



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

July 23, 2014

WELL WORK PERMIT

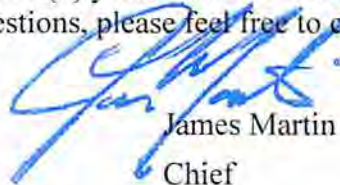
Vertical Well

This permit, API Well Number: 47-8510112, issued to HAUGHT 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: W-1649
Farm Name: HAUGHT, IRA M.
API Well Number: 47-8510112
Permit Type: Vertical Well
Date Issued: 07/23/2014

Promoting a healthy environment.

07/25/2014

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. 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 with 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.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

CK 4031
1300
3650⁰⁰

WW - 2B
(Rev. 8/10)

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

4 393

1) Well Operator: Haught Energy Corporation 494494463 Ritchie Union Harrisville
Operator ID County District Quadrangle

2) Operator's Well Number: W-1649 3) Elevation: 954'

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

5) Proposed Target Formation(s): Lower Devonian/Marcellus Proposed Target Depth: 6100'

6) Proposed Total Depth: 6150' Feet Formation at Proposed Total Depth: Onandoga Lime

7) Approximate fresh water strata depths: 75'

8) Approximate salt water depths: None Noted in Offset Wells

9) Approximate coal seam depths: None Noted in Offset Wells

10) Approximate void depths, (coal, Karst, other): None Noted in Offset Wells

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

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Drill new Oil & Gas Well. Stimulate with Nitrogen and/or Slick Water fracturing methods including approximately 700,000 SCF Nitrogen Per Stage and/or approximately 9500 Barrels water. (Fraq pit not to exceed 5,000 Bbls, will supplement with tanks)

RECEIVED
Office of Oil and Gas

13) **CASING AND TUBING PROGRAM**

MAY 08 2014
CEMENT

TYPE	SPECIFICATIONS	FOOTAGE	INTERVALS	CEMENT		
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill (Department of Environmental Protection)
Conductor	13-3/8"	R-2	43.6#	30'	30'	Grout to Surface
Fresh Water	9-5/8"	R-3	26#	300'	300'	To Surface
Coal	NA	NA	NA	NA	NA	NA
Intermediate	7"	R-3	17#	2100'	2100'	To Surface
Production	4-1/2"	R-3	10.5#	6150'	6150'	250 Sacks, 3000' Fillup
Tubing	NA	NA	NA	NA	NA	NA
Liners	NA	NA	NA	NA	NA	NA

Packers: Kind: NA
Sizes: NA
Depths Set NA

Per WVDEP Guidelines, it is the intention of Haught Energy Corporation to drill no further than twenty feet into the Onandoga Limestone during the drilling of this well.

David Williams
5-5-14 07/25/2014

Addendum to WW-9
W-1649
Haught Energy Corporation

It is the intention of Haught Energy Corporation to build a pit capable of holding 5,000 Bbl of fresh water to be used in the fracturing of well W-1649. This pit will be built separate of the drilling pit and will be used in a temporary manner. The walls will be compacted as needed to ensure a stable structure and a liner will be used in the pit. The pit will be built and filled with fresh water then used as expeditiously as possible to fracture the well. Following fracturing the well, the flowback will be completed and once the flowback has been completed, all flowback water shall be hauled from this pit to an injection facility for disposal. Once the pit has been dried out, reclamation will ensue. It is the Intention of Haught Energy to use this pit as a temporary structure and not a long standing impoundment.

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Ritchie

Operator Haught Energy Corporation
Operator well number W-1649

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

FOR EXECUTION BY A CORPORATION, ETC.

[Signature]
Signature

Date 5/6/14 Company Name _____
By _____
Its _____

Ira M Haught
Print Name

_____ Date

Signature Date

WW-2A1
(Rev. 1/11)

Operator's Well Number W-1649

**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
Ira Haught	Whittle Corporation	1/8	246/10

Whittle Corporation is a wholly owned subsidiary of Haught Energy Corporation and as owner of Whittle Corporation, Haught Energy Corporation has full right to drill and complete an oil and gas well on the above property with leases taken and agreements put into place by Whittle Corporation. (Agreement Attached)

**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:
By: Its:

Haught Energy Corporation

Warren R. Haught
Agent

07/25/2014

AGREEMENT

THIS AGREEMENT , Made this 1st day of December, 2010, by and between Whittle Corporation, HC 68 Box 14, Smithville, WV 26178 as party of the First part and Haught Energy Corporation, HC 68 Box 14, Smithville, WV 26178 as Party of the second part.

