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west virginia department of environmental protection

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Office of Oil and Gas  
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Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

February 26, 2018

**UIC Permit**

PENNECO OIL COMPANY, INC.  
6608 ROUTE 22  
DELMONT, PA 15626  
Attn: D. Marc Jacobs, Senior Vice-President

Re: Permit approval for Underground Injection Control (UIC) Permit # 2D09300103002  
Date Issued: February 26, 2018

Enclosed you will find the above referenced Underground Injection Control Permit. This permit will expire in five (5) years from the date of issuance.

Be advised that all conditions established by this Permit either expressly or incorporated by reference, must be strictly adhered to. All monitoring forms shall be submitted to the Office of Oil and Gas in the matter and frequency prescribed. The monitoring forms will be compared with the scope of permitted activity to verify compliance.

Please review the permit carefully and be aware of all permit conditions. Compliance with all permit conditions will be strictly enforced.

The operation of this injection well facility in general, including maintenance of all related surface equipment, shall be conducted so as to preclude any unlawful discharge.

James A. Martin  
Chief  
Office of Oil and Gas

Enclosures as stated

Promoting a healthy environment.

**UNDERGROUND INJECTION CONTROL PERMIT**

For

**Penneco Oil Company, Inc.**

**Permit Number UIC2D09300103002**

**(Gotinsky #1)**

**Issue Date**

**February 26, 2018**

**AUTHORIZATION TO OPERATE AN  
UNDERGROUND INJECTION CONTROL  
(UIC) CLASS II INJECTION WELL  
PERMIT NUMBER # UIC 2D09300103002**

In compliance with provisions of the West Virginia Code, Chapter 22, Article 6, Article 11 and Article 12, as well as Legislative Rules, Title 47, Series 13, Series 55, Series 58, and Title 35 Series 1 and Series 4.

**ISSUE DATE:** February 26, 2018

**PERMITTEE / OPERATOR**

NAME	<b>Penneco Oil Company, Inc.</b>	FACILITY TYPE	Commercial
ADDRESS	6608 Route 22	WELL API #	<u><b>47-093-00103</b></u>
ADDRESS	Delmont, PA 15626	WELL NAME	Gotinsky #1

is authorized by this permit to inject Class II fluids that are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection into the **Huntersville Chert** in accordance with the conditions set forth herein. The permitted injection depth shall be **2,944** feet to **3,090** feet. The injection well is located in **Black Fork** District, **Tucker** County, 7.5' **Belington** Quadrangle. The coordinates for this injection well are:

UTM NAD 83 Northing **4327930** and Easting **607294** (meters). Latitude **39.0939** Longitude **-79.7593**

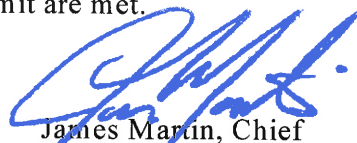
The maximum permitted wellhead injection pressure is established as **808** psi.

The maximum permitted injection rate is established at **65** bbl/hr.

All references to West Virginia Regulations are to those that are in effect on the date that this permit becomes effective. Any person who holds a permit shall pay an annual permit fee in accordance with the provisions of Title 47 Series 9 section 7 of the Legislative Rule. The first annual permit fee shall be remitted to the Office of Oil and Gas one (1) calendar year from the date of permit issuance; subsequent annual permit fees shall be remitted on or before the anniversary date of the permit issuance. The annual permit fee for a Class II disposal well is twenty-five dollars (\$25). The permit becomes void if the annual permit fee has not been paid within one hundred eighty (180) days of the due date. The Chief shall not reissue a permit until all annual permit fees due during prior terms have been paid in full. Failure to pay the annual groundwater fee of seventy-five dollars (\$75) for Class IID as required by the West Virginia Code, Chapter 22, Article 11 and/or Article 12, shall be cause for revocation of this permit. The annual permit fee is due and shall be paid on the anniversary date of permit issuance.

Non-compliance with the terms of this permit shall be cause for revocation of Certification under the terms of Chapter 22, Article 12, and revocation of the permit under Chapter 22, Article 11 of the West Virginia Code.

This permit and its authorization to inject shall remain in effect for five (5) years from the date of issuance of the final permit provided all terms of the permit are met.

  
James Martin, Chief  
Office of Oil and Gas

## PART I

### A. REAPPLICATION

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit an administratively complete application, along with application fee payment, for a new permit at least one hundred and eighty (180) days before this permit expires.

### B. IMMEDIATE REPORTING

The Permittee shall report any noncompliance which may endanger human health or the environment immediately after becoming aware of the circumstances by using the **WVDEP Emergency Spill line number 1-800-642-3074**. Written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, Permittee shall provide the anticipated time it is expected to continue; and the steps taken or planned to be taken to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported immediately:

- i. Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water (USDWs).
- ii. Any non-compliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between the USDWs, or failure of mechanical integrity test demonstrations.

### C. RIGHT OF APPEAL

Notice is hereby given of your right to appeal the terms and conditions of this permit by which you are aggrieved to the State Environmental Quality Board by filing a NOTICE OF APPEAL on the form prescribed by such Board for this purpose, with the Board, in accordance with the provisions of Chapter 22 Article 11, Section 21 of the code of West Virginia within thirty (30) days after the date of issuance of this permit.

### D. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this permit based on an approved permit application. The Permittee shall not allow the underground injection activity authorized by this permit to cause or allow the movement of fluid containing any contaminant into underground sources of drinking water and may not cause a violation of any primary drinking water regulation or any health-based limit promulgated under 40 CFR Chapter 1, Part 142, of the Code of Federal Regulations, or of any water quality standard promulgated by the West Virginia Department of Environmental Protection/Division of Water and Waste Management. Any underground injection activity not authorized in this permit is prohibited. Compliance with the terms of this permit does not constitute a defense to any action brought under Part C and the imminent and substantial endangerment provisions in Part D of the Safe Drinking Water Act (SDWA) or any other common or statutory law for a breach of another applicable legal duty.

## E. PERMIT ACTIONS

1. **Permit Status Change.** This permit can be modified, revoked and reissued or terminated for cause specified in Chapter 22, Article 11 (hereafter WV Code §22-11), and Chapter 22, Article 12 (hereafter WV Code §22-12) of the West Virginia Code, and Title 47, Series 13 (hereafter Legislative Rule 47 CSR 13) of the Legislative Rules. The filing of a request by the Permittee for a permit modification, revocation and reissuance, suspension or revocation, or notification of planned changes or anticipated noncompliance, does not stay any permit condition.
2. **Transfer of Permits.** This permit is not transferable to any person unless notice is first provided to the Office of Oil and Gas and the Permittee complies with requirements of Legislative Rule 47 CSR 13-13.17. The Office of Oil and Gas may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act (SDWA).

## F. SEVERABILITY

The provisions of this permit are severable, and if any condition of this permit or the Permittee's application of any provision of this permit to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of other provisions of the permit and the remainder of this permit shall not be affected.

## G. DURATION OF PERMIT

This permit and the authorization to inject are issued for a period of five (5) years unless terminated under Part I Section H paragraph 11 of this permit. However, when through no fault of the Permittee the West Virginia Department of Environmental Protection does not issue a new permit with an effective date on or before the expiration date of the previous permit and the Permittee has submitted a timely administratively complete application as required in Part I section A of this permit, which is a complete application for a new permit, the expired permit shall continue to remain fully effective and enforceable.

