



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

June 17, 2014

WELL WORK PERMIT

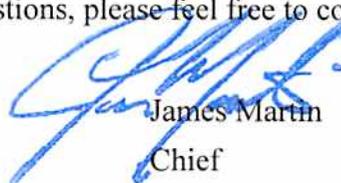
Vertical Well

This permit, API Well Number: 47-2105776, issued to HORIZON ENERGY CORPORATION, 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: MARSHALL NO. 1-A

Farm Name: MORRIS, I.L.

API Well Number: 47-2105776

Permit Type: Vertical Well

Date Issued: 06/17/2014

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.

2105776
ck# 115562
#650⁰⁰

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

1) Well Operator HORIZON ENERGY CORPORATION

306949	021	3	BURNSVILLE
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Operator ID County District Quadrangle

2) Operator's Well Number: MARSHALL NO. 1-A 3) Elevation: 1018'

4) Well Type: (a) Oil _____ or Gas XX
(b) If Gas: Production XX / Underground Storage _____
Deep _____ / Shallow XX

5) Proposed Target Formation(s): BIG INJUN & 5TH SAND Proposed Target Depth: 2837'

6) Proposed Total Depth: 2975' Feet Formation at Proposed Total Depth: 5TH SAND

7) Approximate fresh water strata depths: 300'

8) Approximate salt water depths: 1000'

9) Approximate coal seam depths: 186'

10) Approximate void depths,(coal, Karst, other): COAL

11) Does land contain coal seams tributary to active mine? NO

12) Describe proposed well work in detail _____
DRILL AND STIMULATE NEW WELL

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"	LS	36#	20'	0	
Fresh Water	7"	NS	15.5#	700'	700'	TO SURFACE
Coal				<i>Begin 0' Here</i>		<i>5-12-14</i>
Intermediate						
Production	4 1/2	ERW	10.5#		2950'	90 SKS
Tubing						
Liners						

Packers: Kind _____
 Sizes _____
 Depths Set _____

WW-2A
(Rev. 6-07)

1). Date: _____
2.) Operator's Well Number MARSHALL NO. 1-A
State County Permit
3.) API Well No.: 47- 021 - _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: (a) Name I. L. MORRIS W
Address PO BOX 397
GLENVILLE, WV 26351
(b) Name _____
Address _____
(c) Name _____
Address _____
5) (a) Coal Operator Name _____
Address _____
(b) Coal Owner(s) with Declaration Name _____
Address _____
(c) Coal Lessee with Declaration Name _____
Address _____
6) Inspector BRYAN HARRIS
Address P.O. BOX 157
VOLGA, WV 26238
Telephone 304-553-6087

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

XX Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

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

I have read and understand Chapter 22-6 and 35 CSR 4, 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.



OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Geraldine S. Moore
7307 Rosedale Road
Shock, WV 26638
My Commission Expires July 15, 2023

Well Operator HORIZON ENERGY CORPORATION
By: ROBERT R. JONES II
Title: PRESIDENT
Address P.O. BOX 111
SAND FORK, WV 26430
Telephone 304-462-5758

Subscribed and sworn before me this 6th day of June, 2014

Geraldine S. Moore Notary Public
My Commission Expires July 15, 2023

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 depprivacyofficer@wv.gov

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County GILMER Operator HORIZON ENERGY CORP.
Operator well number MARSHALL NO. 1-A

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, Wv 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

- The Chief has the power to deny or condition a well work permit based on comments on the following grounds:
- 1) The proposed well work will constitute a hazard to the safety of persons.
 - 2) The soil erosion and sediment control plan is not adequate or effective;
 - 3) Damage would occur to publicly owned lands or resources;
 - 4) The proposed well work fails to protect fresh water sources or supplies;
 - 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

Signature _____ Date 5-21-14
I. L. MORRIS
Print Name

FOR EXECUTION BY A CORPORATION, ETC.
Company Name _____
By _____
Its _____ Date _____
Signature _____ Date _____

Affidavit of Personal Service

State Of WEST VIRGINIA

County Of GILMER

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) / WW-3(A) / WW-4(A) / WW-5(A) / WW-6(A)
- (2) Application on Form WW-2(B) / WW-3(B) / WW-4(B) / WW-5(B) / WW-6(B)
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. MARSHALL NO.1 - located in GLENVILLE District, GILMER County, West Virginia, upon the person or organization named--

I.L. MORRIS, INDIVIDUALLY AND I.L. MORRIS DBA CENTRAL ENERGY
--by delivering the same in GILMER County, State of WEST VIRGINIA on the 21ST day of MAY, 2014 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him / her / or, because he / she / refused to take it when offered it, by leaving it in his / her / presence.

Handing it to a member of his or her family above the age of 16 years named who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to , a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named , or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee / officer / director / attorney in fact / named .

[Signature]
(Signature of person executing service)

Taken, subscribed and sworn before me this 21st day of May 2014.
My commission expires May 31, 2020.

