

WR-37  
REV. 5/01

Date: MARCH 15, 2010

Operator's Well Number 42

State County Permit

API Well No.:

47-01815-0-0191668

UIC 200859669

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENT-OFFICE OF OIL AND GAS  
PRE-OPERATION CERTIFICATE  
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR Hall Drilling LLC

DESIGNATED AGENT TERRY WYCKOFF/M. KE HALL

Address PO Box 249

Address PO Box 249

ELLENBORO WV 260346

ELLENBORO WV 260346

GEOLOGICAL TARGET FORMATION MARCELLUS Depth 6164 feet(top) to 6250 feet(bottom)

Virgin reservoir pressure in target formation \_\_\_\_\_ psig

Source of information on virgin reservoir pressure: \_\_\_\_\_

Perforation intervals \_\_\_\_\_

Open-hole intervals \_\_\_\_\_

MAXIMUM PERMITTED INJECTION OPERATIONS

Well head injection pressure: \_\_\_\_\_ psig

Bottom hole pressure: \_\_\_\_\_ psig

Volume per hour: \_\_\_\_\_

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED

Liquids to be injected for oil recovery: \_\_\_\_\_

Wastes to be disposed of: MARCELLUS and Formation Above to inject water

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.) \_\_\_\_\_

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL Lined 2 7/8

control Pipe with insulators

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on a form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE, DEPTH SET)
CONDUCTOR									
FRESH WATER	<u>4 5/8</u>		<u>22</u>	<u>X</u>		<u>130</u>	<u>130</u>		
COAL									
INTERMEDIATE	<u>7</u>		<u>16</u>	<u>X</u>		<u>1842</u>	<u>1842</u>		
PRODUCTION	<u>4 1/2</u>		<u>11.60</u>	<u>X</u>		<u>6263</u>	<u>6263</u>		
TUBING	<u>2 7/8</u>	<u>upset</u>	<u>6.5</u>	<u>X</u>		<u>6164</u>	<u>6164</u>	<u>on packer</u>	<u>6164</u>
LINERS									

Arrowset 1-X  
MECHANICAL PRODUCTION  
PACKER

WR37

MECHANICAL INTEGRITY TEST

Test Method: Filled back side with water, Ast with  
pump to 1000<sup>+</sup>, Well held 1000<sup>+</sup> For 23 min, Stop test  
Well OK.

The undersigned certifies that the test was performed on March 15, 2010 and demonstrated mechanical integrity of the well. The test was witnessed by [Signature] representing the Office of Oil and Gas.

