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

PERMIT MODIFICATION APPROVAL

May 21, 2014

HG ENERGY, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit Modification Approval for API Number 3305801 , Well #: S.E. ADAMS NO. 146
MOVED WELL LOCATION ON SAME LEASE

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

330580lM

HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

RECEIVED
Office of Oil and Gas

MAY 2 2014

WV Department of
Environmental Protection

May 1, 2014

MODIFICATION

WELL MOVED TO ANOTHER LOCATION ON THE SAME LEASE.

Mr. Jeff McLaughlin
WVDEP
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: S. E. Adams No. 146 – Request for Revision
Ten Mile District, Harrison County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a request to revise a permit to drill a liquid injection well.

Please let me know if you require additional information.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: Hilary Heights LTD - Beth A Taylor – Certified
Stacy & Lori Bokey - Certified
Wolf Run Mining Co. - Certified
Sam Ward – Inspector

33058015
MON

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.

33058015
MOP

WW-3B
10/07

1) Date May 1, 2014
2) Operator's Well No. S. E. Adams No. 146 R
3) API Well No. 47 - 033 - 47-033-5801
State County Permit
4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL TYPE: Liquid Injection X Gas Injection (not storage) ____ Waste Disposal ____

6) LOCATION: Elevation 1267' Watershed Ten Mile Creek
District Tenmile County Harrison Quadrangle Salem 7.5'

7) WELL OPERATOR: HG Energy, LLC 494497948
5260 Dupont Road
Parkersburg, WV 26101

8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road
Parkersburg, WV 26101

9) OIL & GAS INSPECTOR TO BE NOTIFIED:
Name Sam Ward
Address P. O. Box 2327
Buckhannon, WV 26201

10) DRILLING CONTRACTOR:
Name
Address

11) PROPOSED WELL WORK: Drill X Drill Deeper ____ Redrill ____ Stimulate X
Plug Off Old Formation ____ Perforate New Formation ____ Convert ____
Other Physical Change in Well (specify) ____

12) Geological target formation Fifth Sand Depth 3,240 Ft. (Top) to 3,251 Ft. (Bottom)

13) Estimated depth of completed well (or actual depth of existing well) 3400' TMD Ft.

14) Approximate water strata depths: Fresh 150 Ft. Salt 1,325 Ft.

15) Approximate coal seam depths: 675 Ft.

16) Is coal being mined in the area? ____ Yes X No

17) Virgin reservoir pressure in target formation: 1,250 psig. Source Estimated

18) Estimated reservoir fracture pressure: 2,650 psig.

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom Hole Pressure 2,400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery. Fresh water, produced water, bactericides

21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters

22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	7"	L.S.	17#	X		725'	725'	Cement to Surface	Tension
Coal									Sizes
Intermediate									2.375" x 4.5"
Production	4 1/2"	J-55	10.5#	X		3400'	3400'	150 sacks	Depths Set
Tubing	2 3/8"	J-55	4.6 #	X		3140'	3140'		3140'
Liners									Perforations
									Top Bottom

24) APPLICANTS OPERATING RIGHTS were acquired from Sarah E. Adams
by Deed ____ Lease X Other Contract ____ Dated July 26, 1899 of record in the
Harrison County Clerk's Office in Book 110 at Page 144

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Office of Oil and Gas
MAY 2 2014
WV Department of
Environmental Protection

33058015
ok

WW-3A
10/07

1) Date: May 1, 2014
2) Operator's Well No. S. E. Adams No. 146 R
3) API Well No. 47 033 - 47-033-5801
State County Permit
4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) Surface Owner(s) To Be Served
(a) Name Hilary Heights LTD - Beth A Taylor
Address 142 Valley Street
Salem, WV 26424
(b) Name Stacy & Lori Bokey
Address Rt. 1, Box 299 - 46
Mt. Clare, WV 26408
(c) Name
Address

6) Inspector Sam Ward
Address P. O. Box 2327
Buckhannon, WV 26201
Telephone 389-7583

7 (a) Coal Operator
Name NA
Address

7 (b) Coal Owner(s) With Declaration Of Record
Name NA
Address

Name
Address

7(c) Coal Lessee With Declaration Of Record
Wolf Run Mining Co.
2708 Cranberry Square
Morgantown, WV 26505

TO THE PERSON(S) NAMED ABOVE: You should have received this form and the following documents:

(1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
(2) The plat (surveyor's map) showing the well location on Form WW-6; and
(3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is To be determined

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM WW-3(A) DESIGNATED TO YOU. 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 Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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 the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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
Address 5260 Dupont Road
Parkersburg, WV 26101

By: Diane C. White
Its: Accountant

Signature Diane C White

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 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

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7013 2630 0001 9028 8860

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Postage	$ 1.40
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.19

Postmark Here
MAY 2014

SEA 146

Sent To: Stacy & Lori Bokey
Street, Apt. No.; or PO Box No.: Rt 1, Box 299-46
City, State, ZIP+4: Mount Clare WV 26408