Monna L. Gillespie
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



WW-2A1
(Rev. 1/11)

Operator's Well Number MARSHALL NO. 1-A

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
HAYDEN HARPER ENERGY KA, LLC	HORIZON ENERGY CORP.	1/8	505/557

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: HORIZON ENERGY CORPORATION
 By: ROBERT R. JONES II
 Its: PRESIDENT

WW-2B1
(5-12)

Well No. MARSHALL NO. 1-A

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.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name STURM ENVIRONMENTAL
Sampling Contractor _____

Well Operator HORIZON ENERGY CORPORATION
Address P.O. BOX 111
SAND FORK, WV 26430
Telephone 304-462-5758

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 underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

MIKE WEBB AND CHARLES SELMAN

MIKE WEBB
Rt 1 Box 152
ORLANDO, WV 26412

CHARLES SELMAN
Rt 76 Box 265
GLENVILLE, WV 26351

ROAD AND PIPELINE RIGHT OF WAY

For and in consideration of Five Hundred and 00/100 (\$500.00) the receipt of which is hereby acknowledged, the undersigned does hereby grant to **HORIZON ENERGY CORPORATION**, their successors and assignees, the right to open, repair, maintain and use a roadway on, over and through two tracts of land; a right of way to lay, maintain, operate and bury two 2" pipelines approximately 600' for the transportation of natural gas and/or oil on, over and through their land; the right to set 3 additional 100 barrel tanks at the existing Withers No. 1-D location along with a separator and meter on land identified on the Gilmer County Tax Map No. 30 as Tracts No. 75 and 76, situated in Glenville District, Gilmer County, State of West Virginia bounded and described as follows:

On the North by lands of State Rt. 5
On the South by lands of I.L. Morris
On the East by lands of Michael Lee Kelley
On the West by lands of I.L. Morris
containing 121 acre(s) of land more or less, upon the route described in general terms as follows:

Road way will leave County Route No. 44 and enter property from the Michael Kelley property and follow the existing road to the left, going up the hill and exiting left on the Withers No. E-1 well road, then going left to the Marshall Lease. The Right of Way will also continue on the existing roadway to the Withers No. 1-I well and follow the ridge approximately 300' to the Marshall Lease. Pipelines will be buried. Road and Pipe Line Right of Way are shown on Exhibit "A" attached.

It is understood and agreed that this Road Right of Way does not and shall not extend generally for the use of the public, but is limited to and for the use of the said Horizon Energy Corporation, its successors and assignees, for its employees, and for persons, firms and corporation doing work for said Corporation. Horizon Energy Corporation, their successors and assignees, will maintain the road.

WITNESS the following signatures and seals this 6th day of June, 2014.

WITNESS Sandra Pettit [Signature] (Seal)
I. L. Morris, Individually
WITNESS Sandra Pettit [Signature] (Seal)
I. L. Morris, dba Central Energy

STATE OF WEST VIRGINIA
COUNTY OF Gilmer, To-Wit:

The foregoing instrument was acknowledged before me this 6th day of June, 2014 by I. L. Morris, Individually and as President of Central Energy.

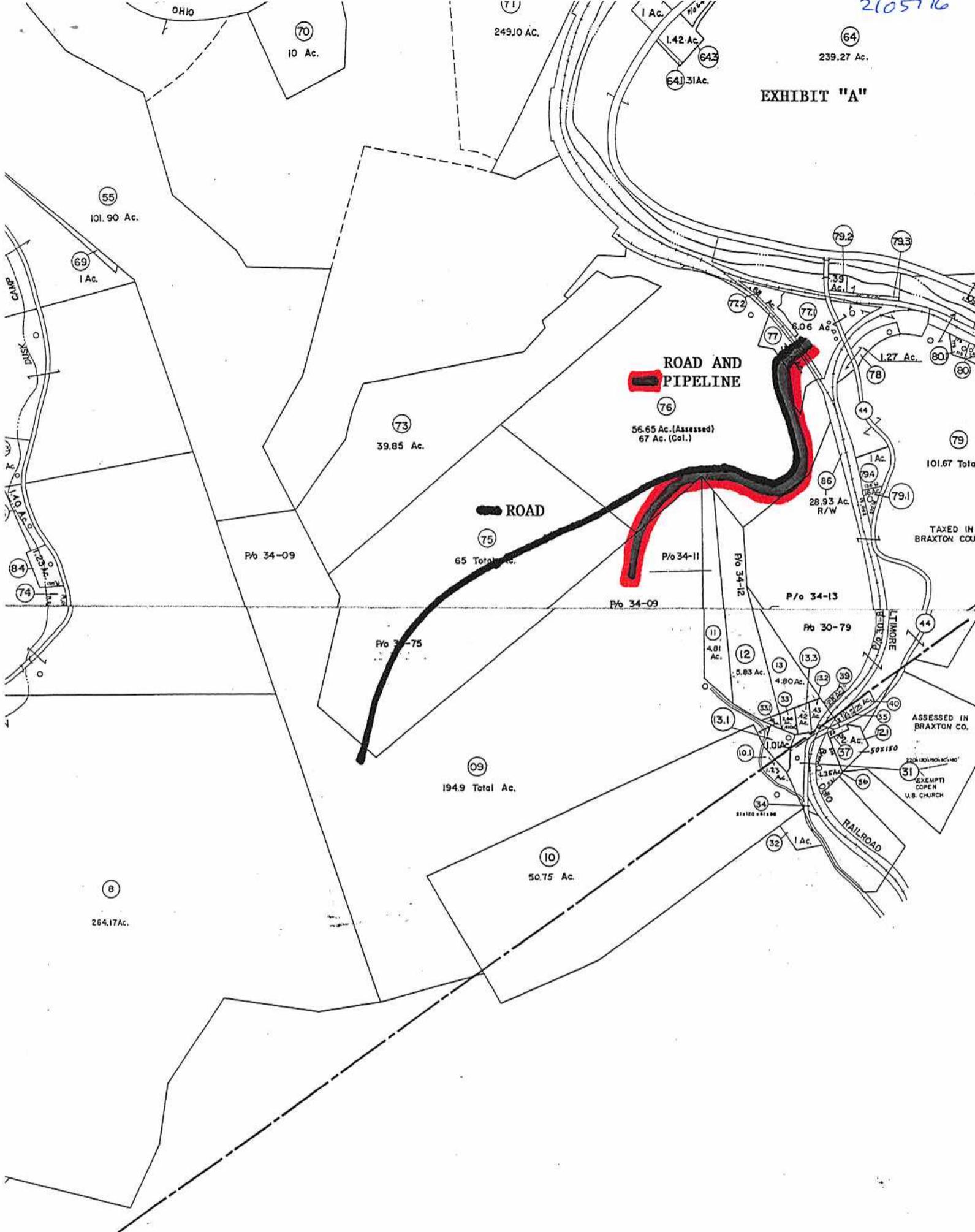
 NOTARY PUBLIC [Signature]

