUMBER 138

DONALD S. NEWMAN (FIRST NAME) (LAST NAME) DRILLER

SIGNATURE Donald S. Newman

WELL INFORMATION

B 2 (SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 30

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 10000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F — FARMING (AGRICULTURE, INCLUDING SOIL CONSERVATION)

I — INDUSTRIAL (COMMERCIAL, STATE AND FEDERAL GOVERNMENT)

M — MUNICIPAL (WATER SUPPLY) (MUST HAVE APPROPRIATE MEALS TAX APPROVAL)

P — PRIVATE WATER COMPANY

N — TEST

APPROXIMATE DEPTH OF WELL 1070 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (FILL IN APPROPRIATE BOX)

ROTARY (WITH WATER) — DRIVEN

ROTARY (WITH AIR) — AIR PRESSURE — ROTARY (HYDRAULIC ROTARY)

REVERSE ROTARY — DRIVE POINT

CABLE

DRILL

LOCATION OF WELL

B 3 (SEQ. NO.)

COUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

SECTION — LOT

NEAREST TOWN Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN) 6

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

B 4 (SEQ. NO.)

N NORTH — E EAST — NE NORTHEAST — SE

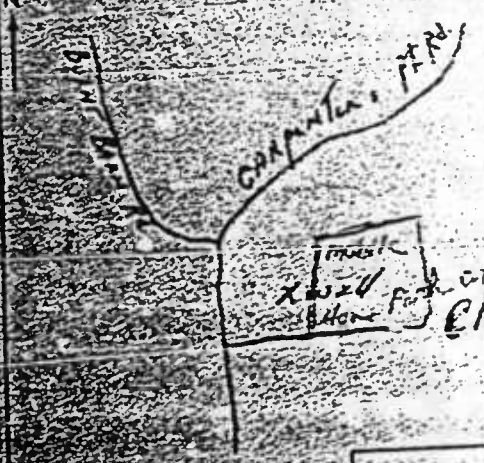
S SOUTH — W WEST — NW NORTHWEST — SW

NEAR WHAT ROAD Carpenters Pt. Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N — SOUTH S — E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE TRACE FROM WELL TO THE NEAREST ROAD JUNCTION. OR STREAM CROSSING. SHOW THE SKETCH ALSO SHOW, BY 1 LEAD OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



1070

6

435000

7645000

0/0 — 3/0

FOR WRA USE ONLY

DNR-214 (7-77)

C 1 7578 (SEQUENCE NO. WRA USE ONLY)

(WELL NUMBER (1-7) TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

2957

DATE RECEIVED (WRA USE ONLY): JUL 16 1979

DATE WELL COMPLETED: 6/22/79 (06 22 79)

DEPTH OF WELL: 93 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO.: 130

OWNER: Chestnut Pt. Marina

FIRST NAME

POST OFFICE: Perryville, Maryland

STREET OR RFD: Carpenters Pt. Road

WELL DESCRIPTION

WELL LOG (STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING)

DESCRIPTION (USE ADDITIONAL SHEET IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/20 red-white-yellow clay			
20/50 yellow-white clay			
sand			
50/93 coarse-yellow-white sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ FT. TO ____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL S T; CONCRETE C O; PLASTIC P L; OTHER O T

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	6	86

OTHER CASING (IF USED)

	DIAMETER (INCHES)	DEPTH (FEET) FROM	TO
S T	4	85	88

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL S T; BRASS OR BRONZE B R; OPEN HOLE H O; PLASTIC P L; OTHER O T

	DIAMETER (INCHES)	DEPTH (NEAREST WHOLE FOOT) FROM	TO
S T	4	88	93

CHECK APPROPRIATE BOXES

DRILLER'S SIGNATURE: Donald S. Newman

DATE

PUMPING TEST

C 3

HOURS PUMPED (TO NEAREST HOUR): 1½

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 45

METHOD USED TO MEASURE PUMPING RATE: bucket

WATER LEVEL (DISTANCE FROM WELL TOP):

BEFORE PUMPING: 68

WHEN PUMPING: 84

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; P PISTON; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER CODE — SEE ABOVE): A, C, J, P, R, S

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON): 35

PUMP HORSE POWER: 2

PUMP COLUMN LENGTH (NEAREST FOOT): 85

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE / BELOW LAND SURFACE: 1 (DIAMETER FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS HOUSE, GARAGE, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

P.H.

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 07/16/79
MO DA YR

PERMIT NUMBER- CE-73-3062

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 138

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

FREEDY, JOHN
9108 ABIGIAL DR
BALTIMORE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT- 4 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION.

[illegible]

[illegible] ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any)

B 1 2619 (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3062

DATE RECEIVED (WRA USE ONLY) JUL 16 1979

OWNER: Freedy, John (COL. 18 LAST NAME) (FIRST NAME)

STREET OR RFD: 9108 Abigial Drive Apt. 1-C (COL. 26)

POST OFFICE: Baltimore, Maryland (COL. 57)

B 1 CONTINUED (SEQ. NO.) — DRILLER INFORMATION

DATE: 6/10/79 — LICENSE NUMBER: 138

Donald S. Newnan (FIRST NAME, DRILLER, LAST NAME)

SIGNATURE: Donald S. Newnan

B 2 (SEQ. NO.) — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- T — TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 100 (FEET)

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR DUGGED) — JETTED — DRIVEN

AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

B 3 (SEQ. NO.) — LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION: Green Bank

SECTION: — LOT: 4

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): 0

B 4 (SEQ. NO.) — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH — E EAST — N E NORTHEAST — S E SOUTHEAST

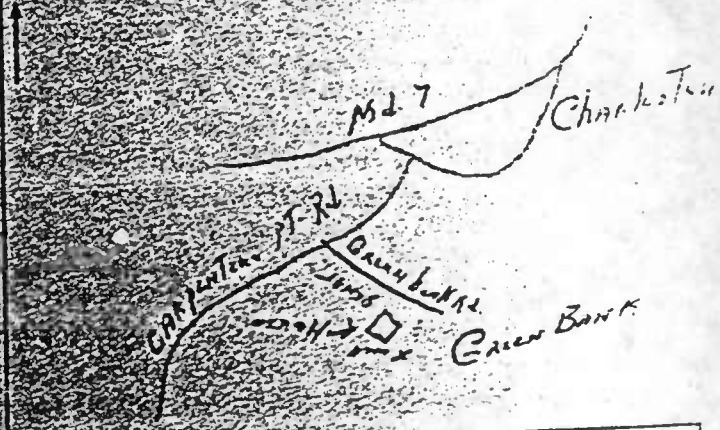
S SOUTH — W WEST — N W NORTHWEST — S W SOUTHWEST

NEAR WHAT ROAD: Greenbank Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E — WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON SKETCH. ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



1080

600

X

WRA USE ONLY

DNR 314-17-77

C 1 2411 (SEQ. NO.) SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): OCT 30 1979

DATE WELL COMPLETED: 10/19/79

DEPTH OF WELL: 132 (TO NEAREST FOOT)

CE-75-3062

DRILLERS IDENTIFICATION NO.: 139

OWNER: Freedy, John (LAST NAME) FIRST NAME

STREET OR RFD: 9108 Abigial Drive POST OFFICE: Baltimore, Maryland

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
2/38 yellow sand-clay-gravel			
38/78 red-white-gray clay			
78/92 white clay-sand			
92/105 red-white clay			
105/125 yellow-white clay			
125/132 coarse white-gray sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER: NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ FT. TO ____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	127

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	125	127

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; H O OPEN HOLE; P L PLASTIC; O T OTHER

DEPTH (NEAREST WHOLE FOOT): FROM 127 TO 132

15

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) ____

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 30

METHOD USED TO MEASURE PUMPING RATE: bucket

WATER LEVEL (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 32

WHEN PUMPING: 65

TYPE OF PUMPED USED (FOR PUMPING TEST): A AIR; P PISTON; C CENTRIFUGAL; R ROTARY; J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE; BELOW; LAND SURFACE 1 (NEAREST FOOT)

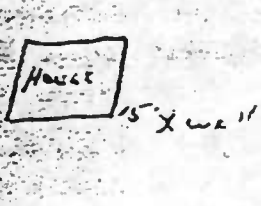
LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

House

15' X well

CIRCLE APPROPRIATE BOXES



Donald S. Newman

ORIGINAL

DNR 127

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 08/01/79
MO DA YR

PERMIT NUMBER- CE-73-3091

ISSUED TO DRILLER- SHORE WELL DRLRS INC

DRILLER ID. NUMBER- 139

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

RITTENHOUSE, NORMAN
BURNT BARN RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT [illegible]
02/01 [illegible]
REPORT [illegible]
THE [illegible]
AFTER COMPLETION [illegible]

[illegible] ANDREWS
[illegible] MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any)

B 1 2625 (SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3091

DATE RECEIVED (WRA USE ONLY) AUG 01 1979

OWNER: Rittenhouse, Norman (COL. 18 LAST NAME) (FIRST NAME)

STREET OR RFD: Burnt Barn Rd. (COL. 36)

POST OFFICE: Perryville, Maryland (COL. 57)

B 1 CONTINUED — DRILLER INFORMATION

DATE: 7/24/79 LICENSE NUMBER: 138

DRILLER: Donald S. Newnam (FIRST NAME) (LAST NAME)

SIGNATURE: Donald S. Newnam

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D — SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY

F — FARMING, AGRICULTURE, IRRIGATION

I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M — MUNICIPAL WATER SUPPLY

P — PRIVATE WATER COMPANY

(MUST HAVE STATE HEALTH DEPT. APPROVAL)

T — TEST

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (HAND OPERATED) — JETTED — DRIVEN

CABLE TOOL — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)

REVERSE ROTARY — DRIVE POINT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

B 3 — LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): .5

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH — E EAST — NE NORTHEAST — SE SOUTHEAST

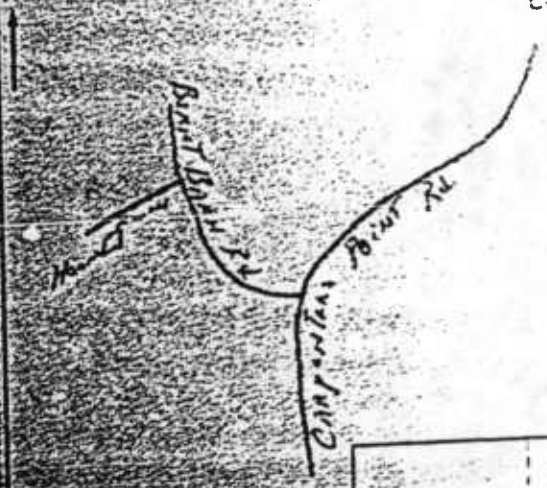
S SOUTH — W WEST — NW NORTHWEST — SW SOUTHWEST

NEAR WHAT ROAD: Burnt Barn Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS, AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. ESTIMATE DISTANCE FROM ROADS TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE 3RD MAP AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070

COORDINATES: X 6630 Y 6750

ELEVATION AT WELL (FEET):

WRA USE ONLY

DNR 214 (7-77)

C 1 6780 (SEQ. NO.) SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY): OCT 30 1979

DATE WELL COMPLETED: 10/22/79

DEPTH OF WELL: 70 (TO NEAREST FOOT)

102277

DRILLERS IDENTIFICATION NO.: QE 73 3091

OWNER: Rittenhouse, Norman

STREET OR RFD: Burnt Barn Road

POST OFFICE: Perryville, Maryland

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/2 top soil			
1/15 yellow-white clay			
15/30 red-white clay			
30/40 ft. gray clay-sand			
40/62 red-white-yellow clay			
62/70 coarse yellow-white sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES Y 44 / NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M 45 46 / BENTONITE CLAY B C 45 46

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER: NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ FT. TO ____ FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES: INSERT APPROPRIATE CODE BELOW

S T STEEL / C O CONCRETE / P L PLASTIC / O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER (TOP MAIN CASING NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T	4	64

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	2½	62	65

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE: INSERT APPROPRIATE CODE BELOW

S T STEEL / B R BRASS OR BRONZE / H O OPEN HOLE / P L PLASTIC / O T OTHER

EACH SCREEN	DEPTH (NEAREST WHOLE FOOT) FROM	TO
S T	65	70

15

3

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): ____

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 30

METHOD USED TO MEASURE PUMPING RATE: bucket

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 18

WHEN PUMPING: 45

TYPE OF PUMPED USED (FOR PUMPING TEST) (CIRCLE APPROPRIATE BOX): A AIR / P PISTON / C CENTRIFUGAL / R ROTARY / J JET / S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER OR BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES / NO

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE / − BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

House

CIRCLE APPROPRIATE BOXES

Donald S. Newnam

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/10/79
MO DA YR

PERMIT NUMBER- CE-73-3161

ISSUED TO DRILLER-

PRESTON & HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

GIBSON, GEORGE
MCMILLAN & COLLINS
NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/10/80. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. (If any)

DNR-131 (7-77)

B	1	7360	SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

CE 73-3161

DATE RECEIVED (WRA USE ONLY)

SEP 10 1979

OWNER: Gibson George
COL 15 LAST NAME

STREET OR RFD: c/o McMillen and Collins Builders
COL 34

POST OFFICE: North East, MD. 21901
COL 57

DRILLER INFORMATION

B 1 CONTINUED
1 2 3 (SEQ. NO.) 6

DATE: 8-31-8[illegible]

LICENSE NUMBER: 112
77 80

Charles H. H[illegible]ton, Jr.
FIRST NAME DRILLER LAST NAME

SIGNATURE: Charles H. [illegible]

LOCATION OF WELL

B 3 (SEQ. NO.)

COUNTY: Cecil
(DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION
22

SECTION
44 45

NEAREST TOWN: Perryville
52

MILES FROM TOWN (ENTER 0 IF IN TOWN): 2
73

WELL INFORMATION

B 2
1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10
8 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) (circled) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
- P PRIVATE WATER COMPANY
- T TEST

APPROXIMATE DEPTH OF WELL: 100 FEET
24 28

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) — JETTED — DRIVEN — AIR PERCUSSION — (ROTARY) (circled) — HYDRAULIC ROTARY — CABLE — REVERSE ROTARY — DRIVE POINT

OTHER

REPLACEMENT (OR DEEPENED WELLS)

[illegible]

DIRECTION FROM TOWN

B 4 (CIRCLE APPROPRIATE BOX)
1 2 3 (SEQ. NO.) 6

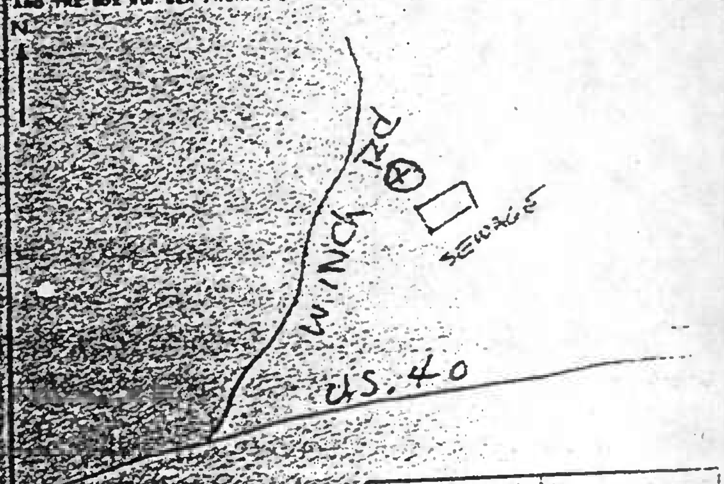
(N) (circled) NORTH — E EAST — N E NORTHEAST — S E SOUTHEAST
S SOUTH — W WEST — N W NORTHWEST — S W SOUTHWEST

NEAR WHAT ROAD: Winch
11

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N NORTH — S SOUTH — (E) EAST (circled) — W WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50
34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND SHOW DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN SKETCH. ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



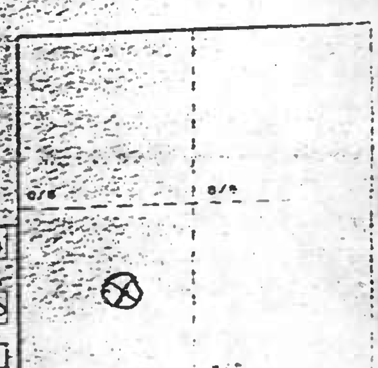
NUMBER: 1010 646

NORTHING: [illegible]

EASTING: [illegible]

ELEVATION

WELL HEAD (FEET)



APPROVED BY: [illegible]

ORIGINAL

DNR 214-17-77

C | 4503 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS — COUNTY NUMBER: [illegible]

DATE RECEIVED (WRA USE ONLY): OCT 19 1979

DATE WELL COMPLETED: 9-27-79

DEPTH OF WELL: 143 (TO NEAREST FOOT)

PERMIT NO. [illegible]: CE-73-3161

DRILLERS IDENTIFICATION NO.: 112

092779

OWNER: Gibson (LAST NAME) George (FIRST NAME)

STREET OR RFD: c/o McMillan & Collins — POST OFFICE: North East

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Clay & gravel	0	15	
fractured Gabbro & Blue granite (layered)	15	143	✓

GROUTING RECORD — WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (✓) NO N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 2 — NO. OF POUNDS: 200

GALLONS OF WATER: 10

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD — CASING TYPES (INSERT APPROPRIATE CODE BELOW): ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	20

OTHER CASING (IF USED) — EACH CASING: DIAMETER (INCH), DEPTH (FEET) FROM TO

SCREEN RECORD — SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): ST STEEL, BR BRASS OR BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

EACH SCREEN	DEPTH (NEAREST WHOLE FOOT) FROM	TO
HO	20	143

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 3

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 5

METHOD USED TO MEASURE PUMPING RATE: airfoil

WATER LEVEL (DISTANCE FROM LAND SURFACE): BEFORE PUMPING 25 — WHEN PUMPING 143

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST): A AIR, P PISTON, C CENTRIFUGAL, R ROTARY, J JET, S SUBMERSIBLE

PUMP INSTALLED — TYPE OF PUMP (WRITE APPROPRIATE CODE IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES (✓) NO (✓)

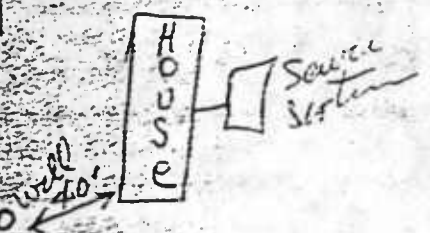
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE, − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT — SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOXES

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

OTHER DATA AVAILABLE

Chas. Hamilton
Charles H. Hamilton

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/14/79
MO DA YR

PERMIT NUMBER- CE-73-3164

DRILLER
ID. NUMBER- 159

ISSUED TO DRILLER-
KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
TANNER, ROBERT L
30 EDGEWATER AVE
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL [illegible]
03/15/80 [illegible] COMPLETION [illegible]
REPORT [illegible] SUBMITTED TO [illegible]
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION [illegible]

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (if any) –

B 1 0149 (SEQUENCE NO. (WRA USE ONLY))

(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3164

DATE RECEIVED (WRA USE ONLY): SEP 13 1979

OWNER: Tanner, Robert L (LAST NAME) — (FIRST NAME)

STREET OR RFD: 30 Edgewater Ave.

POST OFFICE: Charlestown, Md.

B 1 CONTINUED — DRILLER INFORMATION

DATE: 9-4-79 LICENSE NUMBER: 159

Vernon W Cook (FIRST NAME) DRILLER (LAST NAME)

SIGNATURE: Vernon W Cook

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F — FARMING, AGRICULTURE, RECREATION

I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M — MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P — PRIVATE WATER COMPANY

X — OTHER

APPROXIMATE DEPTH OF WELL: 30 FEET

APPROXIMATE DIAMETER OF WELL: 6 INCH

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD): DRIVEN

B 3 — LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN): 0

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

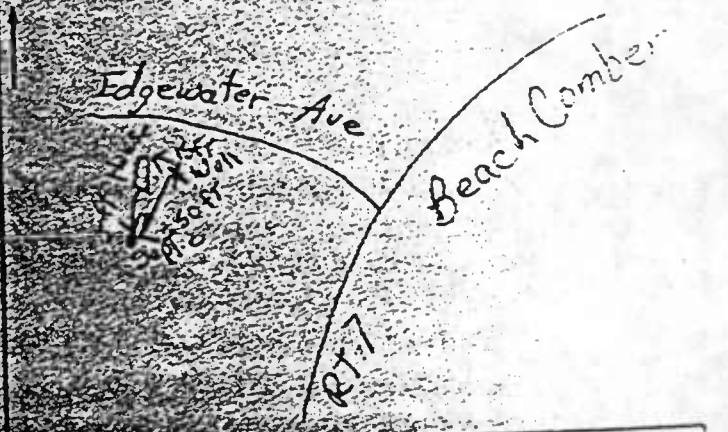
N NORTH, E EAST, NE NORTHEAST, SE SOUTHEAST, S SOUTH, W WEST, NW NORTHWEST, SW SOUTHWEST

NEAR WHAT ROAD: Edgewater Ave

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 20

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOXES NUMBER: 7080 630

LATITUDE: 39 38 00

LONGITUDE: 76 00 00

ELEVATION AT WELL HEAD (FEET): 63, 66, 67, 68

X

0/0 8/0

WRA USE ONLY

ORIGINAL

DNR 515 (7-77)

C | F | 4578 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

FILL IN THIS FORM

DATE RECEIVED (WRA USE ONLY): NOV 14 1979

DATE WELL COMPLETED: 11-1-79 (11/01/79)

DEPTH OF WELL: 60 (TO NEAREST FOOT)

PERMIT NO. OF WELL: CE-15-3164

DRILLERS IDENTIFICATION NO.: 100

OWNER: Tanner, Robert L (LAST NAME, FIRST NAME)

STREET OR RFD: 30 Edgewater Ave — POST OFFICE: Charlestown Md

WELL DESCRIPTION

WELL LOG — STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
red clay	2	50	
white sand	50	60	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y / N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) — BENTONITE CLAY (B C)

NO. OF BAGS: 4 — NO. OF POUNDS: 376

GALLONS OF WATER: 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 20 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	55

OTHER CASING (IF USED)

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): S T — B W BRASS WIRE — H O OPEN HOLE — P L PLASTIC — O T OTHER

	DEPTH (NEAREST WHOLE FOOT)	
ST	55	60

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 3

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 2

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL (DISTANCE FROM LAND SURFACE): BEFORE PUMPING 5 — WHEN PUMPING 30

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): A AIR — P PISTON — C CENTRIFUGAL — R ROTARY — J JET — S SUBMERSIBLE — Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES / NO

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

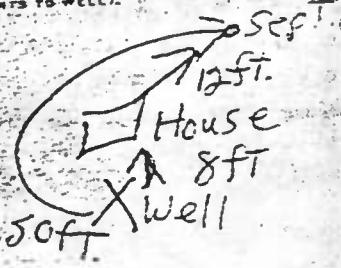
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE / − BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES MEASUREMENTS TO WELL).



VERIFICATION: Kelly

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 10/22/79
MO DA YR

PERMIT NUMBER- CE-79-3203

ISSUED TO DRILLER- DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER- 250

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

NE WASTE WATER PLANT
CARPENTERS POINT RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE [illegible] FROM CODES ON APPLICATION

GROUNDWATER APPROPRIATION PERMIT NUMBER- CE79GAP021

THIS PERMIT IS VALID UNTIL 04/22/80. [illegible] COMPLETION REPORT MUST BE [illegible] TO THE ADMINISTRATION WITHIN 30 DAYS [illegible] COMPLETION OF THE WELL.

THOMAS G. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73 3203

F 1 1658

DATE RECEIVED: OCT 19 1979

OWNER: North East Water Plant (Private)
STREET OR RFD: Carpenters Point Rd
POST OFFICE: Charlestown, Md.

B 1 — DRILLER INFORMATION
DATE: 10-9-79
LICENSE NUMBER: 250
CONSTANTINE DIFILIPPO
FIRST NAME — DRILLER — LAST NAME
SIGNATURE: Constantine Difilippo

B 2 — WELL INFORMATION
MAXIMUM PUMPING RATE (GAL. PER MINUTE): 20
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 8000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
F FARMING, AGRICULTURE, IRRIGATION
I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
M MUNICIPAL WATER SUPPLY
P PRIVATE WATER COMPANY
T STREET
(MUST HAVE STATE HEALTH DEPT. APPROVAL)

APPROXIMATE DEPTH OF WELL: 60 FEET
APPROXIMATE DIAMETER OF WELL: 6" (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
DRILLED — DRIVEN — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY) — REVERSE ROTARY — DOWN-THE-POINT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

FUEL USED BY DRILLER

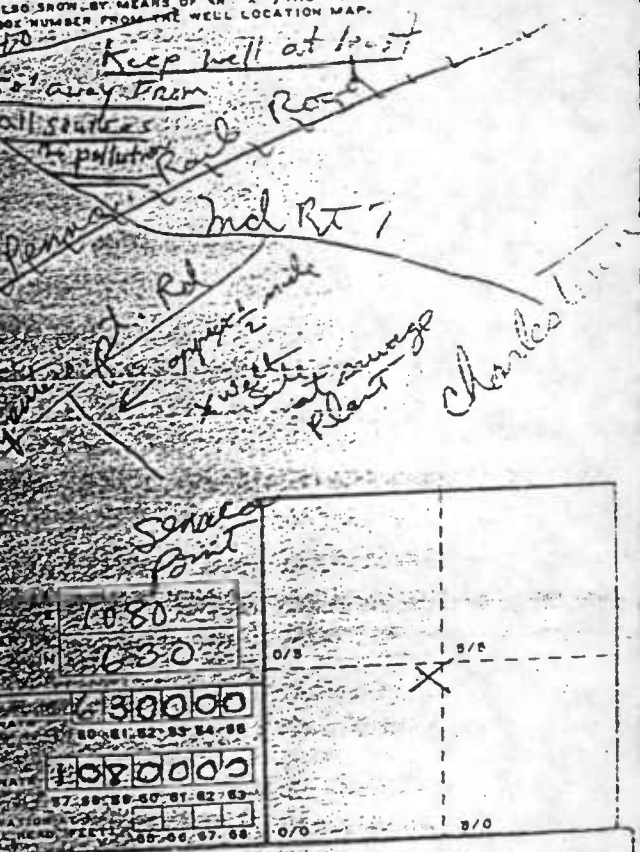
LANDOWNER'S NAME OR APPROVAL

COUNTY OFFICIAL

B 3 — LOCATION OF WELL
COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION
SECTION — LOT
NEAREST TOWN: CHARLES TOWN
MILES FROM TOWN (ENTER 0 IF IN TOWN): 2

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
N NORTH — E EAST — NE NORTHEAST — SE SOUTHEAST
S SOUTH — W WEST — NW NORTHWEST — SW SOUTHWEST
NEAR WHAT ROAD: Carpenters Point Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH — SOUTH — EAST — WEST
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1/2

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



ORIGINAL

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

1042 (WRA USE ONLY)

FILL IN THIS FORM

COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY) MAR 05 1980

DATE WELL COMPLETED 11/12/79

DEPTH OF WELL 100 (TO NEAREST FOOT)

PERMIT NO. FROM WRA ME-79-3203

DRILLERS IDENTIFICATION NO. 250

7/7/79

OWNER North East Waste Water Plant — LAST NAME — FIRST NAME

STREET OR RFD Carpenters Point Road — POST OFFICE Charlestown, MD

WELL DESCRIPTION

C 3 (LOC. NO.)

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Clay (orange)	0	25	
Clay yellow	25	30	
Clay orange	30	60	
Gravel	60	62	
White sand	62		✓
Fine gravel water bearing	62	93	✓
White sand			
Decomposed [illegible]			
[illegible]		95	✓
[illegible]			
[illegible]			
[illegible]			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS 28 NO. OF POUNDS 2744

GALLONS OF WATER 140

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 0 FT. TO 80 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE: S T — NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 6 — TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 93

Sch 40

OTHER CASING (IF USED)

DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD

SCREEN TYPE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) BRASS (W R) OPEN HOLE (H O) PLASTIC (P L) OTHER (O T)

Slotted

C 2 (LOC. NO.)

DEPTH (NEAREST WHOLE FOOT) FROM 93 TO 98

10

DIAMETER OF SCREEN 6 (NEAREST INCH)

FROM — TO

GRAVEL PACK

SCREEN GALLED WAS PULLED (CIRCLE BOX) (Y) (N)

FOR GEOLOGIST ONLY (NOT TO BE FILLED IN BY DRILLER)

LOG INDICATOR — OTHER DATA AVAILABLE

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 15

METHOD USED TO MEASURE PUMPING RATE air and Swing

WATER LEVEL (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 18 (NEAREST FOOT)

WHEN PUMPING 88 (NEAREST FOOT)

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): A AIR, B PISTON, F PUMPING, C CENTRIFUGAL, R ROTARY, O OTHER (DESCRIBE BELOW), J JET, S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, F, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

(+) ABOVE / (−) BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES MEASUREMENTS TO WELL).

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/03/79
MO DA YR

PERMIT NUMBER- CE-73-3216

DRILLER
ID. NUMBER- 250

ISSUED TO DRILLER-
DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
PAYNE, BARBARA
NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

[illegible] 30 DAYS
[illegible]

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

DRILLER COPY

CE-73-3216

B 1 1637

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (WRA USE ONLY): NOV 02 1979

OWNER: PAYNE BAR BAR

STREET OR RFD: [illegible]

POST OFFICE: NORTH EAST, MD. 21901

B 2 — DRILLER INFORMATION

CONTINUED

DATE: 10/24/79 LICENSE NUMBER: 250

DRILLER: Lawrence DiFilippo

SIGNATURE: Lawrence DiFilippo

B 2 — WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 8

AVERAGE DAILY QUANTITY NEEDED: 700

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)
- FARMING, AGRICULTURE, DAIRY, ETC.
- INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- MUNICIPAL WATER SUPPLY (MUST HAVE STATE HEALTH DEPT. APPROVAL)
- PRIVATE WATER COMPANY
- TEST

APPROXIMATE DEPTH OF WELL: 120

APPROXIMATE DIAMETER OF WELL: 6 (APPROXIMATE INCHES)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD): AIR HAMMER, ROTARY, CABLE TOOL, NEW ROTARY, ROTARY WITH DRIVE POINTS

REPLACEMENT OR DEEPENING WELL (CIRCLE APPROPRIATE BOX)

B 3 — LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 73

B 4 — DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

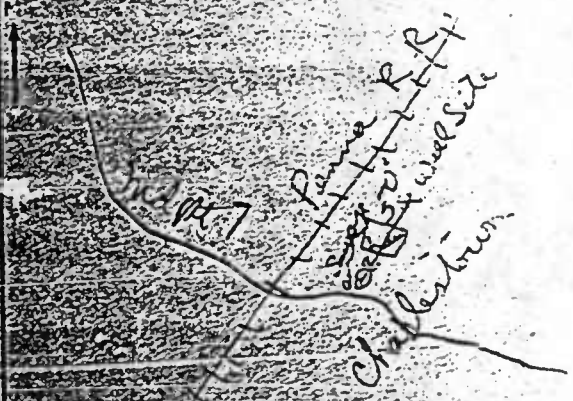
N NORTH, E EAST, NE NORTHEAST, SE
S SOUTH, W WEST, NW NORTHWEST, SW

NEAR WHAT ROAD: Md Rt 7

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE LOT NUMBER FROM THE WELL LOCATION MAP.



COORDINATES: E 1060 N 630

1635

7080000

ELEVATION: WELL CONTROL ELEVATION

0/0 3/0

FOR USE ONLY

63

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
JAMES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C T 1909 (WELL NO.)

FILL IN THIS FORM ONLY IN COUNTY NUMBER

DATE RECEIVED: 1/12/80

DATE WELL COMPLETED: 01/12/80

DEPTH OF WELL: 138 (TO NEAREST FOOT)

PERMIT NO. FROM: CE-73-3216

DRILLERS IDENTIFICATION NO.: 250

MAR 04 1981

OWNER: PAYNE (LAST NAME) BARBARA (FIRST NAME)

POST OFFICE: NORTH EAST, MD.

STREET OR RFD:

WELL DESCRIPTION

WELL LOG

DESCRIPTION	FEET FROM	FEET TO	CHECK IF WATER BEARING
Gravel and clay	0	100	
coarse sand	100	138	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS: 35 NO. OF POUNDS: 2500

GALLONS: 125

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 130 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): S T STEEL; C O CONCRETE; P L PLASTIC; O T OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST	6	133

OTHER CASING (IF USED)

DIAMETER (NEAREST INCH)	DEPTH EFFECT FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPENHOLE (INSERT APPROPRIATE CODE BELOW): S T STEEL; B R BRASS OR BRONZE; W O OPEN HOLE; P L PLASTIC; O T OTHER

TYPE	DIAMETER (NEAREST INCH)	DEPTH (NEAREST WHOLE FOOT) FROM	TO
ST	133		138

CIRCLE APPROPRIATE BOXES

DATA FILED BY (DRILLER): [illegible]

OTHER DATA AVAILABLE: [illegible]

C 3 (SEQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 2

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 5

METHOD USED TO MEASURE PUMPING RATE: Adjustable

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 75 (NEAREST FOOT)

WHEN PUMPING: 80 (NEAREST FOOT)

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): A AIR; P PISTON; T TURBINE; C CENTRIFUGAL; R ROTARY; O OTHER (DESCRIBE BELOW); J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX. — SEE ABOVE): A, E, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): Y N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON): 7

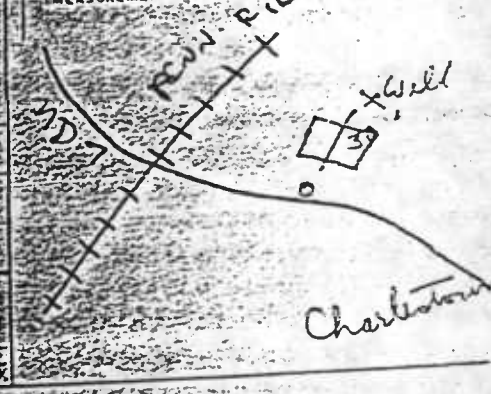
PUMP HORSE POWER: 1/2

PUMP COLUMN LENGTH (NEAREST FOOT): 128

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE, − BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 02/05/80
MO DA YR

PERMIT NUMBER- CE-73-3290

DRILLER
ID. NUMBER- 250

ISSUED TO DRILLER-
DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-
CAMPBELL, WILLIAM R
88 SIMMONS LA
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

[illegible] FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID [illegible]
08/05/[illegible] [illegible] COMPLETION [illegible]
REPORT [illegible] TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

[illegible] ANDREWS
[illegible] MARYLAND
WATER RESOURCES
ADMINISTRATION

WEX COPY

EMERGENCY NO. (If any)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-3290

9 | 1645 | SEQUENCE NO. (WRA USE ONLY)
(THIS NUMBER TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): FEB 04 1980

OWNER (COL. 13 - LAST NAME): Campbell William
STREET OR RFD. (COL. 35): 88 Simmons Lane
POST OFFICE (COL. 57 - 7): Taneytown Maryland

B 1 | CONTINUED | (SEQ. NO.)

DRILLER INFORMATION

DATE: 1-29-80 | LICENSE NUMBER: 250

DRILLER (FIRST NAME): Constantine | (LAST NAME): Lippo

SIGNATURE: Constantine Lippo

B 2 | (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)
- (F) FARMING - AGRICULTURE - IRRIGATION
- (I) INDUSTRIAL - COMMERCIAL - STATE AND FEDERAL GOVERNMENT
- (M) MUNICIPAL WATER SUPPLY } (MUST HAVE STATE HEALTH DEPT. APPROVAL)
- (P) PRIVATE WATER COMPANY
- (T) TEST

APPROXIMATE DEPTH OF WELL: 600 (FEET)

APPROXIMATE DIAMETER OF WELL: 6" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD BOX)

- (R) ROTARY
- (C) CABLE
- (A) AIR - PERCUSSION
- (H) HYDRAULIC ROTARY
- (D) DRIVE POINT

BACKFILLING OR SEALING REQUIRED (CIRCLE APPROPRIATE BOX)

B 3 | (SEQ. NO.)

LOCATION OF WELL

COUNTY: Carroll (DO NOT ABBREVIATE COUNTY NAME)
SUBDIVISION:
SECTION: | LOT:
NEAREST TOWN: Pennsville
MILES FROM TOWN (ENTER 0 IF IN TOWN):

B 4 | (SEQ. NO.)

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

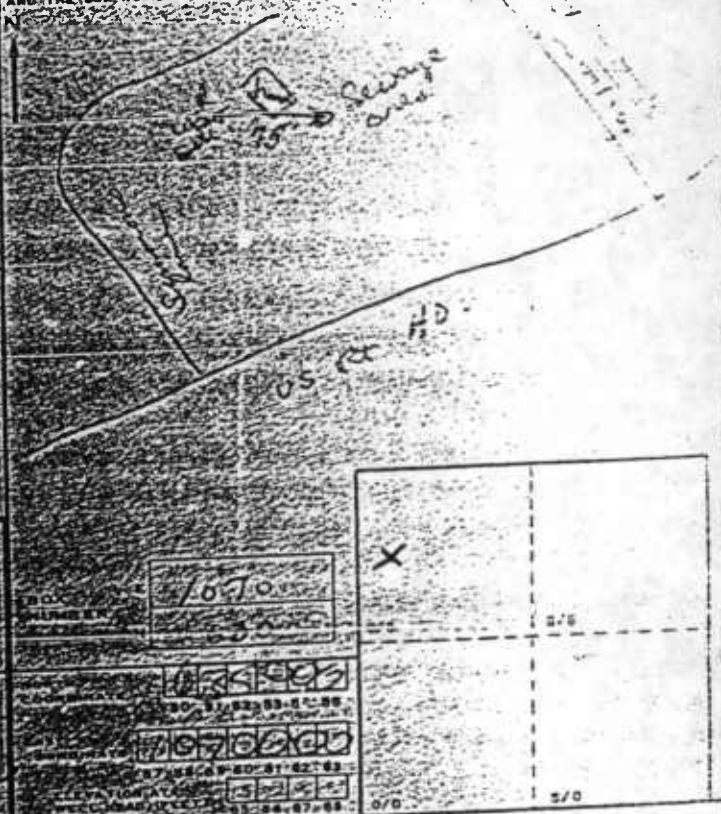
N NORTH | E EAST | NE NORTHEAST | SE
S SOUTH | W WEST | NW NORTHWEST | SW

NEAR WHAT ROAD: U.S. Rt 40

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) | SOUTH (S) | EAST (E) | WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARE ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND S TANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN SKETCH. ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION IN THE SUB AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



WRA USE ONLY

DNR-214 (7-72)

C | N | 3445 (SEQ. NO.) — (THIS NUMBER IS TO BE PUNCHED IN COLS. 1-6 ON ALL CARDS)

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FOR COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY) APR 14 1980

DATE WELL COMPLETED 2/5/80 — 02 05 80

DEPTH OF WELL 220 (TO NEAREST FOOT)

REPORT NO. 73-3290

DRILLER'S IDENTIFICATION NO. 25

OWNER CAMPBELL (LAST NAME) WILLIAM (FIRST NAME)

STREET OR RFD 88 SIMONS LANE POST OFFICE PERRYVILLE

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
topsoil & clay	0	45	
lt gray granite	45	100	
dk granite	100	220	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C) (M) BENTONITE CLAY (B) (C)

NO. OF BAGS 12 NO. OF POUNDS 1104

NO. OF WATER 60

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 59 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S) (T); CONCRETE (C) (O); PLASTIC (P) (L); OTHER (O) (T)

MAIN CASING TYPE	NOMINAL DIAME. TOP MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
Str	6	59

OTHER CASING (IF USED)

DIAMETER (NEAREST INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S) (Y); BRASS OR BRONZE (B) (R); OPEN HOLE (H) (O); PLASTIC (P) (L); OTHER (O) (T)

DIAMETER	DEPTH (NEAREST WHOLE FOOT) FROM	TO
6	59	220

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 3

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 5

METHOD USED TO MEASURE PUMPING RATE orifice

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 70 (NEAREST FOOT)

WHEN PUMPING 150 (NEAREST FOOT)

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)

AIR (A); PISTON (P); TURBINE (T); CENTRIFUGAL (C); ROTARY (R); OTHER (DESCRIBE BELOW) (O); JET (J); SUBMERSIBLE (S)

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, P, R, S, T, O) S

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) 10

PUMP HORSE POWER 3/4

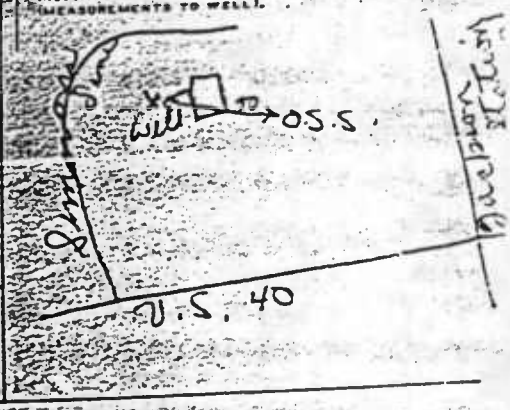
PUMP COLUMN LENGTH (NEAREST FOOT) 200

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): ABOVE (+) BELOW (−) LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

(SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE 05/28/80
MO DA YR

PERMIT NUMBER- CE-73-3378

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE, MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL TO BE OWNED BY-

LEWIS- LINDA

NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY, NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

NONE.

THIS PERMIT IS VALID UNTIL
05/28/80 A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

THOMAS G. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

EMERGENCY NO. IN

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

CE 73-3378

SEQUENCE NO. (FOR USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (FOR USE ONLY) MAY 27 1980

OWNER: Lewis, Linda (COL. 13 - LAST NAME)

STREET OR RFD: (COL. 34)

POST OFFICE: North East, Md. (COL. 52)

DRILLER INFORMATION

DATE: 4-16-80 LICENSE NUMBER: 159

DRILLER: Vernon W. Kirk

SIGNATURE: Vernon W. Kirk

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — SINGLE OR DOUBLE FAMILY DWELLING ONLY
- F — FARMING - AGRICULTURE - IRRIGATION
- IC — INDUSTRIAL - COMMERCIAL - STATE AND FEDERAL GOVERNMENT
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- TH — THERAPEUTIC

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 6 INCHES

TYPE OF DRILLING MACHINE: DRIVER

AIR-PERCUSSION ROTARY - HYDRAULIC ROTARY

LOCATION OF WELL

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: North East

MILES FROM TOWN (ENTER 0 IF IN TOWN): 2

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

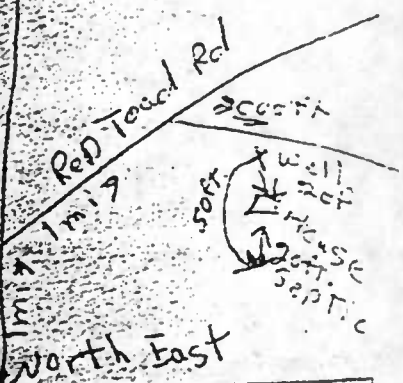
N NORTH, E EAST, NE NORTHEAST, SE SOUTHEAST, S SOUTH, W WEST, NW NORTHWEST, SW SOUTHWEST

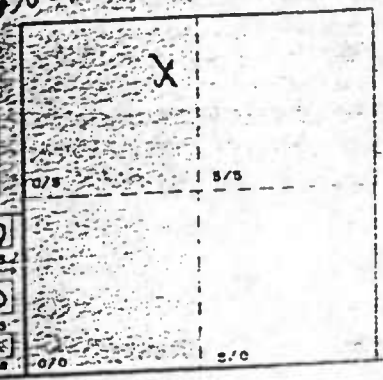
NEAR WHAT ROAD: Red Toad Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 30

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY ROADS AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.





BOX NUMBER: 1080 640

COORDINATES: 64 5000

COORDINATES: 40 0000

ELEVATION: (FOR USE ONLY)

ORIGINAL

ONR-214 (7-77)

C4 5187 (RESOURCE NO. - WRA USE ONLY)

(SEQ. NO.) (THIS NUMBER TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY

COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY): AUG 15 1980

DATE WELL COMPLETED: 7-18-80

DEPTH OF WELL: 95 (TO NEAREST FOOT)

PERMIT NO. FROM WRA: CE-73-3378

DRILLERS IDENTIFICATION NO.: 152

OWNER: Lewis, Linda (LAST NAME, FIRST NAME)

STREET OR RFD: North East

POST OFFICE: North East, Md.

C 3 (SEQ. NO.)

WELL DESCRIPTION

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand	2	15	
gravel			
red clay	15	27	
granite rock	27	68	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 6 NO. OF POUNDS: 564

GAL. OF WATER: 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 2 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD
CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S T); CONCRETE (C O); PLASTIC (P L); OTHER (O T)

MAIN CASING TYPE	HOWING TOP (MAIN) CASING (NEAREST INCH)	DIAMETER OF MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
ST		6	27

OTHER CASING (IF USED)
	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD
SCREEN OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S T); BRASS OR BRONZE (B R); PLASTIC (P L); OTHER (O T)

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR): 2

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 40

METHOD USED TO MEASURE PUMPING RATE: Bailer

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING: 40 (NEAREST FOOT)

WHEN PUMPING: 60 (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): AIR (A); PISTON (P); TURBINE (T); CENTRIFUGAL (C); ROTARY (R); OTHER (O) (DESCRIBE BELOW); JET (J); SUBMERSIBLE (S)

Bailer

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE): A, C, J, P, R, S, T, O

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES (Y) NO (N)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

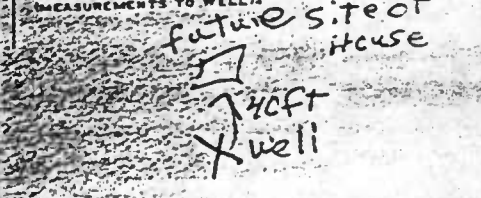
PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
ABOVE / BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT
(SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

N



CIRCLE APPROPRIATE BOXES

Vernon Wright

ORIGINAL

EMERGENCY NO. (If any)

B 1 0136 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER CE-73-3480 73-3480

FILL IN THIS FORM COMPLETELY

DATE RECEIVED (WRA USE ONLY) 8/4/80

OWNER Vickers, Eugene E (COL 15 LAST NAME) (FIRST NAME)

STREET OR RFD 109 Cecil Ave (COL 36)

POST OFFICE Holloway Beach Charlestown, Md. (COL 37)

B 1 CONTINUED

DRILLER INFORMATION

DATE 8-4-80 LICENSE NUMBER 159

Vernon W. Kirk (FIRST NAME) (DRILLER) (LAST NAME)

SIGNATURE Vernon Kirk

B 2

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

P PRIVATE WATER COMPANY

T TEST

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

AIR-ROTARY REVERSE-ROTARY DRIVE-POINT

CABLE

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER B A P

ENGINEER REVIEW DISTRICT NO.

FORCE WRITE INITIALS IN BOX

CONDITIONS A E N S C W O C L U CE-73-3480

B 4 CONTINUED

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX) S

COUNTY NAME Cecil COUNTY NO.

MO. DAY YR.

APPROVED BY Wm. A. Sumner

DATE 08 08 80

(WRA USE ONLY)

B 5 SPECIAL CONDITIONS 9-63

ORIGINAL

LOCATION OF WELL

B 3

COUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

SECTION LOT

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN) 0

B 4

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE SOUTHEAST

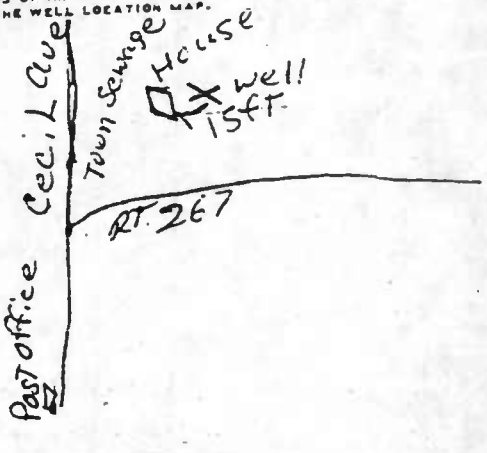
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST

NEAR WHAT ROAD Cecil Ave

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N SOUTH S EAST E WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 75

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER E 1080 N 630

NORTH COORDINATE 630000

EAST COORDINATE 1080000

ELEVATION AT WELL HEAD (FEET)

C 1 2849 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 30 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER 014

PERMIT NO. FROM PERMIT TO DRILL WELL: C B - 3 - 3480

Date Received (WRA use only): 10/16/80

DATE WELL COMPLETED: 10-2-80

Depth of Well: 95 (TO NEAREST FOOT)

OWNER: Vickers, Eugene F (last name, first name)

TOWN: Charlestown, Md

STREET OR RFD: 109 Cecil Ave

SECTION

LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top soil	0	2	
Brown sand	2	20	
+ gravel			
red clay	20	45	
white clay	45	75	
+ sand			
white sand	75	95	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (to nearest foot) from 2 ft. to 25 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	90

OTHER CASING (if used) — EACH CASING: diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS, BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (seq. no.)

