March 15, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5100470, issued to CONSOLIDATION COAL COMPANY, 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 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. 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 penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 4698
Farm Name: CROW, JOHN
API Well Number: 47-5100470
Permit Type: Plugging
Date Issued: 03/15/2016

Promoting a healthy environment.
PERMIT CONDITIONS

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

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.

3. Well work activities shall not constitute a hazard to the safety of persons.
STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
APPLICATION FOR A PERMIT TO PLUG & ABANDON

4.) WELL TYPE: Oil / Gas X / Liquid injection / Waste disposal / Undergaround storage X / Deep / Shallow X

5.) LOCATION: Elevation: 1149.89' Watershed: Dunkard Fork
District: Webster County: Marshall Quadangle: Majersville 7.5'

6.) WELL OPERATOR: Consolidation Coal Company
Address: 1 Bridge Street
Monongah, WV 26554

7.) DESIGNATED AGENT: Ronnie Harsh
Address: 1 Bridge Street
Monongah, WV 26554

8.) OIL & GAS INSPECTOR TO BE NOTIFIED
Name: Eric Blend
Address: PO BOX 2115
Wheeling, WV 26003

9.) PLUGGING CONTRACTOR

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

SEE MSHA 101C
SEE EXHIBIT NO. 1

- Clean hole to TD of 1794'
- Set Class A cement plug from TD (1794') to 200' below the Pittsburgh coal @ (797)
- Follow MSHA 101C exemption from 797 to surface.

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

Received
Office of Oil and Gas
FEB 16 2016

WV Department of Environmental Protection

03/18/2016
In the matter of
Consolidation Coal Company
Shoemaker Mine
I.D. No. 46-01436
Ireland Mine
I.D. No. 46-01438
Docket No. M-90-066-C

PROPOSED DECISION AND ORDER

On April 24, 1990, a petition was filed seeking a modification of the application of 30 CFR 75.1700 to Petitioner's Shoemaker Mine and Ireland Mine, both located in Marshall County, West Virginia. The Petitioner alleges that the alternative method outlined in the petition will at all times guarantee no less than the same measure of protection afforded by the standard.

MSHA personnel conducted an investigation of the petition and filed a report of their findings and recommendations with the Administrator for Coal Mine Safety and Health. After a careful review of the entire record, including the petition, comments, and MSHA's investigative report and recommendation, this Proposed Decision and Order is issued.

Finding of Fact and Conclusion of Law

The alternative method proposed by the Petitioner (as amended by the recommendations of MSHA investigators) will at all times guarantee no less than the same measure of protection afforded the miners under 30 CFR 75.1700.

On the basis of the petition and the findings of MSHA's investigation, Consolidation Coal Company is granted a modification of the application of 30 CFR 75.1700 to its Shoemaker Mine and Ireland Mine.

ORDER

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and pursuant to Section 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C., sec. 811(c), it is ordered that Consolidation Coal Company's Petition for Modification of the application of 30 CFR 75.1700 in the Shoemaker Mine and Ireland Mine is hereby:
GRANTED, conditioned upon compliance with all provisions of the Petitioner's alternative method and the following terms and conditions:

I. Procedures to be utilized when plugging gas or oil wells.

(a) **Cleaning out and preparing oil and gas wells.**
Prior to plugging an oil or gas well, the following procedure shall be followed:

(1) A diligent effort shall be made to clean the borehole to the original total depth. If this depth cannot be reached, the borehole shall be cleaned out to a depth which would permit the placement of at least 200 feet of expanding cement below the base of the lowest mineable coalbed.

(2) When cleaning the borehole, a diligent effort shall be made to remove all the casing in the borehole. If it is not possible to remove all casing, the casing which remains shall be perforated, or ripped, at intervals spaced close enough to permit expanding cement slurry to infiltrate the annulus between the casing and the borehole wall for a distance of at least 200 feet below the base of the lowest mineable coalbed.

(3) If the cleaned-out borehole produces gas, a mechanical bridge plug shall be placed in the borehole in a competent stratum at least 200 feet below the base of the lowest mineable coalbed, but above the top of the uppermost hydrocarbon-producing stratum. If it is not possible to set a mechanical bridge plug, a substantial brush plug may be used in place of the mechanical bridge plug.