## H. GENERAL REQUIREMENTS

1. **Duty to Comply.** The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the SDWA and the State Act and is grounds for enforcement action; for permit suspension or revocation, revocation and reissuance, or modification; or for denial of a permit renewal application. (Legislative Rule 47 CSR 13-13.12.a) Copies of UIC Program regulations (WV Code §22-11) may be obtained from the West Virginia Legislature's Website <http://www.legis.state.wv.us/WVCODE/Code.cfm>, and (Legislative Rule 47 CSR 13) may be obtained from the West Virginia Secretary of State's Website at <http://www.sos.wv.gov/>.
2. **Duty to Reapply.** If the Permittee wishes to continue activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit as required in Part I section A of this permit at least one hundred and eighty (180) days before this permit expires.
3. **Duty to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate.** The Permittee shall take all reasonable steps to minimize or correct any adverse impact on health of persons or the environment resulting from noncompliance with this permit.
5. **Proper Operation and Maintenance.** The Permittee shall at all times properly operate and maintain all facilities, systems of treatment and control, and related equipment which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operating staffing and training, adequate security at the facility to prevent unauthorized access, adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facility or similar systems only when necessary to achieve compliance with the conditions of this permit.
6. **Duty to Provide Information.** The Permittee shall furnish to the Chief within a reasonable time, any information which the Chief may request to determine whether cause exists for modifying, revoking and reissuing, or revoking this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Chief, upon request, copies of records required to be kept by this permit. If the Permittee becomes aware of any incomplete or incorrect information in the permit application or subsequent report(s), the Permittee shall promptly submit information addressing these deficiencies to the Chief.
7. **Inspection and Entry.** The Permittee shall allow the Chief, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:
  - a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance for any substances or parameters at any location.
8. **Penalties.** Any person who violates a permit requirement is subject to civil penalties, criminal penalties, fines and other enforcement actions under WV Code §22-11 and WV Code §22-12.
9. **Signatory Requirements.** Only a duly authorized person may sign documents and reports associated with this permit.
  - a. All reports required by this permit and other information requested by the Chief shall be signed as follows:
    - (1) For a corporation, by a responsible corporate officer of at least the level of vice-president;
    - (2) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively;  
or
    - (3) For a Municipality, State, Federal, or other public agency by either a principal executive or a ranking elected official.

- b. A duly authorized representative of the official designated in paragraph a. above may also sign only if:
    - (1) The authorization is made in writing by a person described in paragraph a. above;
    - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, and;
    - (3) The written authorization is submitted to, and approved by, the Chief.
  - c. If an authorization under paragraph (b) of this section is no longer accurate because a different individual has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Chief prior to or together with any reports, information or applications to be signed by an authorized representative.
  - d. Any person signing a document under paragraph (b) of this section shall make the following certification: (Legislative Rule 47 CSR 13-13.11.d). "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 and imprisonment."
10. **Property Rights.** Issuance of this permit does not convey property rights or mineral rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, any infringement of Federal, State or local law or regulations, or any exclusive privilege.
11. **Permit Actions.** This permit may be modified, revoked and reissued, suspended, or revoked for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, suspension or revocation, or notification of planned changes or anticipated noncompliance, does not stay any permit condition.
12. **Confidentiality of Information.** In accordance with Legislative Rule 47 CSR 13-13.21, any information submitted to the State pursuant to this rule may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or in the case of other submissions, by stamping the words "CONFIDENTIAL BUSINESS INFORMATION" on each page containing such information. An affidavit or written request stating the need for requested confidential documents to remain confidential must also be submitted with the documents.
- a. If no claim is made at the time of submission, the State may make the information available to the public without further notice.
  - b. Claims of confidentiality for the following information will be denied:
    - i. The name and address of any permit applicant or Permittee.
    - ii. Information which deals with the existence, absence, or level of contaminants in drinking water.

13. **Monitoring Reports.** Monitoring results shall be reported at the intervals specified under Part II Section B of this permit.
14. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than thirty (30) days following each schedule date.
15. **Other Information.** Where a Permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Chief, he/she shall promptly submit such facts or information.
16. **Prohibited Activity.** It shall be unlawful for any person, unless an authorization has been issued by a groundwater regulatory agency, to allow crude oil, or any petroleum product derived from crude oil, or seepage, or natural gas, or condensate, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be allowed to flow onto or under the land surface or in such a manner that could impact surface or groundwater quality.
17. **State or Federal Laws.** Nothing in this permit shall be construed to preclude the institution on any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any State or Federal law or regulation.

## **PART II**

### **A. RECORD RETENTION**

1. **Required Records.** The Permittee shall retain all records concerning the permitted underground injection well until three (3) years after completion of any plugging and abandonment. The Chief may require the Owner or Operator to deliver the records to the Chief at the conclusion of the retention period.

### **B. MONITORING REQUIREMENTS**

1. **Sampling and Measurement.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the fluid to be analyzed and the procedure for analysis of the sample shall be in accordance with test procedures approved under Code of Federal Regulations 40 CFR 136.3, unless otherwise approved by the Chief. The Permittee shall identify the types of tests and methods used to generate the monitoring data.
2. **Monitoring Devices.** The Permittee shall install and maintain in good operating condition:
  - a. A tap on the discharge line between the injection pump and the wellhead for obtaining representative samples of injection fluids; and
  - b. Devices to continuously measure and record injection pressure, flow rates, injection and production volumes.



- c. Pressure gauges shall be of a design that provides a full pressure range of at least fifty (50) percent (%) greater than the anticipated operating pressure; and a certified deviation accuracy of five (5) percent (%) or less throughout the operating pressure range.
  - d. Flow meters shall measure cumulative volumes and be certified for a deviation accuracy of five (5) percent or less throughout the range of rates allowed by the permit.
3. **Wellhead Pressure Gauge.** A wellhead pressure gauge shall be installed and maintained on the injection tubing to facilitate inspection and ensure compliance of the maximum injection pressures as approved on Oil and Gas Form WR-37. A daily reading of the injection pressure shall be taken and reported on Form WR-40.
4. **Daily Monitoring.** The Permittee shall daily monitor all the casing annuli with pressure sensitive devices or with such a method as approved or required by the Office of Oil and Gas to allow early detection of any leaks from the packer, injection zone or casing. The Permittee shall also monitor the daily maximum injection pressure, volume, and rate daily. This information shall be reported monthly using the Office of Oil and Gas electronic WR-40 Form. Submittal shall be through the current WVDEP Electronic Submittal System (ESS): <https://apps.dep.wv.gov/eplogin.cfm> .
5. **Monitoring Records.** Records of monitoring information shall include:
- a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;
  - c. The date(s) analysis(es) were performed;
  - d. Individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
6. **Injection Well Mechanical Integrity Testing (MIT).** The Permittee shall conduct a mechanical integrity test of the injection well at a minimum frequency of once every five (5) years per Legislative Rule 35 CSR 4-7.7.b. The Permittee shall notify the Chief of his or her intent to conduct a mechanical integrity test no less than twenty-four (24) hours prior to such demonstration. The Permittee must submit a WR-37 Form to the Office of Oil and Gas within thirty (30) days of each mechanical integrity test conducted. When a pressure test is conducted, the Permittee must submit a pressure recording graph/chart as an attachment to the WR-37 Form. The pressure requirement of a mechanical integrity test on a well is a pressure of at least 150% or 1.5 times the maximum injection pressure. The pressure must be held for a period of at least 20 minutes with no more than 5% pressure loss to be approved for injection operations. Upon failure of a mechanical integrity test or expiration of the five (5) year mechanical integrity test regulatory period, the Permittee shall cease operation/injection and shut-in the well immediately until successfully repaired, tested or permanently plugged and abandoned per regulation. Each mechanical integrity test failure must be documented on the WR-37 Form and submitted with any pressure recording graph/chart. Corrective action for repairs shall be completed for approval by the Office of Oil and Gas and be conducted within ninety (90) days of the failure date. If repaired, the well must be re-tested and an updated WR-37 Form with any pressure recording graph/chart must be submitted to the Office of Oil and Gas for approval.

