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, October 13, 2020
WELL WORK PERMIT
Vertical / Plugging

CONSOLIDATION COAL COMPANY
1 BRIDGE STREET
MONONGAH, WV 265540000

Re: Permit approval for 7235
47-103-01069-00-00

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.

Please be advised that form WR-35, Well Operators Report of Well Work 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: 7235
Farm Name: COASTAL FOREST RESOURC
U.S. WELL NUMBER: 47-103-01069-00-00
Vertical Plugging
Date Issued: 10/13/2020

47-103-01069P

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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 MARCH 10, 20 20
2) Operator's
Well No. 7235
3) API Well No. 47- 103 - 01069

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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 X / Gas ____ / Liquid injection ____ / Waste disposal ____ /
(If "Gas, Production ___ or Underground storage ____) Deep ____ / Shallow ____

5) Location: Elevation 1156.05' Watershed STOUT RUN OF SOUTH FORK FISHING CREEK
District GRANT County WETZEL Quadrangle FOLSOM W.VA

6) Well Operator CONSOLIDATION COAL CO.
Address 1 BRIDGE STREET
MONONGAH, WV 26554

7) Designated Agent DAVID RODDY
Address 1 BRIDGE STREET
MONONGAH, WV 26554

8) Oil and Gas Inspector to be notified
Name DEREK HAUGHT
Address P.O. BOX 85
SMITHVILLE, WV 26178

9) Plugging Contractor
Name ____
Address ____

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

SEE WV CODE 22-6-24(e) ATTACHED

&

MSHA 101 C EXEMPTION ATTACHED

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

Work order approved by inspector Derek M. Haught Date 8/21/20

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§22-6-24. Methods of plugging well. SEE (e) FOR PLUGGING PROCEDURE

Upon the abandonment or cessation of the operation of any well drilled for natural gas or petroleum, or drilled or converted for the introduction of pressure, whether liquid or gas, or for the introduction of liquid for the purposes provided for in section twenty-five of this article or for the disposal of pollutants or the effluent therefrom the well operator, at the time of such abandonment or cessation, shall fill and plug the well in the following manner:

(a) Where the well does not penetrate workable coal beds, it shall either be filled with mud, clay or other nonporous material from the bottom of the well to a point twenty feet above the top of its lowest oil, gas or water-bearing stratum; or a permanent bridge shall be anchored thirty feet below its lowest oil, gas or water-bearing stratum, and from such bridge it shall be filled with mud, clay or other nonporous material to a point twenty feet above such stratum; at this point there shall be placed a plug of cement or other suitable material which will completely seal the hole. Between this sealing plug and a point twenty feet above the next higher oil, gas or water-bearing stratum, the hole shall be filled, in the manner just described; and at such point there shall be placed another plug of cement or other suitable material which will completely seal the hole. In like manner the hole shall be filled and plugged, with reference to each of its oil, gas or water-bearing strata. However, whenever such strata are not widely separated and are free from water, they may be grouped and treated as a single sand, gas or petroleum horizon, and the aforesaid filling and plugging be performed as though there were but one horizon. After the plugging of all oil, gas or water-bearing strata, as aforesaid, a cement plug shall be placed approximately ten feet below the bottom of the largest casing in the well; from this point to the surface the well shall be filled with mud, clay or other nonporous material, except that a final cement plug shall be installed from a point one hundred feet below the surface to the surface. In case any of the oil or gas-bearing strata in a well shall have been shot, thereby creating cavities which cannot readily be filled in the manner above described, the well operator shall follow either of the following methods:

(1) Should the stratum which has been shot be the lowest one in the well, there shall be placed, at the nearest suitable point, but not less than twenty feet above the stratum, a plug of cement or other suitable material which will completely seal the hole. In the event, however, that the

shooting has been done above one or more oil or gas-bearing strata in the well, plugging in the manner specified shall be done at the nearest suitable point, but not less than twenty feet below and above the stratum shot; or

(2) When such cavity shall be in the lowest oil or gas-bearing stratum in the well, a liner shall be placed which shall extend from below the stratum to a suitable point, but not less than twenty feet above the stratum in which shooting has been done. In the event, however, that the shooting has been done above one or more oil or gas-bearing strata in the well, the liner shall be so placed that it will extend not less than twenty feet above, nor less than twenty feet below, the stratum in which shooting has been done. Following the placing of the liner in the manner here specified it shall be compactly filled with cement, mud, clay or other nonporous sealing material.

(b) Where the well penetrates one or more workable coal beds and a coal protection string of casing has been circulated and cemented into the surface, the well shall be filled and securely plugged in the manner provided in subdivision (a) of this section, except that expanding cement shall be used instead of regular hydraulic cement, to a point approximately one hundred feet below the bottom of the coal protection string of casing. From the point the well shall be plugged according to the provisions in paragraph (1) or (2) below:

(1) A two hundred foot plug of expanding cement shall be placed in the well. From this point, the well shall be filled with mud, clay or other nonporous material to a point one hundred feet below the surface and a plug of cement shall be placed from the point one hundred feet below the surface to the surface with a monument installed therein extending thirty inches above ground level.

(2) A one hundred foot plug of expanding cement shall be placed in the well so that the top of such plug is located at a point just below the coal protection string of casing. After such plug has been securely placed in the well, the coal protection string of casing shall be emptied of liquid from the surface to a point one hundred feet below the lowest workable coal bed or to the bottom of the coal protection string of casing, whichever is shallower. A vent or other device approved by the secretary shall then be installed on the top of the coal protection string of casing in such a manner that will prevent liquids and solids from entering the well but will permit ready access to the full internal diameter of the coal protection string of casing when required. The coal protection string of

casing and the vent or other device approved by the secretary shall extend, when finally in place, a distance of not less than thirty inches above ground level and shall be permanently marked with the well number assigned by the secretary;

(c) Where the well penetrates one or more workable coal beds and a coal protection string of casing has not been circulated and cemented into the surface, the well shall be filled and securely plugged in the manner provided in subsection (a) of this section to a point fifty feet below the lowest workable coal bed. Thereafter, a plug of cement shall be placed in the well at a point not less than forty feet below the lowest workable coal bed. After the cement plug has been securely placed in the well, the well shall be filled with cement to a point twenty feet above the lowest workable coal bed. From this point the well shall be filled with mud, clay or other nonporous material to a point forty feet beneath the next overlying workable coal bed, if such there be, and the well shall then be filled with cement from this point to a point twenty feet above such workable coal bed, and similarly, in case there are more overlying workable coal beds. After the filling and plugging of the well to a point above the highest workable coal bed, filling and plugging of the well shall continue in the manner provided in subsection (a) of this section to a point one hundred feet below the surface, and a plug of cement shall be installed from the point one hundred feet below the surface to the surface with a monument installed therein extending thirty inches above ground level;

(d)(1) Where the well penetrates one or more workable coal beds and a coal protection string of casing has not been circulated and cemented into the surface, a coal operator or coal seam owner may request that the well be plugged in the manner provided in subdivision (3) of this subsection rather than by the method provided in subsection (c) of this section. Such request (forms for which shall be provided by the secretary) must be filed in writing with the secretary prior to the scheduled plugging of the well, and must include the number of the well to be plugged and the name and address of the well operator. At the time such request is filed with the secretary, a copy of such request must also be mailed by registered or certified mail to the well operator named in the request.

(2) Upon receipt of such request, the secretary shall issue an order staying the plugging of the well and shall promptly determine the cost of plugging the well in the manner provided in subdivision (3) of this subsection and the cost of plugging the well in the manner provided in

subsection (c) of this section. In making such determination, the secretary shall take into consideration any agreement previously made between the well operator and the coal operator or coal seam owner making the request. If the secretary determines that the cost of plugging the well in the manner provided in subsection (c) of this section exceeds the cost of plugging the well in the manner provided in subdivision (3) of this subsection, the secretary shall grant the request of the coal operator or owner and shall issue an order requiring the well operator to plug the well in the manner provided in subdivision (3) of this subsection. If the secretary determines that the cost of plugging the well in the manner provided in subsection (c) of this section is less than the cost of plugging the well in the manner provided in subdivision (3) of this subsection, the secretary shall request payment into escrow of the difference between the determined costs by the coal operator or coal seam owner making the request. Upon receipt of satisfactory notice of such payment, or upon receipt of notice that the well operator has waived such payment, the secretary shall grant the request of the coal operator or coal seam owner and shall issue an order requiring the well operator to plug the well in the manner provided in subdivision (3) of this subsection. If satisfactory notice of payment into escrow, or notice that the well operator has waived such payment, is not received by the secretary within fifteen days after the request for payment into escrow, the secretary shall issue an order permitting the plugging of the well in the manner provided in subsection (c) of this section. Copies of all orders issued by the secretary shall be sent by registered or certified mail to the coal operator or coal seam owner making the request and to the well operator. When the escrow agent has received certification from the secretary of the satisfactory completion of the plugging work and the reimbursable extra cost thereof (that is, the difference between the secretary's determination of plugging cost in the manner provided in subsection (c) of this section and the well operator's actual plugging cost in the manner provided in subdivision (3) of this subsection), the escrow agent shall pay the reimbursable sum to the well operator or the well operator's nominee from the payment into escrow to the extent available. The amount by which the payment into escrow exceeds the reimbursable sum plus the escrow agent's fee, if any, shall be repaid to the coal owner. If the amount paid to the well operator or the well operator's nominee is less than the actual reimbursable sum, the escrow agent shall inform the coal owner, who shall pay the deficiency to the well operator

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or the well operator's nominee within thirty days. If the coal operator breaches this duty to pay the deficiency, the well operator shall have a right of action and be entitled to recover damages as if for wrongful conversion of personality, and reasonable attorney fees.

