



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 29, 2013

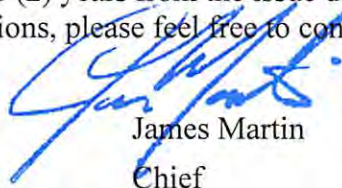
WELL WORK PERMIT
Vertical Well

This permit, API Well Number: 47-3305782, issued to HG ENERGY, LLC, 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 completion of permitted well work, 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

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: SARAH E. ADAMS NO. 243
Farm Name: MYERS, EDGAR LEE JR.

API Well Number: 47-3305782

Permit Type: Vertical Well

Date Issued: 08/29/2013

Promoting a healthy environment.

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

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

- 1) Well Operator: HG Energy, LLC
- 2) Operator's Well Number: Sarah E. Adams No. 243 3) Elevation 1347'
- 4) Well Type: (a) Oil X or Gas _____
 (b) If Gas: Production _____ Underground Storage _____
- 5) Proposed Target Formation(s): Fifth Sand
- 6) Proposed Total Depth: 3125' TVD 3400' TMD ft.
- 7) Approximate fresh water strata depths: 225'
- 8) Approximate salt water depths: 1446'
- 9) Approximate coal seam depths: 700'
- 10) Does land contain coal seams tributary to active mine? Yes _____ No X
- 11) Proposed Well Work: Drill and stimulate production well in Fifth Sand, well to be drilled directionally N 27° W 510'

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						
Fresh Water	7"	LS	17#	775'	775'	Cement to surface
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	3400'	3400'	150 Sacks, CTS
Tubing						
Liners						

*SDW
6/27/2013*

Packers: Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

Fee(s) Paid
 Well Work Permit
 Reclamation Fund
 WPCP
 Plat
 WW-9
 WW-2B
 Bond _____
Office of Oil & Gas Agent
(Type)

JUL 1 2013

3305782

1) Date: June 21, 2013
2) Operator's Well Number Sarah E. Adams No. 243
3) API Well No: 47 - 033 -
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CK#
2274
\$650.00

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Earl & Belva Junkins ✓
Address RR 5, Box 1226
Salem, WV 26426
(b) Name Edgar Lee Myers ✓
Address RR 4, Box 532
Salem, WV 26426
(c) Name Brian Huffman ✓
Address RR 4, Box 530
Salem, WV 26426
6) Inspector Sam Ward
Address P. O. Box 2327
Buckhannon, WV 26201
Telephone (304) - 389-7583

5) (a) Coal Operator:
Name NA
Address _____
(b) Coal Owner(s) with Declaration
Name NA
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration ✓
Name Wolf Run Mining
Address 2708 Cranberry Square
Morgantown, WV 26505

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE 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)

Received
Office of Oil & Gas

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above-named parties, by:

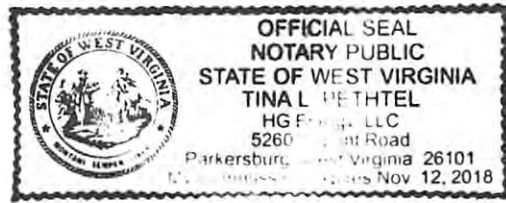
JUL 1 2013

Personal Service (Affidavit attached)
 Certified Mail (Postmarked postal receipt attached)
 Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, 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 HG Energy, LLC
By: Diane C White *Diane C White*
Its: Accountant
Address 5260 Dupont Road
Parkersburg, WV 26101
Telephone (304) 420-1119

Subscribed and sworn before me this 21 day of August 2013
Tina L. Bethel
Notary Public
My commission expires 11/02/2018



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 HG Energy, LLC OP Code 494497948
Watershed Branch of Lick Run Quadrangle Salem 7.5' 596
Elevation 1347' County Harrison 33 District Ten Mile 0A

Description of anticipated Pit Waste: Fluids encountered in drilling shallow well.

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

Will a synthetic liner be used in pit? Yes _____ If so, what mil.? 20 Mil.