DECLARATION OF CONSIDERATION OF VALUE

I hereby declare the total consideration paid for the property conveyed by this document to which this declaration is appended is Five Hundred and 00/100 Dollars.

Given under my hand this 6TH day of JUNE, 2014.
[Signature]
Grantor, Grantee, Interested Party

EXHIBIT "A"



BRAXTON COUNTY

Jean Butcher
 GILMER County 01:56:10 PM
 Instrument No 33713
 Date Recorded 06/06/2014
 Document Type ROW
 Pages Recorded 2
 Book-Page 524-211
 Recording Fee \$5.00
 Transfer Tax \$2.20
 Additional \$26.00

ROAD RIGHT OF WAY

For and in consideration of Two Thousand (\$2,000.00) the receipt of which is hereby acknowledged, the undersigned does hereby grant to HORIZON ENERGY CORPORATION, their successors and assignees, the right to open, repair, maintain and use a roadway on, over and through a tract of land situated in Glenville District, Gilmer County, State of West Virginia bounded and described as follows:

On the North by lands of Kanawha River
On the South by lands of Darnell
On the East by lands of Darnell
On the West by lands of Withers & Vandever's lease
containing 6.06 acre(s) of land more or less, upon the route described in general terms as follows:

Leave Route 5 at Gilmer Station on County Route 44 crossing the Kanawha River, immediately after crossing the first railroad tracks, the right of way will go right on the existing road approximately 160 feet to Copen Run then entering on the Withers-Vandever lease. Culverts may be installed in Copen Run to provide accessible crossing.

It is understood and agreed that this road right of way does not and shall not extend generally for the use of the public, but is limited to and for the use of the said Horizon Energy Corporation, its successors and assignees, for its employees, and for persons, firms and corporation doing work for said Corporation. Horizon Energy Corporation, their successors and assignees will maintain the road.

WITNESS the following signature and seal this 23rd day of December, 2008.

WITNESS [Signature] Michael Lee Kelley (Seal)
Michael Lee Kelley

WITNESS [Signature] Lois Maxine Waldeck (Seal)
Lois Maxine Waldeck

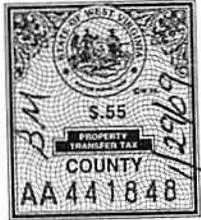


STATE OF WEST VIRGINIA
COUNTY OF Gilmer, To-Wit:

The foregoing instrument was acknowledged before me this 23rd day of December 20 08 by Michael Lee Kelley.

My commission expires May 31, 2010

NOTARY PUBLIC Monna L. Beamer

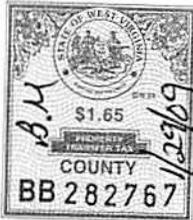
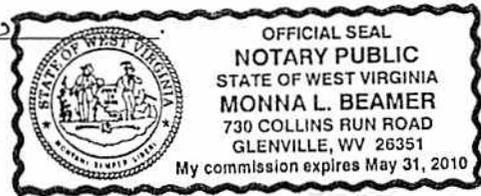


STATE OF WEST VIRGINIA
COUNTY OF Gilmer, To-Wit:

The foregoing instrument was acknowledged before me this 23rd day of December 20 08 by Lois Maxine Waldeck.

My commission expires May 31, 2010

NOTARY PUBLIC Monna L. Beamer



DECLARATION OF CONSIDERATION OF VALUE

I hereby declare the total consideration paid for the property conveyed by this document to which this declaration is appended is Two Thousand and 00/100 Dollars.

Given under my hand this 23rd day of December 2008.

