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 08, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10901115, issued to K. PETROLEUM, INC., 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 penalities 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: W.B. 21
Farm Name: POCAHONTAS LAND CORP.
API Well Number: 47-10901115
Permit Type: Plugging
Date Issued: 09/08/2015

1090115P

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

10901115P

WW-4B
Rev. 2/01

1) Date JULY 8TH, 2015
2) Operator's Well No. WB 21
3) API Well No. 47- 109 - 01115

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ____/ Gas X / Liquid injection ____/ Waste disposal ____/
(If "Gas, Production ____ or Underground storage ____) Deep ____/ Shallow____

5) Location: Elevation 1505' Watershed INDIAN CREEK
District CENTER County WYOMING Quadrangle PINEVILLE 7.5

6) Well Operator K. PETROLEUM, INC.
Address 81 MILL ST. SUITE 205
GAHANNA, OH 43230

7) Designated Agent MICHAEL E. COLLINS
Address 4299 NEWARK RD.
ELIZABETH, WV 26143

8) Oil and Gas Inspector to be notified
Name Dan Mullins
Address ~~121 Big Tree Fork Rd.~~
~~Hart, WV 25524~~
220 Jack Acres Rd Buckhannon WV 26201

9) Plugging Contractor
Name PATCHWORK OIL & GAS, LLC
Address 8165 ELIZABETH PIKE
ELIZABETH, WV 26143

10) Work Order: The work order for the manner of plugging this well is as follows:

DETAILED WORK ORDER TO FOLLOW

RECEIVED
Office of Oil and Gas
AUG 13 2015
WV Department of
Environmental Protection

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

Work order approved by inspector Danny Mullins Date 6-8-15

10901115P

REVISED WORK ORDER

WB #21

47-109-01115

PROPOSED PLUGGING PROCEDURE

1. Prepare plugging permit application.

2. Certify to surface and coal owners.

3. Certify to designated State inspector for signature.

4. Once all signatures are obtained, copy for our records and certify to Jeff at the State Office for approval.

5. Receive plugging permit good for 2 years.

6. Notify the designated State inspector 24 hours prior to commencing operations.

7. Take equipment to location and begin prepping for plug.

8. Rig up

9. Verify total depth of 1551'.

10. Attempt to clean out well bore to original depth, if needed.

11. Run E-log (caliper, deviation, density, and gamma) to determine the location of the lowest mineable coal bed.

12. Run tubing to TD. Set first plug with 16 sacks of Class A cement with no more than 3% CaCl2 and no other additives from TD up to 1338'. This will cover bottom plug, perforation and Elevation. Pull tubing back.

12. Wait 8 hours, run in and tag plug, add additional cement if needed.

13. Run 2 sacks of 6% Bentonite gel from 1338' up to 953'. (4 1/2)

14. Begin looking for free point, according to state record WR-35 cement fill up should be about 690', which is higher than POCA 3 seam, if so, go in and mill the 4 1/2 and cement out of the inside of the of the 8 5/8 down to the depth of approx. 753' to expose the 8 5/8 casing in the POCA 3 seam.

16. If the well bore still produces gas, a mechanical bridge plug shall be placed in the well bore in a competent stratum at least 200' below the lowest mineable seam of coal but above the uppermost hydrocarbon producing zone.

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17. Circulate gel. Section mill 8 5/8" from depth 753' to 733' to produce a 20' casing free zone from 5' below the P3 seam to 10' above. This will facilitate active mining of the P3 at depth 743'.

If the production string of casing is cemented through the POCA 3 coal seam and unable to remove, then the Production string may be Section milled and the protection string perforated with approximately 8 shots per foot in a 10' area. (this is a possibility, the 8 5/8 casing shoe could be at 753', which would not be able to be milled out)

18. Perforate 8 5/8" casing at 10' intervals beginning at depth 903' through depth 753'.

19. Run tubing to 953', circulate gel, then run 46 sacks of expandable cement slurry down the tubing to displace the gel and fill well bore from depth of 953' to 640'.

