



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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

September 03, 2013

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4303031, issued to EQT 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

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

James Martin
Chief

Operator's Well No: LIN MINERAL 74
Farm Name: SMITH, JOHN JR. & WILMA
API Well Number: 47-4303031
Permit Type: Plugging
Date Issued: 09/03/2013

43 03031 A

Form WW-4 (B)
Permit Copy
(Rev 2/01)

Date: August 13, 2013
Operator's Well
Well No. 214451 Lincoln Mineral # 74
API Well No.: 47 043 - 03031

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

Check# 16364
\$ 400.00
(4 permits)

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil _____ Gas X Liquid Injection _____ Waste Disposal: _____
If Gas, Production _____ X _____ Or Underground storage _____ Deep _____ Shallow X

5) Elevation: 797.21' Watershed: Beech Branch
Location: Washington 08 County: Lincoln 43 Quadrangle: Alum Creek 207
District: _____

6) Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

8) Oil & Gas Ralph Triplett
Name: 5539 McCellan Hwy.
Address: Branchland, WV 25506

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:
See Attachment for details and procedures.

OK
RDT

OFFICE USE ONLY

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

Work order approved by inspector _____ Date _____

OK gmm

Received

AUG 15 2013

Office of Oil and Gas
WV Dept. of Environmental Protection
09/06/2013

PLUGGING PROGNOSIS

Lincoln Mineral #74 (214451)

Lincoln County, West Virginia
 API # 47-043-03031
 Alum Creek Quad

BY: Craig Duckworth
 DATE: 2/25/13

CURRENT STATUS:

9 5/8" csg @ 462' cts (circ.10bbbls)
 7" csg @ 1571' cts (circ.5bbbls)
 4 1/2" csg @ 3978' (calculated cem.top @ 569')

TD @ 4079'

Elevation @ 811'

Fresh Water @ 175' Salt Water @ 1010', 1080', 1290'

Salt Sand @ 963' Coal @ 120', 173', 380', 455', 639', 792'

Gas shows @ none reported

Oil Shows @ none reported

Stimulation: @ Lower Devonian (3507'-3949'), Upper Devonian (3105'-3423'), Berea (2310'-2947')

1. Notify State Inspector, Ralph Triplett 304-389-0350, and 24 hrs prior to commencing operations.
2. TIH w/ tbg @ 3949'; Set 1739' C1A Cement Plug @ 3949' to 2210' (L. Devonian @ 3949'-3507'; U. Devonian @ 3423'-3105'; Berea @ 2947'-2310')
3. TOOH w/ tbg @ 2210'; Gel hole @ 2210' to 1621'
4. TOOH w/ tbg @ 1621'; Set 100' C1A Cement Plug @ 1621' to 1561' (7" @ 1571')
5. TOOH w/ tbg @ 1561'; Gel hole @ 1561' to 963'
6. TOOH w/ tbg and attempt to pull 4 1/2"; Freepoint 4 1/2" cut at freepoint (4 1/2" csg, cut)
7. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 4 1/2" cut. Do not omit any plugs
8. TOOH w/ tbg @ 963'; Set 633' C1A Cement Plug @ 963' to 330' (salt sand @ 963', coal @ 792', 639', 455', 380' & 4 1/2' cut)
9. TOOH w/ tbg @ 330'; Gel hole @ 330' to 225'
10. TOOH w/ tbg @ 225'; Set 225' C1A Cement Plug @ 225' to 0' (FW @ 175' & coal @ 173', 120')
11. Top off if necessary
12. Set Monument to WV-DEP Specifications
13. Reclaim Location & Road to WV-DEP Specifications

Received

AUG 15 2013

Office of Oil and Gas
 WV Dept. of Environmental Protection

09/06/2013

4303031A

WR-35

31-Mar-99
API # 47- 043-03031

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Received *AK*

Well Operator's Report of Well Work

Farm Name: Smith, John H. Jr. Operator Well No.: Lincoln Mineral 74

LOCATION: Elevation: 811.00 Quadrangle: Alum Creek
District: Washington County: Lincoln

Latitude: 8400 Feet South of 38 Deg. Minutes 17 Seconds 30
Longitude: 4900 Feet West of 81 Deg. Minutes 50 Seconds 0

Company: BLAZER ENERGY CORPORATION
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Richard D. Smeltzer