[Signature]
Grantor, Grantee, Interested Party

RETURN TO: HORIZON ENERGY CORP., PO BOX 111, SAND FORK, WV 26430 2/5/09

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 Horizon Energy Corp. OP Code 306949

Watershed Copen Run Quadrangle Burnsville 7.5'

Elevation 1018' County Gilmer District Glenville

Description of anticipated Pit Waste: Water Encountered During Drilling

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

Will a synthetic liner be used in the pit? Yes. If so, what mil.? 4 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 _____)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used? N/A

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 N/A

-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 _____

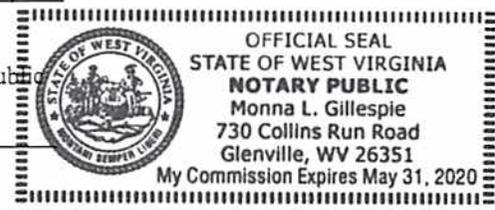
Company Official (Typed Name) Robert R. Jones, II

Company Official Title Designated Agent

Subscribed and sworn before me this 7th day of May, 2014

Monna L. Gillespie Notary Public

My commission expires May 31, 2020



LEGEND

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- Waterway
- Cross Drain
- Artificial Filter Strip
- Pit: cut walls
- Pit: compacted fill walls
- Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1± Prevegetation pH 5.5

Lime 2 Tons/acre or to correct to pH 6.5

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
67.29% Orchard Grass	9.87% Kentucky Blue Grass	Same	40
19.89% Timothy	2.95% Inert Matter	Same	40

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Diana O'Hara

Comments: _____

Title: Oil + Gas Inspector

Date: 6-9-14

Field Reviewed?

Yes

No

Horizon Energy Corp.

Note: Topsoil to be stockpiled

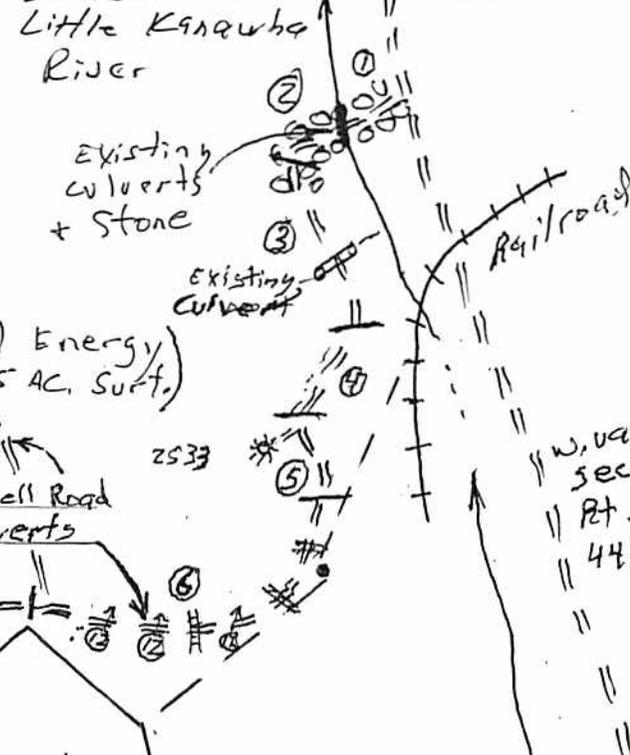
Marshall Lease 173.4 Ac. of 310 Ac. No. J-A

for use later in reclaiming

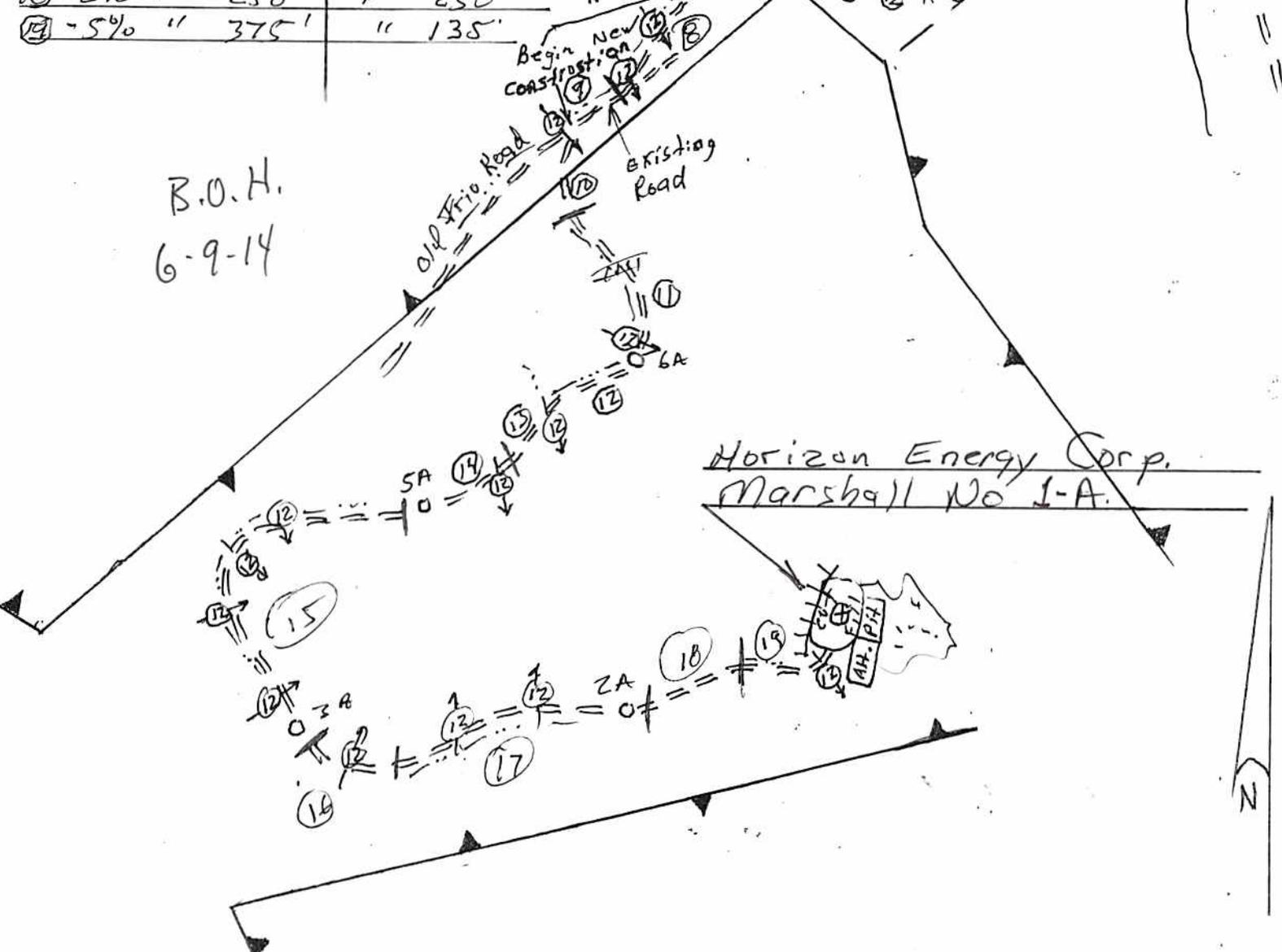
Surface Owner: I.L. Morris (less exceptions)

