

December 27, 2021

Ms. Susan Bull
Oil Control Program
Waste Management Administration
1800 Washington Blvd., Ste.620
Baltimore, MD 21230-1719

Re: Potable Well Abandonment Report
Permit to Drill No. AA-81-2720
New Transit Truck Stop
8400 Veterans Highway, Millersville, MD
Anne Arundel County, Maryland
Facility I.D. No. 6767
MDE Case No. 07-0214AA0

Dear Ms. Bull,

TEC is providing this correspondence in response to the MDE Oil Control Programs request to provide a summary report for the abandonment of the potable well at 8424 Veterans Highway (Veterans Plaza). The well was abandoned after the building was connected to municipal water provided by the Anne Arundel County Department of Public Works. Prior to the municipal connection the buildings water was supplied by well water that was treated for trace concentrations of petroleum hydrocarbons. Water treatment consisted of carbon adsorption via twin 200 lb vessels prior to distribution through the plumbing system of the building. The following provides a discussion of the personnel, equipment and methods that were used to perform the potable well abandonment.

Introduction

On November 24, 2021 TEC and Allied Well Drilling mobilized to the site to perform above referenced well abandonment. Those in attendance from TEC to oversee the work included Mr. Ted and Kip Kraus. In addition, Mr. Charles A Youngbar, representing Allied Well Drilling (Allied) was on site. Mr. Charles A Youngbar is a licensed Master Well Driller (MWD326) and was contracted by TEC to ensure that the well was properly filled and sealed according to State requirements. Prior to conducting the abandonment TEC provided Mr. Youngbar information about the history of petroleum impact to the well. In addition, TEC provided the State of Maryland Well Completion Report dated December 31, 1983 that was completed when the well was installed. The report provides information on the construction of the well including the total depth of 125 ft, screened interval (118 ft – 125 ft) and gravel pack (113 ft – 125 ft). Additional information regarding the well construction is provided on the attached Well Completion Report that is provided as Attachment 1.

Potable Well Abandonment Methods

The drilling rig used as part of the abandonment process was a Versa Drill 125. The rig was equipped with hollow stem AW rods capable of driving and rotating casing splitting tools and tremie grouting. The well was first prepared by removing the pump, piping and electrical cable. The drilling rig was first used in an attempt to remove the entire well casing and screened interval by pulling it from the ground with a casing extractor. This method was unsuccessful after the casing, at the surface attachment point, broke when stressed to its point of failure. The rig was then set up for perforating the well casing using 4.25 inch and 5.25 inch diameter casing splitting tools. These tools were used in succession, driven separately inside the well casing in two passes. The 4.25-inch tool was used first and was driven to a depth of 128 ft. The 4.25-inch splitting tool was brought to the surface, removed and replaced with the 5.25 inch splitting tool. The 5.25 inch tool was then driven down the well to a depth of 125 ft where refusal was encountered. From the drillers assessment, the casing perforation operation was deemed successful.

The rig was then prepared for sealing the bore-hole via tremie-grouting methods. Grout material used for sealing the borehole consisted of a slurry of 100% Type I/II Portland cement manufactured by Agros. The grout was administered by pumping it through the hollow interior of the AW rods, beginning at a depth of 125 ft, while simultaneously drawing them upward. This process was continued until the entire well and bore-hole was filled to the surface where a cap of grout was formed 3 ft below ground surface (bgs). Clean backfill consisting of surface soil from on-site was used to fill the remaining 3 ft of borehole to the surrounding surface elevation. Additional information regarding the well abandonment is provided in the Maryland Department of the Environment Water Well Abandonment-Sealing Report (Attachment 2). Hard copies of the report have been sent to the appropriate governmental agencies.

On behalf of Eastern Petroleum Corporation, we look forward to a mutually successful completion of the project. If you have any questions concerning this submittal, please contact us at 410 787 0112.

Sincerely,

Total Environmental Concepts, Inc
Kip Kraus

cc. Eastern Petroleum Corporation – Kent McNew

ATTACHMENT 1

State of Maryland Well Completion Report (12/31/83)

6313

SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

THIS NUMBER IS TO BE PUNCHED IN CO. 5-38 ON ALL CARDS

COUNTY NUMBER

02

DATE RECEIVED 02/10/89

DATE WELL COMPLETED 12/31/83

DEPTH OF WELL 125 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 49-87-2720

OWNER Stone, G. W. STREET OR RFD 836 Ritchie Highway TOWN Severna Park, MD. 21146 SUBDIVISION SECTION Rt. 3 Bus. Center LOT

WELL LOG - Not required for driven wells. STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), Check if water bearing. Rows include Brown clay, White sand, White clay, Brown, white sand, White clay, Brown, white sand & gravel, Red, white sand, Brown, white sand, White clay, Brown, white sand.

GROUTING RECORD - WELL HAS BEEN GROUTED (Y/N). TYPE OF GROUTING MATERIAL: CEMENT (CM), BENTONITE CLAY (BC). NO OF BAGS 18, NO OF POUNDS 1200.