(3) Where a request of a coal operator or coal seam owner filed pursuant to subdivision (1) of this subsection has been granted by the secretary, the well shall be plugged in the manner provided in subsection (a) of this section, except that expanding cement shall be used instead of regular hydraulic cement, to a point approximately two hundred feet below the lowest workable coal bed. A one hundred foot plug of expanding cement shall then be placed in the well beginning at the point approximately two hundred feet below the lowest workable coal bed and extending to a point approximately one hundred feet below the lowest workable coal bed. A string of casing with an outside diameter no less than four and one-half inches shall then be run into the well to a point approximately one hundred feet below the lowest workable coal bed and such string of casing shall be circulated and cemented into the surface. The casing shall then be emptied of liquid from a point approximately one hundred feet below the lowest workable coal bed to the surface, and a vent or other device approved by the secretary shall be installed on the top of the string of casing in such a manner that it will prevent liquids and solids from entering the well but will permit ready access to the full internal diameter of the coal protection string of casing when required. The string of casing and the vent or other device approved by the secretary shall extend, when finally in place, a distance of no less than thirty inches above ground level and shall be permanently marked with the well number assigned by the secretary. Notwithstanding the foregoing provisions of this subdivision, if under particular circumstances a different method of plugging is required to obtain the approval of another governmental agency for the safe mining through of said well, the secretary may approve such different method of plugging if he or she finds the same to be as safe for mining through and otherwise adequate to prevent gas or other fluid migration from the oil and gas reservoirs as the method above specified.

PLUGGING PROCEDURE FOR 47-103-01069 P

(e) Notwithstanding anything in this section to the contrary, where the well to be plugged is an abandoned well that has no known responsible party and the well operator is also a coal operator

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that intends to mine through the well, the well shall, at a minimum, be plugged as provided in subdivisions (1) and (2) of this subsection.

(1) The well will be cleaned out and prepared for plugging or replugging as follows:

(A) If the total depth of the well is less than four thousand feet, the operator shall completely clean out the well from the surface to at least two hundred feet below the base of the lowest workable coal bed, but the secretary may require cleaning to a greater depth due to excessive pressure within the well. If the total depth of the well is four thousand feet or greater, the operator shall completely clean out the well from the surface to at least four hundred feet below the base of the lowest workable coal bed. The operator shall provide to the secretary all information it possesses concerning the geological nature of the strata and the pressure of the well, and shall remove all material from the entire diameter of the well, wall to wall;

(B) The operator shall prepare down-hole logs for each well. The logs shall consist of a caliper survey and log(s) suitable for determining the top, bottom, and thickness of all coal seams and potential hydrocarbon-producing strata, as well as the location for a bridge plug. The secretary may approve the use of a down-hole camera survey in lieu of down-hole logs. In addition, the owner shall maintain a journal that describes the depth of each material encountered; the nature of each material encountered; the bit size and type used to drill each portion of the hole; the length and type of each material used to plug the well; the length of casing(s) removed, perforated or ripped, or left in place; any sections where casing was cut or milled; and any other pertinent information concerning cleaning and sealing the well. The operator shall maintain all invoices, work orders, and other records relating to all work on the well as part of the journal and provide to the secretary upon request;

(C) When cleaning, the operator shall make a diligent effort to remove all the casing in the well. If it is not possible to remove all the casing, then the operator shall take appropriate steps to ensure that the annulus between the casing and between the casings and the well walls are filled with expanding cement, with a minimum five tenths of one percent expansion upon setting, and contain no voids. If the casing cannot be removed, it must be cut or milled at all workable coal bed levels. Any casing which remains shall be perforated or ripped. If the total depth of the well is less

than four thousand feet, perforations or rips are required every fifty feet from two hundred feet below the base of the lowest mineable coal bed up to one hundred feet above the uppermost workable coal bed. If the total depth of the well is four thousand feet or greater, perforations or rips are required every fifty feet from four hundred feet below the base of the lowest workable coal bed up to one hundred feet above the uppermost workable coal bed. If the operator, using a casing bond log, demonstrates to the satisfaction of the secretary that all annuli in the well are already adequately sealed with cement, then the operator shall not be required to perforate or rip the casing. When multiple casing and tubing strings are present in the workable coal bed, any casing which remains shall be ripped or perforated and filled with expanding cement in accordance with this paragraph. The operator shall maintain a casing bond log for each casing and tubing string if used in lieu of ripping or perforating multiple strings;

(D) If the secretary concludes that the completely cleaned well emits excessive amounts of gas, the operator must place a mechanical bridge plug in the well. If the total depth of the well is less than four thousand feet, the mechanical bridge plug shall be placed in a competent stratum at least two hundred feet below the base of the lowest workable coal bed, but above the top of the uppermost hydrocarbon-producing stratum. If the total depth of the well is four thousand feet or greater, the mechanical bridge plug shall be placed in a competent stratum at least four hundred feet below the base of the lowest mineable coal bed, but above the top of the uppermost hydrocarbon-producing stratum: *Provided,* That the secretary may require a greater distance to set the mechanical bridge plug, regardless of the total depth of the well, based upon excessive pressure within the well. The operator shall provide the secretary with all information the operator possesses concerning the geologic nature of the strata and pressure of the well. If it is not possible to set a mechanical bridge plug, an appropriately sized packer may be used; and

(E) If the upper-most hydrocarbon-producing stratum is within three hundred feet of the base of the lowest workable coal bed, the operator shall properly place mechanical bridge plugs as described in paragraph (D) of this subdivision to isolate the hydrocarbon-producing stratum from the expanding cement plug. Nevertheless, if the total depth of the well is less than four thousand feet, the operator shall place a minimum of two hundred feet of expanding cement below the lowest

workable coal bed. If the total depth of the well is four thousand feet or greater, the operator shall place a minimum of four hundred feet of expanding cement below the lowest mineable coal bed: *Provided,* That the secretary may require a greater distance to set the mechanical bridge plug, regardless of the total depth of the well, based upon excessive pressure within the well.

(2) After the well is completely cleaned pursuant to subdivision one of this subsection, the operator shall plug or replug the well to the surface as follows:

If the total depth of the well is less than four thousand feet, the operator shall pump expanding cement slurry down the well to form a plug which runs from at least two hundred feet below the base of the lowest workable coal bed to the surface. If the total depth of the well is four thousand feet or greater, the operator shall pump expanding cement slurry down the well to form a plug which runs from at least four hundred feet below the base of the lowest workable coal bed to the surface: *Provided,* That the secretary may, regardless of the total depth of the well, require a lower depth based upon excessive pressure within the well. The expanding cement slurry will be placed in the well under a pressure of at least two hundred pounds per square inch. Portland cement shall be used to fill the area from one hundred feet above the top of the uppermost workable coal seam to the surface: *Provided,* That the secretary may require a higher distance based upon excessive pressure within the well;

(f) Any person may apply to the secretary for an order to clean out and replug a previously plugged well in a manner which will permit the safe mining through of such well. Such application shall be filed with the secretary and shall contain the well number, a general description of the well location, the name and address of the owner of the surface land upon which the well is located, a copy of or record reference to a deed, lease or other document which entitles the applicant to enter upon the surface land, a description of the methods by which the well was previously plugged, and a description of the method by which such applicant proposes to clean out and replug the well. At the time an application is filed with the secretary, a copy shall be mailed by registered or certified mail to the owner or owners of the land, and the oil and gas lessee of record, if any, of the site upon which the well is located. If no objection to the replugging of the well is filed by any such landowner or oil and gas lessee within thirty days after the filing of the application, and if the secretary determines

that the method proposed for replugging the well will permit the safe mining through of such well, the secretary shall grant the application by an order authorizing the replugging of the well. Such order shall specify the method by which the well shall be replugged, and copies thereof shall be mailed by certified or registered mail to the applicant and to the owner or owners of the land, and the oil and gas lessee, if any, of the site upon which such well is located. If any such landowner or oil and gas lessee objects to the replugging of the well, the secretary shall notify the applicant of such objection. Thereafter, the director shall schedule a hearing to consider the objection, which hearing shall be held after notice by registered or certified mail to the objectors and the applicant. After consideration of the evidence presented at the hearing, the secretary shall issue an order authorizing the replugging of the well if the secretary determines that replugging of the well will permit the safe mining through of such well. Such order shall specify the manner in which the well shall be replugged and copies thereof shall be sent by registered or certified mail to the applicant and objectors. The secretary shall issue an order rejecting the application if the secretary determines that the proposed method for replugging the well will not permit the safe mining through of such well;

(g) All persons adversely affected, by a determination or order of the secretary issued pursuant to the provisions of this section shall be entitled to judicial review in accordance with the provisions of articles five and six, chapter twenty-nine-a of this code.

