



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

August 12, 2014

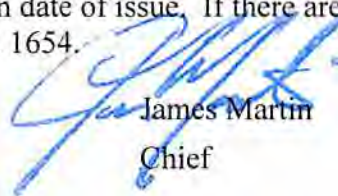
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3905450, issued to REED GAS 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 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: AL-115

Farm Name: APPALACHIAN LAND COMPAN'

API Well Number: 47-3905450

Permit Type: Plugging

Date Issued: 08/12/2014

Promoting a healthy environment.

08/15/2014

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.

1) Date 6/10/14 2014
2) Operator's Well No. AL-115
3) API Well No. 42-39-5450P

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 1296' Watershed Branch of Blue Creek
District Elk County Kanawha Quadrangle Mammoth

6) Well Operator Reed Gas Inc. 7) Designated Agent
Address Virginia Street Address
Charleston WV. 25301

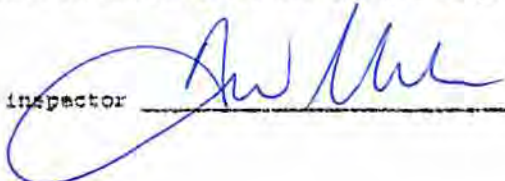
8) Oil and Gas Inspector to be notified Name Terry Urban
Address P.O. Box 1207
Clendenin WV 25045
9) Plugging Contractor Name Duckworth Well Service
Address P.O. Box 6871
Charleston WV . 25362

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

~~Perament Plug @2120'
100' cement 2120' to 2020'
100' cement 325' -225'
100' cement surface~~

*See plugging
Diagram*

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

Work order approved by inspector  Date 6.30.14

Received

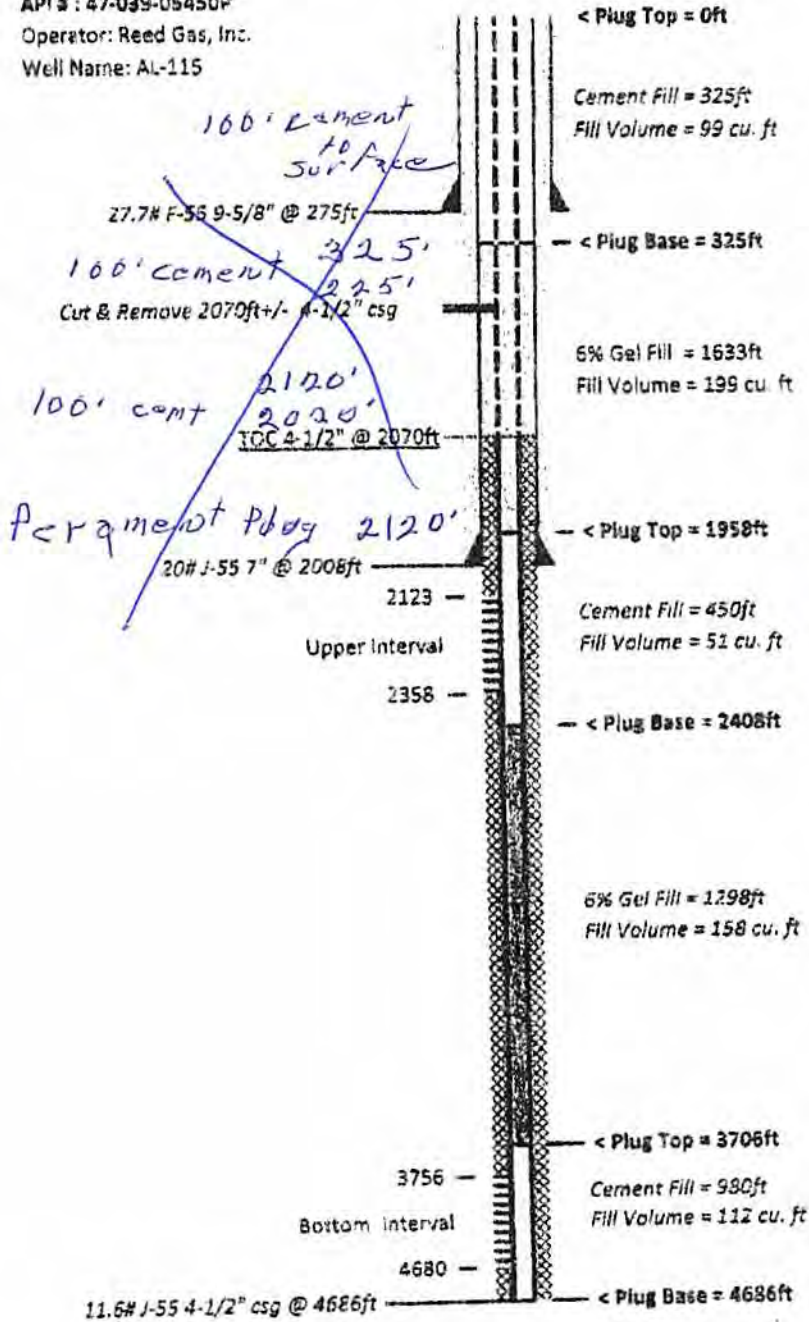
JUL 1 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