(4) A suite of logs shall be made consisting of a caliper survey directional deviation survey, and log(s) suitable for determining the top and bottom of the lowest mineable coalbed and potential hydrocarbon producing strata and the location for the bridge plug.

(5) If the uppermost hydrocarbon-producing stratum is within 200 feet of the base of the lowest mineable coalbed, properly placed mechanical bridge plugs or a suitable brush
plug described in subparagraph (a)(3) shall be used to isolate the hydrocarbon producing stratum from the expanding cement plug. Nevertheless, a minimum of 200 feet of expanding cement shall be placed below the lowest mineable coalbed.

(6) The wellbore shall be completely filled and circulated with a gel that inhibits any flow of gas, supports the walls of the borehole, and densifies the expanding cement. This gel shall be pumped through open-end tubing run to a point approximately 20 feet above the bottom of the cleaned out area of the borehole or bridge plug.

(b) Plugging oil or gas wells to the surface. The following procedures shall be utilized when plugging gas or oil wells to the surface:

(1) A cement plug shall be set in the wellbore by pumping an expanding cement slurry down the tubing to displace the gel and fill the borehole to the surface. (As an alternative, the cement slurry may be pumped down the tubing so that the borehole is filled with Portland cement or a Portland cement-fly ash mixture from a point approximately 100 feet above the top of the lowest mineable coalbed to the surface with an expanding cement plug extending from at least 200 feet below the lowest mineable coalbed to the bottom of the Portland cement.) There shall be at least 200 feet of expanding cement below the base of the lowest mineable coalbed.

(2) A small quantity of steel turnings, or other small magnetic particles, shall be embedded in the top of the cement near the surface to serve as a permanent magnetic monument of the borehole.

(c) Plugging oil or gas wells using the vent pipe method. The following procedures shall be utilized when using the vent pipe method for plugging oil and gas wells:

(1) A 4 1/2-inch or larger vent pipe shall be run into the wellbore to a depth of 100 feet below the lowest mineable coalbed and swaged to a smaller diameter pipe, if desired, which will extend to a point approximately 20 feet
above the bottom of the cleaned out area of the borehole or bridge plug.

(2) A cement plug shall be set in the wellbore by pumping an expanding cement slurry, Portland cement, or a Portland cement-fly ash mixture down the tubing to displace the gel so that the borehole is filled with cement. The borehole and the vent pipe shall be filled with expanding cement for a minimum of 200 feet below the base of the lowest mineable coalbed. The top of the expanding cement shall extend upward to a point approximately 100 feet above the top of the lowest mineable coalbed.

(3) All fluid shall be evacuated from the vent pipe to facilitate testing for gases. During the evacuation of fluid, the expanding cement shall not be disturbed.

(4) The top of the vent pipe shall be protected to prevent liquids or solids from entering the wellbore, but permit ready access to the full internal diameter of the vent pipe when necessary.

(d) *Plugging oil and gas wells for use as degasification boreholes.* The following procedures shall be utilized when plugging oil or gas wells for subsequent use as degasification boreholes:

(1) A cement plug shall be set in the wellbore by pumping an expanding cement slurry down the tubing to displace the gel and provide at least 200 feet of expanding cement below the lowest mineable coalbed. The top of the expanding cement shall extend upward to a point above the top of the coalbed being mined. This distance shall be based on the average height of the roof strata breakage for the mine.

(2) To facilitate methane drainage, degasification casing of suitable diameter, slotted or perforated throughout its lower 150 to 200 feet, shall be set in the borehole to a point 10 to 30 feet above the top of the expanding cement.

(3) The annulus between the degasification casing and the borehole wall shall be cemented from
a point immediately above the slots or perforations to the surface.

(4) The degasification casing shall be cleaned out for its total length.

(5) The top of the degasification casing shall be fitted with a wellhead equipped as required by the District Manager. Such equipment may include check valves, shutin valves, sampling ports, flame arrestor equipment, and security fencing.