7. **Pipeline Mechanical Integrity Testing (MIT).** All pipeline(s) from the injection pump to the injection well shall be tested for integrity at least once every five (5) years with the results reported on the WR-37 Form along with the pressure test recording graph/chart and then submitted to the Office of Oil and Gas within thirty (30) days. The pipeline integrity test shall pressurize the injection pipeline(s) to 100 psi greater than the maximum permitted wellhead injection pressure for a minimum of twenty (20) minutes, allowing for no more than five (5) percent loss after completion. The Permittee shall notify the Chief of his or her intent to conduct an integrity test of the pipeline(s) no less than twenty-four (24) hours prior to such test. Upon failure of a mechanical integrity test or expiration of the five (5) year mechanical integrity test regulatory period, the Permittee shall cease operation/injection and shut-in the well immediately until successfully repaired, replaced and then tested. Repairs shall be completed by the Permittee and approved by the Office of Oil and Gas prior to resuming operations. All repairs shall be completed within ninety (90) days of the failure date. If repaired, the line must be re-tested and an updated WR-37 Form with pressure recording graph/chart must be submitted to the Office of Oil and Gas for approval. Any change made to the pipeline fittings or piping will require integrity pressure testing. All Office of Oil and Gas forms, including the WR-37 form can be found on the Office of Oil and Gas webpage: <http://www.dep.wv.gov/oil-and-gas/GI/Forms/Pages/default.aspx> .
8. **Additional MIT Requirements.** In addition to the above requirement, a mechanical integrity test demonstration shall be conducted whenever protective casing or tubing is removed from the well, the packer is replaced or resealed, if a well failure is likely, or as requested by the Chief. The Permittee may continue operation only if he or she has successfully demonstrated to the Chief the mechanical integrity of the permitted well. The Permittee shall cease injection operations if a loss of mechanical integrity becomes evident or if mechanical integrity cannot be demonstrated. The Permittee must send a written notification to WVDEP Office of Oil and Gas within 24 hours if mechanical integrity of the well is lost. The notification must include a plan to address the failure within 90 days. The plan must either outline a repair and retest of the well or to plug the well within 90 days.
9. **Environmental Measurements.** All environmental measurements required by the permit, including but not limited to, measurements of pressure, temperature, mechanical, and chemical analyses shall be done in accordance with state guidance on quality assurance. All analysis must be performed by a West Virginia certified laboratory. Certified laboratories can be found on the WVDEP webpage at <http://www.dep.wv.gov/WVE/Programs/lab/Pages/default.aspx> .
10. **Authorized Injection Fluids.** The Permittee shall not inject any hazardous substances, as defined by Code of Federal Regulations 40 CFR 261, or any other fluid, other than the Class II fluids produced solely in association with oil and gas production operations. This permit is for authorization of injection of only fluids as defined for Class II wells in Legislative Rule 47 CSR 13-4.2. The fluids to be injected shall only be from those sources listed in the permit application. Additional sources of fluids may be approved upon written request by the Permittee. However, Permittee's acceptance of additional sources of fluid(s) shall be deemed approved provided that such fluid(s) meet all Class II injection standards and the Permittee reports within five (5) business days the source, API number and formation(s) for the sources added during the previous week. Accepting any fluid that does not meet Class II injection standards is grounds for enforcement action and/or revocation of this permit.
11. **Manifest Records.** The Permittee shall maintain a record (manifest) of every load of fluid received. The record shall include the hauler's name and signature, the Operator's name and signature, API number for the well the fluid was collected, the location from where the load was obtained and the volume of the load and whether the load of fluid delivered was a split load. If the load was a split load, each Operator's name and location shall be listed and, if possible, the volumes of fluid received from each Operator documented. This information shall be maintained on the Class II disposal manifest attached to this permit.

12. **Injectate Samples.** The Permittee shall sample, analyze and record the nature of all the injected fluid for the parameters listed in TABLE 1 below from sources at least twice per year, or upon request of the Chief, or whenever the operator observes or anticipates a change in the injection fluid to yield representative data on their physical, chemical, or other relevant characteristics. New facilities shall submit a representative sample prior to the initiation of injection operations. The Permittee shall take samples at or before the wellhead for analysis. Samples and measurements shall be representative of the monitored activity. The Permittee shall utilize applicable analytical methods and test results shall be submitted to the Office of Oil and Gas with complete laboratory analysis data sheets (report). Any analysis of injectate with a specific gravity result greater than 1.2 shall be reported to the Chief within twenty-four (24) hours of the results.

**TABLE 1**

Chloride	TPH-GRO
Bromide	TPH-DRO
Strontium	TPH-ORO
Barium	Benzene (B)
Iron	Ethylbenzene (E)
Manganese	Toluene (T)
Aluminum	Total Xylenes (X)
Arsenic	Total Dissolved Solids (TDS)
Sodium	Total Organic Carbon (TOC)
Calcium	Total Suspended Solids (TSS)
Sulfate	pH
Specific Gravity	NORM

13. **Stream Samples.** Permittee shall sample Haddix Run at two locations, one upstream and one downstream of the UIC facility. Samples shall be analyzed for the parameters listed in TABLE 2 below. The sampling will be on a nine (9) month schedule with the first sampling conducted before the end of April 2018. The results will be reported to the WVDEP Office of Oil and Gas, accompanied by a map identifying the sampling points and corresponding coordinates.

**TABLE 2**

Chloride	TPH-GRO
Bromide	TPH-DRO
Strontium	TPH-ORO
Barium	Benzene (B)
Iron	Ethylbenzene (E)
Manganese	Toluene (T)
Aluminum	Total Xylenes (X)
Arsenic	Total Dissolved Solids (TDS)
Sodium	Total Organic Carbon (TOC)
Calcium	Total Suspended Solids (TSS)
Sulfate	pH

## C. REPORTING AND NOTIFICATION REQUIREMENTS

1. **Anticipated Noncompliance.** The Permittee shall give advance notice to the Chief of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
2. **Other Noncompliance.** The Permittee shall report all instances of noncompliance not reported under paragraphs Part I Section B, and Part II Section C Paragraph 3 of this permit, at the time monitoring reports are submitted. The report shall contain the information listed in Part I Section B of this permit. The Permittee shall report all other instances of noncompliance in writing within ten (10) days of the time the Permittee becomes aware of the circumstances. The reports shall contain the information listed in this permit.
3. **Planned Changes.** The Permittee shall give notice to the Chief as soon as possible of any planned physical alterations, additions to the permitted facility, and/or any changes planned in the operation of the facility.
4. **Conversion and Abandonment Notification.** The Operator shall provide written notification to the Chief prior to conversion or abandonment of the well or in the case of area/enhanced recovery permits before closure of the project, per Legislative Rule 47 CSR 13-13.6.e. Notice should be given at least thirty (30) days prior to any conversion, abandonment or alteration. Notice shall also be given prior to the addition, reduction or conversion of wells within an area/enhanced recovery permit.
5. **Cessation of Injection Activity.** Any well which is not in use for a period of twelve (12) consecutive months shall be presumed to have been abandoned and shall promptly be plugged by the Operator in accordance with the provisions in Chapter 22, Article 6 Section 24 of the West Virginia Code, unless the Operator furnishes satisfactory proof to the Chief that there is a bona fide future use for such well. All lines shall be completely drained of all fluids and the wellhead shut-in anytime injection operations cease for a period of greater than ninety (90) days. The WVDEP-Office of Oil and Gas must be contacted at least twenty-four (24) hours prior to the cessation shut-in process.
6. **Certification of Permit Review.** Within thirty (30) days of receipt of this permit, the Permittee shall report to the Chief that he or she has read and understands and accepts all terms and conditions of the permit. The Certification Document is included as an attachment of this permit, and must be signed, dated and submitted to WVDEP-Office of Oil and Gas.
7. **Duty of Owner/Operator to Report Discharges.** The Owner or Operator or person in charge of a facility subject to this rule from which a reportable discharge, as described in subsection 3.3 of Legislative Rule 35 CSR 1, occurs shall notify the Office of Oil and Gas by calling **1-800-642-3074** immediately; but in no case, later than twenty-four (24) hours after becoming aware of the discharge.

