



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS MANAGEMENT PROGRAM

WELL PERMIT MODIFICATION

DEP USE ONLY	
Permittee's eFACTS ID 313418	Auth ID 1202920
Watershed Name KAISER HOLLOW / LOYALSOCK CREEK	Quality EV

Permittee INFLECTION ENERGY (PA) LLC	OGO.# OGO-68657	Permit Number 37-081-21336-00-02	Date Issued 1/3/2018
Address 101 WEST 3RD STREET	Farm Name & Well Number ALLEGHENY RIDGE WEST HILLEGAS 2		Well Serial #
5TH FLOOR	Municipality Upper Fairfield Twp	County Lycoming	
WILLIAMSPORT, PA 17701	7½' Quadrangle Name Huntersville	Map Section # 4	
Phone (303) 531-2300	Project #	Latitude 41-19-34.1400	Longitude -76-52-26.9800
Surf Elev at Site 948 feet	Anticipated Maximum TVD 9381 feet	Well Type GS	Offset distances referenced to NE corner of map section. South 2617 feet West 11213 feet

This permit covering the well operator and well location shown above is evidence of permission granted to conduct activities in accordance with the Oil and Gas Act and the Oil and Gas Conservation Law, if the well is subject to that act and any rules and regulations promulgated thereunder, subject to the conditions contained herein and in accordance with the application submitted for this permit. This permit does not convey any property rights.

This permit and the permittee's authority to conduct the activities authorized by this permit are conditioned upon operator's compliance with applicable law and regulations.

Notification must be given to the district oil and gas inspector, the surface landowner and political subdivision of the date well drilling will begin at least 24 hours prior to commencement of drilling activities.

The permittee hereby authorizes and consents to allow, without delay, employees or agents of the Department to have access to and to inspect all areas upon presentation of appropriate credentials, without advance notice or a search warrant. This includes any property, facility, operation or activity governed by the Oil and Gas Act, the Oil and Gas Conservation Law, the Coal and Gas Resource Coordination Act and other statutes applicable to oil and gas activities administered by the Department. The authorization and consent shall include consent to the Department to collect samples of wastewaters or gases, to take photographs, to perform measurements, surveys, and other tests, to inspect any monitoring equipment, to inspect the methods of operation and disposal, and to inspect and copy documents required by the Department to be maintained. The authorization and consent includes consent to the Department to examine books, papers, and records pertinent to any matter under investigation pursuant to the Oil and Gas Act or pertinent to a determination of whether the operator is in compliance with the above referenced statutes. This condition in no way limits any other powers granted to the Department under the Oil and Gas Act and other statutes, rules and regulations applicable to these activities as administered by the Department.

This permit does not relieve the operator from the obligation to comply with the Clean Streams Law and all statutes, rules and regulations administered by the Department.

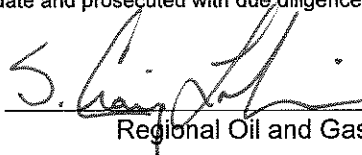
Special Permit Conditions:

1. The operator shall run a complete angular deviation survey of the intentionally deviated well. The deviation survey is to be obtained by a responsible well surveying company and shall be filed with the Department within thirty (30) days after the drilling is completed along with other regularly required reports. The deviation report shall include a well location plat and vertical section of the actual wellbore as drilled, that shows the comparison of the proposed deviation survey as permitted.
2. The earth disturbance activity at this site, related to this permit, may only be conducted under an approved ESCGP permit.
3. The permittee shall not withdraw or use water from water sources within the Commonwealth of Pennsylvania, to hydraulically fracture an unconventional formation, unless the permittee does so in accordance with a Water Management Plan approved by the Department.
4. Any dam embankment utilized to impound freshwater or other fluids approved by the Department associated with drilling and hydraulic fracturing, not requiring a permit pursuant to 25 Pa. Code Chapter 105, will be constructed in accordance with Department guidelines 5500-PM-OG0085 entitled, Design, construction and maintenance standards for dam embankments associated with impoundments for oil and gas wells.
5. Provide the results of Formation Integrity Testing (FIT) conducted at the intermediate casing shoe for review and approval by the Department. If such data is not available or otherwise cannot be provided for this well, submit a plan for testing the intermediate casing shoe for review and approval by the Department prior to drilling deeper. If the FIT results indicate adequate cement bond and appropriate fracture gradient for continued drilling operations, drilling deeper may commence in accordance with applicable law and regulations. If the FIT results indicate inadequate cement bond or fracture gradient, provide a plan to mitigate the issue(s) for review and approval by the Department. All necessary remedial actions or other measures approved by the Department shall be completed to ensure adequate cement bond and fracture gradient at the intermediate casing shoe prior to drilling deeper at this well.
6. A detailed casing and cementing plan for this well shall be submitted to the Department at least 30 days prior to commencing drilling operations. The plan shall include a provision to leave top of cement below the intermediate casing shoe while cementing the production casing string in place.

7. Vents shall be installed at all annular spaces for monitoring purposes. At least one 72-hour Pressure Build-up Test shall be conducted at all annulus vents after drilling is completed and prior to stimulation of the well. A confirmatory 72-hour Pressure Build-up Test shall be conducted at all annulus vents following stimulation of the well to ensure well integrity.

8. Unless otherwise directed by the Department, all annulus vents shall remain open during the production life of the well.

This permit expires 01/03/2019 unless drilling is commenced on or before that date and prosecuted with due diligence.


Regional Oil and Gas Program Manager

REBECCA RENNER

208 WEST THIRD STREET SUITE 101
WILLIAMSPORT, PA 17701

570-321-6516

Oil & Gas Inspector

Address

Phone Number