20. Pull tubing back, wait 8 hours

21. Run in and tag plug, add cement if needed.

22. Run 7 sacks of 6% Bentonite gel from 640' up to 100'.

24. Pull tubing up to 100' and cement from to surface with 29 sacks of Class A cement with no more than 3% CaCl2 and no other additives.

25. Solidify pit if necessary with more cement and lime, then bury. (NO PIT PERMITTED)

26. ~~Set 6" x 12.5" steel~~ pipe with concrete with 1/2" API identification. 3C "high 7" casing Also put the Date that plugging was Done

27. Rig down, and move equipment out.

28. Reclaim location.

29. Prepare WR-34 & WR-38 for permit release.

**Expanding Cement shall be Nabors Production and Well Completions "Thixtropic" or equivalent.

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WR-35

06-Oct-89
API # 47-109-01115

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: POCAHONTAS LAND CORP. Operator Well No.: WB #21

LOCATION: Elevation: 1505.00 Quadrangle: PINEVILLE

District: CENTER County: WYOMING
Latitude: 4340 Feet South of 37 Deg. 32Min. 30 Sec.
Longitude 1270 Feet West of 81 Deg. 35 Min. 0 Sec.

Company: BOWIE, INC.
604 EAST MAIN STREET
CLARKSBURG, WV 26301-0000

Agent: WILLIAM H. BOWIE

Inspector: RODNEY G. DILLON
Permit Issued: 10/06/89
Well work Commenced: 12/10/89
Well work Completed: 12/16/89
Verbal Plugging
Permission granted on: 10/6/89
Rotary X Cable ____ Rig
Total Depth (feet) 1620
Fresh water depths (ft) 20'
Salt water depths (ft) N/A
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 380-384, 472-475

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 11 3/4	30		
8 5/8	751	751	CTS
4 1/2	1551	1551	145 SKS

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DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation RAVENCLIFF Pay zone depth (ft) 1388-1472
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow 504 MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure 240 psig (surface pressure) after 24 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 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.

WYOM 1115

For: BOWIE, INC.
By: Bradley W. Thomas
Date: 12-28-89

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WV Department of
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1090111SP

Form IV-35
(Reverse)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

RAVENCLIFF (1397-1470) 30 holes, 750gal 15%HCL, 600BBL TSQ FOAM, 500 SKS 20/40 SAND

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
FILL	0	10	
SAND & SHALE	10	41	1" STREAM H2O @ 80'
SAND	41	217	
SAND & SHALE	217	380	
COAL	380	384	
SAND & SHALE	384	472	
COAL	472	475	
SAND	475	624	
SAND & SHALE	624	710	
COAL & SHALE	710	713	
SAND	713	750	
SAND & SHALE	750	1420	
RAVENCLIFF	1420	1520	GAS SHOW
AVIS	1520	1560	
SAND & Shale	1560	1620 DTD	

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Coal

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AUG 13 2015
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10901115P

WW-4A
Revised 6-07

1) Date: JULY 8TH, 2015
2) Operator's Well Number
WB 21

3) API Well No.: 47 - 109 - 01115

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: PINNACLE LAND COMPANY
Address: PO BOX 446
MAN, WV 25635
(b) Name:
Address:
(c) Name: 220 Jack Acres Rd
Address: Buckhannon WV 26201
6) Inspector: Dan Mullins
Address: ~~124 Big Trace Fork Rd.~~ ~~Hacks, WV 25524~~
Telephone: 304-932-6844

5) (a) Coal Operator
Name: PINNACLE LAND COMPANY
Address: PO BOX 446
MAN, WV 25635
(b) Coal Owner(s) with Declaration
Name:
Address:
Name:
Address:
(c) Coal Lessee with Declaration
Name: PINNACLE LAND COMPANY & MECHEL BLUESTONE
Address: PO BOX 446 / PO BOX 1085
MAN, WV 25635 / BECKLEY, WV 25802

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 Department 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: K. PETROLUEM, INC.
By:
Its: DESIGNATED AGENT Michael E Carr
Address: 4299 NEWARD RD
ELIZABETH, WV 26143
Telephone: 304-275-0921

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JESSICA M. LOTT
88 Diamond Dr., Davisville, WV 26142
My Commission Expires August 7, 2019

RECEIVED
Office of Oil and Gas
AUG 13 2015
WV Department of
Environmental Protection

Subscribed and sworn before me this 5 day of August, 2015
Notary Public
My Commission Expires Aug. 7, 2019

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 depprivacyoffier@wv.gov.