location site!

Road Grades	X-Drains
① -10% for 150'	Every 80'
② +10% for 80'	" 80'
③ +1% " 550'	" 400'
④ +6% " 350'	" 125'
⑤ +2% " 200'	" 250'
⑥ +20% " 1000'	" 45'
⑦ -2% " 200'	
⑧ -15% + 20% " 400'	" 45' to 60'
⑨ ±3% for 300'	" 190'
⑩ -4% " 150'	" 165'
⑪ -10% " 300'	" 80'
⑫ -6% " 200'	" 125'
⑬ -10% " 150'	" 80'
⑭ ±3% " 400'	" 190'
⑮ ±4% " 1400'	" 165'
⑯ +7% " 200'	" 115'
⑰ ±3% " 800'	" 190'
⑱ -2% " 250'	" 250'
⑳ -5% " 375'	" 135'



B.O.H.
6-9-14



Horizon Energy Corp.
Marshall No J-A.

This will be attached to the permit and becomes a part of the permitted activity.

1. Percent (%) of slope and distance of the road must be shown on the plan on all sections of the road from the location to the county road with the county road designation shown as. E.g.

2. Temporary seeding and mulching will be applied to all slopes and cuts on road and location upon construction.

3. All trees 6" and above will be cut and stacked away from any fill before dirt work begins or as construction progresses.

4. Cut and windrow all brush, stumps, and tree tops below fill areas on road and location for sediment control.

5. Ditchlines or diversion ditches will be established where ever water is to be coming from the cut areas on road and location.

6. Culverts will be used upon construction to get rid of all ditchline water and any other running water coming into the roadway. (Spacing to be as per Sediment and Eroision Control Manuel). Headwalls will be established and maintained at the culvert entrance. Sediment control will be established at the outlets by using hay bales or brush or any other method approved by the Inspector.

MOVING AWAY FROM HAY BALES AS SEDIMENT CONTROL

7. Natural and/or man made filter strips will be maintained based on the distance and slope from construction to the stream as per Sediment and Erosion Control Manuel.