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MSHA 101C EXEMPTION

In the matter of:
The Harrison County Coal Company
Harrison County Mine
I.D. No. 46-01318

Petition for Modification

Docket No. M-2016-019-C

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 Harrison County Coal Company's Harrison County Mine located in Marion County, West Virginia. The Petitioner filed the petition to permit an alternative method of compliance with the standard with respect to vertical to horizontal oil and gas wells into the underground coal seams. The petitioner request to amend their current Proposed Decision and Order (PDO) granted by MSHA on July 13, 2001, under Docket M-2001-015-C formerly known as Consolidation Coal Company, Robinson Run No. 95 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.

Between July 18, 2016 and August 8, 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-2001-015-C will be superseded and replaced by this amended modification granted under Docket No. M-2016-019-C after this Proposed Amended Decision and Order becomes final.

The mine is represented by United Mine Workers of America (UMWA), AFL-CIO, CLC-1501 with miners' representatives. On July 18, 2016 a pre- investigation meeting between MSHA, the petitioner and miners was held at the Camp Run Portal at an active gas well plugging site for the mine. The meeting was to discuss the petition for modification. Approximately 27 miners on all three shifts were interviewed. An overview and general discussions were held to request feedback, concerns and questions to be presented to MSHA and miner's representatives concerning the 101(c) petition for modification.

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 Harrison County Mine employs approximately 243 miners and produces approximately 25,000 tons of bituminous coal per day from the Pittsburgh #8 coal seam with an average mine height of 76 inches. The mine is accessed through 7 exhausting air shafts and 1 slope. The mine operates 3 production shifts per day, 5 days per week, on one working section, and one longwall. The mine liberates 6,326,654 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 Joint Motion for Settlement by the parties, the Harrison County Coal Company is granted a modification of the application of 30 C.F.R. § 75.1700 to its Harrison 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 Harrison County Coal Company's Harrison 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. <u>MANDATORY ALTERNATIVE PROCEDURES FOR PREPARING AND PLUGGING OR RE-PLUGGING OIL OR GAS WELLS</u>

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 inby 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 Harrison County Coal Company's Harrison County Mine is hereby **GRANTED**.

DISTRIBUTION

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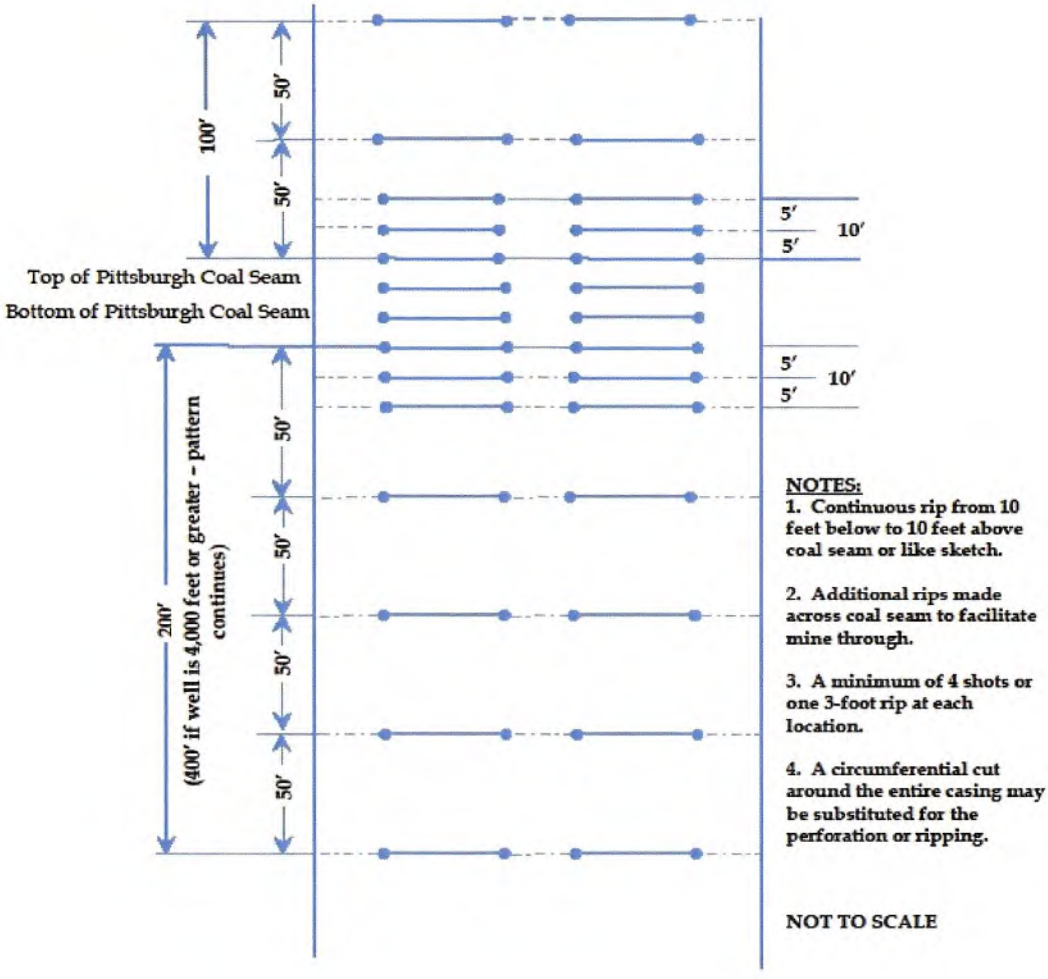
47-103-01069 P

Appendix A



47-103-01069P

WWR-38 API# 47-103-1069

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Coastal Lumber Co. Operator Well No.: Fairfield-Peterson #19
LOCATION: Elevation: 1155' Quadrangle:
District: Grant County: Wetzel
Latitude: Deg. Min. Sec.
Longitude: Deg. Min. Sec.

Well Type: Oil X Gas

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Mike Underwood
Permit Issued: 9/18/04

Coal Operator or Owner
Coal Operator or Owner

RECEIVED
Office of Oil & Gas
SEP 22 2004
WV Department of Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Rick Green and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 2nd day of September ,2004 , and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	3068'	2967'	5 5/16" 0	2372'
Cement	2140'	2040'	6 5/8" 0	2091'
Cement	1520'	1420'	8 1/4" 0	1478'
Cement	1375'	1275'		
Cement	1030'	930'		
Cement	500'	400'	Perforated 980 - 1000'	
Cement	100'	0	With 1 Shot per Foot	
6% Gel Between Cement Plugs				

Description of monument:
and that the work of plugging and filling said well was completed on the 14th day of September , 2004
And further deponents saith not.

Rick Green
Ken Dotson

Sworn and subscribe before me this 20th day of September 2004

My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Aug. 7, 2006

X Mike Underwood

47-103-01069P

west virginia department of environmental protection

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

Joe Manchin III, Governor
Stephanie R. Timmermeyer, Cabinet Secretary
www.wvdep.org

March 12, 2007

FINAL INSPECTION REPORT

WELL PLUGGING PERMIT RELEASED

EAST RESOURCES, INC.,

The FINAL INSPECTION REPORT for the permit, API Well Number: 47-10301069, issued to EAST RESOURCES, INC., and listed below has been received in this office. Your Affidavit of Plugging was received and reclamation requirements approved. The well designated by the permit number below has been released under your bond.