[Signature]  
Well Operator

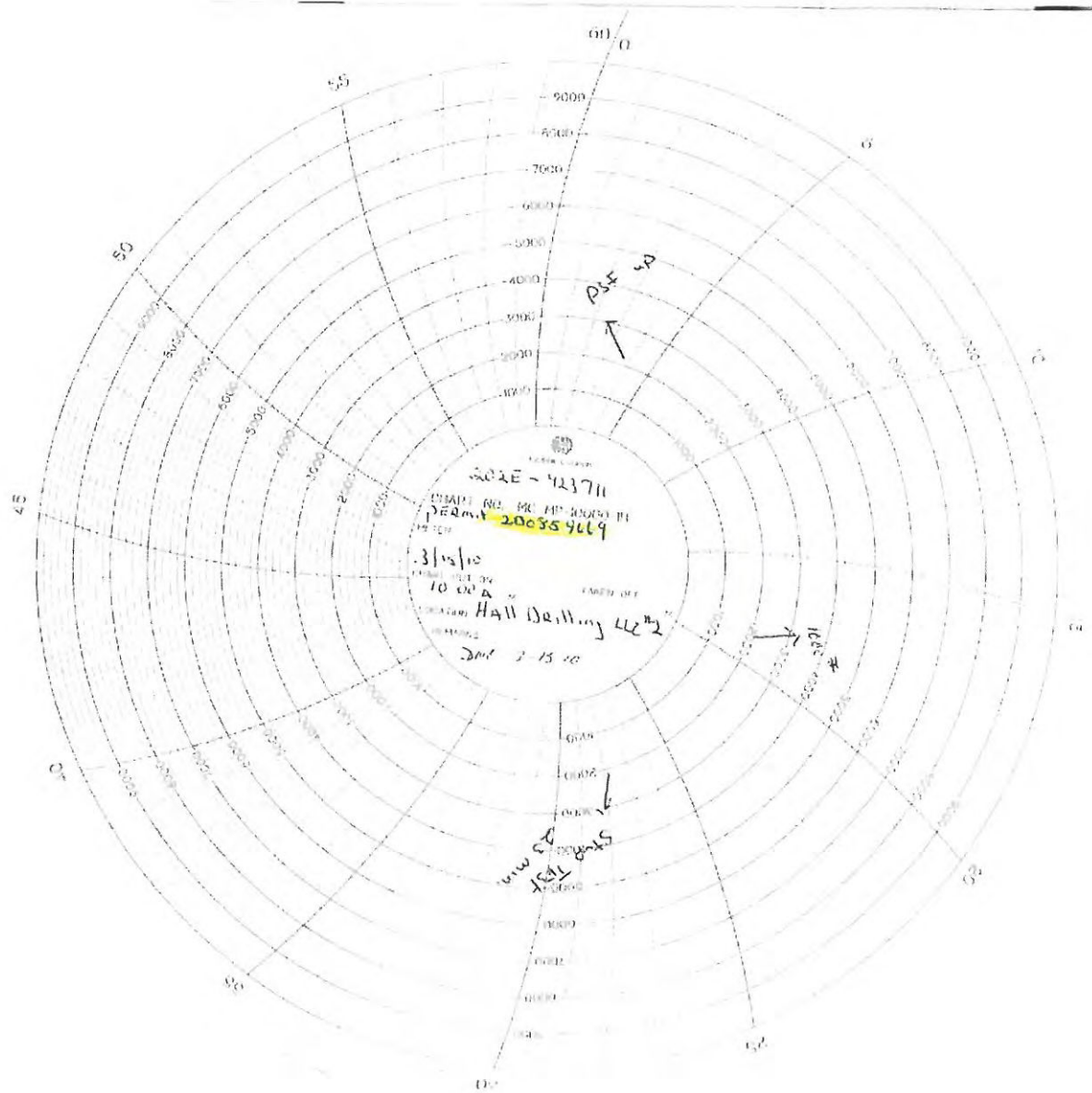
3/15/2010  
Date

THIS WELL IS AUTHORIZED FOR INJECTION.

Signed [Signature] UIC PROGRAM DIRECTOR  
Date 3/18/10

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

Hall Drilling LLC  
Well Operator  
By: TERRY Wyckoff  
Its Field Supervisor





WR-37  
REV. 5/01

Date: March 15, 2010

Operator's Well Number 42

State County Permit  
API Well No.: 47-085-09669  
UIC 200859669

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENT-OFFICE OF OIL AND GAS  
PRE-OPERATION CERTIFICATE  
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR Hall Drilling LLC  
Address PO Box 249  
Ellenboro WV 26034

DESIGNATED AGENT TERRY WYCKOFF/M. KE HALL  
Address PO Box 249  
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MAXIMUM PERMITTED INJECTION OPERATIONS

Well head injection pressure: \_\_\_\_\_ psig

Bottom hole pressure: \_\_\_\_\_ psig

Volume per hour: \_\_\_\_\_

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED

Liquids to be injected for oil recovery: \_\_\_\_\_

Wastes to be disposed of: MARCELLUS AND FORMATION ABOVE TO INJECT WATER

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.) \_\_\_\_\_

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL Lined 2 7/8  
Control Pipe with insulators

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CONDUCTOR									
FRESH WATER	<u>9 5/8</u>		<u>22</u>	<u>X</u>		<u>130</u>	<u>130</u>		
COAL									
INTERMEDIATE	<u>7</u>		<u>16</u>	<u>X</u>		<u>1842</u>	<u>1842</u>		
PRODUCTION	<u>4 1/2</u>		<u>11.60</u>	<u>X</u>		<u>6263</u>	<u>6263</u>		
TUBING	<u>2 7/8 upset</u>		<u>65</u>	<u>X</u>		<u>6164</u>	<u>6164</u>	<u>on Packee</u>	<u>6164</u>
LINERS									

\*MIT conducted 3/15/10  
pressured backside for  
23 minutes - Passed  
Witness: David Cowan

Arrowset 1-X  
Mechanical Production  
Packee