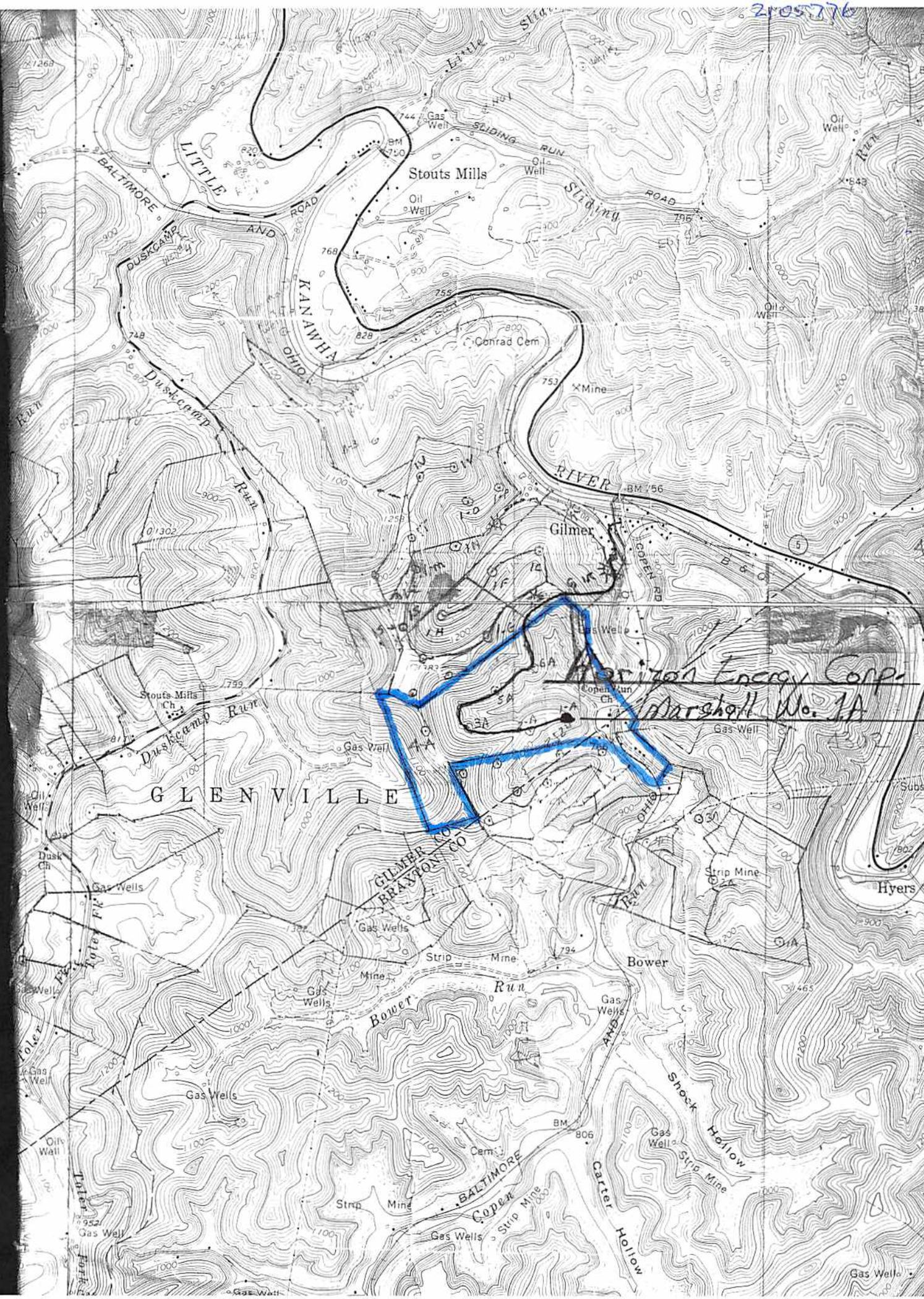
USE SUPER SILT FENCE INSTEAD, COMPOST FILTER SOCKS OR ROCK CHECKS

8. Upon Reclamation use cross ditches or water bars for road surface water control only (not for ditchline water). All outlets will have sediment control by using staked hay bales or brush. Spacing will be as follows based on the slope of the sections of road:

% of slope	Spacing Cross Ditches.	% of slope	Spacing Broad Based Dips
1	400 ft.	2	300 ft.
2	250 ft.	3	235 ft.
5	135 ft.	4	200 ft.
10	80 ft.	5	180 ft.
15	60 ft.	6	165 ft.
20	45 ft.	7	155 ft.
		8	150 ft.
		9	145 ft.
		10	140 ft.

9. The minimum amount of materials to be used for reclamation will be as shown on the plan. The Ph of the soil is to be determined prior to construction and shown on the plan.