PS Form 3800, August 2006 — See Reverse for Instructions

7013 2630 0001 9028 8846

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Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.19

Postmark Here
MAY 2014

SEA 146

Sent To: Hilary Heights - Attn Beth Taylor
Street, Apt. No.; or PO Box No.: 142 Valley Street
City, State, ZIP+4: Salem WV 26426

PS Form 3800, August 2006 — See Reverse for Instructions

7013 2630 0001 9028 8853

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Postage	$ 1.40
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.19

Postmark Here
MAY 2014

SEA 146

Sent To: Wolf Run Mining
Street, Apt. No.; or PO Box No.: 2708 Cranberry Sq
City, State, ZIP+4: Morgantown WV 26505

PS Form 3800, August 2006 — See Reverse for Instructions

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Office of Oil and Gas
MAY 2 2014
WV Department of
Environmental Protection

33058015
MOP

3305801S MOP

WW-2B1

Well No. S. E. Adams No. 146 R

West Virginia Department of Environmental Protection
Office of Oil and 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:

X Contractor Name Sturm Environmental Services

____ Well operator's private laboratory

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101

Telephone 304-420-1119

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.

No known Water Supply Sources are located within 1000' of proposed well but many water sources have been tested in conjunction with this Wolf Summit drilling program

Pertinent to this well site are:

Stacy & Lori Bokey
Rt. 1, Box 299 - 46
Mt. Clare, WV 26408

Hilary Heights - Attn: Beth A Taylor
142 Valley Street
Salem, WV 26426

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Environmental Protection

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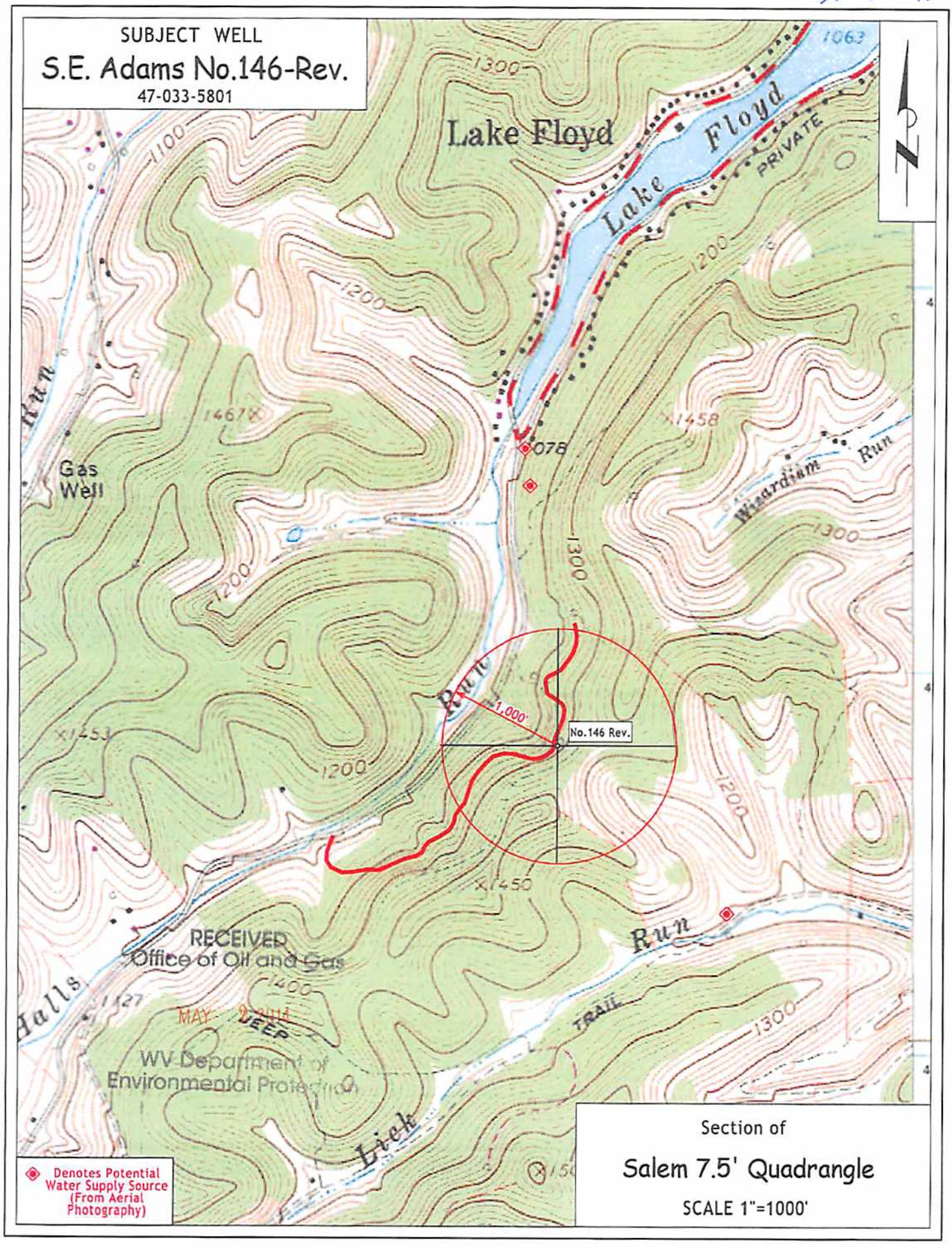

