



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
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Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Tuesday, February 2, 2021
WELL WORK PLUGGING PERMIT
Not Available Plugging

WEST VIRGINIA LAND RESOURCES, INC.
46226 NATIONAL ROAD WEST
ST. CLAIRSVILLE, OH 43950

Re: Permit approval for 3435
47-051-00021-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: 3435
Farm Name: WENDT, AUGUST
U.S. WELL NUMBER: 47-051-00021-00-00
Not Available Plugging
Date Issued: 2/2/2021

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

WW-4B
Rev. 2/01

- 1) Date OCTOBER 31, 20 20
- 2) Operator's Well No. M-1763
- 3) API Well No. 47-051-00021

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow ___

5) Location: Elevation 1200.40' Watershed FOURMILE RUN OF HARTS RUN OF PENNSYLVANIA FORK OF FISH CREEK
District LIBERTY County MARSHALL Quadrangle CAMERON WV,PA

6) Well Operator WEST VIRGINIA LAND RESOURCES INC. 7) Designated Agent DAVID RODDY
Address 1 BRIDGE STREET Address 1 BRIDGE STREET
MONONGAH, WV 26554 MONONGAH, WV 26554

8) Oil and Gas Inspector to be notified Name JAMES NICHOLSON
Address P.O. BOX 44
MOUNDSVILLE, WV 26041

9) Plugging Contractor Name _____
Address _____

10) Work Order: The work order for the manner of plugging this well is as follows:

See Exhibit No. 1
F
MSHA 101 C
EXEMPTION

WELL MAKING GAS
RECORDS OF GAS PRODUCTION
FROM 1980-1992

RECEIVED
Office of Oil and Gas
NOV 20 2020

Notification must be given to the district oil and gas inspector 24 hours before work can commence.

Work order approved by inspector Jim Nicholson Date 11/17/2020

WV Department of Environmental Protection

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.0

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Seed Mix in accordance with WVDEP Oil and Gas, Erosion and Sediment Control Field Manual

Seed Mix in accordance with WVDEP Oil and Gas, Erosion and Sediment Control Field Manual

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Jim Wilkerson*

Comments: _____

Title: Oil & Gas Inspector

Date: 11/17/2020

Field Reviewed? () Yes () No

EXHIBIT NO.1

From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, Consolidation Coal's Northern West Virginia Operations will utilize the following method to plug all future wells.

SOLID PLUG METHOD

- ★ ACTIVE WELL Clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
- (b) ~~If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.~~
- (c) Circulate through tubing or drill steel an expanding Class A cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel an expanding Class A cement plug from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

WELL WAS PLUGGED ON 1/28/1942 BUT
REDRILLED & PRODUCING UNTIL 1992.

RECEIVED
Office of Oil and Gas
NOV 20 2020
WV Department of
Environmental Protection

In the matter of:
 The Marshall County Coal Company
 Marshall County Mine
 I.D. No. 46-01437

MSHA 101 C
 EXEMPTION

Petition for modification

Docket No. M-2016-016-C

PROPOSED AMENDED DECISION AND ORDER

On May 31, 2016, a Petition was filed seeking a modification of the application of 30 C.F.R. § 75.1700 to The Marshall County Coal Company's Marshall County Mine located in Marshall County, West Virginia. The Petitioner filed the Petition to permit an alternative method of compliance with the standard with respect to vertical oil and gas wells into the underground coal seams. The Petitioner requests to amend their current PDO granted on May 15, 1989, under Docket M-1988-199-C formerly known as McElroy Coal Company, McElroy Mine to the alternate method stipulated in the April 29, 2013 PDO granted to ACI Tygart Valley, Leer Mine.

The Petitioner alleges that the proposed alternative method will at all times guarantee no less than the same measure of protection afforded miners under 30 C.F.R. § 75.1700 as that provided by the standard, which states:

§ 75.1700 Oil and gas wells.

Each operator of a coal mine shall take reasonable measures to locate oil and gas wells penetrating coalbeds or any underground area of a coal mine. When located, such operator shall establish and maintain barriers around such oil and gas wells in accordance with State laws and regulations, except that such barriers shall not be less than 300 feet in diameter, unless the Secretary or his authorized representative permits a lesser barrier consistent with the applicable State laws and regulations where such lesser barrier will be adequate to protect against hazards from such wells to the miners in such mine, or unless the Secretary or his authorized representative requires a greater barrier where the depth of the mine, other geologic conditions, or other factors warrant such a greater barrier.

The Petition addresses items for which District Manager approval is required, procedures for cleaning out and preparing oil and gas wells prior to plugging or re-plugging, procedures for plugging or re-plugging oil or gas wells to the surface, procedures for plugging or re-plugging oil or gas wells for use as degasification boreholes, alternative procedures for preparing and plugging or re-plugging oil or gas wells, and procedures after approval has been granted to mine through a plugged or re-plugged well.

On July 27, 2016, MSHA personnel conducted an investigation of the Petition and filed a report of their findings with the Administrator for Coal Mine Safety and Health. The modification granted under Docket No. M-1988-199-C will be superseded and replaced by this amended modification granted under Docket No. M-2016-016-C after this Proposed Amended Decision and Order becomes final.

The mine is represented by United Mine Workers of America (UMWA), AFL-CIO, CLC-1638 with miners' representatives and did not file any questions or comments on behalf of the miners.

After review of the parties' submissions and Joint Motion for Settlement, the following Decision and Order is issued.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Marshall County Mine employs approximately 712 miners and produces approximately 50,000 tons of bituminous coal per day from the Pittsburgh #8 coal seam with an average mine height of 66 inches. At this time, there are no coal seams being mined below (i.e., stratigraphically down section from) the Pittsburgh seam. The mine is accessed through 2 slope and 12 air shafts. The mine operates 3 production shifts per day, 5 days per week, on five working sections, two longwall and three advancing gate sections utilizing continuous mining machines. The mine liberates 11,659,131 cubic feet of methane on a daily basis.

Although MSHA has granted modifications of this standard at different mines over the years, changing circumstances in oil and gas drilling technology and practices compels MSHA to reconsider the safest approach to mining around or through such wells. In recent years, changes in hydraulic fracturing (fracking) technology, marketplace and resource conditions have led to an increase in the number and depth of oil and gas wells penetrating the Pittsburgh #8 and other coal seams. Since deeper wells are usually associated with higher well pressures, modifications of § 75.1700 must include appropriate measures to better protect miners. In addition to the risks associated with higher well pressures, MSHA is concerned that operators may be preparing and plugging wells to inadequate depths for convenience or to lower costs, which may result in reduced safety for miners.

This Decision and Order reflects the settlement between the Petitioner's proposal and the amended terms and conditions first set forth by MSHA, under the terms set forth below. The major points of compromise include the following:

1. *Making a diligent effort to remove the casing to the original total depth.* If all of the casing can be removed, or if the well contains no casing, the operator shall

prepare the well for plugging, and use seals described below, for wells less than 4,000' depth to seal to 200 feet below the coal seam to be mined, or the lowest mineable seam, whichever is lower, or for wells 4,000' deep or greater, seal 400 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower. MSHA retains the right to review and direct the operator's sealing protocol, in the event geologic or well conditions require further measures. As used in this Proposed Amended Decision and Order, in order to make a diligent effort to remove the casing, the operator shall pull a minimum of 150% of casing string weight and/or have made at least three attempts to spear or overshot to grip the casing for the required minimum pull effort. Where casing string length is unknown, a 3,000' casing string will be assumed. The operator shall keep a record of these efforts, including casing length and weights, and make available for MSHA review. The District Manager reserves the right to require additional measures in efforts to remove casing, as appropriate.

2. *Unknown total depth.* If the total depth of the well is unknown the operator must contact the District Manager before proceeding. MSHA believes, by including this step in the process, that miner safety will be better served because the Petitioner and the District Manager can work together to evaluate the conditions of the well to be plugged as well as the safest way to accomplish the plugging. MSHA and the operator will work cooperatively to establish a communications protocol, so that the operator may contact the District Manager while working outside normal working hours.
3. *Cement.* Cement is specified to be used as a plugging material, instead of an unnamed "approved equivalent," as requested by Petitioner.
4. *Wells vary in depth.* The terms and conditions required by MSHA will require operator to prepare these wells for safe intersection by making a diligent effort to remove casing to the total depth if possible, then: cleaning to and setting a plug at least 200' below the coal seam to be mined or lowest mineable seam, whichever is lower; or for wells 4,000' or greater, to at least 400 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower. The operator will then plug from either the attainable bottom or the newly installed plug, as applicable, by pumping expanding cement slurry and pressurizing to at least 200 psi. If the total depth is not reached and casing cannot be removed, these alternative methods included in this proposed decision and order have proven to be safe and effective when properly implemented.
5. *Notification* - Where the operator is required to notify the District Manager pursuant to the terms of this Proposed Decision and Order, the method of notification will be set forth in the cut-through procedures for each well. The

District Manager agrees to provide a number wherein he or his designee is available at all times.

Therefore, the terms and conditions as amended will at all times guarantee no less than the same measure of protection afforded the miners under 30 C.F.R. § 75.1700 for all wells regardless of depth. On the basis of the Petition, comments received, the findings of MSHA's investigation, and the parties' Joint Motion for Settlement, the Marshall County Coal Company is granted a modification of the application of 30 C.F.R. § 75.1700 to its Marshall County Mine.