## PART III

### A. OPERATING REQUIREMENTS

1. **Permit Documents On-Site.** The UIC Permit and all attachments must be kept on location at all times.
2. **Required Barrel Counter.** The Permittee shall install and maintain a barrel counter, or other means of flow volume metering, on the injection line. The results are to be recorded and reported on the WR-40.
3. **Annulus Injection Prohibited.** Injection between the outermost casing protecting underground sources of drinking water and the wellbore is prohibited, as is injection into any USDW.
4. **Duty to Monitor or Plug Non-Cemented Wells That Penetrates the Injection Zone Within the AOR.** Any well that penetrates the injection zone with an inactive and/or abandoned status within the permitted Area of Review (AOR), that does not have cement casing through the injection zone, shall be monitored immediately by a method approved by the WVDEP-Office of Oil and Gas, as well as properly plug and abandon such wells, as necessary.
5. **Corrective Action.** The applicant must satisfy the requirements of the Office of Oil and Gas regarding any corrective action needed on all known wells penetrating the injection zone within the permitted Area of Review. This must be done in a manner which satisfies the requirements of Legislative Rule 47 CSR 13-13.9.
6. **Cement Evaluation Analysis.** After conducting a cement squeeze job in an open hole, or after any well cement repair for the well-constructed under this permit, the Permittee shall submit cementing records and cement evaluation logs that demonstrate the isolation of the injection interval(s). The analysis shall include a spherically-focused tool, run after the long-string casing is set and cemented, which enables the evaluation of the bond between cement and casing as well as of the bond between cement and formation. The Permittee may not commence or recommence injection until it has received written notice from the Office of Oil and Gas that such a demonstration is satisfactory.
7. **Loading/Unloading stations.** Loading and unloading stations shall have spill prevention and control facilities and procedures as well as secondary containment. Spill containment and cleanup equipment shall be readily accessible.
8. **Above Ground Storage Tanks.**
  - a. The Permittee shall ensure that secondary containment for existing above ground storage tank(s) shall be adequately designed and constructed to be sufficiently impervious to prevent the released substance from penetrating the containment structure until the release can be detected and recovered, but in no case, shall that time be less than seventy-two (72) hours. The secondary containment structure shall have capacity to contain 110% volume of the largest tank. If tank batteries or tanks are connected in series by manifold, the combined volume of the tanks must be considered if the tanks are capable of simultaneous release. The combined capacity of the tanks connected by manifold shall be considered unless the tanks are operated in a manner that prevents fluids from flowing from one tank to another under any conditions.
  - b. Above ground tanks connected in series by a manifold shall utilize a system where valves are closed and locked to isolate tanks when their combined volume exceeds the secondary containment capacity. At no time, shall the combined volume of the tanks be accessible through the manifold system exceed the capacity of the secondary containment without someone being on site to monitor.

- c. All above ground storage tanks within the floodplain, as defined by the Federal Emergency Management Agency "FEMA" 100-year floodplain map, shall be anchored significantly enough to prevent movement in the case of a high-water flood event. The Permittee should contact the county floodplain manager to confirm the floodplain status of the tank(s) location(s).
9. **Wellhead Reinforcement.** All wellheads shall be reinforced or otherwise armored to protect against accidental collisions, if so positioned where collision could be possible.
10. **Pumps and Ancillary Equipment.** Pumps and ancillary equipment (e.g. valves, flanges, filters, condensate lines and instrumentation) handling materials that have the potential to contaminate groundwater shall be selected and installed to prevent or contain any spills or leaks.
11. **Sumps.** Sumps containing materials which have the potential to contaminate groundwater shall be designed, constructed and operated utilizing secondary containment, or other appropriate controls that can prevent groundwater contamination.
12. **Facility Security.** The gate on the access road to the site shall be closed and locked at all times when there is not a company representative at the facility. All valves, water drains, containment areas, and storage areas shall be secured and locked utilizing locking devices and/or plugs. All gates and access points shall be secured and locked while no representative is at the facility. All visitors must check in upon arriving at the facility. Haulers (if used) shall not be allowed to off load without the proper paperwork and documentation.
13. **Duty to Drain Injection Pipelines.** All lines shall be completely drained of all fluids and the wellhead shut-in anytime injection operations cease for a period of greater than ninety (90) days. The Office of Oil and Gas must be contacted at least twenty-four (24) hours prior to the cessation shut-in process.