3305801S
MOP

Form WW-9
Rev. 10/94

API Number 47- 033 - 47-033-5801
Operator's Well No. S. E. Adams No. 146 R

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 Ten Mile Creek Quadrangle Salem 7.5'
Elevation 1267' County Harrison District Tenmile
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 worl 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:
X Land Application
____ Underground Injection (UIC Permit Number ____)
____ Reuse (at API Number ____)
____ Off Site Disposal (Supply Form WW-9 for disposal location)
____ Other (Explain ____)
Drilling medium anticipated for this well? Air, fresh water, oil based, etc. Air, Fresh Water
- If oilbased, what type? Synthetic, petroleum, etc. NA
Additives to be used? Water, Soap, KCI
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 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.

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

Subscribed and sworn before me this 1st day of May 2014
Tina L Pethtel Notary Public
My commission expires Nov 12, 2018

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

Form WW-9

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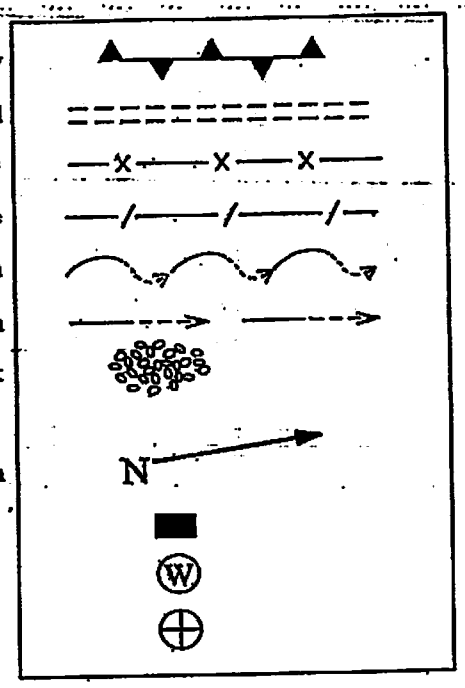
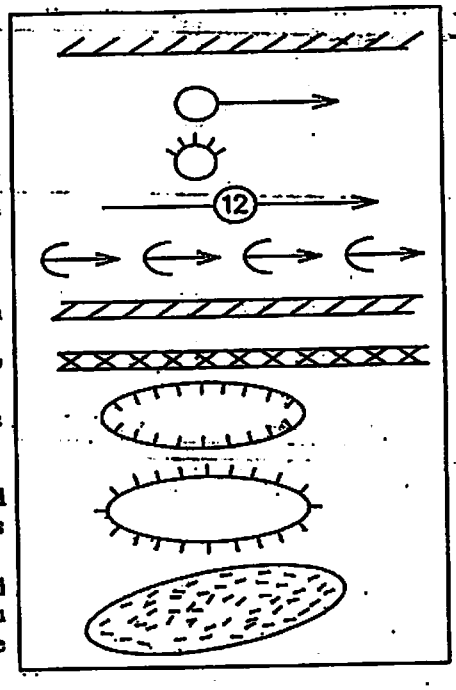
WV Department of
Environmental Protection

33058015
MOD

WW9-Back

Legend





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

Area II Approx. 1.0 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

Area I (Location)

Seed Type	Lbs/Ac.
Tall Fescue	40
Ladino Clover	5

Area II (Road)

Seed Type	Lbs/Ac.
Tall Fescue	40
Ladino Clover	5

Received
JAN - 2 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

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] Michael D. Goff

Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible per WV DEP E&S Manual. Upgrade E&S as necessary