08/15/2014

39-5450

Well Plugging Work Order

API #: 47-039-05450P
 Operator: Reed Gas, Inc.
 Well Name: AL-115



Will also set elements plus
 A. White
 6-30-14

Received
 JUL 7 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection
 08/15/2014

WR - 35
Rev (5-01)

Date: 04/10/03
API # 47-039-05450

12/13

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas

Well Operators Report of Well Work

Operators well name: AL 115
Farm Name: Appalachian Land Co. Operator # 41350

Location: Elevation 1296 Quadrangle: Mammoth
District Elk County: Kanawha
Latitude: 6200 Feet South of 38 Deg 22 Min. 30 Sec.
Longitude: 10900 Feet West of 81 Deg 15 Min. 0 Sec.

Company: Reed Gas Inc.
Address: 1206 Kanawha Blvd. E. - Suite 201
Charleston, WV 25301

Agent:	<u>James W. Reed Jr.</u>		Casing : Tubing	Used in Drilling	Left in Well	Cement Fill up Cu Ft			
Inspector	<u>Carlos Hively</u>		<u>9 5/8</u>	<u>275</u>	<u>275</u> FT	<u>75</u> Sks	<u>104</u> CU FT		
Date Permit Issued	<u>11/09/01</u>								
Date Well Work Commenced	<u>01/05/02</u>		<u>7</u>	<u>2008</u>	<u>2008</u> FT	<u>250</u> Sks	<u>550</u> CU FT		
Date Well Work Completed	<u>06/14/02</u>		<u>4 1/2</u>		<u>4686</u> FT	<u>280</u> Sks	<u>487</u> CU FT		
Verbal Plugging:					FT	Sks	CU FT		
Date Permission Granted On					FT	Sks	CU FT		
Rotary X Cable	<u>RIG</u>								
Total Depth (feet):	<u>4724</u>								
Fresh Water Depth:									
Salt Water Depth:									
Is coal being mined in area ?	<u>N</u>								
Coal Depths									

OPEN FLOW DATA:

WV Department of
Environmental Protection

Producing Formation: Shale Pay zone depth (ft) 3756 to 4680
GAS: Initial Open Flow: NA MCF/d OIL: Initial Open Flow: Bbl/d
Final Open Flow: NA MCF/d Final Open Flow: Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure: 510 PSI (surface pressure) after 72+ Hours

Second producing formation: Weir / Lime Pay zone depth (ft) 2123 to 2358
GAS: Initial Open Flow: NA 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: PSI (surface pressure) after Hours

NOTE: ON BACK OF THESE FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGIC RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Muel Redkin
By:
Date: 4/10/03