ORDER

Under the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and under § 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), and 30 C.F.R. Part 44, a modification of the application of 30 C.F.R. § 75.1700 at The Marshall County Coal Company's Marshall County Mine is hereby:

GRANTED, subject to the following terms and conditions:

1. DISTRICT MANAGER APPROVAL REQUIRED

- a. The type of oil or gas well that will be considered under this Petition includes wells that have been depleted of oil or gas production or have not produced oil or gas and may have been plugged, or active conventional vertical wells which are not producing gas or oil, subject to the provisions below. Unconventional wells in the Marcellus, Utica, and all other unconventional shale oil and gas wells are not subject to this modification. Nothing in these provisions is meant to lessen, diminish, or substitute any provision found in applicable state laws or regulations.
- b. A safety barrier of 300 feet in diameter (150 feet between any mined area and a well) shall be maintained around all oil and gas wells (defined herein to include all active, inactive, abandoned, shut-in, previously plugged wells, water injection wells, and carbon dioxide sequestration wells) until approval to proceed with mining has been obtained from the District Manager. Wells that were drilled into potential oil or gas producing formations that did not produce commercial quantities of either gas or oil (exploratory wells, wildcat wells or dry holes) are classified as oil or gas wells by MSHA.
- c. Prior to mining within the safety barrier around any well that the mine plans to intersect, the mine operator shall provide to the District Manager a sworn

affidavit or declaration executed by a company official, the person at the mine who is in charge of health and safety at the mine, stating that all mandatory procedures for cleaning out, preparing, and plugging each gas or oil well have been completed as described by the terms and conditions of this order.

The affidavit or declaration must be accompanied by all logs, electronic or otherwise, described in subparagraphs 2(a)(2) and 2(a)(3) below and any other records described in those subparagraphs which the District Manager may request. The District Manager will review the affidavit or declaration, the logs and any other records that have been requested, and may inspect the well itself, and will then determine if the operator has complied with the procedures for cleaning out, preparing, and plugging each well as described by the terms and conditions of this Order. If the District Manager determines that the procedures have been complied with, he will provide his approval, and the mine operator may then mine within the safety barrier of the well, subject to the terms of this Order.

If well intersection is not planned, the mine operator may request a permit to reduce the 300 foot diameter of the safety barrier that does not include intersection of the well. The District Manager may require documents and information that help verify the accuracy of the location of the well in respect to the mine maps and mining projections. This information may include survey closure data, down-hole well deviation logs, historical well intersection location data and any additional data required by the District Manager. If the District Manager determines that the proposed barrier reduction is reasonable, he will provide his approval, and the mine operator may then mine within the safety barrier of the well.

d. The terms and conditions of this Order apply to all types of underground coal mining.

2. MANDATORY PROCEDURES FOR CLEANING OUT, PREPARING, PLUGGING, AND RE-PLUGGING OIL OR GAS WELLS

a. **MANDATORY PROCEDURES FOR CLEANING OUT AND PREPARING VERTICAL OIL AND GAS WELLS PRIOR TO PLUGGING OR RE-PLUGGING**

The mine operator shall test for gas emissions inside the hole before cleaning out, preparing, plugging, and re-plugging oil and gas wells. The District Manager shall be contacted if the well is actively producing gas.

- (1) A diligent effort shall be made to remove all the casing in the well and clean the well to 200' below the coal seam to be mined, or the lowest mineable coal seam, whichever is lower, or for wells 4,000' or greater, clean the well to 400' below the coal seam to be mined, or the lowest mineable coal seam, whichever is lower.

If the total depth of the well is less than 4,000 feet, the operator shall completely clean out the well from the surface to at least 200 feet below the coal seam to be mined, unless the District Manager requires cleaning to a greater depth based on his judgment as to what is required due to the geological strata, or due to the pressure within the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If the total depth of the well is 4,000 feet, or greater, the operator shall completely clean out the well from the surface to at least 400 feet below the coal seam to be mined. Wells of this greater depth are under greater pressure, so the 400 feet requirement provides greater protection for miners. The operator shall make a diligent effort to remove all material from the entire diameter of the well, wall to wall. If the total depth of the well is unknown and there is no historical information, the mine operator must contact the District Manager before proceeding.

Where active wells which are no longer producing are being cleaned and prepared subject to this order, the operator must: 1) attempt to remove all of the casing using a diligent effort, and comply with all other applicable provisions in this order, or 2) if the casing cannot be removed from the total depth, must be filled with cement from the lowest possible depth to 200 feet below the seam to be mined or lowest mineable coal seam, whichever is lower for wells less than 4,000', or 400 feet below the seam to be mined or lowest mineable coal seam, whichever is lower, for wells 4,000' or greater, and the other applicable provisions in this order still apply, or 3) if the casing cannot be removed it shall be perforated from 200 feet below the coal seam to be mined, or lowest mineable seam, whichever is lower, or 400 feet below the seam to be mined or lowest mineable coal seam, whichever is lower, for wells 4,000' or greater, and the annuli shall be cemented or otherwise filled, and the other applicable provisions in this order still apply.

- (2) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a bond log if appropriate, a deviation survey, and a gamma survey for determining the top, bottom, and thickness of all coal seams down to the coal seam to be mined, or the lowest mineable coal seam, whichever is lower, potential hydrocarbon producing strata and the

location of any existing bridge plug. In addition, a journal shall be maintained describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning cleaning and sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request.

- (3) When cleaning out the well as provided for in subparagraph (a)(1), the operator shall make a diligent effort to remove all of the casing in the well. Thereafter, the well should be plugged to the attainable bottom, at least 200 feet below the coal seam to be mined or lowest mineable seam, whichever is lower, by pumping expanding cement slurry and pressurizing to at least 200 psi. If the casing cannot be removed, it must be cut, milled, perforated or ripped at sufficient intervals to facilitate the removal of any remaining casing in the coal seam by the mining equipment. Any casing which remains shall be perforated or ripped to permit the injection of cement into voids within and around the well. All casing remaining at the coal seam to be mined shall be perforated or ripped at least every 5 feet from 10 feet below the coal seam to 10 feet above the coal seam.

Perforations or rips are required at least every 50 feet from 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the uppermost mineable coal seam. For perforations in the Pittsburgh Seam, see Appendix A. The mine operator must take appropriate steps to ensure that the annulus between the casing and the well walls are filled with expanding (minimum 0.5% expansion upon setting) cement and contain no voids.

Jet/sand cutting is one method for ripping or perforating casing with three or more strings of casing in the Pittsburgh coal seam in preparation for mining. This method uses compressed nitrogen gas and sand to cut the well casings as outlined in Appendix A. On active wells cuts start at 200' above the bottom of the casing at 200' intervals, to 200' below the bottom of the Pittsburgh coal seam where Appendix A outlines cut interval minimums.

If it is not possible to remove all of the casing, the operator shall notify the District Manager before any other work is performed. If the well cannot be cleaned out or the casing removed, the operator shall prepare the

well as described from the surface to at least 200 feet below the base of the lowest mineable coal seam for wells less than 4000 feet in depth and 400 feet below the lowest mineable coal seam for wells 4000 feet or greater, unless the District Manager requires cleaning out and removal of casing to a greater depth based on his judgement as to what is required due to geological strata, or due to the pressure within the well.

If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that all annuli in the well are already adequately sealed with cement, then the operator will not be required to perforate or rip the casing for that particular well. When multiple casing and tubing strings are present in the coal horizon(s), any casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of ripping or perforating multiple strings.

- (4) If the District Manager concludes that the completely cleaned-out well is emitting excessive amounts of gas, the operator must place a mechanical bridge plug in the well.

It must be placed in a competent stratum at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam, but above the top of the uppermost hydrocarbon-producing stratum, unless the District Manager requires a greater distance based on his judgment that it is required due to the geological strata, or due to the pressure within the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If it is not possible to set a mechanical bridge plug, an appropriately sized packer may be used. The mine operator shall document what has been done to "kill the well" and plug the hydrocarbon producing strata.

- (5) If the upper-most hydrocarbon-producing stratum is within 300 feet of the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, the operator shall properly place mechanical bridge plugs as described in subparagraph (a)(4) to isolate the hydrocarbon-producing stratum from the expanding cement plug.

Nevertheless, the operator shall place a minimum of 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater distance based on

his judgment that it is required due to the geological strata, or due to the pressure within the well.

b. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL OR GAS WELLS TO THE SURFACE

After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be used to plug or re-plug wells:

- (1) The operator shall pump expanding cement slurry down the well to form a plug which runs from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, (or lower if required by the District Manager based on his judgment that a lower depth is required due to the geological strata, or due to the pressure within the well) to the surface. The expanding cement will be placed in the well under a pressure of at least 200 pounds per square inch. Portland cement or a lightweight cement mixture may be used to fill the area from 100 feet above the top of the uppermost mineable coal seam (or higher if required by the District Manager based on his judgment that a higher distance is required due to the geological strata, or due to the pressure within the well) to the surface.
- (2) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger diameter casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing. When the hole cannot be marked with a physical monument (e.g. prime farmland), high-resolution GPS coordinates (one-half meter resolution) are required.

c. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL AND GAS WELLS FOR USE AS DEGASIFICATION WELLS

After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be utilized when plugging or re-plugging wells that are to be used as degasification wells:

- (1) The operator shall set a cement plug in the well by pumping an expanding cement slurry down the tubing to provide at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater depth

based on his judgment that a greater depth is required due to the geological strata, or due to the pressure within the well. The expanding cement will be placed in the well under a pressure of at least 200 pounds per square inch. The top of the expanding cement shall extend at least 50 feet above the top of the coal seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or due to the pressure within the well.

- (2) The operator shall securely grout into the bedrock of the upper portion of the degasification well a suitable casing in order to protect it. The remainder of this well may be cased or uncased.**
- (3) The operator shall fit the top of the degasification casing with a wellhead equipped as required by the District Manager in the approved ventilation plan. Such equipment may include check valves, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.**
- (4) Operation of the degasification well shall be addressed in the approved ventilation plan. This may include periodic tests of methane levels and limits on the minimum methane concentrations that may be extracted.**
- (5) After the area of the coal mine that is degassed by a well is sealed or the coal mine is abandoned, the operator must plug all degasification wells using the following procedures:**
 - (i) The operator shall insert a tube to the bottom of the well or, if not possible, to within 100 feet above the coal seam being mined. Any blockage must be removed to ensure that the tube can be inserted to this depth.**
 - (ii) The operator shall set a cement plug in the well by pumping Portland cement or a lightweight cement mixture down the tubing until the well is filled to the surface.**
 - (iii) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing.**
 - (iv) This provision does not apply to traditional degasification holes**

which have not intersected the seam to be mined, have not commercially produced gas and have no API number.

d. MANDATORY ALTERNATIVE PROCEDURES FOR PREPARING AND PLUGGING OR RE-PLUGGING OIL OR GAS WELLS

The following provisions apply to all wells which the operator determines, and with which the MSHA District Manager agrees, cannot be completely cleaned out due to damage to the well caused by subsidence, caving, or other factors.