Inspector: Dave Belcher
Permit Issued: 4/1/99
Well work commenced: 08/28/99
Well work completed: 09/15/99

Verbal Plugging
Permission granted on: _____

Rotary Rig X Cable Rig _____

Total Depth 4079' feet

Fresh water depths (ft) 175'

Salt water depths (ft) 1010', 1080', 1290'

Is coal being mined in area?
Coal Depths (ft) 120', 173', 390', 455', 639', 792'

| Casing & Tubing Size | Used In Drilling | Left In Well | Cement Fill Up Cu. Ft. |
|----------------------|------------------|--------------|------------------------|
| 13 3/8" | 32' | 32' | Grouted |
| 9 5/8" | 462.5' | 462.5' | 177 ft ³ |
| 7" | 1571' | 1571' | 295.05 ft ³ |
| 4 1/2" | 3978' | 3978' | 409.2 ft ³ |
| | | | |

OPEN FLOW DATA

Producing formation Lower Devonian, Upper Devonian, Berea Pay Zone Depth (ft): _____ See Attach for details

Gas: Initial open flow TSTM MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow: 1650 MCF/d Final open flow: _____
 Time of open flow between initial and final tests _____ Hours
 Static rock pressure 400 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: _____
 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 PERFORATED 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.

For: BLAZER ENERGY CORPORATION

By: *Richard D. Smeltzer*
Date: 4/23/99

Received

AUG 15 1999
Office of Oil and Gas
WV Dept. of Environmental Protection

Alum Creek ?

09/06/2013

4303031P

EASTERN STATES OIL & GAS, INC.
 WR-35 COMPLETION REPORT - Attachment
 Well Treatment Summary

Well: Lincoln Mineral 74

API# 47-043-03031

| Date | 09/13/99 | 09/13/99 | 09/13/99 | | | |
|---|----------------|----------------|-----------------------|--|--|--|
| Type Frac. Acid, N ₂ , Foam, Water | N ² | N ² | N ² | | | |
| Zone Treated | L. Devonian | U. Devonian | U. Devonian 2 & Berea | | | |
| # Perfs | 35 | 32 | 34 | | | |
| From - To: | 3949' - 3507' | 3105' - 3423' | 2310' - 2947' | | | |
| BD Pressure @ psi | 2345 | 2076 | 2191 | | | |
| ATP psi | 2298 | 1988 | 1797 | | | |
| Avg. Rate, B=B/M, S= SCF/M | 51,444 S | 53,941 S | 52,020 S | | | |
| Max. Treat Press psi | 2624 | 2134 | | | | |
| ISIP psi | 1711 | 1090 | 1240 | | | |
| Frac Gradient | .53 | .38 | .52 | | | |
| 10 min S-I Pressure | 923 | 778 | 827 | | | |
| Material Volume | | | | | | |
| Sand-sks | | | | | | |
| Water-bbl | | | | | | |
| SCF N ₂ | 800,000 | 705,000 | 806,000 | | | |
| Acid-gal | 750 gal 7 1/4% | 500 gal 8.2% | 600 gal 8.2% | | | |
| NOTES: | | | | | | |

