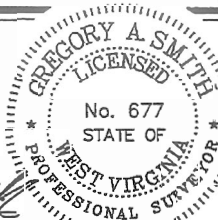


I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S.  
677



(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE SEPTEMBER 20, 20 07

OPERATORS WELL NO. WV 511357

API WELL NO. 47-035-02845-H  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 5478P511357 (240 - 31)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ IF "GAS" PRODUCTION ☒ STORAGE ☐ DEEP ☐ SHALLOW ☒

LOCATION: ELEVATION 741' WATERSHED SUGAR CREEK  
DISTRICT WASHINGTON COUNTY JACKSON QUADRANGLE ROMANCE 7.5'  
SURFACE OWNER DENNIS P. & TAMERA J. HAGY ACREAGE 80.5±  
ROYALTY OWNER PERKINS HEIRS LEASE ACREAGE 30.000±  
PROPOSED WORK: LEASE NO. 002428  
DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD  
FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐ OTHER ☐  
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION DEVONIAN SHALE  
ESTIMATED DEPTH 5,500'

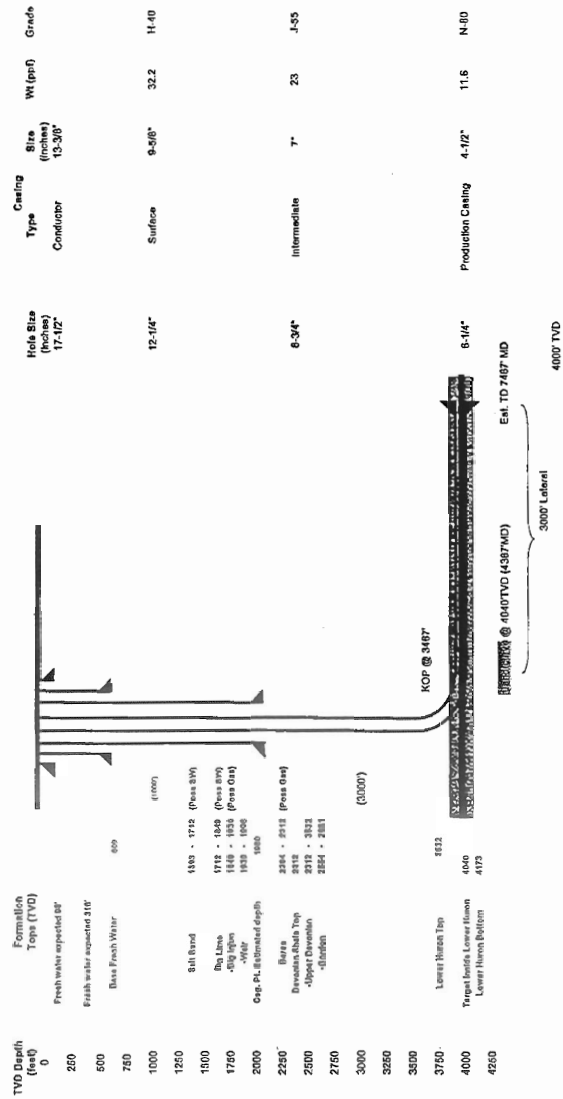
WELL OPERATOR EQUITABLE PRODUCTION COMPANY  
ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302

DESIGNATED AGENT L. TODD TETRICK  
ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302

COUNTY NAME

PERMIT

Well 511357  
Equitable Resources  
Quadr: Romance  
Jackson County, West Virginia





west virginia department of environmental protection

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

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

October 31, 2007

**WELL WORK PERMIT**

**Horizontal Well**

This permit, API Well Number: 47-3502845, issued to EQUITABLE PRODUCTION 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.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: PERKINS 511357  
Farm Name: HAGY, DENNIS & TAMERA  
API Well Number: 47-3502845  
Permit Type: Horizontal Well  
Date Issued: 10/31/2007

**Promoting a healthy environment.**

**STATE OF WEST VIRGINIA**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS**  
**WELL WORK PERMIT APPLICATION**

- 1) Well Operator EQUITABLE PRODUCTION COMPANY Operator ID 35 County 5 District 584 Quadrangle
- 2) Operator's Well Name Perkins 511357 3) Elevation 741'
- 4) Well Type: (a) Oil        or Gas X  
 (b) If Gas: Production X Underground Storage         
 Deep        Shallow X
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 4040' TVD, 7467' MD Feet
- 7) Approximate fresh water strata depths: 98', 316'
- 8) Approximate salt water depths: 1360', 1700', 1835', 1940'
- 9) Approximate coal seam depths: none reported
- 10) Does land contain coal seams tributary to active mine? No
- 11) Describe proposed well work: Drill and complete a horizontal well. Horizontal leg through the Lower Devonian Shale at a length of approx. 3300', using a packer plus frac procedure.