Title: Oil & Gas Inspector Date: 12/23/2013

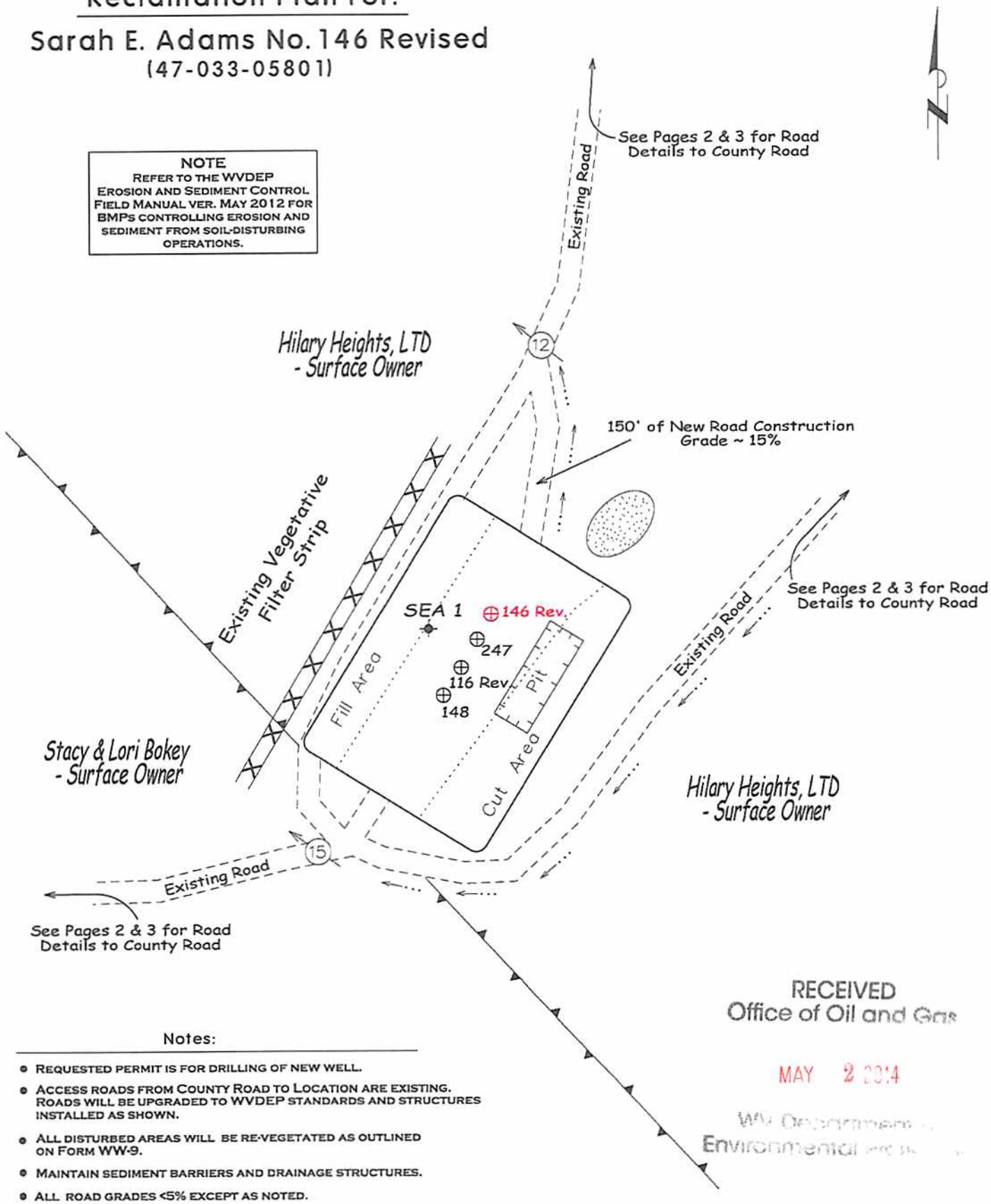
Field Reviewed? (Y) Yes ( ) No

3305801S MOD.

Reclamation Plan For:

Sarah E. Adams No. 146 Revised
(47-033-05801)