EACH SCREEN	DEPTH (nearest ft.)	
ST	90	95

SLOT SIZE 1 2 ✓ 3

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST
HOURS PUMPED (nearest hour) 12

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE Bailer

WATER LEVEL distance from land surface

BEFORE PUMPING 5

WHEN PUMPING 25

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

Bailer

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: (A, C, J, P, R, S, T, O)

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below — LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS IDENT. NO. 159

Vernon W. Kirk

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W O

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

ORIGINAL

EMERGENCY NO. (If any)

B 1 1637 SEQUENCE NO. (WRA USE ONLY)

(SEQ. NO.) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER CE-73-3520

FILL IN THIS FORM COMPLETELY

B-0570

DATE RECEIVED (WRA USE ONLY) 9/2/80

SEP 10 1980

OWNER: Porter George (COL 18 LAST NAME) (FIRST NAME) COL. 34

STREET OR RFD: 388 Harrisville Rd (COL 36) COL. 55

POST OFFICE: Colora md (COL 57) COL. 74

B 1 CONTINUED (SEQ. NO.)

DRILLER INFORMATION

DATE: Aug. 28, 1980 LICENSE NUMBER: 38

MAURICE E. BROWN & SONS (FIRST NAME) (DRILLER) (LAST NAME)

SIGNATURE: Larry A. Brown

B 2 (SEQ. NO.)

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 450

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

} MUST HAVE STATE HEALTH DEPT. APPROVAL

T TEST

APPROXIMATE DEPTH OF WELL: 200' FEET

APPROXIMATE DIAMETER OF WELL: 6" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

REVERSE-ROTARY DRIVE-POINT

CABLE

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

V THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (B A P)

ENGINEER REVIEW DISTRICT NO.

FORCE — WRITE INITIALS IN BOX

CONDITIONS (A E N S G W Q C L U): C E - 7 3 - 3 5 2 0

B 4 CONTINUED (SEQ. NO.)

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX) S

COUNTY NAME: Cecil COUNTY NO.

DATE (MO. DAY YR.): 0 9 0 2 8 0

APPROVED BY: Wm. A. Sumner (P)

B 5 (SEQ. NO.)

SPECIAL CONDITIONS 8-63 (WRA USE ONLY)

LOCATION OF WELL

B 3 (SEQ. NO.)

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION: —

SECTION: — LOT: —

NEAREST TOWN: Perryville

MILES FROM TOWN (ENTER 0 IF IN TOWN): 5

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

B 4 (SEQ. NO.)

N NORTH E EAST NE NORTHEAST SE SOUTHEAST

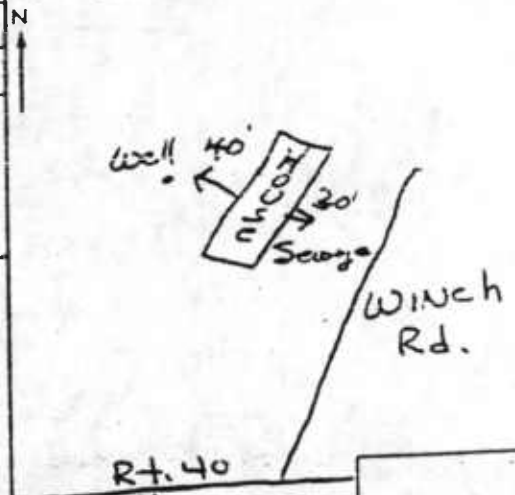
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST

NEAR WHAT ROAD: Winch Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, SOUTH S, EAST E, WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 50 F M

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1070 N 640

NORTH COORDINATE: 645000

EAST COORDINATE: 1073000

ELEVATION AT WELL HEAD (FEET)

ORIGINAL

C I 2893 SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 30 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER B-0578

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-73-3520

Date Received (WRA Use only) 10/1/80

DATE WELL COMPLETED Sept. 16, 1980 05/16/80

Depth of Well 120' (TO NEAREST FOOT)

OWNER Porter (last name) George (first name)

STREET OR RFD 388 Harrisville Rd. TOWN Colora, md.

SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Clay	0	10	
Sand	10	45	
Clay	45	55	
Granite	55	120	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 12 NO. OF POUNDS

GALLONS OF WATER 60

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 60 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: ST — Nominal diameter top(main)casing (nearest inch): 6" — Total depth of main casing (nearest foot): 61

OTHER CASING (if used) — EACH CASING: diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS, BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (seq. no.)

EACH SCREEN — DEPTH (nearest ft.): 1 HO 61 120; 2; 3

SLOT SIZE

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST
HOURS PUMPED (nearest hour) 2

PUMPING RATE (gal. per min. to nearest gal.) 50

METHOD USED TO MEASURE PUMPING RATE Rotary Air

WATER LEVEL (distance from land surface)

BEFORE PUMPING 30

WHEN PUMPING 40

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: (A, C, J, P, R, S, T, O)

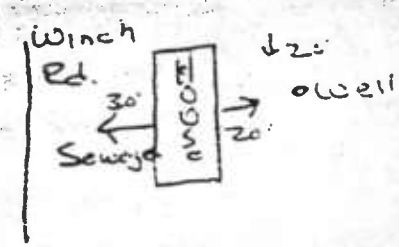
CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below — LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS IDENT. NO. 38

Larry A. Brown

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING — (E.R.O.S.) LOG INDICATOR — W.O. OTHER DATA

ORIGINAL

ENERGENCY NO. (If any)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER: CE-73-3625

FILL IN THIS FORM COMPLETELY

REPLACEMENT

B 1 2483 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): 10/15/80

OWNER: Newswanger, Greg (COL 15 LAST NAME) — FIRST NAME — COL. 34

STREET OR RFD: Carpenters Point Road (COL 36) — COL. 55

POST OFFICE: Charlestown, Maryland (COL 57) — COL. 76

B 1 — DRILLER INFORMATION

CONTINUED (SEQ. NO.)

DATE: 10/14/80 — LICENSE NUMBER: 138

Donald S. Newman — FIRST NAME — DRILLER — LAST NAME

SIGNATURE: Donald S. Newman

B 2 — WELL INFORMATION

(SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING, AGRICULTURE, IRRIGATION
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- M — MUNICIPAL WATER SUPPLY
- P — PRIVATE WATER COMPANY
- T — TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 80 FEET

APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN

AIR-ROTARY — AIR-PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N — THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y — THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S — THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D — THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER — ENGINEER REVIEW DISTRICT NO.

FORCE — WRITE INITIALS IN BOX — CONDITIONS: A E N S G W Q C L U — EE-73-3625

B 4 — HEALTH DEPARTMENT APPROVAL

CONTINUED (SEQ. NO.)

STATE HEALTH (CIRCLE BOX): S

COUNTY NAME: Cecil — COUNTY NO.

DATE: MO. DAY YR. 10 3 80

APPROVED BY: Wm. R. Sumner

B 3 — LOCATION OF WELL

(SEQ. NO.)

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION: Chestnut Point

SECTION — LOT

NEAREST TOWN: Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN): 7

B 4 — DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

(SEQ. NO.)

N NORTH — E EAST — NE NORTHEAST — SE SOUTHEAST

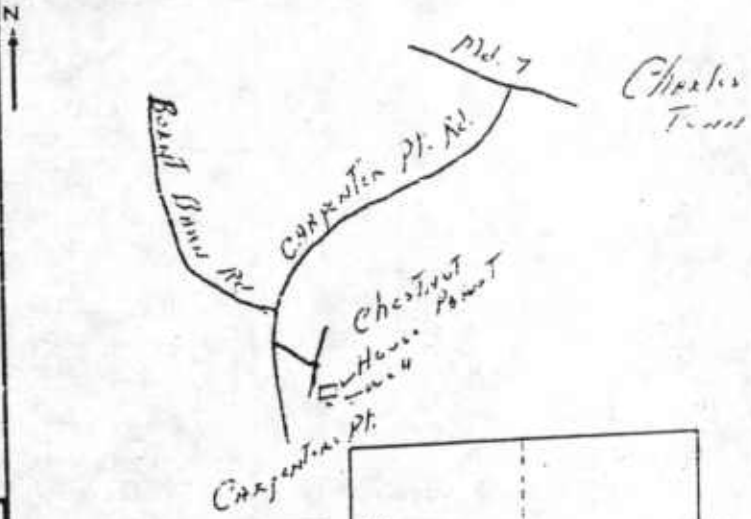
S SOUTH — W WEST — NW NORTHWEST — SW SOUTHWEST

NEAR WHAT ROAD: Carpenters Point Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N — SOUTH S — EAST E — WEST W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1080 — N 625

NORTH COORDINATE: 0 6 2 5 0 0

EAST COORDINATE: 1 0 8 0 0 0 0

ELEVATION AT WELL HEAD (FEET)

X — 0/5 — 5/5 — 0/0 — 5/0

B 5

SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

C 1 9506 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 2-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 30 DAYS AFTER WELL COMPLETION

FILL IN THIS FORM COMPLETELY

COUNTY NUMBER Rodiaccoon

DATE RECEIVED (WRA USE ONLY) 11/19/80

DATE WELL COMPLETED 11/18/80

DEPTH OF WELL 81 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-71-3625

DRILLERS IDENTIFICATION NO. 138

OWNER Newswanger, Greg (LAST NAME) FIRST NAME

STREET OR RFD 168 Chestnut Pt. Rd. POST OFFICE Perryville, Maryland

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	WATER BEARING
0/2 top soil			
2/60 yellow-white clay-sand			
60/81 coarse yellow-white sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT C M; BENTONITE CLAY B C

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM ____ FT. TO ____ FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): ST STEEL; CO CONCRETE; PL PLASTIC; OT OTHER

MAIN CASING TYPE: ST; NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 4; TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 74

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
ST	2½	72	76

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): ST STEEL; BR BRASS OR BRONZE; OH OPEN HOLE; PL PLASTIC; OT OTHER

C 2 (SEQ. NO.)

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN	TYPE	FROM	TO
1	ST	76	81
2			
3			

SLOT SIZE 1. 15 2. ____ 3. ____

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING; LOG (E.M.O.S.) INDICATOR; OTHER DATA AVAILABLE

C 3 (SEQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 5

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 15

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 13 (NEAREST FOOT)

WHEN PUMPING 25 (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): A AIR; P PISTON; T TURBINE; C CENTRIFUGAL; R ROTARY; O OTHER (DESCRIBE BELOW); J JET; S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE; − BELOW LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

N

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

House

Road

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT) Donald S. Newnam

SIGNATURE Donald S. Newnam

ORIGINAL

EMERGENCY NO. (If any)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER: CE-73-3759

FILL IN THIS FORM COMPLETELY

B 1 8946 — SEQUENCE NO. (WRA USE ONLY) — 1-2-3 (SEQ. NO.) 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED (WRA USE ONLY): ~~FEB 09 1981~~ 2/4/81

OWNER: WARRINGTON (COL 15 LAST NAME) — FIRST NAME (COL. 34)

STREET OR RFD: 1723 Principio Road (COL 36) — COL. 55

POST OFFICE: Perryville, MD. 21903 (COL 57) — COL. 75

DRILLER INFORMATION

B 1 CONTINUED — 1-2-3 (SEQ. NO.) 6

DATE: 2/2/81 — LICENSE NUMBER: 112 (77–80)

FIRST NAME: CHARLES — LAST NAME: HAMILTON

SIGNATURE: Charles H. Hamilton Jr. (DRILLER)

WELL INFORMATION

B 2 — 1-2-3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10 (8–12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000 (14–22)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- (F) FARMING, AGRICULTURE, IRRIGATION
- (I) INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- (M) MUNICIPAL WATER SUPPLY
- (P) PRIVATE WATER COMPANY
- (T) TEST

} MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 100 FEET (24–28)

APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) — JETTED — DRIVEN
AIR-ROTARY — AIR-PERCUSSION — (ROTARY) (HYDRAULIC ROTARY)
CABLE — REVERSE-ROTARY — DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- (D) THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41–52)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER (S A P) (84–93) — ENGINEER REVIEW DISTRICT NO. (65)

FORCE (87–88) — WRITE INITIALS IN BOX — CONDITIONS (A E N S G W Q C L U) CE-73-3759 (70–76)

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED — 1-2-3 (SEQ. NO.) 6

STATE HEALTH (CIRCLE BOX) (41–42): B

COUNTY NAME: Cecil — COUNTY NO.

DATE (43–48): MO. DAY YR. 02 18 81

APPROVED BY: Wm. A. Sumner (P)

LOCATION OF WELL

B 3 — 1-2-3 (SEQ. NO.) 6

COUNTY: Cecil (DO NOT ABBREVIATE COUNTY NAME) (21–24)

SUBDIVISION (25–42)

SECTION (44–46) — LOT (48–51)

NEAREST TOWN (52–72): Perryville

MILES FROM TOWN (ENTER 0 IF IN TOWN) (73–76): 2

DIRECTION FROM TOWN

B 4 — 1-2-3 (SEQ. NO.) 6 (CIRCLE APPROPRIATE BOX)

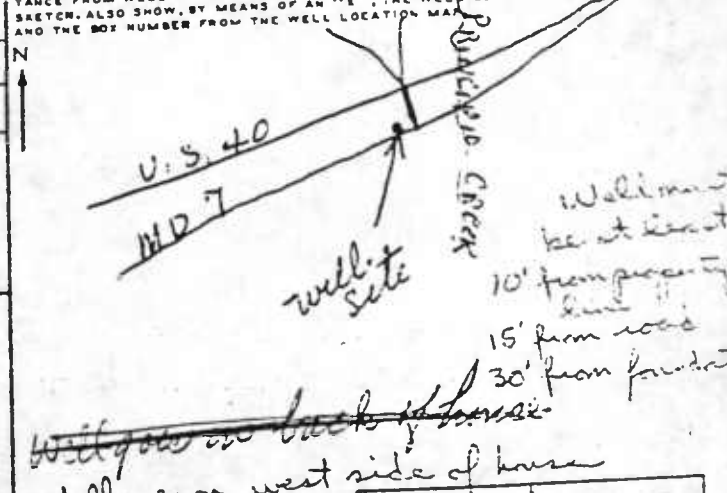
(N) NORTH — (E) EAST — (NE) NORTHEAST — (SE) SOUTHEAST
(S) SOUTH — (W) WEST — (NW) NORTHWEST — (SW) SOUTHWEST

NEAR WHAT ROAD (11–20): Rt 7

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): (N) NORTH (31–32) — (S) SOUTH (32) — (E) EAST (32) — (W) EAST (32)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 30 (33–34)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX SECTION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: E 1070 — N 630

NORTH COORDINATE: 63[illegible]900 (50–56)

EAST COORDINATE: 1071000 (57–63)

ELEVATION AT WELL HEAD (FEET): 1100 (65–68)

0/5 — 5/5 — 0/0 — 5/0

WRA USE ONLY

B 5 — 1-2-3 (SEQ. NO.) 6 — SPECIAL CONDITIONS 8–63

ORIGINAL

DNR-PM 254 (7-77)

C 1 9649 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY

COUNTY NUMBER Replacement

DATE RECEIVED (WRA USE ONLY) JUL 21 1981

DATE WELL COMPLETED 7-13-81 (071381)

DEPTH OF WELL 160 (TO NEAREST FOOT)

WRA PERMIT NO. (IF ISSUED) CB-73-3759

DRILLERS IDENTIFICATION NO. 412

OWNER Warrington (LAST NAME) John W. (FIRST NAME)

STREET OR RFD 1723 Principio Road POST OFFICE Perryville, Md.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Brown sand + gravel	0	30	
Yellow clay	30	34	
Hard grey granite	34	160	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (CIRCLE ONE): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS 9 NO. OF POUNDS 900

GALLONS OF WATER 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT) FROM 0 FT. TO 36 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL (S T) CONCRETE (C O) PLASTIC (P L) OTHER (O T)

MAIN CASING TYPE: ST — NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 6 — TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 36

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL (S T) BRASS OR BRONZE (B R) OPEN HOLE (H O) PLASTIC (P L) OTHER (O T)

C 2 (SEQ. NO.)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	HO	36	160
2			
3			

SLOT SIZE 1. ____ 2. ____ 3. ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

GRAVEL PACK FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T. TELESCOPE CASING — 72 LOG INDICATOR — 74 75 76 OTHER DATA AVAILABLE

C 3 (SEQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 2

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 5

METHOD USED TO MEASURE PUMPING RATE water

WATER LEVEL (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 40

WHEN PUMPING 160

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST): AIR (A) PISTON (P) CENTRIFUGAL (C) ROTARY (R) JET (J) SUBMERSIBLE (S) OTHER (O)

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE CODE BOX - SEE ABOVE) C

PUMP CAPACITY (GALLONS PER MINUTE TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(+) ABOVE (−) BELOW LAND SURFACE 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES SUCH AS HOUSE, SEPTIC TANKS, AND ON OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

CIRCLE APPROPRIATE BOXES

(A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

(E) ELECTRIC LOG OBTAINED

(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME (PLEASE PRINT) CHARLES HAMILTON

SIGNATURE Charles H. Hamilton

ORIGINAL

EMERGENCY TEMP NO. IF ANY

B 1 5042 SEQUENCE NO. WRA USE ONLY
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

WRA PERMIT NO. CE-73-3921
fill in this form completely

DATE RECEIVED 5/27/81
B (WRA USE ONLY) 13

OWNER INFORMATION

LAST NAME: CLARK — FIRST NAME: STANLEY
OWNER

STREET OR RFD: 1357 W. POLASKI
TOWN: ELKTON — STATE: Md — ZIP: 21921

B 1 CONTINUED — DRILLER INFORMATION

DRILLER'S NAME: ROBERT J SEWARD — LICENSE NO.: 283
SIGNATURE: Robert J Seward — DATE: 5/22/81

B 2 — WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET
APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

Method of Drilling (circle one)

BORED (OR AUGERED) — JETTED — JETTED & DRIVEN
AIR ROTARY — AIR-PERCUSSION — (ROTARY) (HYDRAULIC) ROTARY
CABLE — REVERSE ROTARY — DRIVE-POINT
other

REPLACEMENT OR DEEPENED WELLS (Circle Appropriate Box)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (WRA USE ONLY)

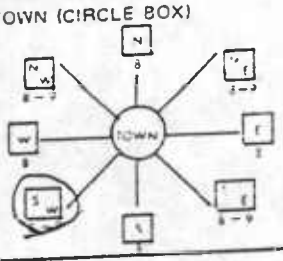
APPROP. PERMIT NUMBER: GAP
FORCE: SM — WRITE INITIALS IN BOX
CONDITIONS: A E N S G W O C L U — CE-73-3921

B 3 — LOCATION OF WELL

COUNTY: CECIL
SUBDIVISION: GREEN BANK — LOT:
SECTION:
NEAREST TOWN: CHARLES TOWN
MILES FROM TOWN: E

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD: GREEN D...

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

150 DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

SHOW LOCATION OF WELL WITH AN "X" IN THIS BOX →

WRITE THE BOX NUMBER FROM THE MAP HERE ↓
E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

B 4 — NOT TO BE FILLED IN BY DRILLER — HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.
EHA SIGNATURE — STATE HEALTH CIRCLE BOX: S
MO DAY YR: 06 01 81 — CO SIGNATURE: Wm. A. Sumner (?)
NORTH GRID: 63 — EAST GRID: 1080 — ELEV. (FT.)

B 5 — SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

EMERGENCY TEMP NO. IF ANY

B 1 1638 SEQUENCE NO. WRA USE ONLY

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

WRA PERMIT NUMBER CB-73-3987

fill in this form completely

DATE RECEIVED 6/23/81 (WRA USE ONLY)

OWNER INFORMATION

Stancillo ~~G.F.~~ Inc.

LAST NAME OWNER FIRST NAME

Mt. ~~Hill~~ Road

STREET OR RFD

Perryville, Maryland

TOWN STATE ZIP

B 1 CONTINUED DRILLER INFORMATION

Donald S. Newnam 138

DRILLER'S NAME LICENSE NO.

Donald S. Newnam 6/22/81

SIGNATURE DATE

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

Method of Drilling (circle one)

BORED (OR AUGERED) JETTED JETTED & DRIVEN

AIR ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC) ROTARY

CABLE REVERSE ROTARY DRIVE-POINT

other

REPLACEMENT OR DEEPENED WELLS (Circle Appropriate Box)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (WRA USE ONLY)

APPROP. PERMIT NUMBER CE 81 GA PO 08

FORCE STG WRITE INITIALS IN BOX CONDITIONS A E N S G W Q C L U CE-73-3987

B 3 LOCATION OF WELL B-0535

COUNTY Cecil

SUBDIVISION

SECTION LOT

NEAREST TOWN Perryville

MILES FROM TOWN 2.5

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

~~Burnt Barn Road~~

NEAR WHAT ROAD

Mountain Hill Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

0.2

DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

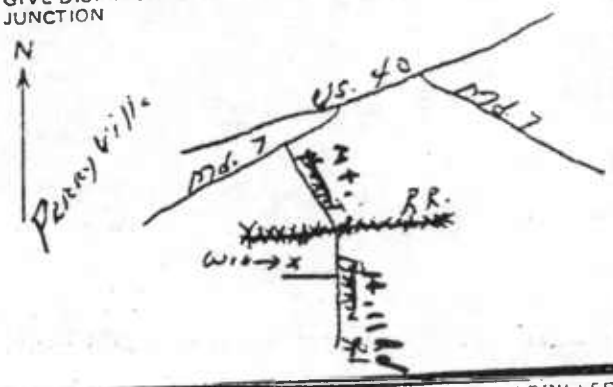
SHOW LOCATION OF WELL WITH AN "X" IN THIS BOX

WRITE THE BOX NUMBER FROM THE MAP HERE

1070

630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME COUNTY NO.

EHA SIGNATURE STATE HEALTH CIRCLE BOX 5

MO DAY YR 07 17 81 Wm. A. Sumner (P)

NORTH GRID 633 EAST GRID 1074 ELEV. FT.

B 5 SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

DNR-214 (7-77)

C 1 8886 (SEQUENCE NO. WRA USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY): SEP 4 1981 (8-13)

DATE WELL COMPLETED: 9/1/81 (19 20: 090181)

DEPTH OF WELL: 210 (22 (TO NEAREST FOOT) 26)

PERMIT NO. (FROM WRA): CL-73-3987 (28 29 30 31 32 33 34 35 36: 138)

DRILLERS IDENTIFICATION NO.

OWNER: Stancil, Inc. (LAST NAME / FIRST NAME)

STREET OR RFD: Mt. Hill Road — POST OFFICE: Perryville, MD.

WELL DESCRIPTION

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
0/60 yellow-white sand-clay			
60/90 green rock clay			
90/210 granite rock			X

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): YES [Y] (44) NO [N]

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT [C M] (45 46) BENTONITE CLAY [B C] (45 46)

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER: NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM ____ FT. (48 52) TO ____ FT. (54 58)
(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (INSERT APPROPRIATE CODE BELOW): STEEL [S T] CONCRETE [C O] PLASTIC [P L] OTHER [O T]

MAIN CASING TYPE	NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T (60 61)	6 (63 64)	90 (66 70)

OTHER CASING (IF USED)

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
	None		

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): STEEL [S T] BRASS OR BRONZE [B R] OPEN HOLE [H O] PLASTIC [P L] OTHER [O T]

C 2 (1 2 3 (SEQ. NO.) 6)

EACH SCREEN		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	HO (8 9)	90 (11 15)	210 (17 21)
2		~~None~~ (26 30)	(32 36)
3		(41 45)	(47 51)

SLOT SIZE 1. ____ 2. ____ 3. ____

DIAMETER OF SCREEN ____ (56 60) (NEAREST INCH)

GRAVEL PACK: FROM ____ TO ____

IF WELL DRILLED WAS A FLOWING WELL (CIRCLE BOX): [F] (68)

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
TELESCOPE CASING [T] (70) LOG INDICATOR [L] (72) OTHER DATA AVAILABLE [W O] (74 75 76)

C 3 (1 2 3 (SEQ. NO.) 6)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR): 5 (8)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON): 11

METHOD USED TO MEASURE PUMPING RATE: bucket

WATER LEVEL: (DISTANCE FROM LAND SURFACE)
BEFORE PUMPING: 20 (17 20) (NEAREST FOOT)
WHEN PUMPING: 80 (22 25) (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)
AIR [A] (27) PISTON [P] (27) TURBINE [T] (27)
CENTRIFUGAL [C] (27) ROTARY [R] (27) OTHER (DESCRIBE BELOW) [O] (27)
JET [J] (27) SUBMERSIBLE [S] (27)

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE: A, C, J, R, P, S, T, O) (29)

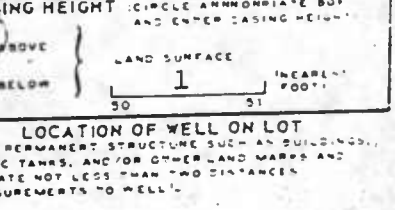
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES [Y] NO [N]

CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON): ____ (35 39)
PUMP HORSE POWER: ____ (37 41)
PUMP COLUMN LENGTH (NEAREST FOOT): ____ (43 47)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
ABOVE [+] BELOW [−] (49) LAND SURFACE 1 (50 51) (NEAREST FOOT)

LOCATION OF WELL ON LOT

N — SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

[A] A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

[E] ELECTRIC LOG OBTAINED

[P] TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAUTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): Donald S. Newnam

SIGNATURE: Donald S. Newnam

ORIGINAL

EMERGENCY TEMP NO. IF ANY

B 1 1695 SEQUENCE NO. WRA USE ONLY

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

WRA PERMIT NO. CE-81-0228 81-0228

fill in this form

DATE RECEIVED 2/16/82 (WRA USE ONLY)

OWNER INFORMATION

Knisely, Eugene
LAST NAME OWNER FIRST NAME

104 Kirk Road - Greenbank
STREET OR RFD

Perryville, Md 21903
TOWN STATE ZIP

B 1 CONTINUED DRILLER INFORMATION

Donald S. Newnam 138
DRILLER'S NAME LICENSE NO.

Donald S. Newnam 2/8/82
SIGNATURE DATE

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

Method of Drilling (circle one)

BORED (OR AUGERED) JETTED (JETTED & DRIVEN) AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC) ROTARY CABLE REVERSE ROTARY DRIVE POINT

other

REPLACEMENT OR DEEPENED WELLS (Circle Appropriate Box)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (WRA USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE SM WRITE INITIALS IN BOX CONDITIONS CE-81-0228

B 3 LOCATION OF WELL

COUNTY Cecil

SUBDIVISION Greenbank

SECTION LOT

NEAREST TOWN Charles Town

MILES FROM TOWN

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

Kirk Road
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

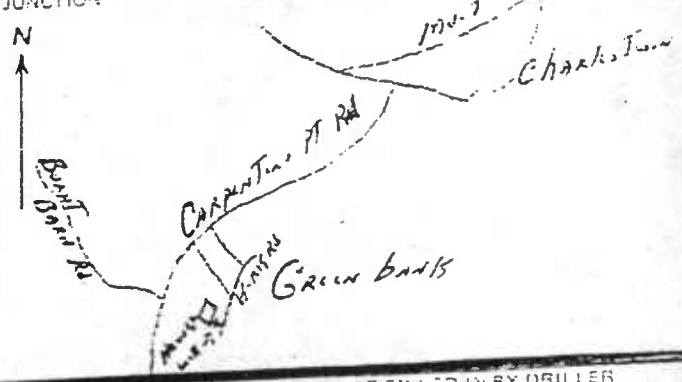
20
DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

SHOW LOCATION OF WELL WITH AN "X" IN THIS BOX

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME COUNTY NO.

EHA SIGNATURE STATE HEALTH CIRCLE BOX S

02 17 82 Wm. A. Sumner (P)

NORTH GRID 628 EAST GRID 1080 ELEV. (FT.)

B 5 SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

C T 2739 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER Rep[illegible]

Date Received (OEP use only) MAR 12 1982

DATE WELL COMPLETED 030382

Depth of Well 49 (TO NEAREST FOOT)

FROM PERMIT TO [illegible] C P - P [illegible]

81- 0228

OWNER Knisley, Eugene (last name) (first name)

TOWN Perryville, Maryland

STREET OR RFD 104 Kirk Road

SUBDIVISION Greenbank

SECTION

LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
0/2 top soil			
2/38 red-white-yellow clay-sand			
38/49 coarse yellow-white sand			X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot) from ft to ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top/main casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	43

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
ST	2½	41	44

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS, BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 (seq. no.)

EACH SCREEN	DEPTH (nearest ft.)	
ST	44	49

SLOT SIZE 15

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL distance from land surface

BEFORE PUMPING 12

WHEN PUMPING 21

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE (A, C, J, P, R, S, T, O)

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

[signature]

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W O OTHER DATA

ORIGINAL

EMERGENCY/TEMP. NO. IF ANY

B 1 0401 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE-81-0281

fill in this form completely

Date Received: 0 4 2 3 8 2 (OEP Use Only)

OWNER INFORMATION

Last Name: SINE — Owner: SEWARD

Street or RFD: 1582 PRINCIPIO FURN.

Town: PERRYVILLE — State: MD — Zip: 21921

B 1 Continued — DRILLER INFORMATION

Driller's Name: CONSTANTINE DiFilippo — License No.: 250

Firm Name: C. DiFilippo WELL DRILL, INC.

Address: 2235 BLUE BALL RD.

Signature: Constantine DiFilippo — Date: 4/23/82

B 2 — WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 6

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV.
- O — OTHER (REQUIRES APPROPRIATION PERMIT)
- P — PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T — TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (OR AUGERED) — JETTED — JETTED & DRIVEN

AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE ROTARY — DRIVE POINT

other: AIR-PER

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N — THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y — THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S — THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D — THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: CS — WRITE INITIALS IN BOX — PERMIT No. CE-81-0281

B 3 — LOCATION OF WELL REPLACEMENT

COUNTY: CECIL

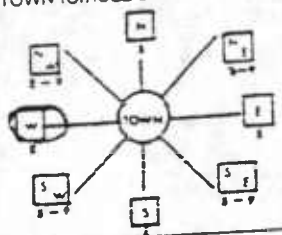
SUBDIVISION:

SECTION: — LOT:

NEAREST TOWN: PRINCIPIO FURNACE

MILES FROM TOWN (enter 0 if in town):

B 4 — DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

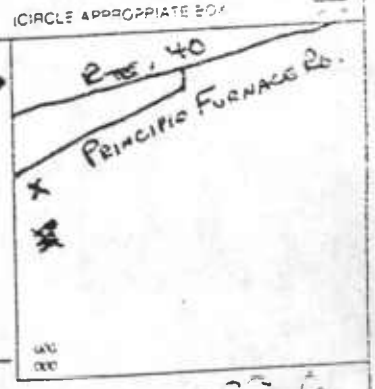


NEAR WHAT ROAD: PRINCIPIO FURNACE RD.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): G.A.

DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX):

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X



SOURCES OF DRILLING WATER

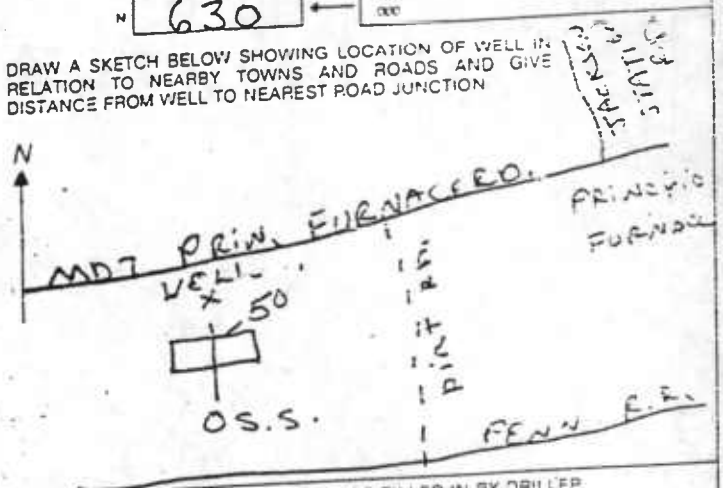
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



B 4 — NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.:

OEP SIGNATURE: — STATE HEALTH CIRCLE BOX:

DATE ISSUED: 0 4 2 3 8 2 — CO SIGNATURE: Wm. A. Sumner (p)

NORTH GRID: 635 — EAST GRID: 1070 — EXPIRES: 1 0 2 3 8 2

B 5 — SPECIAL CONDITIONS

ORIGINAL

C 1 2794 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER Replacement

PERMIT NO. FROM PERMIT TO OBSERVATION C B - 8 1 - [illegible]

Date Received (OEP use only) FEB 10 [illegible]

DATE WELL COMPLETED 042882

Depth of Well 168 (TO NEAREST FOOT)

87 - 0281

OWNER Sine (last name) Seward (first name)

STREET OR RFD 1582 Principio Furn. Rd. TOWN Perryville, MD

SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
fill dirt	0	15	
clay & gravel	15	50	
schist	50	60	
lt gray granite	60	100	✓
lk black granite	100	168	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 12 NO. OF POUNDS [illegible]

GALLONS OF WATER 60

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft to 69 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top(main)casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	69

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS, BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 (seq. no.)

EACH SCREEN

	DEPTH (nearest ft.)	
HO	69	168

SLOT SIZE

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST
HOURS PUMPED (nearest hour) [illegible]

PUMPING RATE (gal. per min. to nearest gal.) [illegible]

METHOD USED TO MEASURE PUMPING RATE [illegible]

WATER LEVEL (distance from land surface)

BEFORE PUMPING [illegible]

WHEN PUMPING [illegible]

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE (A, C, J, P, R, S, T, O) J

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 6

PUMP HORSE POWER 1/2

PUMP COLUMN LENGTH (nearest ft.) 150

CASING HEIGHT (circle appropriate box and enter casing height)

+ above LAND SURFACE

− below 1 (nearest foot)

CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

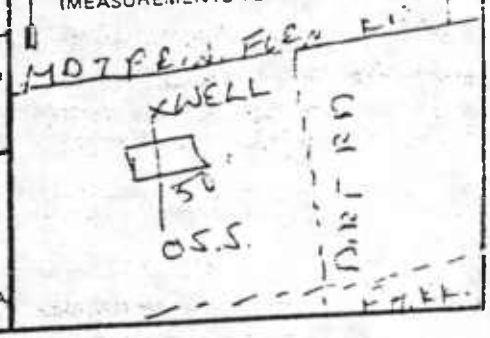
DRILLERS IDENT. NO. 250

Constantine DeFilippo

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W O OTHER DATA

ORIGINAL

EMERGENCY/TEMP. NO. IF ANY

B 1 8454 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE-81-0339

fill in this form completely

Date Received 0 6 0 7 8 2 (OEP Use Only)

OWNER INFORMATION

Carpenters Point Water Co (Last Name / Owner / Name)

Carpenters Pt (Street or RFD)

Perryville Md (Town / State / Zip)

B 1 Continued — DRILLER INFORMATION

Donald S. Newnam 138 (Driller's Name / License No. 80)

Shore Well Drillers (Firm Name)

P.O. Box 428 Cecilton, Md (Address)

Donald S. Newnam 6/3/82 (Signature / Date)

B 2 — WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 30

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 12000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (OR AUGERED) — JETTED — JETTED & DRIVEN

AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)

CABLE — REVERSE ROTARY — DRIVE POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER CE67GAP023

FORCE 5M WRITE INITIALS IN BOX — PERMIT No. CE-81-0339

B 3 — LOCATION OF WELL Replacement

COUNTY Cecil

SUBDIVISION Carpenters Pt

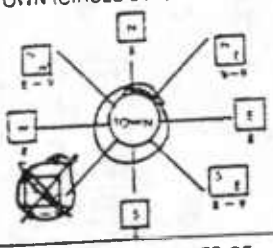
SECTION — LOT

NEAREST TOWN Charles Town Carpenters Point

MILES FROM TOWN (enter out in tower)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Carpenters Pt Rd (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

400 DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

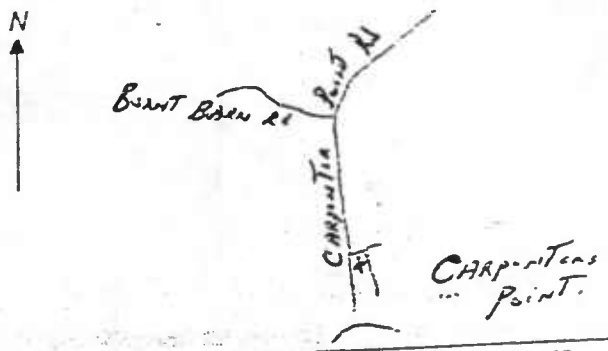
1. Town Water
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION Charlestown



B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

CECIL (COUNTY NAME) — COUNTY NO.

OEP SIGNATURE A W Ludlow, Jr. — STATE HEALTH CIRCLE BOX S

DATE ISSUED 071482 — William A. Sumner (CO SIGNATURE)

NORTH GRID 62 — EAST GRID 1079 — EXPIRES 011383

B 5 SPECIAL CONDITIONS

ORIGINAL

C T 2852 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER [illegible]

COUNTY NUMBER Replacement

Date Received (OEP use only) AUG 25 1982

DATE WELL COMPLETED 6/24/82

Depth of Well 90 (TO NEAREST FOOT)

FROM PERMIT [illegible] GE [illegible]

81-0339

OWNER Carpenters Pt/ Water Co. (last name) (first name) TOWN Perryville, Md.

STREET OR RFD Carpenters Pt. SECTION LOT

SUBDIVISION Carpenters Pt.

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
0/3 yellow-white clay-sand			
3/67 red-white-gray clay			
67/70 yellow-white clay-sand			
70/90 coarse yellow-white sand			

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y N

TYPE OF GROUTING MATERIAL

CEMENT C M BENTONITE CLAY B C

NO. OF BAGS NO OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot) from ft to ft. (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below: S T STEEL, C O CONCRETE, P L PLASTIC, O T OTHER

MAIN CASING TYPE	Nominal diameter top(main)casing (nearest inch)	Total depth of main casing (nearest foot)
S T	6	71

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
S T	4	68	80

SCREEN RECORD

screen type or openhole insert appropriate code below: S T STEEL, B R BRASS, BRONZE, H O OPEN HOLE, P L PLASTIC, O T OTHER

C 2 (seq. no.)

EACH SCREEN	DEPTH (nearest ft.)	
S T	80	90

SLOT SIZE 15

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 23

WHEN PUMPING 84

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE (A, C, J, P, R, S, T, O)

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

CIRCLE APPROPRIATE BOX

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

[signature]

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W O

T TELESCOPE CASING, LOG INDICATOR, OTHER DATA

ORIGINAL

EMERGENCY/TEMP. NO. IF ANY

B 1 5860 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER CE-81-0345

fill in this box 0345

Date Received 0 6 2 1 8 2 (OEP Use Only)

OWNER INFORMATION

BURTON WR
Last Name 15 — Owner — 34 Name

7351 CARPENTERS PT RD
36 — Street or RFD — 55

NORTH EAST MD 21901
Town 57 — State — 76 Zip

B 1 Continued — DRILLER INFORMATION

CONSTANTINE DiFilippo 250
Driller's Name — 77 License No. 80

C. DiFilippo WELL DRILG. INC.
Firm Name

2235 BLUE BALL RD. ELKTON
Address

Constantine DiFilippo 6/16/82
Signature — Date

B 2 — WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 6
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (OR AUGERED) — JETTED — JETTED & DRIVEN
AIR ROTARY — AIR PERCUSSION — ROTARY (HYDRAULIC ROTARY)
CABLE — REVERSE ROTARY — DRIVE POINT
other AIR-RPI

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

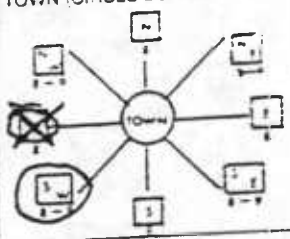
FORCE SM — WRITE INITIALS IN BOX — PERMIT No. CE-81-0345

B 3 — LOCATION OF WELL Replacement

COUNTY CECIL
SUBDIVISION
SECTION — LOT
NEAREST TOWN CHARLES TOWN
MILES FROM TOWN 1.5

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



CARPENTERS PT. RD
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

500
DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

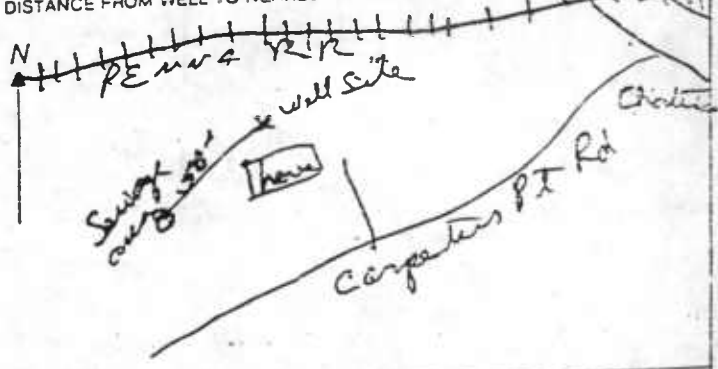
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

F 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH CIRCLE BOX

DATE ISSUED 0 6 2 1 8 2 — Wm. A. Sumner (P)
CO SIGNATURE

NORTH GRID 631 — EAST GRID 1080 — EXPIRES 1 2 2 1 8 2

B 5 SPECIAL CONDITIONS 8–63

ORIGINAL

C 1 2859 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER Replacement

Date Received (OEP use only) FEB 10 1983

DATE WELL COMPLETED 071383

Depth of Well 77 (TO NEAREST FOOT)

PERMIT NO. FROM PERMIT TO [illegible] CE-51-0345

0345

OWNER BURTON (last name) WR. (first name)

STREET OR RFD 735 CARPENTERS PT RD TOWN NORTH EAST MD

SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
topdirt	0	5	
clay	5	55	
sand fine	55	65	
sand coarse	65	77	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 15 NO. OF POUNDS 1500

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 50 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter too(main)casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	70

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 (seq. no.)

EACH SCREEN

	DEPTH (nearest ft.)	
ST	70	77

SLOT SIZE .010

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 (seq. no.)

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE [illegible]

WATER LEVEL distance from land surface

BEFORE PUMPING 20

WHEN PUMPING 50

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other describe below J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: (A, C, J, P, R, S, T, O)

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

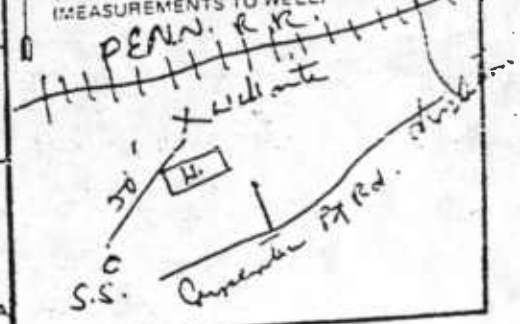
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250

Constantine DiFilippo

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR: sign of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W Q OTHER DATA

ORIGINAL

Pd. $20.00 10/8/82 - Receipt #373 - MER

642-3327

EMERGENCY/TEMP. NO. IF ANY

B 1 0074 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE-81-0431

OCT 15 1982

Date Received: 1 0 0 8 8 2 (OEP Use Only)

OWNER INFORMATION

RAYSON GLENDON E

Last Name / Owner / Name

3317 POPLAR PT Road

Street or RFD

PERRYVILLE MD 21003

Town / State / Zip

B 1 Continued DRILLER INFORMATION

CHARLES H. HAMILTON, JR 11,2

Driller's Name / License No.

Preston and Hamilton

115 N. Paradise Road

Havre de Grace, MD. 21078

10-4-82

Charles H. Hamilton Jr. 9/7/82

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (OR AUGERED) JETTED JETTED & DRIVEN

AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)

(CABLE) REVERSE ROTARY DRIVE POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE SM WRITE INITIALS IN BOX PERMIT No. CE-81-0431

B 3 LOCATION OF WELL REPLACEMENT

COUNTY Cecil

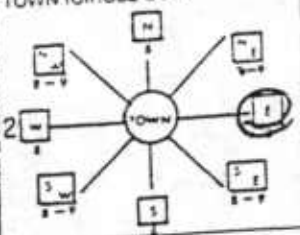
SUBDIVISION —

SECTION — LOT —

NEAREST TOWN PERRYVILLE

MILES FROM TOWN 3

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Mountain Hill Rd

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

1200 DISTANCE FROM ROAD

(CIRCLE APPROPRIATE BOX)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

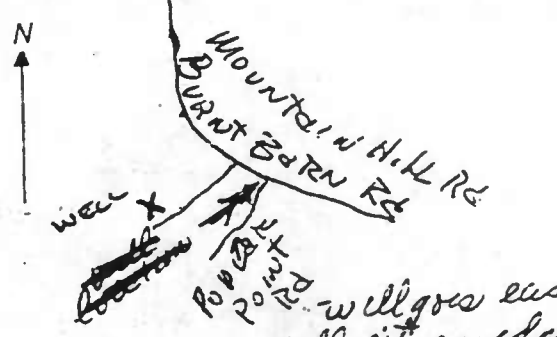
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



well goes east of old well pit on edge of yard.

B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME

COUNTY NO.

OEP SIGNATURE

STATE HEALTH CIRCLE BOX

DATE ISSUED 10 11 82 Wm. A. Sumner

CO SIGNATURE

NORTH GRID 629 EAST GRID 1075 EXPIRES 04 11 83

B 5 SPECIAL CONDITIONS

ORIGINAL

C1 2950 — SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SENT IN 45 DAYS AFTER WELL COMPLETION

COUNTY NUMBER

PERMIT NO.

Date Received (OEP use only): FEB 22 1983

DATE WELL COMPLETED: 10 02 82

Depth of Well: 120 (TO NEAREST FOOT)

BOOK NUMBER: C 81-0431

OWNER: Rayson (last name) Brendon (first name)

TOWN: Pungoteague Va

STREET OR RFD: 3 3 7 Poplar Pt Lane

LOT

SUBDIVISION

SECTION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH THICKNESS AND IF WATER BEARING.

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Brown sand	0	20	
white sand	20	62	
red clay	60	90	
white clay	90	115	
white sand	115	120	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): YES [Y] NO [N]

TYPE OF GROUTING MATERIAL

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 0

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 115 ft. (enter 0 if from surface)

CASING RECORD
casing types (insert appropriate code below): [ST] STEEL, [CO] CONCRETE, [PL] PLASTIC, [OT] OTHER

MAIN CASING TYPE	Nominal diameter top(main)casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	115

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole (insert appropriate code below): [ST] STEEL, [BR] BRASS BRONZE, [HO] OPEN HOLE, [PL] PLASTIC, [OT] OTHER

C 2 (seq. no.)

EACH SCREEN		DEPTH (nearest ft.)	
1	ST	115	120
2			
3			

SLOT SIZE

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX [F]

C 3 (seq. no.)