II. The following procedures shall apply to mining through a plugged oil or gas well:

(a) The operator shall notify the District Manager or designee:

(1) Prior to mining within 300 feet of the well; and

(2) When a specific plan is developed for mining through each well.

(b) The MSHA District Manager or designee shall conduct a conference prior to mining through any plugged well to review and approve the specific procedures for mining through the well. Representatives of the operator, the representative of the miners, and the appropriate State agency shall be informed, within a reasonable time prior to the conference, and be given an opportunity to attend and participate. This meeting may be called by the operator.

(c) Mining through a plugged well shall be done on a shift approved by the District Manager or designee.

(d) The District Manager or designee, representative of the miners, and the appropriate State agency shall be notified by the operator in sufficient time prior to the mining through operation in order to have an opportunity to have representatives present.

(e) When using continuous or conventional mining methods, drivage sights shall be installed at the last open crosscut near the place to be mined to ensure intersection of the well, and again if
necessary to ensure that the sight line is not more than 50 feet from the well.

(f) Firefighting equipment, including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the mining through shall be available when either the conventional or continuous mining method is used. The fire hose shall be located in the last open crosscut of the entry or room. When the longwall mining method is implemented, the fire hose shall be extended to the face area of the mine through. All fire hoses shall be ready for operation during the mining through.

(g) Sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, an emergency plug and/or plugs, shall be available within the immediate area of the mine through.

(h) The quantity of air required by the approved ventilation system and methane and dust control plan, but not less than 9,000 cubic feet of air per minute shall be used to ventilate the working face during the mining through operation. On longwall sections, a minimum of 20,000 cfm shall be used to ventilate the working face during the mining through operation.

(i) Equipment shall be checked for permissibility and serviced on the shift prior to mining through the well.

(j) The methane monitor on the longwall, continuous mining machine, or cutting machine and loading machine shall be calibrated on the shift prior to mining through the well.

(k) When mining is in progress, tests for methane shall be made with a hand-held methane detector at least every 10 minutes from the time that mining with the continuous mining machine, cutting machine, or loading machine is within 30 feet of the well until the well is intersected and immediately prior to mining through. When mining with longwall mining equipment, the tests for methane shall be made at least every 10 minutes when the longwall face is within 10 feet of the well. During the actual cutting through process, no individual shall be allowed on the return side.
until mining through has been completed and the area has been examined and declared safe.

(l) 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 mining through 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.

(m) When the wellbore is intersected, all equipment shall be deenergized and the place thoroughly examined and determined safe before mining is resumed. Any well casing shall be removed and no open flame shall be permitted in the area until adequate ventilation has been established around the wellbore.

(n) After a well has been intersected and the working place determined safe, mining shall continue inby the well a sufficient distance to permit adequate ventilation around the area of the wellbore.

(o) No person shall be permitted in the area of the mining through operation except those actually engaged in the operation, company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate state agency.

(p) The mining through operation shall be under the direct supervision of a certified official. Instructions concerning the mining through operation shall be issued only by the certified official in charge.

(q) MSHA personnel may interrupt or halt the mining through operation when it is necessary for the safety of the miners.

(r) A copy of the petition shall be maintained at the mine and be available to the miners.

(s) The Petitioner shall file a plugging affidavit setting forth the persons who participated in the work, a description of the plugging work, and a certification by the Petitioner that the well has been plugged as described.
(t) Within 60 days after this Proposed Decision and Order becomes final, the Petitioner shall submit proposed revisions for their approved 30 CFR Part 48 training plan to the Coal Mine Safety and Health District Manager. These proposed revisions shall include initial and refresher training regarding compliance with the alternative method stated in the petition and the special terms and conditions stated in the Proposed Decision and Order.

The terms and conditions of this Proposed Decision and Order shall supersede conflicting provisions in the Petitioner’s proposed alternative method.

Any party to this action desiring a hearing on this matter must file in accordance with 30 CFR 44.14, within 30 days, a request with the Administrator for Coal Mine Safety and Health, 4015 Wilson Boulevard, Arlington, Virginia 22203.