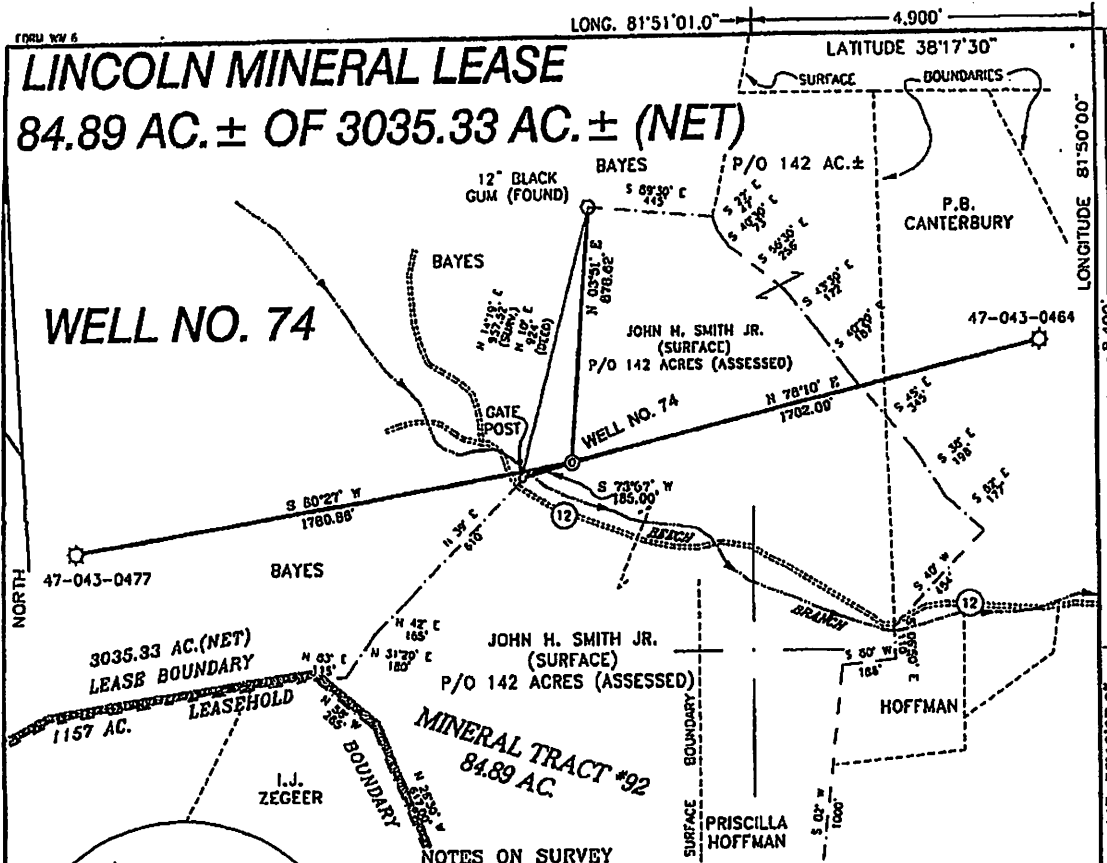
| TOP | BOTTOM | FORMATION | REMARKS |
|------|--------|--------------|-----------------------------------|
| 0 | 25 | Dirt & Clay | |
| 25 | 30 | Shale | |
| 30 | 49 | Sand | |
| 49 | 53 | Red Rock | |
| 63 | 112 | Shale | |
| 112 | 120 | Sand | |
| 120 | 122 | Coal | |
| 122 | 168 | Shale | |
| 138 | 173 | Sand | |
| 173 | 175 | Coal | |
| 175 | 180 | Sand | Water @ 175' |
| 180 | 185 | Shale | |
| 185 | 200 | Sand | |
| 200 | 215 | Shale | |
| 215 | 235 | Sand | |
| 135 | 250 | Shale | |
| 250 | 370 | Sand & Shale | |
| 370 | 373 | Coal | |
| 373 | 380 | Sand & Shale | |
| 380 | 383 | Coal | |
| 383 | 430 | Sand | |
| 430 | 440 | Sandy Shale | |
| 440 | 450 | Sand | |
| 465 | 457 | Coal | |
| 457 | 515 | Sandy Shale | |
| 515 | 639 | Shale | |
| 639 | 641 | Coal | |
| 641 | 655 | Shale | |
| 655 | 705 | Sand | |
| 705 | 792 | Shale | |
| 792 | 794 | Coal | |
| 794 | 840 | Shale | |
| 840 | 852 | Sand | |
| 852 | 970 | Shale | |
| 963 | 1518 | Salt Sand | Salt Water @ 1010', 1080', 1290'. |
| 1561 | 1593 | Lower Maxton | |
| 1597 | 1634 | Little Lime | |
| 1634 | 1639 | Pencil Cave | |
| 1639 | 1826 | Blg Lime | |
| 1848 | 1880 | Blg Injun | |
| 1960 | 2024 | Lower Welr | |
| 2309 | 2327 | Berea | GT @ 2227 = NS GT @ 2354 = odor |
| 3504 | 3955 | Lower Huron | GT @ 3390', 3606', 3922' = odor |
| 3955 | 4035 | Java | |
| | 4035 | TD | |