- (1) **The operator shall drill a hole adjacent and parallel to the well, to a depth of at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the coal seam to be mined, or lowest mineable seam, whichever is lower, unless the District Manager requires a greater depth based on his judgment that a greater depth is required due to the geological strata, or due to the pressure within the well.**
- (2) **The operator shall use a geophysical sensing device to locate any casing which may remain in the well.**
- (3) **If the well contains casing(s), the operator shall drill into the well from the parallel hole. From 10 feet below the coal seam to 10 feet above the coal seam, the operator shall perforate or rip all casings at least every 5 feet. Beyond this distance, the operator shall perforate or rip at least every 50 feet from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, up to 100 feet above the seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or due to the pressure within the well. The diagram shown in Appendix A is representative of the locations of the perforations or ripping that must be done.**

The operator shall fill the annulus between the casings and between the casings and the well wall with expanding (minimum 0.5% expansion upon setting) cement, and shall ensure that these areas contain no voids. If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that the annulus of the well is adequately sealed with cement, then the operator will not be required to perforate or rip the casing for that particular well, or fill these areas with cement. When multiple casing and tubing strings are present in the coal

horizon(s), any casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of ripping or perforating multiple strings.

- (4) Where the operator determines, and the District Manager agrees, that there is insufficient casing in the well to allow the method outlined in subparagraph (d)(3) to be used, then the operator shall use a horizontal hydraulic fracturing technique to intercept the original well. From at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the coal seam to be mined, or lowest mineable seam, whichever is lower, to a point at least 50 feet above the seam being mined, the operator shall fracture in at least six places at intervals to be agreed upon by the operator and the District Manager after considering the geological strata and the pressure within the well. The operator shall then pump expanding cement into the fractured well in sufficient quantities and in a manner which fills all intercepted voids.
- (5) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a bond log if applicable, a deviation survey, and a gamma log for determining the top, bottom, and thickness of all coal seams down to the coal seam to be mined, or lowest mineable seam, whichever is lower, potential hydrocarbon producing strata and the location of any existing bridge plug. The operator may obtain the logs from the adjacent hole rather than the well if the condition of the well makes it impractical to insert the equipment necessary to obtain the log.
- (6) A journal shall be maintained describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request.
- (7) After the operator has plugged the well as described in subparagraphs (d)(3) and/or (d)(4), the operator shall plug the adjacent hole, from the bottom to the surface, with Portland cement or a lightweight cement mixture.

The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic

monument of the well. In the alternative, a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level.

A combination of the methods outlined in subparagraphs (d)(3) and (d)(4) may have to be used in a single well, depending upon the conditions of the hole and the presence of casings. The operator and the District Manager shall discuss the nature of each hole. The District Manager may require that more than one method be utilized. The mine operator may submit an alternative plan to the District Manager for approval to use different methods to address wells that cannot be completely cleaned out. The District Manager may require additional documentation and certification by a registered petroleum engineer to support the proposed alternative methods.

3. MANDATORY PROCEDURES WHEN MINING WITHIN A 100-FOOT DIAMETER BARRIER AROUND WELL

- a. A representative of the operator, a representative of the miners, the appropriate State agency, or the MSHA District Manager may request that a conference be conducted prior to intersecting any plugged or re-plugged well. Upon receipt of any such request, the District Manager shall schedule such a conference. The party requesting the conference shall notify all other parties listed above within a reasonable time prior to the conference to provide opportunity for participation. The purpose of the conference shall be to review, evaluate, and accommodate any abnormal or unusual circumstance related to the condition of the well or surrounding strata when such conditions are encountered.
- b. The operator shall intersect a well on a shift approved by the District Manager. The operator shall notify the District Manager and the miners' representative in sufficient time prior to intersecting a well in order to provide an opportunity to have representatives present.
- c. When using continuous mining methods, the operator shall install drivage sights at the last open crosscut near the place to be mined to ensure intersection of the well. The drivage sites shall not be more than 50 feet from the well. When using longwall-mining methods, distance markers shall be installed on 5-foot centers for a distance of 50 feet in advance of the well in the headgate entry and in the tailgate entry.
- d. The operator shall ensure that fire-fighting equipment including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the well intersection (when either the conventional or continuous

mining method is used) is available and operable during all well intersections. The fire hose shall be located in the last open crosscut of the entry or room. The operator shall maintain the water line to the belt conveyor tailpiece along with a sufficient amount of fire hose to reach the farthest point of penetration on the section. When the longwall mining method is used, a hose to the longwall water supply is sufficient.

- e. The operator shall ensure that sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, emergency plugs and suitable sealing materials shall be available in the immediate area of the well intersection.
- f. On the shift prior to intersecting the well, the operator shall service all equipment and check it for permissibility. Water sprays, water pressures, and water flow rates used for dust and spark suppression shall be examined and any deficiencies corrected.
- g. The operator shall calibrate the methane monitor(s) on the longwall, continuous mining machine, or cutting machine and loading machine on the shift prior to intersecting the well.
- h. When mining is in progress, the operator shall perform tests for methane with a handheld methane detector at least every 10 minutes from the time that mining with the continuous mining machine or longwall face is within 30 feet of the well until the well is intersected. During the actual cutting process, no individual shall be allowed on the return side until the well intersection has been completed, and the area has been examined and declared safe. All workplace examinations on the return side of the shearer will be conducted while the shearer is idle. The operator's most current Approved Ventilation Plan will be followed at all times unless the District Manager deems a greater air velocity for the intersect is necessary.
- i. When using continuous or conventional mining methods, the working place shall be free from accumulations of coal dust and coal spillages, and rock dust shall be placed on the roof, rib, and floor to within 20 feet of the face when intersecting the well. On longwall sections, rock dusting shall be conducted and placed on the roof, rib, and floor up to both the headgate and tailgate gob.
- j. When the well is intersected, the operator shall de-energize all equipment, and thoroughly examine and determine the area to be safe before permitting mining to resume.

- k. After a well has been intersected and the working place determined to be safe, mining shall continue in by the well a sufficient distance to permit adequate ventilation around the area of the well.
- l. If the casing is cut or milled at the coal seam level, the use of torches should not be necessary. However, in rare instances, torches may be used for inadequately or inaccurately cut or milled casings. No open flame shall be permitted in the area until adequate ventilation has been established around the well bore and methane levels of less than 1.0% are present in all areas that will be exposed to flames and sparks from the torch. The operator shall apply a thick layer of rock dust to the roof, face, floor, ribs and any exposed coal within 20 feet of the casing prior to the use of torches.
- m. Non-sparking (brass) tools will be available and will be used exclusively to expose and examine cased wells.
- n. No person shall be permitted in the area of the well intersection except those actually engaged in the operation, including company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate State agency.
- o. The operator shall alert all personnel in the mine to the planned intersection of the well prior to their going underground if the planned intersection is to occur during their shift. This warning shall be repeated for all shifts until the well has been mined through.
- p. The well intersection shall be under the direct supervision of a certified individual. Instructions concerning the well intersection shall be issued only by the certified individual in charge.
- q. If the mine operator cannot find the well in the longwall panel or if a development section misses the anticipated intersection, the operator shall cease mining to examine for hazardous conditions at the projected location of the well, notify the District Manager, and take reasonable measures to locate the well, including visual observation/inspection or through survey data. Mining may resume if the well is located and no hazardous conditions exist. If the well cannot be located, the mine operator shall work with District Manager to resolve any issues before mining resumes.

- r. The provisions of this Order do not impair the authority of representatives of MSHA to interrupt or halt the well intersection, and to issue a withdrawal order, when they deem it necessary for the safety of the miners. MSHA may order an interruption or cessation of the well intersection and/or a withdrawal of personnel by issuing either a verbal or written order to that effect to a representative of the operator, which order shall include the basis for the order. Operations in the affected area of the mine may not resume until a representative of MSHA permits resumption. The mine operator and miners shall comply with verbal or written MSHA orders immediately. All verbal orders shall be committed to writing within a reasonable time as conditions permit.
- s. A copy of this Order shall be maintained at the mine and be available to the miners.
- t. If the well is not plugged to the total depth of all minable coal seams identified in the core hole logs, any coal seams beneath the lowest plug will remain subject to the barrier requirements of 30 C.F.R. § 75.1700, should those coal seams be developed in the future.
- u. All necessary safety precautions and safe practices according to Industry Standards, required by MSHA regulations and State regulatory agencies having jurisdiction over the plugging site will be followed to provide the upmost protection to the miners involved in the process.
- v. All miners involved in the plugging or re-plugging operations will be trained on the contents of this Petition prior to starting the process and a copy of this Petition will be posted at the well site until the plugging or re-plugging has been completed.
- w. Mechanical bridge plugs should incorporate the best available technologies that are either required or recognized by the State regulatory agency and/or oil and gas industry.
- x. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved 30 C.F.R. Part 48 training plan to the District Manager. These proposed revisions shall include initial and refresher training on compliance with the terms and conditions stated in the Order. The operator shall provide all miners involved in well intersection with training on the requirements of this Order prior to mining within 150 feet of the next well intended to be mined through.

- y. The responsible person required under 30 C.F.R. § 75.1501 Emergency Evacuations, is responsible for well intersection emergencies. The well intersection procedures should be reviewed by the responsible person prior to any planned intersection.
- z. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved mine emergency evacuation and firefighting program of instruction required under 30 C.F.R § 75.1502. The operator will revise the program of instruction to include the hazards and evacuation procedures to be used for well intersections. All underground miners will be trained in this revised plan within 30 days of submittal.