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



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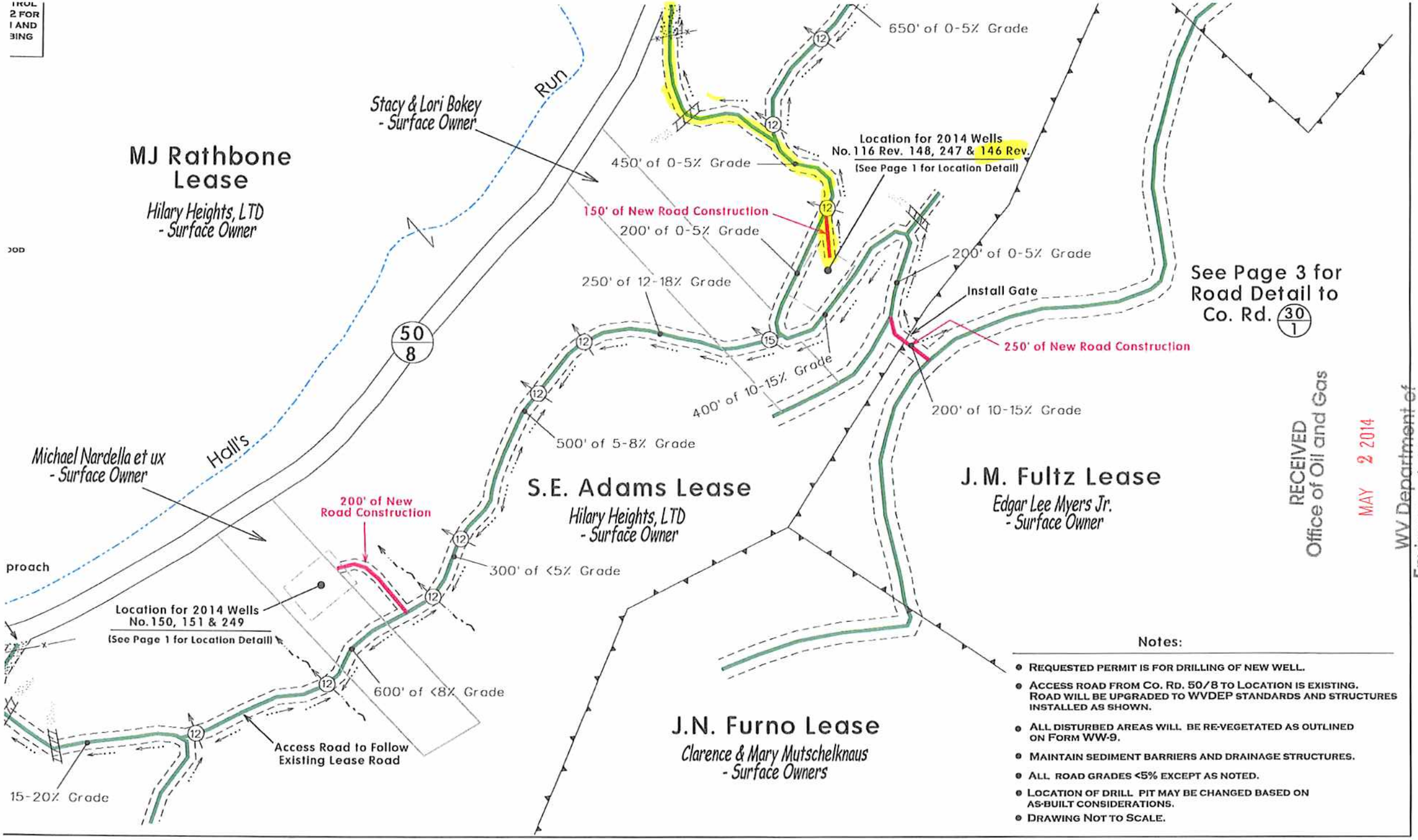
Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROADS FROM COUNTY ROAD TO LOCATION ARE EXISTING. ROADS 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.



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Office of Oil and Gas
MAY 2 2014
WV Department of Environmental Protection

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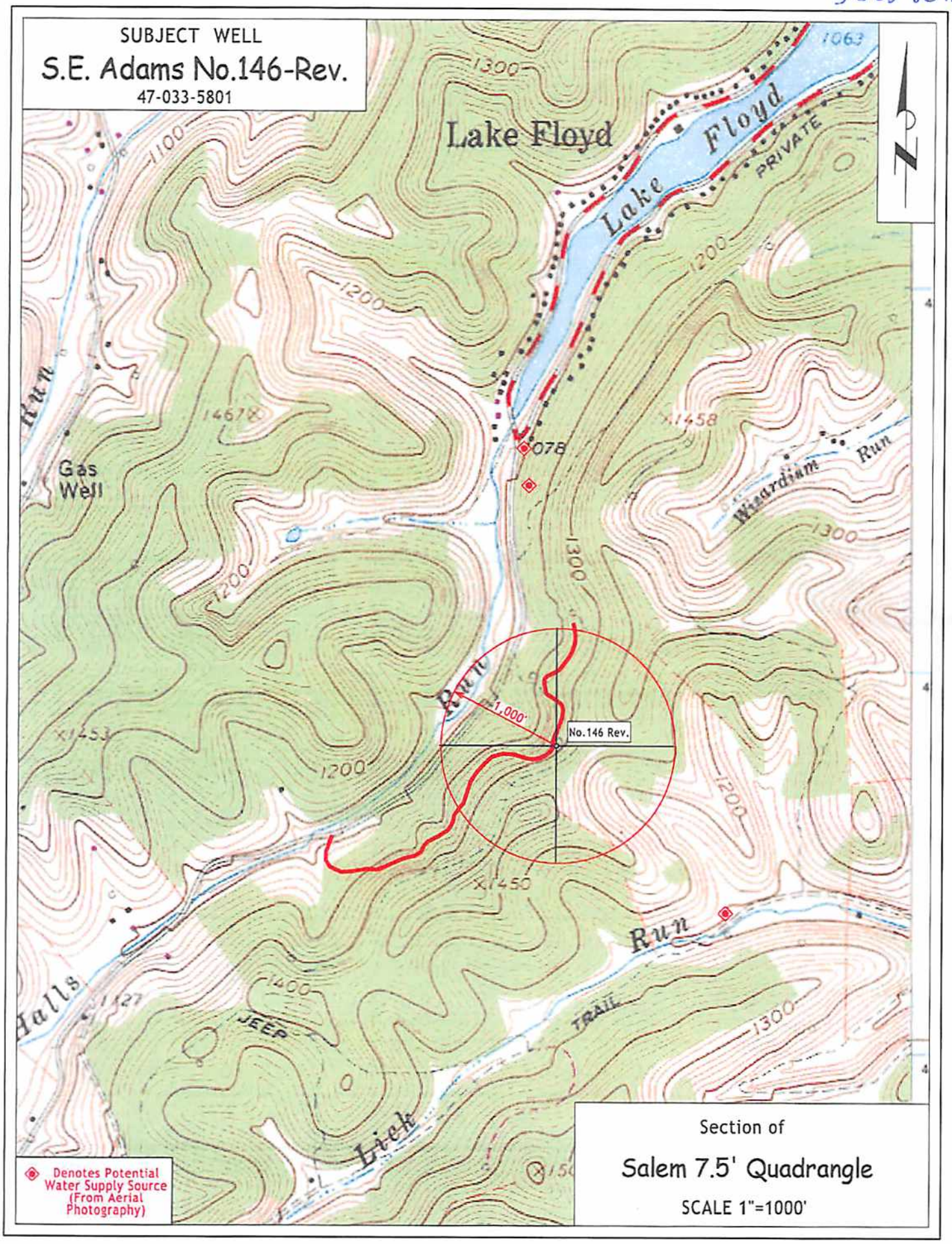
33058015M