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (Cu.Ft)
Conductor	13 3/8"	L.S.	37	40'	40'	N/A
Fresh Water	9 5/8"	H-40	32.2	600'	600'	C.T.S.
Coal						
Intermediate	7"	J-55	23	1990'	1990'	back into 9 5/8"
Production	4 1/2"	N-80	11.6	7467'	7467'	
Tubing	2 3/8"	J-55	4.6	May not be run, if run will be set 100' less than TD		
Liners						

Packers: Kind  
 Size  
 Depths Set

035-02845-H

Well Schematic  
Equitable ResourcesWell Name  
County  
State  
511357  
Jackson  
West VirginiaElevation KB:  
Target  
Prospect751  
Lower Huron  
Romance

0' —  
Fresh wtr 98'  
No Coal  
Fresh wtr 316'  
Fresh Water Base

500 — 500

1,000 —

1,500 — 1393 Salt Sand

1712 Big Lime  
1849 -Big Injun  
1930 -Weir  
2289 Sunbury  
2,000 — 2304 Berea  
2312 Devonian Shale Top  
2312 -Upper Devonian

2,500 — 2554 -Gordon

3,000 —

3,500 — 3532 -Lower Huron

4,000 — 4003 -Halloween Huron  
4040 lateral zone  
4173 -Java

4,500 —

5,000 —

5,500 —

6,000 —

6,500 —

7,000 —

7,500 —

Hole Size 17 1/2" - 13 3/8" Conductor @ 40'  
Bit Size 12 1/4"  
TOC @ Surface

9 5/8" LS/22.28 @ 800' MD  
Bit Size 8 3/4"

7" J-55228 @ 1990' MD  
Bit Size 6 1/4"  
TOC @ 2000'

KOP=3467', 10 Deg DLS

Land @4367' MD, 4040' TVD

4 1/2" N-80/11.68 @ 7467' MD, 4800' TVD

### Casing Information

Type	OD Size, In	WT/FT, Grade, New or Used	Depth
Conductor	13 3/8	37#, LS, New	40'
Surface / Fresh Water	9 5/8	32.2#, LS, New	600
Intermediate	7	23#, J-55, New	1980
Production	4 1/2	11.6#, N-80, New	7467

West Virginia

### Cement Information

Casing Size, In	Hole Size, In	Sacks	Class	Yield	Weight	Additives
13 3/8	17 1/2	NA - Drive Pipe				
9 5/8	12 1/4	170	Surflite	1.49	14.2	3% CaCl <sub>2</sub> , 1/4# Flake
7	8 3/4	110	Surflite	1.49	14.2	3% CaCl <sub>2</sub> , 1/4# Flake
4 1/2	6 1/4	NA - Packer Completion				

### Blow - Out Prevention Information

Brand	Type	Working Pressure	Test Pressure
Hydril	Annular	3000#	1000#

035-02845-14

1) Date: October 4, 2007  
2) Operator's Well Number  
Perkins 511357  
3) API Well No.: 47 - 035 - 02845-14  
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Dennis P & Tamera J Hagy  
Address HC 62, Box 209 A  
Romance, WV 25248  
(b) Name \_\_\_\_\_  
Address Richard & Edward Lanham  
Rt. 3, Box 213 B  
Romance, WV 25248  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Jamie Stevens  
Address 1524 Valley Drive  
S. Charleston, WV 25303  
Telephone (304) 206-7775  
5) (a) Coal Owner with Declaration:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Operator(s):  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSONS NAMED ABOVE TAKE NOTE THAT:

☐ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR

☒ Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties by:

☐ Personal Service (Affidavit Attached)  
☒ Certified Mail (Postmarked Postal Receipt Attached)  
☐ Publication (Notice of Publication Attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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.