Received
JUL 1 2014
KAN 5450
Office of Oil and Gas
Environmental Protection

08/15/2014

WR - 35
Rev (5-01)

Date: 04/10/03
API # 47-039-05450

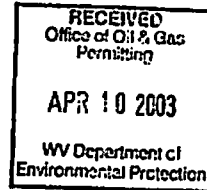
State of West Virginia
Department of Environmental Protection
Office of Oil & Gas

Operators well name: AL 115
Farm Name: Appalachian Land Co. Operator # 41350
Company: Reed Gas Inc.
Address: 1206 Kanawha Blvd. E.- Suite 201
Charleston, WV 25301

GEOLOGICAL RECORD

Description:	Top	Bottom
Clay / Sand	0	15
Sand / Shales	15	985
Eagle Shale	985	990
Rosedale Sands	990	1070
Shale Break	1070	1134
Silt Sands w/ intermittent Shales	1134	1670
Red Rock /Grey Shale	1670	1894
Sands	1894	1949
Shale Break	1949	1996
Little lime	1996	2012
Pencil Cave	2012	2021
Big Lime	2021	2180
McCrary Shale	2180	2208
Shale/Sand	2208	2303
Weir	2303	2359
Shale	2359	4724

Additional Comments:



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JUL 1 2014

Office of Oil and Gas
Environmental Protection

08/15/2014

Reel Brothers Limited Partnership

Well Completion Report

Well Name AL -115 Date 30-May-02
 API # 4703925450000

Stage 1

Formation Shale Perfs 4468 - 4680
 Break down PSI 2350 Avg PSI 2695 ISDP 1940
 Average Pump Rate: 32 BPM Fluid System Variable Quality Foam
 Total Sand 35,235 LBS Fluid to Recover 110 BBls
 Max Sand Conc. 3 Lbs/gal Acid 15% 500 Gals
 Nitrogen 526,500 SCF Acid 28% Gals

Stage 2

Formation Shale Perfs 4014 - 3756
 Break down PSI 2660 Avg PSI 2960 ISDP 1780
 Average Pump Rate: 32 BPM Fluid System Variable Quality Foam
 Total Sand 30,150 LBS Fluid to Recover 106 BBls
 Max Sand Conc. 3 Lbs/gal Acid 15% 500 Gals
 Nitrogen 422,600 SCF Acid 28% Gals

Stage 3

Formation NA Perfs
 Break down PSI Avg PSI ISDP
 Average Pump Rate: BPM Fluid System
 Total Sand LBS Fluid to Recover BBls
 Max Sand Conc. Lbs/gal Acid Gals
 Nitrogen SCF Acid 28% Gals

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 Office of Oil & Gas
 Permitting
 APR 10 2003
 MA Department of
 Environmental Protection

Stage 4

Formation NA Perfs
 Break down PSI Avg PSI ISDP
 Average Pump Rate: BPM Fluid System
 Total Sand LBS Fluid to Recover BBls
 Max Sand Conc. Lbs/gal Acid Gals
 Nitrogen SCF Acid 28% Gals

Total Sand	<u>65,385</u>	LBS	Total Fluid	<u>216</u>	BBls
Total Nitrogen	<u>949,200</u>	SCF	Total Acid	<u>1000</u>	Gals

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JUL 17 2014

Office of Oil and Gas
 Dept. of Environmental Protection

Ree Brothers Limited Partnership

Well Completion Report

Well Name AI -115 Date 14-Jun-02
 API # 47039254500000

Stage 1

Formation Weir Perfs 2337 - 2358
 Break down PSI 3890 Avg PSI 3100 ISDP 1570
 Average Pump Rate: 20 BPM Fluid System 75% Foam
 Total Sand 25,000 LBs Fluid to Recover 190 BBls
 Max Sand Conc. 3 Lbs/gal Acid 15% 500 Gals
 Nitrogen 279,900 SCF Acid 28% Gals