PUMP NO. TEST
HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 26

WHEN PUMPING 120

TYPE OF PUMP USED (for test)

[A] air, [P] piston, [T] turbine, [C] centrifugal, [R] rotary, [O] other (describe below), [J] jet, [S] submersible

Gasoline

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES [Y] NO [N]

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE) (A, C, J, P, R, S, T, O)

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): [+] above, [−] below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE BOX
[A] A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

[E] ELECTRIC LOG OBTAINED

[P] TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

Charles H. Hansley Jr.
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

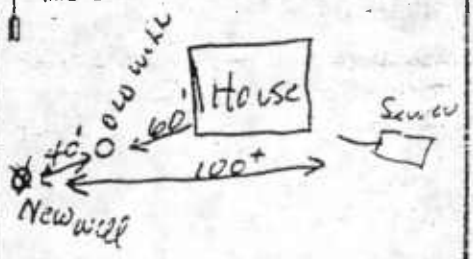
SITE SUPERVISOR: sign of driller or journeyman responsible for sitework if different from permittee

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W O

TELESCOPE CASING [70] LOG INDICATOR [72] OTHER DATA [74 75 76]

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

642 6561 Gray Pd. 11/4/82 - $20.00 Receipt No. 436 - VAP

EMERGENCY/TEMP. NO. IF ANY

B 1 0068 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) NOV 5 1982

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER CE-81-0473 fill in this form completely

Date Received 1 1 0 3 8 2 (OEP Use Only)

OWNER INFORMATION

GRAY E G (Last Name 15, Owner, 34 Name)

591 MOUNTAIN HILL RD (Street or RFD 55)

PERRYVILLE MD 21903 (Town 57, State, 76 Zip)

B 1 Continued DRILLER INFORMATION

412 (License No. 80)

Charles H. Hamilton JR

Preston & Hamilton

11 S.N. Paradise Rd 11/2/82

Charles H. Hamilton Jr. (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (OR AUGERED) JETTED JETTED & DRIVEN

(AIR ROTARY) AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE ROTARY DRIVE POINT

other AIR-ROT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE CS WRITE INITIALS IN BOX PERMIT No. CE-81-0473

B 3 LOCATION OF WELL Replacement

COUNTY Cecil

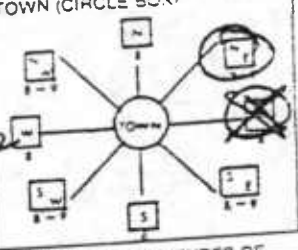
SUBDIVISION

SECTION LOT

NEAREST TOWN PERRYVILLE

MILES FROM TOWN enter part in town 2.5

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Mountain Hill Rd NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

125 DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

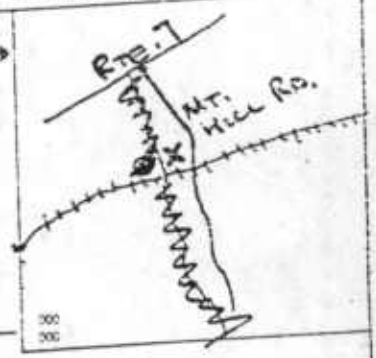
2.

3.

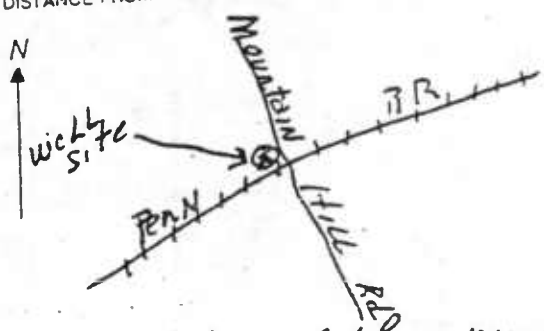
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Well goes at N. end of house near Prop. line

B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME

OEP SIGNATURE Charles E. Smyser STATE HEALTH CIRCLE BOX

DATE ISSUED 1 1 0 3 8 2

CO SIGNATURE

NORTH GRID 635 EAST GRID 1074 EXPIRES 0 5 0 3 8 3

B 5 SPECIAL CONDITIONS

ORIGINAL

C 1 2994 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT [illegible] 45 DAYS AFTER [illegible]

COUNTY NUMBER [illegible]

PERMIT NO. [illegible]

Date Received (OEP use only) NOV 10 1982

DATE WELL COMPLETED 11-4-82 110452

Depth of Well 225 (TO NEAREST FOOT)

81-0473

OWNER GRAY E.G. (last name, first name)

TOWN PERRYVILLE, Md. [illegible]

STREET OR RFD 591 MT. Hill Rd.

SECTION

LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
YELLOW SAND & GRAVEL	0	75	
HARD GRAY GRANITE	75	225	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 20 NO. OF POUNDS 1800

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 80 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: ST

Nominal diameter top(main)casing (nearest inch): 6

Total depth of main casing (nearest foot): 80

OTHER CASING (if used) EACH CASING: diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL, BR BRASS, BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 seq. no.

EACH SCREEN: HO, DEPTH (nearest ft.) 80, 225

SLOT SIZE

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

C 3 seq. no.

PUMPING TEST
HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE [illegible]

WATER LEVEL (distance from land surface)

BEFORE PUMPING 70

WHEN PUMPING 225

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES Y NO N

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE (A, C, J, P, R, S, T, O)

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

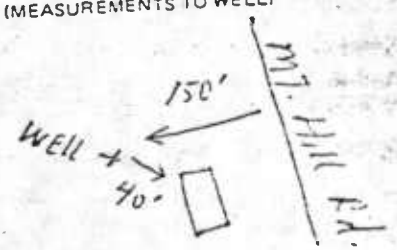
[signature]

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING, (E.R.O.S.) LOG INDICATOR, W Q OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

Pd. 3 Lo. 8/16/83 Rec. #1185-MER EMERGENCY/TEMP NO. IF ANY

B 7 8135 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NO. CE 81 0741
fill in this form completely

Date Received 081683

OWNER INFORMATION

TRACKI Dennis a Donna
Last Name / Owner / First Name

815 Martin Rd
Street or RFD

Havre de Grace Md 21078
Town / State / Zip

DRILLER INFORMATION

Vernon W Kirk — License No. 1594
Driller's Name

Vernon Kirk Well Drilling
Firm Name

211 Wench Rd Perryville Md
Address

Vernon W Kirk — Date 8-15-83
Signature

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.) 3

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other Cable

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-81-0741

SPECIAL CONDITIONS

LOCATION OF WELL

B 3

Cecil
COUNTY

SUBDIVISION

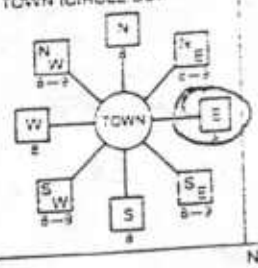
SECTION — LOT

Perryville
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2.50 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Charter Hill Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 500 FT

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT #

DATE ISSUED 081783 — Charles E. Smyser 2/17/83
OEP SIGNATURE — EXP. DATE

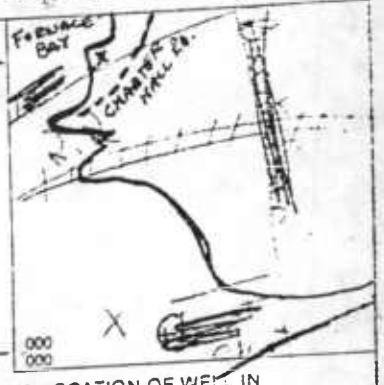
NORTH GRID 628000 — EAST GRID 1072000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

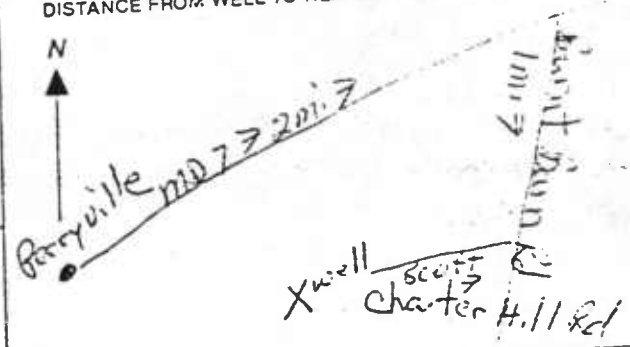
SOURCES OF DRILLING WATER
1. well water
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 3426 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE ... 45 DAYS AFTER WELL ...

COUNTY NUMBER B5120

DATE Received OCT 4 1983

DATE WELL COMPLETED 09 03 83

Depth of Well 60 (TO NEAREST FOOT)

FROM ... CE-81 0741

OWNER TRACK Dennis + Donna (last name) (first name) TOWN Havre de Grace

STREET OR RFD 815 Martin Rd SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil	0	2	
red clay	2	20	
white clay + sand	20	55	
white sand	55	60	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 2 to 25 BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
St	6	55

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

DEPTH (nearest ft.) EACH SCREEN

1	St	55	60
2			
3			

SLOT SIZE 2

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING

HOURS PUMPED (nearest ...)

PUMPING RATE (gal. per ... to nearest gal.) 13

METHOD USED TO MEASURE PUMPING RATE Bailer

WATER LEVEL (distance from ... and ...)

BEFORE PUMPING 40

WHEN PUMPING 50

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (specify)

J jet S submersible

Bailer

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY, GALLONS PER MINUTE (to nearest gallon)

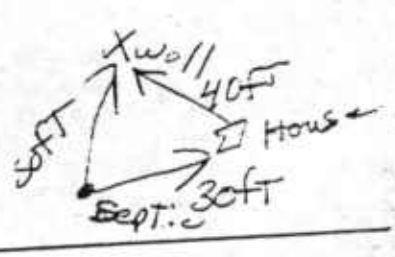
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 159

Vernon W. Kirk

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

ORIGINAL

9/6/83 Rec. #1211 — EMERGENCY/TEMP. NO. IF ANY

1667 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE-81-0773

Fill in this form completely

Date Received: 09 06 83

OWNER INFORMATION

Barbero James (Last Name / Owner / First Name)

170 Mountain Hill Rd (Street or RFD)

Perryville Md 21903 (Town / State / Zip)

DRILLER INFORMATION

Donald S. Newnan — 138 M (Driller's Name / License No.)

Shore Well Drillers (Firm Name)

Cecilton, Md. (Address)

Donald S. Newnan — 9/1/83 (Signature / Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10 ~~40~~

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000 ~~[illegible]~~

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 170 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — (Jetted & DRIVEN)

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other: Driven

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: — WRITE INITIALS IN BOX — PERMIT No. CE-81-0773

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil (COUNTY) — BL675

SUBDIVISION

SECTION — LOT

Perryville (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town): 3.85 M

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Mountain Hill Rd — NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, E, W, S

DISTANCE FROM ROAD: 200

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil — COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT #

DATE ISSUED: 09 07 83 — Charles E. Simpson — 3/7/84

NORTH GRID: 630000 — EAST GRID: 1077000

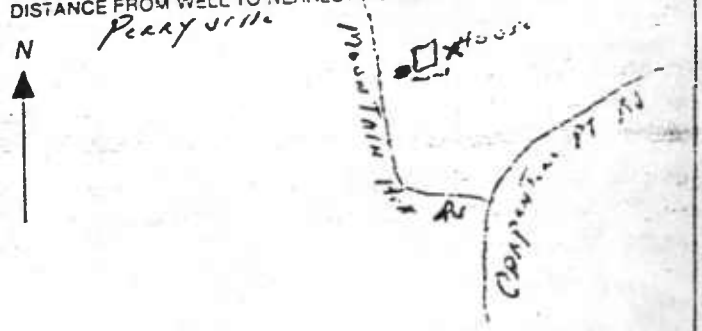
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E: 1070
N: 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 3477 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER BL875

DATE Received NOV 15 1983

DATE WELL COMPLETED 11/10/83

Depth of Well 175 (TO NEAREST FOOT)

FROM PERMIT NO. CE-81-0773

OWNER Barbero, James (last name) (first name) TOWN Perryville, Md.

STREET OR RFD 170 Mt. Hill Road SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
yellow clay-sand gravel	0	65	
white clay-sand	65	130	
red-white-yellow clay	130	163	
yellow-white sand	163	175	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot) from ft to ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	158

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
ST	2½	156	170

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

DEPTH (nearest ft.)

EACH SCREEN			
1	ST	170	175
2			
3			

SLOT SIZE 1 15 2 3

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMP [illegible]

HOURS PUMPED (nearest [illegible]) 10

PUMPING RATE (gal. per [illegible] to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance [illegible])

BEFORE PUMPING 98

WHEN PUMPING 150

TYPE OF PUMP USED (Circle [illegible])

A air P piston T

C centrifugal R rotary O [illegible]

J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES

IF DRILLER INSTALLS PUMP THIS DEPT. MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

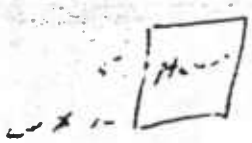
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

Donald S. Nancy

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WO OTHER DATA

ORIGINAL

No. 20/6/83 Rec. #1286-M&R EMERGENCY/TEMP NO. IF ANY

B 1628 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER CE-01-0827
fill in this form completely

Date Received 100483

OWNER INFORMATION

Barclay Dr. D.E. (Owner, First Name)

1606 Priwcifio Hurnace Rd (Street or RFD)

Perryville Md. 21903 (Town, State, Zip)

LOCATION OF WELL

Replacement

Cecil (County)

Subdivision

Section ___ Lot ___

Perryville (Nearest Town)

Miles from town (enter 0 if in town): 2

DRILLER INFORMATION

Constantine DiFilippo — License No. 250

Driller's Name

C.DiFilippo Well Drilling Inc

Firm Name

2235 Blue Ball Rd Elkton Md. 21921

Address

Constantine DiFilippo 10-4-83

Signature Date

WELL INFORMATION

B 2

Approx. pumping rate (gal. per min.): 6

Average daily quantity needed (gal. per day): 500

B 4

Direction of well from town (circle box): N, NE, E, SE, S, SW, W, NW — TOWN

Md Rt 7 — Near what road

On which side of road (circle appropriate box)

Distance from road: 30 ft

Enter ft or mi: ft

USE FOR WATER (circle appropriate box)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil — County name

County no.

OEP signature

State Health Insert S

Date issued 100683

Charles E. Smyser 1/6/84 — CO signature

North grid 635000

East grid 107000

Approximate depth of well: 100 feet

Approximate diameter of well: 6 (nearest inch)

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other: Air-Per

Show major features of box & locate well with an X

Sources of drilling water
1. well
2.
3.

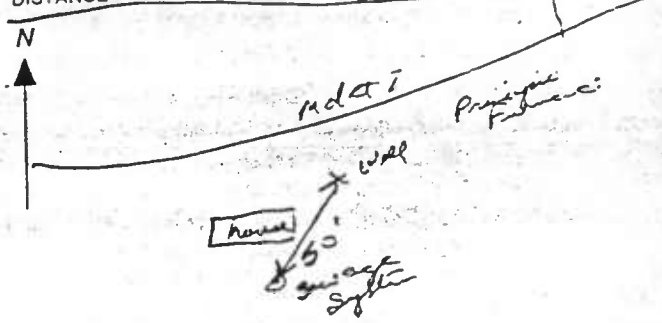
Write the box number from the map here: E 107 N 630

REPLACEMENT OR DEEPENED WELLS (circle appropriate box)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

Permit number of well to be replaced or deepended (if available)

Draw a sketch below showing location of well in relation to nearby towns and roads and give distance from well to nearest road junction



Not to be filled in by driller (OEP USE ONLY)

Approp. permit number: GAP

Force: write initials in box

Permit No. CE-81-0827

Special conditions

C 1 5331 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER Replacement

DATE Received FEB 8 [illegible]

DATE WELL COMPLETED 102583

Depth of Well 85 (TO NEAREST FOOT)

FROM [illegible] CE-8[illegible] 0827

OWNER BARCLAY JR D.E. (last name) (first name) TOWN Perryville Md 2[illegible]

STREET OR RFD 1606 Principio Furnace Rd SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil Gravel	0	15	
granite	15	65	✓
Dk Granite	65	85	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 6 NO. OF POUNDS 600

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 21 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	21

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

DEPTH (nearest ft.) EACH SCREEN

1	HO	21	85
2			
3			

SLOT SIZE 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED [illegible]

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE [illegible]

WATER LEVEL (distance from [illegible])

BEFORE PUMPING 35

WHEN PUMPING 50

TYPE OF PUMP USED (for test)

A air P piston T [illegible] C centrifugal R rotary O [illegible] J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE. [illegible]

CAPACITY GALLONS PER MINUTE (to nearest gallon) 7

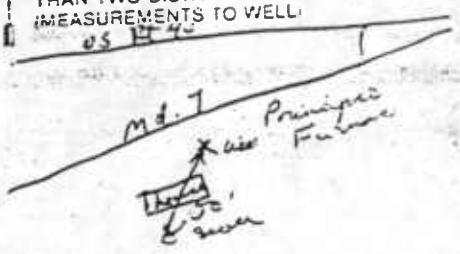
PUMP HORSE POWER .5

PUMP COLUMN LENGTH (nearest ft.) 75

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250

Constantine DiFilippo

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Pd. $50. 3/13/84 Rec. #1555 EMERGENCY/TEMP NO. IF ANY

B 7 0617 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 0955

642-6761

Date Received: 031384

OWNER INFORMATION

Last Name: OALS JAMES (Owner) First Name

Street or RFD: 55 Winch Rd.

Town: Perryville State: Md Zip: 21903

DRILLER INFORMATION

Driller's Name: LARRY A. BROWN License No. 38

Firm Name: BROWN BROS. DRILLING INC.

Address: 497 Kirksmills Rd, Nottingham, PA. 19362

Signature: Larry A. Brown Date: 3-13-84

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

(AIR-ROTary) AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other: Air-Rot

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- (D) THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE):

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX. PERMIT No. CE-81-0955

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Deepening

COUNTY: Cecil

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Principio Furnace

MILES FROM TOWN (enter 0 if in town): .5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Winch Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): 50

DISTANCE FROM ROAD: ENTER FT or MI: Ft

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil

COUNTY NO.

STATE HEALTH INSERT

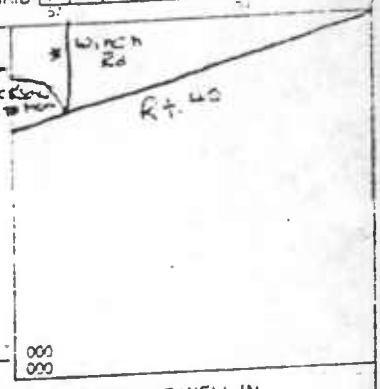
OEP SIGNATURE:

DATE ISSUED: 031384 Charles E. Simpson 3/13/84

CO SIGNATURE

NORTH GRID: 639000 EAST GRID: 1071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X



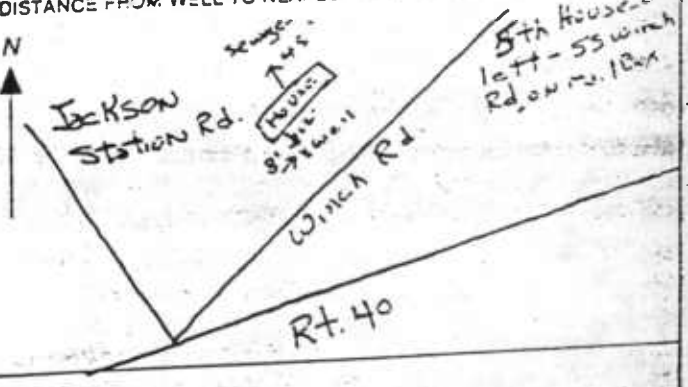
SOURCES OF DRILLING WATERS
1. Well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 8896 — SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER [illegible]

COUNTY NUMBER — Deepened to

FROM REPORT C E — 0955

DATE Received

DATE WELL COMPLETED 03 13 84

Depth of Well 125 (TO NEAREST FOOT)

OWNER OALS JAMES (last name, first name) TOWN Perryville, md. 21903

STREET OR RFD 55 Winch Rd. SECTION

SUBDIVISION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Well Was deepened from 85' to 125	85	125	✓
This well had dropped off to 1GPM, before going deeper			
Granite	85	125	✓
The Casing was cut off in A well pit, it has Now been extended Above Ground Level to meet Specifications			

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) — Y N

TYPE OF GROUTING MATERIAL

CEMENT CM — BENTONITE CLAY BC

NO. OF BAGS — NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from — ft. to — (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL — CO CONCRETE — PL PLASTIC — OT OTHER

MAIN CASING TYPE — Nominal diameter top (main) casing (nearest inch) — Total depth of main casing (nearest foot)

OTHER CASING (if used) — diameter inch — depth (feet) from — to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL — BR BRASS BRONZE — HO OPEN HOLE — PL PLASTIC — OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	HO	85	125
2			
3			

SLOT SIZE: 1 — 2 — 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from — to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST

HOURS PUMPED (nearest hr.) 4

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE Air

WATER LEVEL (distance from land surface)

BEFORE PUMPING 35

WHEN PUMPING 50

TYPE OF PUMP USED (for test)

A air — P piston — T turbine — C centrifugal — R rotary — O other (describe below) — J jet — S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) — YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate sign and enter casing height) — + above — − below — LAND SURFACE — feet

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 38

LARRY A BROWN

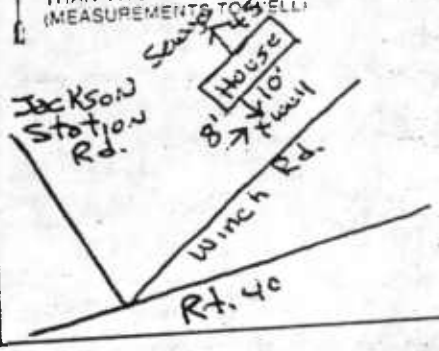
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

Larry A. Brown

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — TELESCOPE CASING — (E.R.O.S.) — LOG INDICATOR — W O — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

Pd. $40. 2/21/84 Rec. #1502 -MER EMERGENCY/TEMP NO. IF ANY

B 1 0055 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: C E - 8 1 - 0 9 7 6

Date Received: 0 2 2 1 8 4

OWNER INFORMATION

Last Name: RAYSON — Owner: E — First Name: GLENDON

Street or RFD: 337 POPLAR POINT RD

Town: PERRYVILLE — State: MD — Zip: 21903

DRILLER INFORMATION

Driller's Name: WALTER J. FRANK — License No.: 5

Firm Name: FRANK'S WELL DRG INC.

Address: 7014 FT. SMALLWOOD BALTO. 21226

Signature: Walter J Frank — Date: 2-16-84

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED DUG WELL
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-81-0976

SPECIAL CONDITIONS

LOCATION OF WELL

B 3

COUNTY: Cecil — Replacement

SUBDIVISION: POPLAR POINT

SECTION: — LOT: 9

NEAREST TOWN: Perryville

MILES FROM TOWN (enter 0 if in town): 3.6 MILES

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NW, W, SW, S, SE, E — TOWN

NEAR WHAT ROAD: POPLAR POINT RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): END OF RD.

DISTANCE FROM ROAD: 90

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

OEP SIGNATURE — STATE HEALTH NEEPT'S

DATE ISSUED: 0 3 2 3 8 4 — CO SIGNATURE: Charles E. Simpson — 2/23/8

NORTH GRID: 626000 — EAST GRID: 1074000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

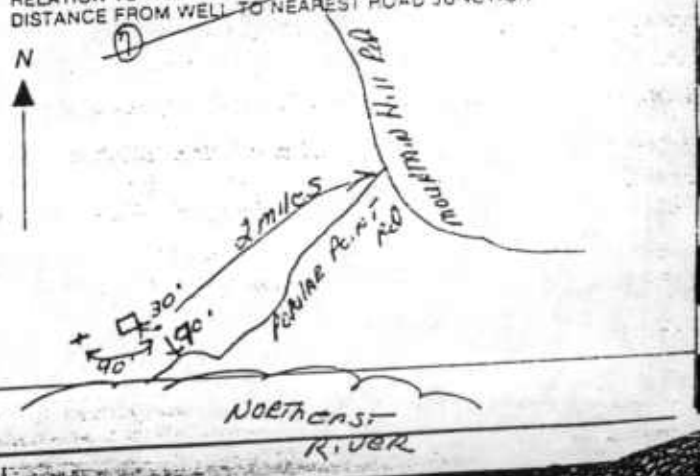
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

SEQUENCE NO. (OEP USE ONLY): 8917

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER: Replacement

FROM PERMIT: CE-81-0976

DATE Received: FEB 9 '84

DATE WELL COMPLETED: 04 02 84

Depth of Well: 65 (TO NEAREST FOOT)

OWNER: RAYSON (last name) GLENDON (first name)

STREET OR RFD: 339 POPLAR POINT Rd.

TOWN: Perryville

SUBDIVISION: POPLAR POINT

SECTION:

LOT: 9

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
SAND + WHITE CLAY	0	5	
WHITE CLAY	5	15	
SAND	15	20	
GRAVEL + SAND	20	30	
GRAVEL + SAND	30	40	
RED CLAY	40	50	
GRAY CLAY	50	55	
SAND	55	65	XXX

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL

CEMENT: CM SENTONITE CLAY: BC

NO. OF BAGS: 3 NO. OF POUNDS: 150

GALLONS OF WATER: 75

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. to 30 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter too (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	55

OTHER CASING (if used)

	diameter inch	depth (feet) from	to
EACH CASING			

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

		DEPTH (nearest ft.)	
EACH SCREEN 1	PL	55	65
2			
3			

SLOT SIZE: .020

DIAMETER OF SCREEN: 2 (NEAREST INCH)

GRAVEL PACK: from 55 to 65

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST

HOURS PUMPED: 3

PUMPING RATE (to nearest gal): 30

METHOD USED TO MEASURE PUMPING RATE: Gal. Pail

WATER LEVEL (distance below surface)

BEFORE PUMPING: 18

WHEN PUMPING: 27

TYPE OF PUMP USED (for test): A air, P piston, T, C centrifugal, R rotary, O, J jet, S submerged

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

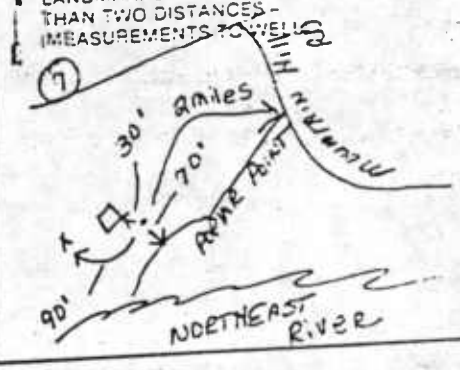
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE: 1 (nearest ft.)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES - (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
- A - A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E - ELECTRIC LOG OBTAINED
- P - TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO.: 5

Walter J Frank
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T: TELESCOPE CASING

(E.R.O.S.): LOG INDICATOR

WO: OTHER DATA

ORIGINAL

Pd. 2/21/86 Rec.#3693-MER EMERGENCY/TEMP NO. IF ANY

B 1 3891 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 2008

Date Received: 022186

OWNER INFORMATION

Last Name: ARO55 Owner First Name: SIMON

Street or RFD: 121 W. RUTHERFORD

Town: NEWARK State: DE Zip: 19713

DRILLER INFORMATION

Driller's Name: R. SEWARD License No.: 283

Firm Name: R. J. SEWARD & SON

Address: 2526 Old County Rd NEWARK DE

Signature: [signature] Date: 2/19/86

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 850

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 130 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-81-2008

B 3 LOCATION OF WELL

County: CECIL

Subdivision: GREENBANK

SECTION: LOT: 9

Nearest Town: CHARLESTOWN

MILES FROM TOWN (enter 0 if in town): 1.7 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: CLARK Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N W E S

DISTANCE FROM ROAD: 15 FT

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil

COUNTY NO.

STATE HEALTH INSERT S

OEP SIGNATURE

DATE ISSUED: 022186 CO SIGNATURE: [signature] EXP. DATE: 8/21/86

NORTH GRID: 630000 EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL
2. WELL
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

SPECIAL CONDITIONS

ORIGINAL

C1 00769 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER

DATE Received JUN 25 1986

DATE WELL COMPLETED 05 13 86

Depth of Well 146 (TO NEAREST FOOT)

CE 81-2008

OWNER GROSS SIMON

STREET OR RFD 121 W. RUTHERFORD (last name) (first name) TOWN NEWARK LOT 1/2

SUBDIVISION SECTION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOPSOIL	0	1	
SAND	1	86	
BROWN CLAY	86	130	
COARSE WHITE	130	146	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 9 NO. OF POUNDS 450

GALLONS OF WATER 225

DEPTH OF GROUT SEAL (to nearest foot) from 0 to 86 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
P1	4	136

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

DEPTH (nearest ft)

EACH SCREEN			
1	PL	136	146
2			
3			

SLOT SIZE 020

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 136 to 146

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest) 2

PUMPING RATE (gal. per min. to nearest gal.) 60

METHOD USED TO MEASURE PUMPING RATE DOCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 88

WHEN PUMPING 120

TYPE OF PUMP USED (for test)

A P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) YES or NO YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283

[signature]

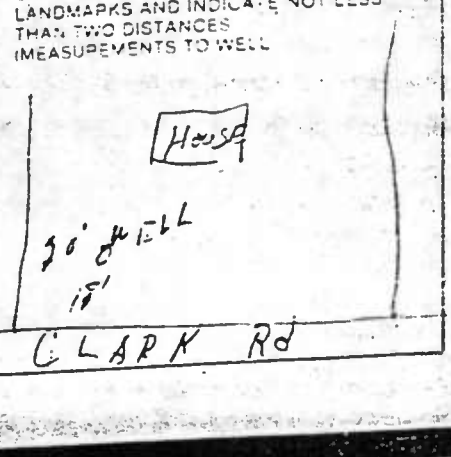
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

378-3422 EMERGENCY/TEMP NO. IF ANY 278-2259

Pd. $40. 3/12/86 Rec. #3756-MER

B T 3908 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 2034

Date Received: 031286

OWNER INFORMATION

LYON JERRY T (Last Name / Owner / First Name)

845 TOME HIWAY (Street or RFD)

PORT DEPOSIT MD 21904 (Town / State / Zip)

DRILLER INFORMATION

CHARLES H. HAMILTON JR. (Driller's Name) 112 (License No.)

JONES & HAMILTON (Firm Name)

ILSN. PARADISE RD. HD. 6- (Address)

Charles H. Hamilton Jr. (Signature) 3/10/86 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary (AIR-PERcussion) ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- (D) THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2034

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

CECIL (COUNTY)

SUBDIVISION

SECTION LOT

PERRYVILLE (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town) 2.4 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

PRINCIPIO FURNACE RD. NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

200 DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME

COUNTY NO.

STATE HEALTH INSERT S

OEP SIGNATURE

DATE ISSUED 031486

Charles E. Simpson 9/14/8

CO SIGNATURE

EXP. DATE

NORTH GRID 636000 EAST GRID 1071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

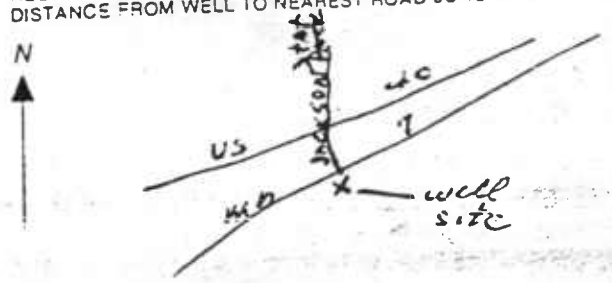
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 [illegible]0795 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER 38093

DATE Received APR 9 1986

DATE WELL COMPLETED 040486

Depth of Well 300 (TO NEAREST FOOT)

C2-81 2034

OWNER LYON JERRY (last name) TOWN PORT DEPOSIT, [illegible]

STREET OR RFD 845 TOME Highway SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND + GRAVEL	0	30	
YELLOW CLAY	30	50	
SOFT GREEN WEATHERED ROCK	50	67	
HARD GRAY GRANITE	67	300	—

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 15 NO. OF POUNDS 1410

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot) from 0 to 70 (enter 0 if from surface) BOTTOM

CASING RECORD

casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE ST Nominal diameter top (main casing) (nearest inch) 6 Total depth of main casing (nearest foot) 70

OTHER CASING (if used) diameter inch depth (feet) from to

EACH CASING

screen type or open hole insert appropriate code below

SCREEN RECORD

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

DEPTH (nearest ft.)

EACH SCREEN

1	40	70	300
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST

HOURS PUMPED (nearest ft.) 4

PUMPING RATE (gal. per min.) 6 (to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE Bucket & Watch

WATER LEVEL (distance from [illegible])

BEFORE PUMPING 43

WHEN PUMPING 225

TYPE OF PUMP USED (for test)

A air P piston T turb

C centrifugal R rotary O other (describe)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

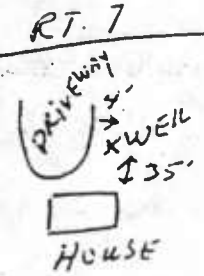
PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

Charles H Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.P.O.S.) LOG INDICATOR WQ OTHER DATA

ORIGINAL

EMERGENCY/TEMP NO. IF ANY

Fd. $40. 4/14/85 Rec. #3886-[illegible]

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

B 1 3930 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

OEP PERMIT NO. CE 81-2079

Date Received 0 4 1 4 8 6

OWNER INFORMATION

MONTGOMERY BROS INC

PO BOX 357

RISING SUN MD 21911

DRILLER INFORMATION

CHAS HAMILTON JR 112

Driller's Name

JONES & HAMILTON

Firm Name

115 N. PARADISE, Hde G. MD 21078

Address

Charles H. Hamilton Jr. 4-10-86

Signature Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2079

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

CECIL

COUNTY

EASTRIDGE

SUBDIVISION

SECTION LOT

CHARLESTOWN

NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2.5

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N, NE, E, SE, S, SW, W, NW, TOWN

Mountain Hill Co.

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

600

DISTANCE FROM ROAD

ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE HEALTH INSERT

OEP SIGNATURE

DATE ISSUED 0 4 1 7 8 6

Charles E. Simpson 10/17/86

SIGNATURE

NORTH GRID 630000

EAST GRID 1077000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000

000

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Mountain Co.

ORIGINAL

C 1 1040 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER [illegible]

COUNTY NUMBER 50500

FROM PERMIT TO [illegible] C 8 - 2 2079

DATE Received JUL 1 1986

DATE WELL COMPLETED 062186

Depth of Well 124 (TO NEAREST FOOT)

OWNER MONTGOMERY BROS. INC. (last name) (first name) TOWN Rising Sun, Md.

STREET OR RFD P.O. Box 357 SECTION

SUBDIVISION EASTRidge

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND + GRAVEL	0	30	
RED CLAY	30	80	
WHITE SAND	80	112	
COARSE WHITE GRAVEL	112	124	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 18 NO. OF POUNDS 1692
GALLONS OF WATER 90
DEPTH OF GROUT SEAL (to nearest foot) from 0 to 80 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 119

OTHER CASING (if used) diameter inch depth (feet) from to

EACH CASING

screen type or open hole insert appropriate code below
SCREEN RECORD
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2
DEPTH (nearest ft.)
EACH SCREEN
1 ST 119 124
2
3

SLOT SIZE 1/32"
DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3
PUMPING TEST
HOURS PUMPED (nearest) 3
PUMPING RATE (to nearest gal) 12
METHOD USED TO MEASURE PUMPING RATE Bucket + Watch
WATER LEVEL (distance from [illegible])
BEFORE PUMPING 100
WHEN PUMPING 105
TYPE OF PUMP USED (for test)
A air P piston T
C centrifugal R rotary O
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES
IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A C J P R S T O) IN BOX SEE ABOVE
CAPACITY GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
− below
LAND SURFACE 1 (nearest ft.)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

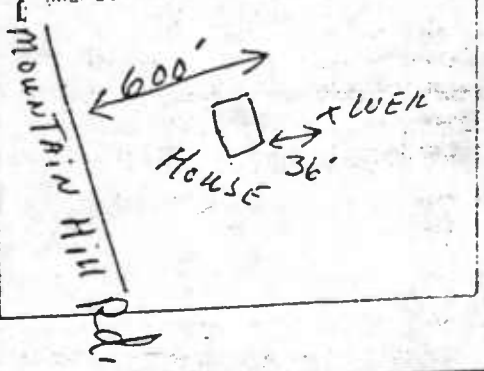
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112
Charles H. Hamilton Jr.
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) WO
TELESCOPE CASING LOG INDICATOR OTHER DATA

LOCATION OF WELL [illegible]
SHOW PERMANENT STRUCTURE SUCH BUILDING, SEPTIC TANKS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

Pd. $40. 4/25/86 Rec. #3932-MER EMERGENCY/TEMP NO. IF ANY

B 1 1031 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

OEP PERMIT NUMBER: CE 81 2120

fill in this form completely

Date Received: 042586

OWNER INFORMATION

Last Name: Myer Owner First Name: Floyd

Street or RFD: 55 Woodall Rd

Town: Charlestown State: MD Zip:

DRILLER INFORMATION

Driller's Name: Vernon Kirk License No. 159

Firm Name: Vernon Kirk Well Drilling

Address: 211 Wenck Rd Perryville, Md

Signature: Vernon W Kirk Date: 4/24/86

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.): 3

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 80 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- T THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-81-2120

SPECIAL CONDITIONS

LOCATION OF WELL

B 3

County: Cecil

Subdivision: GREENBANK

SECTION: LOT:

Nearest Town: Charlestown

MILES FROM TOWN (enter 0 if in town): M

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Woodall Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, NE, E, SE, S, SW, W, NW

DISTANCE FROM ROAD: 30

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.

OEP SIGNATURE: STATE HEALTH INSERT S

DATE ISSUED: 050186 CO SIGNATURE: Charles E. Simpson EXP. DATE: 12/1/86

NORTH GRID: 630000 EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

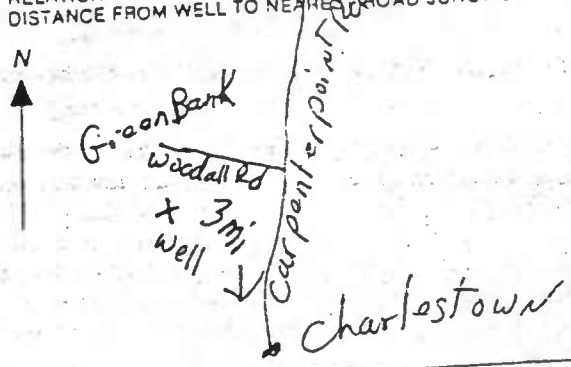
1. Well Water
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 1081 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE FORMED ... 45 DAYS AFTER WELL ...

COUNTY NUMBER New in Charles

PERMIT FROM PERMIT TO ... 81 2120

DATE Received MAY 26 1986

DATE WELL COMPLETED 05/16/86

Depth of Well 96 (TO NEAREST FOOT)

OWNER Myer Floyd (last name) (first name) TOWN Charlestown, Md.

STREET OR RFD 55 Woodall Rd SECTION ___ LOT ___

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top soil	0	2	
red clay	2	50	
Blue clay	50	70	
yellow clay + sand	70	86	
white sand	86	96	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 4 NO. OF POUNDS 376
GALLONS OF WATER 24
DEPTH OF GROUT SEAL (to nearest foot) from 2 ft to 20 ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	91

OTHER CASING (if used)

	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

	DEPTH (nearest ft.)	
ST	91	96

SLOT SIZE 1 ✓ 2 ___ 3

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from ___ to 20

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 4
PUMPING RATE (gal. per min. to nearest gal.) 15
METHOD USED TO MEASURE PUMPING RATE Bailer
WATER LEVEL (distance from land surface)
BEFORE PUMPING 50
WHEN PUMPING 70

TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O ...
J jet S submersible

Bailer

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE
CAPACITY GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
− below
LAND SURFACE (nearest ft.) 1

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 159

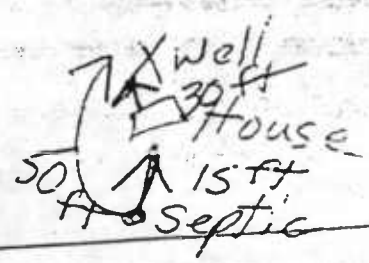
Vernon W. Rink

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W.O. OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

Pd. $40. 5/27/86 Rec. #4025-MER EMERGENCY/TEMP NO. IF ANY

B 1 1069 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 2201
fill in this form completely

Date Received: 052786

OWNER INFORMATION

PETERSON LARRY
Last Name / Owner / First Name

755 W POLSKI HWY.
Street or RFD

ELKTON MD 21921
Town / State / Zip

DRILLER INFORMATION

R. SEWARD & 283
Driller's Name / License No.

R. J. SEWARD & SON
Firm Name

2526 OLD COUNTY RD NEWARK DE
Address

Robert Seward 5/21/86
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion (ROTARY) (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2201

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

B3387

CECIL
COUNTY

POPLAR PT.
SUBDIVISION

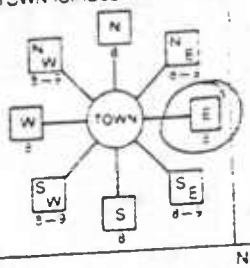
SECTION LOT 13

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2.5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



POPLAR PT. Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

20
DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME / COUNTY NO.
STATE HEALTH INSERT S

OEP SIGNATURE

DATE ISSUED 052886 Charles E. S... 11/26/86
OEP SIGNATURE / DATE

NORTH GRID 626000 EAST GRID 1073000

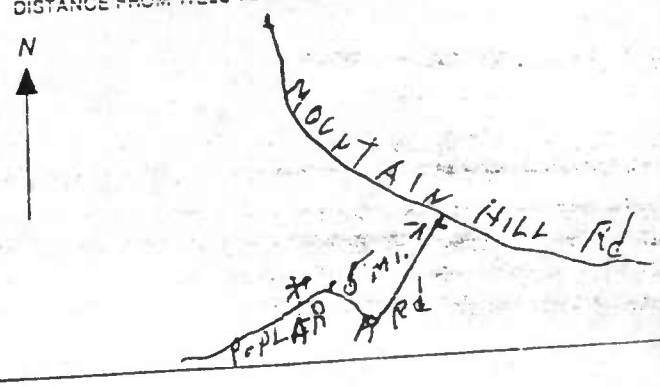
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1 WELL AT OFFICE
2 WELL AT OFFICE
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 05463 — SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SENT WITHIN 45 DAYS OF THE WELL COMPLETION

COUNTY NUMBER: 28307

FROM PERMIT: CE-81 2201

DATE Received: AM

DATE WELL COMPLETED: 11/13/86

Depth of Well: 106 (TO NEAREST FOOT)

OWNER: PETERSON, LARRY (last name, first name)

STREET OR RFD: 85 PULSKI HWY

TOWN: ELKTON

SUBDIVISION: SECTION: LOT: 15

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOPSOIL	0	1	
SAND	1	28	
WHITE CLAY	28	39	
SAND & GRAVEL	39	70	
SHALE	70	71	✓
WHITE SAND	71	106	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL

CEMENT C.M. BENTONITE CLAY B C

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot) from 0 to 30 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: PL — Nominal diameter top (main) casing (nearest inch): 4 — Total depth of main casing (nearest foot): 96

OTHER CASING (if used): diameter (inch) — depth (feet) from — to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	TYPE	DEPTH (nearest ft.)	
1	PL	96	106
2			
3			

SLOT SIZE: .020

DIAMETER OF SCREEN: 4 (NEAREST INCH)

GRAVEL PACK from 96 to 106

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

HOURS PUMPED (nearest hr.)

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test): A air, P piston, T other, C centrifugal, R rotary, O gas engine, J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

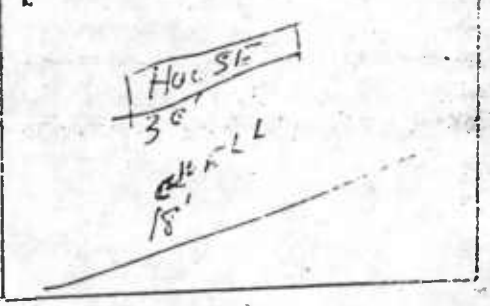
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE (nearest ft.)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A. A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLER'S IDENT. NO. 283

Michael Howard

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W.O.

70 TELESCOPE CASING — 72 LOG INDICATOR — 74 75 76 OTHER DATA

ORIGINAL

642-6116

EMERGENCY/TEMP NO IF ANY

Pd. $40. 10/1/86 Rec. #5506

B 1 2693 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

C E 2507

Date Received 10 01 86

OWNER INFORMATION

MCGUIRK MICHAEL
Owner Last Name

4596 PULASKI HWY
Street or RFD

PERRYVILLE MD 21903
City State

DRILLER INFORMATION

Charles Hamilton — Driller's Name — 112 License No.

Jones + Hamilton — Firm Name

115 N. Paradise Rd. Havre de Grace — Address

Charles H Hamilton Jr. 9-30-86 — Signature Date

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 200 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT NO. CE-81-2507

SPECIAL CONDITIONS

B 3

LOCATION

CECIL

SECTION

PRINCIPIO FURNACE

MILES FROM TOWN

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N, NE, E, SE, S, SW, W, NW — TOWN

JACKSON STATION RD.

NEAR INTERSECTION

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

30

DISTANCE FROM ROAD

ENTER FT. OR M.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME

OEP SIGNATURE

DATE ISSUED 10 02 86 — Charles E. Simpson — CO SIGNATURE

NORTH GRID 637000 — EAST GRID 1076

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

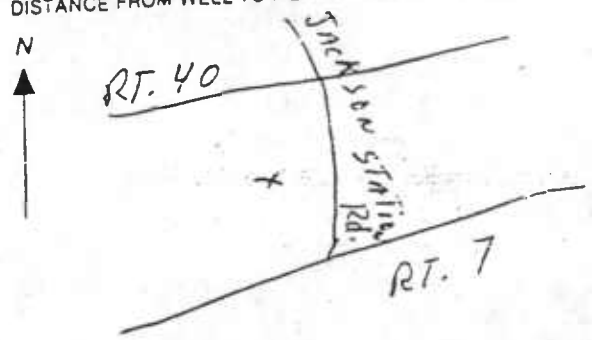
SOURCES OF DRILLING WATER

1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 5183 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER: B9036

PERMIT NO. FROM (PERMIT TO DRILL): 08-81-2507

DATE Received: OCT 27 1986

DATE WELL COMPLETED: 102386

Depth of Well: 275 (TO NEAREST FOOT)

OWNER: McGuirk (last name) Michael (first name)

STREET OR RFD: 4596 Pulaski Hwy. TOWN: Perryville, Md.

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Yellow Sand + Gravel	0	20	
Red Clay	20	40	
Brown Weathered Rock	40	56	
Hard Green + Gray Granite	56	275	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS: 17 NO. OF POUNDS: 1598

GALLONS OF WATER: 85

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft to 60 ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	60

OTHER CASING (if used): diameter inch, depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

DEPTH (nearest ft.)

EACH SCREEN			
1	40	60	275
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W.C.

TELESCOPE CASING | LOG INDICATOR | OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour): 6

PUMPING RATE (gal. per min. to nearest gal.): 3

METHOD USED TO MEASURE PUMPING RATE: Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 42

WHEN PUMPING: 160

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX. SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

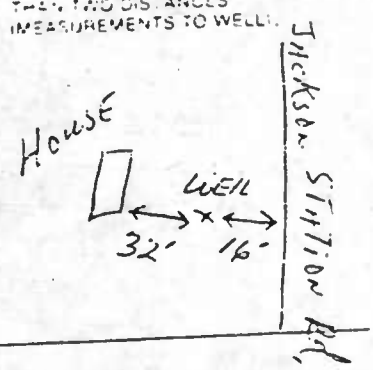
DRILLERS IDENT. NO. 112

Charles N. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



ORIGINAL

Wells

EMERGENCY/TEMP NO. IF ANY

Pd. $40. 10/27/86 Rec.#4659-MER

B 1 3969 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NO. CE 81 2582

Date Received 102786

OWNER INFORMATION

MONTGOMERY BROS INC
Last Name / Owner / First Name

PO BOX 357
Street or RFD

RISING SUN MD 21911
State

Transferred to Robert J SEWARD

DRILLER INFORMATION 283
Driller's Name / Licensing No.

~~CHARLES HAMILTON JR~~

~~Jerome Hamilton~~
Firm Name

~~1157 Paradise, Hwy 21075~~
Address

~~Charles H. Hamilton Jr.~~ 10/25/86
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2582

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

CECIL
COUNTY

EASTRIDGE
SUBDIVISION

SECTION LOT

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 3

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N, NE, E, SE, S, SW, W, NW — TOWN

Mountain Hill (Rd.)
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

700
DISTANCE FROM ROAD

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME

COUNTY NO.
STATE HEALTH INSERT S

OEP SIGNATURE

DATE ISSUED 102786 Charles E. Simpson 4/27/87
CO SIGNATURE / EXP. DATE

NORTH GRID 632000 EAST GRID 1077000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

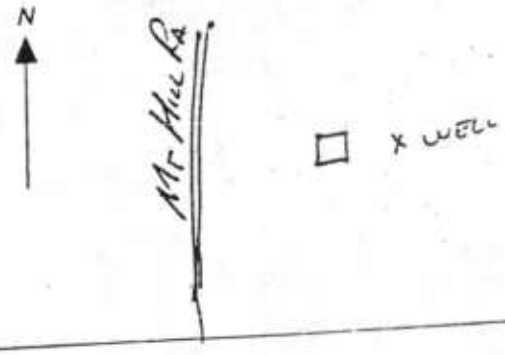
1.
2.
3

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 6559 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER: B9750

PERMIT NO. FROM PERMIT TO DRILL: CE-[illegible] 2582

DATE Received: MAR 10 1987

DATE WELL COMPLETED: 011887

Depth of Well: 165 (TO NEAREST FOOT)

OWNER: MONTGOMERY BROS (first name) TOWN: RISING SUN

STREET OR RFD: PO BX 357 (last name) LOT:

SUBDIVISION: EAST RIDGE SECTION:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOP SOIL	0	1	
CLAY SILT	1	3	
SAND & GRAVEL	3	51	
RED CLAY	51	76	
SAND & CLAY	76	89	
RED CLAY	89	137	
FINE SAND	137	149	
COARSE SAND	149	165	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y (yes) N (no)

TYPE OF GROUTING MATERIAL: CEMENT CM; BENTONITE CLAY BC

NO. OF BAGS: 5 NO. OF POUNDS: 250

GALLONS OF WATER: 125

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft to 53 ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	155

OTHER CASING (if used): diameter inch, depth (feet) from to

EACH CASING

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	PL	155	165
2			
3			

SLOT SIZE: .020

DIAMETER OF SCREEN: 4 (NEAREST INCH)

GRAVEL PACK: from 155 to 165

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 58

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER): T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; WQ OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 1

PUMPING RATE (gal. per min. to nearest gal.): 10

METHOD USED TO MEASURE PUMPING RATE: BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 131

WHEN PUMPING: 166

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

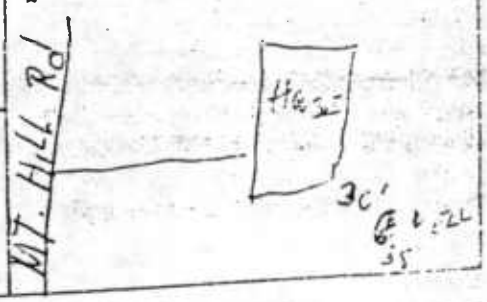
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below

LAND SURFACE: 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OF LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 283

[signature]

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Pd. $40. 12/86 REc. #4792-MEr EMERGENCY/TEMP NO IF ANY

B 1 3981 SEQUENCE NO (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CE 81 2711

Date Received 010687

OWNER INFORMATION

MILLER BOB
Last Name / Owner / First Name

25 GILLEY RD
Street or RFD

PERRYVILLE MD 21903
Town / State

DRILLER INFORMATION

CHARLES H. HAMILTON JR 112
Driller's Name / License No.