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 _____)

*SDW
5/6/27/2013*

Drilling medium anticipated for this well? Air, fresh water, oil based, etc. Air, Fresh Water
- If oilbased, what type? Synthetic, petroleum, etc. _____

Additives to be used? Water, soap, KCl

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit
- If left in pit and plan to solidify, what medium will be used? Cement, lime, sawdust Native soil, cement, lime
- 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 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.

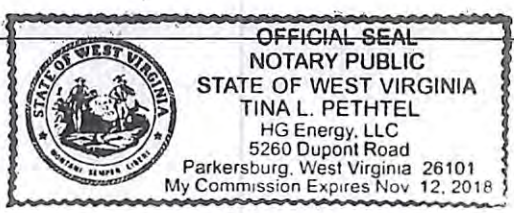
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Received
Office of Oil & Gas

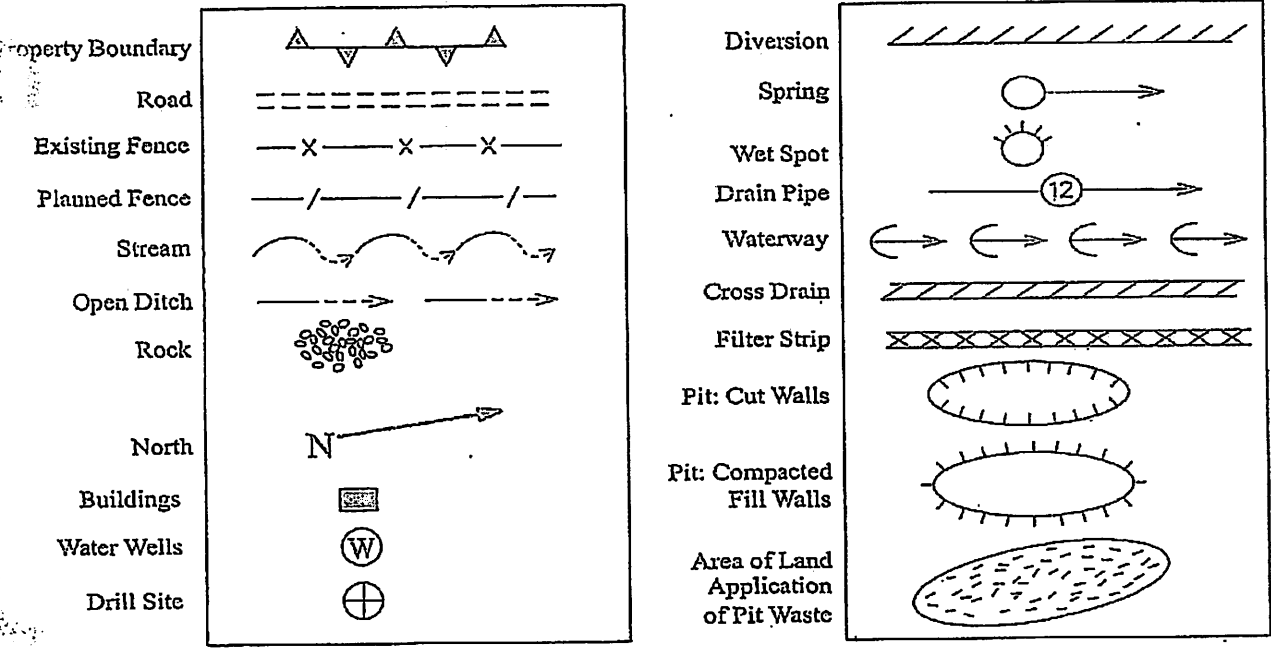
Company Official Signature Diane C White
Company Official (Typed Name) Diane C. White
Company Official Title Accountant

Subscribed and sworn before me this 21 day of June 2013
Tina L. Pethtel Notary Public

My commission expires Nov 12, 2018
Form WW-9



Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 1.0 Ac. Prevegetation pH _____
Area II Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5
 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)
 Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>		<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.	Seed Type	Lbs./Ac.
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	