SUBJECT TO THE ABOVE TERMS AND CONDITIONS, and under the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and under § 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), and 30 C.F.R. Part 44, a modification of the application of 30 C.F.R. § 75.1700 at The Marshall County Coal Company's Marshall County Mine is hereby **GRANTED**.

DISTRIBUTION

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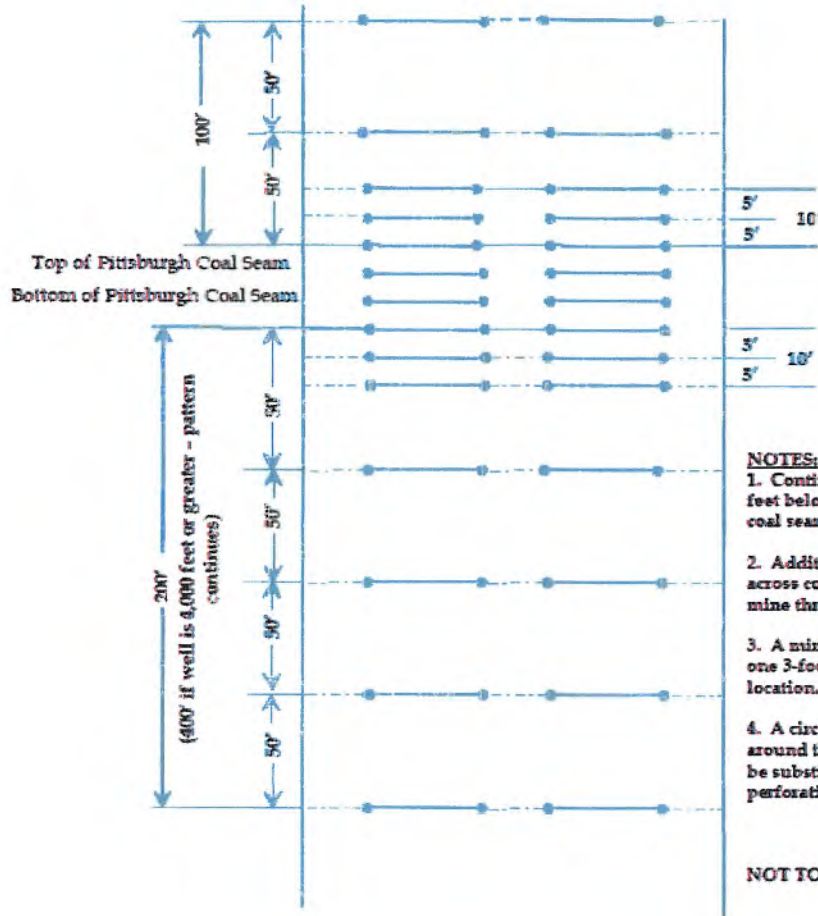
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UMWA Representative, Marshall County Coal Mine
902 Wheeling Avenue
Glen Dale, West Virginia 26038*

Appendix A





Select County: (051) Marshall (Check All)

Enter Permit #: 21

Get Data Reset

Select datatypes:

- Location
- Production
- Plugging
- Owner/Completion
- Stratigraphy
- Sample
- Pay/Show/Water
- Logs
- Btm Hole Loc

[Table Descriptions](#)
[County Code Translations](#)
[Permit-Numbering Series](#)
[Usage Notes](#)
[Contact Information](#)
[Disclaimer](#)
[WVGES Main](#)
["Pipeline-Plus" New](#)

WV Geological & Economic Survey

Well: County = 051 Permit = 21

Report Time: Saturday, October 31, 2020 5:23:18 AM

Well Reassignment Information: Reassigned From

OLD_COUNTY	OLD_PERMIT	NEW_COUNTY	NEW_PERMIT
51	30179	51	21

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4705100021	Marshall	21	Cameron	Cameron	Cameron	39.806298	-80.533827	539904.7	4406362.5

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4705100021	6/10/1930	Original Loc	Completed	George Wendt	5	3435	August Wendt		Manufrs Lt & Heat Co	Manufacturers Light & Heat Co.			

Completion Information:

API	CMP_DT	SPUD_DT	ELEV DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL_BEF	NGL_AFT	P_BEF	TI_BEF	P_AFT
4705100021	6/10/1930	4/14/1930	1205 Ground Level	Cameron	UDev undf/Ber/LoHURN	Fifth	Development Well	Development Well	Gas	Cable Tool	Shot	3063		3063		103	0	0	0	0	0	185	15	0

Pay/Show/Water Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FM_TOP	DEPTH_BOT	FM_BOT	G_BEF	G_AFT	O_BEF	O_AFT	WATER_QNTY
4705100021	6/10/1930	Show	Gas	Vertical	340	unidentified coal			343	unidentified coal	0	0	
4705100021	6/10/1930	Pay	Gas	Vertical			2209	Big Injun (undiff)	0	0	0	0	
4705100021	6/10/1930	Show	Gas	Vertical			2772	Fifty-foot	0	0	0	0	
4705100021	6/10/1930	Pay	Gas	Vertical	2842	Gordon	2849	Gordon	0	0	0	0	
4705100021	6/10/1930	Pay	Gas	Vertical			2902	Fifty-foot	0	0	0	0	
4705100021	6/10/1930	Pay	Gas	Vertical	2911	Fourth	2917	Fourth	0	0	0	0	

Production Gas Information: (Volumes in Mcf)

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4705100021	Columbia Gas Transmission Corp.	1980	1,336	17	167	475	8	159	16	0	0	90	181	38	185
4705100021	Columbia Gas Transmission Corp.	1981	863	191	194	177	120	0	0	0	0	0	0	0	181
4705100021	Columbia Gas Transmission Corp.	1982	1,482	195	194	171	183	35	29	0	0	0	0	0	675
4705100021	Columbia Gas Transmission Corp.	1983	397	157	36	164	37	3	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1984	430	16	34	32	34	33	34	165	16	0	0	0	66
4705100021	Columbia Gas Transmission Corp.	1986	1,999	159	170	307	34	165	170	165	170	170	165	170	154
4705100021	Columbia Gas Transmission Corp.	1987	2,277	511	102	154	170	165	170	165	170	170	165	170	165
4705100021	Columbia Gas Transmission Corp.	1988	2,408	170	340	16	170	329	340	165	170	340	165	170	33
4705100021	Columbia Gas Transmission Corp.	1989	1,912	170	27	184	136	132	272	171	58	125	508	80	49
4705100021	Columbia Gas Transmission Corp.	1990	877	54	53	72	63	0	31	93	128	64	63	131	125
4705100021	Columbia Gas Transmission Corp.	1991	877	54	53	72	63	0	31	93	128	64	63	131	125
4705100021	Columbia Natural Resources, Inc. (CNR)	1992	2,217	211	207	95	20	992	103	99	100	100	96	98	96

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4705100021	Columbia Gas Transmission Corp.	1980	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1981	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1984	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1986	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1987	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1988	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1989	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1990	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Gas Transmission Corp.	1991	0	0	0	0	0	0	0	0	0	0	0	0	0
4705100021	Columbia Natural Resources, Inc. (CNR)	1992	0	0	0	0	0	0	0	0	0	0	0	0	0

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

There is no Production Water data for this well

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV DATUM
4705100021	Original Loc	unidentified coal	Well Record	340	Reasonable	3	Reasonable	1205 Ground Level
4705100021	Original Loc	Waynesburg coal	Well Record	520	Reasonable	4	Reasonable	1205 Ground Level
4705100021	Original Loc	Sewickley coal	Well Record	710	Reasonable	3	Reasonable	1205 Ground Level
4705100021	Original Loc	Pittsburgh coal	Well Record	828	Reasonable	5	Reasonable	1205 Ground Level
4705100021	Original Loc	Morgantown Ss/Murphy	Well Record	990	Reasonable	25	Reasonable	1205 Ground Level
4705100021	Original Loc	Bufflo Ss/1st Cow Rn	Well Record	1240	Reasonable	20	Reasonable	1205 Ground Level
4705100021	Original Loc	Mahong Ss/Big Dunk	Well Record	1332	Reasonable	35	Reasonable	1205 Ground Level
4705100021	Original Loc	Up Freeprot coal	Well Record	1525	Reasonable	4	Reasonable	1205 Ground Level
4705100021	Original Loc	1st Salt Sand	Well Record	1650	Reasonable	25	Reasonable	1205 Ground Level
4705100021	Original Loc	2nd Salt Sand	Well Record	1775	Reasonable	109	Reasonable	1205 Ground Level

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West Virginia Geological & Economic Survey

Pipeline-Plus

About Interactive Mapping Oil&Gas Well Header Data Search "Pipeline" File Repositories Scanned Records Search Slabbed Core Photos

Oil & Gas Well Header Data Search

API #: 4705100021	Well Type: <input type="text"/>
County: <input type="text"/>	Total Vertical Depth TVD(ft) >= <input type="text"/>
7.5 Minute Quad: <input type="text"/>	Completion Year = <input type="text"/>
Type of Log: <input type="text"/>	Operator at Completion (contains): <input type="text"/>
Log Bottom (ft) >= <input type="text"/>	Last Producing Operator (contains): <input type="text"/>
has Scanned Log(s): <input type="checkbox"/>	Surface Owner (contains): <input type="text"/>
has Digitized Log(s): <input type="checkbox"/>	Field Name (contains): <input type="text"/>
has Sample Desc Scan: <input type="checkbox"/>	Company Number (contains): <input type="text"/>
has Slabbed Core Photo(s): <input type="checkbox"/>	Mineral Owner (contains): <input type="text"/>
Horizontal/Deviated Well: <input type="checkbox"/>	
Results/Page: 100 <input type="text"/>	
Order By: API <input type="text"/>	
<input type="button" value="Search"/> <input type="button" value="Reset"/>	

Please enter or select criteria to perform database search. The application uses an "and" operator between search fields. Searches will not be performed if the required field criteria is not met. Error messages are indicated in RED.