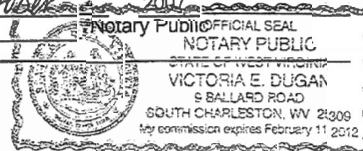
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Equitable Production Company  
By: Kaiti Day OCT 05 2007  
Its: Regional Land Manager  
Address: 1710 Pennsylvania Avenue  
Charleston, WV 25302  
Telephone: (304) 348-3845  
Office of Oil & Gas  
WV Department of  
Environmental Protection

Subscribed and sworn before me this 4th day of October, 2007

My Commission Expires:

February 11, 2012



INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
CHAPTER 22, ARTICLE 6, SECTION 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce, or market the oil and gas as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
E.W. Perkins Heirs	United Carbon Co	1/8	31/582

WELL OPERATOR: EQUITABLE PRODUCTION COMPANY

By: *Karl Ray*

Its: Regional Land Manager

RECEIVED  
Office of Oil & Gas

OCT 05 2007

WV Department of  
Environmental Protection



WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL & GAS

## NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense. The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Contractor Name	
<u>X</u>	Well operator's private laboratory SLS, Inc - Environmental Div.
Well Operator	Equitable Production Co.
Address	1710 Pennsylvania Ave
	Charleston, WV 25302
Telephone	(304) 348-3827

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

One water supplies within 1000' of the proposed well site.

RECEIVED  
Office of Oil & Gas

OCT 05 2007

WV Department of  
Environmental Protection

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

Operator Name EQUITABLE PRODUCTION COMPANY OP ID \_\_\_\_\_

Watershed Sugar Creek Quadrangle: Romance

Elevation: 741' County: Jackson District: Washington

Description of anticipated Pit Waste: Drill water, frac blow back and various formation cuttings

Will synthetic liner be used in the pit? Yes, if impervious material is not available on site.

Proposed Disposal Method for Treated Pit Wastes:

- ☒ Land Application  
☐ Underground Injection - UIC Permit Number \_\_\_\_\_  
☐ Reuse (at API Number) \_\_\_\_\_  
☐ Offsite Disposal (Supple form WW-9 disposal location) \_\_\_\_\_  
☒ Other: Explain Reuse untreated drill water from permitted drilling operations on this lease from other surface tracts to facilitate drilling operations for the well proposed herein

Proposed Work for Which Pit Will Be Used:

- ☒ Drilling ☐ Swabbing  
☐ Workover ☐ Plugging  
☐ Other: Explain \_\_\_\_\_

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION Permit issued on June 14, 1994, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms or conditions 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 *Rex C. Ray* RECEIVED Office of Oil & Gas

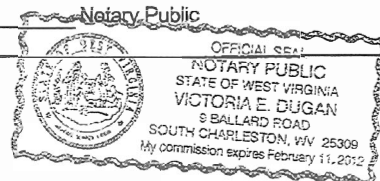
Company Official (Typed or Printed) Rex C. Ray OCT 05 2007

Company Official Title Regional Land Manager WV Department of

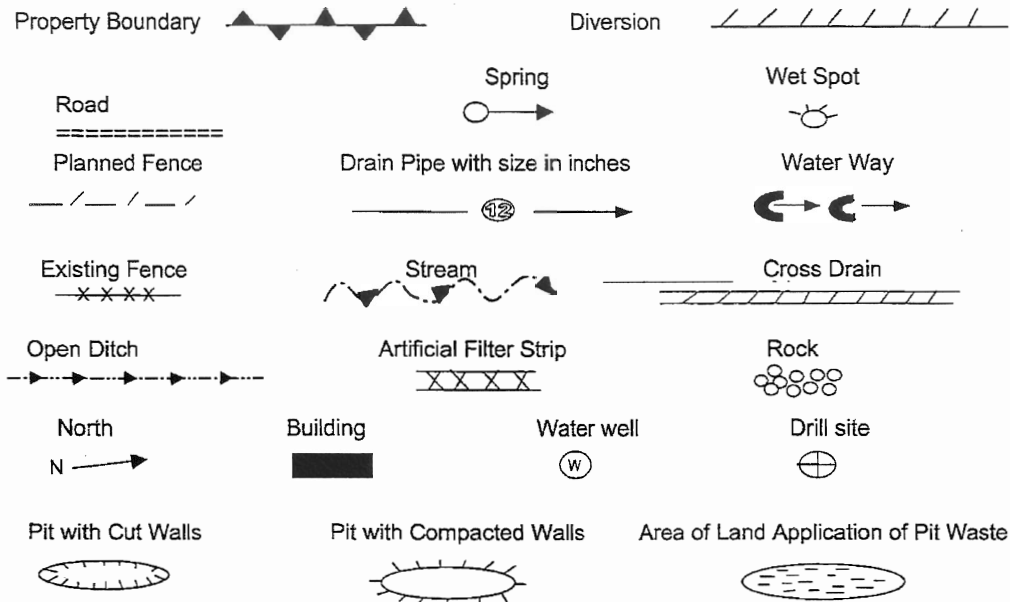
Subscribed and sworn before me this 4th day of October 2007 Environmental Protection