Received

AUG 15 2003

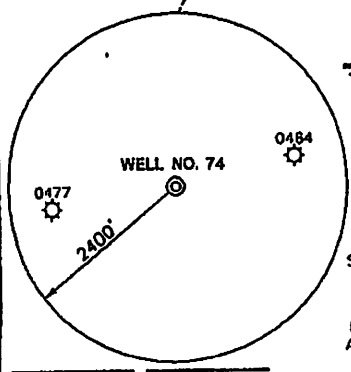
Office of Oil and Gas
 WV Dept. of Environmental Protection

09/06/2013



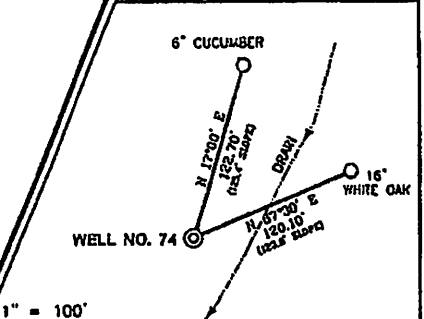
LINCOLN MINERAL LEASE
84.89 AC. ± OF 3035.33 AC. ± (NET)

WELL NO. 74



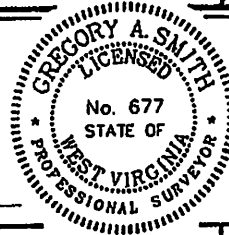
- NOTES ON SURVEY**
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
 2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 2-10-99.
 3. SURFACE DEEDS COULD NOT BE PLOTTED DUE TO VAGUE GENERAL DESCRIPTIONS IN THE DEEDS. SURFACE BOUNDARIES SHOWN DASHED HEREON ARE APPROXIMATE. SLS RECOMMENDS OBTAINING AFFIDAVIT OF OWNERSHIP FROM SURFACE OWNERS ON ALL PROPOSED AREAS OF DISTURBANCE.
 4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF LINCOLN COUNTY IN JANUARY, 1999.
 5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 DEPARTMENT OF ENERGY.

P.S. *Gregory A. Smith*
 677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE FEBRUARY 15, 19 99
 OPERATORS WELL NO. LINCOLN MINERAL #74
 API WELL NO. 47-043-0303/PP
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 4145P74 (76-1)
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 663'
 SCALE 1" = 500'

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

WELL TYPE: OIL CAS INJECTION WASTE DISPOSAL "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 811' WATERSHED BEECH BRANCH OF FUGUAY CREEK
 DISTRICT WASHINGTON COUNTY LINCOLN QUADRANGLE ALUM CREEK 16'

SURFACE OWNER JOHN H. SMITH, JR. ACREAGE 84.89 OF 142 AC. ± ASSESSED
 ROYALTY OWNER EASTERN STATES OIL AND GAS, INC. LEASE ACREAGE 84.89 OF 3035.33 AC. (NET)

PROPOSED WORK: 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 4500'

WELL OPERATOR BLAZER ENERGY CORPORATION DESIGNATED AGENT RICHARD SMELTZER
 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328

Received

2013
 Oil and Gas
 Environmental Protection
 WV Dept. of Environmental Protection

Alum Creek 7

09/06/2013

4303031A

1) Date: August 13, 2013
2) Operator's Well Number
214451 Lincoln Mineral # 74
3) API Well No.: 47 043 - 03031
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL

Check # 16364
\$ 400.00
(4 perm.ds)

4) Surface Owner(s) to be served:
(a) Name John Smith Jr. ✓
Address 8 Vespers Way
Bluffton, SC 29910

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Ralph Triplett ✓
Address 5539 McCellan Hwy.
Branchland, WV 25506
Telephone 304-3890350

5) (a) Coal Operator:
Name None
Address _____

(b) Coal Owner(s) with Declaration
Name Penn Virginia Resources Partners ✓
Attn: Gary Stover
Address One Carbon Center
Suite 100
Chesapeake, WV 25315
Name _____
Address _____

(c) Coal Lessee with Declaration
Name None
Address _____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator: EQT Production Company
By: Victoria J. Roark ✓
Its: Permitting Supervisor
Address: PO Box 280
Bridgeport, WV 26330
Telephone: (304) 848-0076
Subscribed and sworn before me this 14 day of Aug., 2013
[Signature] Notary Public
My Commission Expires: 8-24-22



Received

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

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

Operator Name: EQT PRODUCTION COMPANY OP ID: _____
Watershed: Beech Branch Quadrangle: Alum Creek
Elevation: 797.21' County: Lincoln District: Washington