SUBJECT WELL
S.E. Adams No.146-Rev.
47-033-5801
Lake Floyd
Lake Floyd
PRIVATE
1063
1300
1100
1200
1467
1458
078
Gas Well
Run
Wizardium Run
1300
1200
1,000'
No.146 Rev.
1453
1200
1200
1450
Run
Halls
1400
1127
JEEP
TRAIL
1300
Lick
Denotes Potential Water Supply Source (From Aerial Photography)
Section of
Salem 7.5' Quadrangle
SCALE 1"=1000'

(BOT. HL: LON:-80°30'39.6") LON:-80°30'38.3" 3015

SURVEY NOTES

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

2 - Surface owners, adjoiners information, Lease names, & line mapping obtained from 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-4,347,043m. E-542,228m.
Bottom Hole	N-4,347,295m. E-542,196m.

LOCATION REFERENCES
UTM 27
S 65°02' W 30.6' EX: WELL
S 26°02' W 175.7' 12" HICKORY
Brg. Direction is prop. well to the ref.

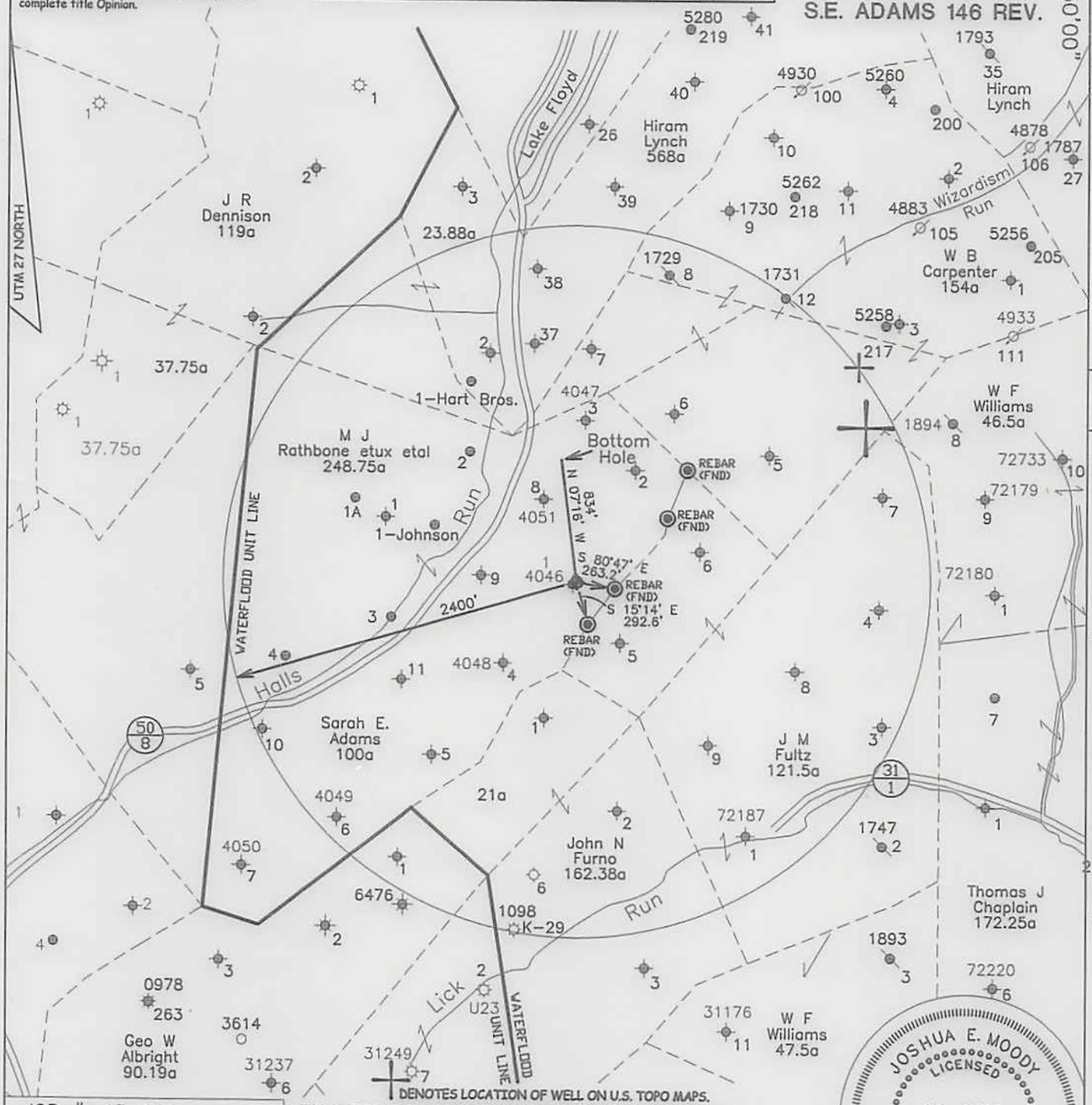
LAT: 39°17'30"

MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- S.E. ADAMS 146 REV.

LON: 80°30'00"

7300

LAT:39°16'17.8" (BOTTOM HOLE: LAT:39°16'26.0")



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

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 DEPTARTMENT OF ENVIRONMENTAL PROTECTION.

JOSHUA E. MOODY LICENSED NO. 2020 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

JOB # 13-014
DRAWING # 13LAKEFLOYD FOLDER
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1/2500
PROVEN SOURCE OF ELEV. BENCH MARK H-80

STATE OF WEST VIRGINIA MONTANI SEMPER LIBERI

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

MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170

JOSHUA E. MOODY, P.S. 2020

DATE 9/17/13 (REV.4/30/14)
OPERATOR'S WELL
S.E. ADAMS # 146 REV

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___ HORIZONTAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 1267' WATERSHED TEN MILE CREEK
DISTRICT TEN MILE COUNTY HARRISON
QUADRANGLE SALEM 7.5'

API WELL # 47 - 033 - 05801 S Mod.
STATE COUNTY PERMIT

SURFACE OWNER HILARY HEIGHTS LTD ACREAGE 241.54 ACRES +/-
OIL & GAS ROYALTY OWNER HILARY HEIGHTS LTD., et al LEASE ACREAGE 100 ACRES +/-
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 07°16' W 834')
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

COUNTY NAME PERMIT

FORM WW-6

3305801SM

(BOT. HL: LON:-80°30'39.6") LON:-80°30'38.3" 3015

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

2 - Surface owners, adjoiners information, Lease names, & line mapping obtained from HGE GIS system.

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

SURVEY NOTES

UTM Coordinates (Zone 17N-NAD 1983)	
Surface	N-4,347,043m. E-542,228m.
Bottom Hole	N-4,347,295m. E-542,196m.

LOCATION REFERENCES
UTM 27
S 65°02' W 30.6' EX: WELL
S 26°02' W 175.7' 12" HICKORY
Brg. Direction is prop. well to the ref.