## **B. PLUGGING AND ABANDONMENT**

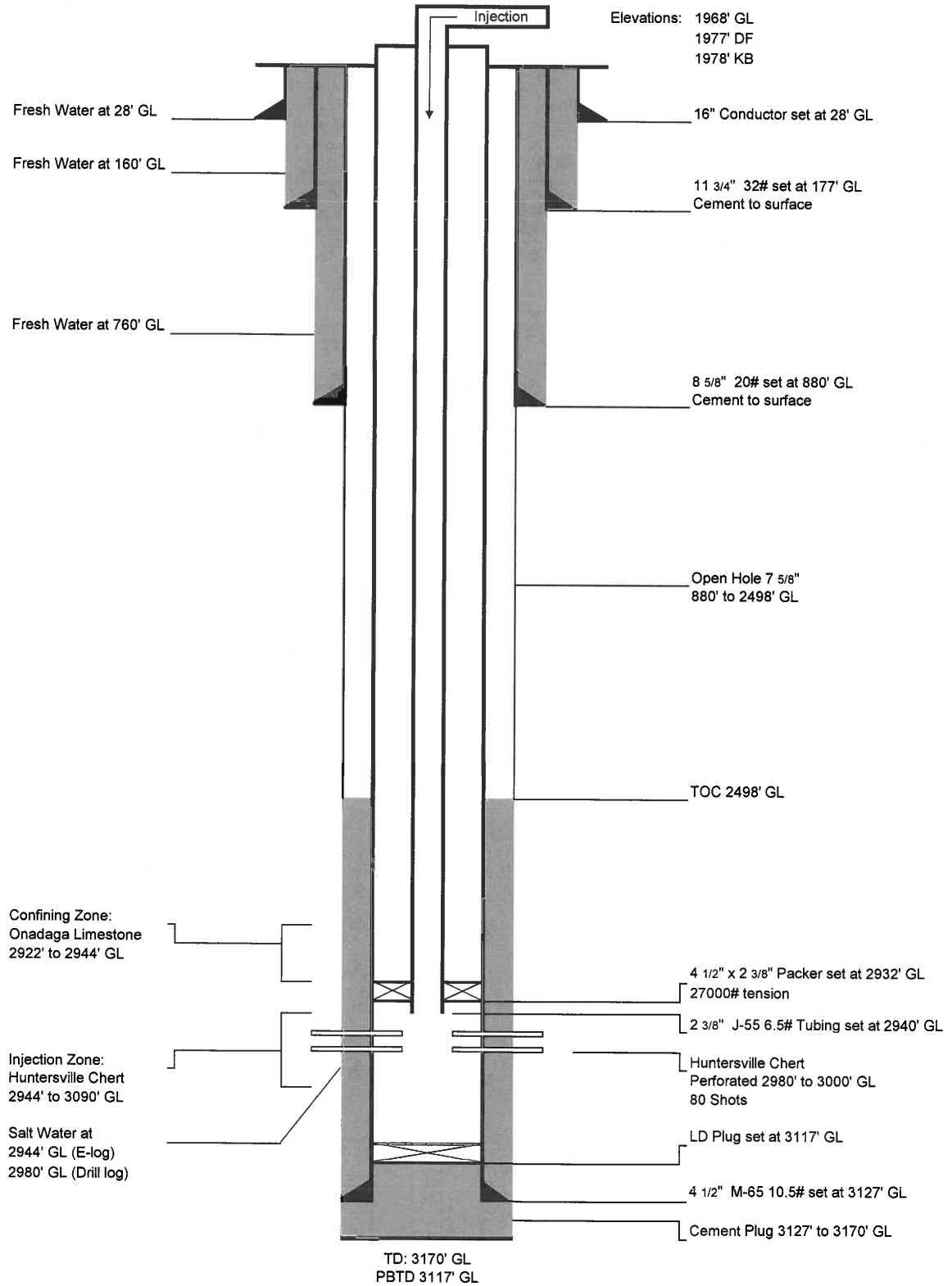
1. Any well which is not in use for a period of twelve (12) consecutive months shall be presumed to have been abandoned and shall promptly be plugged by the Operator in accordance with the provisions of Chapter 22, Article 6, of the West Virginia Code, unless the Operator furnishes satisfactory proof to the Chief that there is a bona fide future use for such well.
2. Plugging and abandonment shall be conducted in a manner to prevent movement of fluids into or between USDWs (underground sources of drinking water).
3. Pursuant to Legislative Rule 47 CSR 13-13.7.f, the Permittee's plugging and abandonment plan shall be incorporated into the UIC permit. See Attachment 1.
4. Prior to well plugging, the Permittee shall apply for and receive a plugging permit from the WVDEP-Office of Oil and Gas to plug and abandon the well in accordance with an approved plugging and abandonment plan.

## **PART IV**

### **A. SITE SPECIFIC CONDITIONS**

1. Appendix A: Specific Operational Conditions / Well Construction.
2. Appendix H: Groundwater Protection Plan (GPP).
3. Appendix I: Requirement for Financial Responsibility to plug/abandoned an injection well.
4. Attachment 1: Plugging and Abandonment Plan.
5. Attachment 2: Site/Facility Diagram.
6. Attachment 3: Manifest Document.
7. Right of Appeal
8. Response to Comments
9. UIC Certification of Review

**Gotinsky #1**  
**API 47-093-00130**





## APPENDIX A

### Injection Well Form

1) GEOLOGIC TARGET FORMATION <u>Huntersville Chert</u>			
Depth	<u>2944</u>	Feet (top)	<u>3090</u> Feet (bottom)
2) Estimated Depth of Completed Well, (or actual depth of existing well):		TD 3170'/PBTD 3117' Feet	
3) Approximate water strata depths:	Fresh	<u>28', 160', 760'</u> Feet	Salt <u>2948</u> Feet
4) Approximate coal seam depths:	N/A		
5) Is coal being mined in the area?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
6) Virgin reservoir pressure in target formation	<u>1350</u> psig	Source	<u>Local geology on existing wells, logs, etc.</u>
7) Estimated reservoir fracture pressure	<u>1646</u>	psig (BHFP)	
8) MAXIMUM PROPOSED INJECTION OPERATIONS:			
Injection rate (bbl/hour)	<u>65</u>		
Injection volume (bbl/day)	<u>1500</u>		
Injection pressure (psig)	<u>Up to 808</u>		
Bottom hole pressure (psig)	<u>1402</u>		
9) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES:			
<u>Salt brine, inhibitors, and bio-emulsions to control bacteria</u>			
<u>UIC Class II compliant fluids</u>			
Temperature of injected fluid: (°F)	<u>Ambient</u>		
10) FILTERS (IF ANY)			
<u>One 50 micron sock filter and five 10 micron cartridge filters</u>			
11) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL			
<u>Internal control will be done with inhibitors</u>			

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## APPENDIX A (cont.)

### 12. Casing and Tubing Program

TYPE	Size	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	16"	New			28'	28'	
Fresh Water	11 3/4"	New		32#	177'	177'	CTS
Coal							
Intermediate 1	8 5/8"	New		20#	880'	880'	CTS
Intermediate 2							
Production	4 1/2"	New	M-65	10.5#	3127'	3127'	128 sks
Tubing	2 3/8"	New	J-55	6.5#		2940'	N/A
Liners							

TYPE	Wellbore Diameter	Casing Size	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./sk)	Cement to Surface ? (Y or N)
Conductor		16"					Y
Fresh Water		11 3/4"					Y
Coal							
Intermediate 1		8 5/8"					Y
Intermediate 2							
Production		4 1/2"					N
Tubing		2 3/8"					N/A
Liners							

PACKERS	Packer #1	Packer #2	Packer #3	Packer #4
Kind:	Tension			
Sizes:	4 1/2" X 2 3/8"			
Depths Set:	2932'			

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State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

*JS*

Well Operator's Report of Well Work

Farm name: Ernest and Ruth Gotinsky

Operator Well No.: Gotinsky #1

LOCATION: Elevation: 1968'

Quadrangle: Montrose

District: Black Fork

County: Tucker

Latitude: 11,350' Feet South of 39 Deg. 07 Min. 30 Sec.

Longitude: 2,710' Feet West of 79 Deg. 45 Min. 00 Sec.

Company: T&F Exploration, LP

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 186 South Kanawha Street	16" Cond	28'	28'	
Buckhannon, WV 26201	11 3/4" FW	177'	177'	CTS
Agent:	8 5/8" Surf	880'	880'	CTS
Inspector: Craig Duckworth	4 1/2" Prod	3127'	3127'	128 sx
Date Permit Issued: 5/17/06				
Date Well Work Commenced: 6/12/06				
Date Well Work Completed: 6/18/06				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 3170'				
Fresh Water Depth (ft.): 28', 160', 760'				
Salt Water Depth (ft.): 2980'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):				

OPEN FLOW DATA

Producing formation NA- Will be converted to SWD well. Pay zone depth (ft) \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

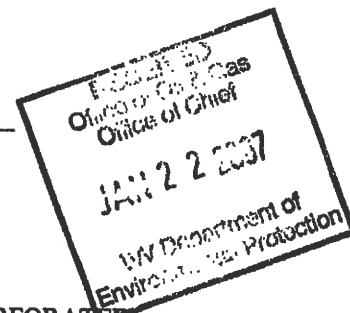
Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours



NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATIONS, INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:

By: William C. Petre  
Date: 1/19/07  
Operations Manager

## Well Log

<u>Formation</u>	<u>Top (ft.)</u>	<u>Bottom (ft.)</u>
Devonian Siltstones & Shales	0	2,520'
Harrell Shale	2,520'	2,552'
Tully Limestone	2,552'	2,595'
Shale	2,595'	2,830'
Upper Marcellus	2,830'	2,868'
Purcell Limestone	2,868'	2,886'
Lower Marcellus	2,886'	2,922'
Onondaga Limestone	2,922'	2,944'
Huntersville Chert	2,944'	3,090'
Needmore Shale	3,090'	3,105'
Oriskany Sandstone	3,105'	TD

## APPENDIX H

### GROUNDWATER PROTECTION PLAN

Facility Name: Gotinsky UIC 2D0930103

County: Tucker

Facility Location:

Postal Service Address:	1608 Seneca Trail		
	Montrose, WV 26283		
Latitude :	39.093909	Longitude:	-79.759279

Contact Information:

Person:	Dave Smail
Phone Number:	724-468-8232
E-mail Address:	dtsmail@penneco.com

Date: 4/14/17

1. A list of all operations that may contaminate the groundwater.

Delivery of brine water and additives, storage of brine water and additives, maintenance of facility, pumping of brine water and additives down hole, inhibitors and scale prevention liquids. Spills and leaks at site. Fuel and oil leaks from pumps and motors.