JONES & HAMILTON
Firm Name

115 N. PARADISE RD - HWG -
Address

Charles H. Hamilton Jr. 1/4/87
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2711

SPECIAL CONDITIONS

ORIGINAL

B 3 LOCATION OF WELL

CECIL
COUNTY

SUBDIVISION

SECTION LOT

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N, NW, NE, W, TOWN, E, SW, S, SE

GILLEY RD.
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

170
DISTANCE FROM ROAD
ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME

OEP SIGNATURE

DATE ISSUED 010987

Charles E. Singer 1/9/87
CO SIGNATURE

NORTH GRID 635000 EAST GRID 1070000

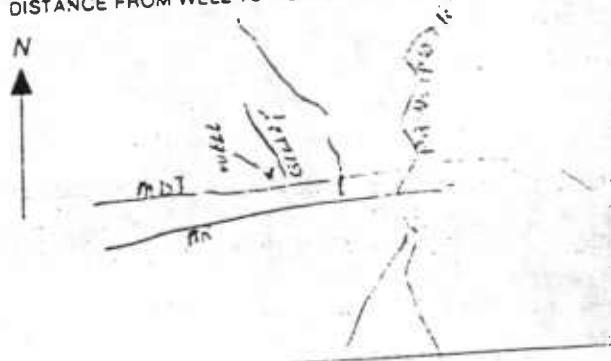
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1
2
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



REPLACES DRILLED WELL (Checked within 1 month)

C1 6891 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE ... 45 DAYS AFTER WELL ...

COUNTY NUMBER: Standby

PERMIT NO. FROM PERMIT TO ... C B 8 1 2711

DATE Received: JAN 9 1987

DATE WELL COMPLETED: 011387

Depth of Well: 167 (TO NEAREST FOOT)

OWNER: Miller Bob (last name, first name) TOWN: Perryville, Md

STREET OR RFD: 25 Gilley Rd SECTION: LOT:

SUBDIVISION:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND	0	30	
RED CLAY	30	50	
SOFT GREEN ROCK	50	68	
HARD GREEN + GRAY GRANITE	68	167	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS: 18 NO. OF POUNDS: 1692

GALLONS OF WATER: 90

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. to 71 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	71

OTHER CASING (if used): diameter inch, depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

DEPTH (nearest ft.)

EACH SCREEN			
1	40	71	167
2			
3			

SLOT SIZE: 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest hour): 3

PUMPING RATE (gal. per min. to nearest gal.): 15

METHOD USED TO MEASURE PUMPING RATE: Bucket Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 44

WHEN PUMPING: 167

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

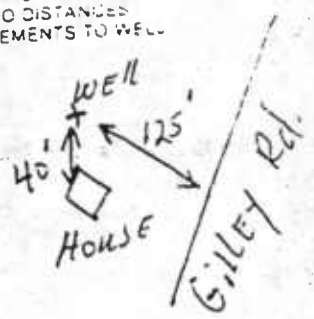
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING; (E.P.O.S.) LOG INDICATOR; W.G. OTHER DATA

ORIGINAL

378-4494 EMERGENCY/TEMP NO. IF ANY Pd. $40. 12/29/86 Rec. #4707-[illegible]

OEP PERMIT NUMBER: CE 81 2720

B 1 3982 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

Date Received: 010987

OWNER INFORMATION

TATE ROGER (Last Name / Owner / First Name)

55 GILLEY ROAD (Street or RFD)

PERRYVILLE (Town) MD (State) 21903 (Zip)

DRILLER INFORMATION

CHARLES H HAMILTON JR (Driller's Name) 112 (License No.)

JONES & HAMILTON (Firm Name)

115 N PARADISE RD (Address) HD 6-

Charles H. Hamilton Jr. (Signature) 1/5/87 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary (AIR-PERcussion) ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-2720

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

CECIL (County)

SUBDIVISION

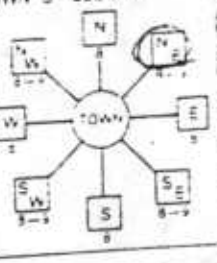
SECTION LOT

PERRYVILLE (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town) 2

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

500 DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NAME

COUNTY NO.

STATE HEALTH INSERT

OEP SIGNATURE

DATE ISSUED 010987

Charles E. Singer 7/[illegible]/87 CO SIGNATURE

NORTH GRID 636000

EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.
2.
3

X

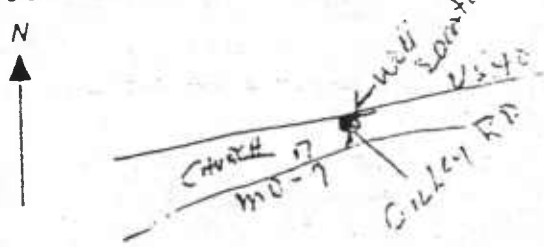
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 6900 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER B8816

PERMIT NO. C E - 8 1 2720

DATE Received AN 6 1987

DATE WELL COMPLETED 011487

Depth of Well 250 (TO NEAREST FOOT)

OWNER TATE ROGER (last name, first name) TOWN PERRYVILLE Md.

STREET OR RFD 55 Gilley Rd. SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND	0	35	
RED CLAY	35	55	
HARD GREEN + GRAY GRANITE	55	250	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO OF BAGS 16 NO OF POUNDS 1504

GALLONS OF WATER 80

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft to 61 ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: ST — Nominal diameter top (main) casing (nearest inch): 6 — Total depth of main casing (nearest foot): 61

OTHER CASING (if used): diameter inch, depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

DEPTH (nearest ft.)

EACH SCREEN			
1	40	61	250
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING — (E.R.O.S.) LOG INDICATOR — WO OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 8

METHOD USED TO MEASURE PUMPING RATE Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING 40

WHEN PUMPING 180

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

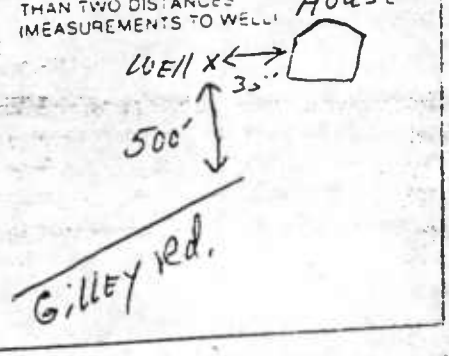
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below — LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

5/27/87 Rec. #5276 Dpt — EXISTING WELL NO. IF ANY

8436 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

CE 1 2987

Date Received 05 27 87

OWNER INFORMATION

DIETER FRANK (Owner, First Name)

Last Name

191 JACKSON STREET (Street or RFD)

PERRYVILLE MD 21903 (Town, State, Zip)

DRILLER INFORMATION

CONSTANTINE DIFILIPPO 250 (Driller's Name, License No.)

AQUAPUR INC (Firm Name)

2235 Bluebell Rd, Elkton Md. 21921 (Address)

Constantine Difilippo 5-26-87 (Signature, Date)

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 6

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — (AIR-PERcussion) — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

Other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-81-2987

SPECIAL CONDITIONS

LOCATION OF WELL

B 3

Cecil (COUNTY) — B2928

HAVE MOS (SUBDIVISION)

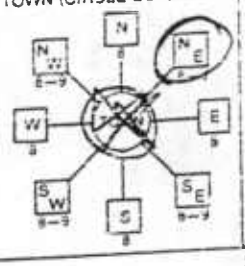
SECTION — LOT

PERRYVILLE (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



JACKSON (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 200

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil — COUNTY NAME

OEP SIGNATURE

STATE HEALTH INSERTS

DATE ISSUED 06 01 87 — CO SIGNATURE Chuck E. Simpson 12/1/87 — EXP. DATE

NORTH GRID 637000 — EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

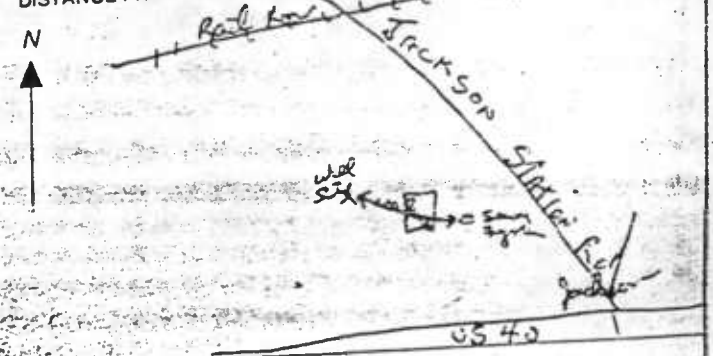
1. well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C T 2580 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER 88938

PERMIT NO. FROM PERMIT TO DRILL C B - 2987

DATE Received SEP 14 1987

DATE WELL COMPLETED 06 03 87

Depth of Well 126 (TO NEAREST FOOT)

OWNER DIETER FRANK (last name, first name)

STREET OR RFD 191 JACKSON STATION RD. TOWN PERRYVILLE, MD.

SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Gravel & clay	0	42	
Lt gray granite	42	100	✓
Hg granite	100	126	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 10 NO. OF POUNDS 940

GALLONS OF WATER 50

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 45 ft. (TOP, BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	45

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	HO	45	126
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WO OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE air/water/[illegible]

WATER LEVEL (distance from [illegible])

BEFORE PUMPING 40

WHEN PUMPING 70

TYPE OF PUMP USED (for test)

A air P pist T [illegible]

C centrifugal R rotary O [illegible]

J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY, GALLONS PER MINUTE (to nearest gallon)

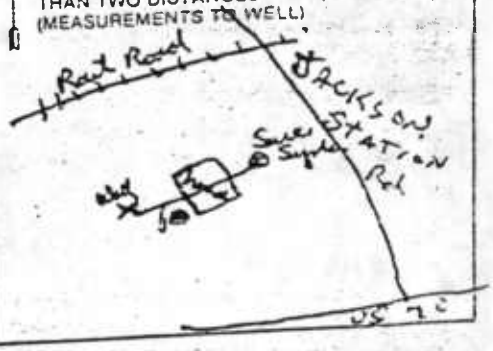
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250

Constantine DiFilippo

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Pd. 540 5/28/87 REC. 5282 NEW EMERGENCY TEMP NO. IF ANY

B 1 3792 SEQUENCE NO. (OEP USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 1-5 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP USE ONLY: CS 2997

Date Received 05 28 87

OWNER INFORMATION

Hughes Robert
Owner Last Name — First Name

205 East Joppa Rd
Street or R/D

Towson Md. 21204
Town — State — Zip

DRILLER INFORMATION

Donald S. Newman 138
Driller's Name — License No.

Shore Well Drillers
Firm Name

Cecilton, Md. 21913

Donald S. Newman 5/26/87
Signature — Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — (Jetted & DRIVEN)

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER (IF AVAILABLE) — WELL TO BE REPLACED OR DEEPENED

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-81-2997

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil — COUNTY

Greenhawk — SUBDIVISION

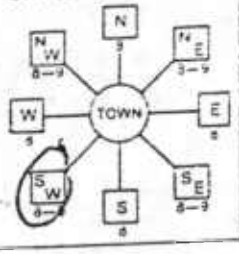
SECTION — LOT

Charlestown — NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 3

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



84 Kirk Road
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 20

ENTER FT. or MI. FT.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERTS

DATE ISSUED 060487 — CO SIGNATURE Charles E. Singer 12/4/87

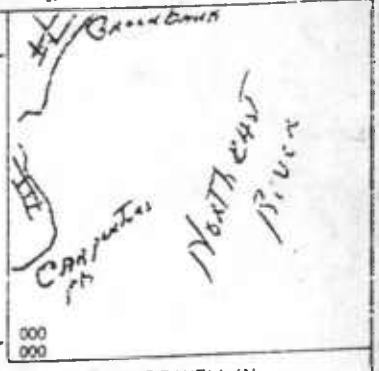
NORTH GRID 6290000 — EAST GRID 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

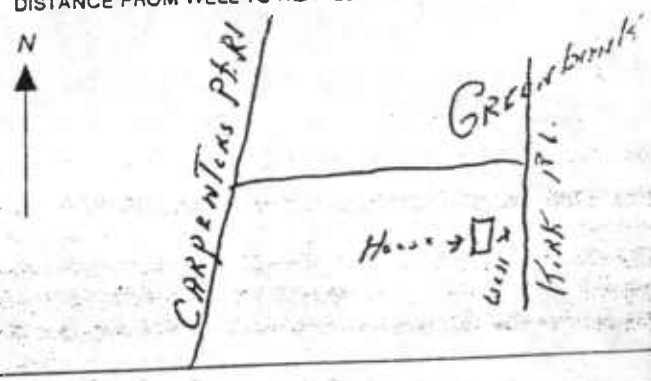
SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C | 2592 | SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

43 DAYS AFTER [illegible]

COUNTY NUMBER Bapl. [illegible]

FROM [illegible] CR-[illegible]-2997

DATE Received JUL 29 1987

DATE WELL COMPLETED 072387

Depth of Well 89 (TO NEAREST FOOT)

OWNER Hug es, Robert (last name) (first name) TOWN Towson, Md.

STREET OR RFD 205 East Joppa Rd. SECTION LOT

SUBDIVISION Greenbank

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
yellow-white-gray clay	0	16	
yellow-white-red clay-sand	16	75	
yellow-white sand-clay	75	83	
yellow-white sand	83	89	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot) from ft. to ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	79

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
ST	2½	73	84

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	ST	84	89
2			
3			

SLOT SIZE 1 15 2 3

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING | (E.R.O.S.) LOG INDICATOR | WO OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 2

WHEN PUMPING 40

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above, − below

LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

Donald S. Newman

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Pd. 540 4/27/88 Rec. #51660-MER EMERGENCY TEMP NO. IF ANY

B 1 6948 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 3820

Date Received: 042788

OWNER INFORMATION

FRONHEISER JEFFREY
Last Name / Owner / First Name

85 CHESTNUT PT Rd
Street or RFD

PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION

R. SEWARD — 283 License No.
Driller's Name

R.J. SEWARD & SON
Firm Name

2526 Old County Rd NEWARK DE
Address

Robert Seward 4/26/88
Signature

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-81-3820

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

C1993

CECIL
COUNTY

GREENBANK
SUBDIVISION

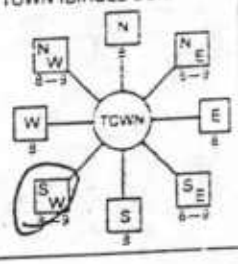
SECTION — LOT 3 — 24 GREENBANK Rd

CHARLESTOWN
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



GREEN BANK Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 160 FT

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT S

DATE ISSUED 050688 — Charles E. Sunyer — 11/6/88
CO SIGNATURE — EXP. DATE

NORTH GRID 630000 — EAST GRID 1080000

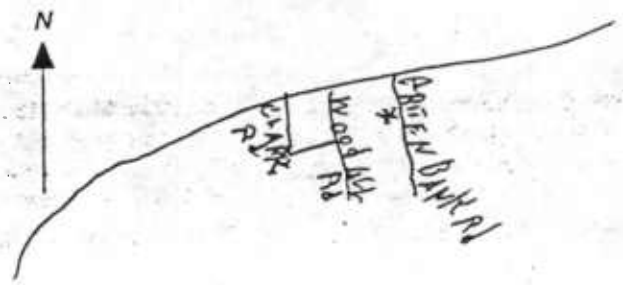
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL AT OFFICE
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C 1 5245 (SEQ. NO.) — SEQUENCE NO. (WRA USE ONLY) — (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

FILL IN THIS SPACE ONLY IF COUNTY NUMBER

DATE RECEIVED (WRA USE ONLY): Feb 7, 1989

DATE WELL COMPLETED: 080788

DEPTH OF WELL (TO NEAREST FOOT): 138'

PERMIT NO. FROM WRA: CA-16 21-13

DRILLERS IDENTIFICATION NO.: 283

OWNER: FRON Heiser (LAST NAME) JEFFRY (FIRST NAME)

STREET OR RFD: 85 CHESTNUT PT RD. POST OFFICE: Perryville Md 21903

WELL DESCRIPTION

WELL LOG
(NAME THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING)

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
TOP SOIL	0	6"	
CLAY SILT	6"	3'	
SAND CLAY	3'	18'	
SILT MIXED SAND GRAVEL	18'	30'	
MULITY COLOR CLAY	30	45	
RED CLAY	45	56	
GRAY CLAY	56	67	
FINE WHITE AND GRAY SAND	67	85	
GRAY CLAY FINE SAND MIXED	85	90	
FINE SAND GRAY CLAY STRINGERS	90	120	
FINE TO MED COARSE WHITE SAND	120	125	✓
MED COARSE WHITE SAND	125	138	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX): Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX): CEMENT (C M) BENTONITE CLAY (B C)

NO. OF BAGS: 3 NO. OF POUNDS: 150

GALLONS OF WATER: 75

DEPTH OF GROUT SEAL (TO NEAREST FOOT): FROM 0 FT. TO 30 FT. (ENTER 0 IF FROM SURFACE)

CASING RECORD
CASING TYPES (INSERT APPROPRIATE CODE BELOW): ST STEEL; CO CONCRETE; PL PLASTIC; OT OTHER

MAIN CASING TYPE: PL — NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 4 — TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 128

OTHER CASING (IF USED)
EACH CASING — DIAMETER (INCH) — DEPTH (FEET) FROM — TO

SCREEN RECORD
SCREEN TYPE OR OPEN HOLE (INSERT APPROPRIATE CODE BELOW): ST STEEL; BR BRASS OR BRONZE; HO OPEN HOLE; PL PLASTIC; OT OTHER

C 2 (SEQ. NO.)

EACH SCREEN — DEPTH (NEAREST WHOLE FOOT)

	TYPE	FROM	TO
1	PL	128	138
2			
3			

SLOT SIZE 1. 20 2. 3.

DIAMETER OF SCREEN: 4 (NEAREST INCH)

GRAVEL PACK: FROM 128 TO 138

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX: F

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER): TELESCOPE CASING; LOG INDICATOR (E.P.O.S.); OTHER DATA AVAILABLE

C 3

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR): 2

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON): 20

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (DISTANCE FROM LAND SURFACE): BEFORE PUMPING 45' WHEN PUMPING 90'

TYPE OF PUMPED USED (IF FOR PUMPING TEST): A AIR; B BAILER; T TURBINE; C CENTRIFUGAL; R ROTARY; W WHICH IS CIRCLED BELOW; J JET; S SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX — SEE ABOVE): A, B, C, R, S, T, OR

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX): YES S

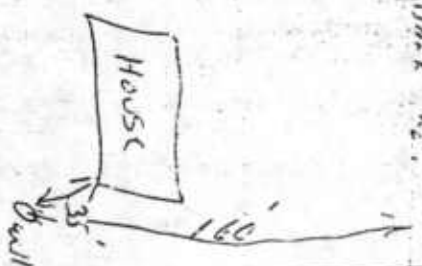
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT): 43

CASING HEIGHT
(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT): + ABOVE; − BELOW — LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT
N — SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE BOXES
- A — WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME (PLEASE PRINT): RJ Seward

SIGNATURE: Robert Seward

ORIGINAL

Pd. S40 Rec. 2042 7/6/84 bpt

EMERGENCY/TEMP NO. IF ANY

B 1 1160 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

OEP PERMIT NUMBER: CE 81 1135

fill in this form completely

Date Received: 07068

OWNER INFORMATION

Bradley Robert (Last Name / Owner / First Name)

85 Kirk Rd. (Street or RFD)

Perryville Md. 21903 (Town / State / Zip)

DRILLER INFORMATION

Donald S. Newnan (Driller's Name) 138 (License No.)

Shore Well Drillers (Firm Name)

Cecilton, Md (Address)

Donald S. Newnan (Signature) 7/5/84 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-81-1135

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Replacement

Cecil (County)

Greenbank (Subdivision)

SECTION LOT

Charlestown (Nearest Town)

MILES FROM TOWN (enter 0 if in town): 1.5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: Kirk Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, W, E

DISTANCE FROM ROAD: 30

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil (COUNTY NAME) COUNTY NO.

OEP SIGNATURE STATE HEALTH INSERT S

DATE ISSUED: 071684 Charles E. Simpson 1/16/85

CO SIGNATURE EXP DATE

NORTH GRID: 629000 EAST GRID: 1080000

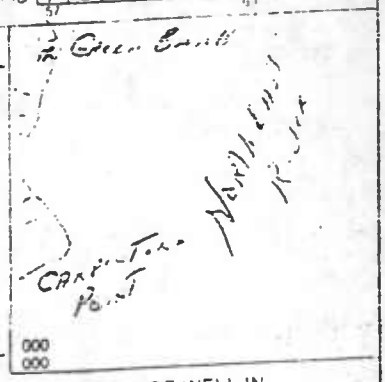
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

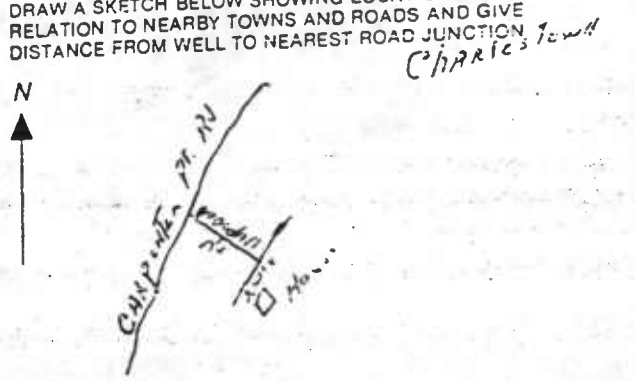
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 620



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 2837 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER Replacement

PERMIT NO. FROM PERMIT TO DRILL: CE-81-1135

DATE Received: NOV 18 '00

DATE WELL COMPLETED: 11 0504

Depth of Well: 86 (TO NEAREST FOOT)

OWNER Bradley, Robert (last name) (first name) TOWN Perryville, Maryland

STREET OR RFD 85 Kirk Road LOT

SUBDIVISION Greenbank SECTION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
top soil	0	2	
yellow-white-gray clay	2	42	
red-white clay	42	55	
white clay-sand	55	76	
coarse white sand	76	86	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO. ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot) from ____ ft. to ____ ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	73

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
ST	2½	~~XX~~ 72	81

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN	DEPTH (nearest ft.)		
1	ST	82	86
2			
3			

SLOT SIZE 15

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from ____ to ____

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest hour) 8

PUMPING RATE (gal. per min. to nearest gal.) 25

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 4

WHEN PUMPING 42

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX-SEE ABOVE.

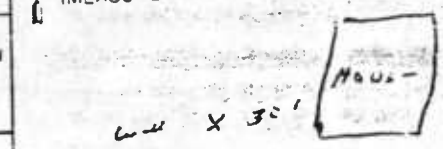
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 138

[signature]

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; WO OTHER DATA

ORIGINAL

Pd. $40. 9/14/84 Rec.#2213-MER EMERGENCY/TEMP NO. IF ANY

B J 0148 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

OEP PERMIT NUMBER: CE-81-1223

fill in this form completely

Date Received: 091484

OWNER INFORMATION

Last Name: PETERSON — Owner — First Name: LOUIS

Street or RFD: 321 POPLAR POINT RD

Town: PERRYVILLE — State: MD — Zip: 21903

DRILLER INFORMATION

Driller's Name: WALTER J FRANK — License No.: 5

Firm Name: FRANK'S WELL DRLG. CO.

Address: 7014 ST. SMALLWOOD BALTO. MD. 21226

Signature: Walter J Frank — Date: 9-12-84

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 120 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — (ROTARY) (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-81-1223

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

COUNTY: Cecil — B6383

SUBDIVISION: POPLAR POINT

SECTION: — LOT: 11 — B-6383

NEAREST TOWN: CHARLESTOWN

MILES FROM TOWN (enter 0 if in town): 2.9 M

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NW, NE, W, TOWN, E, SW, S, SE

NEAR WHAT ROAD: POPLAR POINT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, W, E, S

DISTANCE FROM ROAD: 100 FT

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT S

DATE ISSUED: 091984 — CC SIGNATURE: Charles E. Smyser — EXP. DATE: 3/19/85

NORTH GRID: 626000 — EAST GRID: 1073000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.
2.
3.

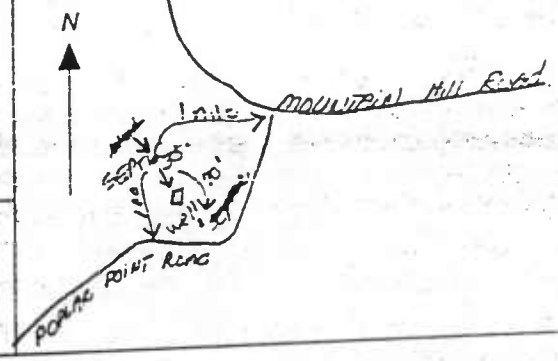
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 3834 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER B6383

DATE Received SEP 27 1984

DATE WELL COMPLETED 092584

Depth of Well 63 (TO NEAREST FOOT)

PERMIT NO. FROM PERMIT TO CE-81 1223

OWNER Peterson (last name) Louis (first name)

STREET OR RFD 321 Poplar Point Rd. TOWN Charlestown

SUBDIVISION Poplar Point SECTION LOT 11

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Sand	0	10	
Gravel, Sand + White Clay	10	20	
Sand	20	30	
Sand + Red Clay	30	40	
Sand + White Clay	40	50	
Gray Clay	50	57	
Sand	57	63	XXX

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y (circled) N (no)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC (circled)

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 30 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	56

OTHER CASING (if used) — EACH CASING — diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

DEPTH (nearest ft.) — EACH SCREEN

1	PL	56	63
2			
3			

SLOT SIZE 020

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK from 56 to 63

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE 5 Gal. Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 23

WHEN PUMPING 32

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO (circled)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, − below — LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 5

Walter J Frank

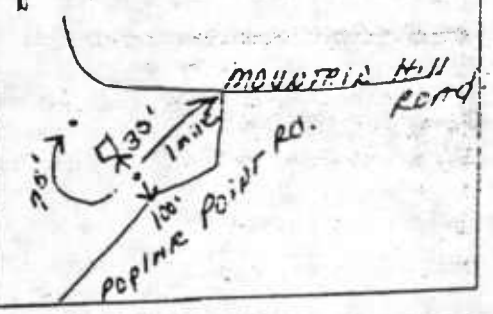
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

Pd. $40. 9/24/84 Rec. #2233 EMERGENCY/TEMP NO. IF ANY

B 1 4165 SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER CE-81-1231
fill in this form completely

Date Received 092484

OWNER INFORMATION

NEIDLEIN SONDRA R
Last Name Owner First Name

220 JACKSON STAT RD
Street or RFD

PERRYVILLE MD 21903
Town State Zip

DRILLER INFORMATION

CHARLES H. HAMILTON JR 112
Driller's Name License No

JONES & HAMILTON
Firm Name

115 N. PARADISE RD. HOG-
Address

Charles H. Hamilton Jr. 9/24/84
Signature Date

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [X] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary (AIR-PERcussion) ROTARY (Hydraulic Rotary)
CABLE REverse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [X] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE [ ] WRITE INITIALS IN BOX PERMIT No. CE-81-1231

SPECIAL CONDITIONS

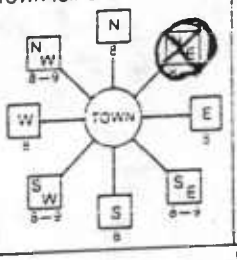
LOCATION OF WELL

B 3

CECIL Replacement
COUNTY
SUBDIVISION
SECTION LOT
PERRYVILLE
NEAREST TOWN
MILES FROM TOWN (enter 0 if in town) 2.3 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



JACKSON STAT. RD.
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 210

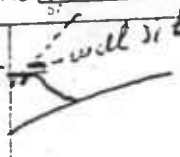
ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil
COUNTY NO
STATE HEALTH INSERTS
OEP SIGNATURE
DATE ISSUED 092484 Charles E. Simpson 3/24/85
CO SIGNATURE EXP. DATE

NORTH GRID 638000 EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

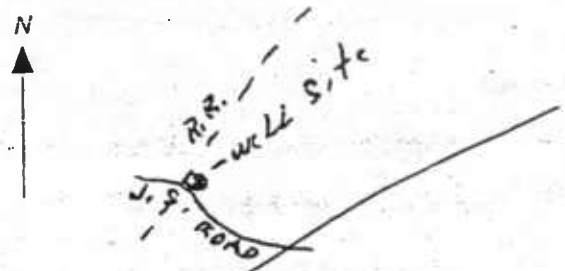


SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



well goes in front yard –

ORIGINAL

REDMANS SPRING - WELLING BACK TO BE CEMENTED

C1 3842 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER Replacement

PERMIT NO. FROM PERMIT TO DRILL (YES) CE-01-1231

DATE Received OCT 3 1984

DATE WELL COMPLETED 092584

Depth of Well 160 (TO NEAREST FOOT)

OWNER NEIDLEIN SONDRA R. (last name, first name)

STREET OR RFD 220 JACKSON STATION Rd.

TOWN [illegible]

SUBDIVISION

SECTION

LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
YELLOW SANDY CLAY	0	18	
SOFT GREEN ROCK	18	28	
HARD GREENISH GRAY GRANITE	28	160	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 8 NO. OF POUNDS 752

GALLONS OF WATER 40

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 30 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter too (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	30

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

EACH SCREEN	DEPTH (nearest ft.)		
1	40	30	160
2			
3			

SLOT SIZE: 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 5

METHOD USED TO MEASURE PUMPING RATE Bucket Water

WATER LEVEL (distance from land surface)

BEFORE PUMPING 15

WHEN PUMPING 16

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

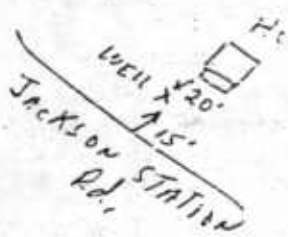
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

ORIGINAL

10/3/84 Rec.#2254 ~~MER~~ EMERGENCY/TEMP NO. IF ANY

B 1 1190 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

OEP PERMIT NUMBER: CE-81-1250

fill in this form completely

Date Received: 100384

OWNER INFORMATION

Last Name: Craig — Owner: William — First Name:

Street or RFD: 188 Chestnut Pt Rd

Town: Pennyville — State: Md — Zip: 21903

DRILLER INFORMATION

Driller's Name: Fred R Kielkopf — License No. 96

Firm Name: Middletown Well Drilling Co

Address: Odessa Delaware 19730

Signature: Fred R Kielkopf — Date: 10-1-84

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 120 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — (ROTARY) (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-81-1250

B 3 LOCATION OF WELL

Standby

COUNTY: Cecil

SUBDIVISION:

SECTION: — LOT:

NEAREST TOWN: Charles Town

MILES FROM TOWN (enter 0 if in town): 1.8 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: Chestnut Point Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): W

DISTANCE FROM ROAD: 10 FT

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT S

DATE ISSUED: 101184 — CO SIGNATURE: Charles E. Simpson — EXP. DATE: 4/11/85

NORTH GRID: 627000 — EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

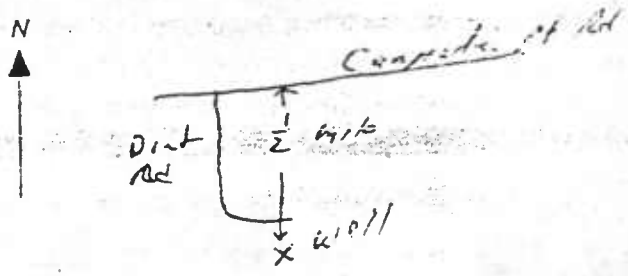
1. Can well only
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

C1 3861 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER: Standby

FROM PERMIT TO DRILL WELL: CS-81-1250

DATE Received: NOV 30 [illegible]

DATE WELL COMPLETED: 102284

Depth of Well: 50 (TO NEAREST FOOT)

OWNER: Craig (last name) 188 Chestnut Pt Rd (first name) TOWN: [illegible]

STREET OR RFD: SECTION: LOT:

SUBDIVISION:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top soil + clay	0	8	
Powder sand + clay	8	40	
Medium to Coarse Brown + white sand	40	50	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): YES Y / NO N

TYPE OF GROUTING MATERIAL: CEMENT CM / BENTONITE CLAY BC

NO. OF BAGS 16 NO. OF POUNDS 160

GALLONS OF WATER 52

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. to 46 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	46

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN	DEPTH (nearest ft.)		
1	ST	46	50
2			
3			

SLOT SIZE 1 50 2 3

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (specify below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

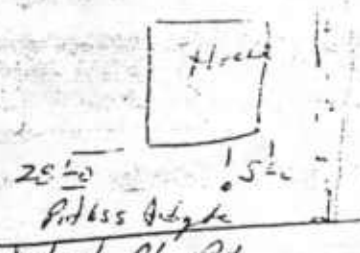
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 96

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; WQ OTHER DATA

ORIGINAL

Tel. 540. 11/5/84 Rec. #2325 MER EMERGENCY/TEMP NO. IF ANY

B 7 4180 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 1277
fill in this form completely

Date Received: 110584

OWNER INFORMATION

MCGUIRK RONALD A
Last Name / Owner / First Name

49 JACKSON STA RD
Street or RFD

PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION

CHARLES H. HAMILTON JR 112
Driller's Name / License No. 80

JONES & HAMILTON
Firm Name

115 N. PARADISE RD. HD 6-
Address

Charles H. Hamilton Jr. 10/27/84
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary (AIR-PERcussion) ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-1277

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

CECIL
COUNTY

SUBDIVISION

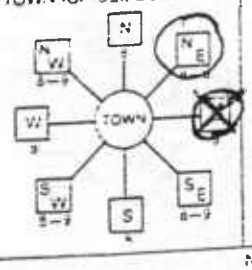
SECTION LOT

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2.4 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



JACKSON STATION RD
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

220
DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME / COUNTY NO.

OEP SIGNATURE / STATE HEALTH INSERT S

DATE ISSUED 110784 Charles E. Simpson 5/7/85
CO SIGNATURE

NORTH GRID 637000 EAST GRID 1071000

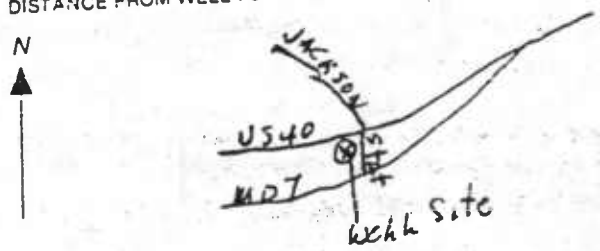
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Well goes fare left rear of lot -

ORIGINAL

C 1 3891 SEQUENCE NO. (DEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER B6288

PERMIT NO. FROM (PERMIT TO DRILL) CE-81-1277

DATE Received DEC 1 1984

DATE WELL COMPLETED 112884

Depth of Well 250 (TO NEAREST FOOT)

OWNER MC GUIRK Ronald A. (last name, first name)

STREET OR RFD 49 JACKSON STATION Rd. TOWN DERRYVILLE, Md. 21402

SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
YELLOW SAND + GRAVEL	0	45	
HARD GRAY GRANITE	45	250	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 13 NO. OF POUNDS 1222

GALLONS OF WATER 65

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 49 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	49

OTHER CASING (if used)

	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

DEPTH (nearest ft.)

EACH SCREEN			
1	HO	49	250
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3
PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 11

METHOD USED TO MEASURE PUMPING RATE Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING 30

WHEN PUMPING 190

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

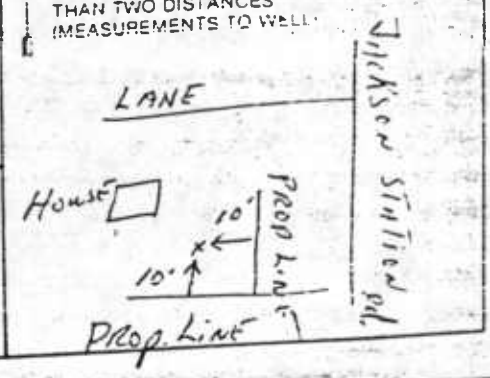
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

ORIGINAL

Pd. $40. 11/28/84 Rec. #2358-MER EMERGENCY/TEMP NO. IF ANY

B 1 0591 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 1340

Date Received: 112884

OWNER INFORMATION

ALEXANDER JOESHH
Last Name / Owner / First Name

1223 AIKEN AVE
Street or RFD

PERRYVILLE Md
Town / State / Zip

DRILLER INFORMATION

R. SEWARD — 293
Driller's Name — License No.

R.J. SEWARD & SON
Firm Name

2026 OLD COUNTY Rd NEWARK DE.
Address

Robert Seward — 11/23/84
Signature — Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 200 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — (ROTARY (Hydraulic Rotary))

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-81-1340

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

COUNTY

SUBDIVISION

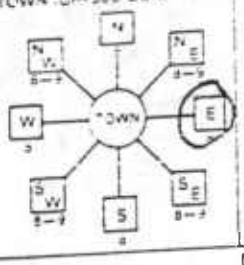
SECTION — LOT

NEAREST TOWN: PERRYVILLE

MILES FROM TOWN (enter 0 if in town): B

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FT. or MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT E

DATE ISSUED 112984 — Charles E. Smyser — 5/29/85
CO SIGNATURE

NORTH GRID 630000 — EAST GRID 1076000

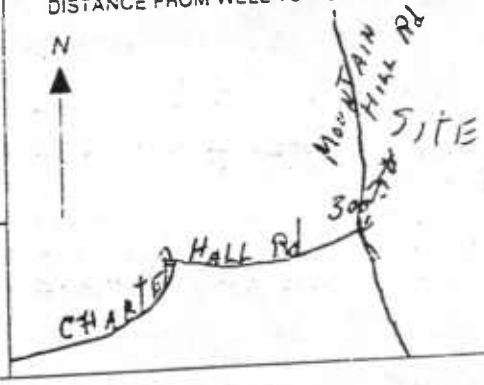
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 3950 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER [illegible]

COUNTY NUMBER 03-[illegible]

FROM PERMIT CB-70 2-1340

DATE Received 021585

DATE WELL COMPLETED 010785

Depth of Well 157 (TO NEAREST FOOT)

OWNER ALEXANDER JOESPH (last name first name)

TOWN PERRY VILLE

STREET OR RFD 1223 AIKEN AVE

SUBDIVISION

SECTION

LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOP SOIL	0	1	
GRAY CLAY	1	8	
MOTTY COLOR CLAY	8	21	
SAND & GRAVEL	21	26	
RED CLAY	26	38	
COARSE SAND	38	70	
RED CLAY	70	108	
FINE SAND	108	120	
GRAY CLAY	120	148	
COARSE SAND	148	157	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 200

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 28 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	147

OTHER CASING (if used)

	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	147	157
2			
3			

SLOT SIZE 020

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 147 to 157

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST

HOURS PUMPED (nearest tenth) 4

PUMPING RATE (gal. per min.) to nearest gal. 32

METHOD USED TO MEASURE PUMPING RATE BUCKET

WATER LEVEL (distance from [illegible])

BEFORE PUMPING 90

WHEN PUMPING 157

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (specify below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above – below LAND SURFACE

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

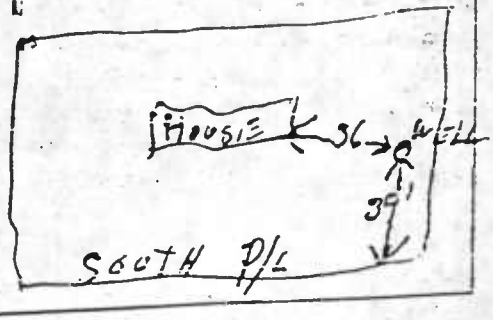
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 183

Robert Howard
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WC OTHER DATA

ORIGINAL

Pd. 340. 4/18/85 Rec.#2683-MER EMERGENCY/TEMP NO. IF ANY

B 1 1132 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 1480

Date Received: 041885

OWNER INFORMATION

Fronheiser Robert
Last Name / Owner / First Name

85 Chestnut Pt RD
Street or RFD

Perryville MD 21903
Town / State / Zip

DRILLER INFORMATION

Vernon Kirk — 159 License No.
Driller's Name

Vernon Kirk Well Drilling
Firm Name

211 Wench Rd Perryville, Md.
Address

Vernon Kirk 4-18-85
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 3

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 2000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [X] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) MOBILE HOME PARK
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 90 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: CE66GAP020

FORCE: CS WRITE INITIALS IN BOX — PERMIT No. CE-81-1480

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil
COUNTY

SUBDIVISION

SECTION — LOT

Perryville
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 3.4 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Carpenters Pt RD
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, E, S, W

DISTANCE FROM ROAD: 50

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT S

DATE ISSUED: 042485 — Charles E. Simpson 10/24/85
CC SIGNATURE

NORTH GRID: 628000 — EAST GRID: 1078000

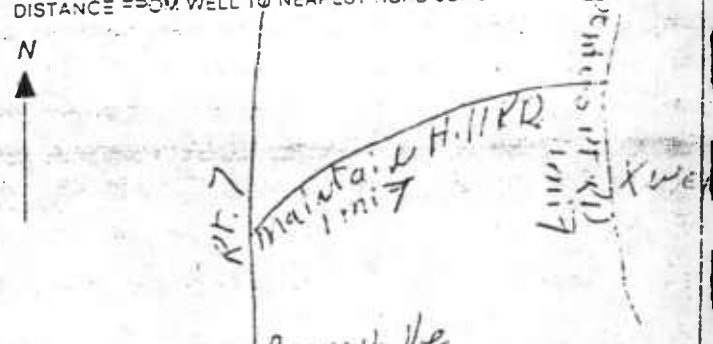
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well water
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 8718 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL IS COMPLETED

COUNTY NUMBER Chestnut Pt. Rd.

DATE Received JUN 4 1985

DATE WELL COMPLETED 050285

Depth of Well 85 (TO NEAREST FOOT)

FROM PERMIT NO. 05-81-1480

OWNER Fronheiser, Robert (last name) (first name) TOWN Perry Valley MD

STREET OR RFD 85 Chestnut Pt. Rd SECTION LOT

SUBDIVISION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	2	
Brown gravel + sand	2	20	
Blue clay	20	40	
white clay + sand	40	75	
white sand	75	85	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (to nearest foot) from 2 ft. to 20 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
St	6	80

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

DEPTH (nearest ft.) — EACH SCREEN

1	St	80	85
2			
3			

SLOT SIZE 1 ✓ 2 3

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3
PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE Bailer

WATER LEVEL (distance from lat. to ...)

BEFORE PUMPING 40

WHEN PUMPING 60

TYPE OF PUMP USED (for test)

A air P piston T ...

C centrifugal R rotary O ...

J jet S submersible

Bailer

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A C J P R S T O) IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above / − below LAND SURFACE 1 nearest

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 159

Vernon W. Kirk

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WO OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

X Well

No House

ORIGINAL

EMERGENCY/TEMP NO. IF ANY Pd. $40. 5/17/85 Rec. #2773 - [illegible]

Emergency Temp

B 1 9748 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE 81 1544 (fill in this form [illegible])

Date Received: 051785

OWNER INFORMATION

Last Name / Owner / First Name: MUSICK ARVEL B

Street or RFD: 141 JACKSON STATION RD

Town / State / Zip: PERRYVILLE MD 21903

DRILLER INFORMATION

Driller's Name: CONSTANTINE DIFILIPPO — License No. 250

Firm Name: C. DIFILIPPO Well drilling INC.

Address: 2235 Blueball Rd Elkton, Md. 21921

Signature: Constantine DiFilippo — Date: 5-17-85

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 6

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — (AIR-PERcussion) — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (S) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-81-1544

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

COUNTY: Cecil — Standby

SUBDIVISION:

SECTION: — LOT:

NEAREST TOWN: PERRYVILLE

MILES FROM TOWN (enter 0 if in town): 2.4

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, W, NW — TOWN

NEAR WHAT ROAD: JACKSON STATION RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): N, W, E

DISTANCE FROM ROAD: 200 — ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

OEP SIGNATURE — STATE HEALTH INSERT'S

DATE ISSUED: 051785 — CO SIGNATURE: Charles E. Simpson — EXP. DATE: 11/17/85

NORTH GRID: 637000 — EAST GRID: 1071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

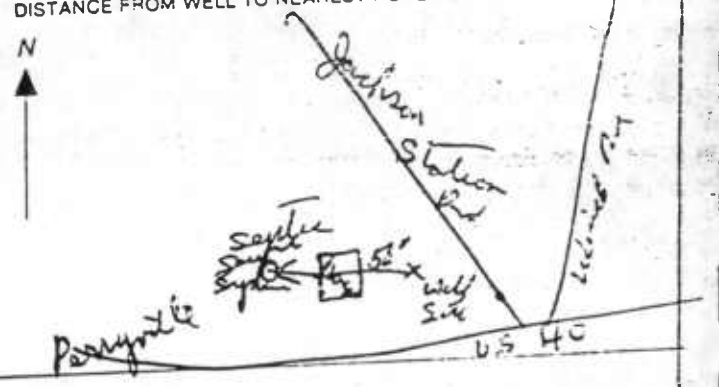
SOURCES OF DRILLING WATER
1. well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 2954 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE [illegible] 45 DAYS AFTER WELL [illegible]

COUNTY NUMBER: Stanley

DATE Received: SEP 27 1985

DATE WELL COMPLETED: 05 21 85

Depth of Well: 200 (TO NEAREST FOOT)

C B - 86 1544

OWNER: Musick Arvel B (last name, first name)

TOWN: Perryville Md. [illegible]

STREET OR RFD: 141 Jackson Station Rd

SECTION: LOT

SUBDIVISION:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
topsoil gravel & clay	0	70	
lt gray granite	70	120	✓
Quartz	120	122	✓
lt gray granite	122	200	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL: CEMENT C M — BENTONITE CLAY B C

NO. OF BAGS: 16 — NO. OF POUNDS: 155

GALLONS OF WATER: 80

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft to 75 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	75

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

DEPTH (nearest ft)

EACH SCREEN			
1	HO	75	200
2			
3			

SLOT SIZE: 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3
PUMPING TEST

HOURS PUMPED [illegible] 6

PUMPING RATE [illegible] to nearest gal [illegible]

METHOD USED TO MEASURE PUMPING RATE [illegible]

WATER LEVEL (distance from land)

BEFORE PUMPING: 50

WHEN PUMPING: 100

TYPE OF PUMP USED (for test): A air, P piston, T, C centrifugal, R rotary, O, J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL [illegible] EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE

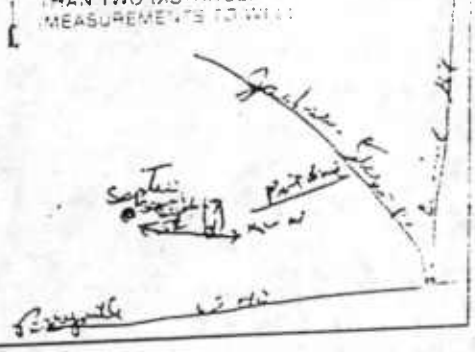
CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate [illegible] and enter casing height): + above, − below — LAND SURFACE 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE [illegible] BUILDING, SEPTIC TANKS, AND [illegible] LANDMARKS AND INDICATE [illegible] THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250

Constantine DeFilippis

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T — TELESCOPE CASING

(E.R.O.S.) — LOG INDICATOR

W.O. — OTHER DATA

ORIGINAL

Pd. $40. 6/7/85 Rec.#2818-[illegible]

EMERGENCY/TEMP NO. IF ANY

B 1 7532 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

OEP PERMIT NUMBER: C E 81 1593

Date Received: 0 6 0 7 8 5

OWNER INFORMATION

MARSHALL E EARL
Last Name / Owner / First Name

336 POPLAR POINT RD
Street or RFD

PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION

WALTER J. FRANK — 5 License No.
Driller's Name

FRANK'S WELL DRILLING, INC.
Firm Name

7014 FT. SMALLWOOD BALTO. 21226
Address

Walter J Frank — 6-6-85
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — (ROTARY) Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL — Using Neighbor's Well
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-81-1593

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil
COUNTY

POPLAR POINT
SUBDIVISION

SECTION — LOT 15

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 2.6 / 2.5

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

POPLAR POINT RD
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD: 140

ENTER FT. or M. FT.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME

OEP SIGNATURE

DATE ISSUED: 0 6 2 1 8 5

Charles E. Smyser
CO SIGNATURE

NORTH GRID: 626000 — EAST GRID: 1073000

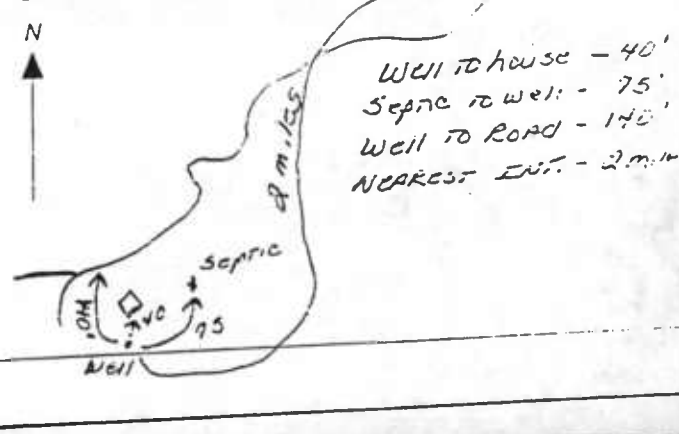
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Well to house - 40'
Septic to well - 75'
Well to Road - 140'
Nearest Int. - 2 miles

ORIGINAL

EARL MARSHALL 642-2307

C 1 2910 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE ... 45 DAYS AFTER WELL ...