James Martin
Chief

Operator: EAST RESOURCES, INC.
Operator's Well No: 19
Farm Name: COASTAL LUMBER CO.
API Well Number: 47-10301069
Date Issued: 09/08/2004
Date Released: 03/12/2007

Promoting a healthy environment.

47-103-01069 P

WW-4A
Revised 6-07

1) Date: MARCH 10, 2020
2) Operator's Well Number
7235

3) API Well No.: 47 - 103 - 01069

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: COASTAL FOREST RESOURCES COMPANY
Address: P.O. BOX 709
BUCKHANNON, WV 26201

(b) Name
Address

(c) Name
Address

6) Inspector: DEREK HAUGHT
Address: P.O. BOX 85
SMITHVILLE, WV 26178
Telephone: (304) 206-7613

5) (a) Coal Operator
Name: CONSOLIDATION COAL CO.
Address: 1 BRIDGE STREET
MONONGAH, WV 26554

(b) Coal Owner(s) with Declaration
Name
Address

Name
Address

(c) Coal Lessee with Declaration
Name
Address

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.

David Roddy

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
BENJAMIN BOOTH
Wesbanco Bank Inc
301 Adams Street
Fairmont, West Virginia 26554
My Commission Expires Oct. 17, 2023

Well Operator: CONSOLIDATION COAL COMPANY
By: DAVID RODDY
Its: PROJECT ENGINEER
Address: 1 BRIDGE STREET
MONONGAH, WV 26554
Telephone: (304) 534-4748

Subscribed and sworn before me this 17th day of August 2020
Benj Booth Notary Public
My Commission Expires 10/17/2023

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 depprivacyoffier@wv.gov.

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Extra Services & Fees (check box, add fee as appropriate)
- ☐ Return Receipt (hardcopy) $ 2.85
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage $ 1.60

Total Postage and Fees $ 8.00

Sent To: Coastal Forest Resources

Street and Apt. No., or PO Box No.: P.O. Box 709

City, State, ZIP+4®: Buckhannon WV 26201

7016 3560 0000 0877 7872

MONONGAHELA WV 26554

AUG 13 2020

Postmark Here

47-103-01069P

WW-9
(5/16)

47-103-01069P

API Number 47 - 103 - 01069
Operator's Well No. 7235

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

Operator Name Consolidation Coal Company OP Code 10950

Watershed (HUC 10) STOUT RUN OF SOUTH FORK FISHING CREEK Quadrangle FOLSOM W.VA

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: DMH 8/21/20

_____ 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 systembe 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 David Roddy

Company Official (Typed Name) David Roddy

Company Official Title Project Engineer

Subscribed and sworn before me this 17th day of August , 2020

Benj Booth Notary Public

My commission expires 10/17/2023

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
BENJAMIN BOOTH
Weabenco Bank Inc
301 Adams Street
Fairmont, West Virginia 26554
My Commission Expires Oct. 17,

Form WW-9

47-103-01069P

Operator's Well No. 7235

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
See Attachment	100	See Attachment	100

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: Derek M. Haught

Comments:

Title: Oil & Gas Inspector Date: 8/21/20

Field Reviewed? (X) Yes ( ) No

47-103-01069P

WW-9- GPP
Rev. 5/16

N/A

Page 1 of 2
API Number 47 - 103 - 01069
Operator's Well No. 7235

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

Operator Name: CONSOLIDATION COAL COMPANY

Watershed (HUC 10): STOUT RUN OF SOUTH FORK FISHING CREEK Quad: FOLSOM W.VA

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.

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

47-103-01069 P

N/A

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

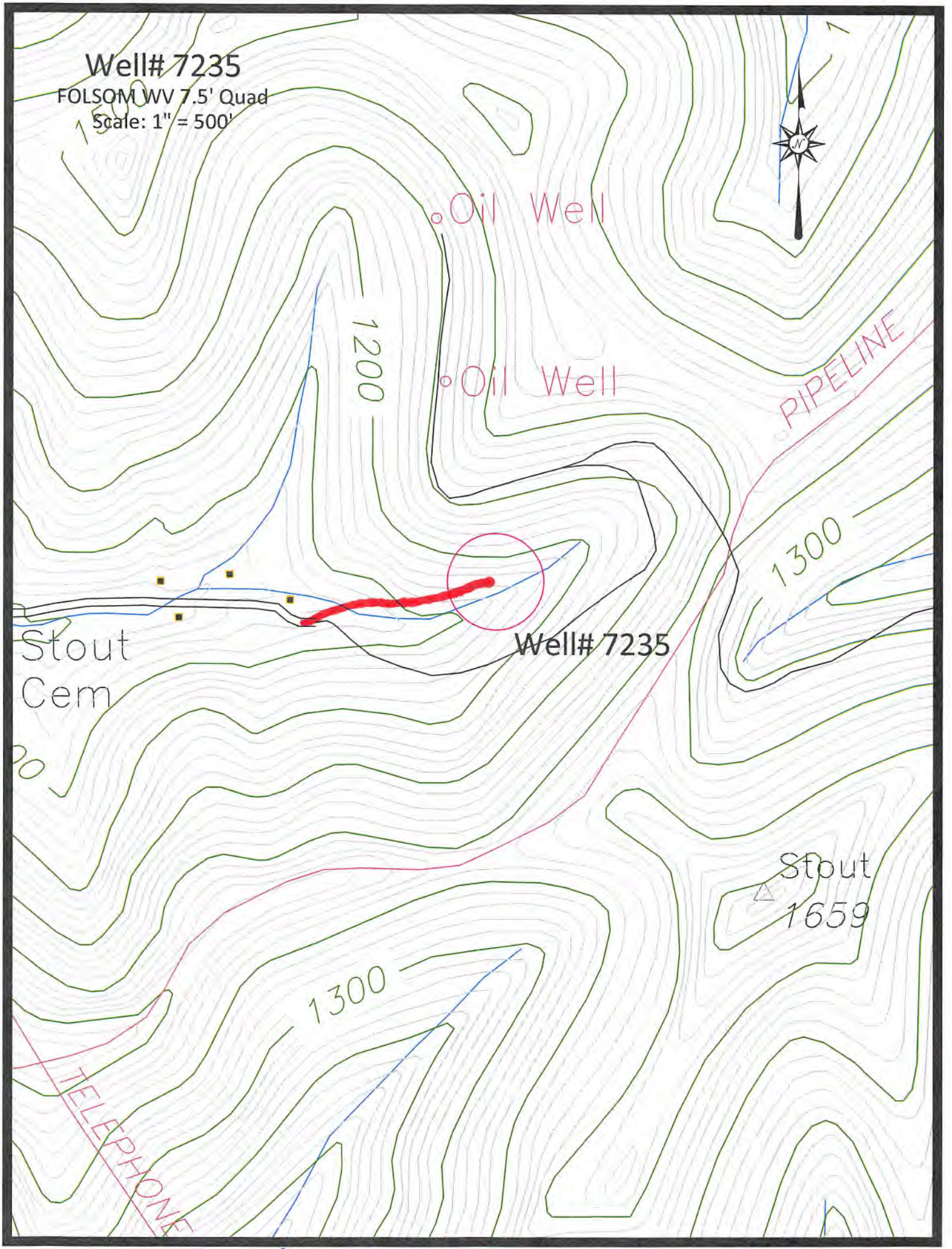
7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