1 Records Found, showing page 1 of 1 at 100 records per page

API #	Pipeline	Map	ELog	DLog	Scans	County	DD Long	DD Lat	UTME	UTMN	7.5 Quad	Tax District	Logs	Log Btm	Suffix	Status	Comp Year	Well Type	Operator at Completion	Last Producing Operator	Surface Owner	Well #	Comp #	Mir	
4705100021	All Data	View			Scans	Marshall	-80.533827	39.806298	539904.7	4406362.5	Cameron	Cameron				Original Location	Completed	1930	Gas	Manufacturers Light & Heat Co.	Columbia Natural Resources, Inc. (CNR)	George Wendt	5	3435	Man

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4705100021	Original Loc	Little Lime	Well Record	1905	Reasonable	11	Reasonable	1205	Ground Level
4705100021	Original Loc	Big Lime	Well Record	1930	Reasonable	50	Reasonable	1205	Ground Level
4705100021	Original Loc	Big Injun (undiff)	Well Record	1980	Reasonable	275	Reasonable	1205	Ground Level
4705100021	Original Loc	Fifty-foot	Well Record	2772	Reasonable	41	Reasonable	1205	Ground Level
4705100021	Original Loc	Gordon	Well Record	2840	Reasonable	48	Reasonable	1205	Ground Level
4705100021	Original Loc	Fourth	Well Record	2909	Reasonable	11	Reasonable	1205	Ground Level
4705100021	Original Loc	Fifth	Well Record	2985	Reasonable	13	Reasonable	1205	Ground Level

There is no Wireline (E-Log) data for this well

Plugging Information:

API	PLG_DT	DEPTH_PBT
4705100021	1/28/1942	0

There is no Sample data for this well

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

47-051-00021P
5-78

AD 179-A
Permit No. Dated March 31, 1930

WELL RECORD

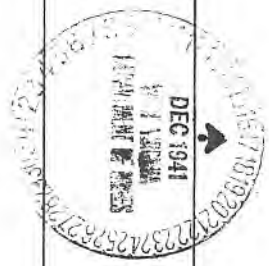
Oil or Gas Well Gas
(KIND)

Company The Manufacturers Light & Heat Co.
Address 800 Union Trust Bldg., Pittsburgh, Pa.
Farm August Knott Acres 500
Location (waters) _____
Well No. 5 - 3435 Elev. 1205 ft.
District Liberty County Marshall
The surface of tract is owned in fee by George Knott
Star Route Address Cameron, W. Va.
Mineral rights are owned by The M. L. & H. Co.
800 Union Trust Bldg., Pittsburgh, Pa.
Drilling commenced 4/11/30
Drilling completed 6/10/30
Date Shot _____ From _____ To _____
With 6 _____ 2 _____
Open Flow 10ths Water in _____ Inch
_____ 10ths Merc. in _____ Inch
Volume 185 _____ 15 _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ 65 _____ 200 bbls., 1st 24 hrs.
Fresh water _____ feet _____ feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	908' 9"		Size of
8 1/4	1332'	1332'	4 x 6 5/8"
6 3/4	1955'	1955'	Depth set
5 3/16			2795' 10"
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
GAS WAS ENCOUNTERED AT 340 FEET 36 INCHES
48 FEET 710 FEET 36 INCHES
828 FEET 60 INCHES 1525 FEET 48 INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Clay, Slate			0	60			
Sand			60	100			
Sand			190	205			
Native Coal			340	343			
Waynesburg Coal			520	524			
Mapletown Coal			710	713			
Pittsburgh Coal			828	833			
Murphy Sand			990	1010			
Little Dunkard			1240	1265			
Big Dunkard			1332	1367			
Freepert Coal			1525	1529			
1st Salt Sand			1650	1675			
2nd Salt Sand			1775	1884			
Little Lime			1905	1916			
Big Lime			1950	1980			
Big Injun			1980	2255			
50-Foot			2772	2813			
Gordon Sand			2840	2888			
4th Sand			2909	2920			
5th Sand			2985	2998			
Slate			2998	3063			
Total depth				3063			



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COMPLETION DATA SHEET NO. 2

FORMATION RECORD

Well # 3435 on The August Wandt farm, Liberty District, Marshall County, W. Va.

NAME	COLOR	CHARACTER	OIL, GAS OR WATER	TOP	BOTTOM	THICKNESS	TOTAL DEPTH	RE-MARKS
Soil	Dark	Soft		00	14	14'		
Shale	"	"		14	60	46		
Sand	Gray	Medium	water at 65'	60	100	40		
"	"	"	Hole full of	190	205	15		
"	White	"	water at 200'	220	340	90		
Native Coal	Black	Soft	Smell of gas	340	343	3		
Sand	White	Hard		490	520	30		
aynesburg Coal	Black	Medium		520	524	4		
apletown Coal	"	Soft		710	713	3		
Sand	White	Medium		775	795	20		
ittsburgh Coal	Black	"	3-Bailers Water	828	835	5		
Sand	White	Hard	an hour	910	960	50		
urphy Sand	"	"		990	1010	20		
Red Rock	Red	Soft		1095	1130	35		
Lime	White	Hard		1130	1160	30		
Red Rock	Red	Soft		1160	1200	40		
Lime	White	Hard		1200	1215	15		
ittle Dunkard	White	Hard		1240	1285	25		
ig "	"	"		1332	1367	25		
Sand	"	"		1370	1390	20		
Sand	"	"		1480	1525	45		
reepport Coal	Black	Soft		1525	1529	4		
Shale	Gray	Soft		1529	1590	61		
Lime	White	Medium		1590	1650	60		
st.Salt Sand	"	Hard		1650	1675	25		
Sand	"	"		1685	1710	25		
nd.Salt Sand	"	Medium		1775	1884	109		
Little Lime	Dark	Hard		1905	1916	11		
Big Lime	"	Hard		1930	1980	50		
ig Injun Sand	White	"		1980	2255	275		
ritty Lime	Gray	"		2380	2403	23		
Sand	White	"		2600	2625	25		
Slate	Gray	Soft		2740	2772	32		
ifty-Foot Sand	White	Hard	Smell of Gas	2772	2813	41		
Gordon Sand	"	"	Gas at 2845	2840	2888	48		
Slate	"	Soft		2888	2909	21		
ourth Sand	"	Hard	Gas at 2913	2909	2920	11		
late	Dark	Soft		2920	2985	65		
ifth Sand	White	Hard		2985	2998	13		
late	Black	Soft		2998	3063	65		
Total Depth							3063'	

Well was ~~xxxx~~ shot at 2910 1/2 ft. to 2917 feet; well was shot at 2842 ft. to 2848 feet.
 Fresh water at and 65 ft ~~xxxx~~ feet; fresh water at 830 feet. in Coal.

Well was ~~xxxx~~ producing Gas hole.

THE MANUFACTURERS LIGHT & HEAT CO.

Date June 20, 1950.

Approved Harry H Fowle
LAND AGENT

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WV Department of Environmental Protection

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names for which strata that may be common to the district.

47-051-00021P

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks

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1516171819202122232425262728
DEC 1941
WEST VIRGINIA
DEPT OF MINES

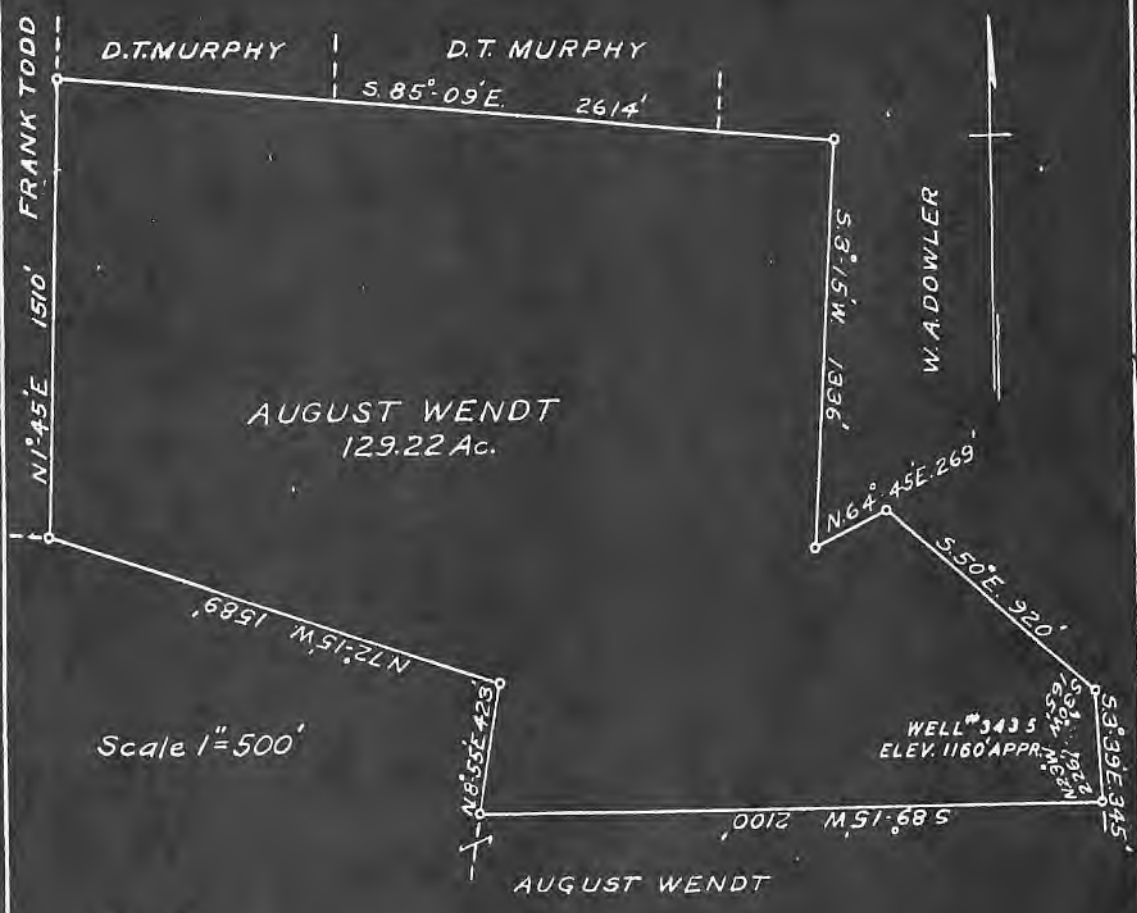
Date December 16th, 1941

APPROVED THE MANUFACTURERS LIGHT & HEAT COMPANY, Owner

By Harry H. Fowler
Land Dept. (Title) Office Mgr.