COUNTY NUMBER ...

PERMIT NO. 81 1593

DATE Received AUG 14 1985

DATE WELL COMPLETED 08 07 85

Depth of Well 105 (TO NEAREST FOOT)

OWNER MARSHALL (last name) EARL (first name) TOWN PERRYVILLE

STREET OR RFD 336 POPLAR POINT RD. LOT 15

SUBDIVISION POPLAR POINT SECTION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
GRAVEL + SAND	0	10	
WHITE CLAY	10	20	
SAND + WHITE CLAY	20	30	
WHITE CLAY	30	42	
SAND	42	47	
STONE (SAND ROCK)	47	50	
STONE (SAND ROCK)	50	55	
SAND	55	65	
SAND + WHITE CLAY	65	70	
SAND	70	75	
SAND + WHITE CLAY	75	80	
WHITE + PINK CLAY	80	90	
RED CLAY	90	98	
SAND	100	105	XXX

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 30 ft

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	95

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	95	105
2			
3			

SLOT SIZE .020

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK from 95' to 105'

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST

HOURS PUMPED 3

PUMPING RATE (gal. per min.) 10 (to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE 5 GAL. BUCKET

WATER LEVEL (static level before pumping)

BEFORE PUMPING 56

WHEN PUMPING 66

TYPE OF PUMP USED (circle one)

A air P piston T turbine

C centrifugal R rotary O other (specify below)

J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED S

PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon) 9

PUMP HORSE POWER .5

PUMP COLUMN LENGTH (nearest ft.) 80

CASING HEIGHT (circle appropriate box and enter casing height) + above / − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.3 WELL CONSTRUCTION AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 5

Walter J. Frank

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES (HOUSE, BUILDING, SEPTIC TANK) AND OF LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W.Q. OTHER DATA

ORIGINAL

Pd. $40. 8/19/85 Rec.#3221-MER EMERGENCY/TEMP NO. IF ANY

B 1 8233 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

1715

Date Received 081985

OWNER INFORMATION

Cook Keith (Last Name, Owner, First Name)

97 Woodall Rd. (Street or RFD)

Charlestown Md (Town, State)

DRILLER INFORMATION

Donald S. Newnam (Driller's Name) 138 (License No.)

Shore Well Drillers (Firm Name)

Cecilton, Md (Address)

Donald S Newnam (Signature) 8/16/85 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-1715

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil (County)

Greendale (Subdivision)

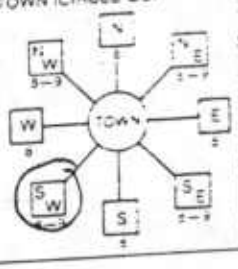
SECTION LOT

Charlestown (Nearest Town)

MILES FROM TOWN (enter 0 if in town) 2 / 1

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Woodall Rd (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 140

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil (COUNTY NAME) COUNTY NO.

OEP SIGNATURE STATE HEALTH INSERT S.

DATE ISSUED 082285 Charles E. Smyser 2/22/86 (CO SIGNATURE)

NORTH GRID 630000 EAST GRID 1080000

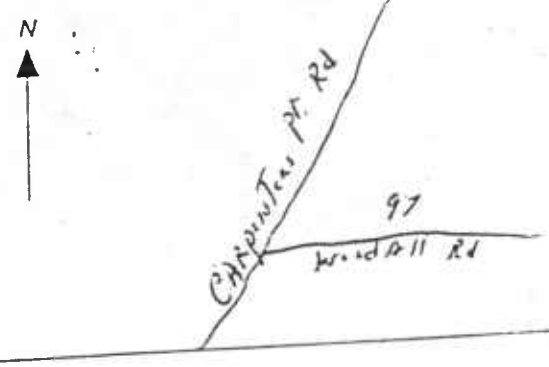
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 9781 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED 45 DAYS AFTER WELL COMPLETION

COUNTY NUMBER

DATE Received OCT 22 1985

DATE WELL COMPLETED 101585

Depth of Well 116 (TO NEAREST FOOT)

C E 81 1715

OWNER Cook, Kieth (last name) (first name) TOWN Charlestown, Md.

STREET OR RFD 97 Woodall Rd.

SUBDIVISION Greenbank SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
yellow-white sand-gravel-clay	0	35	
red-white-gray clay	35	85	
fine white sand-clay	85	101	
fine white sand	101	116	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS NO ANNULAR SPACE
GALLONS OF WATER
DEPTH OF GROUT SEAL (to nearest foot)
from ft to ft (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	106

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to
ST	2½	104	111

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	ST	111	116
2			
3			

SLOT SIZE 15

DIAMETER OF SCREEN 3 (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR WQ OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest ...)
PUMPING RATE (gal. per min. to nearest gal.)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (distance from ...)
BEFORE PUMPING
WHEN PUMPING
TYPE OF PUMP USED (for test)
A air P piston T
C centrifugal R rotary O
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE A,C,J,P,R,S,T,O IN BOX-SEE ABOVE
CAPACITY GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
− below
LAND SURFACE 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 138

Donald S. Newman

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Pd. $40. 10/15/85 Rec. #3350 EMERGENCY/TEMP NO. IF ANY

B 1 7531 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NO. CE 81 1805

Date Received 1 0 1 5 8 5

OWNER INFORMATION

HENDRICKSON TRUMAN E
Last Name / Owner / First Name

118 WOODALL RD
Street or RFD

PERRYVILL MD 21903
Town / State

DRILLER INFORMATION

WALTER J FRANK 5
Driller's Name / License No.

FRANK'S WELL DRILLING
Firm Name

7014 FT SMALLWOOD RD. Balto 21226
Address

Walter J Frank
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- X THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY D.G. Well
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-81-1805

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Replacement

CECIL
COUNTY

GREENBANK
SUBDIVISION

SECTION LOT

~~PERRYVILLE RD~~
NEAREST TOWN

CHARLESTOWN
MILES FROM TOWN (enter 0 if in town) 2.1

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N, NW, NE, W, TOWN, SW, S, SE

WOODALL RD
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

15
DISTANCE FROM ROAD FT
ENTER FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME

COUNTY NO.
STATE HEALTH NEEDS

OEP SIGNATURE

DATE ISSUED 1 0 1 5 8 5 Charles E. Smyrne 4/15/86
SIGNATURE

NORTH GRID 629000 EAST GRID 1080000

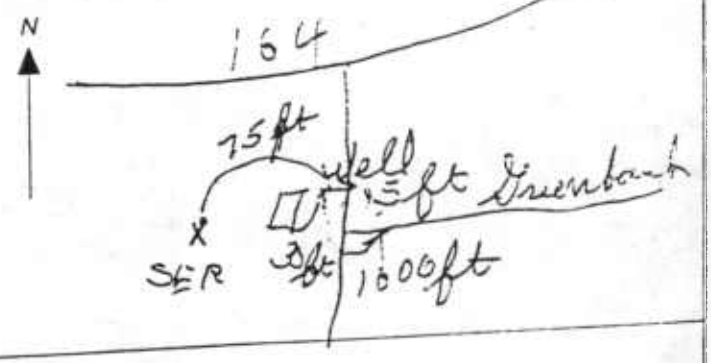
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1090
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 6272 SEQUENCE NO. (OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

COUNTY NUMBER: Rep/Abandoned

CE 81-1805

DATE Received: 0 1 9 0 8 5

DATE WELL COMPLETED: 1 0 1 8 8 5

Depth of Well: 130 (TO NEAREST FOOT)

OWNER: HENDRICKSON (last name) TRUMAN (first name) TOWN: PERRYVILLE

STREET OR RFD: 118 WOODALL RD.

SUBDIVISION: GREENBANK SECTION

WELL LOG
Not required for drilled wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
RED CLAY	0	5	
GRAY CLAY	5	20	
GRAY CLAY	20	27	
SAND + ROCKS	27	30	
GRAY CLAY	30	50	
GRAY CLAY	50	70	
SAND + GRAY CLAY	70	90	
SAND + WHITE CLAY	90	110	
SAND + WHITE CLAY	110	122	
SAND	122	130	XXX

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): Y N

TYPE OF GROUTING MATERIAL: CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot): from 0 to 30 (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	120

OTHER CASING (if used)

EACH CASING	diameter (inch)	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft)	
1	PL	121	130
2			
3			

SLOT SIZE .030

DIAMETER OF SCREEN 2" (NEAREST INCH)

GRAVEL PACK from 121' to 130'

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

HOURS PUMPED: 3

PUMPING RATE (GPM): 40

METHOD USED TO MEASURE PUMPING RATE: 5 Gal. Bucket

WATER LEVEL (feet below surface)

BEFORE PUMPING: 24

WHEN PUMPING: 33

TYPE OF PUMP USED FOR TEST: A air, P piston, T, C centrifugal, R rotary, O, J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE YES or NO): YES

IF DRILLER INSTALLS PUMP THIS REPORT MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED: S

PLACE A CIRCLE IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon): 7

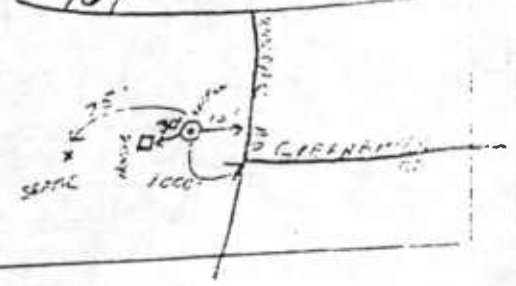
PUMP HORSE POWER: .33

PUMP COLUMN LENGTH (nearest ft): 50

CASING HEIGHT (circle appropriate box and enter nearest ft): + above, − below LAND SURFACE: 1

LOCATION OF WELL (A: show permanent structures, B: show distances to landmarks and indicate north, C: measurement to well)

164



CIRCLE APPROPRIATE LETTER
- A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 WELL CONSTRUCTION AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

DRILLERS IDENT. NO. 5

Walter J. Frank
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (70) ☐ (E.P.O.S.) LOG INDICATOR (72) ☐ WO OTHER DATA

ORIGINAL

T.#40. 11/14/91 # 75957-MTR

EMERGENCY/TEMP NO. IF ANY

1 6057 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2179
fill in this form completely

Date Received (APA): 111491

OWNER INFORMATION

Southall Janet
Last Name / Owner / First Name

20 Woodall Rd
Street or RFD

Perryville Md
Town / State / Zip

DRILLER INFORMATION

Donald S. Newnam — 138
Driller's Name — License No.

Shore Well Drillers
Firm Name

Cecilton, Md.
Address

Donald S. Newnam — 11/14/91
Signature — Date

2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-88-2179

B 3 LOCATION OF WELL

D2576

Cecil — COUNTY
Greenbank — SUBDIVISION
SECTION — LOT
Charlestown — NEAREST TOWN
MILES FROM TOWN (enter 0 if in town): 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Woodall Rd. — NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 155

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 111991 — CO SIGNATURE: Charles E. Simpson — EXP. DATE: 5/19/92

NORTH GRID: 630000 — EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

20 Woodall Rd.
D-25-76

SPECIAL CONDITIONS

ORIGINAL

T. 10. 11/14/91 # 75957 - KRT

EMERGENCY/TEMP NO. IF ANY

1 6057 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2179

fill in this form completely

Date Received (APA): 11/14/91

OWNER INFORMATION

Owner: Southall Janet

Last Name / First Name

20 Woodhill Rd

Street or RFD

Charlestown Md

Town / State / Zip

LOCATION OF WELL

B 3

Cecil — D2576

8 COUNTY

Greenbank

23 SUBDIVISION

SECTION ___ LOT ___

Charlestown

52 NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 1 MI

DRILLER INFORMATION

Donald S. Newnam — License No. 138

Driller's Name

Shore Well Drillers

Firm Name

Cecilton, Md.

Address

Donald S. Newnam — 11/14/91

Signature / Date

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Woodhill Rd.

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 155 FT

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

STATE SIGNATURE _____ INSERT S

DATE ISSUED: 11/19/91 — CO SIGNATURE: Charles E. Simpson — EXP. DATE: 5/19/92

NORTH GRID: 630000 — EAST GRID: 1079000

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other _____

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

20 Woodhill Rd.

D-25-76

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-88-2179

SPECIAL CONDITIONS

ORIGINAL

1	2995	SEQUENCE NO. (DENV USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D2576

ST/CO USE ONLY
DATE Received FEB X 4 1992

DATE WELL COMPLETED 0 1 1 4 9 2

Depth of Well 148 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2179

OWNER Southall, Janet (last name) (first name)
STREET OR RFD 20 Woodall Rd. TOWN Perryville, Md.
SUBDIVISION Greenbank SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
v-yellow			
v	0	9	
low clay-sand	9	34	
-white clay	34	126	
low-white			
i	126	148	✓

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
D TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

Donald S. Newman
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 7 NO. OF POUNDS 350
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 130 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	138

OTHER CASING (if used) EACH CASING: diameter inch, depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft.)	
1	ST	138	148
2			
3			

SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 148
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

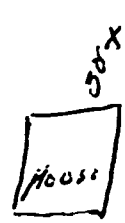
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; W Q OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min. to nearest gal.) 30
METHOD USED TO MEASURE PUMPING RATE bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 44
WHEN PUMPING 100
TYPE OF PUMP USED (for test)
A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above, − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

1 [redacted] 2995 SEQUENCE NO. (DENV USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D2576

[redacted] USE ONLY
DATE Received FEB 4 1992

DATE WELL COMPLETED 01 14 92

Depth of Well 148 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2179

[redacted]WNER Southall Janet (last name / first name) TOWN Perryville, Md.

[redacted]TREET OR RFD 20 Woodall Rd. Greenbank

[redacted]UBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, [redacted]HICKNESS AND IF WATER BEARING

[redacted]ESCRIPTION (Use [redacted]ditional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
v-[redacted]ellow			
v [redacted]	0	9	
low clay-sand	9	34	
-w[redacted]ite clay	34	126	
low-white			
i	126	148	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 7 NO. OF POUNDS 350

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP) to 130 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	138

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft.)	
1	ST	138	148
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 148

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 44

WHEN PUMPING 100

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above, − below — LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

CIRCLE APPROPRIATE LETTER

[redacted]A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

[redacted] ELECTRIC LOG OBTAINED

[redacted] TEST WELL CONVERTED TO PRODUCTION WELL

[redacted]REBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN [redacted]CORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" [redacted] IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE [redacted] CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- [redacted] HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF [redacted]OWLEDGE.

[redacted]ILLERS IDENT. NO. 138

[redacted]ILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) Donald S. Newman

[redacted] SUPERVISOR (sign. of driller or journeyman [redacted]nsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

ORIGINAL

C 1 7152 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D1747

ST/CO USE ONLY
DATE Received MAY 29 1991

DATE WELL COMPLETED 05 23 91

Depth of Well 300 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1816

OWNER GRAY Edward (last name, first name)

STREET OR RFD 591 Mountain Hill Rd. TOWN PERRYVILLE, Md. 21903

SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND & GRAVEL	0	30	
RED CLAY	30	50	
BROWN SAND	50	65	
YELLOW CLAY	65	70	
SOFT GREEN WEATHERED ROCK	70	82	
HARD GRAY GRANITE	82	300	✓

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) — yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 21 NO. OF POUNDS 1974

GALLONS OF WATER 105

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 86 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 81)	6 (63 64)	86 (66 70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN — DEPTH (nearest ft.)

1	HO (8 9)	86 (11 15)	300 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN (56 60) (NEAREST INCH)

GRAVEL PACK from ____ to ____

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING; (E.R.O.S.) (72) LOG INDICATOR; W Q (74 75 78) OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6 (8 9)

PUMPING RATE (gal. per min. to nearest gal.) 2 (11 15)

METHOD USED TO MEASURE PUMPING RATE Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING 50 (17 20)

WHEN PUMPING 210 (22 25)

TYPE OF PUMP USED (for test)

A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (describe below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) — YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

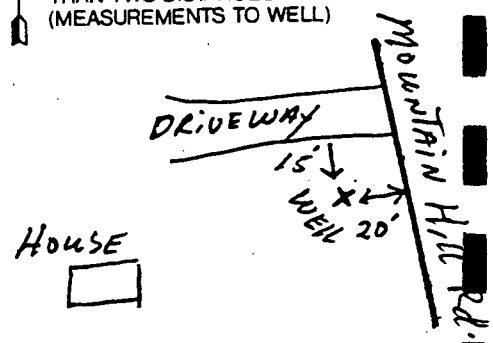
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height) — + above (49), − below (49) — LAND SURFACE 1 (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

C 1 7152 — SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D1747

ST/CO USE ONLY
DATE Received MAY 29 1991

DATE WELL COMPLETED 05 23 91

Depth of Well 300 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1816

OWNER GRAY Edward (last name, first name)
STREET OR RFD 591 Mountain Hill Rd. TOWN Perryville Md. 21903
SUBDIVISION ____ SECTION ____ LOT ____

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Brown Sand & Gravel	0	30	
Red Clay	30	50	
Brown Sand	50	65	
Yellow Clay	65	70	
Soft Green Weathered Rock	70	82	
Hard Gray Granite	82	300	✓

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E — ELECTRIC LOG OBTAINED
P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112
Charles H. Hamilton Jr.
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) — yes Y (44) / no N (44)
TYPE OF GROUTING MATERIAL
CEMENT CM (45 46) BENTONITE CLAY BC (45 46)
NO. OF BAGS 21 NO. OF POUNDS 1974
GALLONS OF WATER 105
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. (48 TOP 52) to 86 ft. (54 BOTTOM 58)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	6 (63 64)	86 (66 70)

OTHER CASING (if used) — EACH CASING
diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below
ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	HO (8 9)	86 (11 15)	300 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 ____ 2 ____ 3 ____
DIAMETER OF SCREEN ____ (56 60) (NEAREST INCH)

GRAVEL PACK from ____ to ____
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

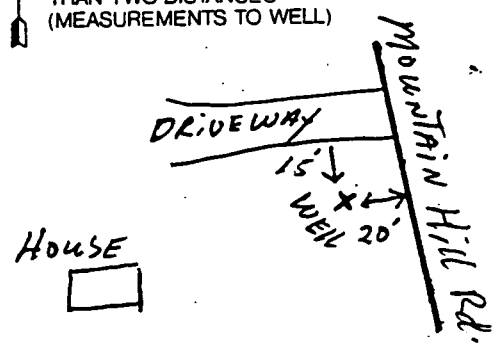
OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T (70) TELESCOPE CASING; (E.R.O.S.) (72) LOG INDICATOR; W Q (74 75 76) OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6 (8 9)
PUMPING RATE (gal. per min. to nearest gal.) 2 (11 15)
METHOD USED TO MEASURE PUMPING RATE Bucket + Watch
WATER LEVEL (distance from land surface)
BEFORE PUMPING 50 (17 20)
WHEN PUMPING 210 (22 25)
TYPE OF PUMP USED (for test)
A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (describ below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) — YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)
PUMP HORSE POWER (37 41)
PUMP COLUMN LENGTH (nearest ft.) (43 47)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above (49) / − below (49) — LAND SURFACE 1 (nearest foot) (50 51)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

642-6861 EMERGENCY/TEMP NO. IF ANY Pd. #40. #72389-MSK ~~C3993~~

B 1 8888 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-1819
fill in this form completely

Date Received (APA): 041991

OWNER INFORMATION

GRAY EDWARD
Last Name / Owner / First Name

591 MOUNTAIN HILL RD
Street or RFD

PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION

CHARLES H HAMILTON, JR — 112
Driller's Name / License No.

JONES & HAMILTON
Firm Name

115 N. PARADISE Rd. Hde G 21078
Address

Charles H Hamilton Jr. 4-16-91
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-88-1819

B 3 LOCATION OF WELL

Cecil — D1747
COUNTY

SUBDIVISION

SECTION — LOT

Perryville
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): Z MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

MOUNTAIN Hill Rd.
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 30
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME / COUNTY NO.

STATE SIGNATURE / INSERT S

DATE ISSUED: 051491 — Charles E. Simpson 11/1
CO SIGNATURE / EXP. DATE

NORTH GRID: 634000 — EAST GRID: 1075000

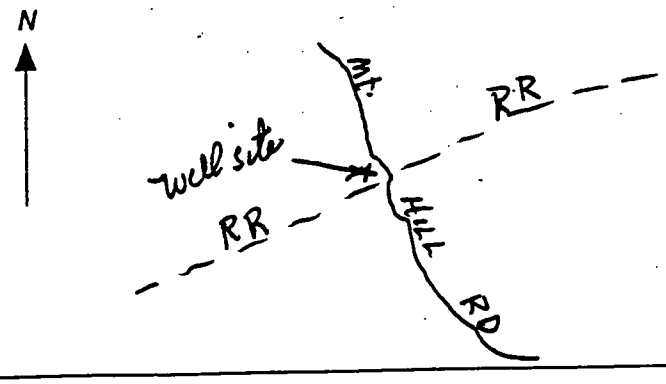
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

642-6861 EMERGENCY/TEMP NO. IF ANY Pd. #40. #72389-MSK ~~C 3993~~

B 1 8888 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-1819
fill in this form completely

Date Received (APA): 041991

OWNER INFORMATION
GRAY EDWARD
Last Name / Owner / First Name
591 MOUNTAIN HILL RD
Street or RFD
PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION
CHARLES H. HAMILTON, JR — 112
Driller's Name / License No.
JONES & HAMILTON
Firm Name
115 N. PARADISE Rd. Hde G 21078
Address
Charles H Hamilton Jr. 4-16-91
Signature / Date

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER: GAP
FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-88-1819

B 3 LOCATION OF WELL
CECIL — D1747
COUNTY
SUBDIVISION
SECTION — LOT
PERRYVILLE
NEAREST TOWN
MILES FROM TOWN (enter 0 if in town): Z MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

MOUNTAIN Hill Rd.
NEAR WHAT ROAD

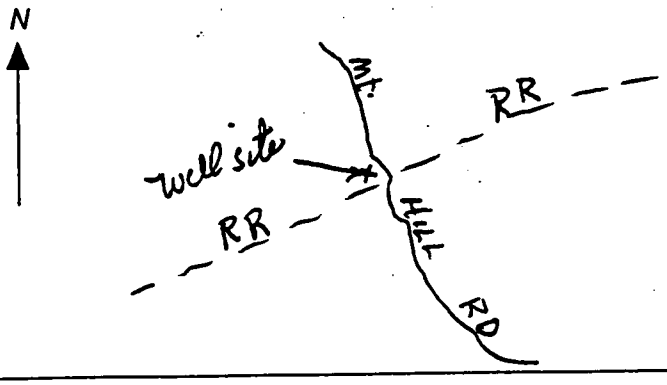
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 30
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME / COUNTY NO.
STATE SIGNATURE / INSERT S
DATE ISSUED: 051491
CO SIGNATURE: Charles E. Simpson 11/1
EXP. DATE
NORTH GRID: 634000 EAST GRID: 1075000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1.
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

C 1 2948 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D0495

ST/CO USE ONLY DATE Received NOV 5 1990

DATE WELL COMPLETED 10 31 90

Depth of Well 128 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1434

OWNER McElyea, William (last name, first name)

STREET OR RFD 160 Mt. Hill Rd. TOWN Perryville, Md.

SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
top soil	0	2	
yello sand-clay-gravel	2	20	
red-white clay	20	82	
fine sand-clay	82	113	
white sand	113	128	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS _____ NO. OF POUNDS _____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot)

from _____ ft. (TOP) to _____ ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	4	115

OTHER CASING (if used) — EACH CASING

	diameter inch	depth (feet) from	to
ST	2	112	123

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	ST	123	128
2			
3			

SLOT SIZE 1 15 2 _____ 3 _____

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK from _____ to _____

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 31

WHEN PUMPING 100

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above, − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

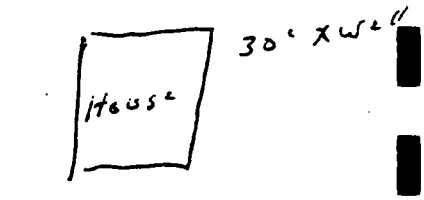
Donald S. Newman

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

ORIGINAL

Pd. #46. 9/12/90 #68712-MEK EMERGENCY/TEMP NO. IF ANY

B 1 3544 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-1434
fill in this form completely

Date Received (APA): 091290

OWNER INFORMATION

McElyea William
Last Name / Owner / First Name

160 Mt. Hill Rd
Street or RFD

Perryville Md
Town / State / Zip

DRILLER INFORMATION

Donald S. Newnam — 138
Driller's Name — License No.

Shore Well Drillers
Firm Name

Cecilton, Md. 21913
Address

Donald S. Newnam — 9/10/90
Signature — Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D — HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F — FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I — INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P — PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T — TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other _____

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N — THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y — THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S — THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D — THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-88-1434

B 3 LOCATION OF WELL

D0495

Cecil — COUNTY
Greenbank — SUBDIVISION
SECTION — LOT
Charlestown — NEAREST TOWN
MILES FROM TOWN (enter 0 if in town): 2.5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Carpenters Pt. Rd — NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 175

ENTER FT or MI: PF

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

STATE SIGNATURE _____ INSERT S

DATE ISSUED: 091790 — CO SIGNATURE: Charles E. Smyre — EXP. DATE: 3/17/

NORTH GRID: 630000 — EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town-Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

596 Carpenters Pt. Rd.

D-0495

SPECIAL CONDITIONS

ORIGINAL

10.6118120 - 6011010 1/2

4910 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE-88-1284

fill in this form completely

Date Received (APA): 06/18/90

C5655

OWNER INFORMATION

Last Name: Boyce Owner First Name: Charles

Street or RFD: Carpenters Pt. Rd

Town: Perryville State: Md Zip:

DRILLER INFORMATION

Driller's Name: Donald S. Hannam

License No.: MWD 138

Firm Name: Shore Well Drillers

Address: Cecilton, Md. 21913

Signature: Donald S. Hannam Date: 6/14/90

LOCATION OF WELL

8 COUNTY: Cecil

23 SUBDIVISION: Greenbank ~~Court~~ Farms

SECTION: LOT: 13

52 NEAREST TOWN: Charlestown

MILES FROM TOWN (enter 0 if in town): 3 MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: ~~Greenbank Rd Cts~~ ~~Carpenters Pt. Rd.~~

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 150 ~~250~~ ENTER FT or MI: FT

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 16

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.

STATE SIGNATURE: INSERT S

DATE ISSUED: 062290 CO SIGNATURE: Charles E. Simpson EXP. DATE: 12/2

NORTH GRID: 6290000 EAST GRID: 1078000

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X.

SOURCES OF DRILLING WATER

1. Town-Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

000 000

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Lot 13

Greenbank Court

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX

PERMIT No. CE-88-1284

SPECIAL CONDITIONS

ORIGINAL

1430 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: C5655

ST/CO USE ONLY — DATE Received: 10 X 5 1990

DATE WELL COMPLETED: 10 29 90

Depth of Well: 156 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-1284

OWNER: Boyce, Charles (last name, first name)

STREET OR RFD: Carpenters Pt. Rd. TOWN: Perryville, Md.

SUBDIVISION: Greenbank Farms SECTION: LOT: 13

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
low sand-clay	0	20	
m-clay-gravel	20	82	
ite clay	82	92	
low-white sand	92	156	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL: CEMENT CM — BENTONITE CLAY BC

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot): from ____ ft. (TOP) to ____ ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: ST — Nominal diameter top (main) casing (nearest inch): 4 — Total depth of main casing (nearest foot): 146

OTHER CASING (if used) — EACH CASING:

	diameter inch	depth (feet) from	to
ST	2	123	151

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN — DEPTH (nearest ft.)

1	ST	151	156
2			
3			

SLOT SIZE 1 10 2 ____ 3 ____

DIAMETER OF SCREEN: 2 (NEAREST INCH)

GRAVEL PACK from ____ to ____

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T: 1 TELESCOPE CASING — (E.R.O.S.): LOG INDICATOR — W Q: OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour): 8

PUMPING RATE (gal. per min. to nearest gal.): 20

METHOD USED TO MEASURE PUMPING RATE: bucke

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 55

WHEN PUMPING: 100

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES / NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

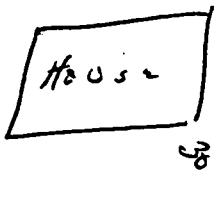
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE: 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N



CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Gerald S. Murray

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

1 1430 SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C5655

ST/CO USE ONLY
DATE Received NOV X 5 1990

DATE WELL COMPLETED 102990

Depth of Well 156 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1284

OWNER Boyce, Charles (last name, first name)
STREET OR RFD Carpenters Pt. Rd. TOWN Perryville, Md.
SUBDIVISION Greenbank Farms SECTION LOT 13

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
.low sand-clay	0	20	
ıd-clay-gravel	20	82	
.te clay	82	92	
.low-white sand	92	156	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (45)
TYPE OF GROUTING MATERIAL
CEMENT CM (45 46) BENTONITE CLAY BC (45 46)
NO. OF BAGS ____ NO. OF POUNDS ____
GALLONS OF WATER ____
DEPTH OF GROUT SEAL (to nearest foot) NO ANNULAR SPACE
from ____ ft. (48 TOP 52) to ____ ft. (54 BOTTOM 58)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST (60 61)	4 (63 64)	146 (66 70)

EACH CASING — OTHER CASING (if used)

	diameter inch	depth (feet) from	to
ST	2	123	151

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 (1 2)

EACH SCREEN — DEPTH (nearest ft.)

1	ST (8 9)	151 (11 15)	156 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 10 2 ____ 3 ____
DIAMETER OF SCREEN 2 (56 60) (NEAREST INCH)

GRAVEL PACK from ____ to ____
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 8 (8 9)
PUMPING RATE (gal. per min. to nearest gal.) 20 (11 15)
METHOD USED TO MEASURE PUMPING RATE bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 55 (17 20)
WHEN PUMPING 100 (22 25)

TYPE OF PUMP USED (for test)
A air (27) P piston (27) T turbine (27)
C centrifugal (27) R rotary (27) O other (describe below) (27)
J jet (27) S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)
PUMP HORSE POWER (37 41)
PUMP COLUMN LENGTH (nearest ft.) (43 47)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above (48) − below (49)
LAND SURFACE 1 (50 51) (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

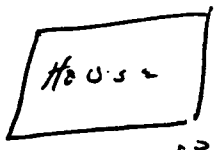
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138
Donald S. Murray
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee).

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (70) TELESCOPE CASING (E.R.O.S.) (72) LOG INDICATOR W Q (74 75 76) OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)
N



X w=4

ORIGINAL

WELL ABANDONMENT REPORT

Date 6-8-92

1228

Permit Number of Abandoned well (if any) | N | O | - | N | E | - | | | | |

Driller's Name Seward (Last) Timothy (First)

Owner's Name Lusk (Last) Marvin (First)

RECEIVED
JUN 12 1990
CECIL COUNTY
HEALTH DEPT

Cc: Ludlow 6/13/90

Well Location:

County Cecil
Subdivision Green Bank
Section — Lot —
Nearest Town Charles Town
Maryland Grid Location

Box Number E 1079 N 630

0/5	
0/0	X

Show well location by (X within box

Type of Well

(✓) Drilled
( ) Jetted
( ) Bored or Augered
( ) Other, specify

Depth of Well 160 Feet

Type of Casing

(✓) Steel
( ) Plastic
( ) Concrete
( ) Other, Specify

Size of Casing 4 Inches

Was any case removed ( ) Yes (✓) No
if yes amount removed ____ Feet

Was casing ripped or perforated
( ) Yes (✓) No

Log of Sealing Material

Material	Feet From	Feet To
Bentonite Clay	3	160'

Driller Timothy J Seward (Signature) License # 427

C 1 L 7774 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Replacement

ST/CO USE ONLY — DATE Received: JUN 12 1990

DATE WELL COMPLETED: 060390

Depth of Well: 195 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-1228

OWNER: Lusk Marvin
STREET OR RFD: 55 Clark Rd. (last name first name) TOWN: Charlestown
SUBDIVISION: Green Bank SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Clay Fill	0	4	
Sand mix	4	30	
Red Clay	30	80	
Red white Clay	80	130	
Gray Clay	130	160	
white Clay mix	160	185	
med white Sand.	185	195	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y — no N
TYPE OF GROUTING MATERIAL: CEMENT CM — BENTONITE CLAY BC
NO. OF BAGS 6 NO. OF POUNDS 300
GALLONS OF WATER 150
DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 45 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	185

OTHER CASING (if used) — EACH CASING: diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	TYPE	DEPTH (nearest ft.)	
1	PL	185	195
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 185 to 195
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 3
PUMPING RATE (gal. per min. to nearest gal.): 25
METHOD USED TO MEASURE PUMPING RATE: Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING: 95
WHEN PUMPING: 120

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (descrit below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height): + above, − below — LAND SURFACE 1 (nearest foot)

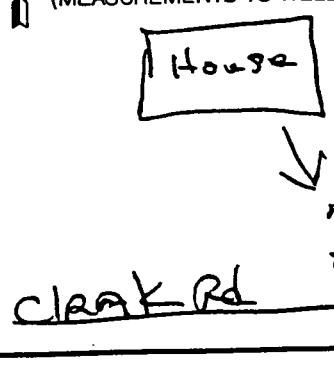
CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Timothy J Serad
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee):

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — TELESCOPE CASING; (E.R.O.S.) — LOG INDICATOR; W Q — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

B 3489 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-1228
fill in this form completely

Date Received (APA): MAY 29 1990

281-3632

OWNER INFORMATION

Last Name: Lusk — Owner — First Name: Marvin
Street or RFD: 55 Clark Rd
Town: Perryville — State: Md — Zip: 21903

DRILLER INFORMATION

Driller's Name: Timothy J Seward — License No.: MWD 427
Firm Name: RJ Seward And Son
Address: 168 Blackbird St. Rd. Townsend De 19734
Signature: Timothy J Seward — Date: 5-16-90

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 170 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — (ROTARY) (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-88-1228

B 3 LOCATION OF WELL

Replacement

COUNTY: Cecil
SUBDIVISION: Greenbank
SECTION: — LOT: —
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 3 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Clark Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 40 FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

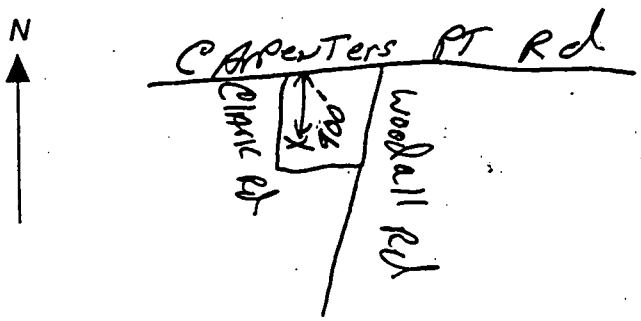
COUNTY NAME: Cecil — COUNTY NO.
STATE SIGNATURE — INSERT S
DATE ISSUED: 051790 — CO-SIGNATURE: J Joseph Moore — EXP. DATE: 11/17/90
NORTH GRID: 630000 — EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

d. #46. 3/23/90 #69886 MER

EMERGENCY/TEMP NO. IF ANY

B 1 4930 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE-88-1149

fill in this form completely

Date Received (APA): 032390

OWNER INFORMATION

Jones Mervin

Last Name / Owner / First Name

938 Leeds Rd

Street or RFD

Elkton Md 21921

Town / State / Zip

DRILLER INFORMATION

Timothy J Seward — 427

Driller's Name / License No.

RJ Seward And Son

Firm Name

158 Blackbird ST. Rd Townsend De 19734

Address

Timothy J Seward — 3-16-90

Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-88-1149

B 3 LOCATION OF WELL

Cecil — C4312

8 COUNTY

Green Bank Farms

23 SUBDIVISION

SECTION — LOT 4 — 13 Green Bank

Charlestown

52 NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 2 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N 8 — NW 8-9 — NE 8-9 — W 8 — TOWN — E 8 — SW 8-9 — S 8 — SE 8-9

Green Bank Court

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH — W 32 E — WEST — EAST — S — SOUTH

DISTANCE FROM ROAD: 15

ENTER FT or MI: 15

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 033090 — Charles E. Simpson — 9/30

CO SIGNATURE — EXP. DATE

NORTH GRID: 629000 — EAST GRID: 1078000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

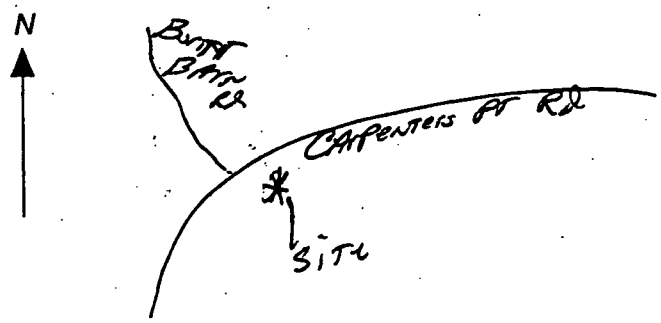
E 1070

N 620

000

000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

C1 7761 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C4312

DIST/CO USE ONLY DATE Received MAY 15 1990

DATE WELL COMPLETED 050290

Depth of Well 140 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1149

OWNER Merv. N. Jones

STREET OR RFD 13 Green Bank Rd. TOWN Charles Town

SUBDIVISION Green Bank Farms SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6"	
Fill drit	6"	5'	
Red Clay.	5'	30	
Red & white Clay	30	80	
Gray Clay	80	110	
white Clay	110	130	
med white Sand.	130	140	Y

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. TOP to 30 ft. BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
FL	4	130

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN

		DEPTH (nearest ft.)	
1	PL	130	140
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 140

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 60

WHEN PUMPING 120

TYPE OF PUMP USED (for test).

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above, − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

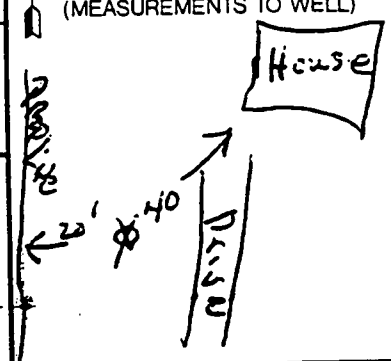
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

ORIGINAL

C 1 1878 — SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: C4294

ST/CO USE ONLY
DATE Received: OCT 19 1989

DATE WELL COMPLETED: 10 11 89

Depth of Well: 110 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-077

OWNER: Bieber Werner (last name / first name)
STREET OR RFD: 109 Poplar Pt Rd. TOWN: Perryville
SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6"	
Clay Sand mix	6	10'	
Sand Gravel	10	30	
Sand Clay mix	30	60	
Gravel Sand mix	60	80	
White Clay Sand	80	100	
med Fine Sand	100	110	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes (Y) no (N)
TYPE OF GROUTING MATERIAL
CEMENT (CM) BENTONITE CLAY (BC)
NO. OF BAGS 5 NO. OF POUNDS 250
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. (TOP) to 60 ft. (BOTTOM)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: PL
Nominal diameter top (main) casing (nearest inch): 4
Total depth of main casing (nearest foot): 100

OTHER CASING (if used) — EACH CASING
diameter inch / depth (feet) from / to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	100	110
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 100 to 110
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3
PUMPING TEST
HOURS PUMPED (nearest hour) 4
PUMPING RATE (gal. per min. to nearest gal.) 10
METHOD USED TO MEASURE PUMPING RATE: Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 50
WHEN PUMPING 100

TYPE OF PUMP USED (for test)
A air, P piston, T turbine, C centrifugal, R rotary, O other (descr. below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 1 (nearest foot)

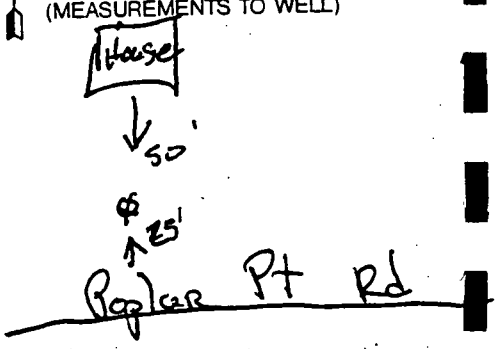
CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E — ELECTRIC LOG OBTAINED
P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — TELESCOPE CASING; (E.R.O.S.) — LOG INDICATOR; W Q — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



#440.418189 #62342-MER EMERGENCY/TEMP NO. IF ANY

B 1 | 0346 | SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-0772

fill in this form completely

Date Received (APA): 090889

OWNER INFORMATION

BIEBER WERNER (Last Name, Owner, First Name)

319 SOUTH WASHINGTON ST. (Street or RFD)

HAVRE DE GRACE MD (Town, State, Zip)

DRILLER INFORMATION

R. SEWARD (Driller's Name) — 283 (License No.)

R.J. SEWARD & SON (Firm Name)

2526 old County Rd. NEWARK DE (Address)

Robert Seward (Signature) — 9/7/89 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 120 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-88-0772

B 3 LOCATION OF WELL

C4294

CECIL (COUNTY)

SUBDIVISION

SECTION — LOT — 109 POPLAR PT Rd

PERRYVILLE (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town): 2.75 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

POPLAR PT Rd (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 30 FT

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil (COUNTY NAME) — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 091189 — CO SIGNATURE: Charles E. Smyrer — EXP. DATE: 3/11/90

NORTH GRID: 629000 — EAST GRID: 1076000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

X

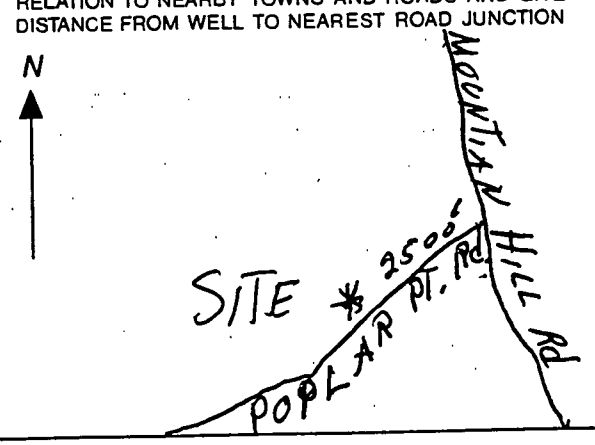
SOURCES OF DRILLING WATER
1. WELL AT OFFICE
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

OJ #40. 8/17/89 #62276-MER

EMERGENCY/TEMP NO. IF ANY

B 1 0852 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE-88-0730

fill in this form completely

Date Received (APA): 081789

OWNER INFORMATION

BAKER GEORGE W

Last Name / Owner / First Name

1576 PRINCIPIO FURN

Street or RFD

PERRYVILLE MD 21903

Town / State / Zip

DRILLER INFORMATION

CHARLES H. HAMILTON JR 112

Driller's Name / License No.

JONES & HAMILTON

Firm Name

115 N. PARADISE Rd., Hde G. 21078

Address

Charles H Hamilton Jr. 8/15/89

Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX

PERMIT No. CE-88-0730

B 3 LOCATION OF WELL

Replacement

CECIL

COUNTY

SUBDIVISION

SECTION LOT

PERRYVILLE

NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 1.5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

PRINCIPIO FURNACE (15)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 200

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME / COUNTY NO.

STATE SIGNATURE / INSERT S

DATE ISSUED: 082389

Charles E. Simpson 2/23/

CO SIGNATURE / EXP. DATE

NORTH GRID: 635000

EAST GRID: 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

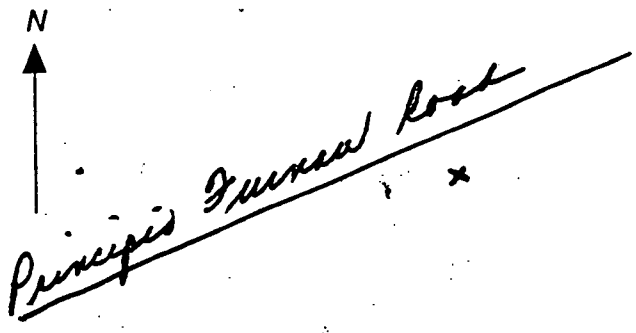
E 1070

N 630

000

000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

C 1836 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Replacement

DATE Received: SEP X 6 1989

DATE WELL COMPLETED: 083089

Depth of Well: 224 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-0730

OWNER: BAKER GEORGE W. (last name, first name)

STREET OR RFD: 1576 PRINCIPIO FURNACE RD. TOWN: PERRYVILLE, Md. 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
YELLOW SANDY CLAY	0	25	
RED CLAY	25	45	
BROWN SAND	45	67	
SOFT GREEN ROCK	67	85	
MEDIUM HARD GREEN & GRAY ROCK	85	224	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): YES Y / NO N

TYPE OF GROUTING MATERIAL: CEMENT CM; BENTONITE CLAY BC

NO. OF BAGS 23 NO. OF POUNDS 2162

GALLONS OF WATER 115

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 90 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	6	90

EACH CASING — OTHER CASING (if used): diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN — DEPTH (nearest ft.)