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

Signature: _____

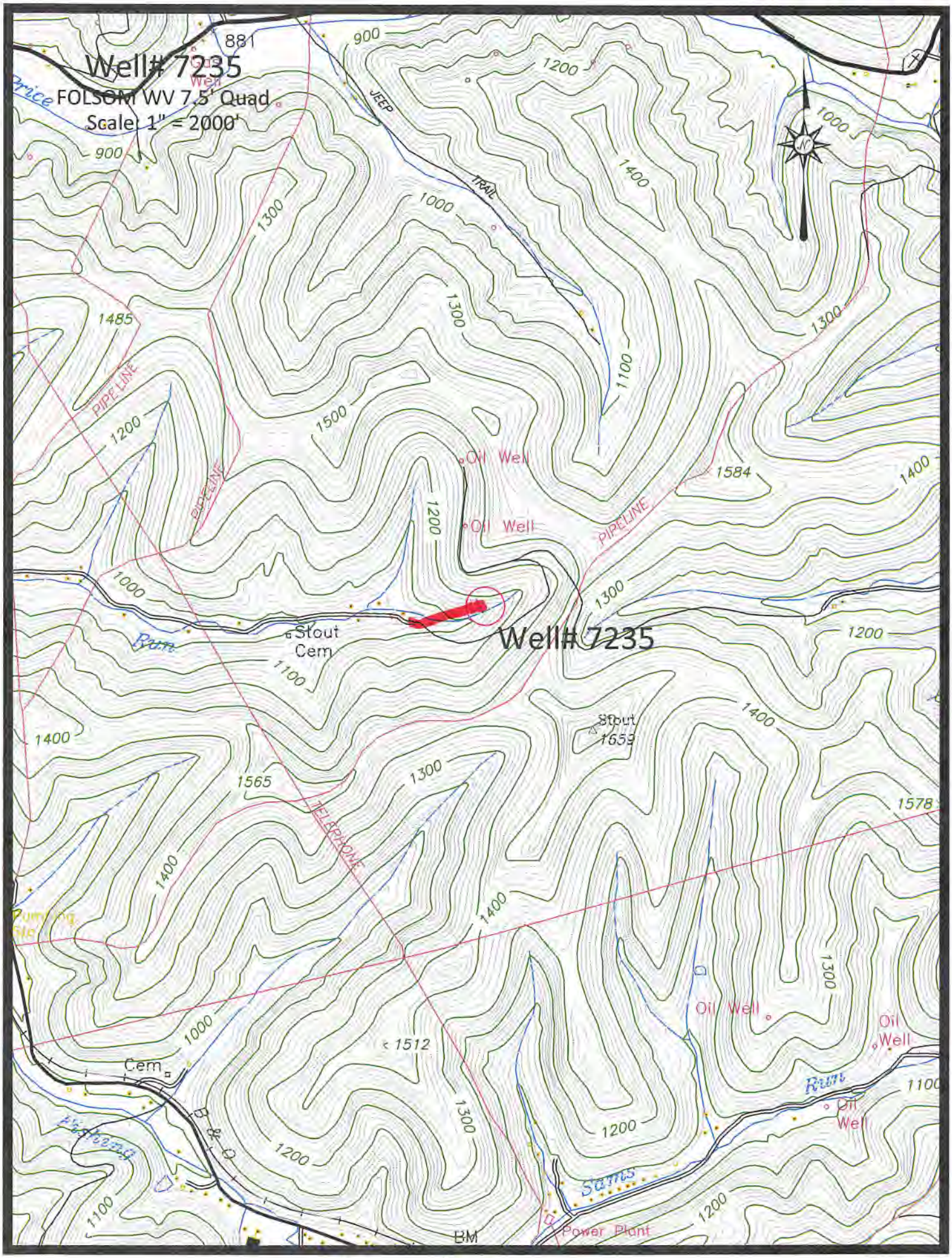
Date: _____

47-103-01069 P



Access Road

47-103-01069P

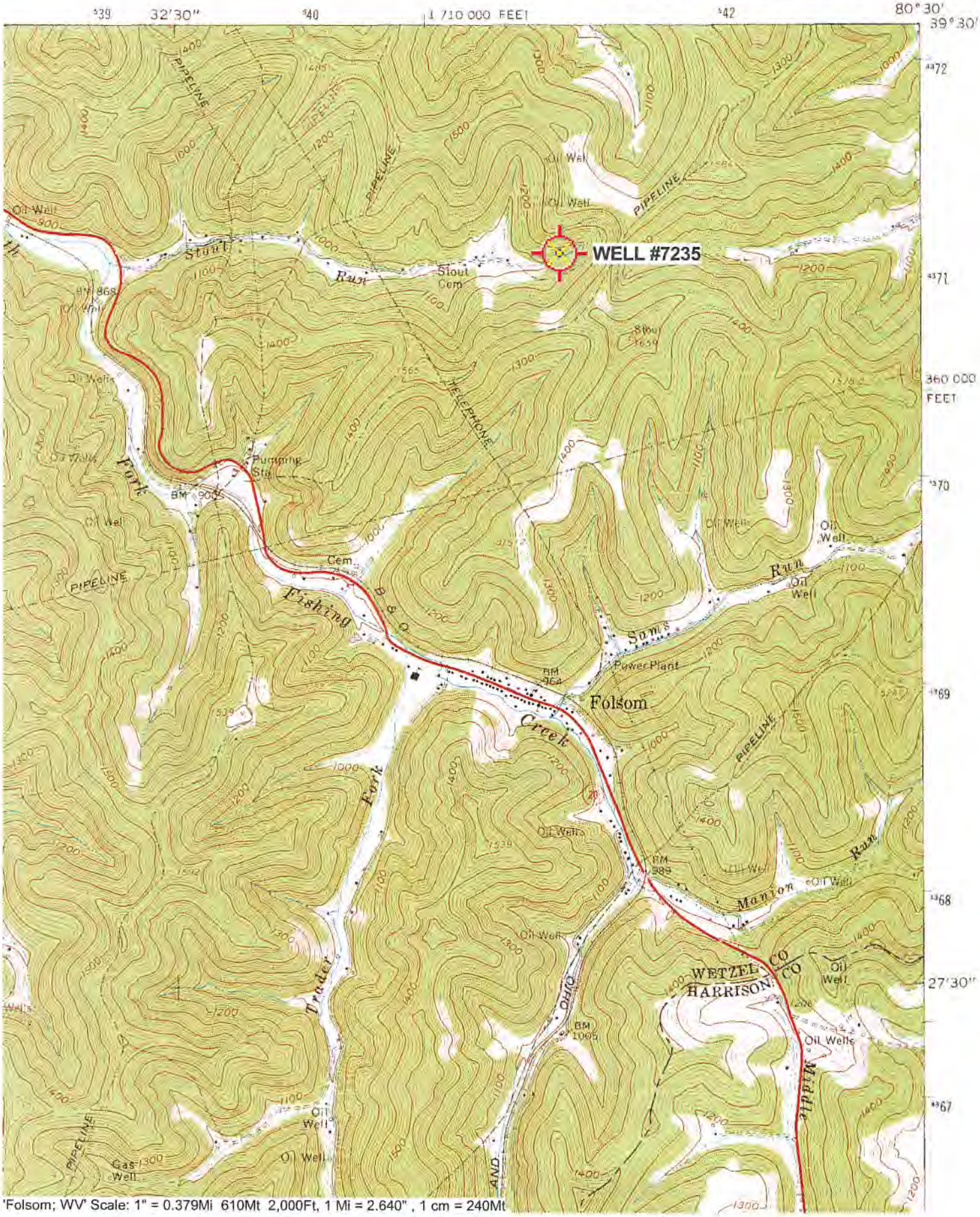


47-103-01069P

VEY

FOLSOM QUADRANGLE
WEST VIRGINIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 CENTER POINT 15' QUADRANGLE

4963 III SW (GLOVER GAP)



'Folsom; WV' Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640" , 1 cm = 240Mt

47-103-01069 P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-103-01069 **WELL NO.:** 7235

FARM NAME: FAIRFIELD-PETERSON

RESPONSIBLE PARTY NAME: CONSOLIDATION COAL COMPANY

COUNTY: WETZEL **DISTRICT:** GRANT

QUADRANGLE: FOLSOM W.VA

SURFACE OWNER: COASTAL FOREST RESOURCES COMPANY

ROYALTY OWNER:

UTM GPS NORTHING: 4,371,285 m

UTM GPS EASTING: 541,278 m **GPS ELEVATION:** 352 m (1154')

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 X: Post Processed Differential X

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	MARCH 10, 2020
	Title	Date

47-103-01069P

Office of Oil and Gas
1356 Hansford Street
Charleston, WV 25301
Phone: (304) 558-6075
Fax: (304) 558-6047

West Virginia Department of Environmental Protection

Bob Wise,
Governor

Stephanie R. Timmermeyer,
Cabinet Secretary

September 08, 2004

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10301069, issued to EAST RESOURCES, INC., 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 all 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 1-800-654-3312 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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given.

Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

If there are any questions, please free to contact me or Mr. Al Blankenship at 304-558-6342.

This permit will expire in two (2) years from date of issue.