PLAT OF THE PROPOSED LOCATION OF WELL NO. 3435 OF THE MANUFACTURERS LIGHT & HEAT CO. OF PITTSBURGH, PA. ON THE AUGUST WENDT FARM CONSISTING OF 129.22 ACRES LOCATED IN LIBERTY DISTRICT, MASHALL COUNTY, W.VA.

Marshall 21



Scale 1"=500'

Note:- This is part of 500 acre lease No. 2878

ENGINEERS CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT AND SHOWS ALL THE INFORMATION, TO THE BEST OF MY KNOWLEDGE AND BELIEF, REQUIRED BY THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA.

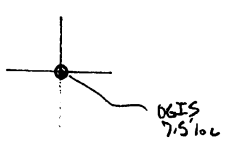
D.V. Smith
ENGINEER

ACKNOWLEDGED BEFORE ME A NOTARY PUBLIC OF AND FOR ALLEGHENY COUNTY, STATE OF PENNSYLVANIA THIS 18 DAY OF March 1930 Harry H. Fowler

LATITUDE 39° 50'

80° 30'

LONGITUDE



7.5 OGIS topo location

7.5' loc	<u>1.87 S</u>	15' loc	<u>1.87 S</u>
	<u>1.81 W</u>	(calc.)	<u>1.81 W</u>

Company Manuf. Light + Heat
 Farm August Wendt

Quad Cameron Cameron SE
 County Marshall
 District Liberty

WELL LOCATION MAP

File No. 051-21

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 WV Department of
 Environmental Protection

47-051-00021 P
mas-21

WEST VIRGINIA DEPARTMENT OF MINES
Oil and Gas Section
PRELIMINARY DATA SHEET NO. 1

File No. _____ Well No. 3435

The Manufacturers Light & Heat Company, of 800 Union Trust Building,
Pittsburgh, Pa., on the August Wendt Farm

containing 500 acres. Location Liberty District, in Marshall County, West Virginia.

The surface of the above tract is owned in fee by August Wendt
of Cameron, W. Va., address, and the mineral rights are owned by

The Manufacturers Light & Heat Company of Pittsburgh, Penn'a.

The oil and gas privileges are held under lease by the above named company, and this well is drilled under
permit No. _____ issued by the West Virginia Department of Mines, Oil and Gas Section,
March 31st, 1930.

Elevation of surface at top of well, 1160 feet Spirit Barometric.

The number of feet of the different sized casings used in the well.

16 feet 13 size. Wood conductor.

208 9/12 feet 10" size, csg. all pulled feet sized csg.

1333 1/2 feet 8 1/4" size, csg. 3075 1/2 feet 4" tubing sized csg.

1961 8/12 feet 6 5/8" size, csg. feet sized csg.

Anchor packer of 4" x 6 5/8" size, set at 2795 10/12 ft.

packer of _____ size, set at _____

*WV
213*

4 in tubing casing perforated at 3040 10/12 feet to 3040 8/12 feet.

4 in tubing casing perforated at 2843 1/12 feet to 2842 9/12 feet.

Coal was encountered at 340 feet; thickness 36 inches, and at 520

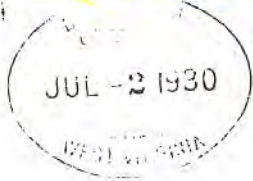
feet; thickness 48 inches; and at 710 feet; thickness 36 inches.

and at 828 ft., thickness 60 inches., and at 1525 feet, thickness 48 inches.
Liners were used as follows: (Give details)

No liners used.

June 20th, 1930.

Date. Approved THE MANUFACTURERS LIGHT & HEAT CO.



By Harry H. Fowler (Title) LAND AGENT

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WV Department of Environmental Protection

micro-21

COMPLETION DATA SHEET NO. 2

FORMATION RECORD

Well # 3435 on The August Wandt farm, Liberty District, Marshall County, W.Va.

NAME	COLOR	CHARACTER	OIL, GAS OR WATER	TOP	BOTTOM	THICKNESS	TOTAL DEPTH	RE-MARKS
Soil	Dark	Soft		00	14	14'		
Shale	"	"		14	60	46		
Sand	Gray	Medium	water at 65'	60	100	40		
"	"	"	hole full of water at 200'	100	205	105		
"	White	"	water at 300'	200	340	140		
Native Coal	Black	Soft	Small of gas	340	345	5		
Sand	White	Hard		490	580	90		
Waynesburg Coal	Black	Medium		580	584	4		
Mapletown Coal	"	Soft		710	715	5		
Sand	White	Medium		775	785	10		
Pittsburgh Coal	Black	"	2-Bailers Water an hour	890	895	5		
Sand	White	Hard		910	960	50		
Murphy Sand	"	"		990	1010	20		
Red Rock	Red	Soft		1095	1130	35		
Lime	White	Hard		1130	1160	30		
Red Rock	Red	Soft		1160	1200	40		
Lime	White	Hard		1200	1215	15		
Little Dunkard	White	Hard		1240	1265	25		
Big Sand	"	"		1332	1347	15		
Sand	"	"		1370	1390	20		
Sand	"	"		1480	1525	45		
Fresport Coal	Black	Soft		1525	1529	4		
Shale	Gray	Soft		1529	1590	61		
Lime	White	Medium		1590	1650	60		
1st. Salt Sand	"	Hard		1650	1675	25		
Sand	"	"		1685	1710	25		
2nd. Salt Sand	"	Medium		1775	1884	109		
Little Lime	Dark	Hard		1905	1916	11		
Big Lime	"	Hard		1920	1980	60		
Big Injun Sand	White	"		1980	2255	275		
Gritty Lime	Gray	"		2300	2405	105		
Sand	White	"		2600	2625	25		
Slate	Gray	Soft		2740	2772	32		
Fifty-Foot Sand	White	Hard	small of gas	2772	2815	43		
Gordon Sand	"	"	Gas at 2845	2840	2888	48		
Slate	"	Soft		2888	2909	21		
Fourth Sand	"	Hard	Gas at 2915	2909	2920	11		
Slate	Dark	Soft		2920	2965	45		
Fifth Sand	White	Hard		2965	2998	33		
Slate	Black	Soft		2998	3065	67		
Total Depth							3065'	

Well was shot at 2910 1/2 ft. to 2917 feet; well was shot at 2842 ft. to 2845 feet.

Fresh water at 65 feet; fresh water at 630 feet. in Coal.

Well was producing Gas hole.

THE MANUFACTURERS LIGHT & HEAT CO.

Date June 20, 1920.

Approved

Harry H Fowler
LAND AGENT

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Environmental Protection

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names for which strata that may be common to the district.

77-051-00021 P

FORM 0-1

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL
(REQUIRED BY SECTION 3, CHAPTER 20, ACTS 1922)
WEST VIRGINIA DEPARTMENT OF MINES
OIL AND GAS SECTION

To THE DEPARTMENT OF MINES,
Charleston, W. Va.

George E. Rice

COAL OPERATOR

Waynesburg, Pa.

ADDRESS

COAL OPERATOR

ADDRESS

COAL OPERATOR

ADDRESS

The Manufacturers Light & Heat Company

NAME OF WELL OPERATOR

800 Union Trust Bldg., Pittsburgh, Pa.

COMPLETE ADDRESS

March 19th, 19 30

PROPOSED LOCATION

Liberty District

Marshall County

Well No. 3435

August Wendt Farm

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated

December 31st, 1894, made by August and L. Wendt, to

The South Penn Oil Company, and recorded on the 14th day

of February, 1895 in the office of the County Clerk for said County in

Book 49, page 87

The enclosed plat was prepared by a competent engineer and shows the proposed location of a well to be drilled for oil and gas by the undersigned well operator on the farm and in the Magisterial District and County above named, determined by survey and courses and distances from two permanent points, or land marks.

The undersigned well operator is informed and believes there are no coal operators operating beds of coal beneath said farm or tract of land on which said well is located, or within 500 feet of the boundaries of the same, who have mapped their workings and filed their maps as required by law, excepting the coal operators (if any) above named as addressees.

The above named coal operators (if any) are notified that any objections they may desire to make to such proposed location, or which they are required to make by Section 3 of said Act, if the drilling of a well at said proposed location will cause a dangerous condition in or about their respective coal mines, must be received by, or filed with the Department of Mines within ten days from the receipt of a copy of this notice and accompanying plat by said Department. Said coal operators are further notified that forms for use in making such objections will be furnished to them by the Department of Mines promptly on request and that all such objections must set forth as definitely as is reasonably possible, the ground or grounds on which such objections are based and indicate the direction and distance the proposed location should be moved to overcome same.

(The next paragraph is to be completed only in Department's copy.)

Copies of this notice and the enclosed plat were mailed by registered mail, as delivered to the above

named coal operators at their above shown respective address this day before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,

THE MANUFACTURERS LIGHT & HEAT COMPANY, Inc.