10 A liner will be used for the Pit. *20 MIL.*



Marshall Energy Corp.
Marshall No. 1A

GLENSVILLE

GILMER CO
 BRAXTON CO

Hyers

Bower

Copen

Carter
 Hollow

Shook
 Hollow

Toler
 Hollow

Bower
 Run

Stout's Mills
 Ch

Copen
 Run
 Ch

Gas Well

Gas Well

Oil Wells

Dusk
 Ch

Gas Wells

Gas Wells

Mine

Gas Wells

Gas Wells

Strip Mine

Gas Wells

Gas Wells

Strip Mine

Gas Well

Strip Mine

Gas Well

Substa

7802

900

6A

465

200

100

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1000

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Oil Well

643

Oil Well

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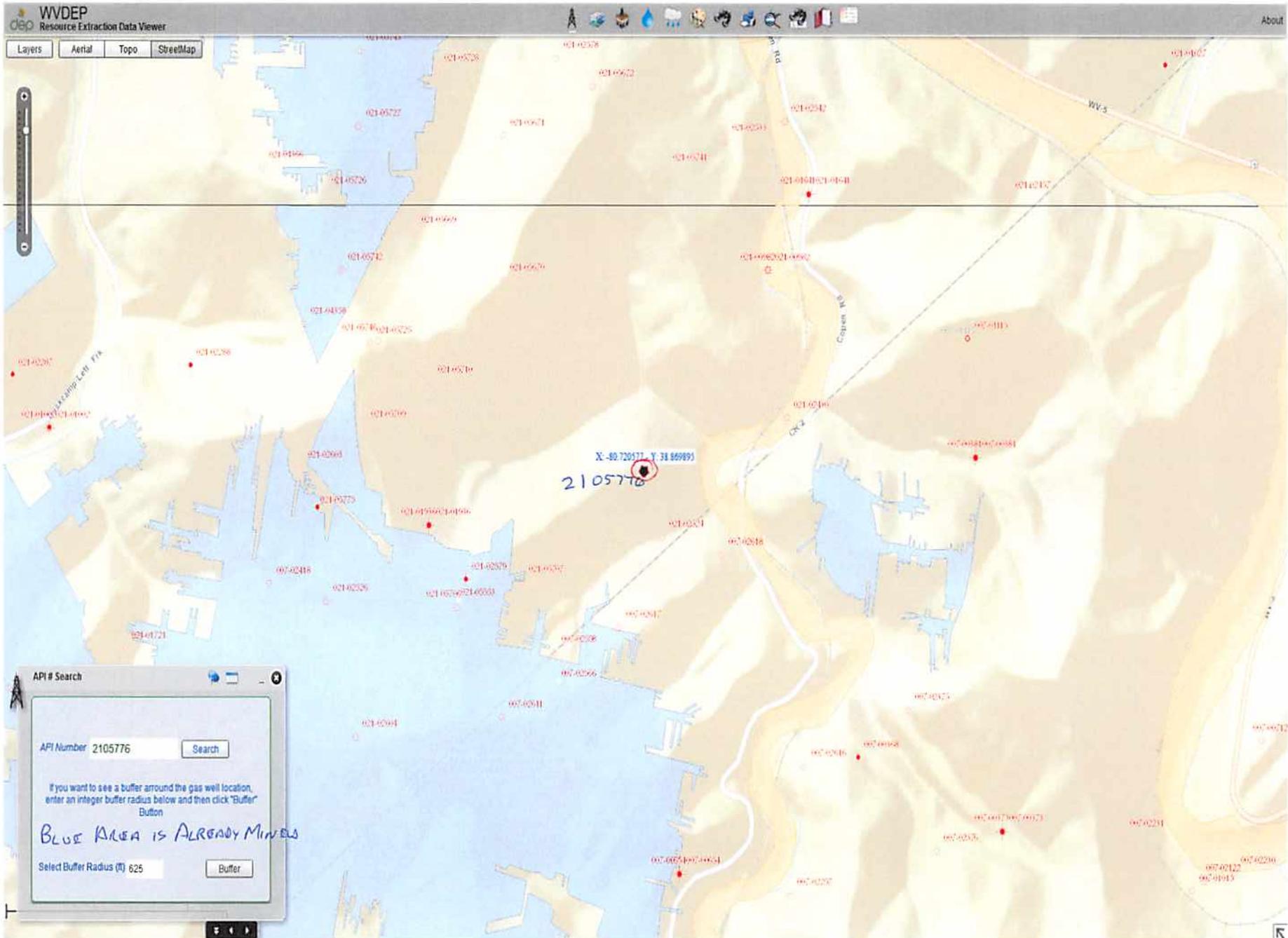
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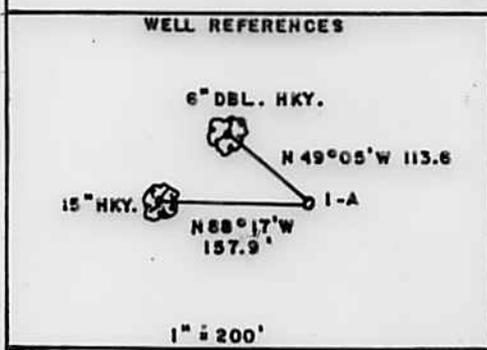
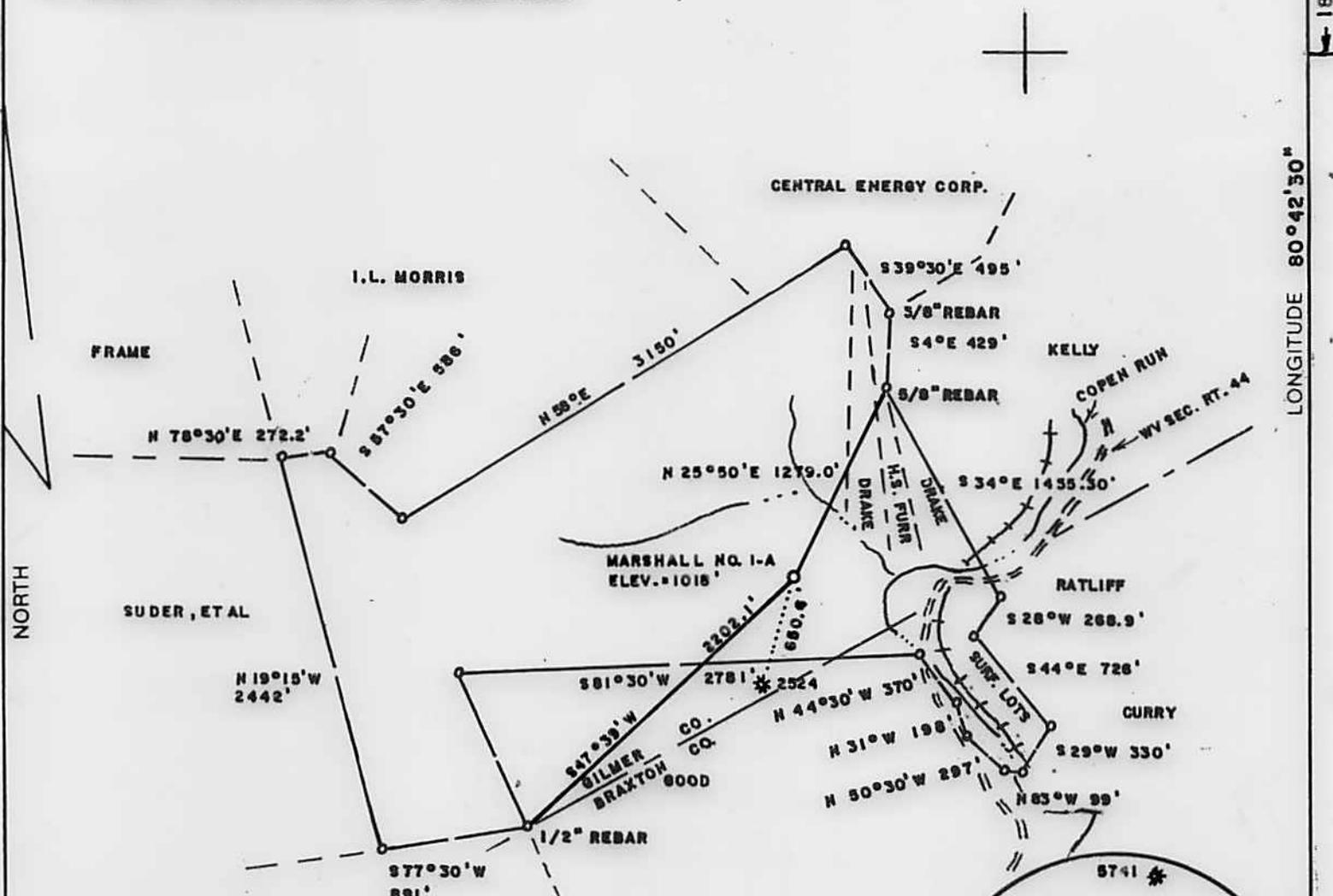