Stage 2

Formation Lime Perfs 2123 - 2167
 Break down PSI 3500 Avg PSI 2315 ISDP 2230
 Average Pump Rate: 16 BPM Fluid System 75% Foam
 Total Sand 10,260 LBs Fluid to Recover 105 BBls
 Max Sand Conc. 3 Lbs/gal Acid 15% 500 Gals
 Nitrogen 187,400 SCF Acid 28% 500 Gals

Stage 3

Formation NA Perfs
 Break down PSI Avg PSI ISDP
 Average Pump Rate: BPM Fluid System
 Total Sand LBs Fluid to Recover BBls
 Max Sand Conc. Lbs/gal Acid Gals
 Nitrogen SCF Acid 28% Gals

Stage 4

Formation NA Perfs
 Break down PSI Avg PSI ISDP
 Average Pump Rate: BPM Fluid System
 Total Sand LBs Fluid to Recover BBls
 Max Sand Conc. Lbs/gal Acid Gals
 Nitrogen SCF Acid 28% Gals

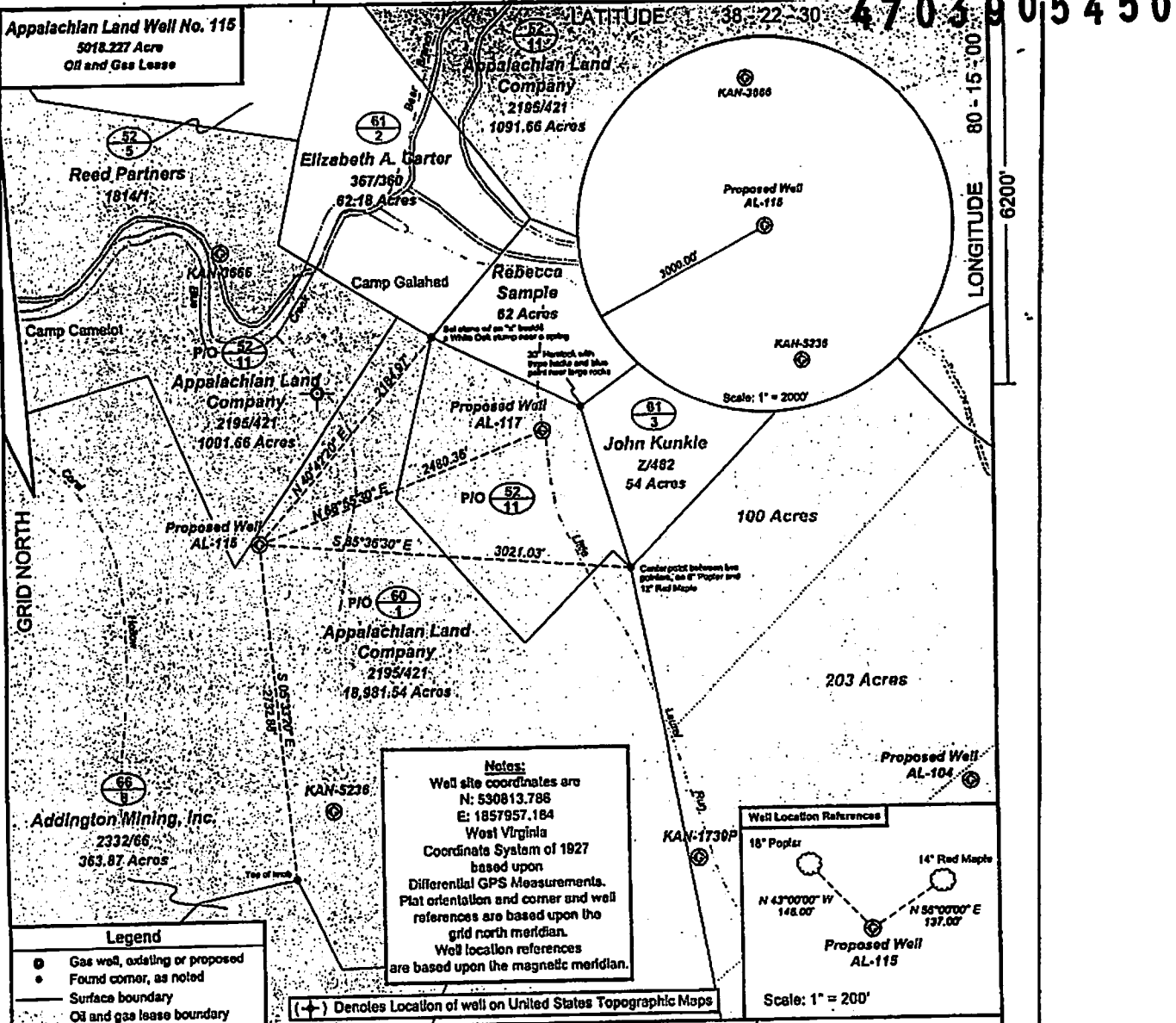
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APR 10 2003
 WV Department of
 Environmental Protection