JAMES MARTIN
Chief,
Office of Oil and Gas

Operator's Well No: 19
Farm Name: COASTAL LUMBER CO.
API Well Number: 47-10301069
Permit Type: Plugging
Date Issued: 09/08/2004

47-103-01069P

FORM WW-4(B) INSPECTOR'S COPY
Obverse
10-91

1) Date: _____, 19____
2) Operator's Well No. _____
3) API Well No. _____ - _____ - _____
State County Permit

STATE OF WEST VIRGINIA

DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
APPLICATION FOR A PERMIT TO PLUG & ABANDON

4) WELL TYPE: A Oil _____/ Gas _____/ Liquid injection _____/ Waste disposal _____/
B (If "Gas", Production _____/ Underground storage) _____/ Deep _____ Shallow _____/)

5) LOCATION: Elevation _____ Watershed: _____
District: _____ County: _____ Quadrangle: _____

6) WELL OPERATOR _____ CODE _____
Address _____

7) DESIGNATED AGENT _____
Address _____

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name _____
Address _____

9) PLUGGING CONTRACTOR
Name _____
Address _____

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

OFFICE USE ONLY

PLUGGING PERMIT

Permit number _____ _____ 19
Date

This permit covering the well operator and well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	WPCP	OTHER

_____ _____
Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location

Inspector

See the reverse side of the APPLICANT'S COPY for instructions to the well operator

47-103-01069P

13

Form WW-4(B) Duplicate Copy
Obverse
10-91

1) Date: August 25, 2004
2) Operator's Well Number
Fairfield-Peterson No.19
3) API Well No: 47 - 103 - 1069
State County Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: A Oil X Gas X Liquid Injection _____ Waste Disposal _____
B (If "Gas", Production X Underground Storage _____ Deep _____ Shallow X)

5) LOCATION: Elevation: 1,155' Watershed: Stout Run
District: Grant County: Wetzel

6) WELL OPERATOR: East Resources, Inc. 308122
Address P.O. Box 5519
Vienna, WV 26105-5519

7) DESIGNATED AGENT Philip S. Ondrusek
Address P.O. Box 5519
Vienna, WV 26105-5519

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mike Underwood
Address Route 2, Box 135
Salem, WV 26426

9) PLUGGING CONTRACTOR
Name _____
Address _____

10) WORK ORDER: The work order for the manner of plugging this well is as follows:
TD - 3,136'

RECEIVED
Office of Oil & Gas
Office of Chief
SEP 03 2004
WV Department of
Environmental Protection

Plug No.1	3065'	-	2965'	20 Sks
Plug No.2	2140'	-	2040'	35 Sks
Plug No.3	1525'	-	1425'	35 Sks
Plug No.4	1375'	-	1275'	35 Sks
Plug No.5	1035'	-	935'	55 Sks
Plug No.6	500'	-	400'	55 Sks
Plug No.7	100'	-	Surface	55 Sks

O.K.

Erect Monument with API No.
Note: 6% Gel between all cement plugs.

OFFICE USE ONLY

PLUGGING PERMIT

Permit Number _____ _____ 20____
Date

This permit covering the well operator and the well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual work has commenced.

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	WPCP	Other

_____
Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

See the reverse side of the APPLICANT'S COPY for instuctions to the well operator Copy

47-103-01069P

Well No. 19. Fairfield Peterson Farm.
Lease No. Grant District Wetzel County.
Rig built by J. Stack 103-01069
Well drilled by J. Wilson Oil Co. Contractor.
Began drilling Aug 12 1905 Completed Oct 29. 1905

ROCK FORMATION.	TOP.	BOTTOM.	REMARKS.
Conductor		12	Steel Line Gordon Sd. 3082-3090
Pitts Coal	985	994	" " - 3120-3128
L. Dunkard Sd	1355	1415	Depth 3126
Big " "	1460	1480	Show of Gas 1355
Gas Sand	1600	1650	Shot Dec. 11/05-30 qts. ✓
Salt "	1765	1950	" 7/11/07-60 qts. ✓
1st Water	1910		" 6/5/11-120 qts.
2nd "	1933		
Little Lime	2165	2185	
Pencil Cave	2185	2200	
Big Lime	2200	2270	
" Injun	2270	2400	Steel Line
Upper 30'	2740	2765	
50' Sand	2845	2905	
Lower 30'	2965	3000	
Stray Sand	3019	3076	
Oil	3077	3075	

CASING RECORD.

	CHARGED TO WELL.		PUT IN WELL.		PULLED OUT.		LEFT IN WELL.		Transferred before Completion		Left at Well Not in Use.	
Size	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.
10			467		467							
8 1/4			1478	5			1478	8				
6 5/8			2091	8			2091	8				
5 3/16			2372	1			2372	1				

Production First 24 Hours } .... Bbls Signed A. L. Chambers Supt.

47-103-01069P

Form WW-4(A)
Obverse

1) Date: August 25, 2004
2) Operator's Well Number
Fairfield-Peterson No.19
3) API Well No: 47 - 103 - 1069
State County Permit

STATE OF WEST VIRGINIA
DIVISION OF OIL AND GAS, DEPARMENT OF ENERGY
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) of record to be served:
(i) Name Coastal Lumber Co.
Address P.O. Box 979
Buckhannon, WV 26201
(ii) Name Everett Haught
Address General Delivery
Folsom, WV 26348
(iii) Name
Address

5) (i) Coal Operator: NA
Address
(ii) Coal Owner(s) with Declaration on Record:
Name NA
Address
(iii) Coal Lessee with Declaration on Record:
Name NA
Address

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

1) The Application to Plug and Abandon a Well on Form WW-4(B), which sets out the parties involved in the work, and describes the well and its location 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 REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-4(B) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22B 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 Director of the Division of Oil and Gas, West Virginia Department of Energy, with respect to the well 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 to you 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 Director.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by

This 26th day of August, 2004

My Commission expires Oct 4, 2006

Notary Public, Wood County
State of West Virginia

Well Operator: East Resources, Inc.
By: Timothy P. Roush
Its: Professional Surveyor
Address P.O. Box 5519
Vienna, WV 26105-5519
Telephone (304) 422-6565

RECEIVED
Office of Oil & Gas
Office of Chief
AUG 26 2004
WV Department of
Environmental Protection

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P.O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2006

103-01069P

7004 1160 0006 7914 3247

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Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

Postmark Here

AUG 25

FP #19

Sent To Coastal Lumber Co.
Street, Apt. or PO Box No. P.O. Box 979
City, State, ZIP+4 Buckhannon, WV 26201

PS Form 3800

7004 1160 0006 7914 3254

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

Postmark Here

AUG 25

FP #19

Sent To Everett Haught
Street, Apt. or PO Box No. General Delivery
City, State, ZIP+4 Folsom, WV 26348

PS Form 3800

RECEIVED
Office of Oil & Gas
Office of Chief

AUG 26 2004

WV Department of
Environmental Protection

47-103-01069P

Form WW-9
Rev. 10/94

Page 3 of 3
API Number 47- 103 - 1069
Operator's Well No. Fairfield-Peterson No.19

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator East Resources, Inc. OP Code 308122

Watershed Stout Run Quadrangle Folsom 7.5'

Elevation 1,155' County Wetzel District Grant

Description of anticipated Pit Waste: Fluids encountered in plugging subject well

Will a synthetic liner be used in pit? No

Proposed Disposal Method For Treated Pit Wastes:

X Land Application
___ Underground Injection (UIC Permit Number ___)
___ Reuse (at API Number ___)
___ Off Site Disposal (Supply Form WW-9 for disposal location)
___ Other (Explain ___)

Proposed Work For Which Pit Will Be Used:

___ Drilling ___ Swabbing
___ Workover X Plugging
___ Other (Explain ___)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on June 14, 1994, by the Office of Oil and Gas of the West Virginia Division 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 ___