WHEREAS:

Haught Energy Corporation is the parent company of Whittle Corporation.

WITNESSETH:

Whittle Corporation gives Haught Energy Corporation the right to operate and develop any leases that are owned by Whittle Corporation within the State of West Virginia.

IN WITNESS WHEREOF, the Parties have caused this Assignment to be properly executed the day and year first above written.

Whittle Corporation

Warren R. Haught

Name: Warren R. Haught

Title: President

Haught Energy Corporation

B. Douglas Haught

Name: B. Douglas Haught

Title: President

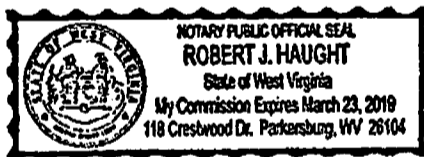
STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared WARREN R. HAUGHT appearing herein in his capacity as the PRESIDENT of WHITTLE CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

[Signature]

NOTARY PUBLIC



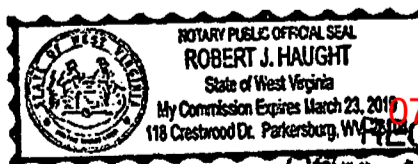
STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared B. DOUGLAS HAUGHT appearing herein in his capacity as PRESIDENT of HAUGHT ENERGY CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

[Signature]

NOTARY PUBLIC



This Document Prepared by:

Whittle Corporation
HC 68 Box 14
Smithville, WV 26178

RECEIVED
Office of Oil and Gas
MAY 08 2014
WV Department of Environmental Protection

WW-2B1
(5-12)

Well No. W-1649

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 Microbac Laboratories
Sampling Contractor 158 Starlight Dr, Marietta, OH 45750

Well Operator Haught Energy Corporation
Address 12864 Staunton TPKE
Smithville, WV 26178
Telephone 304-477-3333

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.

No water wells within 1,000 feet of wellbore, will sample water source within 2,000 feet of well bore

Surfaces owners Contacted:

Ira M. Haught	Brian & Christina Knight
210 East Main Street	8106 Cairo Road
Harrisville, 26362	Harrisville, WV 26362

07/25/2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Haught Energy Corporation OP Code 494494463

Watershed (HUC 10) Back Run Quadrangle Harrisville

Elevation 954' County Ritchie District Union

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

Will a pit be used for drill cuttings? Yes X No _____

If so, please describe anticipated pit waste: Drilling Water/ Fluid - Flow Back

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number UIC2D0859721)
- _____ Reuse (at API Number _____)
- _____ Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? No

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

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

Additives to be used in drilling medium? TD 200 Drilling Soap (If Necessary)

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave Drill Cutting in Pit / Solidify Marcellus Cuttings

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

-Landfill or offsite name/permit number? NA

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 Warren R. Haught

Company Official (Typed Name) Warren Haught

Company Official Title Agent

Subscribed and sworn before me this 5th day of MAY, 20 14

[Signature]

Notary Public

My commission expires MARCH 23, 2019



07/25/2014

Form WW-9

Operator's Well No. W-1649

Proposed Revegetation Treatment: Acres Disturbed 2.5 AC Prevegetation pH 5.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)

Mulch 90 bales Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Pasture Mix	100	Pasture Mix	100
(Orchard Grass, Rye Grass, Timothy, Clover)		(Orchard Grass, Rye Grass, Timothy, Clover)	

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: proceed a mulch all out area no less than 2 ton per acre maintain all P&S during operation