Received
 JUL - 1 2013

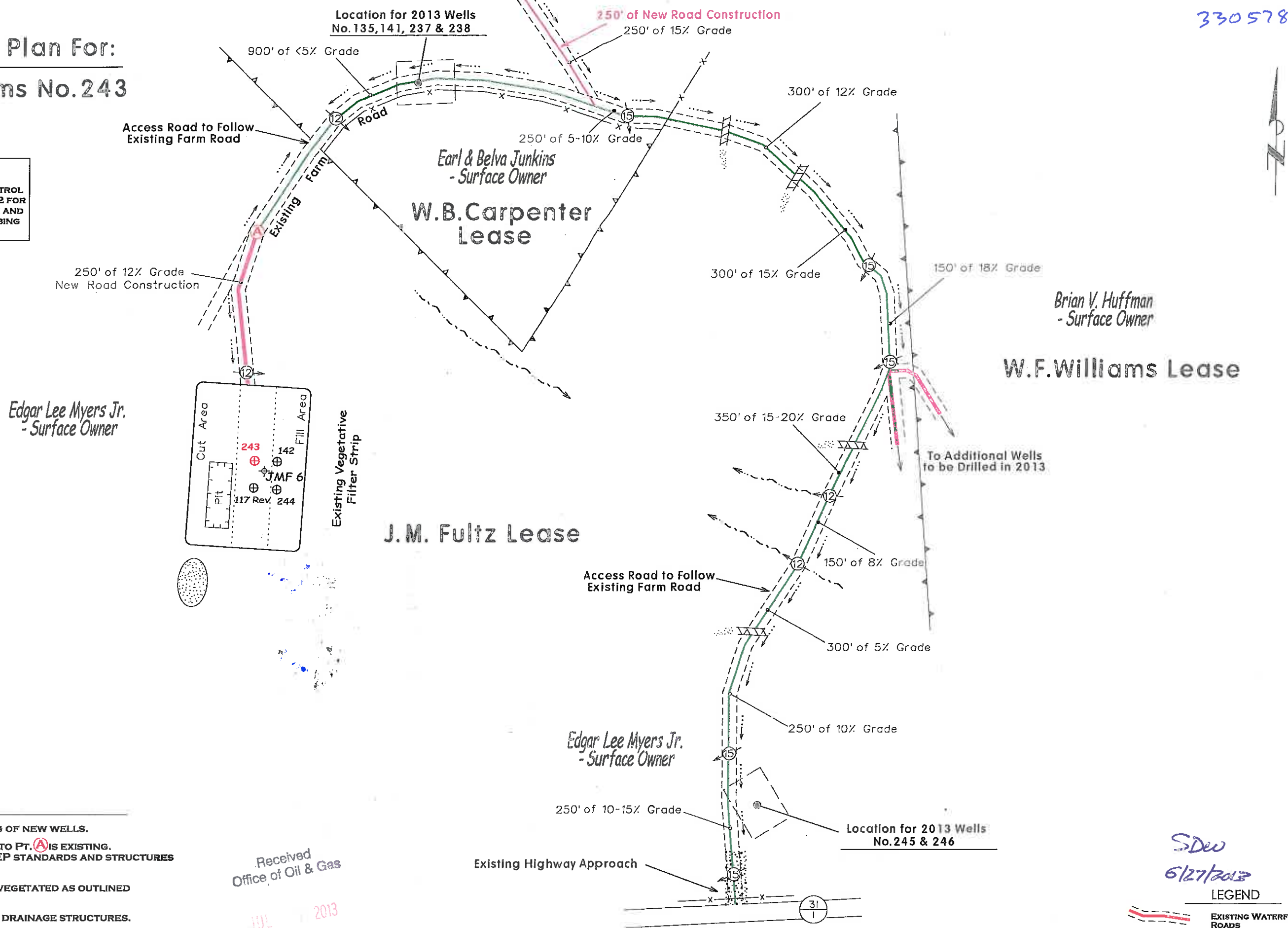
Attach:
 Drawing(s) of road, location, pit and proposed area for land application
 Photocopied section of involved 7.5' topographic sheet.