10901115P

WW-9
(2/15)

API Number 47 - 109 - 01115
Operator's Well No. WB 21

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name K. PETROLEUM. INC. OP Code 306574

Watershed (HUC 10) INDIAN CREEK Quadrangle PINEVILLE 7.5

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ☐ No ☑

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes ☐ No ☑ If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
_____ Underground Injection (UIC Permit Number _____)
_____ Reuse (at API Number _____)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
■ Other (Explain PORTABLE PIT

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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 Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term 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.

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AUG 13 2015
WV Department of
Environmental Protection

Company Official Signature _____

Company Official (Typed Name) MICHAEL E. COLLINS Michael E Collins

Company Official Title DESIGNATED AGENT

Subscribed and sworn before me this 5th day of Aug, 2015

Notary Public

My commission expires Aug. 7, 2019

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JESSICA M. LOTT
68 Diamond Dr., Davisville, WV 26142
My Commission Expires August 7, 2019

1090115P

Form WW-9

Operator's Well No. WB 21

K. PETROLEUM. INC.

Proposed Revegetation Treatment: Acres Disturbed 3.2 Prevegetation pH 6.67

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type STRAW

Fertilizer amount 500 lbs/acre

Mulch _____ Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
TALL FESCUE	40	TALL FESCUE	40
LADINO CLOVER	5	LADINO CLOVER	5

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? (_____) Yes (_____) No

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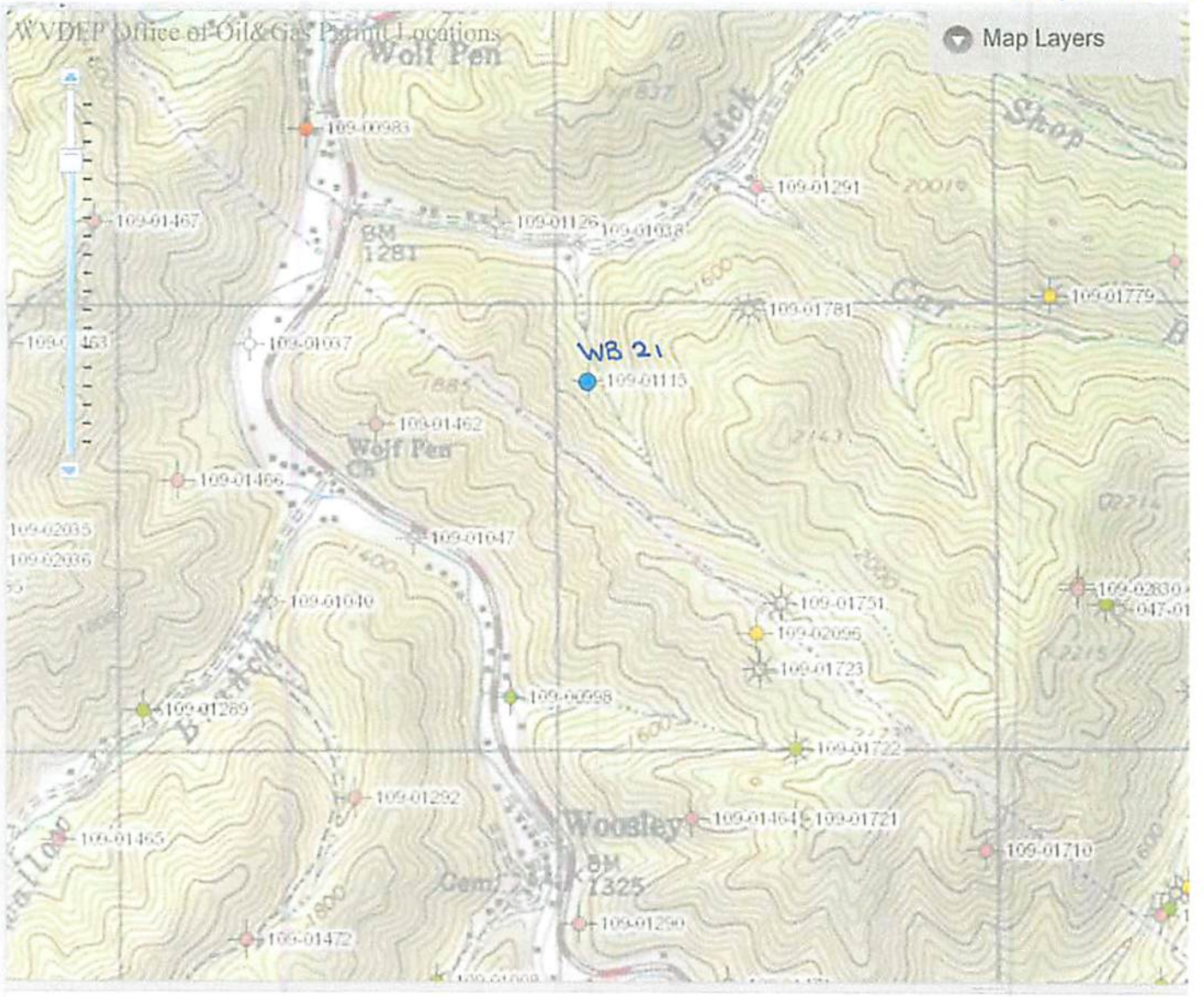