2105776

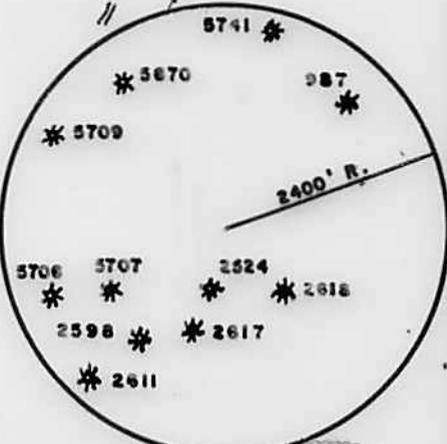
← 3450' W →
 LATITUDE 38°52'30" →

MARSHALL LEASE 173.40 AC. of 310 AC.

I.L. MORRIS 173.40 AC. SURF. LESS EXCEPTIONS



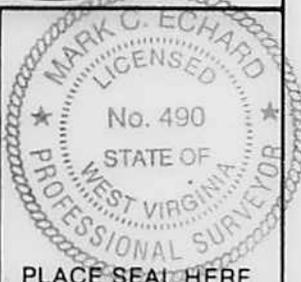
MARSHALL NO. 1-A
 UTM ZONE 17-8
 N = 4,302,376
 E = 0,524,240



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

FILE NO. _____
 DRAWING NO. _____
 SCALE **1" = 1000'**
 MINIMUM DEGREE OF ACCURACY **1/200**
 PROVEN SOURCE OF ELEVATION **BM NORTH OF LEASE**
ELEV. = 756'

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) Mark C. Echard
 R.P.E. _____ L.L.S. **490**



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE MAY 1, 2014
 OPERATOR'S WELL NO: MARSHALL NO. 1-A
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW

LOCATION: ELEVATION 1018' WATER SHED COPEN RUN
 DISTRICT GLENVILLE COUNTY GILMER
 QUADRANGLE BURNSVILLE 7.5'

SURFACE OWNER I.L. MORRIS ACREAGE 173.4 LESS EXC.
 OIL & GAS ROYALTY OWNER R.R. MARSHALL ESTATE, ET AL LEASE ACREAGE 173.40 of 310
 LEASE NO. _____

PROPOSED WORK: DRILL 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 5th SAND ESTIMATED DEPTH 2975'
 WELL OPERATOR HORIZON ENERGY CORP. DESIGNATED AGENT ROBERT R. JONES II
 ADDRESS SAND FORK ROAD BOX 111 ADDRESS SAND FORK ROAD BOX 111
SAND FORK, WV 26430 SAND FORK, WV 26430

LONGITUDE 80°42'50" W

FORM WW-6

McLaughlin, Jeffrey W

From: jahaga@frontier.com
Sent: Monday, June 16, 2014 2:00 PM
To: Cooper, Laura K; McLaughlin, Jeffrey W
Subject: Horizon Energy Permits Marshall No 1A (API2105776)

Jeff sorry but ladies first. So Laura's answer is first:
Horizon has old mine maps that show they will be outside of the mined out area. But, if a void is encountered Horizon will run 9 5/8" 50' below the void and hang 2 baskets directly above the void and cement it in, I believe this is called a balance job.

The water test folks are as follows:

Charles Selman
RT 76 Box 265
Glenville WVa 26351

Mike Webb
RT 1 Box 152
Orlando WVa 26412

Please email me the cover page for these once they are issued. Thanks for the help!! Jamie