2. A description of procedures and facilities used to protect groundwater quality from the list of potential contaminant sources above.


Fluid delivery policies and procedures are designed to prevent spills. Truck hookup connection has containment to catch any spills. All tanks are located in a concrete secondary containment berm and each tank is equipped with overflow sensors to prevent tanks overflowing. Drains have to be manually pumped out with supervision. Pump is only operated with personnel on site. Spill kits are located at the site with absorbent pads, booms, snakes, and bagged absorbent material.

3. List procedures to be used when designing and adding new equipment or operations.

Potential impact minimization is considered for all aspects. Safety Checklist for all new installations or procedures. Analysis of ways it could potentially effect the environment through either spills or pollution with a plan in place to mitigate those pathways. Ensure proper training is conducted and signed off on each new piece of equipment or operation and that all manufacturers suggestions are followed.

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

WV DEP UIC Injection Parameters.  
Aboveground Storage Tanks  
WV DEP Office of Oil and Gas Regulations

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

Please see existing sampling results for groundwater wells in the area.

6. Provide a statement that no waste material will be used for deicing or fill material on the property unless allowed by another rule.

No waste material will be used for deicing or fill material at the Gotinsky UIC site unless allowed by another rule.

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.

Each employee undergoes safety training that also covers environmental factors such as what to do in the event of a spill and how to protect groundwater from contamination. Each employee will undergo periodic renewal of safety and environmental training on a regular basis. A detailed log of each training is kept on file. Topics covered in training include spill prevention and how to use all spill response tools such as booms and absorbent pads, spill response and cleanup, good housekeeping practices, state and federal rules on reporting spills, and general safety with particular attention being paid actions that help keep the personnel and site safe and free from contamination.

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8. Include provisions for inspections of all GPP elements and equipment. Inspections must be made quarterly at a minimum.

All facility functions that could result in a spill or groundwater contamination that are covered under this plan along with any new provisions will be inspected on a monthly basis. After inspection has occurred, employee will initial and sign off the date and time that the inspection occurred along with any problems or potential for contamination and what corrective action was taken. If corrective action is taken the employee shall notify his/her supervisor and draft an inspection schedule to ensure that corrective action is working. Upon finalization of corrective action a followup inspection will be performed to detail that the situation is fixed and inspections will continue on at the regularly scheduled interval.

Signature: \_\_\_\_\_

Date: 4/17/17

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## APPENDIX I

### Requirement for Financial Responsibility to Plug/Abandon an Injection Well

To: WV Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, West Virginia 25304-2345  
ATTN: Underground Injection Control Program

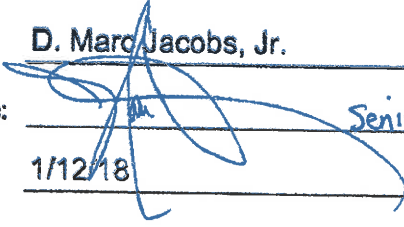
From: Penneco Oil Company  
6608 Route 22  
Delmont, PA 15626  
Attn. D. Marc Jacobs, Jr.

Date: 1/12/18

Subject: Underground Injection Control (UIC) Permit Application  
# 2D0930103  
Requirement for Financial Responsibility

I, D. Marc Jacobs, Jr., verify in accordance with 47CSR13-13.7.g., that I will maintain financial responsibility and resources to close, plug, and abandon underground injection wells(s) in a manner prescribed by the Chief of the Office of Oil and Gas.

Name: D. Marc Jacobs, Jr.

Signature:  Senior Vice President

Date: 1/12/18



## Attachment 1

### Section 12 – Plugging and Abandonment

At the conclusion of the viable injection phase of the well or a determination of irreparable mechanical integrity, the injection well will be plugged and abandoned in accordance with all WVDEP plugging and abandonment regulations. The 2 $\frac{3}{8}$ " tubing will be pulled along with the attached 4 $\frac{1}{2}$ " X 2 $\frac{3}{8}$ " packer. At the determined cement top, the free 4 $\frac{1}{2}$ " casing will be retrieved either by backing off at the nearest collar or by cutting. Tubing will be run back in to a depth 50' below the bottom perforations. After loading the hole with bentonite gel for spacer capacity between cement plugs, a cement plug will be spotted to 50' above the top of the perforation interval. The tubing will be pulled up to 50' inside the remaining 4 $\frac{1}{2}$ " casing and a 100' cement plug will be spotted. The tubing will then be pulled to within 50' of the bottom of the 8 $\frac{5}{8}$ " Intermediate string and a 100' cement plug spotted. The tubing will be pulled to 100' of the surface and a finishing plug will be spotted to surface. The tubing will be retrieved and a permanent abandonment monument erected. Finally, a WR-38 Form will be executed and submitted to the OOG within 30 days of completion.

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# **AREA MAP** **GOTINSKY LEASE** **A.P.I. #47-093-00103-F**



TO ELKINS  
  
 219

FENCED AREA



TO PARSONS

FILTER SYSTEM,  
 TRIPLEX PUMP,  
 METERS  
 (24' X 24' BUILDING)

TRUCK UNLOAD VALVE

## **Legend**

- Oil & Gas Well
- Storage Tank
- Fence
- Streams

SCALE: 1 - INCH = 100 - FEET



TOPO SECTION OF:

MONROE, WV 7.5' QUAD

OPERATOR:

PENNECO APR 18 2017

6608 RT. 22  
 DELMOR, PA 15026

WV Department of  
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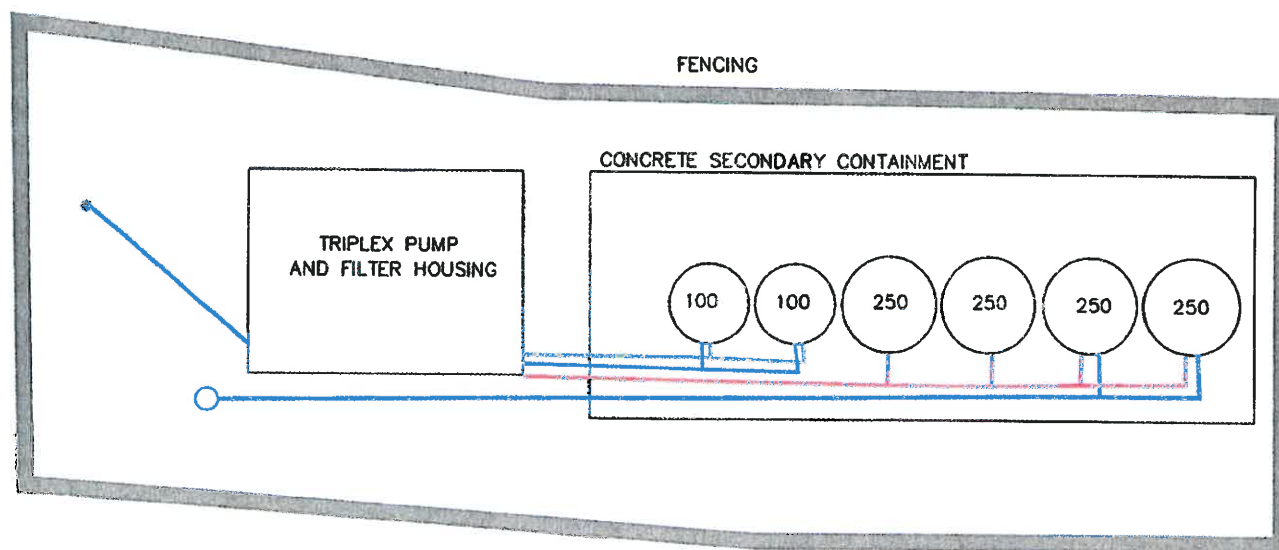
DATE	FILE NO.	PROJECT
04-05-17	8643	8643.MXD