Office of Oil and Gas
 Environmental Protection

Plan approved by: S. J. Dew
 Title: Oil & Gas Inspector Date: 6/27/2013
 Field Reviewed? X Yes _____ No

Reclamation Plan For: Sarah E. Adams No. 243

NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.



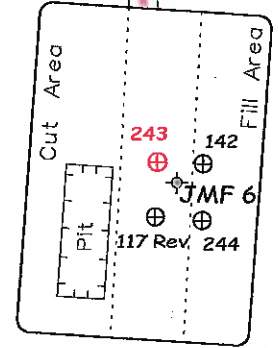
Edgar Lee Myers Jr.
- Surface Owner

Earl & Belva Junkins
- Surface Owner
W.B. Carpenter
Lease

J.M. Fultz Lease

Brian V. Huffman
- Surface Owner

W.F. Williams Lease



Existing Vegetative
Filter Strip

Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELLS.
- ACCESS ROAD FROM Co. Rd. 31/1 TO PT. A IS EXISTING. ROAD WILL BE UPGRADED TO WVDEP STANDARDS AND STRUCTURES INSTALLED AS SHOWN.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

Received
Office of Oil & Gas

JUL 2013

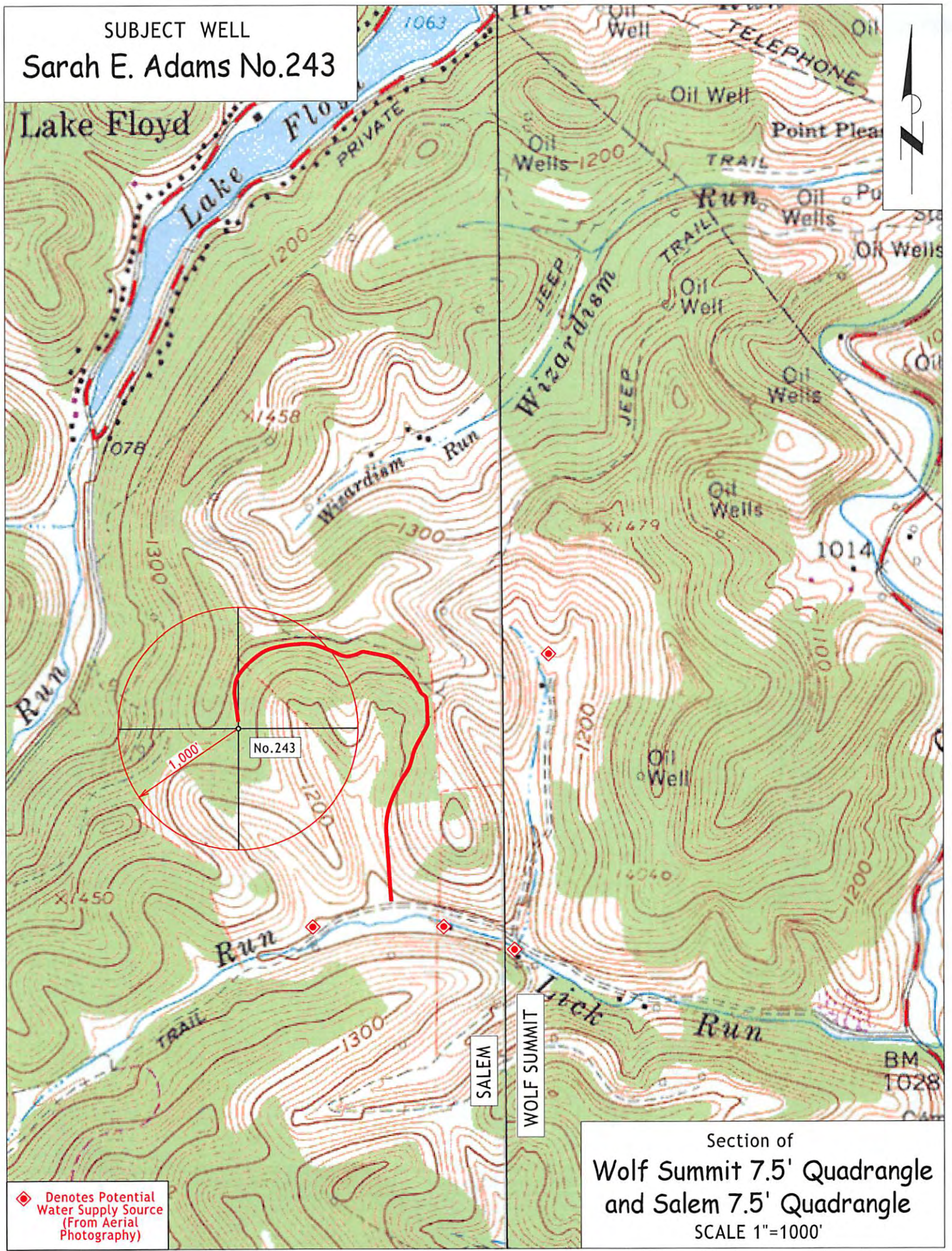
Location for 2013 Wells
No. 245 & 246

SDew
6/27/2013

LEGEND

	EXISTING WATERFLOOD ROADS
	EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
	NEW ROADS TO BE CONSTRUCTED

SUBJECT WELL
Sarah E. Adams No.243



◆ Denotes Potential Water Supply Source (From Aerial Photography)

Section of
Wolf Summit 7.5' Quadrangle
and Salem 7.5' Quadrangle
SCALE 1"=1000'

(BOTTOM HOLE: LON:-80°30'30.7") LON:-80°30'27.8" 2185

1 - Well ties and Latitude and Longitude were measured by Topcon HiPer 6A survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).

2 - Surface owners, adjoining information, Lease names, & line mapping obtained from HGE GIS system. No survey was performed to determine lines within the Waterflood Unit-reference: HGE GIS system.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