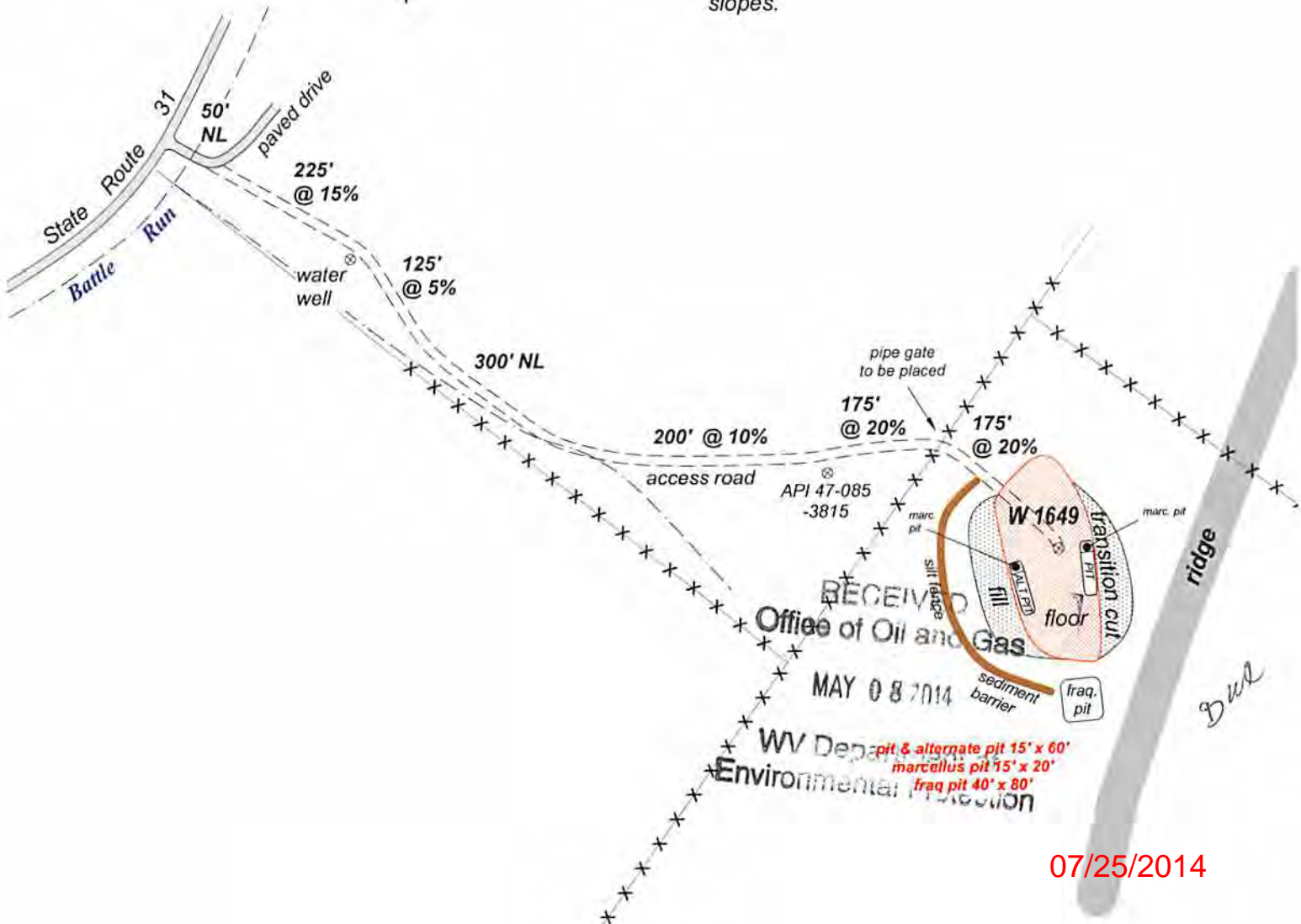
Title: oil & gas impurities Date: 5-5-14