COUNTY	DISTRICT	TAX MAP-PARCEL
TUCKER	BLACKFORK	302-20

# SITE MAP FOR GOTINSKY

## UIC 2D0930103

### A.P.I. #47-093-0103-F



-  INJECTION WELL
-  LOAD LINE
-  FILTERED WATER TO DOWNHOLE
-  UNFILTERED WATER TO FILTER
-  FILTERED WATER TO STORAGE
-  UNLOADING PORT

NOT TO SCALE



Land & Energy Development  
Solutions from the ground up

#### FACILITY SKETCH

OPERATOR:

PENNECO  
6608 RT. 22  
DELMONT, PA 15626

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DRAWN BY M.G.F.	FILE NO. 8842	DATE 02/09/17	CADD FILE: 0042TAXMAP.DWG
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DISTRICT	COUNTY	TAX MAP-PARCEL NO.
BLACKFORK	TUCKER	302-20

WV Department of  
Environmental Protection

**UKC # \_\_\_\_\_**

[illegible]

**Page numbers should be maintained sequentially to provide an adequate record.**

## **RIGHT OF APPEAL**

Notice is hereby given of your right to appeal the terms and conditions of this permit of which you are aggrieved to the Environmental Quality Board by filing a NOTICE OF APPEAL, on the form prescribed by such Board for this purpose, in accordance with the provisions of Section 21, Article 11, Chapter 22 of the Code of West Virginia within thirty (30) days after the date of receipt of this permit.

George Monk and Molly Schaffnit  
199 Bronco Lane  
Poca West Virginia 25159  
[gmonk@citynet.net](mailto:gmonk@citynet.net)  
304-533-8622

**Comments for Draft Underground Injection Control Class IID Commercial  
Permit UIC2D09300103002**

Our comments are divided into major sections: important permitting issue; this well's draft permit text; operator's permit application materials which become permit conditions; and issues related to the operator's compliance and Office's enforcement.

**Comments on Important Permitting Issue**

We have commented in the past about the absence of Region III of the EPA approval for changes in the state's primacy which now give the Office of Oil and Gas authority to write permits for Class II injection wells and write permits, monitor and enforce compliance for Class III injection wells. The Office of Oil and Gas' current programs for these wells does not follow the guidelines laid out in West Virginia's application for Underground Injection Well primacy to Region III of the EPA in the early 1980s under sections 1422 and 1425 of the Safe Drinking Water Act. The state's current program does not follow the Memorandum of Agreement between the state and Region III in that application nor does it follow the Memorandum of Understanding between state agencies in that application.

Changes to the program have been made without EPA oversight and approval in violation of the Memorandum of Agreement between the state and the EPA and in violation of federal regulation. The Office of Oil and Gas' Class II and Class III injection well programs (at a minimum) are vulnerable to withdrawal of primacy without that approval and we hope that the Office understands that vulnerability.

**WVDEP Response:** The United States Environmental Protection Agency is the overseeing authority over all Classes of the UIC Programs. The Office of Oil and Gas directly reports to the West Virginia Department of Environmental Protection, Division of Water and Waste as well as to the US EPA semi-annually on the 1425 Program (Class II and Class III UIC). The West Virginia Division of Natural Resources, Division of Water Resources (which is now the West Virginia Department of Environmental Protection, Division of Water and Waste) received primacy from the US EPA on 1/9/1984 as stated in Federal Register Notice Volume 48, No. 238, page 55127.



### **Comments for Draft UIC Class IID Permit Text**

We will provide comments in sequence according to how conditions appear in the permit.

#### ***Permit Authorization Page***

The draft permit Authorization Page shows the depth of the Huntersville Chert as being between 2950 and 3090 feet below the surface. The completion report for when the well was drilled in 2006 has the depth as being between 2944 and 3090 feet. This same depth is shown on the operator's Appendix A appended to the permit and on the well schematic, also appended to the permit.

The starting depth of the Huntersville Chert on the Authorization page should be changed to 2944 feet below the surface.

**WVDEP Response:** Your suggested change will be made to the final permit.

#### ***Part II – Monitoring Requirements***

**B.6** We approve of the condition for well MIT with pressure requirements and standards for the test.

**WVDEP** acknowledges your comment.

**B.7** We approve of the pipeline MIT condition. We, however, wish the tests were required annually instead of every 5 years.

**WVDEP** acknowledges your comment.

**B.12** We approve of the expanded list of constituents found on Table 1 and enhanced twice a year testing for this commercial well. This range is suitable for a Class II well.

The operator's application does not show that chemical analysis was performed on the fluid to be injected. This condition in its text requires "analysis at the initiation of the injection operation." We suggest a separate condition requiring this analysis before beginning operating the well would heighten the importance.

**WVDEP Response:** As we have stated in previous comment responses, the wording "*analysis at the initiation of the injection operation*" applies to new wells only. We will edit this item for greater clarity. We have recent injectate analyses submitted by the Permittee on file.

**B.13** We approve of the requirement of stream sampling near the facility and the constituents listed in Table 2.

**WVDEP** acknowledges your comment.

***Part III – A Operating Requirements***

**A.1** We approve of the condition requiring that the permit and attachments must be kept on site at all times.

WVDEP acknowledges your comment.

**Conditions III A.3 and 5** We approve of these Corrective Action conditions but believe they should be consecutive, not separated with a condition prohibiting annulus injection.

**WVDEP Response:** Your suggested change will be included in the final permit.

**A.6** We approve of the cement evaluation analysis condition.

WVDEP acknowledges your comment.

**New Condition Required** This permit does not have a condition pertaining to third party haulers. The Office has used a condition worded as below in previous Class II permits:

Third Party Haulers. No third-party haulers shall be permitted without approval by the WVDEP-Office of Oil and Gas. For Approval, the Permittee shall designate by letter to the WVDEP-Office of Oil and Gas, any third-party hauler proposed to be used for the transportation of fluids to the facility. The third-party hauler may not commence transportation of fluids to the facility until approved by the WVDEP-Office of Oil and Gas.

**WVDEP Response:** The permit condition you have outlined above only applies to Non-Commercial UIC facilities where an operator is disposing of waste generated from his own wells and delivered in his own trucks. The provision to approve new waste suppliers to a Commercial facility is covered under Part II B.10 of the permit.

***Permit Application Materials Carried Over as Permit Conditions***

***Appendix A***

We have noted above our concern about the actual depth of the Huntersville Chert formation in our comments for the permit's Authorization Page. The depths of the formation are properly shown on Appendix A.