UTM Coordinates (Zone 17N-NAD 1983)	
Surface	N-4,347,110m. E-542,479m.
Bottom Hole	N-4,347,248m. E-542,409m.

LOCATION REFERENCES	
UTM 27	
S 38°07' E 14.0' EX: WELL JMF#6	
S 5°05' E 134.0' 6" MAPLE	
Brg. Direction is prop. well to the ref.	

LAT: 39°17'30"
MAP OF
H.G. ENERGY, LLC
-WATERFLOOD UNIT-
SARAH E. ADAMS 243

LON: 80°30'00"
 7090
 LAT:39°16'19.9"
 (BOTTOM HOLE: LAT:39°16'24.4")



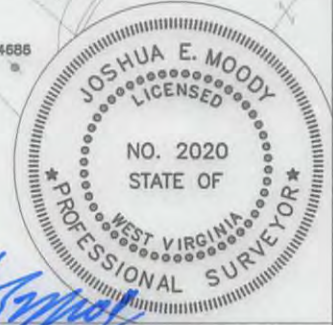
+ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

JOB # 13-014
 DRAWING # 13LAKEFLOYD FOLDER
 SCALE 1" = 1500'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE OF ELEV. BENCH MARK H-80

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
MOODY LAND SURVEYING, LLC
 ST. MARYS, WV 26170



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL HORIZONTAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1347' WATERSHED BRANCH OF LICK RUN API WELL # 47-033-05782
 DISTRICT TEN MILE COUNTY HARRISON STATE 47 COUNTY 033 PERMIT 05782
 QUADRANGLE SALEM 7.5'

SURFACE OWNER EDGAR LEE MYERS JR. ACREAGE 25 ACRES +/-
 OIL & GAS ROYALTY OWNER HILARY HEIGHTS, LTD ET AL LEASE ACREAGE 100 ACRES +/-
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 27° W 510')
 PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION 5TH SAND ESTIMATED DEPTH MD= 3,400'
 WELL OPERATOR H.G. ENERGY, LLC DESIGNATED AGENT MIKE KIRSCH
 ADDRESS 5260 DuPONT ROAD ADDRESS 5260 DuPONT ROAD
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101