Company Official (Typed Name) Timothy P. Roush

Company Official Title Professional Surveyor

Subscribed and sworn before me this 25th day of August, 2004

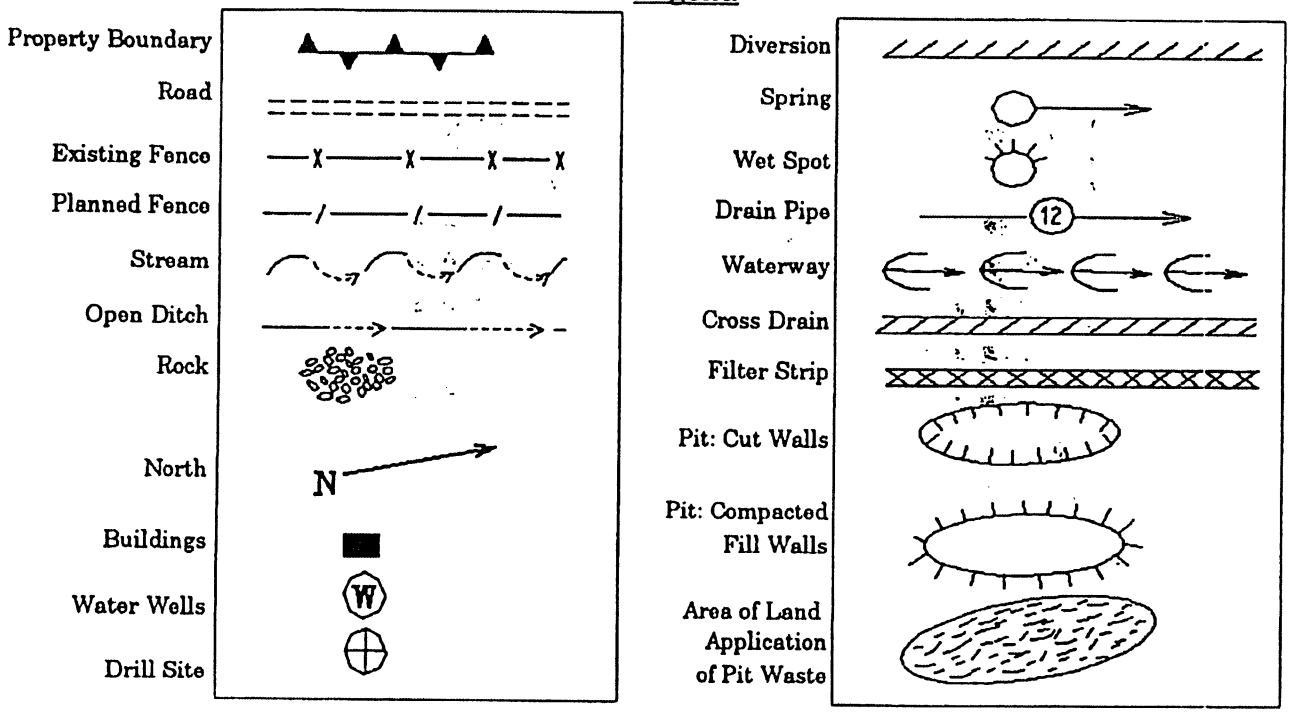
___ Notary Public

My commission expires Oct. 4, 2006

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P.O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2006

47-103-01069P

Legend



Proposed Revegetation Treatment: Acres Disturbed (Area II) Approx. 1 Ac. Prevegetation pH _____

Lime 2 Tons/Acre or Correct to pH NO LESS 2 Ton per Acre

Fertilizer (10-20-20 or Equivalent) 500 lbs./acre (500 lbs. minimum)

Mulch Straw 2 Tons/Acre

Seed Mixtures

Area I		Area II	
Seed Type	Lbs./Ac.	Seed Type	Lbs./Ac.
Southern States Meadow Mix	50	Southern States Meadow Mix	50

Attach:
Drawing(s) of road, location, pit and proposed area for land application.
Photocopied section of involved 7.5' topographic sheet.

RECEIVED
Office of Oil & Gas
Office of Chief
SEP 0 3 2004
WV Department of
Environmental Protection

Plan Approved by: _____

Title: Oil/Gas Insp Date: 9/1/04

Field Reviewed? _____ Yes ✓ No

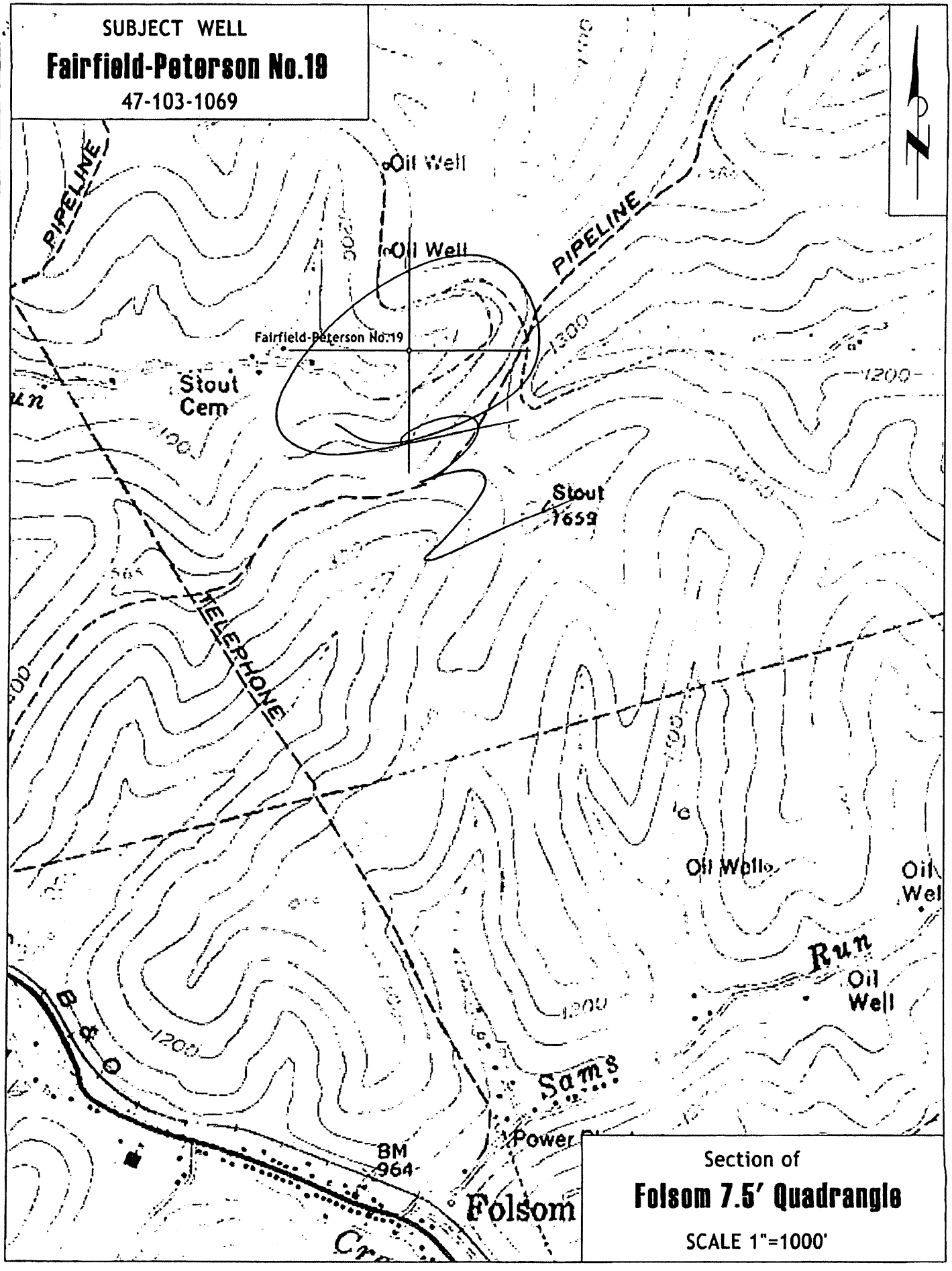
Page 1 of 3

47-103-01069P

SUBJECT WELL

Fairfield-Peterson No.18

47-103-1069



Section of

Folsom 7.5' Quadrangle

SCALE 1"=1000'

47-103-01069P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47-103-1069 P **WELL NO:** 19

FARM NAME: Fairfield - Peterson

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Wetzel **DISTRICT:** Grant

QUADRANGLE: Folsom 7.5'

SURFACE OWNER: Coastal Lumber Co.

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,371,072 (NAD 27)

UTM GPS EASTING: 541,260 (NAD 27) **GPS ELEVATION:** 352 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 on the above well. The Office of Oil & 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	X	Post Processed Differential	X
		Real-Time Differential	___

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.

Timothy P. Roush — Professional Surveyor

Signature — Title

August 25, 2004

Date

RECEIVED
Office of Oil & Gas
Office of Chief
AUG 26 2004
WV Department of Environmental Protection

47-103-01064P

WVGES GEOLOGY UNDERLIES IT ALL

West Virginia
Geological & Economic Survey

Oil & Gas Well Header Data Search

INNACCURATE LOCATION COORDINATES & WM 006

API #:	4710301069	Well Type:	
County:		Total Vertical Depth TVD(ft) >=	
7.5 Minute Quad:		Completion Year =	
Type of Log:		Operator at Completion (contains):	minimum 3 characters if searching
Log Bottom (ft) >=		Last Producing Operator (contains):	minimum 3 characters if searching
has Scanned Log(s):		Surface Owner (contains):	minimum 3 characters if searching
has Digitized Log(s):		Field Name (contains):	minimum 3 characters if searching
has Sample Desc Scan:		Company Number (contains):	minimum 3 characters if searching
has Slabbed Core Photo(s):		Mineral Owner (contains):	
Horizontal/Deviated Well:			
Results/Page:	100	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.	
Order By:	API		
Search Reset			