If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the proposed decision. A party other than Petitioner who has requested a hearing shall also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, the Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

Edward C. Hugler
Deputy Administrator
for Coal Mine Safety and Health
Certificate of Service

I hereby certify that a copy of this proposed decision was served personally or mailed, postage prepaid, this 12th day of October, 1990, to:

Walter J. Scheller III, Esq.
Consolidation Coal Company
Consol Plaza
Pittsburgh, Pennsylvania 15241

Ms. Linda Raisovich-Parsons
Special Assistant
United Mine Workers of America
900 Fifteenth Street, NW.

Robert Stropp, Esq.
United Mine Workers of America
900 Fifteenth Street, NW.
Washington, DC 20005

Mr. David Shreve
International Safety
Representative
District 6
United Mine Workers of America
56000 Dilles Bottom
Shadyside, Ohio 43947

MARY ANN GRIFFIN
Mine Safety Clerk
EXHIBIT NO. 1

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

**VENT PIPE METHOD**

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.

(b) If abandoned well: clean out to first plug 200 feet below lowest minable seam.

(c) Run 4 1/2 casing from surface to minimum 200 feet below lowest minable seam and circulate 50/50 poz mix cement followed by expanding cement to surface. The expanding cement shall extend from minimum 200 feet below minable coal seam to a point 100 feet above.

The 4 1/2 will remain open from surface to a minimum of 80 feet below that minable coal seam.

**SOLID PLUG METHOD**

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.

(b) If an abandoned well: clean out to first plug 200 feet below lowest minable coal seam.

(c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel 50/50 poz mix from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".
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<th>Pressure (Specify Units)</th>
<th>Size</th>
<th>Open Flow MCF/DAY</th>
<th>MCF/DAY</th>
<th>Hr. B.G.</th>
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<td>Big</td>
<td>Injun</td>
<td>From 1760 to 1765</td>
<td>Side Static</td>
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<td>Pcf</td>
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| Remarks | | | | | |

* Note: Form PD-17 "Well Pressure Report" to be completed and attached, if applicable.


Budget: 2208

Received Office of Oil and Gas: FEB 18 2016

WV Department of Environmental Protection: 03/18/2016
## WELL LOG SUMMARY

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<th>TOP</th>
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<td>Big Injun</td>
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**Drilled 7 7/8" hole to**

- **Pay Zones - Big Injun**
- **1717' and Cemented 52'**
- **Casing at 1707'**
- **Drilled h 3/4" hole to**
- **1792'**

**TOTAL DEPTH**

- **1794'**

Started to drill with gas at 1794' at 8:135 A.M. 7/28/62

- **Flow Line Pressure**
- **Capacity of Well Minus Drilling-in Gas**

<table>
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<tr>
<th>Pay Zone</th>
<th>Time</th>
<th>Stand Pipe Back Pressure</th>
<th>Flow Line Pressure</th>
<th>2&quot; Hg</th>
<th>Capacity of Well Minus Drilling-in Gas</th>
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<tr>
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<td>155-410 psig</td>
<td>5&quot;Hg-1&quot; Hg psig</td>
<td>9,000 MCF/day</td>
<td></td>
</tr>
<tr>
<td>1781-1785</td>
<td>1:30 P.M. to 2:11 P.M.</td>
<td>140-420 psig</td>
<td>1&quot;-21 psig</td>
<td>12,500 MCF/day</td>
<td></td>
</tr>
<tr>
<td>1792-1794</td>
<td>2:53 P.M. to 5:19 P.M.</td>
<td>21-28 psig</td>
<td></td>
<td>16,000 MCF/day</td>
<td></td>
</tr>
<tr>
<td>1794'</td>
<td>at 5:19 P.M.</td>
<td>595 psig</td>
<td>22 psig</td>
<td>13,000 MCF/day</td>
<td></td>
</tr>
</tbody>
</table>

Killed Well at 5:10 P.M. 7/28/62

- Changed to gas to drill at 1777'
- and drilled to 1717'
- Started 1421 P.M. 7/26/62
- Killed Well 9th5 P.M. 7/26/62
NOTICE OF WELL STATUS CHANGE