Description of anticipated Pit Waste: Formation Fluids

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes___ No X
Will synthetic liner be used in the pit? Yes Is so, what ml.? 30 ml

Proposed Disposal Method for Treated Pit Wastes:
X Land Application
____ Underground Injection - UIC Permit Number _____
____ Reuse (at API Number) _____
____ Offsite Disposal Permit #. _____
____ Other: Explain _____

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____
If oil based, what type? Synthetic, petroleum, etc. _____
Additives to be used? _____

Will closed loop system be used? _____
Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____
If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust _____
Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]
Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 14 day of August, 2013

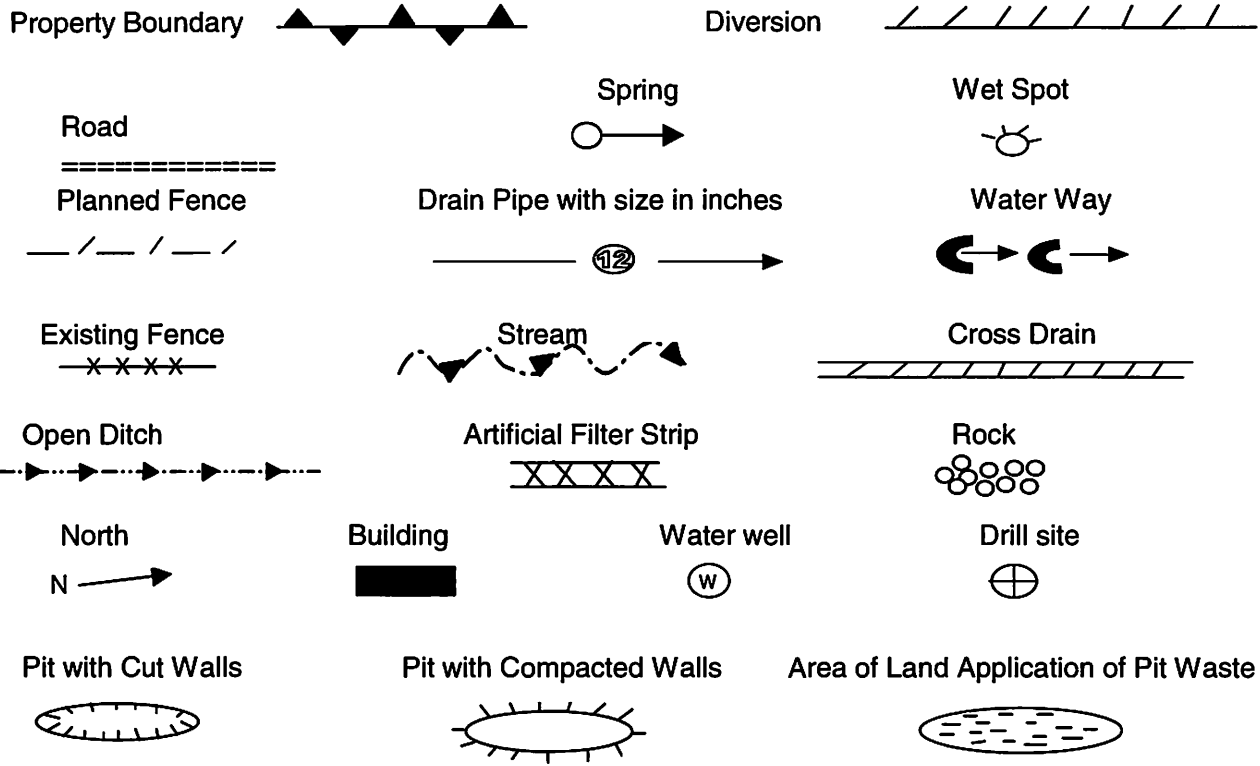
My Commission Expires 8-24-22

Notary Public



OPERATOR'S WELL NO.:
214451 Lincoln Mineral # 74

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 5.8
 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: Raepl. D. Trupia

Comments: _____

Title: Disturb. Impact Date: _____
 Field Reviewed? Yes Yes _____ No _____

Received

AUG 15 2013

Office of Oil and Gas
 WV Dept. of Environmental Protection

4303031P

Topo Quad: Alum Creek 7.5'

Scale: 1" = 2000'