DEPTH OF GROUT SEAL (to nearest foot) from 0 to 110 ft. center of ft. from surface.

CASING RECORD - Casing types insert appropriate code below. ST (STEEL), CO (CONCRETE), PL (PLASTIC), OT (OTHER).

MAIN CASING TYPE: PL, 4 inch diameter, 118 feet total depth.

OTHER CASING (if used) - Diameter and depth (feet) from.

SCREEN RECORD - screen type or open hole. ST (STEEL), BR (BRASS), HO (OPEN HOLE), PL (PLASTIC), OT (OTHER).

SCREEN RECORD table with columns for depth (feet) and screen diameter (inch).

SLOT SIZE 030, DIAMETER OF SCREEN 2 (NEAREST INCH).

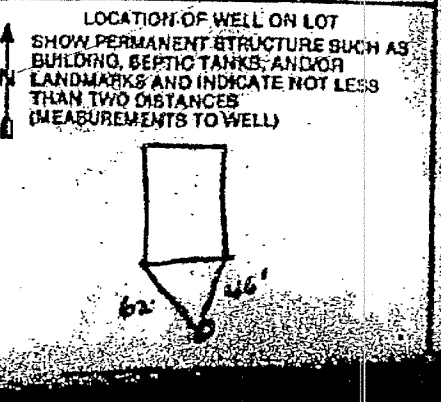
GRAVEL PACK from 113 to 125. IF WELL DRILLED WAS FLOWING WELL INSERT FIN BOX 65.

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

TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST - C 3. HOURS PUMPED 3. PUMPING RATE 3.0 gpm. METHOD USED TO MEASURE PUMPING RATE AIR. WATER LEVEL BEFORE PUMPING 62, WHEN PUMPING 80. TYPE OF PUMP USED (for test) A (Centrifugal).

PUMP INSTALLED - DRILLER WILL INSTALL PUMP (YES/NO). TYPE OF PUMP INSTALLED 3. CAPACITY 13 GPM. PUMP HORSE POWER 7.5. PUMP COLUMN LENGTH 110. CASING HEIGHT + above, LAND SURFACE 11 (nearest foot).



- 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 10.17.03 "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. 388. DRILLER'S SIGNATURE (MUST MATCH SIGNATURE OF APPLICATION) Denton J. Wolford.

SITE SUPERVISOR (sign. of driller or journeyman responsible for check if different from permitting)

8424 Veterans Hwy

ATTACHMENT 2

State of Maryland Water Well Abandonment-Sealing Report

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 11/24/21 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

AA - 81 - 2720

* PERMIT NUMBER OF REPLACEMENT WELL:

None

* PERSON ABANDONING WELL: Charles A Youngbar

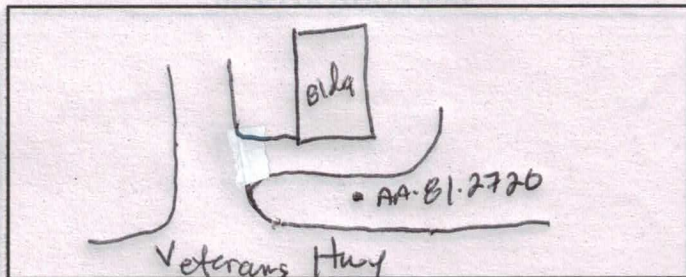
WELL DRILLER'S LICENSE NUMBER: 326

* OWNER'S NAME: GW Stone Inc

CIRCLE: MWD / MSD / MGD

SITE LOCATION MAP

* WELL LOCATION:
COUNTY: Anne Arundel
NEAREST TOWN: Millersville
TAX MAP 0022 BLOCK _____ PARCEL 0293
SUBDIVISION: _____
SECTION: _____ LOT: _____
STREET ADDRESS: 8424 Veterans Hwy



LATITUDE 39.0604 - -

LONGITUDE 76.3737 - -

LOG OF SEALING MATERIAL

* TYPE OF WELL BEING ABANDONED:
 DRILLED _____ JETTED
_____ BORED _____ HAND DUG
_____ OTHER (specify) _____

MATERIAL	FEET	
	FROM	TO
portland cement	125	3
clean fill	3	0

* USE CODE:
 DOMESTIC _____ MUNICIPAL/PUBLIC
_____ IRRIGATION _____ INDUSTRIAL
_____ TEST/OBSERVATION _____ GEOTHERMAL

VOLUME OF MATERIAL USED

* TYPE OF CASING:
_____ STEEL PLASTIC
_____ CONCRETE _____ OTHER (specify) _____

26 bags

SIZE OF CASING: 4 INCHES IN DIAMETER

DEPTH OF WELL: 125 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO

If yes, length removed, in feet: 4

WAS CASING RIPPED OR PERFORATED? YES _____ NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE#

326

CIRCLE ONE MWD / MSD / MGS

DATE 12/16/21

Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law.