COMPANY: Manufacturers Light & Heat Company
FIELD: Nitroville
DIV.: 5
FOREIGN WELL NO.: L-4698
COMPANY WELL NO.: L-4698
FARM NAME: Webster
TOWNSHIP: Westville
DISTRICT: 12th
COUNTY: Marshall
STATE: W.Va.
LEASE-DEED NO.: L-2900
ACRES: 330
DATE COMP.: 12/28/62

LAST ACTIVE WELL ON FARM:
☐ YES ☐ NO

STATUS:
☐ DRILLING WELL
☐ PRODUCTION
☐ STORAGE
☐ ACTIVE WELL
☐ PRODUCTION
☐ STORAGE
☐ ABANDONED WELL

COMPLETED:
☐ Gas
☐ Dry
☐ Retained
☐ Abandoned

REDRILLED FOR STORAGE:
☐ Retained
☐ Abandoned

RECONDITIONED:
☐ Retained
☐ Abandoned

RECONDITIONED & TRANSF. TO STORAGE:

TRANSFERRED TO:
☐ Production
☐ Storage

PURCHASED FOR:
☐ Production
☐ Storage

PERFORMED:
☐ DRILLED DEEPER
☐ PLUGGED AND ABANDONED
☐ SOLD

179th foot into Big Injun sand

WELL TREATMENT:
☐ No ☐ Yes

If Yes, Type of Treatment:

COMPLETION DATA:

BEFORE TREATMENT:
☐ Orifice Well Tester
☐ Pitot Tube
☐ Other (Specify)

FLOW:
☐ Mercury
☐ Water

ROCK PRESSURE:

FLOW:
☐ Mercury
☐ Water

TEST:
☐ Orifice Well Tester
☐ Pitot Tube
☐ Other (Specify)

RECORDING:
☐ Side Static

FLOW:
PCA

WELL PRESSURE:

For General Office Use

DEPARTMENT: Production
SECTION: Geology
NOTED BY:
DATE:

DEPARTMENT: Production
SECTION: Storage
NOTED BY:
DATE:

DEPARTMENT: Production
SECTION: Clerical
NOTED BY:
DATE:

DEPARTMENT: Production
SECTION: Map
NOTED BY:
DATE:

DEPARTMENT: Land Operating
SECTION: Land Accounting
NOTED BY:
DATE:

DEPARTMENT: Land Operating
SECTION: Plant Accounting
NOTED BY:
DATE:

DEPARTMENT: Civil Engineering
SECTION: Plants
NOTED BY:
DATE:
## Birdwell

### Gamma Ray

#### Differential Temperature

**Company:** Columbia Gas

**Transmission Corporation**

**Well:** John & Emma Crow W-4638

**Field:** Majorsville

**County:** Marshall

**State:** Va.

<table>
<thead>
<tr>
<th>Date</th>
<th>6-18-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run No.</td>
<td>One</td>
</tr>
<tr>
<td>Depth - Driller</td>
<td>1794'</td>
</tr>
<tr>
<td>Depth - Logger</td>
<td>1723'</td>
</tr>
<tr>
<td>Top Log. Int.</td>
<td>1227'</td>
</tr>
<tr>
<td>Type Fluid in Hole</td>
<td>Gas</td>
</tr>
<tr>
<td>Density</td>
<td>5.0</td>
</tr>
<tr>
<td>Level</td>
<td>FLU</td>
</tr>
<tr>
<td>Max. Rec. Temp. -°F</td>
<td>85.9</td>
</tr>
<tr>
<td>Oper. Rig. Hrs.</td>
<td>1.5 HRS</td>
</tr>
<tr>
<td>Recorded By</td>
<td>R. Trout</td>
</tr>
<tr>
<td>Witnessed By</td>
<td>Mr. Parsons</td>
</tr>
<tr>
<td>Location</td>
<td>OLIVEY 1</td>
</tr>
</tbody>
</table>

**Casing Record**

<table>
<thead>
<tr>
<th>Run No.</th>
<th>Bore Hole Record</th>
<th>Casing Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.A.</td>
<td></td>
<td>11 3/4''</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 5/8''</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 1/2''</td>
</tr>
</tbody>
</table>