County: Lincoln

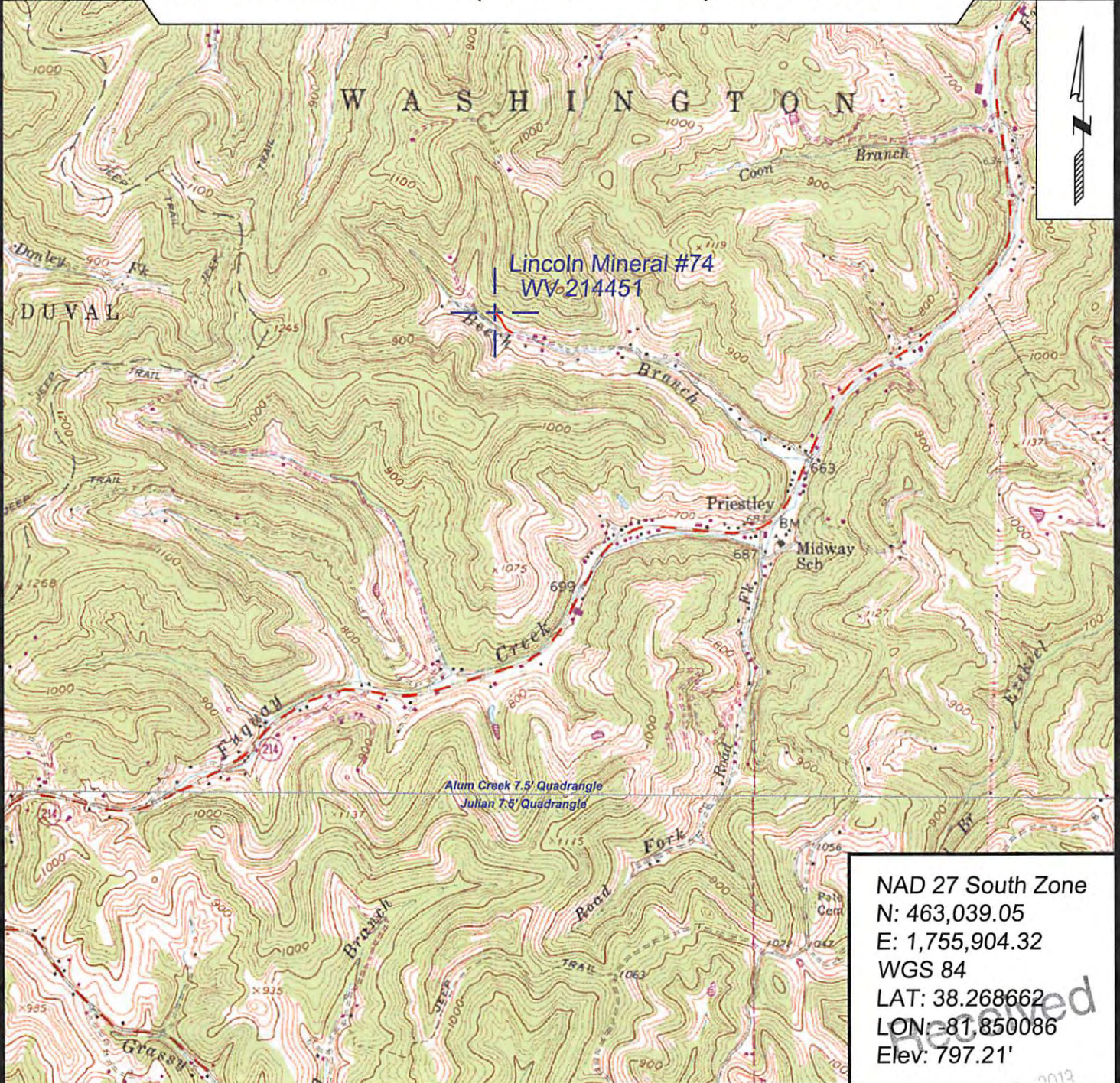
Date: August 1, 2013

District: Washington

Project No: 206-26-S-13

Lincoln Mineral #74 (47-043-03031) WV 214451

Topo



NAD 27 South Zone
 N: 463,039.05
 E: 1,755,904.32
 WGS 84
 LAT: 38.268662
 LON: -81.850086
 Elev: 797.21'



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 P.O. BOX 438
 BIRCH RIVER, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330

Office of Oil and Gas
 Department of Environmental Protection

09/06/2013