1	HO	90	224
2			
3			

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 4

PUMPING RATE (gal. per min. to nearest gal.): 4

METHOD USED TO MEASURE PUMPING RATE: BUCKET + WATCH

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 48

WHEN PUMPING: 180

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

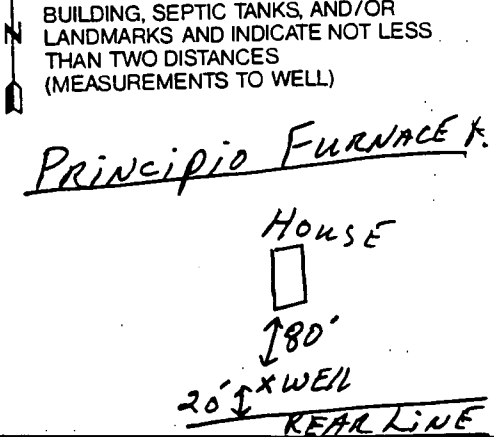
DRILLERS IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING; (E.R.O.S.) LOG INDICATOR; W Q OTHER DATA

No Fee 8/18/89 Test-MER EMERGENCY/TEMP NO. IF ANY

B 1 0590 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-0722
fill in this form completely

Date Received (APA): 08/18/89

OWNER INFORMATION
Last Name: York Building Products
First Name: Owner
Street or RFD: P O Box 1708
Town: York
State: PA
Zip: 17405

DRILLER INFORMATION
Driller's Name: Paul M. Fabiszak
License No.: 399
Firm Name: G. Edgar Harr Sons' Corp.
Address: 12047 Falls Road Cockeysville 21030
Signature: Paul M. Fabiszak
Date: 8-16-89

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): ~~750~~ 0

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- [X] H HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [ ] F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [ ] I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [ ] P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [ ] T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 200 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other _____

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
- [ ] N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [ ] Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [ ] S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [ ] D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE [ ] WRITE INITIALS IN BOX PERMIT No. CE-88-0722

SPECIAL CONDITIONS

B 3 LOCATION OF WELL
COUNTY: Cecil — Test Well
SUBDIVISION:
SECTION: LOT:
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 4 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): NW N NE W TOWN E SW S SE

NEAR WHAT ROAD: Winch Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, WEST W, EAST E, SOUTH S

DISTANCE FROM ROAD: 500

ENTER FT or MI: FT

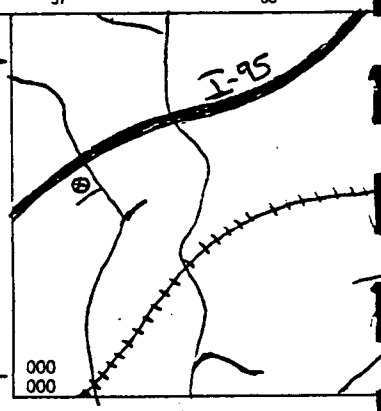
NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil
COUNTY NO.:
STATE SIGNATURE: _____ INSERT S
DATE ISSUED: 082189
CO SIGNATURE: Charles E. Simpson
EXP. DATE: 2/21/90
NORTH GRID: 645000
EAST GRID: 1071000

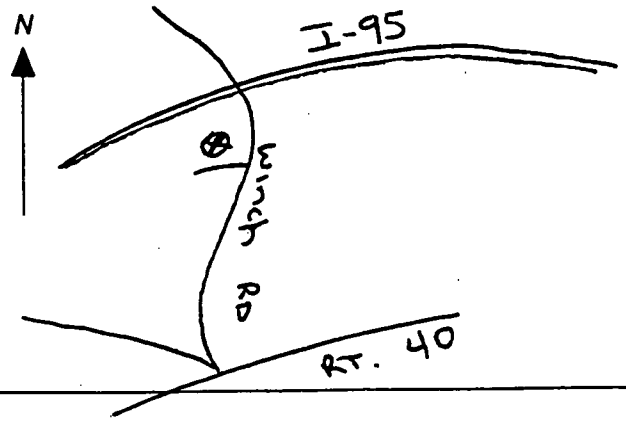
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 640



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



2717 SEQUENCE NO. (DENV USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER

STATE USE ONLY
DATE Received NOV X 7 1989

DATE WELL COMPLETED 09 29 89

Depth of Well 150 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0722

OWNER YORK BUILDING PRODUCTS
STREET OR RFD last name PO BOX 1708 first name TOWN YORK PA 17405
SUBDIVISION WINCH ROAD SECTION LOT

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
OVERBURDEN	0	5	
SAND	5	30	
BROWN CLAY	30	75	
BENTONITE	75	150	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes (Y) no N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 38 NO. OF POUNDS 7800
GALLONS OF WATER 168
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. (TOP) to 77 ft. (BOTTOM)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE: ST
Nominal diameter top (main) casing (nearest inch): 6
Total depth of main casing (nearest foot): 77

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to
ST 10	0	61

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft.)	
1	HO	77	150
2			
3			

SLOT SIZE 1 2 3
DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK from to
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
T TELESCOPE CASING
LOG INDICATOR
OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 5
METHOD USED TO MEASURE PUMPING RATE AIR
WATER LEVEL (distance from land surface)
BEFORE PUMPING 34
WHEN PUMPING 130

TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

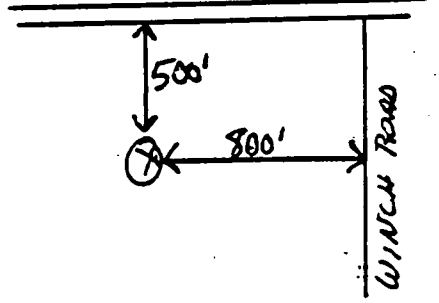
PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
− below
LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
B ELECTRIC LOG OBTAINED
C TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 399
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



2. #40. 7/17/89 #62174-MSR EMERGENCY/TEMP NO. IF ANY

B 7 6870 SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER: CE-88-0702
fill in this form completely

Date Received: 071789

OWNER INFORMATION

CHESTNUT PT M.H. PARK
Last Name / Owner / First Name

85 CHESTNUT PT Rd
Street or RFD

PERRYVILLE Md 21903
Town / State / Zip

DRILLER INFORMATION

R. SEWARD — License No. 283
Driller's Name

R. J. SEWARD & SON
Firm Name

2526 OLD COUNTY Rd NEWARK DE
Address

Robert Seward 7/13/89
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other _____

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): CE-81-1480

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: CE66GAP020

FORCE: CS (WRITE INITIALS IN BOX) PERMIT No. CE-88-0702

B 3 LOCATION OF WELL

CECIL — Chestnut Pt.
COUNTY

SUBDIVISION

SECTION — LOT — 85 CHESTNUT PT.

CHARLETOWN
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 1.75 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

CARPENTERS PT Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 30

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

OEP SIGNATURE: Bohreh Izadi — STATE HEALTH INSERT S: S

DATE ISSUED: 081089 — CO SIGNATURE: Charles E. Smyser — EXP. DATE: 2/10/

NORTH GRID: 628000 — EAST GRID: 1078000

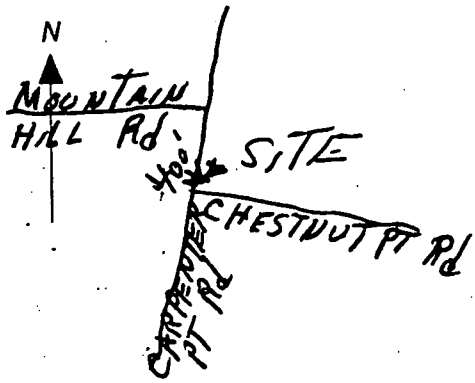
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL AT OFFICE
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

SEQUENCE NO. (DENV USE ONLY): 1807

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Chestnut Pt. MHP

DENV CO USE ONLY
DATE Received: NOV 17 1999

DATE WELL COMPLETED: 02 08 87

Depth of Well: 105 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-0702

OWNER: CHESTNUT PT MH PARK (last name) (first name)

STREET OR RFD: 85 CHESTNUT PT RD TOWN: CHARLES TOWN

SUBDIVISION: CHESTNUT PT MH PARK SECTION: — LOT: —

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOP SOIL	0	6"	
CLAY SILT	6"	3'	
SAND GRAVEL	3'	28'	
SHALE	28	28'6"	
SAND GRAVEL	28'6"	60'	
GRAY WITH RED CLAY	60	80'	
MED COARSE SAND SAND	80	105	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 6 NO. OF POUNDS 300

GALLONS OF WATER 130

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 60 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE: PL (60 61)

Nominal diameter top (main) casing (nearest inch): 4 (63 64)

Total depth of main casing (nearest foot): 95 (66 70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2 (1 2)

EACH SCREEN — DEPTH (nearest ft.)

		DEPTH (nearest ft.)	
1	PL (8 9)	95 (11 15)	105 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 #20 2 ____ 3 ____

DIAMETER OF SCREEN 4 (56 60) (NEAREST INCH)

GRAVEL PACK from 95 to 105

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

C3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour): 3 (8 9)

PUMPING RATE (gal. per min. to nearest gal.): 12 (11 15)

METHOD USED TO MEASURE PUMPING RATE: BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 60 (17 20)

WHEN PUMPING: 85 (22 25)

TYPE OF PUMP USED (for test)

A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (describ below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height): + above (49), — below (49) LAND SURFACE 1 (50 51) (nearest foot)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

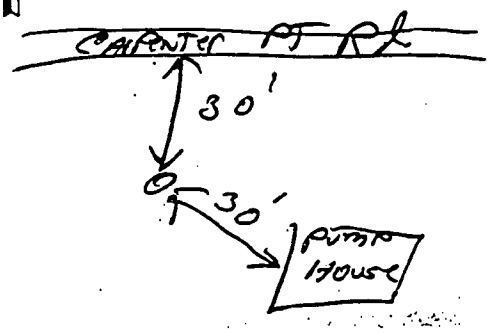
SITE SUPERVISOR (sign. of driller or journeyman) #427

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



B 1 0337 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-0696
fill in this form completely

Date Received (APA): 080989

OWNER INFORMATION
Last Name / Owner / First Name: JONE MERVIN
Street or RFD: 938 LEEds Rd
Town: ELKTON State: Md Zip: 21921

DRILLER INFORMATION
Driller's Name: R. SEWARD License No.: 283
Firm Name: R.J. SEWARD & SON
Address: 2526 old COUNTY Rd NEWARK DE
Signature: [signature] Date: 8/4/89

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER: GAP
FORCE: WRITE INITIALS IN BOX PERMIT No.: CE-88-0696

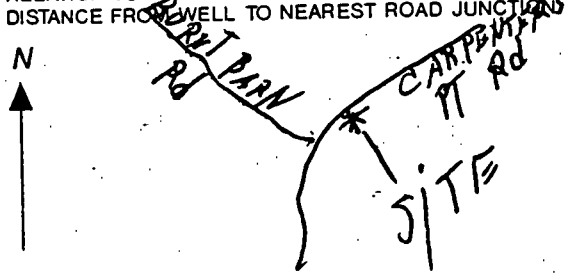
B 3 LOCATION OF WELL
C4371
COUNTY: CECIL
SUBDIVISION: GREENBANK FARMS ~~COURT~~
SECTION: LOT: 3 7 GREEN BANK
NEAREST TOWN: CHARLESTOWN
MILES FROM TOWN (enter 0 if in town): 2 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN
NEAR WHAT ROAD: CARPENTER PT Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH
DISTANCE FROM ROAD: 15
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
COUNTY NAME: Cecil COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED: 081089 CO SIGNATURE: Charles E. Simpson EXP. DATE: 2/10/9
NORTH GRID: 629000 EAST GRID: 1078000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. well at office
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

1801 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C4371

T/CO USE ONLY
DATE Received NOV 27 1989

DATE WELL COMPLETED 10/8/89

Depth of Well 145 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0696

OWNER JONES Mervin (last name, first name) TOWN Charles Town

STREET OR RFD Carpenter Pt Rd

SUBDIVISION Green Bank Farms SECTION — LOT 3

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6"	
Clay Silt	6"	3'	
Sand gravel	3'	60'	
Red Clay	60	90'	
gray Clay	90	120	
Fine Sand	120	135	✓
Med Coarse Tan-white Sand	135	145	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes (Y) no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 6 NO. OF POUNDS 300

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. TOP to 60 ft. BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	135

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN — DEPTH (nearest ft.)

1	PL	135	145
2			
3			

SLOT SIZE 1 #20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 135 to 145

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 18

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 70

WHEN PUMPING 110

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above, − below — LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283

Robert Seward

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

Tim Seward #427

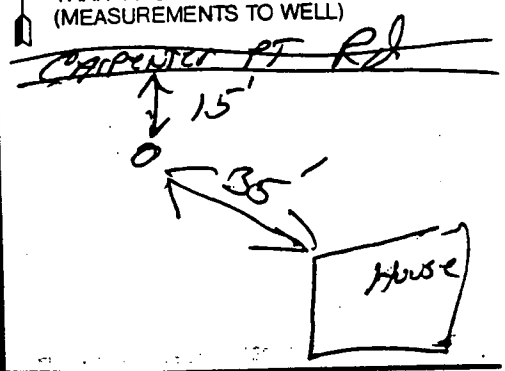
SITE SUPERVISOR (sign. of driller or journeyman

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



C 1 3000 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C4357

ST/CO USE ONLY
DATE Received DEC X 5 1989

DATE WELL COMPLETED 101089

Depth of Well 175 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0695

OWNER Jones Merwin (last name) first name

STREET OR RFD 706 Green Bank Rd. TOWN Charlestown

SUBDIVISION Green Bank Farm's SECTION ____ LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6	
Clay mix	6"	8'	
Red Clay	8	50	
Purple Clay	50	75	
Red + White Clay	75	120	
Gray Clay	120	150	
Red + White Clay	150	165	
med Fine Sand	165	175	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 6 NO. OF POUNDS 300

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. TOP to 50 ft. BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	165

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN — DEPTH (nearest ft.)

1	PL	165	175
2			
3			

SLOT SIZE 1 20 2 ____ 3 ____

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 165 to 175

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 4

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 80

WHEN PUMPING 140

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above / − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

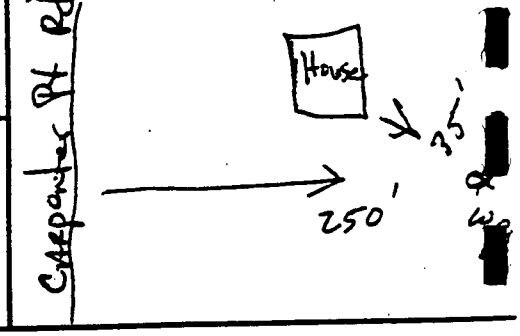
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

2840.8/9/89 #62256-MEK EMERGENCY/TEMP NO. IF ANY

B 1 | 0339 | SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-0695 (70–79)

fill in this form completely

Date Received (APA): 080989 (8–13)

OWNER INFORMATION

Jone Mervin (15 Last Name, Owner, First Name 34)

938 Leed Rd (36 Street or RFD 55)

Elkton (57 Town) Md (70 State 72) 21921 (Zip 78)

DRILLER INFORMATION

R.J. Seward (Driller's Name) 283 (77 License No. 80)

R.J. Seward & Son (Firm Name)

25260 Old County Rd. Newark De 19702 (Address)

Robert Seward (Signature) 8/4/89 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10 (8–12)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) (22)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 (24–28) FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE) 41 S2

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP (54–63)

FORCE (67–68) WRITE INITIALS IN BOX PERMIT No. CE-88-0695 (70–79)

B 3 LOCATION OF WELL

C4357

Cecil (8 COUNTY)

Greenbank ~~County~~ FARMS (23 SUBDIVISION 42)

SECTION (44–46) LOT 2 (46–50) 706 GREENBANK

Charlestown (52 NEAREST TOWN 71)

MILES FROM TOWN (enter 0 if in town) 2 (73–78) MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N 8, NE 8–9, E 8, SE 8–9, S 8, SW 8–9, W 8, NW 8–9, TOWN

Carpenter Pt Rd. (11 NEAR WHAT ROAD 30)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N, WEST W, 32, EAST E, SOUTH S

250 (34–37) DISTANCE FROM ROAD

ENTER FT or MI FT (38–39)

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

LCecil (COUNTY NAME) (COUNTY NO.)

STATE SIGNATURE INSERT S (41)

DATE ISSUED 081089 (43–48) Charles E. Smyse 2/10/ (CO SIGNATURE) (EXP. DATE)

NORTH GRID 629000 (50–55) EAST GRID 1078000 (57–63)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. well at office
2.
3.

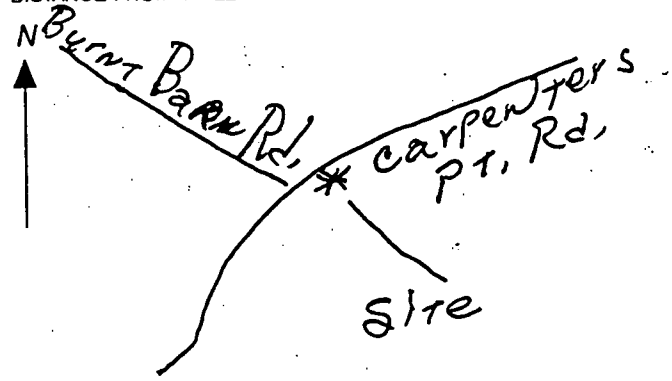
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

d. $40. 5/4/89 Rec. #59342-MER EMERGENCY/TEMP NO. IF ANY

B 1 4119 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER CE-88-0487
fill in this form completely

Date Received (APA) 050489

OWNER INFORMATION

ALBANESE JOHN
Last Name Owner First Name

138 MOUNTIAN HILL Rd
Street or RFD

PERRYVILLE MD 21903
Town State Zip

DRILLER INFORMATION

R. SEWARD 283
Driller's Name License No.

R.J. SEWARD & SON
Firm Name

2526 old COUNTY Rd NEWARK DE
Address

Robert Seward 5/1/89
Signature Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 146 FEET

APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-88-0487

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

C4014

CECIL
COUNTY

MIMOR 627
SUBDIVISION

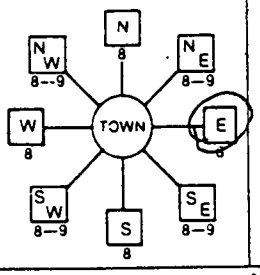
SECTION LOT 1

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2.75 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



MOUNTIAN HILL Rd.
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST EAST SOUTH

DISTANCE FROM ROAD 175

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 050989 Charles E. Simpson 11/87
CO SIGNATURE EXP. DATE

NORTH GRID 632000 EAST GRID 1076000

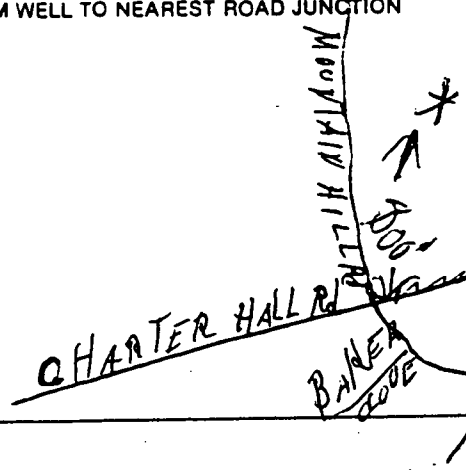
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. WELL AT OFFICE
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 3987 — SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: C4014

DATE Received: AUG 29 1989

DATE WELL COMPLETED: 050489

Depth of Well: 140 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-048

OWNER: ALBANESE JOHN (last name first name)
STREET OR RFD: 23 MOUNTIAN HILL RD TOWN: PERRYVILLE
SUBDIVISION: SECTION: LOT: 1

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
TOP SOIL	0	1	
BROWN SAND & CLAY	1	20	
BROWN CLAY	20	42	
WHITE CLAY	42	69	
GRAY CLAY	69	128	
WHITE SAND	128	140	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y (44) no N (44)
TYPE OF GROUTING MATERIAL
CEMENT CM (45 46) BENTONITE CLAY BC (46 48)
NO. OF BAGS 3 NO. OF POUNDS 15
GALLONS OF WATER 450
DEPTH OF GROUT SEAL (to nearest foot)
from 0 (48 TOP 52) ft. to 30 (54 BOTTOM 58) ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	4 (63 64)	130 (66 70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (1 2)

EACH SCREEN		DEPTH (nearest ft.)	
1	PL (8 9)	130 (11 15)	140 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 020 2 3
DIAMETER OF SCREEN 4 (56 60) (NEAREST INCH)

GRAVEL PACK from 130 to 140
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (70) (E.R.O.S.) (72) WQ (74 75 76)
TELESCOPE LOG DATA

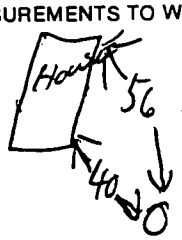
C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 2 (8 9)
PUMPING RATE (gal. per min. to nearest gal.) 20 (11 15)
METHOD USED TO MEASURE PUMPING RATE: BUCKET
WATER LEVEL (distance from land surface)
BEFORE PUMPING 90 (17 20)
WHEN PUMPING 130 (22 25)

TYPE OF PUMP USED (for test) (27)
A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX-SEE ABOVE: (29)
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)
PUMP HORSE POWER (37 41)
PUMP COLUMN LENGTH (nearest ft.) (43 47)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above (49) / − below (49) LAND SURFACE 1 (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A - A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E - ELECTRIC LOG OBTAINED
P - TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Dale Seward

SITE SUPERVISOR (sign: of driller or journeyman)

PD #40 9/27/89 #62398-MSE EMERGENCY/TEMP NO. IF ANY

B 1 8364 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-0815
fill in this form completely

Date Received (APA): 092789

OWNER INFORMATION
Last Name / Owner / First Name: Bender Construction
Street or RFD: #50 Montrose Lane
Town: Elkton
State: MD Zip: 21921

DRILLER INFORMATION
Driller's Name: Lawson Bradshaw
License No.: 416
Firm Name: Delmarva Drilling Co.
Address: PO Box 188 Bridgeville De 19933
Signature: Lawson Bradshaw
Date: 9/22/89

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 120 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED ~~Jetted & DRIVEN~~
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-88-0815

SPECIAL CONDITIONS

B 3 LOCATION OF WELL
C4836
8 COUNTY: Cecil
23 SUBDIVISION: GREENBANK
SECTION: LOT:
52 NEAREST TOWN: Charlestown MD
MILES FROM TOWN (enter 0 if in town): 2 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N 8, NE 8-9, E 8, SE 8-9, S 8, SW 8-9, W 8, NW 8-9 — TOWN

NEAR WHAT ROAD: Clark Rd.
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, WEST W, 32, EAST E, SOUTH S
DISTANCE FROM ROAD: 36
ENTER FT or MI: FT

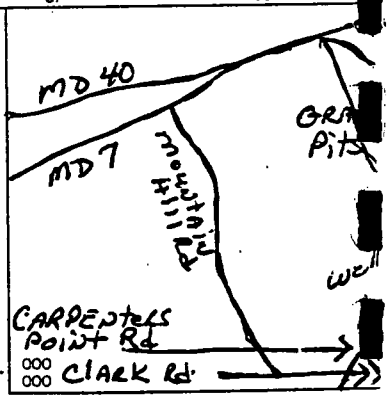
NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil
COUNTY NO.:
STATE SIGNATURE: INSERT S
DATE ISSUED: 092889
CO SIGNATURE: Charles E. Simpson
EXP. DATE: 3/28/9
NORTH GRID: 630000
EAST GRID: 1079000

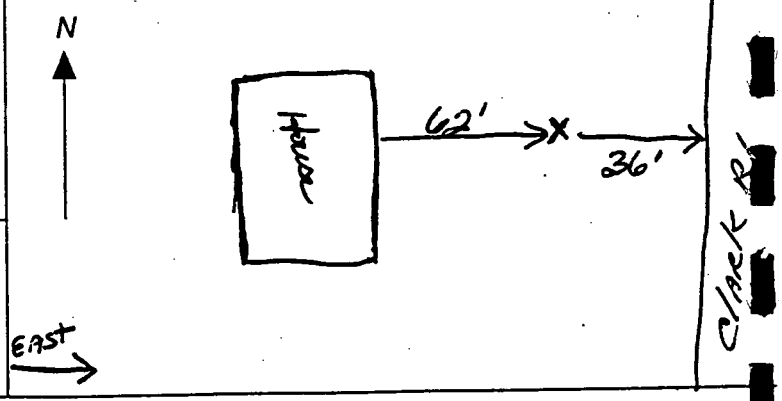
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. TANKER (DDC)
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630



DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1921 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C4836

SYCO USE ONLY
DATE Received OCT 31 1989

DATE WELL COMPLETED 100489

Depth of Well 155 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0815

OWNER Bender Construction (last name, first name)

STREET OR RFD #50 Montrose Lane TOWN Elkton

SUBDIVISION Greenbank SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
top soil	0	1	
white clay	1	19	
red white sand	19	43	
gravel	43	57	
red & white clay	57	64	
med coarse white sand	64	80	
red & white clay	80	137	
med coarse white sand	137	155	
weathered zone	155	157	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 100 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	145

EACH CASING — OTHER CASING (if used): diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2

EACH SCREEN — DEPTH (nearest ft.)

1	PL	145	155
2			
3			

SLOT SIZE 1 0 2 2 3 0

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 155

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE (E.R.O.S.) LOG W Q OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 4

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE pail

WATER LEVEL (distance from land surface)

BEFORE PUMPING 52

WHEN PUMPING 100

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) ~~YES~~ NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: 5

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, − below — LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

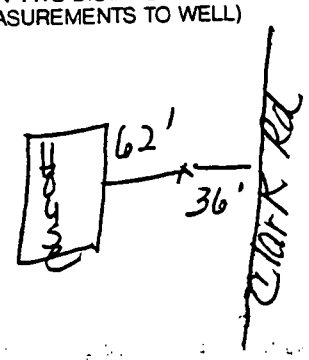
DRILLERS IDENT. NO. 416

Lawson Bradshaw

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Vd #40 - 5/29/90 #68266 - MSK EMERGENCY/TEMP NO. IF ANY

B 1 3458 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-1241
fill in this form completely

Date Received (APA): 052990

215-328 0186

OWNER INFORMATION

Robins James
Last Name / Owner / First Name

129 Woodall Rd
Street or RFD

Perryville MD 21903
Town / State / Zip

DRILLER INFORMATION

Timothy J Seward — 427
Driller's Name — License No.

RJ Seward And Son
Firm Name

158 Blackbird St. Rd Townsend De. 19734
Address

Timothy J Seward — 5-21-90
Signature — Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 130 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): None

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-88-1241

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil — Replacement
COUNTY

Greendank
SUBDIVISION

SECTION — LOT

Charlestown
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 3 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Woodall Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 20

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 053090 — Charles E. Simpson 11/
CO SIGNATURE — EXP. DATE

NORTH GRID: 629000 — EAST GRID: 1080000

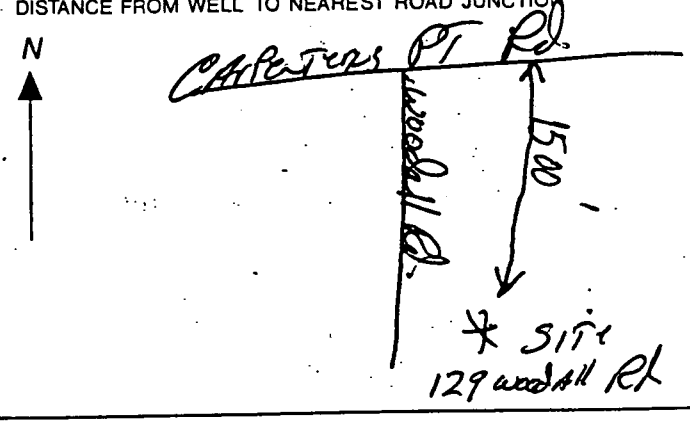
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 7787 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

SEQUENCE NO. (DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Replacement

/CO USE ONLY
DATE Received: JUL 18 1990

DATE WELL COMPLETED: 070290

Depth of Well: 120 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-88-1241

OWNER: Robin's James (last name first name)
STREET OR RFD: 129 Woodhill Rd. TOWN: Charlestown
SUBDIVISION: Green Bank SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6'	
Shale Stone	6	8'	
Sand mix	8	30	
Red clay	30	80	
Red white clay	80	100	
White clay	100	110	
Mud white sand	110	120	Y

CIRCLE APPROPRIATE LETTER
(A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427
Timothy J Seaman
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
L Chester
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes (Y) no (N)
TYPE OF GROUTING MATERIAL
CEMENT (CM) BENTONITE CLAY (BC)
NO. OF BAGS 4 NO. OF POUNDS 200
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. TOP to 40 ft. BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	110

OTHER CASING (if used) EACH CASING: diameter (inch), depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	TYPE	DEPTH (nearest ft.)	
1	PL	110	120
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 110 to 120
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
TELESCOPE CASING LOG INDICATOR OTHER DATA

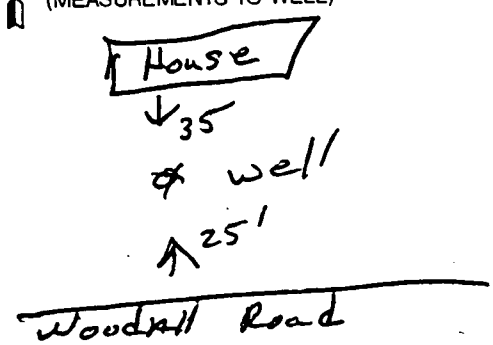
C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 15
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 60
WHEN PUMPING 95

TYPE OF PUMP USED (for test)
(A) air, P piston, T turbine, C centrifugal, R rotary, O other (describ below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES (NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE (nearest foot) 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



C 1 | 4876 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D5743

ST/CO USE ONLY
DATE Received AUG X 3 1994

DATE WELL COMPLETED 07 25 94

Depth of Well 127 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-93-0380

OWNER Beddoe, Michael (last name) first name

STREET OR RFD Rd Box 4817 TOWN Thomlson, Pa. 18465

SUBDIVISION Green Bank SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
yellow sand clay	0	32	
Red-white clay	32	122	
Coarse white sand	122	127	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] no [N]

TYPE OF GROUTING MATERIAL

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 8 NO. OF POUNDS 400

GALLONS OF WATER 200

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP) to 121 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	123

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2

EACH SCREEN	TYPE	DEPTH (nearest ft.) from	to
1	PL	123	127
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 121 to 127

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 25

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 37

WHEN PUMPING 86

TYPE OF PUMP USED (for test)

[A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describe below) [J] jet [S] submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) [+] above [−] below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

X

90-

House

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 25

Donald S. Neuman

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

1/2 @ 80.3/11/94 # 92979-MTR EMERGENCY/TEMP NO. IF ANY D5743

B 1 08519 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-93-0380
fill in this form completely

Date Received (APA): 04 01 94

OWNER INFORMATION

Beddoe Michael
Last Name / Owner / First Name

RD Box 48A
Street or RFD

Thomtson PA 18465
Town / State / Zip

DRILLER INFORMATION

Donald S. Newnam — 25
Driller's Name — License No.

Shore Well Drillers
Firm Name

Cecilton, Md. 21913
Address

Donald S. Newnam — 3/30/94
Signature — Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-93-0380

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil — D5743
COUNTY

Greenbank
SUBDIVISION

SECTION — LOT

Charlestown
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 2 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Woodall Rd.
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 120
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 04 05 94 — Charles E. Smyser — 04/04,
CO SIGNATURE — EXP. DATE

NORTH GRID: 630000 — EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

47 Woodall Road
D5743

ORIGINAL

Pd #80. 1/19/94 #91

ENCY/TEMP NO. IF ANY

Replacement

B 1 08503 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CB-93-0296

fill in this form completely

Date Received (APA): 011994

OWNER INFORMATION

Last Name: Black Hill Owner First Name: Rangerstn

Street or RFD: McKinneytown Rd

Town: Northeast State: Md Zip:

DRILLER INFORMATION

Driller's Name: Donald S. Newnam License No.: 25

Firm Name: Shore Well Drillers

Address: Cecilton, Md. 21913

Signature: Donald S. Newnam Date: 1/19/94

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [ ] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 250 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): CE-04-5547

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: CE93GAP039

FORCE: CS WRITE INITIALS IN BOX PERMIT No.: CB-93-0296

B 3 LOCATION OF WELL

Standby R95

COUNTY: Cecil

SUBDIVISION:

SECTION: LOT:

NEAREST TOWN: Northeast

MILES FROM TOWN (enter 0 if in town): 4 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: McKinneytown Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 300

ENTER FT or MI: PT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.:

STATE SIGNATURE: INSERT S

DATE ISSUED: 012694 CO SIGNATURE: Charles E. Snyder EXP. DATE: 1/25/

NORTH GRID: 626000 EAST GRID: 1098000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

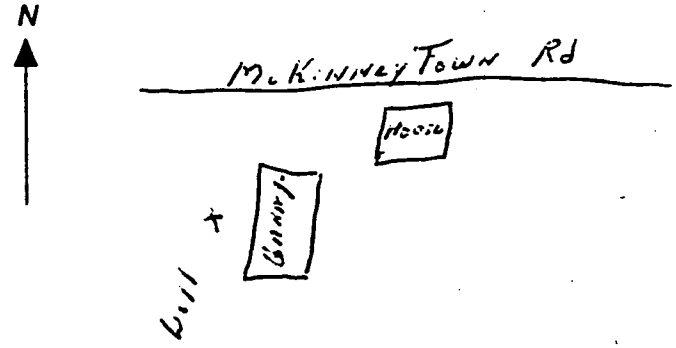
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1090

N 620

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

1 | 1055 | SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Standby R-958-89

T/CO USE ONLY
TE Received: MAR 21 1991

DATE WELL COMPLETED: 031694

Depth of Well: 241 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-93-0296

WNER: Black Hill Ranger Station (last name / first name)
STREET OR RFD: McKinney Town Rd TOWN: North East, Md.
SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

ESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
ellow-white sand-clay	0	11	
ed-white-gray clay	11	113	
hite-gray clay-sand	113	136	
ed-white-gray clay	136	213	
fine white sand	213	226	
oarse white sand	226	241	✓

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 25

Donald S. Newman
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N
TYPE OF GROUTING MATERIAL: CEMENT CM / BENTONITE CLAY BC
NO. OF BAGS: 10 NO. OF POUNDS: 80
GALLONS OF WATER: 200
DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. to 230 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	231

OTHER CASING (if used): diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	231	241
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 230 to 241
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

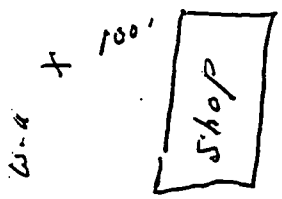
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (TELESCOPE CASING) | (E.R.O.S.) LOG INDICATOR | W Q OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour): 6
PUMPING RATE (gal. per min. to nearest gal.): 30
METHOD USED TO MEASURE PUMPING RATE: bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING: 162
WHEN PUMPING: 230
TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: S
CAPACITY: GALLONS PER MINUTE (to nearest gallon): 10
PUMP HORSE POWER: 1
PUMP COLUMN LENGTH (nearest ft.): 220
CASING HEIGHT (circle appropriate box and enter casing height): + above, − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
2500 BROENING HIGHWAY, BALTIMORE, MARYLAND 21224, (410) 631-3784

****

WATER WELL ABANDONMENT-SEALING REPORT FORM

****

SUBMIT COPIES OF COMPLETED FORM TO:

* COUNTY ENVIRONMENT AGENCY (contact MDE, WMA if address needed)
* WELL OWNER
* MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 8/19/96 (month/day/year)

UNKNOWN 1960'S LATE CONSTRUC

* PERMIT NUMBER OF ABANDONED WELL (if any): CE-04-5547 ?
* PERMIT NUMBER OF REPLACEMENT WELL: CE-93-0296

* PERSON ABANDONING WELL: E.J. DOUGHERTY w/DNR
WELL DRILLERS LICENSE NUMBER: N/A
CIRCLE: MWD/MSD/MC
* OWNER'S NAME: DNR - FOREST SERVICE
* WELL LOCATION:

COUNTY: CECIL
NEAREST TOWN: NORTHEAST
TAX MAP ____ BLOCK ____ PARCEL ____
SUBDIVISION: ____
SECTION: ____ LOT: ____

MARYLAND GRID COORDINATES
BOX NUMBER E ____ N ____ <____

000 000	

SHOW WELL LOCATION BY X WITHIN BOX

* TYPE OF WELL BEING ABANDONED:

X DRILLED ____ JETTED
____ BORED/AUGUERED ____ HAND DUG
____ OTHER (specify) ____

* USE CODE:

X DOMESTIC ____ MUNICIPAL/PUBLIC
____ IRRIGATION ____ INDUSTRIAL
____ TEST/OBSERVATION

* TYPE OF CASING:

X STEEL ____ PLASTIC
____ CONCRETE ____ OTHER (specify) ____

* SIZE OF CASING: 6 ø INCHES IN DIAMETER
* DEPTH OF WELL: 200 Ft FEET DEEP MEASURED w/ STRING LINE
* WAS ANY CASING REMOVED? ____ YES X NO
if yes, length removed, in feet: ____
* WAS CASING RIPPED OR PERFORATED? ____ YES X NO

LOG OF SEALING MATERIAL

MATERIAL	FEET FROM	FEET TO
3/8" BENTONITE CHIPS PLUG EVERY 30 Ft w/ WASHED PEA GRAVEL BETWEEN PLUGS - WELL IN PIT ~ 5 Ft ↓ GRADE		

MWD/MSD/MGD 8/19/96
SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE # CIRCLE ONE DATE

ERIC J. DOUGHERTY, MDE WMA

DENV 828 JULY 1993

C 1386 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Repl. R572

SWCO USE ONLY — DATE Received: OCT 20 1993

DATE WELL COMPLETED: 09 23 93

Depth of Well: 61 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-93-0094

OWNER: FOLSMAN, BRIAN (last name, first name)

STREET OR RFD: 392 Mountain Hill Rd. TOWN: Perryville

SUBDIVISION: — SECTION: — LOT: —

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil	0	6	
Silty Sand	6"	3'	
Sand gravel	3'	18'	
multi color clay	18	34	
Pea gravel	34	44	
Med Coarse Sand	44	61	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes (Y) 44 — no (N) 44

TYPE OF GROUTING MATERIAL: CEMENT (CM) 45 46 — BENTONITE CLAY (BC) 45 46

NO. OF BAGS: 3 — NO. OF POUNDS: 150

GALLONS OF WATER: 75

DEPTH OF GROUT SEAL (to nearest foot): from 0 (48 TOP 52) ft. to 30 (54 BOTTOM 58) ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL — CO CONCRETE — PL PLASTIC — OT OTHER

MAIN CASING TYPE: PL (60 61) — Nominal diameter top (main) casing (nearest inch): 4 (63 64) — Total depth of main casing (nearest foot): 51 (66 70)

OTHER CASING (if used) — EACH CASING: diameter inch / depth (feet) from / to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL — BR BRASS BRONZE — HO OPEN HOLE — PL PLASTIC — OT OTHER

C 2

EACH SCREEN	Type	DEPTH (nearest ft.) from	to
1	PL (8 9)	51 (11 15)	61 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 20 2 ___ 3 ___

DIAMETER OF SCREEN: 4 (56 60) (NEAREST INCH)

GRAVEL PACK: from 51 to 61

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 3 (8 9)

PUMPING RATE (gal. per min. to nearest gal.): 5 (11 15)

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 45 (17 20)

WHEN PUMPING: 55 (22 25)

TYPE OF PUMP USED (for test) (27): A air — P piston — T turbine — C centrifugal — R rotary — O other (describe below) — J jet — S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES — NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: S (29)

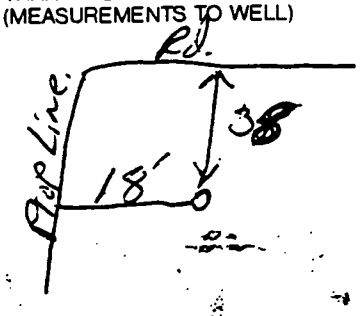
CAPACITY: GALLONS PER MINUTE (to nearest gallon): 05 (31 35)

PUMP HORSE POWER: 1.5 (37 41)

PUMP COLUMN LENGTH (nearest ft.): 55 (43 47)

CASING HEIGHT (circle appropriate box and enter casing height): + above (49) — − below (49) — LAND SURFACE: 1 (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER

(A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 09

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Timothy J. Arnold

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING — (E.R.O.S.) (72) LOG INDICATOR — W Q (74 75 76) OTHER DATA

Pd. 80.00 9/20/93 # 88542 [illegible]

EMERGENCY/TEMP NO. IF ANY

B 1 00026 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-93-0094

fill in this form completely

Date Received (APA): 092093

642-2306

OWNER INFORMATION

Last Name: Forsman — Owner: Brian — First Name

Street or RFD: 592 Mountainhill Rd

Town: Perryville — State: Md — Zip: 21903

DRILLER INFORMATION

Driller's Name: Timothy J Seward — License No.: 097

Firm Name: RJ Seward And Son

Address: 158 Blackbird St. Rd Townsend Oc 19734

Signature: Timothy J Seward — Date: 9-20-93

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 70 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): None

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-93-0094

B 3 LOCATION OF WELL

Repl. R572

COUNTY: Cecil

SUBDIVISION:

SECTION: — LOT: —

NEAREST TOWN: Perryville

MILES FROM TOWN (enter 0 if in town): 2.5 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Mountain Hill Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 25

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 092193 — CO SIGNATURE: Charles E. Smyser — EXP. DATE: 9/20/

NORTH GRID: 635000 — EAST GRID: 1075000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well At Office.
2.
3.

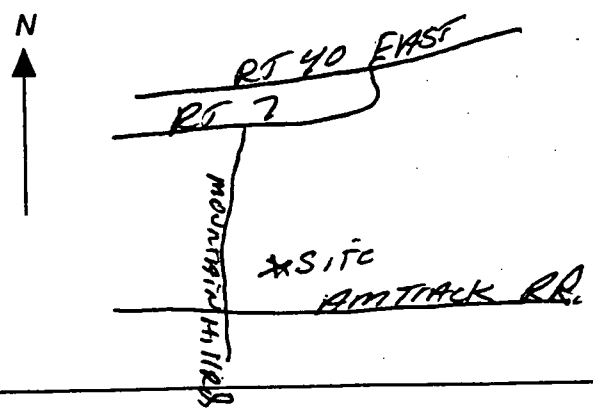
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

1333 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: D5835

F/CO USE ONLY — DATE Received: OCT 28 1993

DATE WELL COMPLETED: 10/15/93

Depth of Well: 185 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CF-93-0041

OWNER: Wood David Janet (last name first name)

STREET OR RFD: PO Box E — TOWN: North East

SUBDIVISION: Green Bank — SECTION: — LOT: 1

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil	0	6	
Sand gravel	6	20	
Sand clay mix	20	29	
Fine Sand	29	40	
Red clay	40	80	
Gray clay	80	110	
Fine gray sand	110	140	
Silty sand	140	160	
Med coarse white sand	160	185	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] no [N]

TYPE OF GROUTING MATERIAL: CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS: 4 NO. OF POUNDS: 200

GALLONS OF WATER: 100

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. to 40 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: STEEL [ST], CONCRETE [CO], PLASTIC [PL], OTHER [OT]

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	04	175

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below: STEEL [ST], BRASS BRONZE [BR], OPEN HOLE [HO], PLASTIC [PL], OTHER [OT]

C2

EACH SCREEN	TYPE	DEPTH (nearest ft.)	
1	PL	175	185
2			
3			

SLOT SIZE 1: 20 3:

DIAMETER OF SCREEN: 4 (NEAREST INCH)

GRAVEL PACK: from 175 to 185

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST
HOURS PUMPED (nearest hour): 3

PUMPING RATE (gal. per min. to nearest gal.): 15

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 85

WHEN PUMPING: 160

TYPE OF PUMP USED (for test): [A] air, [P] piston, [T] turbine, [C] centrifugal, [R] rotary, [O] other (describe below), [J] jet, [S] submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): above / below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 097

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Timothy J. Beard

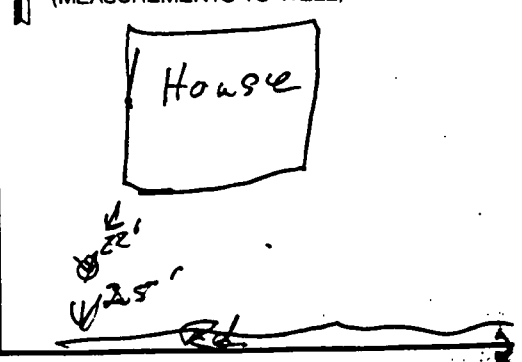
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — TELESCOPE CASING

(E.R.O.S.) — LOG INDICATOR

W Q — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Pd. $80. 8/06/93 #87928 MSE

EMERGENCY/TEMP NO. IF ANY

B 1 00034 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-93-0041

fill in this form completely

Date Received (APA): 081693

PAUL PALMER

OWNER INFORMATION

Last Name: WOOD — Owner: DAVID — First Name: JANET

Street or RFD: PO BOX E

Town: NORTHEAST — State: MD — Zip:

DRILLER INFORMATION

Driller's Name: Timothy J Seward — License No.: 097

Firm Name: R.J. Seward And Son

Address: 158 Blackbird St. Rd Townsend Pa 19734

Signature: Timothy J Seward — Date: 8/12/93

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 180 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX — PERMIT No. CE-93-0041

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

D5835

COUNTY: CECIL

SUBDIVISION: GREEN BANK

SECTION: — LOT: 1

NEAREST TOWN: CHARLESTOWN

MILES FROM TOWN (enter 0 if in town): 2 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Clark Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 150

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.:

STATE SIGNATURE: — INSERT S:

DATE ISSUED: 081893 — CO SIGNATURE: [signature] — EXP. DATE: 8/17/94

NORTH GRID: 630000 — EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well at office
2.
3.

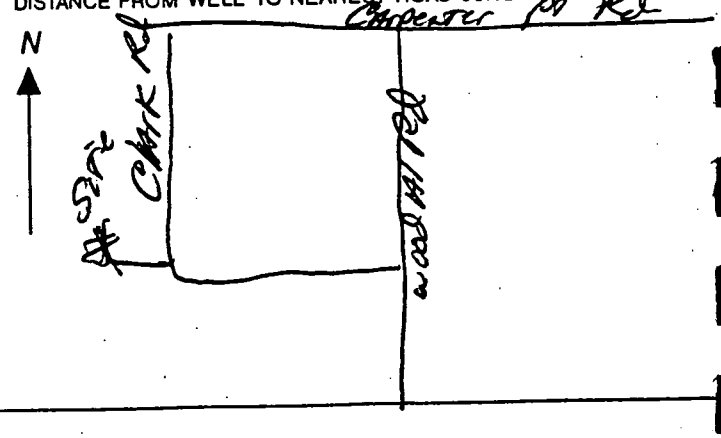
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C1	1331	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3	6			COUNTY NUMBER R746

(THIS NUMBER IS TO BE PUNCHED COLS. 3-6 ON ALL CARDS)

DT/CO USE ONLY
DATE Received JAN 25 1994 (13)

DATE WELL COMPLETED 120393 (16–20)

Depth of Well 139 (22–26) (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-93-0039 (28–38)

OWNER Brown Joanne (last name) (first name)
STREET OR RFD 113 Wood All TOWN Charlestown
SUBDIVISION Green Bank SECTION _____ LOT _____

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6	
Sand Clay mix	6	10	
Shale + Clay	10	20	
Red Clay	20	60	
Gray + White Clay	60	80	
White Clay Sand mix	80	130	
med Coarse Sand	130	139	X

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 097

Timothy J. Sand

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

[signature]

SITE SUPERVISOR (sign. of driller or journeyman

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45–46) BENTONITE CLAY BC (45–46)

NO. OF BAGS 5 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48–52) ft. to 60 (54–58) ft. (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60–61)	4 (63–64)	129 (66–70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C2 (1–2)

EACH SCREEN — DEPTH (nearest ft.)

1 PL (8–9)	129 (11–15)	139 (17–21)
2 (23–24)	(26–30)	(32–36)
3 (38–39)	(41–45)	(47–51)

SLOT SIZE 1 10 2 ____ 3 ____

DIAMETER OF SCREEN 4 (56–60) (NEAREST INCH)

GRAVEL PACK from 129 to 139

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING — (E.R.O.S.) (72) LOG INDICATOR — W Q (74–76) OTHER DATA

C3 (1–2)

PUMPING TEST

HOURS PUMPED (nearest hour) 3 (8–9)

PUMPING RATE (gal. per min. to nearest gal.) 20 (11–15)

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 60 (17–20)

WHEN PUMPING 120 (22–25)

TYPE OF PUMP USED (for test)

A air (27) P piston (27) T turbine (27)
C centrifugal (27) R rotary (27) O other (describ below) (27)
J jet (27) S submersible (27)

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

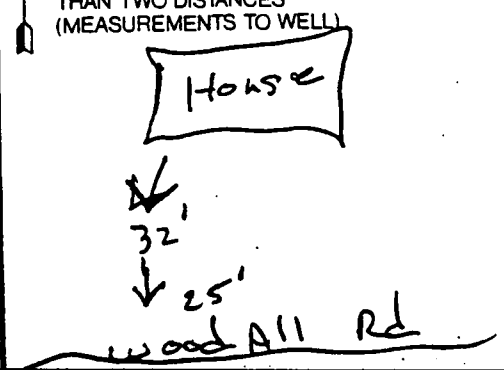
PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above (49) / − below (49) LAND SURFACE (50–51) (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Vol. 80 8/10/93 #87900 BPM

EMERGENCY/TEMP NO. IF ANY

B 1 00013 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-93-0039

fill in this form completely

Date Received (APA): 081093

398-6400-EXT 2166

OWNER INFORMATION

Brown Joanne C

Last Name / Owner / First Name

113 Woodall Rd

Street or RFD

Perryville Md 21903

Town / State / Zip

DRILLER INFORMATION

Timothy J Seward 097

Driller's Name / License No.