**Gamma Ray**

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Tool Serial No.</th>
<th>Tool Diameter</th>
<th>Tool Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1222</td>
<td>3</td>
<td>2.5''</td>
<td>3.5''</td>
</tr>
</tbody>
</table>

**Logging Data**

<table>
<thead>
<tr>
<th>Run No.</th>
<th>Service Observation No.</th>
<th>Depth</th>
<th>Speed</th>
<th>Depth</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Equipment Data**

<table>
<thead>
<tr>
<th>Test No.</th>
<th>Test Description</th>
<th>S.G.</th>
<th>Type</th>
<th>Test No.</th>
<th>Test Description</th>
<th>S.G.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Temperature Data**

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Well Date</th>
<th>Well Name</th>
<th>Type</th>
<th>Well Rate</th>
<th>Temp. Scale</th>
<th>1°F</th>
<th>Temp. Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Temperature Differential**

<table>
<thead>
<tr>
<th>Type</th>
<th>Temp. Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dollar Locator**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Dollar Locator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Remarks**

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

**Graphs**

- Temperature vs. Depth
- Gamma Ray vs. Depth
- Temperature Differential vs. Depth
### Calibration Data

- **Company**: Columbia Gas Transmission Corp.
- **Well**: John & Emma Crow #L-4698
- **Field**: Majorsville
- **Location**: Webster Twp.
- **County**: Marshall
- **State**: W. Va.
- **Date**: 6-18-80
- **Driller**: T.D. 1794'
- **Birdwell**: T.D. 1773'
- **Elevation**: G.L. 1147.75'
- **Seismograph Service Corporation**: A Subsidiary of Raytheon Company

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**Office of Oil and Gas**

**WV Department of Environmental Protection**

**FEB 18 2016**

03/18/2016
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) SURFACE OWNER(S) TO BE SERVED
(a) Name: GMO Forestry
Address: PO BOX 25
Pittsfield, NH 03263

(b) Name: 
Address: 

(e) Name: 
Address: 

(6) INSPECTOR: Eric Blend
Address: PO BOX 2115
Wheeling, WV 26003
Telephone: (304) 552-1179

5) COAL OPERATOR
Name: CONSOLIDATION COAL CO.
Address: 1 Bridge Street
Monongah, WV 26554

(b) COAL OWNER(S) WITH DECLARATION:
Name: 
Address: 

(c) COAL LESSEE WITH DECLARATION:
Name: 
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-4B, 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-4B) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice 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 delivery by hand to the person(s) named above (or by publication in certain circumstances) on or before the date of mailing or delivery by the Chief.

WELL OPERATOR: Consolidation Coal Company
By: Mason Smith
Its: Project Engineer
Address: 6126 Energy Road
Moundsville, WV 26041
Telephone: (304) 843-3565

Subscribed and sworn before me this 16th day of February, 2016
Christian K. Warfield Notary Public.

Marshall County, State of West Virginia

My commission expires June 10, 2024

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

Watershed __Dunkard Fork__________________________________________________________ Quadrangle __Majorsville. 7.5’__________________________

Elevation __1149.89’__________________________ County __Marshall________________________ District __Webster________________________

Description of anticipated Pit Waste: ______N/A__________________________

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

Will a synthetic liner be used in the pit? ______N/A__________________________ If so, what mil.?__________________________

Proposed Disposal Method For Treated Pit Wastes:

_____Land Application

_____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__________________________

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. ______Freshwater__________________________

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

Additives to be used? ______Bentonite, Bicarbonate of Soda____________________

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. ______Reused or Disposed (see attached letter)__________________________

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust__________________________

-Landfill or offsite name/permit number? ____________________________

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 ______________________________________________________

Company Official (Typed Name) ______Mason Smith____________________________________

Company Official Title ___________ _________________ Project Engineer____________________

Subscribed and sworn before me this 16 day of February 2016

Christian K. Warfield ___________ Notary Public

My commission expires _________________ June 10, 2024
February 16, 2016

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

To Whom It May Concern,

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

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

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

Sincerely,

Mason Smith
Project Engineer