*Victoria E. Dugan*  
Notary Public

My Commission Expires 11-Feb-12



## LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1.25 Prevegetation pH 6.7

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

## SEED MIXTURES

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

## ATTACH:

Drawing(s) of road, location, pit and proposed area for land application.

Photocopies section of involved 7.5' topographic sheet.

Plan approved by: Cherie Stevens

Title: \_\_\_\_\_

Date: 10/26/2007

Field Reviewed? Yes No

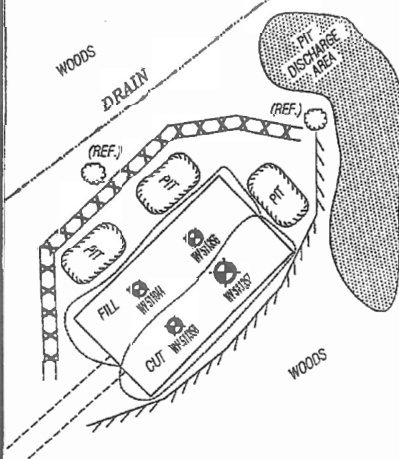
# **PERKINS LEASE** **WELL NO. WV 511357**

**PROPOSED GAS WELL**  
**NO. WV 511357**

<b>A</b>	<b>70' ± @</b>	<b>5-10% GRADE ±</b>
<b>B</b>	<b>85' ± @</b>	<b>15-20% GRADE ±</b>
<b>C</b>	<b>120' ± @</b>	<b>10-15% GRADE ±</b>
<b>D</b>	<b>90' ± @</b>	<b>15-20% GRADE ±</b>

Detail Sketch for Proposed Well WV 511357

NOT TO SCALE



*Janice*  
*10/26/2007*

## **TOPO SECTION OF** **USGS ROMANCE 7.5' QUADRANGLE**

### **PROPOSED CULVERT INVENTORY** **(FOR BID PURPOSES ONLY)**

<b>12" (MINIMUM) CULVERTS</b>	<b>2 CUL.</b>
<b>15" (MINIMUM) CULVERTS</b>	<b>1 CUL.</b>

ADDITIONAL CULVERTS AND/OR OTHER DRAINAGE STRUCTURES & SEDIMENT CONTROL DEVICES MAY BE REQUIRED BY THE WV D.E.P. OIL & GAS INSPECTOR. OPERATOR IS RESPONSIBLE FOR COORDINATION WITH CONTRACTOR AND SLS REGARDING ANY CHANGES OR ADDITIONS THE STATE MAY REQUIRE.

### **Projected Earthen Disturbance Area**

<b>Well Location Site</b>	<b>1.00 ac. +/-</b>
<b>Access Road</b>	<b>0.25 ac. +/-</b>
<b>Approximate Total Disturbance</b>	<b>1.25 ac. +/-</b>

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

= EXISTING CULVERT = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED  
 = PROPOSED STREAM CROSSING (IF APPLIES)  
\*SEE TABLE FOR CULVERT DETAIL

**SLS**  
**SMITH LAND SURVEYING, INC.**  
P.O. BOX 150 GLENVILLE, WV. 26351  
PH: (304) 462-5634 FAX: (304) 462-5656 E-MAIL: sls@toll.net  
DRAWN BY: W.J.R. FILE NO. 5478 DATE 09/13/07 CADD FILE: 5478RECIV511357.DWG

**PERKINS LEASE**  
**30,000 ACRES±**  
**WELL NO.**  
**WV 511357**

LATITUDE 38°37'30"  
LONGITUDE 81°35'00"

**NOTES ON SURVEY**

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 07/17/07.
3. TRACT BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 284 AT PAGE 376 AND DEED BOOK 318 AT PAGE 435.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF JACKSON COUNTY IN JULY, 2007.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).