4 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 #	Mineral Ov
4710301069	All Data	View			Scans	Wetzel	-80.545413	39.512458	539078	4373745.7	Big Run	Grant			Original Location	Completed	1896	Oil	South Penn Oil (S. Penn Nat. Gas)	East Resources, Inc.	B W Peterson	19		
4710301069	All Data	View			Scans	Wetzel	-80.545413	39.512458	539078	4373745.7	Big Run	Grant			Worked Over	Completed	1899	Oil	South Penn Oil (S. Penn Nat. Gas)	East Resources, Inc.	B W Peterson	19		
4710301069	All Data	View			Scans	Wetzel	-80.545413	39.512458	539078	4373745.7	Big Run	Grant			Drilled Deeper	Completed	1905	not available	South Penn Oil (S. Penn Nat. Gas)	East Resources, Inc.	B W Peterson	19		
4710301069	All Data	View			Scans	Wetzel	-80.545413	39.512458	539078	4373745.7	Big Run	Grant			Plugging	Completed	2004	not available	East Resources, Inc.	East Resources, Inc.	Coastal Lumber Co	19		East Resourc

47-103-01069 P

WVGES GEOLOGY UNDERLIES IT ALL "Pipeline"

Select County: (103) Wetzel
Enter Permit #: 1069
Get Data Reset

Select datatypes: (Check All)
✓ 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 = 103 Permit = 1069

INACCURATE LOCATION COORDINATE
gwm OO&G

Report Time: Tuesday, March 10, 2020 9:37:45 AM

Location Information: View Map

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710301069	Wetzel	1069	Grant	Big Run	Littleton	39.512458	-80.545413	~~539978~~	~~4373745.7~~

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
4710301069	7/3/1896	Original Loc	Completed	B W Peterson	19			10052		South Penn Oil (S. Penn Nat. Gas)			
4710301069	1/3/1899	Worked Over	Completed	B W Peterson	19					South Penn Oil (S. Penn Nat. Gas)			
4710301069	6/6/1905	Drilled Deeper	Completed	B W Peterson	19					South Penn Oil (S. Penn Nat. Gas)			
4710301069	9/14/2004	Plugging	Completed	Coastal Lumber Co	19		Fairfield-Peterson		East Resources Inc et al	East Resources, Inc.			

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	TI_AFT
4710301069	7/3/1896	5/11/1896			Smithfield	Big Injun (undiff)	Big Injun (undiff)	unclassified	unclassified	Oil	unknown	unknown	2367		2367		0	0	10	0			0	0	0	0
4710301069	1/3/1899	-/-/-			Smithfield	Big Injun (undiff)	Big Injun (undiff)	unclassified	unclassified	Oil	unknown	Shot	2367		0		0	0	0	0			0	0	0	0
4710301069	6/6/1905	-/-/-			Smithfield	Hampshire Grp	Gordon	unclassified	unclassified	not available	unknown	unknown	3113		746		0	0	0	0			0	0	0	0
4710301069	9/14/2004	9/2/2004	1155	Ground Level						not available	unknown	unknown														

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
4710301069	1/3/1899	Pay	Oil	Vertical			2344	Big Injun (undiff)	0	0			
4710301069	7/3/1896	Pay	Oil	Vertical			2344	Big Injun (undiff)	0	0			
4710301069	7/3/1896	Pay	Oil	Vertical			2350	Big Injun (undiff)	0	0			
4710301069	6/6/1905	Pay	Oil & Gas	Vertical			3102	Gordon	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
4710301069	Pennzoil Company	1981	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1984	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1989	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1998	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1999	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2000	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2001	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2002	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2003	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2004	0	0	0	0	0	0	0	0	0	0	0	0	0

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
4710301069	Pennzoil Company	1981	52	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1982	18	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1983	14	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Company	1984	8	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1989	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1998	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	Pennzoil Products Company	1999	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2000	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2001	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2002	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2003	0	0	0	0	0	0	0	0	0	0	0	0	0
4710301069	East Resources, Inc.	2004	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

There is no Stratigraphy data for this well

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

Plugging Information:

API	PLG_DT	DEPTH_PBT
4710301069	9/14/2004	0

There is no Sample data for this well

47-103-01069P

WR-34
Page 1 of 3

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

Company Name: **East Resources, Inc.** **308122**
API: **47-103- 1069-P** County: **Wetzel** District: **Grant**
Farm Name: **Fairfield - Peterson** Well No: **19**

Discharge Date/s From: (MMDDYY) **NA** To: (MMDDYY) **NA**
Discharge Times: From: **NA** To: **NA**

Disposal Option Utilized:

(1) Land Application: _____ (Include a Topographical Map of the Area)
(2) UIC: _____ Permit No. _____
(3) Offsite Disposal: _____ Site Location: _____
(4) Reuse: _____ Alternate Permit No. _____
(5) Centralized Facility: _____ Permit No. _____
(6) Other Method: **X** (Include an Explanation) _____

Pit contained insufficient fluid for treatment and was backfilled with no discharge of fluids.

Follow instructions below to determine your treatment category.

Optional Pretreatment Test: _____ Cl- mg/l _____ DO mg/l

1 Do you have permission to use expedited treatment from the Director or his representative? (Y/N) _____ If yes who? _____, and place four (4) on line 7. If not go to line 2.

2 Was frac fluid or flowback put into the pit? (Y/N) _____ If yes go to line 5. If not go to line 3.

3 Do you have a pretreatment choride value? (see above) (Y/N) _____ If yes go to line 4. If not go to line5.

4 Is that chloride level less than 5000 mg/l? (Y/N) _____ If yes enter a one (1) on line 7.

5 Do you have a pretreatment value for DO? (see above) (Y/N) _____ If yes go to line 6. If not enter a three (3) on line 7.

6 Is that DO greater than 2.5 mg/l? (Y/N) _____ If yes enter a two (2) on line 7. If not enter a three (3) on line 7.

7 _____ is the category of your pit. Use the appropriate section.

Name of Priciple Executive Officer **Philip S. Ondrusek**
Title of Officer **Production Manager**
Date Completed **August 28, 2006**

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

Signature of Principle Executive Officer or Authorized Agent.

_____
Signature

RECEIVED
Office of Oil & Gas
Office of Chief
SEP 0 5 2006
WV Department of
Environmental Protection

IR-8
(REV 4-99)

API NO.: 47- 103 - 01069-P.

WELL PLUGGING INSPECTION & RELEASE FORM

PLUGGING COMMENCED _____
PLUGGING COMPLETED _____
VERBAL PERMISSION ON _____

OPERATOR: EAST RESOURCES INC
FARM: COASTAL LUMBER CO
WELL NO: PETERSON-19

1. IS COAL BEING MINED IN THE AREA? ~~YES~~ NO N/A

2. WERE CEMENT AND GEL MIXED AND USED IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS?
   - A. BOTTOM HOLE PLUGGED ~~YES~~ NO N/A
   - B. 100' PLUGS ~~YES~~ NO N/A
   - C. LATEX PLUGS USED FOR H_2S GAS YES ~~NO~~ N/A
   - D. PROPER PLUGS THROUGH COAL SEAMS ~~YES~~ NO N/A
   - E. PROPER PLUGS SET TO PROTECT FRESHWATER ~~YES~~ NO N/A
   - F. PROPER AMOUNT OF GEL USED TO DISPLACE PLUGS ~~YES~~ NO N/A

TYPE	FROM	TO	PIPE REMOVED
	SEE WR-38		

3. WERE ALL CHANGES APPROVED BY INSPECTOR? ~~YES~~ NO

4. WAS THE EQUIPMENT USED FOR PULLING CASING PROPERLY SIZED AND RIGGED TO PULL 150% OF THE HEAVIEST STRING OF PIPE EXPECTED TO BE PULLED? ~~YES~~ NO

5. DID THE OPERATOR GIVE THE INSPECTOR PROPER NOTICE? ~~YES~~ NO

6. WERE ACCURATE PLUGGING RECORDS KEPT BY THE OPERATOR? ~~YES~~ NO

7. WAS A PROPER MONUMENT SET WITH API NUMBER ATTACHED? ~~YES~~ NO

8. DID WELL SITE AND ACCESS ROAD MEET THE FOLLOWING RECLAMATION REQUIREMENTS?
   - A. RECLAIMED ~~YES~~ NO
   - B. FENCES REPLACED ~~YES~~ NO
   - C. MULCHED ~~YES~~ NO
   - D. PROPER DRAINAGE ~~YES~~ NO
   - E. SEEDED ~~YES~~ NO
   - F. ALL EQUIPMENT REMOVED ~~YES~~ NO

9/27/06.
DATE RELEASED

INSPECTOR'S SIGNATURE

RECORD ALL VISITS TO THIS WELL ON PAGE 2

47-103-01069P

IR-8
PAGE 2
API NO: 47-__________-____________________________

DATE	VISITS