The second page of Appendix A, the casing and tubing program, improperly shows the conductor as cemented to surface. There is no indication in the completion report that this was done. The cementing records supplied in the operator's application are for the surface, intermediate and production strings of casing.



**WVDEP Response:** Conductor casing does not have to be cemented to surface in this case. You are correct in that the 2006 drill log does not indicate any cement used with the conductor and we will correct the submitted Appendix A to reflect this. We suspect that the “CT” listed on later well work documents was meant to be “GT” meaning grout.

#### ***Groundwater Protection Plan***

The operator’s Groundwater Protection Plan is among the better plans we’ve seen. One glaring absence from this Plan in Section 4 and from the application’s Appendix K is any indication that the operator has a SPCC plan. Photographs of the facility in the operator’s permit application show tanks on page 124 labeled flammable and with a hazard label showing flammability at 4. This is appropriate for a tank containing condensate or similar petroleum product. The presence of oil in the tanks, the size and number of tanks, and the facility’s location near a stream would, to us, require a formal SPCC plan.

**WVDEP Response:** Legislative rule 47CSR13.10.d.5 states: “*A listing of all permits or construction approvals received or applied for under any of the following programs:*” A Spill Prevention, Control and Countermeasure (SPCC) plan is not a permit per se. The tanks in question are labeled as you describe out of an abundance of caution. While making up only a minor fraction of the injectate, condensate and residual oil are considered Class II waste. West Virginia Code 22-30, the *Aboveground Storage Tank Act*, allows a facility with an approved Groundwater Protection Plan (GPP) to be exempt from filing a Spill Prevention and Response Plan (SPRP) under 20-30-8.d. However, this facility has filed an approved SPRP with WVDEP Division of Water and Waste as part of registering their tanks. The permittee has informed the WVDEP that they are modifying their SPRP to qualify as a SPCC plan in conformance with 40CFR Part 112.

#### ***Condition for Operator's Financial Responsibility for Plugging***

State law (47CSR13-13.7.g) requires the permit have a condition that the operator maintain financial responsibility for plugging the well. “The Permittee must show evidence of financial responsibility to the Director by submission of a surety bond, or other adequate assurance, such as a financial statement or other material acceptable to the Director.”

As is unfortunately usual with Class II permits, we are not seeing evidence of financial responsibility, much less financial responsibility based on a realistic cost estimate for the plugging of the well. Operators need to provide documentation in their applications providing evidence of financial responsibility, or the Chief needs to include in the application materials made available to the public certification that the Office has seen and reviewed evidence of financial responsibility.

If the state didn't have at least a quarter of its class IID wells abandoned and not plugged this wouldn't be such an important issue. It is unacceptable that class II wells have not been plugged and properly abandoned according to state law. The large number of abandoned and unplugged injection wells shows a permitting and compliance enforcement program that is in trouble.

The Appendix I form attached to the permit as written has the person signing the form assume total liability for plugging and abandoning the well. The form is written so that it violates the signatory requirements in the draft permit (I H.9) and state regulation (47CSR13-11). It is not clear that the operator is assuming responsibility, while at the same time the signer's relationship to the operator is not made plain by the form. In the case of this draft permit, the corporate role of the signer is not indicated.

The West Virginia Department of Environmental Protection's legal staff should examine this form and revise it accordingly.

**WVDEP Response:** Based on feedback we have received from you, our UIC staff, and several applicants, we are in the process of revising our UIC application instructions and we will be revising most of the forms for greater clarity. In this case, Mr. Jacobs is Senior Vice-President of the corporation as noted on the Certification form. However, we will amend the Appendix I form to reflect that in the final permit documents.

### ***Plugging Plan***

The operator's plugging plan is a condition of the permit (47CSR13-13.7.f). What surprises us is how so many of the plans submitted in applications that we have reviewed in the past have been inadequately prepared. This plugging plan is an exception.

State law in §22-6-24 and 35CSR4-13 has clear requirements. State law has a clear methodology and clear work order requirements for a plugging permit. It stands to reason that a permit condition for a UIC Class IID well would present a carefully constructed work order satisfying 35CSR4-13.4. The operator's plugging plan attached to the permit appears to be satisfactory.

**WVDEP Response:** State law in §22-6-24 and 35CSR4-13 does have clear requirements for a plugging permit. The plugging and abandonment plan as submitted satisfies 47CSR13-13.7.f concerning a UIC permit application. The final details of the plugging operation that will actually be implemented shall be addressed in the review of the plugging permit application when it is submitted.

We have a concern about facilities located on Karst or similar limestone formations and stability over a period of time. We have not examined the geology for the location of the facility; if located on Karst, we believe the top plug should be more than 100 feet thick.

**WVDEP Response:** We have reviewed the local geology and have submitted this UIC application to the WVGES for their review. The entire depth of the well penetrates only geologic formations that are stratigraphically lower than those known to produce karst induced voids.

### ***Compliance Enforcement***

We were hampered in being able to obtain a clear idea of the Office's compliance enforcement for this well in the past since the online databases we normally use were not available. We did have a copy of database records collected in August 2016. Using that copy and records obtained from the Office's document database gives us a cursory idea of recent compliance enforcement.

There appear to have been inspections at the facility in 2014 and 2017. The database showed an inspection for 2012 related to the 2012 MIT and appears to be an in-house compliance review. The 2017 inspection shows two issues, rusty piping for the tanks (visible in the photos of the facility supplied by the operator in their application) and the lack of an API number on the well. Class II facilities we have visited have had signage on the fencing which included the API number. MITs have been conducted in 2008, 2012, and two witnessed MITs in 2017 (both satisfactory).

Inspections of Class II wells should be annual at a minimum. When this facility begins commercial waste disposal we hope that an enhanced inspection program will be put in place.

**WVDEP Response:** We are unsure why you are not able to access the WVDEP online records. The records you cite are available and it is evident that you could retrieve them. The following is the public access website: (<https://documents.dep.wv.gov/AppXtender/>). In addition, you may search the WVGES database at ([www.wvgs.wvnet.edu/pipe2/OGDataSearch.aspx](http://www.wvgs.wvnet.edu/pipe2/OGDataSearch.aspx)). If you have trouble accessing any records, please contact Andrew L. Lockwood at [Andrew.L.Lockwood@wv.gov](mailto:Andrew.L.Lockwood@wv.gov) or 304-926-4900 ext. 1830.

We inspected this facility on 02/21/2018 and the well head now has the required ID tag and the pipes have been painted.

We are working with our inspectors and proposing an inspection schedule specific to UIC Class IID commercial and non-commercial wells.

The West Virginia Department of Environmental Protection, Office of Oil and Gas would like to express gratitude and appreciation for the attention to detail, time and effort spent in supplying the above comments. Future special considerations may be incorporated in the Underground Injection Control permitting, compliance and enforcement procedures and policies.

Underground Injection Control Permit

CERTIFICATION DOCUMENT

West Virginia Department of Environmental Protection  
Office of Oil and Gas

Permit Id: 2D09300130002

Permit Name: Penneco Oil Company, Inc.

In accordance with Part II, Reporting and Notification Requirements, I hereby certify that I have read and am personally familiar with all the terms and conditions of this permit.

I understand that the underground injection of any waste streams other than those provided for in this permit is strictly prohibited. I understand that failure to pay the Annual Permit Fee or any other associated fees required by West Virginia Code, Chapter 22, Articles 11 and 12 shall be cause for revocation of this Permit. I further understand that reporting is required, and noncompliance with the terms of this permit will be cause for revocation of the permit and subject me to significant penalties including the possibility of fines and imprisonment.

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Signature

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Name and Title (Type or Print)

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Date