1" IRON PIPE (FOUND)

W. REED  
52.75 ACRES±

S. TAYLOR II  
66.5 ACRES±

3/4" REBAR (FOUND)

POSSIBLE OVERLAP

PAINTED LINE (FOUND)

N 63°18' E  
1250.58'

S 83°34' E  
2095.11'

S 65°37' E  
3725.99' E  
(TIE NOT TO SCALE)

WELL NO. WV 511357  
BOTTOM HOLE

DENNIS P. & TAMERA J. HAGY  
80.5 ACRES±

A.J. ASHBY  
2.35 ACRES±

F. LANHAM  
41.625 ACRES±

C. SARGENT  
41.7 ACRES±

E. & R. LANHAM  
26 ACRES±

R. RAY  
17 ACRES±

E. & R. LANHAM  
54 ACRES±

SUGAR CREEK

WELL NO. WV 511357  
BOTTOM HOLE  
STATE PLANE COORDINATES (SOUTH ZONE)  
N. 582,279  
E. 1,832,829  
LAT=(N) 38.597633  
LONG=(W) 81.584922

WELL NO. WV 511357  
STATE PLANE COORDINATES (SOUTH ZONE)  
N. 583,817  
E. 1,829,435  
LAT=(N) 38.601796  
LONG=(W) 81.596830

**REFERENCES**

DRAIN 24" BEECH  
N 91° W  
113.70'

35.85'

25.00'

25.00'

WELL NO. WV 511357 (ROM 16H3)

WOODS

WOODS

1" = 100'

THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S.  
677

*Gregory A. Smith*

**GREGORY A. SMITH**  
LICENSED  
No. 677  
STATE OF WEST VIRGINIA  
PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE SEPTEMBER 20, 20 07  
OPERATORS WELL NO. WV 511357  
API WELL NO. 47-035-02845-H  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 5478P511357 (240-31)  
PROVEN SOURCE OF ELEVATION SCALE 1" = 500'  
DGPS (SUBMETER MAPPING GRADE)

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS ☒ LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION ☒ STORAGE DEEP SHALLOW ☒

LOCATION: ELEVATION 741' WATERSHED SUGAR CREEK  
DISTRICT WASHINGTON COUNTY JACKSON QUADRANGLE ROMANCE 7.5'  
SURFACE OWNER DENNIS P. & TAMERA J. HAGY ACREAGE 80.5±  
ROYALTY OWNER PERKINS HEIRS LEASE ACREAGE 30,000±  
PROPOSED WORK: LEASE NO. 002428  
DRILL ☒ CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE ☒ PLUG OFF OLD  
FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER  
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION DEVONIAN SHALE  
ESTIMATED DEPTH 5,500'

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT L. TODD TETRICK  
ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302 CHARLESTON, WV 25302

Romance

Operator: EQUITABLE PRODUCTION COMPANY  
API: 3502845  
WELL No: PERKINS 511357  
Reviewed by: Chris T Date: 10/13/07  
Due Date: 10/23

### CHECKLIST FOR FILING A PERMIT

#### Horizontal Well

- ☒ WW-2B
- \* ☐ Inspector signature on WW-2B
- ☒ WW-2A (Notarized)
- ☒ Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- ☐ Surface Owner Waiver
- ☐ Coal Owner / Lessee / Operator Waiver
- ☒ WW-2A-1 Showing Book/Page Number and Royalty Percentage
- ☒ WW-2B-1 (Names, addresses, and spot on topographical map listed as water testing)
- ☒ WW-9 (Page 1 & 2) (Notarized)
- \* ☐ Inspector Signature on WW-9
- ☒ Reclamation plan
- ☒ Topographic Map of location of well
- ☒ Mylar Plat (Surface owner on plat matches WW-2A)
- ☒ Bond
- ☒ Company is Registered with the SOS
- ☒ Worker's Compensation / Unemployment Insurance account is OK
- OK \* ☒ \$650.00 check (\$550.00 if no pit)