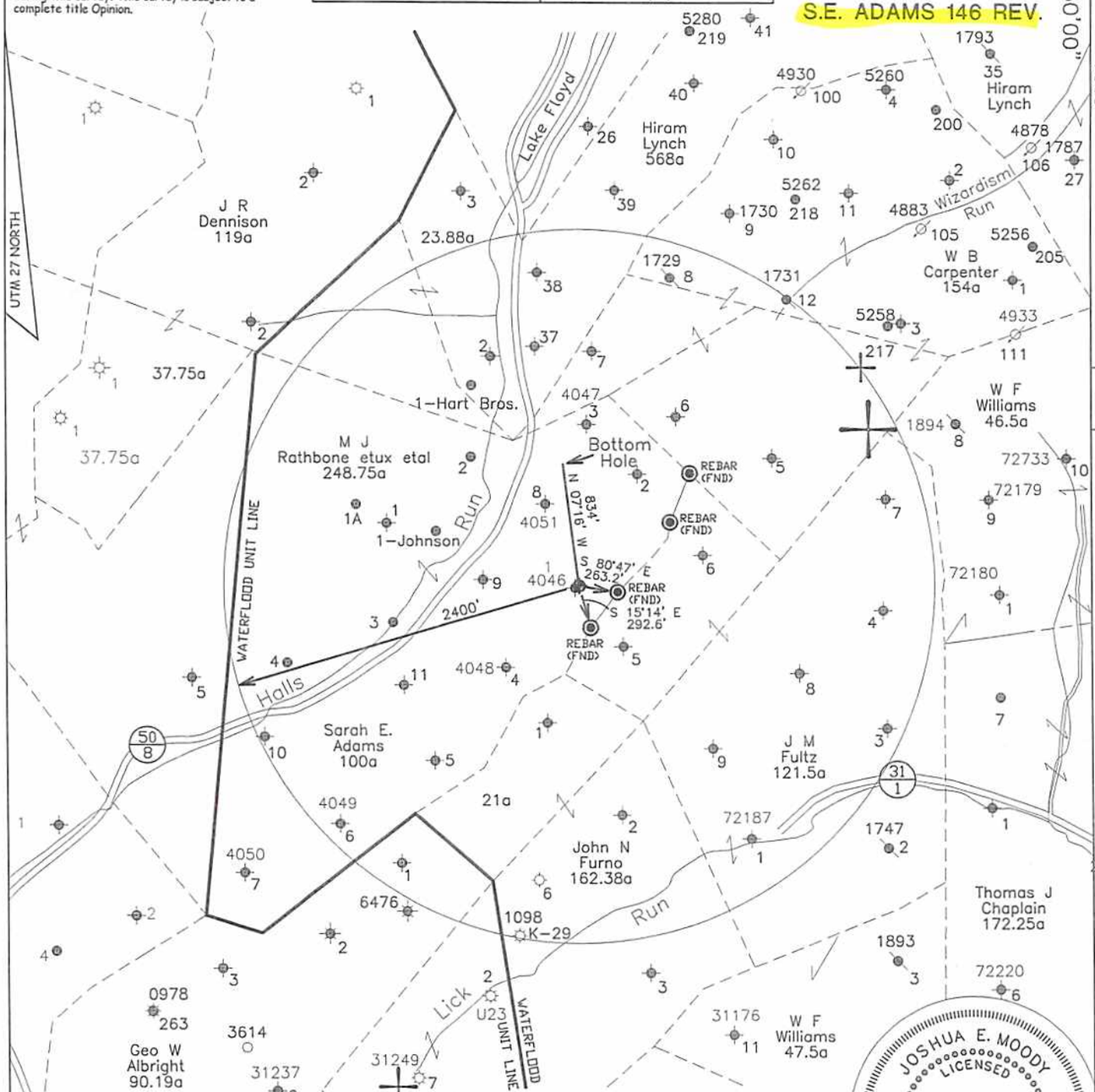
LAT: 39°17'30"

MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- S.E. ADAMS 146 REV.

LON: 80°30'00"

7300

LAT:39°16'17.8" (BOTTOM HOLE: LAT:39°16'26.0")



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

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 DEPTARTMENT OF ENVIRONMENTAL PROTECTION.

JOSHUA E. MOODY LICENSED NO. 2020 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

JOSHUA E. MOODY, P.S. 2020

JOB # 13-014
DRAWING # 13LAKEFLOYD FOLDER
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1/2500
PROVEN SOURCE OF ELEV. BENCH MARK H-80

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

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

MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170

DATE 9/17/13 (REV.4/30/14)
OPERATOR'S WELL
S.E. ADAMS # 146 REV

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___ HORIZONTAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 1267' WATERSHED TEN MILE CREEK
DISTRICT TEN MILE COUNTY HARRISON
QUADRANGLE SALEM 7.5'

API WELL # 47 - 033 - 05801S MOD.
STATE COUNTY PERMIT

SURFACE OWNER HILARY HEIGHTS LTD ACREAGE 241.5 ACRES +/-
OIL & GAS ROYALTY OWNER HILARY HEIGHTS LTD., et al LEASE ACREAGE 100 ACRES +/-
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 07°16' W 834')
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

COUNTY NAME PERMIT

RECEIVED Office of Oil and Gas MAY 1 8 2014 WV Department of Environmental Protection

FORM WW-6

3305801S

MOD

McLaughlin, Jeffrey W

From: Diane White <dwhite@hgenergyllc.com>
Sent: Thursday, May 01, 2014 5:31 PM
To: McLaughlin, Jeffrey W
Subject: Request for Revision for SE Adams 146 (API 47-033-05801)
Attachments: SE ADAMS 146 - REVISION REQUEST.pdf

Jeff,
Attached is the revision request for the SE Adams 146 we discussed earlier today. I've sent the certified mailings out and will send the notices to you when I get them back from the Post Office in the morning. I'll send a copy on to Sam as well.
As you'll see, the well is moving from one well pad to another one with three wells located on it. Let me know if you have any questions.
Thank You for Your Consideration,
Diane

Diane C. White

HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
304-420-1119 (O)
304-482-0108 (C)
304-863-3172 (F)
dwhite@hgenergyllc.com

RECEIVED
Office of Oil and Gas

MAY 2 2014

WV Department of
Environmental Protection