Total Sand	<u>35,260</u>	LBs	Total Fluid	<u>295</u>	BBLs
Total Nitrogen	<u>467,300</u>	SCF	Total Acid	<u>1570</u>	Gals

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JUL 11 2014

Oil and Gas
 08/15/2014



FILE No. 37-14-E-01
 DRAWING No. 3714E01.dwg
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY: 1/2400
 PROVEN SOURCE OF ELEVATION U.S.G.S. HARN
 Station Elview Elevation: 631.00'

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 Mines.

A. L. B...
 P.S. 835

SEAL

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE: October 26 20 01
 OPERATOR'S WELL No. AL-115
 API WELL No. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ STATE 47 COUNTY 039 PERMIT 05450
 (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION: 1298.48' WATER SHED: Unnamed Branch of Blue Creek
 DISTRICT: Elk COUNTY: Kanawha

QUADRANGLE: Mammoth ACREAGE: 18,981.54 Ac.
 SURFACE OWNER: Appalachian Land Company LEASE ACREAGE: 5019.227 Ac.
 OIL & GAS ROYALTY OWNER: Pine Mountain Oil and Gas LEASE No. _____

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: Devonian Shale ESTIMATED DEPTH: 5050'

WELL OPERATOR: Reed Gas, Inc. DESIGNATED AGENT: James W. Reed, Jr.
 ADDRESS: 1206 Kanawha BLVD. E. Suite 201 ADDRESS: 1206 Kanawha BLVD. E. Suite 201
Charleston, WV 25301 Charleston, WV 25301

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 KAN 15450
 WV Dept. of Environmental Protection
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Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$6.71



Sent To Blue Eagle Hand Co.
 Street, Apt. No.,
 or PO Box No. 700 Virginia St
 City, State, ZIP+4 Charleston WV 25301

PS Form 3800, August 2006 See Reverse for Instructions



Received
 JUL 11 2014
 Office of Oil and Gas
 WV Dept. of Environmental Protection
 08/15/2014

WW-44
Revised 6-07

1) Date: 6/10/14
2) Operator's Well Number
AL-115
3) API Well No.: 47 39 5450P

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

4) Surface Owner(s) to be served: 5) (a) Coal Operator

(a) Name Appalachian Land Co. Name Blue Eagle Land Co.
Address 200 Virginia Address Charleston WV 25302

(b) Name Charleston WV 25302 (b) Coal Owner(s) with Declaration
Address _____ Name _____
Address _____ Address _____

(c) Name _____ Name _____
Address _____ Address _____

6) Inspector Terry Urban (c) Coal Lessee with Declaration
Address P.O. Box 1207 Name _____
Telephone Clendenin WV 25045 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 log 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 reverse side. However, you are not required to take any action at all.