By Harry H. Fowle Land Agt.
800 Union Trust Bldg.,

Pittsburgh

Pennsylvania



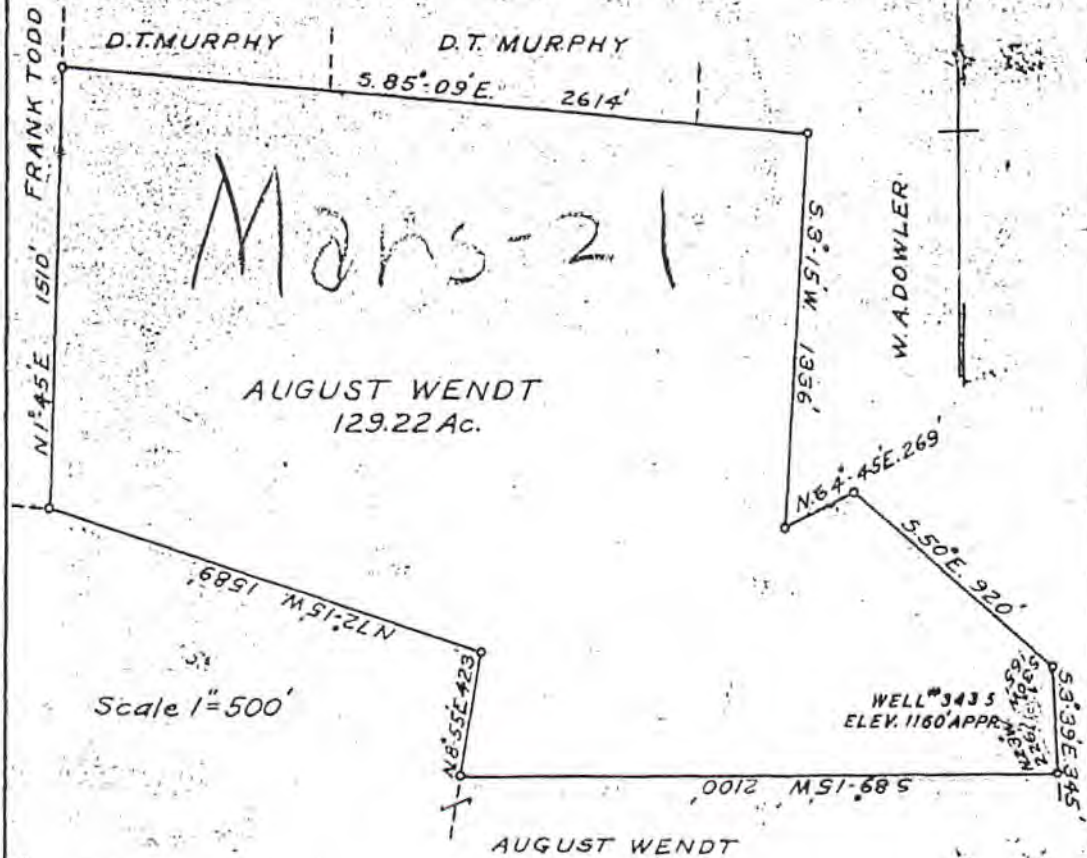
Address of Well Operator

*Section 3, ACTS 1922. No such objections be filed, or be found by the department of mines, within said period of ten days from the receipt of said notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a drilling permit reciting the filing of such plat, that no objections have been made by the coal operators to the location, or found thereto by the department, and that the same is approved and the well operator authorized to proceed to drill at said location.

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Office of Oil and Gas
NOV 20 2020
WV Department of
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MAR 21

PLAT OF THE PROPOSED LOCATION OF WELL NO. 3435 OF THE MANUFACTURERS LIGHT & HEAT CO. OF PITTSBURGH, PA. ON THE AUGUST WENDT FARM CONSISTING OF 129.22 ACRES LOCATED IN LIBERTY DISTRICT, MASHALL COUNTY, W. VA.



Note:-
This is part of 500 acre lease No. 2878

ENGINEERS CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT AND SHOWS ALL THE INFORMATION, TO THE BEST OF MY KNOWLEDGE AND BELIEF, REQUIRED BY THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA.

D.V. Brush
ENGINEER

ACKNOWLEDGED BEFORE ME A NOTARY PUBLIC OF AND FOR ALLEGHENY COUNTY, STATE OF PENNSYLVANIA THIS 18 DAY OF March, 1960

Harry H. Fowler

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Environmental Protection

WW-4A
Revised 6-07

1) Date: OCTOBER 31, 2020
2) Operator's Well Number M-1763

3) API Well No.: 47 - 051 - 00021

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

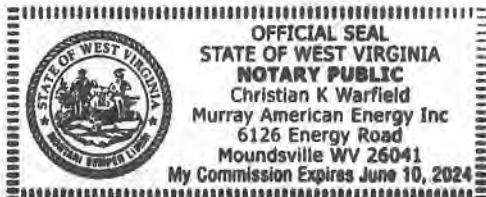
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>GLEN KERMIT WENDT</u>	Name <u>WEST VIRGINIA LAND RESOURCES INC.</u>
Address <u>5704 DRAGON HWY.</u>	Address <u>1 BRIDGE STREET</u>
<u>CAMERON, WV 26033</u>	<u>MONONGAH, WV 26554</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>JAMES NICHOLSON</u>	(c) Coal Lessee with Declaration
Address <u>P.O. BOX 44</u>	Name _____
<u>MOUNDSVILLE, WV 26041</u>	Address _____
Telephone <u>(304) 552-3874</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator WEST VIRGINIA LAND RESOURCES INC.
 By: JAY HORES
 Its: PROJECT ENGINEER
 Address 6126 ENERGY ROAD
MOUNDSVILLE, WV 26041
 Telephone (304) 843-3565

Subscribed and sworn before me this 16 day of November
Christian K Warfield Notary Public
 My Commission Expires June 10, 2024

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 Office of Oil and Gas
 NOV 20 2020
 WV Department of
 Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

47-051-00021 P

7019 1120 0000 9580 4436

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com

OFFICIAL USE

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Postmark
Here

M-1763

Send Glen Wendt HWY

Street, Apt. No., or PO Box No.
5704 Drogen HWY

City, State, ZIP+4[®]
Conover, WV 26003

PS Form 3800, April 2015 PSN 7530-02-000-9007

See Reverse for Instructions



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47-051-00021P

WW-9
(5/16)

API Number 47 - 051 - 00021
Operator's Well No. M-1763

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name WEST VIRGINIA LAND RESOURCES INC. OP Code _____

Watershed (HUC 10) FOURMILE RUN OF HARTS RUN OF PENNSYLVANIA FORK OF FISH CREEK Quadrangle CAMERON WV,PA

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Tanks, see attached letter)

Will closed loop system be used? If so, describe: Yes. Gel circulated from tank thru well bore and returned to tank

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Gel or Cement

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? Bentonite, Bicarbonate of Soda

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Shaker cutting buried on site.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? N/A

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Jay Hores

Company Official (Typed Name) Jay Hores

Company Official Title Project Engineer

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NOV 20 2020

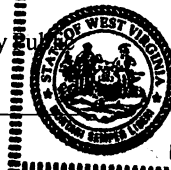
WV Department of
Environmental Protection

Subscribed and sworn before me this 16 day of November, 2020

Christian K. Warfield

Notary

My commission expires June 10, 2024



OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Christian K Warfield
Murray American Energy Inc
6126 Energy Road
Moundsville WV 26041
My Commission Expires June 10, 2024

**AMERICAN CONSOLIDATED NATURAL
RESOURCES & WEST VIRGINIA LAND
RESOURCES**

**AMERICAN CONSOLIDATED
NATURAL RESOURCES & WEST
VIRGINIA LAND RESOURCES**

46226 National Road
St. Clairsville, OH 43950

phone: 304.843.3565

fax: 304.843.3546

e-mail: JayHores@acnrinc.com

JAY HORES

Project Engineer

November 16, 2020

Department of Environmental Protection
Office of Oil and Gas
601-57th Street
Charleston, WV 25320

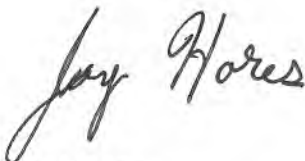
To Whom It May Concern,

As per the Division of Environmental Protection, Office of Oil and Gas request, Consolidation Coal Company submits the following procedures utilizing pit waste.

Upon submitting a well work application (without a general permit for Oil & Gas Pit Waste Discharge Application), Consolidation Coal Company will construct no pits, but instead will use mud tanks to contain all drilling muds.

Once the well is completed, that material (minus the cave material) will be trucked to the next well to be plugged or to DEP facilities number U-0033-83, O-1001-00, U-1035-91U-46-84, U-78-83, O-1044-9, or U-100-83.

Sincerely,



Jay Hores
Project Engineer

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Form WW-9

Operator's Well No. M-1743

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.0

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Seed Mix in accordance with WVDEP Oil and Gas, Erosion and Sediment Control Field Manual

Seed Mix in accordance with WVDEP Oil and Gas, Erosion and Sediment Control Field Manual

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

Jim Nicholas

Comments:

Title: Oil & Gas Inspector

Date: 11/17/2020

Field Reviewed? Yes No

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N/A

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
GROUNDWATER PROTECTION PLAN

Operator Name: WEST VIRGINIA LAND RESOURCES INC.

Watershed (HUC 10): FOURMILE RUN OF HARTS RUN OF PENNSYLVANIA FORK OF FISH CREEK Quad: CAMERON WV,PA

Farm Name: _____

- 1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

- 2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

- 3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

- 4. Summarize all activities at your facility that are already regulated for groundwater protection.