R J Seward And Son

Firm Name

158 Blackbird St. Rd Townsend De 19734

Address

Timothy J Seward 8/9/93

Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion (ROTARY) (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): CE-73-2089

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-93-0039

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil Repl. R746

COUNTY

Greenbank

SUBDIVISION

SECTION LOT

MAP 35 Block 16 Parcel 247

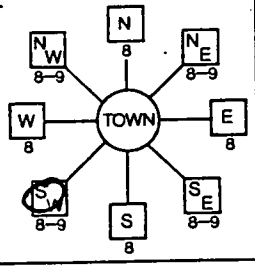
Charlestown

NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 4 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Woodall Rd

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH / WEST / EAST / SOUTH

DISTANCE FROM ROAD: 20

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME / COUNTY NO.

STATE SIGNATURE / INSERT S

DATE ISSUED: 081893 CO SIGNATURE: S Joseph Moore EXP. DATE: 8/17/9

NORTH GRID: 631000 EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

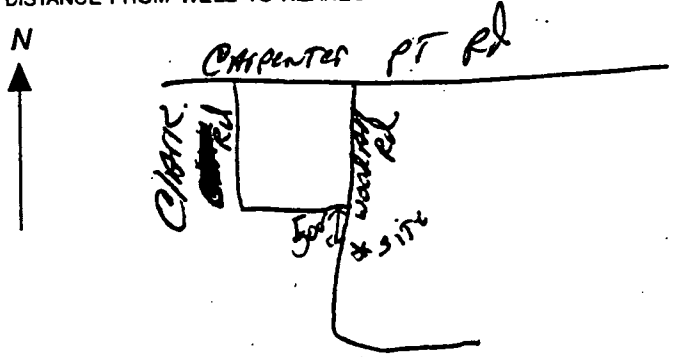
1. well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



80, 6125173 - 86822 - MEK EMERGENCY/TEMP NO. IF ANY

1 00073 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0441
fill in this form completely

Date Received (APA): 062593

OWNER INFORMATION
Last Name / Owner / First Name: Rhodes Ronnie
Street or RFD: 103 Cow Lane
Town: Elkton State: Md Zip: 21921

DRILLER INFORMATION
Driller's Name: Donald S. Newham License No. 25
Firm Name: Shore Well Drillers
Address: Cecilton, Md. 21913
Signature: Donald S. Newham Date: 6/24/93

WELL INFORMATION
2
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0441

SPECIAL CONDITIONS

LOCATION OF WELL
B 3
COUNTY: Cecil C5621
SUBDIVISION: Greenbank Farms
SECTION: LOT: 6
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 1 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N 8, NE 8-9, E 8, SE 8-9, S 8, SW 8-9, W 8, NW 8-9 — TOWN

NEAR WHAT ROAD: Greenbank Court

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, WEST W, 32, EAST E, SOUTH S

DISTANCE FROM ROAD: 525
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.
STATE SIGNATURE: INSERT S
DATE ISSUED: 070193 CO SIGNATURE: Charles E. Simpson EXP. DATE: 6/30/
NORTH GRID: 630000 EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

106 Greenbank Court
C 5621

C 1 | 1223 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER C5621

ST/CO USE ONLY — DATE Received SEP 15 1993

DATE WELL COMPLETED 09 10 93

Depth of Well 132 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-0441

OWNER Rhodes, Ronnie

STREET OR RFD 103 last name Cow Land first name TOWN Elkton, Md.

SUBDIVISION Green Bank Farms SECTION LOT 6

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Red-white clay	0	12	
yellow sand-clay-gravel	12	56	
Red-white clay	56	106	
Red-white-gray clay	106	127	
yellow-white sand	127	132	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 8 NO. OF POUNDS 640

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP) to 127 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	127

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN

		DEPTH (nearest ft.)	
1	PL	127	132
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 127 to 132

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

TELESCOPE LOG OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 25

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 30

WHEN PUMPING 60

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) + above − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 25

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N

House 40' x w

B 1 | 00006 | SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0414

fill in this form completely

Date Received (APA): 061093

OWNER INFORMATION

Ritter (Last Name) Jeff (Owner First Name)

208 Waters Edge Dr (Street or RFD)

Newark (Town) De 19702 (State Zip)

DRILLER INFORMATION

Timothy J Seward (Driller's Name) 097 (License No.)

RJ Seward Andson (Firm Name)

158 Blackbird St. Rd Townsend De 19734 (Address)

Timothy J Seward (Signature) 5/20/93 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0414

B 3 LOCATION OF WELL

Cecil (COUNTY) D5199

Green Bank (SUBDIVISION)

SECTION LOT

Charlestown (NEAREST TOWN)

MILES FROM TOWN (enter 0 if in town): 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

Green Bank Rd (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 200

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil (COUNTY NAME) (COUNTY NO.)

STATE SIGNATURE INSERT S

DATE ISSUED: 061693 CO SIGNATURE: Charles E. Simpson EXP. DATE: 6/16/94

NORTH GRID: 629000 EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

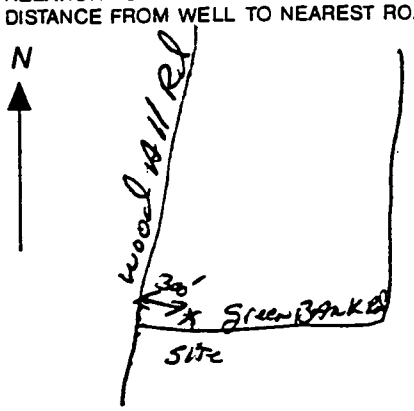
SOURCES OF DRILLING WATER
1. well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

C 1 7798 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Replacement

ST/CO USE ONLY — DATE Received: AUG 3 0 1993

DATE WELL COMPLETED: 08 26 93

Depth of Well: 200 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-92-0416

OWNER: GILBERT Richard (last name / first name)

STREET OR RFD: 297 JACKSON STATION Rd. TOWN: PERRYVILLE, Md 21903

SUBDIVISION: SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
YELLOW + BROWN SAND + GRAVEL	0	25	
YELLOW CLAY	25	31	
SOFT GREEN WEATHERED ROCK	31	38	
HARD GREEN + GRAY GRANITE	38	200	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y / no N

TYPE OF GROUTING MATERIAL: CEMENT CM; BENTONITE CLAY BC

NO. OF BAGS 11 NO. OF POUNDS 1034

GALLONS OF WATER 66

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. TOP to 40 ft. BOTTOM (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL; CO CONCRETE; PL PLASTIC; OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	6	40

OTHER CASING (if used) — EACH CASING: diameter (inch), depth (feet) from / to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL; BR BRASS BRONZE; HO OPEN HOLE; PL PLASTIC; OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	HO	40	200
2			
3			

SLOT SIZE 1 ___ 2 ___ 3 ___

DIAMETER OF SCREEN ___ (NEAREST INCH)

GRAVEL PACK from ___ to ___

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST

HOURS PUMPED (nearest hour): 3

PUMPING RATE (gal. per min. to nearest gal.): 8

METHOD USED TO MEASURE PUMPING RATE: Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 41

WHEN PUMPING: 165

TYPE OF PUMP USED (for test): A air; P piston; T turbine; C centrifugal; R rotary; O other (describe below); J jet; S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

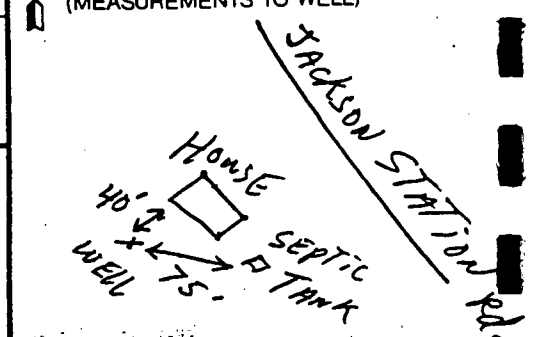
DRILLER'S IDENT. NO. 112

Charles H. Hamilton Jr.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T: 70 — (E.R.O.S.): 72 — W Q: 74 75 76

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

22 #80. #85 Y 12 4/22/93 MSR EMERGENCY/TEMP NO. IF ANY

B 1 | 2094 | SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0334
fill in this form completely

Date Received (APA): 042293

OWNER INFORMATION
Last Name: GROSS Owner: BARBRA First Name:
Street or RFD: 131 Devonshire Rd
Town: Wilmington State: De Zip: 19803

DRILLER INFORMATION
Driller's Name: Donald S. Newnam License No.: 138
Firm Name: Shore Well Drillers
Address: Cecilton, Md. 21913
Signature: Donald S. Newnam Date: 4/22/93

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0334

SPECIAL CONDITIONS

B 3 LOCATION OF WELL
COUNTY: Cecil
SUBDIVISION: Greenbank
SECTION: LOT:
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 2 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: 64 Woodall Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 200
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

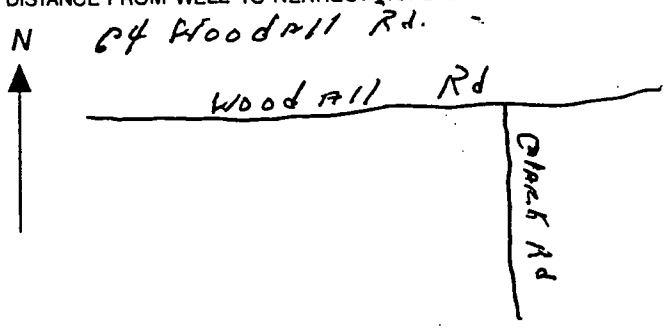
COUNTY NAME: Cecil COUNTY NO.:
STATE SIGNATURE: INSERT S
DATE ISSUED: 042393 CO SIGNATURE: Charles E. Simpson EXP. DATE: 04/23/
NORTH GRID: 630000 EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1 8241 — SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Greenbank

ST/CO USE ONLY
DATE Received: JUN 8 1993

DATE WELL COMPLETED: 05 20 93

Depth of Well: 157 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-92-0334

OWNER: Gross, Barbara
STREET OR RFD: 131 Devonshire Rd — last name — first name — TOWN: Wilmington, Del.
SUBDIVISION: Green bank — SECTION — LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top soil	0	1	
yellow clay	1	8	
white clay-sand			
gravel	8	52	
Red-white clay	52	146	
White sand	146	151	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y — no N
TYPE OF GROUTING MATERIAL: CEMENT CM — BENTONITE CLAY BC
NO. OF BAGS 10 — NO. OF POUNDS 800
GALLONS OF WATER 225
DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 146 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL — CO CONCRETE — PL PLASTIC — OT OTHER

MAIN CASING TYPE: PL — Nominal diameter top (main) casing (nearest inch): 4 — Total depth of main casing (nearest foot): 147

OTHER CASING (if used) EACH CASING: diameter inch — depth (feet) from — to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL — BR BRASS BRONZE — HO OPEN HOLE — PL PLASTIC — OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	147	151
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 146 to 151
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — (E.R.O.S.) — W Q
TELESCOPE — LOG INDICATOR — OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 6
PUMPING RATE (gal. per min. to nearest gal.): 15
METHOD USED TO MEASURE PUMPING RATE: bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING: 52
WHEN PUMPING: 80

TYPE OF PUMP USED (for test)
A air — P piston — T turbine
C centrifugal — R rotary — O other (describe below)
J jet — S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height): + above — − below — LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E — ELECTRIC LOG OBTAINED
P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138
Donald S. Newman
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

'd #80, 4/19/93 # 85457-MSE

EMERGENCY/TEMP NO. IF ANY

B 1 2093 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0328
fill in this form completely

Date Received (APA): 041993

OWNER INFORMATION

Last Name: MORRISON Owner: Philip First Name:
Street or RFD: 1307 AIKEN AVE EXT
Town: PERRYVILLE State: Md Zip:

DRILLER INFORMATION

Driller's Name: Donald S. Newnam License No. 138
Firm Name: Shore Well Drillers
Address: Cecilton, Md. 21913
Signature: Donald S. Newnam Date: 4/19/93

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 150 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0328

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

D5096

COUNTY: Cecil
SUBDIVISION: GREENBANK FARMS 2
SECTION: LOT: 7
NEAREST TOWN: CHARLESTOWN ~~PERRYVILLE~~
MILES FROM TOWN (enter 0 if in town): 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: 39 GREENBANK COURT

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 30
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.:
STATE SIGNATURE: INSERT S
DATE ISSUED: 042293 CO SIGNATURE: Charles E. Simpson EXP. DATE: 4/22
NORTH GRID: 630000 EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Town - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

000
000

X

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

39 GREENBANK COURT
GREENBANK FARMS 2
D5096

C 1 | 8234 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D5096

ST/CO USE ONLY DATE Received: JUN 8 1993

DATE WELL COMPLETED: 05 19 93

Depth of Well: 118 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-92-0328

OWNER Morrison Philip (last name) (first name)

STREET OR RFD 130 Aiken Ave. Ext. TOWN Perryville, Md.

SUBDIVISION Greenbank Farms 2 SECTION ____ LOT 7

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Red-white clay	0	8	
White sand-clay-gravel	8	46	
White clay-sand	46	57	
Red-white clay	57	62	
White clay-sand	62	102	
Coarse white sand	102	118	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] no [N]

TYPE OF GROUTING MATERIAL: CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 7 NO. OF POUNDS 560

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 105 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: [ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	113

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: [ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	113	118
2			
3			

SLOT SIZE 1 20 2 ____ 3 ____

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 105 to 118

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 [ ]

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 40

WHEN PUMPING 80

TYPE OF PUMP USED (for test): [A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describe below) [J] jet [S] submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above / − below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

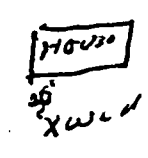
Donald S. Newman

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N



OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T [ ] TELESCOPE CASING (E.R.O.S.) [ ] LOG INDICATOR W Q [ ] OTHER DATA

Pd #80-[illegible] #05453-[illegible]

EMERGENCY/TEMP NO. IF ANY

1 02941 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE-92-0322

fill in this form completely

Date Received (APA): 041693

Merita Jones

OWNER INFORMATION

Holman Windel

Last Name / Owner / First Name

51 Greenbank Court

Street or RFD

Perryville Md 21903

Town / State / Zip

DRILLER INFORMATION

Timothy J Seward — 427

Driller's Name / License No.

RJ Seward And Son

Firm Name

158 Blackbird St. Rd Townsend De. 19734

Address

Timothy J Seward — 4/14/93

Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-92-0322

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

D5171

Cecil — COUNTY

Greenbank FARMS — SUBDIVISION

SECTION — LOT 9 — D-5171

Charlestown — NEAREST TOWN

MILES FROM TOWN (enter 0 if in town): 01 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

Greenbank Court — NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 50

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil — COUNTY NAME / COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED: 041993 — Charles E. Smyser — 4/19/94

CO SIGNATURE — EXP. DATE

NORTH GRID: 629000 — EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

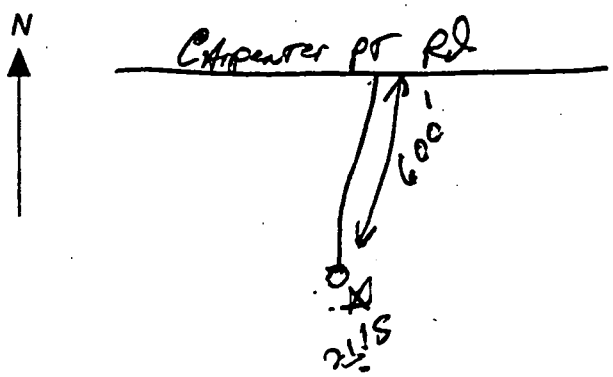
1. well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 8229 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D5171

ST/CO USE ONLY DATE Received: AUG 16 1993

DATE WELL COMPLETED: 07 20 93

Depth of Well: 150 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-92-0322

OWNER Holman Windel (last name first name)

STREET OR RFD 57 Green Bank Ct. TOWN Parkville Md.

SUBDIVISION Green Bank Farms SECTION ____ LOT 8

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil	0	6	
Clay	6"	31	
Sand Clay mix	3'	18'	
Silty Sand Clay mix	18	26	
Coarse Sand	26	36	
Coarse Sand gravel	36	48	
Red Clay	48	60	
Yellow white Clay	60	80	
Silty Sand	80	100	
Fine Sand	100	130	
Coarse Sand	130	150	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 5 NO. OF POUNDS 250

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48) ft. TOP (52) to 50 (54) ft. BOTTOM (58)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE: PL (60 81)

Nominal diameter top (main) casing (nearest inch): 09 (63 64)

Total depth of main casing (nearest foot): 140 (66 70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN

	Type	DEPTH from (nearest ft.)	DEPTH to
1	PL	140	150
2			
3			

SLOT SIZE 1 20 2 ____ 3 ____

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 140 to 150

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 2

PUMPING RATE (gal. per min. to nearest gal.): 20

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 80

WHEN PUMPING: 120

TYPE OF PUMP USED (for test)

A air (27) P piston (27) T turbine (27)

C centrifugal (27) R rotary (27) O other (describe below) (27)

J jet (27) S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above (49) / − below (49) LAND SURFACE 1 (nearest foot) (50 51)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

C — TEST WELL CONVERTED TO PRODUCTION WELL

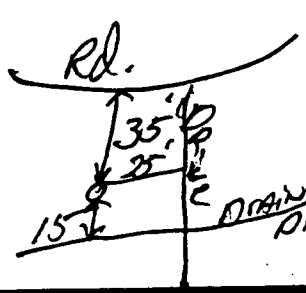
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 097

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman if different from permittee)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

MAY 2 0 1993

Use with CE-92-0320

CE Service Well Program 5/14/93

WELL ABANDONMENT REPORT

Date 4-27-

Permit Number of Abandoned Well (If any) N/A

Driller's Name Chester (Last) LARRY (First)

Owner's Name CONRAD (Last) THOMAS (First)

Well Location:

County Cecil
Subdivision GREEN BANK
Section Woodall Rd. Lot 108
Nearest Town Charles Town
Maryland Grid Location

Box Number E 1080
N 630

0/5	
X 0/0	

Show well location by within box

Type of Well

(✓) Drilled
( ) Jetted
( ) Bored or Augered
( ) Other, specify

Depth of Well 40 Feet

Type of Casing

(✓) Steel
( ) Plastic
( ) Concrete
( ) Other, Specify

Size of Casing 6 Inches

Was any case removed ( )Yes (✓) No
If Yes amount removed ____ Feet

Was casing ripped or perforated
( ) Yes (✓) No

Log of Sealing Material

Material	Feet From	Feet To
Bentonite Clay	3	40
Cement plug	3	2

Driller [signature] (Signature)

License # 225

C 1 8227 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Replacement

ST/CO USE ONLY DATE Received MAY 17 1993

DATE WELL COMPLETED 042793

Depth of Well 140 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-032C

OWNER Conrad Thomas
last name first name
STREET OR RFD 108 Wood All Rd. TOWN
SUBDIVISION GREEN BANK SECTION LOT 108

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6	
Sand mix	6	5	
Yellow Clay	5.	30	
Red Clay	30	80	
Red + White Clay	80	110	
White Clay	110	130	
med. Fine white Sand	130	140	K

CIRCLE APPROPRIATE LETTER
(A) A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

Timothy J Seward
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman ... if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes (Y) no (N)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 5 NO. OF POUNDS 250
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 70 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	130

OTHER CASING (if used) EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL	130	140
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 140
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

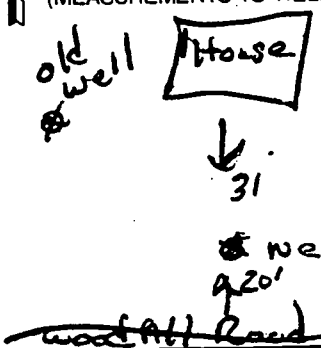
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W Q OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 10
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 55
WHEN PUMPING 100
TYPE OF PUMP USED (for test)
(A) air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES (NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
(+) above (−) below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



'd #80. 4/13/93 # 85433-MSR EMERGENCY/TEMP NO. IF ANY

B 1 | 02924 | SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0320 (70 fill in this form completely 79)

Date Received (APA): 041393

OWNER INFORMATION

Last Name: CONRAD Owner First Name: THOMAS

Street or RFD: 108 WOODALL Rd

Town: Perryville State: Md Zip: 21903

DRILLER INFORMATION

Driller's Name: Timothy J Seward License No. 427

Firm Name: R. J. Seward And Son

Address: 158 Blackbird St. Rd Townsend De. 19734

Signature: Timothy J Seward Date: 3/29/93

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion (ROTARY) (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): CE-73-2584

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0320

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

COUNTY: Cecil Repl.

SUBDIVISION: GreenBank

SECTION: LOT: 108 woodall Rd

NEAREST TOWN: CHARLESTOWN

MILES FROM TOWN (enter 0 if in town): 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: WOODALL RD.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 20

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED: 041693 CO SIGNATURE: Charles E. Sunyer EXP. DATE: 4/16/94

NORTH GRID: 630000 EAST GRID: 1080000

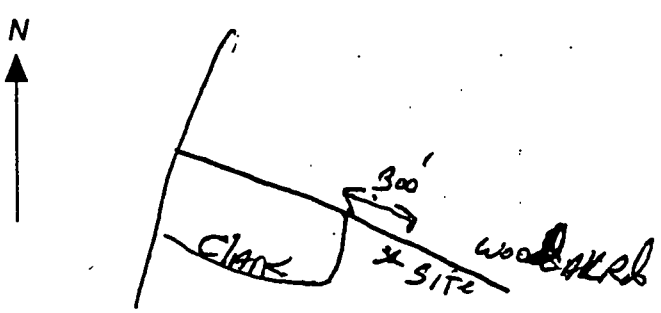
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. well at office.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



MAY 3 0 1993

Use with CE-92-0290

Cc: Septics & Wells Program 5/14/93

WELL ABANDONMENT REPORT

Date 4-25-93

Permit Number of Abandoned Well (If any) No TAG

Driller's Name Chester (Last) Larry (First)

Owner's Name Rider (Last) Ronald (First)

Well Location:

County Cecil
Subdivision GREEN BANK
Section Clark Rd. Lot 46
Nearest Town Charles Town
Maryland Grid Location

Box Number E 1070
N 630

0/5	
0/0	

Show well location by within box

Type of Well

(✓) Drilled
( ) Jetted
( ) Bored or Augered
( ) Other, specify

Depth of Well 95 Feet

Type of Casing

(✓) Steel
( ) Plastic
( ) Concrete
( ) Other, Specify

Size of Casing 6 Inches

Was any case removed ( )Yes (✓) No
If Yes amount removed ____ Feet

Was casing ripped or perforated
( ) Yes (✓) No

Log of Sealing Material

Material	Feet From	Feet To
Bentonite Clay	3 -	95
Cement Plug.	3 -	2

Driller [signature] (Signature)

License # 235

C 7771 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Replacement

SYCO USE ONLY
DATE Received MAY 17 1993

DATE WELL COMPLETED 042593

Depth of Well 198 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-0290

OWNER Rider Ronald
last name first name
STREET OR RFD 46 Clark Rd TOWN Charlestown
SUBDIVISION Green Band SECTION LOT 46

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Clay	0	5	
Clay mix	5	20	
Red Clay	20	70	
Red & White Clay	70	120	
White Clay	120	160	
Med Coarse Sand.	160	178	✓

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

Timothy J Sewell
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

[signature]
SITE SUPERVISOR (sign. of driller or journeyman ... if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 5 NO. OF POUNDS 250
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 70 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	168

EACH CASING — OTHER CASING (if used): diameter inch, depth (feet) from, to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	PL	168	178
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 168 to 178
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

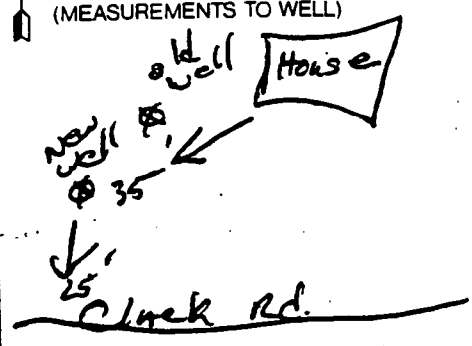
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W Q OTHER DATA A

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 15
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 45
WHEN PUMPING 100
TYPE OF PUMP USED (for test)
A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Pd. #80. 3/16/93 # 84667-MSK EMERGENCY/TEMP NO. IF ANY

B 1 7688 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-92-0290
fill in this form completely

Date Received (APA): 031693

OWNER INFORMATION
Last Name: Rider — Owner: Ronald — First Name:
Street or RFD: 3004 Octagon Ave
Town: Sinking Spring — State: PA — Zip: 19608

DRILLER INFORMATION
Driller's Name: Robert Seward — License No.: 283
Firm Name: RJ Seward And Son
Address: 158 Blackbird ST. Rd Townsend De
Signature: Robert J Seward — Date: 3/8/93

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 180 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) — JETTED — Jetted & DRIVEN
AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)
CABLE — REVerse-ROTary — DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): CE-73-0659

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER: GAP
FORCE: WRITE INITIALS IN BOX — PERMIT No.: CE-92-0290

SPECIAL CONDITIONS

B 3 LOCATION OF WELL
COUNTY: Cecil — Repl.
SUBDIVISION: Green Bank
SECTION: — LOT: — 46 Clark Rd
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 2 MI

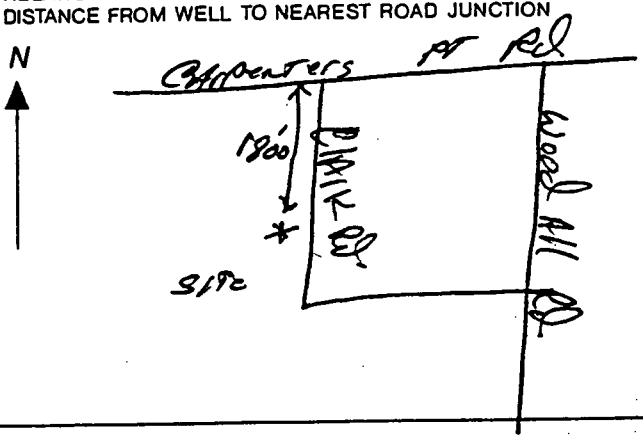
B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: Clark Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH
DISTANCE FROM ROAD: 63
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
COUNTY NAME: Cecil — COUNTY NO.:
STATE SIGNATURE: — INSERT S:
DATE ISSUED: 032493 — CO SIGNATURE: Charles E. Smyser — EXP. DATE: 3/24/94
NORTH GRID: 630000 — EAST GRID: 1079000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. Well At Office
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Rec'd 1/7/93 #83659-MER

EMERGENCY/TEMP NO. IF ANY

B 7676 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER: CE-92-0188

fill in this form completely

Date Received (APA): 010793

OWNER INFORMATION

Last Name / Owner / First Name: BAY COUNTRY ASSIGATE

Street or RFD: 216 E. POLASKI HY

Town: ELKTON State: MD Zip: 21921

DRILLER INFORMATION

Driller's Name: Timothy J Seward License No. 80: 427

Firm Name: RJ Seward And Son

Address: 158 Blackbird St. Rd Townsend De. 19734

Signature: Timothy J Seward Date: 12/23/92

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-92-0188

SPECIAL CONDITIONS

LOCATION OF WELL

COUNTY: Cecil D4662

SUBDIVISION: GreenBank

SECTION: — LOT: — D4662

NEAREST TOWN: CHARLES TOWN

MILES FROM TOWN (enter 0 if in town): 2 MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: WoodAll Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 150

ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED: 010893 CO SIGNATURE: Charles E. Snyder EXP. DATE: 1/8/94

NORTH GRID: 630000 EAST GRID: 1080000

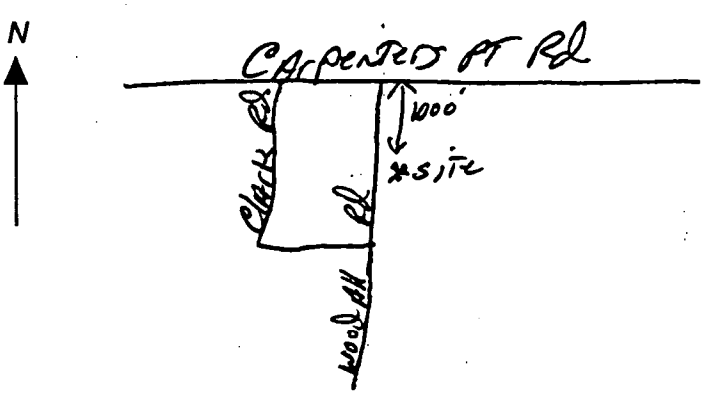
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1 3121 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D4662

ST/CO USE ONLY DATE Received: MAR 1993

DATE WELL COMPLETED: 01 21 93

Depth of Well: 166 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL": CE-92-018

OWNER: Bay Country Associate (last name first name)

STREET OR RFD: Wood Hill Rd. TOWN: Charlestown

SUBDIVISION: Green Bank SECTION: LOT:

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6	
Clay mix	6"	8'	
Sand Gravel	8'	20	
Sand + White Clay	20	80	
Red + Gray Clay	80	120	
White Clay	120	140	
Clay mix	140	156	
med Fine white Sand	156	166	Y

CIRCLE APPROPRIATE LETTER

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

Timothy J. Grant

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 6 NO. OF POUNDS 380

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 80 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	4 (63 64)	156 (66 70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL (8 9)	156 (11 15)	166 (17 21)
2	(23 24)	(26 30)	(32 38)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (56 60) (NEAREST INCH)

GRAVEL PACK from 156 to 166

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING; (E.R.O.S.) (72) LOG INDICATOR; W Q (74 75 76) OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8 9)

PUMPING RATE (gal. per min. to nearest gal.) 15 (11 1)

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 65 (17 20)

WHEN PUMPING 140 (22 25)

TYPE OF PUMP USED (for test)

A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (descrit below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

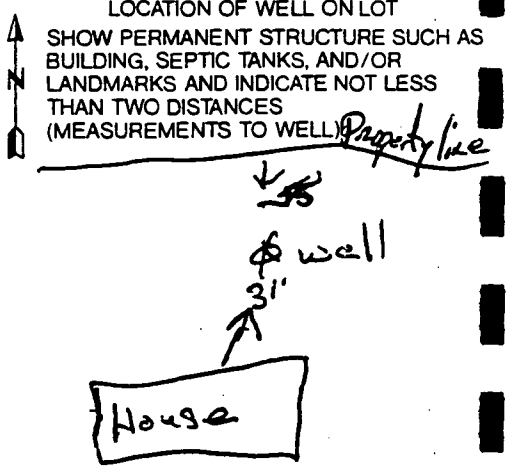
CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height): + (49) above, − (49) below — LAND SURFACE (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Pd $40. 7/30/92 #80338-MSR EMERGENCY/TEMP NO. IF ANY

B 1 7546 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2600
fill in this form completely

Date Received (APA): 073092

OWNER INFORMATION

Last Name: CRAFT Owner: HAVEN First Name: ~~Camp Gr~~ INC.
Street or RFD: 900 CARPENTER PT RD
Town: Perryville State: MD Zip: 21903

DRILLER INFORMATION

Driller's Name: Timothy J Seward License No.: 427
Firm Name: TJ Seward And Son
Address: 58 Blackbird St. Rd Townsend De. 19734
Signature: Timothy J. Seward Date: 7-13-92

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 20
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 7500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) CAMPGROUND & MARINA
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 100 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE): None

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: CE69GAP004

FORCE: CS WRITE INITIALS IN BOX PERMIT No.: CE-88-2600 (03)

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

COUNTY: Cecil PNC
SUBDIVISION: CRAFT HAVEN
SECTION: 75 LOT: 59
NEAREST TOWN: CHARLESTOWN
MILES FROM TOWN (enter 0 if in town): 2 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW — TOWN

NEAR WHAT ROAD: CARPENTER POINT RD.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH — N, W, 32, E, S

DISTANCE FROM ROAD: 200
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.:
STATE SIGNATURE: INSERT S
DATE ISSUED: 07 30 92 CO SIGNATURE: Charles E. Simpson EXP. DATE: 1/30/93
NORTH GRID: 627000 EAST GRID: 1080000

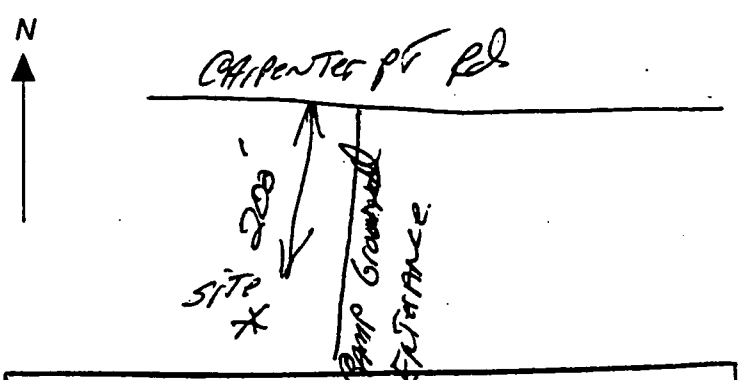
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well at office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



INTERIM PERMIT

This permit good until Public Water ~~and/or sewage~~ is available, at which time the current owner must accept such service.

C 1 | 1639 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER: Repl. Craft Haven PNC

ST/CO USE ONLY — DATE Received: OCT X 7 1992

DATE WELL COMPLETED: 08 27 92

Depth of Well: 77 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WE": CE-88-260

OWNER: Craft Haven Inc (last name / first name)

STREET OR RFD: 900 Carpenters Point Rd. TOWN: Charlestown

SUBDIVISION: Craft Haven SECTION: LOT: 54

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil.	0	6	
Sand-Clay	6	10	
Red Clay	10	30	
Red+White Clay	30	45	
Gray Clay	45	60	
White Clay	60	67	
med Fine White Sand.	67	77	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes Y — no N

TYPE OF GROUTING MATERIAL

CEMENT CM — BENTONITE CLAY BC

NO. OF BAGS 4 — NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot): from 0 ft. (TOP) to 67 ft. (BOTTOM) (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	67

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN	TYPE	DEPTH (nearest ft.)	
1	PL	67	77
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 67 to 77

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour): 3

PUMPING RATE (gal. per min. to nearest gal.): 10

METHOD USED TO MEASURE PUMPING RATE: Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING: 45

WHEN PUMPING: 70

TYPE OF PUMP USED (for test): A air, P piston, T turbine, C centrifugal, R rotary, O other (descr below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height): + above, − below — LAND SURFACE (nearest foot)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

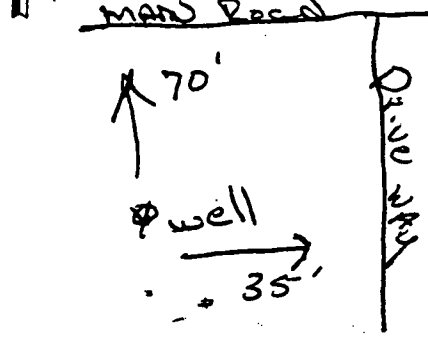
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION): Timothy J. Lund

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee):

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T — (E.R.O.S.) — W Q

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

ORIGINAL

Rd. 940. 5/8/92 #78686-MZR

EMERGENCY/TEMP NO. IF ANY

B 1 6339 SEQUENCE NO. (DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2440 (70 fill in this form completely 79)

Date Received (APA): 050892 (8–13)

Richardson Build.

OWNER INFORMATION

Beaman (15 Last Name) Robert (Owner, First Name) (34)

619 Ogle St (36 Street or RFD) (55)

Charlestown (57 Town) Md (70 State 72) 21914 (Zip 78)

DRILLER INFORMATION

Timothy J Seward (Driller's Name) 427 (77 License No. 80)

RT Seward and Son (Firm Name)

58 Blackbird St. Rd. Townsend De 19734 (Address)

Timothy J Seward (Signature) 5/7/92 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10 (8–12)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) (22)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 146 (24–28) FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

(30 37) AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

other _____

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (39) S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE) (41–52)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP (54–63)

FORCE (87 68) WRITE INITIALS IN BOX PERMIT No. CE-88-2440 (70 71 72 73 74 75 78 77 78 79)

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

Cecil (8 COUNTY) D3247

Greenbank Farms (23 SUBDIVISION) (42)

SECTION (44–46) LOT 12 (48–50) D3247

Charlestown (52 NEAREST TOWN) (71)

MILES FROM TOWN (enter 0 if in town): 2 (73–78) MI (77 78)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N (8), NE (8–9), E (8), SE (8–9), S (8), SW (8–9), W (8), NW (8–9), TOWN

Green Bank Ct. (11 NEAR WHAT ROAD) (30)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N, W 32 E, WEST, EAST, S SOUTH

DISTANCE FROM ROAD: 300 (34–37)

ENTER FT or MI: FT (38 39)

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil (COUNTY NAME) (COUNTY NO.)

STATE SIGNATURE _____ INSERT S (41)

DATE ISSUED: 051192 (43–48) Charles E. Snyder (CO SIGNATURE) 11/11/9 (EXP. DATE)

NORTH GRID: 629000 (50–55) EAST GRID: 1078000 (57–63)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

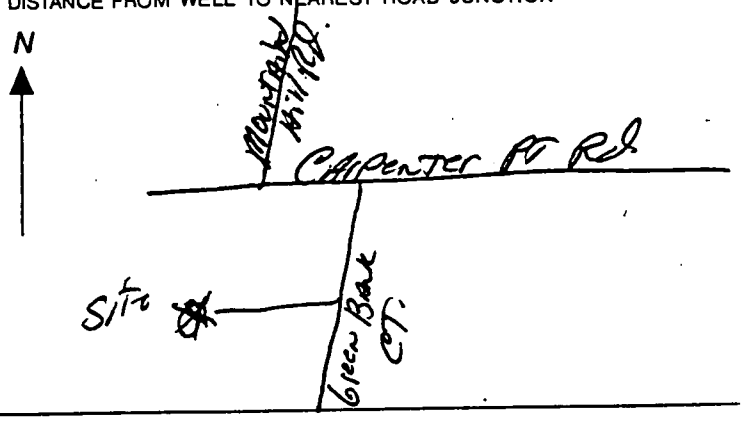
SOURCES OF DRILLING WATER
1. well at office.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C 1 1294 SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D3247

ST/CO USE ONLY
DATE Received JUL 15 1992

DATE WELL COMPLETED 051292

Depth of Well 126 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2440

OWNER Beaman Robert. (Richardson Bld.)
last name first name
STREET OR RFD TOWN Charles Town
SUBDIVISION GREEN BANK FARMS SECTION LOT 12

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Clay + Fill	0	8'	
Yellow Clay	8'	15	
Red Clay	15	40	
Red + White Clay	40	80	
Gray Clay	80	100	
White Clay	100	116	
med Fine white Sand.	116	126	X

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

Timothy J Sand
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

L Chester
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes (Y) no (N)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY (BC)
NO. OF BAGS 3 NO. OF POUNDS 150
GALLONS OF WATER 75
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 40 ft.
TOP BOTTOM
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	116

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN — DEPTH (nearest ft.)

1	PL	116	126
2			
3			

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 116 to 126
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

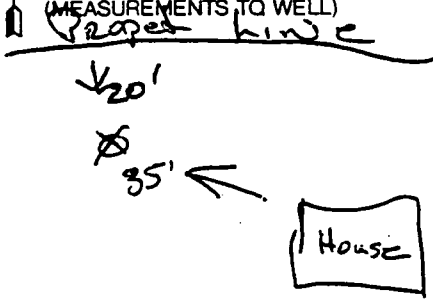
OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W Q OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 10
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 65
WHEN PUMPING 105
TYPE OF PUMP USED (for test)
(A) air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES (NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
(+) above / − below LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING; SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



C 1293 SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D3305

SYCO USE ONLY
DATE Received OCT 7 1992

DATE WELL COMPLETED 08 05 92

Depth of Well 124 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2439

OWNER Rodgers Jon (last name, first name)

STREET OR RFD Green Bank Rt. TOWN Charles Town

SUBDIVISION Green Bank Farms SECTION ____ LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top Soil	0	6	
Sand mix	6	15	
Red Clay	15	60	
Red + White Clay	60	90	
white Clay	90	117	
med Fine White Sand	117	127	X

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y 44 no N 44

TYPE OF GROUTING MATERIAL

CEMENT CM 45 46 BENTONITE CLAY BC 45 46

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP 48–52) to 60 ft. (BOTTOM 54–58)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	4 (63 64)	117 (66–70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	PL (8 9)	117 (11–15)	127 (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 20 2 ____ 3 ____

DIAMETER OF SCREEN 4 (56–60) (NEAREST INCH)

GRAVEL PACK from 117 to 127

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8 9)

PUMPING RATE (gal. per min. to nearest gal.) 10 (11–15)

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 80 (17–20)

WHEN PUMPING 110 (22–25)

TYPE OF PUMP USED (for test)

A air (27) P piston (27) T turbine (27)

C centrifugal (27) R rotary (27) O other (describe below) (27)

J jet (27) S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above (49) – below (49) LAND SURFACE 1 (50 51) (nearest foot)

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 621

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

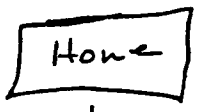
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING (E.R.O.S.) (72) LOG INDICATOR W Q (74 75 76) OTHER DATA

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

N



45' @ well

60'

~~Carpenters Pt Rd~~

2 #40, 5/8/92 #78686-MSR EMERGENCY/TEMP NO. IF ANY

B 1 3440 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2439
fill in this form completely

Date Received (APA): 050892

OWNER INFORMATION

Rogers (Last Name) Owner JON (First Name)
13 Blount Rd (Street or RFD)
Newcastle (Town) De 19720 (State, Zip)

DRILLER INFORMATION

Timothy J Seward (Driller's Name) 427 (License No.)
RJ Seward and Son (Firm Name)
158 Blackbird St Rd Townsend De 19734 (Address)
Timothy J Seward (Signature) 5/7/92 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-88-2439

B 3 LOCATION OF WELL

Cecil (COUNTY) D3305
Green Bank Farms (SUBDIVISION)
SECTION LOT 5 D3305
Charlestown (NEAREST TOWN)
MILES FROM TOWN (enter 0 if in town): 2 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

Green Bank Ct (NEAR WHAT ROAD)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 560
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

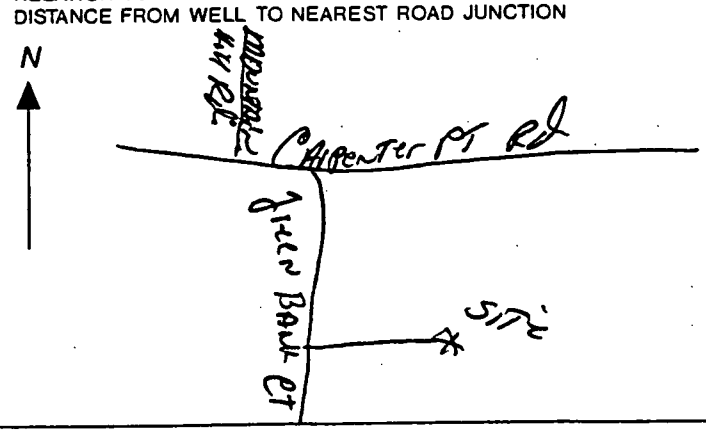
Cecil (COUNTY NAME) COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED: 051192 Charles E. Smyser 11/1
CO SIGNATURE EXP. DATE
NORTH GRID: 629000 EAST GRID: 1078000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well at Office
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

ORIGINAL

C 1 1220 SEQUENCE NO. (DENV USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER 8145-67 Repl. Cistern

ST/CO USE ONLY
DATE Received MAR 10 1993

DATE WELL COMPLETED 091792

Depth of Well 129 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2367

OWNER Gifford (last name) RAlph - Debora (first name)

STREET OR RFD 77 Evergreen St Intercourse TOWN PA

SUBDIVISION Green bank SECTION LOT 132 woodallad

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Topsoil	0	6	
Clay silt	6"	2'	
Sand Gravel	2'	40'	
Red Clay	40'	80	
Fine Sand	80'	100	
Gray Clay Sand	100	120	
Stringers			
Coarse Sand	120	129	✓

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
(S) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

[signature]
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes (Y) no (N)

TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 40 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	119

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN — DEPTH (nearest ft.)

1	PL	119	129
2			
3			

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 119 to 129

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T TELESCOPE CASING (E.R.O.S.) LOG INDICATOR W Q OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)
BEFORE PUMPING 40
WHEN PUMPING 90

TYPE OF PUMP USED (for test)
A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

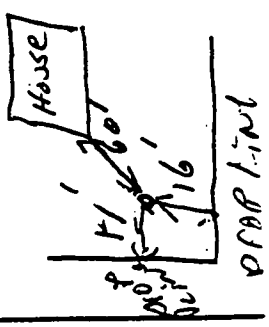
CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING-HEIGHT (circle appropriate box and enter casing height)
+ above, − below — LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

570, 3/6/92 " 11277-MZR

EMERGENCY/TEMP NO.: ___

B 1 6343 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2367
fill in this form completely

Date Received (APA): 030692

717-768-8733

OWNER INFORMATION

Last Name / Owner / First Name: GLEFORD RALPH - DEBORA

Street or RFD: 27 EVERGREEN ST

Town: INTERCOURSE State: PA Zip: 17534

DRILLER INFORMATION

Driller's Name: Timothy J Seward License No.: 427

Firm Name: RJ Seward and Son

Address: 158 Blackbird ST. Rd. Townsend De. 19734

Signature: Timothy J Seward Date:

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- 22 [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 4" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERcussion (ROTARY) (Hydraulic Rotary)
37 CABLE REVerse-ROTary DRive-POINT

other ___

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER: GAP

FORCE ___ WRITE INITIALS IN BOX PERMIT No. CE-88-2367

LOCATION OF WELL 8145-67

B 3

Repl. Cistern

COUNTY: CECIL

SUBDIVISION: GREEN BANK 137 woodall Rd.

SECTION: + LOT: +

NEAREST TOWN: CHARLESTOWN

MILES FROM TOWN (enter 0 if in town): 3 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NE, E, SE, S, SW, W, NW

NEAR WHAT ROAD: woodall Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH

DISTANCE FROM ROAD: 140 ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.

STATE SIGNATURE ___ INSERT S

DATE ISSUED: 040292 CO SIGNATURE: Charles E. Simpson EXP. DATE: 10/2/92

NORTH GRID: 6290000 EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

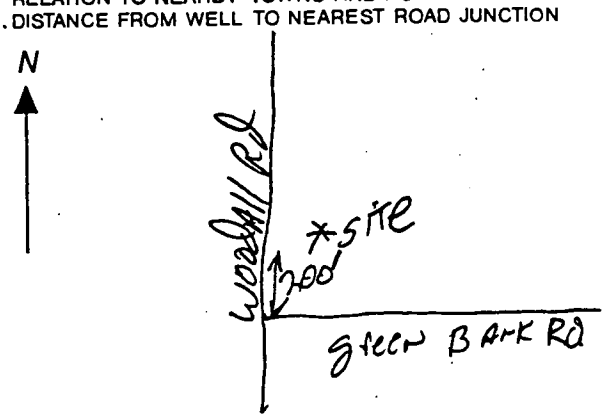
X

SOURCES OF DRILLING WATER
1. well AT OFFICE
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



AL CONDITIONS

ORIGINAL

B 1 2379 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2359
fill in this form completely

Date Received (APA) Pd #40. 3/23/92 #77884-MSK

032392

OWNER INFORMATION

JACKSON JAMES
~~WEAVER~~ ~~RANDY~~
Last Name / Owner / First Name

592 MT HILL RD
Street or RFD

PERRYVILLE MD 21903
Town / State / Zip

DRILLER INFORMATION

CHARLES H. HAMILTON Jr 112
Driller's Name / License No.