35-02845-H

**STATE OF WEST VIRGINIA**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS**  
**WELL WORK PERMIT APPLICATION**

- 1) Well Operator EQUITABLE PRODUCTION COMPANY

Operator ID	35	County	5	District	584	Quadrangle
-------------	----	--------	---	----------	-----	------------
- 2) Operator's Well Name Perkins 511357 3) Elevation 741'
- 4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
 (b) If Gas: Production X Underground Storage \_\_\_\_\_  
 Deep \_\_\_\_\_ Shallow X
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 4040' TVD, 7467' MD Feet
- 7) Approximate fresh water strata depths: 98', 316'
- 8) Approximate salt water depths: 1360', 1700', 1835', 1940'
- 9) Approximate coal seam depths: none reported
- 10) Does land contain coal seams tributary to active mine? No
- 11) Describe proposed well work: Drill and complete a horizontal well. Horizontal leg through the Lower Devonian Shale at a length of approx. 3300', using a packer plus frac procedure.

12)

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (Cu.Ft)
Conductor	13 3/8"	L.S.	37	40'	40'	N/A
Fresh Water	9 5/8"	H-40	32.2	600'	600'	C.T.S.
Coal						
Intermediate	7"	J-55	23	1990'	1990'	back into 9 5/8"
Production	4 1/2"	N-80	11.6	7467'	7467'	
Tubing	2 3/8"	J-55	4.6	May not be run, if run will be set 100' less than TD		
Liners						

Packers: Kind \_\_\_\_\_  
 Size \_\_\_\_\_  
 Depths Set \_\_\_\_\_

\$650

CL# 5651

**RECEIVED**  
 Office of Oil & Gas

OCT 05 2007

WV Department of  
 Environmental Protection

035-020454



7001 0360 0000 0265 8954

# EQUITABLE PRODUCTION

1710 Pennsylvania Ave.  
Charleston, WV 25302

Dennis P. and Tamera J. Hagy  
HC 62, Box 209-A  
Romance, WV 25248

RECEIVED  
Office of Oil & Gas

OCT 05 2007

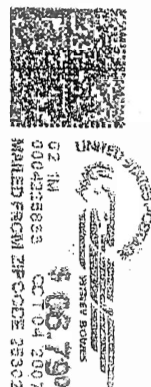
WV Department of  
Environmental Protection

7001 0360 0000 0265 8954

OFFICIAL MAIL	
Postage	02 1M
Certified Fee	\$00.00
Return Receipt Fee	0004225833
(Endorsement Required)	OC104 2007
Restricted Delivery Fee	MAILED FROM ZIP CODE 25302
(Endorsement Required)	
Total Postage & Fees	5
Sent to Dennis P. and Tamera J. Hagy	
Street, Apt or PO Box HC 62, Box 209-A	
City, State Romance, WV 25248	
PS Form 3849, April 2007	

Perkins 511356  
511357

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





036-02845H

CERTIFIED MAIL



7001 0360 0000 0265 8947

1710 Pennsylvania Ave.

Charleston, WV 25302

**EQUITABLE**  
PRODUCTION

Richard and Edward Lanham  
Rt. 3, Box 213B  
Romance, WV 25248

RECEIVED  
Office of Oil & Gas

OCT 05 2007

WV Department of  
Environmental Protection



UNITED STATES POSTAGE  
02 1M  
0004225833 OCT 04 2007  
MAILED FROM ZIP CODE 25302  
\$06.79

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

OFFICIAL



Postage \$  
Certified Fee \$  
Return Receipt Fee (Endorsement Required) \$00.00  
Restricted Delivery Fee (Endorsement Required)  
Total Postage & Fees \$

Sent To Richard and Edward Lanham

Street, Ap Rt. 3, Box 213B  
or PO Box Romance, WV 25248  
City, State

PS Form 3800

7001 0360 0000 0265 8947

Perkins 511356  
511357  
511358