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- 5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

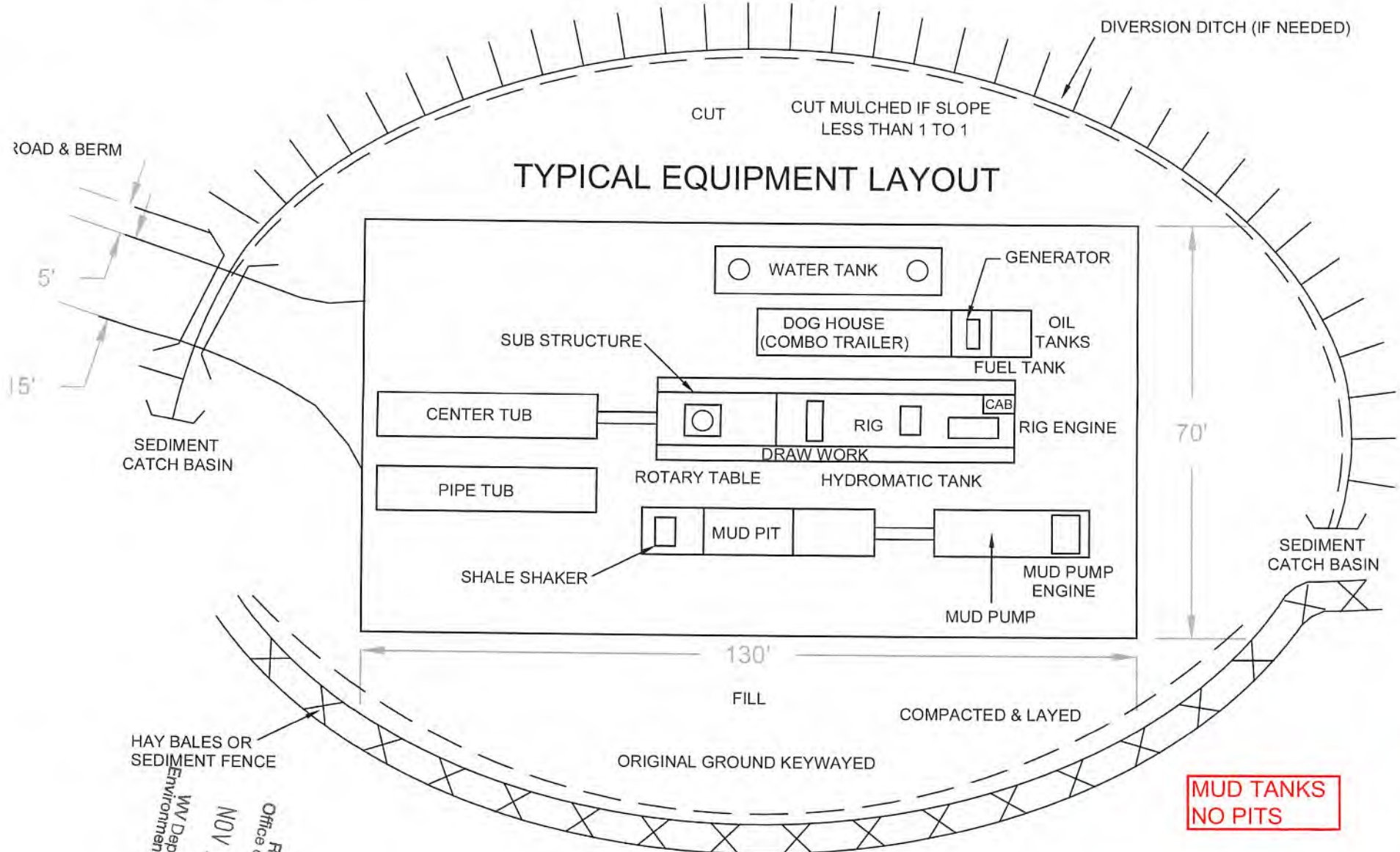
Signature: _____

Date: _____

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WV Department of
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CONSOLIDATION COAL COMPANY
NORTHERN WEST VIRGINIA
OPERATIONS

TYPICAL DRAWING OF WELL PLUGGING SITE PLAN

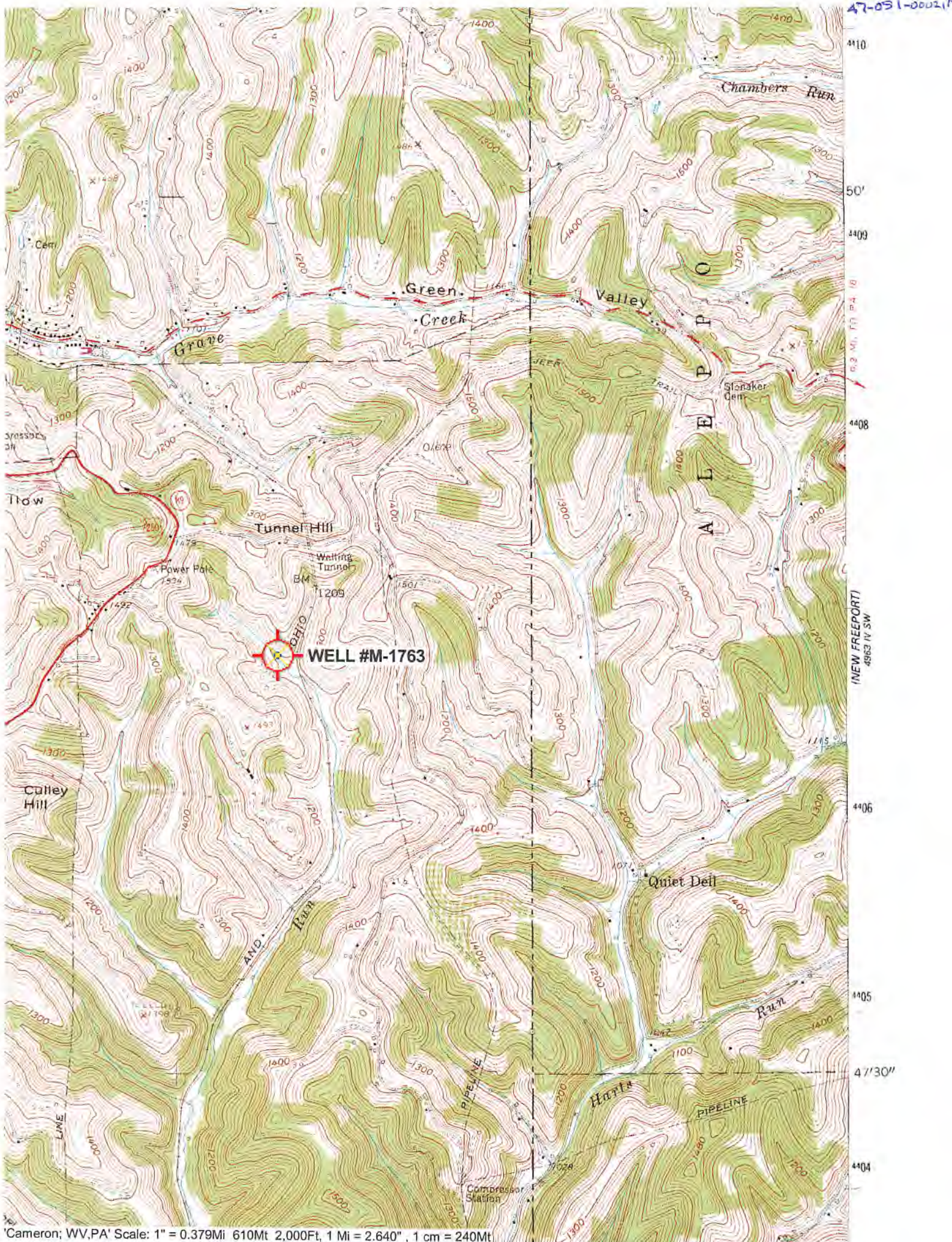


HAY BALES OR
SEDIMENT FENCE

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WV Department of
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**MUD TANKS
NO PITS**

47-051-00021P



WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-051-00021 WELL NO.: M-1763

FARM NAME: AUGUST WENDT

RESPONSIBLE PARTY NAME: WEST VIRGINIA LAND RESOURCES INC.

COUNTY: MARSHALL DISTRICT: LIBERTY

QUADRANGLE: CAMERON WV, PA

SURFACE OWNER: GLEN KERMIT WENDT

ROYALTY OWNER: _____

UTM GPS NORTHING: 4,406,950 m

(1200')

UTM GPS EASTING: 539,799 m GPS ELEVATION: 366 m

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential _____
Real-Time Differential

Mapping Grade GPS _____ : Post Processed Differential _____
Real-Time Differential _____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Signature

Professional Surveyor
Title

OCTOBER 31, 2020
Date

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NOV 20 2020
WV Department of
Environmental Protection



A7-051-0002



Find address or place



47-051-00021 P



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Tuesday, February 4, 2020

NOTICE OF FINAL ACTION TO TRANSFEREE

CONSOLIDATION COAL COMPANY
1 BRIDGE STREET

MONONGAH, WV 265540000

This is to inform you that wells on the enclosed document met the transfer criteria and were transferred to your bond. Wells that did not meet transfer criteria were not transferred.

You are by this letter being informed that you have accepted all responsibility for compliance with the provisions of Chapter 22 et seq. of the West Virginia Code of 1931, as amended, and all the rules and regulations promulgated thereunder, for the wells transferred to your bond.

If you have any questions concerning this notice, contact this office at the above address. Please include the transfer number, effective date, and the API number(s) of the well(s) in question in your correspondence.

Thank you in advance for your cooperation.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a circular stamp.

James A. Martin
Chief

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Environmental Protection

Transfer #	Transfer Status	API	WellType	WellStatus	WellName	Operator	County
149289	Approved	47-051-00752	NAVL	AB	WENDT 2904	CONSOLIDATION COAL COMPANY	Marshall

Transfer #	Transfer Status	API	WellType	WellStatus	WellName	Operator	County
149288	Approved	47-051-00021	NAVL	PL	3435	CONSOLIDATION COAL COMPANY	Marshall
149288	Approved	47-051-00034	NAVL	PL	3474	CONSOLIDATION COAL COMPANY	Marshall
149288	Approved	47-051-00170	VERT	PL	1	CONSOLIDATION COAL COMPANY	Marshall

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