JONES & HAMILTON
Firm Name

115 N. PARADISE RD. HW6-
Address

Charles H. Hamilton Jr 3/19/92
Signature / Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [X] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- [P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- [T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary (AIR-PERcussion) ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- [X] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-88-2359

B 3 LOCATION OF WELL

D3155

CECIL
COUNTY

SUBDIVISION

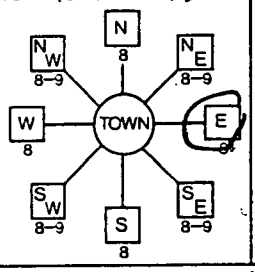
SECTION LOT

PERRYVILLE
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 1 MI

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Mt. Hill
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH / WEST / EAST / SOUTH

80
DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME / COUNTY NO.

STATE SIGNATURE / INSERT S

DATE ISSUED 032692 Charles E. Simpson 9/26/92
CO SIGNATURE / EXP. DATE

NORTH GRID 634000 EAST GRID 1075000

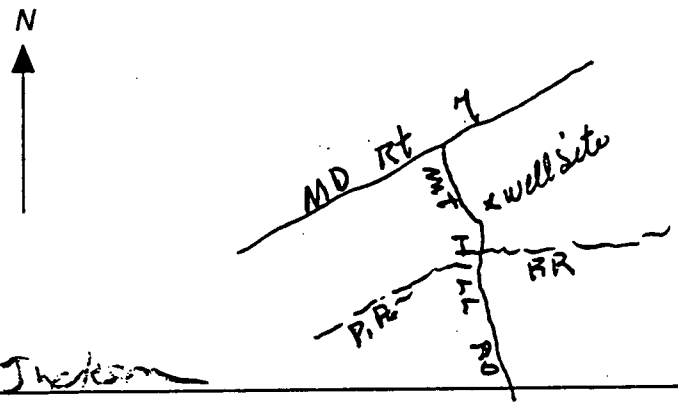
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1.
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Jackson

SPECIAL CONDITIONS

ORIGINAL

C 1 | 1212 — SEQUENCE NO. (DENV USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D3155

ST/CO USE ONLY
DATE Received MAY 4 1992

DATE WELL COMPLETED 05 01 92

Depth of Well 600 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-235

OWNER JACKSON JAMES (last name, first name)
STREET OR RFD 592 MT. HILL RD. TOWN PERRYVILLE, MD. 21903
SUBDIVISION ____ SECTION ____ LOT ____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
BROWN SAND + GRAVEL	0	50	
YELLOW CLAY	50	85	
SOFT GREEN WEATHERED ROCK	85	105	
HARD GREEN + GRAY GRANITE	105	600	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y no N
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 28 NO. OF POUNDS 2632
GALLONS OF WATER 140
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 110 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	110

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below: ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2

EACH SCREEN		DEPTH (nearest ft.)	
1	HO	110	600
2			
3			

SLOT SIZE 1 ____ 2 ____ 3 ____
DIAMETER OF SCREEN ____ (NEAREST INCH)

GRAVEL PACK from ____ to ____
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min. to nearest gal.) 1
METHOD USED TO MEASURE PUMPING RATE Bucket + Watch
WATER LEVEL (distance from land surface)
BEFORE PUMPING 95
WHEN PUMPING 470

TYPE OF PUMP USED (for test)
A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height) + above, − below — LAND SURFACE ____ (nearest foot)

CIRCLE APPROPRIATE LETTER
A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E — ELECTRIC LOG OBTAINED
P — TEST WELL CONVERTED TO PRODUCTION WELL

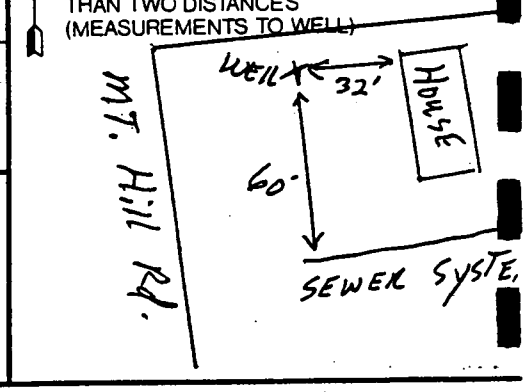
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112
Charles H. Hamilton Jr.
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T — TELESCOPE CASING; (E.R.O.S.) — LOG INDICATOR; W Q — OTHER DATA

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Associated Printers, Inc.

C1 2922 — SEQUENCE NO. (DENV USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER D2888

ST/CO USE ONLY
DATE Received MAR 1 1993

DATE WELL COMPLETED 01 09 92

Depth of Well 171 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CB-88-220

OWNER Scott Lemyre Donald
last name first name

STREET OR RFD 74 Clark Rd. TOWN Perryville

SUBDIVISION Green Bank SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	Check if water bearing
Top soil	0	6"	
Clay silt	6"	3'	
Sand gravel	3'	18'	
Clay mix	18	40	
Red Clay	40	50	
Silty sand	50	80	
Multi color Clay	80	100	
Silty sand	100	120	
Fine sand gray clay stringers	120	140	
gray clay	140	160	
Fine sand	160	171	✓
Med-Coarse sand			

CIRCLE APPROPRIATE LETTER

A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E — ELECTRIC LOG OBTAINED

P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

Timothy J. Sennt
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 5 NO. OF POUNDS 250

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (46 TOP 52) ft. to 60 (54 BOTTOM 58) ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	4 (63 64)	161 (68 70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C2

EACH SCREEN — DEPTH (nearest ft.)

1	PL (8 9)	161 (11 15)	171 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 20 2 ___ 3 ___

DIAMETER OF SCREEN 4 (56 60) (NEAREST INCH)

GRAVEL PACK from 161 to 171

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C3

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8 9)

PUMPING RATE (gal. per min. to nearest gal.) 25 (11 15)

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 60 (17 20)

WHEN PUMPING 140 (22 25)

TYPE OF PUMP USED (for test)

A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (describe below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

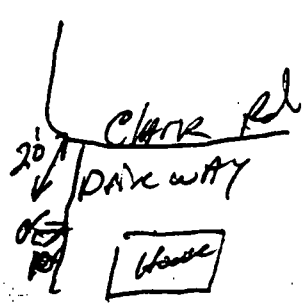
PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, − below (49) — LAND SURFACE 1 (50 51) (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



Rd. 470.12/9/91 - 16005-MIR

B 1 8276 SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER: CE-88-2206
fill in this form completely

Date Received (APA): 12099

OWNER INFORMATION
Settlemyre, Donald
Owner Last Name, First Name
79 Clark Rd
Street or RFD
Perryville, Md 21901
Town, State, Zip

DRILLER INFORMATION
Timothy J Seward
Driller's Name — License No. 427
RJ Seward and Son
Firm Name
158 Blackbird Station Rd Townsend De 19734
Address
Timothy J Seward 12/3/91
Signature — Date

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 160 FEET

APPROXIMATE DIAMETER OF WELL: 4 NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER: GAP
FORCE — WRITE INITIALS IN BOX — PERMIT No. CE-88-2206

SPECIAL CONDITIONS

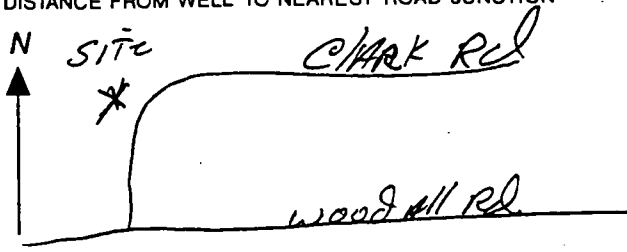
B 3 LOCATION OF WELL
D2888
COUNTY: Cecil
SUBDIVISION: GREENBANK D2888
SECTION — LOT
NEAREST TOWN: Charlestown
MILES FROM TOWN (enter 0 if in town): 8 MI

B 4
DIRECTION OF WELL FROM TOWN (CIRCLE BOX): N, NW, NE, W, TOWN, E, SW, SE, S
NEAR WHAT ROAD: Clark Rd.
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, EAST, SOUTH
DISTANCE FROM ROAD: 20
ENTER FT or MI: FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
COUNTY NAME: Cecil — COUNTY NO.
STATE SIGNATURE — INSERT S
DATE ISSUED: 12/12/91
CO SIGNATURE: Charles E. Simpson — EXP. DATE: 6/12/
NORTH GRID: 630000 — EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1.
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

A-5 LAB ANALYSES

MARTEL

Sensible Scientific Solutions

Certificate of Analysis

Thursday, November 29, 2001

Prepared expressly for:

KCE Engineering Inc.
3300 North Ridge Road
Suite 360
Ellicott City, Maryland 21043

Attention: Mr. Vir Kathuria

Report for Lab No: 81185.
Samples received by Martel.
P.O. Number: KATHURIA
Project Identification: GW Monitoring, Stancill Quarry,11/06/01.

MARTEL NO. 81185 000001 P-1

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 10:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.200	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	140	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.23	mg/l	EPA 353.1	0.05	11/15/2001 23:51 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	230	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.49	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	20	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	5.8	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:51 DLJ
Calcium	5.5	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ
Magnesium	1.3	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ
Iron	120	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ
Manganese	0.26	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.090	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.020	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.027	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.12	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ
Nickel	0.015	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	39	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	15	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	17	mg/l	EPA 375.3	5	11/19/2001 14:47 CBS
Nitrate Nitrogen	0.2	mg/l	EPA 353.1	0.05	11/15/2001 23:51 CBS
Nitrite Nitrogen	0.03	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.23	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	39	mg/l	EPA 310.1	1	11/12/2001 11:20 TB

Martel Laboratories *JDS* **Inc.**
1025 Cromwell Bridge Road - Baltimore, Maryland 21286
PH 410-825-7790 FAX 410-821-1054 EMAIL: martel @ martelabs.com

KCEENG

MARTEL NO. 81185 000001 P-1 — CLIENT SAMPLE IDENTIFICATION — Sample Date/Time 11/06/2001 10:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Solids (Dissolved)	210	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	0.01	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000002 P-2 — CLIENT SAMPLE IDENTIFICATION — Sample Date/Time 11/06/2001 13:35

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.0011	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	9	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.35	mg/l	EPA 353.1	0.05	11/08/2001 00:05 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	21	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.26	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	5.0	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	13	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:55 DLJ
Calcium	5.9	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ
Magnesium	1.9	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ
Iron	5.7	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ
Manganese	0.12	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.018	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.008	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.007	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.05	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ
Nickel	0.007	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	13	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	16	mg/l	EPA 375.3	5	11/19/2001 15:01 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 00:05 CBS
Nitrite Nitrogen	0.35	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.35	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	54	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000003 P-3

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 11:45

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.066	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	24	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.12	mg/l	EPA 353.1	0.05	11/08/2001 00:19 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	<20	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.17	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	6.9	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	7.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:59 DLJ
Calcium	8.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ
Magnesium	2.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ
Iron	0.89	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ
Manganese	0.11	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	<0.005	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.010	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ
Nickel	0.008	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	18	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	14	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	6.7	mg/l	EPA 375.3	5	11/19/2001 15:15 CBS
Nitrate Nitrogen	0.1	mg/l	EPA 353.1	0.05	11/16/2001 00:19 CBS
Nitrite Nitrogen	0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.12	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	18	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	64	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000004 P-4

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 14:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.090	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	8	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 00:33 MDS

MARTEL NO. 81185 000004 P-4

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 14:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	71	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.57	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	22	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	4.9	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:03 DLJ
Calcium	5.6	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Magnesium	2.3	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Iron	7.6	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Manganese	0.35	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.047	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.027	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.025	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.06	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Nickel	0.014	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	10	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	41	mg/l	EPA 375.3	5	11/19/2001 15:28 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 00:33 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	18	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000005 P-5

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 11:15

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.0063	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	60	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 01:01 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	65	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.65	mg/kg	EPA 365.2	0.05	11/15/2001 16:27 BM
TOC (Total Organic Carbon)	5.9	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK

MARTEL NO. 81185 000005 P-5

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 11:15

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Sodium	9.0	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:07 DLJ
Calcium	9.7	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Magnesium	8.3	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Iron	11	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Manganese	4.2	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.011	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.023	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.016	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.05	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Nickel	0.019	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	32	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	13	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	20	mg/l	EPA 375.3	5	11/19/2001 16:11 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 01:01 CBS
Nitrite Nitrogen	0.03	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	32	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	140	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000006 P-6

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 14:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.0011	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	16	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 01:15 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	49	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.55	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	14	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	3.6	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:10 DLJ
Calcium	3.6	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ
Magnesium	2.1	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ
Iron	2.5	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ

MARTEL NO. 81185 000006 P-6

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 14:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Manganese	0.30	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	0.0007	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.035	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.018	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.012	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.04	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ
Nickel	0.011	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	6	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	20	mg/l	EPA 375.3	5	11/19/2001 16:25 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 01:15 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	50	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000007 P-7

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 15:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.00053	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	20	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	1.7	mg/l	EPA 353.1	0.05	11/08/2001 01:28 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	36	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.33	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	7.2	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	8.2	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:14 DLJ
Calcium	4.8	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Magnesium	2.4	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Iron	4.5	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Manganese	0.09	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.047	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.014	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB

MARTEL NO. 81185 000007 P-7

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 15:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Lead	0.012	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.07	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Nickel	0.037	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	25	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	9.2	mg/l	EPA 375.3	5	11/19/2001 16:39 CBS
Nitrate Nitrogen	1.7	mg/l	EPA 353.1	0.05	11/16/2001 01:28 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	1.7	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	69	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000008 P-8

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 15:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	14	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.18	mg/l	EPA 353.1	0.05	11/08/2001 01:42 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	21	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.12	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	3.3	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	7.5	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:18 DLJ
Calcium	4.3	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Magnesium	0.9	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Iron	0.27	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Manganese	0.07	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	<0.005	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	<0.005	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Nickel	0.007	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	4	mg/l	EPA 310.1	1	11/12/2001 11:20 TB

MARTEL NO. 81185 000008 P-8

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 15:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Chloride	19	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	6.1	mg/l	EPA 375.3	5	11/19/2001 16:52 CBS
Nitrate Nitrogen	0.1	mg/l	EPA 353.1	0.05	11/16/2001 01:42 CBS
Nitrite Nitrogen	0.08	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.18	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	4	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	48	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO. 81185 000009 P-9

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time 11/06/2001 14:45

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	25	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.42	mg/l	EPA 353.1	0.05	11/08/2001 01:56 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	<20	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.09	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	1.8	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	8.5	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:22 DLJ
Calcium	2.8	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Magnesium	1.6	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Iron	0.35	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Manganese	0.04	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.007	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	<0.005	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Nickel	0.009	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	22	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	11	mg/l	EPA 375.3	5	11/19/2001 17:06 CBS
Nitrate Nitrogen	0.4	mg/l	EPA 353.1	0.05	11/16/2001 01:56 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.42	mg/l	EPA Var	0.05	/ /

MARTEL NO.	CLIENT SAMPLE IDENTIFICATION	Sample Date/Time
81185 000009	P-9	11/06/2001 14:45

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	62	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.	CLIENT SAMPLE IDENTIFICATION	Sample Date/Time
81185 0010TB	Trip Blank	11/06/2001 08:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB

All Procedures used are in accordance with the following methods:

"Methods of Chemical Analysis of Water and Wastewater", EPA 600/4-79/020, U.S. EPA, Cincinnati, Revised March 1983. "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", U.S. EPA, Appendix A to 40 CFR Part 136, Vol. 49, No. 209, October 26, 1984. "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992. **Note:Total Nitrate-Nitrite Nitrogen is the sum of Nitrate and Nitrite analytical results. Total Nitrogen is the sum of Total Nitrate-Nitrite and Kjeldahl Nitrogen analytical results. The ferrous and ferric iron test methods were indeterminate (detection limit of about 60 mg/l) given the relatively low levels of total iron present in the samples.

QC _____ Approved Michael Smith

Date 11/29/01 Date 11/29/01

CHAIN OF CUSTODY / SAMPLE INFORMATION FORM

81185

Martel Laboratories JDS Inc. • 1025 Cromwell Bridge Road • Baltimore, MD 21286 • (410) 825-7790 • FAX (410) 821-1054

Martel Log # _____ Client Code KCEENG

Client Name/Phone/FAX _____

Client Address _____

Invoice Address _____

Sampler _____

Project Name/# __Stancill Quarry Groundwaters

Contract/P.O Number _____

Sample Turnaround Time ____ROUTINE_____

Station No./ Sample ID	Station Location	Matrix	Container Description/ Preservation Status	Potentially Hazardous?	# of Containers	Date	Time	Analyses Required/Comments
1	P-1	WATER	40 ml VOA/HCL	NO	3	11/6/01	1030	METHANE
			250 ml amber glass/4C		1			CO2
			liter clear glass/H2S04		1			TPH
			250 ml plastic/ZnAcetate/NaOH		1			S3
			500 ml plastic/H2SO4		1			NO32, TKN, NH3, COD, AP, TOC
			liter plastic/HNO3		1			NA, K, CA, MG, FE, MN, AS2, CED2, CR2, CU2, PB2, NI2, SE2
			1/2 gallon plastic/NONE		1			HCO3. CL, SO4, NO3, NO2, N, ALK, DS, FEOUS, FERRIC
2	P-2		(SAME AS SAMPLE 1)		9	11-6	1335	(SAME AS SAMPLE 1)
3	P-3		(SAME AS SAMPLE 1)		9	11-6	1145	(SAME AS SAMPLE 1)
4	P-4		(SAME AS SAMPLE 1)		9	11-6	1400	(SAME AS SAMPLE 1)
5	P-5		(SAME AS SAMPLE 1)		9	11-6	1115	(SAME AS SAMPLE 1)
6	P-6		(SAME AS SAMPLE 1)		9	11-6	1430	(SAME AS SAMPLE 1)
7	P-7		(SAME AS SAMPLE 1)		9	11-6	1500	(SAME AS SAMPLE 1)

Transferred by:	Received by:	Date	Time
Vic Kalturno	[signature]	11-6-01	1815
Transferred by:	Received by:	Date	Time
Transferred by:	Received by:	Date	Time

Cooler Receipt Information (LAB USE ONLY)

Sufficient Ice? Yes/No If No, temp.= _____

Sample containers pres'd? Yes/No If No, explain

Custody Seal present/intact? Yes/No N/A

Initials: RTA Date: 11-6-01

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CHAIN OF CUSTODY / SAMPLE INFORMATION FORM

81185

Martel Laboratories JDS Inc. • 1025 Cromwell Bridge Road • Baltimore, MD 21286 • (410) 825-7790 • FAX (410) 821-1054

Sampler _____

Client Name/Phone/FAX _____

Project Name/# __Stancill Quarry Groundwaters

Client Address _____

Contract/P.O Number _____

Invoice Address _____

Sample Turnaround Time ____ROUTINE____

Station No./ Sample ID	Station Location	Matrix	Container Description/ Preservation Status	Potentially Hazardous?	# of Containers	Date	Time	Analyses Required/Comments
8	P-8	WATER	40 ml VOA/HCL	NO	3	11-6	1530	METHANE
			250 ml amber glass/4C		1			CO2
			liter clear glass/H2S04		1			TPH
			250 ml plastic/ZnAcetate/NaOH		1			S3
			500 ml plastic/H2SO4		1			NO32, TKN, NH3, COD, AP, TOC
			liter plastic/HNO3		1			NA, K, CA, MG, FE, MN, AS2, CD2, CR2, CU2, PB2, 7 NI2, SE2
			1/2 gallon plastic/NONE		1			HCO3. CL, SO4, NO3, NO2, N, ALK, DS, FEOUS, FERRIC
9	P-9		(SAME AS SAMPLE 1)		9	11-6	1445	(SAME AS SAMPLE 1)
10	TRIP BLANK		(SAME AS SAMPLE 1)		9			~~(SAME AS SAMPLE 1)~~ Methane
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)

Transferred by:	Received by:	Date	Time
Via Kathrine	[signature]	11-6-01	1815
Transferred by:	Received by:	Date	Time
Transferred by:	Received by:	Date	Time

Cooler Receipt Information (LAB USE ONLY)

Sufficient Ice? - Yes/No If No, temp.= _____

Sample containers pres'd? - Yes/No If No, explain

Custody Seal present/intact? - Yes/No

Initials: BTA Date: 11/6/01

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ATLANTIC COAST
Laboratories, Incorporated

630 Churchmans Road
Newark, Delaware 19702
302-266-9121 • 454-8720 (FAX)

REPORT OF ANALYSIS

Maryland Environmental Svc
2011 Commerce Park Drive
Annapolis, MD 21401

Attn: Mr. Rex A. Lloyd

Order #: 02-02-812
Date: 03/13/02 16:37
Work ID: Furnace Bay GW Study-Soils
Date Received: 02/20/02
Date Completed: 03/13/02

Purchase Order: 98-04-11/1-01 Act:2170292
Invoice Number:

Client Code: MES_AB

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	SS122002
02	SS222002
03	SS222002 dup
04	SS322002

This cover page is an integral part of the analytical report that follows.

Certified By
Warren Van Arsdall

RECEIVED
MAR 1 8 2002
Maryland Environmental Service
03

TEST RESULTS BY SAMPLE

Sample: 01A SS122002 **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/22/02		date extracted	JPG	
TCLP Extraction	02/22/02		date extracted	JPG	
TCLP, Zero Headspace Ext	02/22/02		data extracted	JPG	

Sample: 01B SS122002 TCLP **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	~~1.0~~		mg/L as CO2	REP	02/22/02 12:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/22/02 17:21
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/22/02		date complete		
Nitrate, Ion Chrom	2.14	0.06	mg/L as N	MSO	02/22/02 17:21
Nitrate/Nitrite-Ion Chrom	2.14	0.08	mg/L as N	MSO	02/22/02 17:21
Solids, Total Dissolved	4262	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	91.5	0.38	mg/L	MSO	02/22/02 17:21
Total Alkalinity-Titration	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 01C SS122002 TCLP **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	0.28	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5440	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	1.4	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	3.5	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1894	100	mg/L	KS	02/28/02 15:56

Sample: 01D SS122002 TCLP **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 15:09
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 01E SS122002 TCLP **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	21	5.5	mg/L	KSC	10/10/02 08:30

Sample: 01F SS122002 TCLP **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 01H SS122002 ASTM leach **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/01/02		date analyzed		
Sodium, ICP	2.76	0.20	mg/L	LC	03/01/02 10:24

Sample: 01I SS122002 ASTM leach **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	4	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Dissolved Oxygen	6.10	1.0	mg/L	EL	02/22/02 13:27
Redox Potential of Water	155		mV	BLT	02/25/02
Specific Conductance	212	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	4	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
pH	6.31	0.5	pH Units	BLT	02/26/02 08:30

Sample: 01J SS122002 ASTM leach **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	2.3	1.0	mg/L	KS	02/26/02 10:48

Sample: 01K SS122002 ASTM leach **Category: SOIL**
Collected: 02/20/02 09:36

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample: 02A SS222002 **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/26/02		date extracted	JK	
TCLP Extraction	02/26/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/26/02		data extracted	JK	

Sample: 02B SS222002 TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	165	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Chloride, Ion Chrom	24.8	0.39	mg/L	MSO	02/26/02 14:18
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/26/02		date complete		
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/26/02 14:18
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/26/02 14:18
Solids, Total Dissolved	4402	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	129	0.38	mg/L	MSO	02/26/02 14:18
Total Alkalinity-Titration	165	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 02C SS22202 TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	0.46	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5630	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.05	0.02	mg/L as P	MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	0.85	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	0.85	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1943	100	mg/L	KS	02/28/02 15:56

Sample: 02D SS222002 TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 20:06
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

TEST RESULTS BY SAMPLE

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 02E SS222002 TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	ND	5	mg/L	KSC	02/27/02 10:15

Sample: 02F SS222002 TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 02H SS222002 leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	9.60	0.20	mg/L	LC	03/05/02 09:22

Sample: 02I SS222002 leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	2.5		mg/L as CO2	REP	02/26/02 13:20
Dissolved Oxygen	5.82	1.0	mg/L	JK	02/26/02 11:50
Redox Potential of Water	147		mV	BLT	02/27/02
Specific Conductance	269	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
pH	6.16	0.5	pH Units	BLT	03/04/02 11:35

Sample: 02J SS222002 leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	ND	1.0	mg/L	KS	02/28/02 15:56

Sample: 02K SS222002 leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample: 03A SS222002 dup **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/26/02		date extracted	JK	
TCLP Extraction	02/26/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/26/02		data extracted	JK	

Sample: 03B SS222002 dup TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	130	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Chloride, Ion Chrom	19.4	0.39	mg/L	MSO	02/26/02 14:29
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/26/02		date complete		
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/26/02 14:29
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/26/02 14:29
Solids, Total Dissolved	4394	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	120	0.38	mg/L	MSO	02/26/02 14:29
Total Alkalinity-Titration	130	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 03C SS222002 dup TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	0.21	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5450	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.05	0.02	mg/L as P	MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	0.70	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	0.70	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1947	100	mg/L	KS	02/28/02 15:56

Sample: 03D SS222002 dup TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 19:59
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

TEST RESULTS BY SAMPLE

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 03E SS222002 dup TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	ND	5	mg/L	KSC	02/27/02 10:15

Sample: 03F SS222002 dup TCLP **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 03H SS222002 dup leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	14.0	0.20	mg/L	LC	03/05/02 09:25

Sample: 03I SS222002 dup leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	3.75		mg/L as CO2	REP	02/26/02 13:20
Dissolved Oxygen	5.74	1.0	mg/L	JK	02/26/02 11:50
Redox Potential of Water	153		mV	BLT	02/27/02
Specific Conductance	260	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
pH	6.15	0.5	pH Units	BLT	03/04/02 11:35

Sample: 03J SS222002 dup leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	1.0	1.0	mg/L	KS	02/28/02 15:56

Sample: 03K SS222002 dup leach **Category: SOIL**
Collected: 02/20/02 10:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample: 04A SS322002 **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/22/02		date extracted	JPG	
TCLP Extraction	02/22/02		date extracted	JPG	
TCLP, Zero Headspace Ext	02/22/02		data extracted	JPG	

Sample: 04B SS322002 TCLP **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	6.25		mg/L as CO2	REP	02/22/02 12:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/22/02 17:32
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/22/02		date complete		
Nitrate, Ion Chrom	0.372	0.06	mg/L as N	MSO	02/22/02 17:32
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/22/02 17:32
Solids, Total Dissolved	4204	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	115	0.38	mg/L	MSO	02/22/02 17:32
Total Alkalinity-Titration	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 04C SS322002 TCLP **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	0.73	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5240	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	02/28/02 10:17
Total Kjeldahl Nitrogen	1.9	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	2.3	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1896	100	mg/L	KS	02/28/02 15:56

Sample: 04D SS322002 TCLP **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 15:17
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

TEST RESULTS BY SAMPLE

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 04E SS322002 TCLP **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	9.7	5.4	mg/L	KSC	02/25/02 10:08

Sample: 04F SS322002 TCLP **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 04H SS322002 leach **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	2.95	0.20	mg/L	LC	03/05/02 09:28

Sample: 04I SS322002 leach **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	6	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
Carbon dioxide, free	6.25		mg/L as CO2	REP	02/22/02 12:45
Dissolved Oxygen	6.08	1.0	mg/L	EL	02/22/02 13:30
Redox Potential of Water	155		mV	BLT	02/25/02
Specific Conductance	187	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	6	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
pH	6.58	0.5	pH Units	BLT	02/26/02 08:30

Sample: 04J SS322002 leach **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	2.1	1.0	mg/L	KS	02/26/02 10:48

Sample: 04K SS322002 leach **Category: SOIL**
Collected: 02/20/02 10:35

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample Description: **SS122002 TCLP**
Test Description: **TCLP, Metals**
Collected: **02/20/02 09:36**
Lab No: **01D**
Method:
Category: **SOIL**
Test Code: **TCLPMP**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	ND	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		15	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		0.16	0.10	
Iron		ND	0.50	
Magnesium		6.0	0.50	
Manganese		6.5	0.10	
Molybdenum		--	0.10	
Sodium		1182	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.67	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

TEST RESULTS BY SAMPLE

Sample Description: **SS222002 TCLP**
Lab No: **02D**
Test Description: **TCLP, Metals**
Method:
Test Code: **TCLPMP**
Collected: **02/20/02 10:00**
Category: **SOIL**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	0.15	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.050	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		15	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		ND	0.10	
Iron		0.66	0.50	
Magnesium		12	0.50	
Manganese		11	0.10	
Molybdenum		--	0.10	
Sodium		1114	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.45	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

TEST RESULTS BY SAMPLE

Sample Description: **SS222002 dup TCLP**
Lab No: **03D**
Test Description: **TCLP, Metals**
Method:
Test Code: **TCLPMP**
Collected: **02/20/02 10:00**
Category: **SOIL**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	0.12	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		16	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		ND	0.10	
Iron		ND	0.50	
Magnesium		11	0.50	
Manganese		11	0.10	
Molybdenum		--	0.10	
Sodium		1072	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.41	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

TEST RESULTS BY SAMPLE

Sample Description: **SS322002 TCLP**
Test Description: **TCLP, Metals**
Collected: **02/20/02 10:35**
Lab No: **04D**
Method:
Category: **SOIL**
Test Code: **TCLPMP**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	ND	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		13	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		0.16	0.10	
Iron		ND	0.50	
Magnesium		6.2	0.50	
Manganese		7.1	0.10	
Molybdenum		--	0.10	
Sodium		1184	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.89	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

TEST METHODOLOGIES

Carbon Dioxide	SM 4500-CO2-C (titrimetric)
Dissolved Oxygen	Field test, electrode method

ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)

Wastewater & drinking water	EPA Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010

ICP/MS (Inductively Coupled Argon Plasma Mass Spectrometry)

Wastewater & drinking water	EPA Method 200.8
RCRA TCLP & groundwater	SW 846 Method 6020
Solids	SW 846 Method 6020

Sodium (Na) - ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)

Wastewater & drinking water	EPA (1983) Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010

Arsenic (As) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Calcium (Ca) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Cadmium (Cd) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chromium (Cr) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Copper (Cu) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Iron (Fe)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Potassium (K)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Magnesium (Mg)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Manganese (Mn)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Sodium (Na) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Nickel (Ni) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Lead (Pb) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Selenium (Se) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Zinc (Zn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chemical Oxygen Demand	EPA Method 410.4 (manual colorimetric)
Total Dissolved Solids	SM 2540C Gravimetric,dried at 180C

TEST METHODOLOGIES

Total Organic Carbon, Aqueous	EPA Method 415.2 (low-level, persulfate oxidation) SW-846 Method 9060
Solid Waste, water extract	ASTM D 3987, Standard Test Method for Shake Extraction of Solid Waste with water
TCLP Extraction	SW-846 Method 1311
Zero Headspace Extraction	SW-846 Method 1311

Total Petroleum Hydrocarbons (gravimetric)
EPA Method 1664 (Hexane extraction, followed by treatment with silica gel, gravimetric determination)
Method Detection Limit-1.9 mg/L

Bicarbonate alkalinity	SM 4500-CO2-D (17th edition)
Total Alkalinity	SM 2320B (titrimetric)

Chloride, Ion Chromatography
Drinking water, wastewater — Method 300.0
Groundwater, RCRA wastes — SW-846 Method 9056

Specific Conductance	EPA Method 120.1
Ammonia	SM 4500-NH3-G 19th ed. Automated phenate EPA Method 350.1

Nitrate/Nitrite (combined), Ion Chromatography
Drinking water, wastewater — Method 300.0
Groundwater, RCRA wastes — SW-846 Method 9056

Nitrate, Ion Chromatography
Drinking water, wastewater — Method 300.0
Groundwater, RCRA wastes — SW-846 Method 9056

pH	EPA Method 150.1 (electrometric)
Phosphorous, Total	EPA Method 365.3 SM4500-P-F Automated Ascorbic Acid Reduction
Redox Potential of Water	ASTM Method D 1498
Sulfide in Aqueous Samples	EPA Method 376.2 - Methylene Blue Method

Sulfate, Ion Chromatography
Drinking water, wastewater — Method 300.0
Groundwater, RCRA wastes — SW-846 Method 9056

Total Kjeldahl Nitrogen	SM 4500-Norg-C Semi-Micro Kjeldahl SM 4500-NH3-G Automated phenate

REPORT COMMENTS

Methane Results:

0202812-01G	2.0 ug/L
0202812-02G	2.0 ug/L
0202812-03G	2.0 ug/L
0202812-04G	2.0 ug/L

0202812
0202825

Maryland Environmental Service
Chain of Custody for Elutriate Water

Project Name: Furnace Bay Groundwater Study

Sample Collector(s): Mike Rooney

Project #: 792-7827 Sub # 0322

Sample Purpose : Soils testing

Bottle Number	Sample Location	Sample Date	Sample Time	Number of Bottles	Notes
SS1 22002	SS1	2/20/02	9:36	1	
SS2 22002	SS2		10:00	1	
SS3 22002	SS3		10:35	1	
SS4 22002	SS4		10:50	1	
SS5 22002	SS5		11:00	1	
				5	

Chilled to 4 Degrees Celsius? ✓ Yes ____ No

Total Number of Bottles 5

Analysis:

(1) Liter Amber glass unpreserved for : See attached

Relinquished By	Date	Time	Accepted By	Date	Time
Mike Rooney	2/20/02	13:40	Mrs Fridge	2/20/02	13:40
Frige	2/20/02	1445	[illegible]	2/20/02	1445

KLH

* Note Run Duplicate on sample # SS 22002

Furnace Bay GW study COC

Analyses	methodology	TCLP Method	D3987
Sodium	EPA 200.7	X	X
Potassium	EPA 200.7	X	
Iron	EPA 200.7	X	
Manganese	EPA 200.7	X	
Arsenic	EPA 200.8	X	
Cadmium	EPA 200.7	X	
Chromium	EPA 200.7	X	
Copper	EPA 200.7	X	
Lead	EPA 200.8	X	
Zinc	EPA 200.7	X	
Nickel	EPA 200.7	X	
Selenium	EPA 200.7	X	
Nitrate-Nitrite-Nitrogen	EPA 353.2/300.0	X	
TKN	EPA 351.3	X	
Nitrate-nitrogen	EPA 300	X	
Total nitrogen		X	
Ammonia Nitrogen	SM 4500-NH3-E	X	
Chemical Oxygen Demand	SM 5220-D	X	X
Calcium	EPA 200.7	X	
Magnesium	EPA 200.7	X	
Bicarbonates	SM4500CO2-D	X	X
Chloride	SM4500CL-F	X	
Sulfate	SM4500SO42-B	X	
Suflide	EPA 376.2	X	X
Total petroleum hydrocarbons	EPA 418.1 modified	X	
Total Phosphorous	EPA 365.3	X	
Total Organic Carbon	SM5310-C	X	X
Alkalinity	SM 2320B	X	X
Dissolved Solids	EPA 160.1	X	
Carbon Dioxide	SM4500	X	X
Ferrous Iron	SM 3500 Fe	X	
Dissolved oxygen			X
Specific conductance	EPA 120.1/SM2510B		X
Oxidation Reduction Potential			X
pH			X
Methane	SM-6211	X	

ATLANTIC COAST
Laboratories, Incorporated

630 Churchmans Road
Newark, Delaware 19702
302-266-9121 • 454-8720 (FAX)

REPORT OF ANALYSIS

Missed DO

Maryland Environmental Svc
2011 Commerce Park Drive
Annapolis, MD 21401

Attn: Mr. Rex A. Lloyd

Order #: 02-02-825
Date: 03/13/02 16:37
Work ID: Furnace Bay GW Study-Soils
Date Received: 02/20/02
Date Completed: 03/13/02

Purchase Order: 98-04-11/1-01 Act:2170292
Invoice Number:

Client Code: MES_AB

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	SS422002	02	SS522002

This cover page is an integral part of the analytical report that follows.

Warren Van Arsdall

Certified By
Warren Van Arsdall

RECEIVED
MAR 1 8 2002
Maryland Environmental Service
03

TEST RESULTS BY SAMPLE

Sample: 01A SS422002 **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/27/02		date extracted	JK	
TCLP Extraction	02/27/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/27/02		data extracted	JK	

Sample: 01B SS422002 TCLP **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	891	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 13:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/27/02 21:52
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/27/02		date complete		
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/27/02 21:52
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/27/02 21:52
Solids, Total Dissolved	4409	20	mg/L	MS	03/01/02 13:25
Sulfate, Ion Chrom	18.2	0.38	mg/L	MSO	02/27/02 21:52
Total Alkalinity-Titration	891	1.0	mg/L as CaCO3	BLT	03/11/02 08:55

Sample: 01C SS422002 TCLP **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	ND	0.20	mg/L as N	KS	02/28/02 12:06
Chemical Oxygen Demand	5570	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/27/02		date prepared	MVP	
Phosphorous, Total	0.07	0.02	mg/L as P	MVP	02/27/02 13:36
Total Kjeldahl Nitrogen	0.77	0.20	mg/L as N	MVP	02/27/02 13:36
Total Nitrogen	0.77	0.20	mg/L as N	MVP	02/27/02 13:36
Total Organic Carbon, Aq	1939	100	mg/L	KS	02/28/02 15:56

Sample: 01D SS422002 TCLP **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	03/01/02		date analyzed	JTH	03/01/02 16:50
TCLP, Arsenic	03/01/02		date analyzed		
TCLP, Cadmium	03/01/02		date analyzed		
TCLP, Calcium	03/01/02		date complete		
TCLP, Chromium	03/01/02		date analyzed		
TCLP, Copper	03/01/02		date analyzed		
TCLP, Iron	03/01/02		date analyzed		
TCLP, Lead	03/01/02		date analyzed		
TCLP, Magnesium	03/01/02		date analyzed		
TCLP, Manganese	03/01/02		date analyzed		
TCLP, Nickel	03/01/02		date analyzed		
TCLP, Potassium	03/01/02		date analyzed		

TEST RESULTS BY SAMPLE

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	03/01/02		date analyzed		
TCLP, Sodium	03/01/02		date analyzed		
TCLP, Zinc	03/01/02		date analyzed		

Sample: 01E SS422002 TCLP **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	ND	5.0	mg/L	KSC	03/06/02 09:30

Sample: 01F SS422002 TCLP **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 01H SS422002 ASTM leach **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	7.60	0.20	mg/L	LC	03/05/02 09:31

Sample: 01I SS422002 ASTM leach **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	6.0	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Redox Potential of Water	91		mV	BLT	02/27/02
Specific Conductance	53	1.08	umhos at 25C	BCJ	03/01/02 13:05
Total Alkalinity-Titration	6.0	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
pH	8.00	0.5	pH Units	BLT	03/04/02 11:35

Sample: 01J SS422002 ASTM leach **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	ND	1.0	mg/L	KS	02/28/02 15:56

Sample: 01K SS422002 ASTM leach **Category: SOIL**
Collected: 02/20/02 10:50

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	0.05	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample: 02A SS522002 **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Solid Waste, water extract	02/27/02		date extracted	JK	
TCLP Extraction	02/27/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/27/02		data extracted	JK	

Sample: 02B SS522002 TCLP **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	840	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	1.25		mg/L as CO2	TLC	02/27/02 13:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/27/02 22:27
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/27/02		date complete	MSO	
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/27/02 22:27
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/27/02 22:27
Solids, Total Dissolved	4441	20	mg/L	MS	03/01/02 13:25
Sulfate, Ion Chrom	78.0	0.38	mg/L	MSO	02/27/02 22:27
Total Alkalinity-Titration	840	1.0	mg/L as CaCO3	BLT	03/11/02 08:55

Sample: 02C SS522002 TCLP **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Ammonia, Automated Phenate	ND	0.20	mg/L as N	KS	02/28/02 12:06
Chemical Oxygen Demand	5540	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/27/02		date prepared	MVP	
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	02/27/02 13:36
Total Kjeldahl Nitrogen	0.78	0.20	mg/L as N	MVP	02/27/02 13:36
Total Nitrogen	0.78	0.20	mg/L as N	MVP	02/27/02 13:36
Total Organic Carbon, Aq	1932	100	mg/L	KS	02/28/02 15:56

Sample: 02D SS522002 TCLP **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/MS	03/01/02		date analyzed	JTH	03/01/02 16:58
TCLP, Arsenic	03/01/02		date analyzed		
TCLP, Cadmium	03/01/02		date analyzed		
TCLP, Calcium	03/01/02		date complete		
TCLP, Chromium	03/01/02		date analyzed		
TCLP, Copper	03/01/02		date analyzed		
TCLP, Iron	03/01/02		date analyzed		
TCLP, Lead	03/01/02		date analyzed		
TCLP, Magnesium	03/01/02		date analyzed		
TCLP, Manganese	03/01/02		date analyzed		
TCLP, Nickel	03/01/02		date analyzed		
TCLP, Potassium	03/01/02		date analyzed		

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
TCLP, Selenium	03/01/02		date analyzed		
TCLP, Sodium	03/01/02		date analyzed		
TCLP, Zinc	03/01/02		date analyzed		

Sample: 02E SS522002 TCLP **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Tot. Pet. Hyd., Grav, 1664	ND	5.0	mg/L	KSC	03/06/02 10:55

Sample: 02F SS522002 TCLP **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 02H SS522002 leach **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	7.61	0.20	mg/L	LC	03/05/02 09:34

Sample: 02I SS522002 leach **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Alkalinity, Bicarbonate	4.2	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	1.25		mg/L as CO2	TLC	02/27/02 13:45
Redox Potential of Water	144		mV	BLT	02/27/02
Specific Conductance	190	1.08	umhos at 25C	BCJ	03/01/02 13:05
Total Alkalinity-Titration	4.2	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
pH	6.64	0.5	pH Units	BLT	03/04/02 11:35

Sample: 02J SS522002 leach **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Chemical Oxygen Demand	ND	10	mg/L	KS	03/05/02 10:25
Total Organic Carbon, Aq	1.3	1.0	mg/L	KS	03/07/02 14:52

Sample: 02K SS522002 leach **Category: SOIL**
Collected: 02/20/02 11:00

Test Description	Result	Det Limit	Units	By	Analyzed Dt/Tm
Sulfide, colorimetric	0.06	0.03	mg/L	MSO	02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample Description: **SS422002 TCLP**
Lab No: **01D**
Test Description: **TCLP, Metals**
Method:
Test Code: **TCLPMP**
Collected: **02/20/02 10:50**
Category: **SOIL**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	ND	0.10	
Barium	100.0	0.19	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	ND	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	ND	0.10	
Unregulated Metals				
Boron		-	0.10	
Aluminum		-	0.10	
Antimony		-	0.10	
Beryllium		-	0.10	
Calcium		7.50	5.0	
Cobalt		-	0.10	
Copper		ND	0.10	
Nickel		ND	0.10	
Iron		ND	0.50	
Magnesium		2.60	0.50	
Manganese		3.80	0.10	
Molybdenum		-	0.10	
Sodium		1180	10	
Strontium		-	0.50	
Thallium		-	0.10	
Vanadium		-	0.10	
Zinc		0.33	0.10	
Tin		-	1.0	
Titanium		-	0.50	
Silica		-	10	
Tungsten		-	0.50	

Cont

Notes and Definitions for this Report:

DATE RUN
ANALYST
INSTRUMENT
FILE ID
CONC FACTOR 50
UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: **SS522002 TCLP** Lab No: **02D**
Test Description: **TCLP, Metals** Method: Test Code: **TCLPMP**
Collected: **02/20/02 11:00** Category: **SOIL**

PARAMETER	Regulatory Limit (mg/L)	RESULT	LIMIT	UNITS
Element				
Arsenic	5.0	ND	0.10	
Barium	100.0	2.90	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	ND	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	ND	0.10	
Unregulated Metals				
Boron		-	0.10	
Aluminum		-	0.10	
Antimony		-	0.10	
Beryllium		-	0.10	
Calcium		21.1	5.0	
Cobalt		-	0.10	
Copper		0.36	0.10	
Nickel		0.44	0.10	
Iron		ND	0.50	
Magnesium		4.96	0.50	
Manganese		3.71	0.10	
Molybdenum		-	0.10	
Sodium		1143	10	
Strontium		-	0.50	
Thallium		-	0.10	
Vanadium		-	0.10	
Zinc		0.65	0.10	
Tin		-	1.0	
Titanium		-	0.50	
Silica		-	10	
Tungsten		-	0.50	

Notes and Definitions for this Report:

DATE RUN
ANALYST
INSTRUMENT
FILE ID
CONC FACTOR 50
UNITS mg/L

TEST METHODOLOGIES

Carbon Dioxide	SM 4500-CO2-C (titrimetric)

ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)

Wastewater & drinking water	EPA Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010

ICP/MS (Inductively Coupled Argon Plasma Mass Spectrometry)

Wastewater & drinking water	EPA Method 200.8
RCRA TCLP & groundwater	SW 846 Method 6020
Solids	SW 846 Method 6020

Sodium (Na) - ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)

Wastewater & drinking water	EPA (1983) Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010

Arsenic (As) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Calcium (Ca) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Cadmium (Cd) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chromium (Cr) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Copper (Cu) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Iron (Fe)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Potassium (K)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Magnesium (Mg)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Manganese (Mn)- TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Sodium (Na) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Nickel (Ni) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Lead (Pb) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Selenium (Se) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Zinc (Zn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chemical Oxygen Demand	EPA Method 410.4 (manual colorimetric)
Total Dissolved Solids	SM 2540C Gravimetric,dried at 180C
Total Organic Carbon, Aqueous	EPA Method 415.2 (low-level, persulfate oxidation)

TEST METHODOLOGIES

	SW-846 Method 9060
Solid Waste, water extract	ASTM D 3987, Standard Test Method for Shake Extraction of Solid Waste with water
TCLP Extraction	SW-846 Method 1311
Zero Headspace Extraction	SW-846 Method 1311
Total Petroleum Hydrocarbons (gravimetric)	EPA Method 1664 (Hexane extraction, followed by treatment with silica gel, gravimetric determination) Method Detection Limit-1.9 mg/L
Bicarbonate alkalinity	SM 4500-CO2-D (17th edition)
Total Alkalinity	SM 2320B (titrimetric)
Chloride, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Specific Conductance	EPA Method 120.1
Ammonia	SM 4500-NH3-G 19th ed. Automated phenate EPA Method 350.1
Nitrite, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Nitrate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
pH	EPA Method 150.1 (electrometric)
Phosphorous, Total	EPA Method 365.3 SM4500-P-F Automated Ascorbic Acid Reduction
Redox Potential of Water	ASTM Method D 1498
Sulfide in Aqueous Samples	EPA Method 376.2 - Methylene Blue Method
Sulfate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Total Kjeldahl Nitrogen	SM 4500-Norg-C Semi-Micro Kjeldahl SM 4500-NH3-G Automated phenate

REPORT COMMENTS

Methane Results:

0202825-01G	2.0 ug/L
0202825-02G	2.0 ug/L

DO values Not present:

Reason - for this - Not logged in - ah

 Atlantic Coast REPORT Work Order # 02-02-825

Received: 02/20/02 03/13/02 16:16:29

Maryland Environmental Svc

Methane Results:

0202825-01G	2.0 ug/L
0202825-02G	2.0 ug/L

0202812
0202825

Maryland Environmental Service
Chain of Custody for Elutriate Water

Project Name: Furnace Bay Groundwater Study

Sample Collector(s): Mike Rooney

Project #: 792-7827 Sub # 0322

Sample Purpose : Soils testing

Bottle Number	Sample Location	Sample Date	Sample Time	Number of Bottles	Notes
SS1 22002	SS1	2/20/02	9:36	1	
SS2 22002	SS2		10:00	1	
SS3 22002	SS3		10:35	1	
SS4 22002	SS4		10:50	1	
SS5 22002	SS5		11:00	1	
				5	

Chilled to 4 Degrees Celsius? ✓ Yes ____ No

Total Number of Bottles 5

Analysis:

(1) Liter Amber glass unpreserved for : See attached

Relinquished By	Date	Time	Accepted By	Date	Time
Mike Rooney	2/20/02	13:40	Mrs Fridge	2/20/02	13:40
Frige	2/20/02	1445	[illegible]	2/20/02	1445

* Note Run Duplicate on sample # SS 22002

Furnace Bay GW study COC

Analyses	methodology	TCLP Method	D3987
Sodium	EPA 200.7	X	X
Potassium	EPA 200.7	X	
Iron	EPA 200.7	X	
Manganese	EPA 200.7	X	
Arsenic	EPA 200.8	X	
Cadmium	EPA 200.7	X	
Chromium	EPA 200.7	X	
Copper	EPA 200.7	X	
Lead	EPA 200.8	X	
Zinc	EPA 200.7	X	
Nickel	EPA 200.7	X	
Selenium	EPA 200.7	X	
Nitrate-Nitrite-Nitrogen	EPA 353.2/300.0	X	
TKN	EPA 351.3	X	
Nitrate-nitrogen	EPA 300	X	
Total nitrogen		X	
Ammonia Nitrogen	SM 4500-NH3-E	X	
Chemical Oxygen Demand	SM 5220-D	X	X
Calcium	EPA 200.7	X	
Magnesium	EPA 200.7	X	
Bicarbonates	SM4500CO2-D	X	X
Chloride	SM4500CL-F	X	
Sulfate	SM4500SO42-B	X	
Suflide	EPA 376.2	X	X
Total petroleum hydrocarbons	EPA 418.1 modified	X	
Total Phosphorous	EPA 365.3	X	
Total Organic Carbon	SM5310-C	X	X
Alkalinity	SM 2320B	X	X
Dissolved Solids	EPA 160.1	X	
Carbon Dioxide	SM4500	X	X
Ferrous Iron	SM 3500 Fe	X	
Dissolved oxygen			X
Specific conductance	EPA 120.1/SM2510B		X
Oxidation Reduction Potential			X
pH			X
Methane	SM-6211	X	