WB 21 47-109-01115

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10901115P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-109-01115 **WELL NO.:** WB 21

FARM NAME: POCAHONTAS LAND CORP.

RESPONSIBLE PARTY NAME: K. PETROLEUM, INC.

COUNTY: WYOMING **DISTRICT:** CENTER

QUADRANGLE: PINEVILLE

SURFACE OWNER: PINNACLE LAND COMPANY

ROYALTY OWNER: PINNCALE LAND COMPANY

UTM GPS NORTHING: 4153818.3

UTM GPS EASTING: 448072.1 **GPS ELEVATION:** 1505'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS X: Post Processed Differential X

Real-Time Differential ____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

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Office of Oil and Gas
AUG 13 2015
WV Department of
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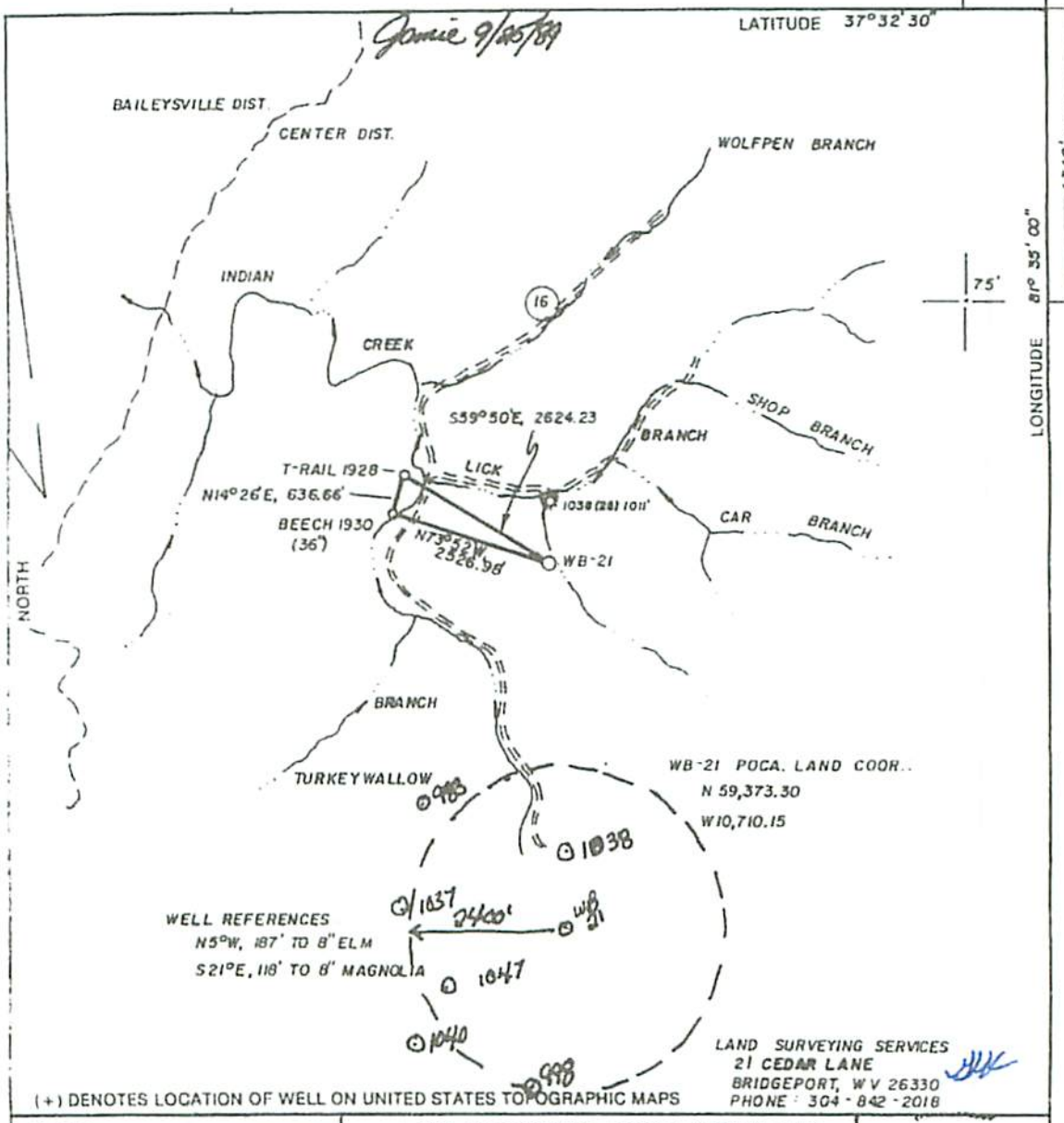
	OFFICE MANAGER	JULY 8TH , 2015
Signature	Title	Date

1270' 109 01115P



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 IN 2500
PROVEN SOURCE OF ELEVATION B.M. 2180' NW. OF LOC. AT ELEV. 1281'

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.

(SIGNED) _____

R.P.E. _____ L.L.S. NO 674 STEPHEN D. LOSH

PLACE SEAL HERE

RECEIVED
Office of Oil and Ga
AUG 13 2015
WV Department of
Environmental Protecti

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE JULY 31, 19 89
OPERATOR'S WELL NO. WB-21
API WELL NO.
47 - 109 - 1115
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1505' WATER SHED INDIAN CREEK
DISTRICT CENTER COUNTY WYOMING
QUADRANGLE PINEVILLE 7.5'
SURFACE OWNER POCAHONTAS LAND CORP. ACREAGE 24,980.40
OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP. LEASE ACREAGE 10,050.85
LEASE NO. 56244
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION BIG LIME ESTIMATED DEPTH 3100'
WELL OPERATOR BOWIE, INC. DESIGNATED AGENT WILLIAM BOWIE
ADDRESS 604 EAST MAIN ST. CLARKSBURG, WV 26301 ADDRESS 604 EAST MAIN ST. CLARKSBURG, WV 26301

COUNTY NAME WYOM
PERMIT 1115

FORM WW-6