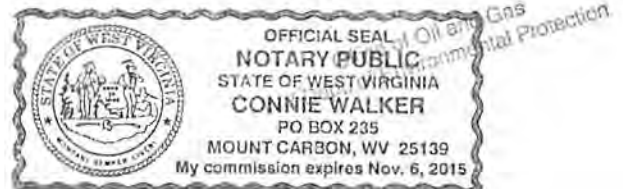
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental 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 persons named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Reed Gas Inc.
By: James W. Reed Jr.
Its: President
Address Virginia Street
Charleston WV 25301
Telephone 304 345 3817

Subscribed and sworn before me this 24 day of June, 2014
Connie Walker Notary Public
My Commission Expires Nov 6, 2015

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 dataprivacy@dep.wv.gov.



08/15/2014

WW-9
Rev. 3/08

Page 39 of 5450P
API Number 47 - AL-115
Operator's Well No. AL-115

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Reed Gas Inc. OP Code _____

Watershed Branch of Blue Creek Quadrangle Mammoth

Elevation 1296' County Kanawha District Elk

Description of anticipated Pit Waste: _____

Will a synthetic liner be used in the pit? _____

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 _____)

NO PIT
(U)

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 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.

Company Official Signature James W. Reed Jr.

Company Official (Typed Name) James W. Reed

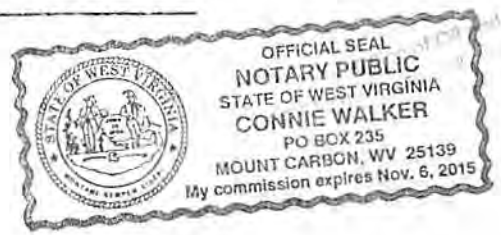
Company Official Title President

Subscribed and sworn before me this 24 day of June, 2014

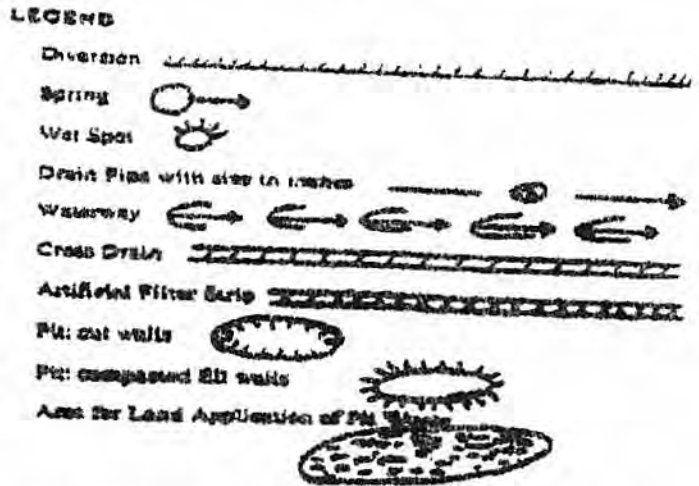
Connie Walker Notary Public

My commission expires Nov 6, 2015

Received



08/15/2014



Proposed Revegetation Treatment: Acres Disturbed 1 Revegetation pH _____
 Lime 3 Tons/acre or to correct to pH _____
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)
 Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
<u>Contractors Mix</u>			

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
 Comments: _____

Title: Taproot Well CAS Date: 6-30-14

Field Reviewed? Yes No

Received

Office of Oil and Gas
 WV Dept. of Environmental Protection

08/15/2014



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

API: 47-39-5450 WELL NO.: AL-115
FARM NAME: Appalachian Land Co.
RESPONSIBLE PARTY NAME: James W. Reed Jr.
COUNTY: Kanawha DISTRICT: 111
QUADRANGLE: Mammoth
SURFACE OWNER: Appalachian Land Co.
ROYALTY OWNER: Pine Mountain Oil & Gas
UTM GPS NORTHING: 4245589.6
UTM GPS EASTING: 474875.1 GPS ELEVATION: 1296

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
- Accuracy to Datum - 3.05 meters
- Data Collection Method:
Survey grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____
Mapping Grade GPS ____ : Post Processed Differential ____
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.

Steve Duckworth Contractor 6-10-14
Signature Title Date

Received