Field Reviewed? Yes No

**Haught Energy, Inc.
Well: W 1649
Ira M. Haught 53 Acre Lease
Union District Ritchie County West Virginia**

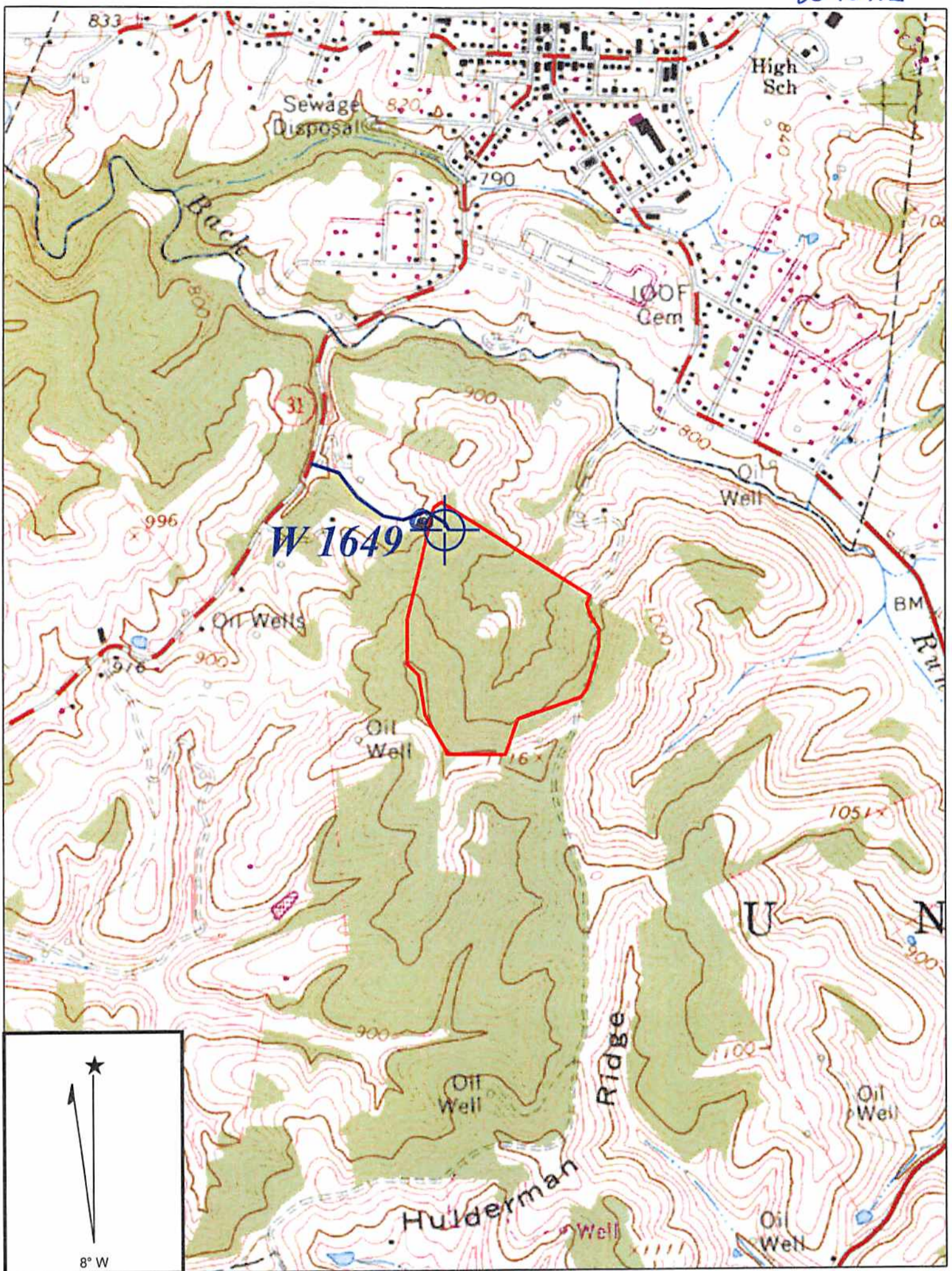
NOT TO SCALE
N

- 1: Erosion and sediment control will be used as per West Virginia erosion and sediment field manual and/or directed by district inspector.
- 2: Cross drains and sediment control will be placed as needed.
- 3: Amount and size of culverts to be placed where needed.
- 4: Cut and stack all trees 6 inches and above.
- 5: Stockpile top soil for reclamation purposes.
- 6: Temporarily seed and mulch all slopes.



07/25/2014

8510112



Copyright (C) 1997, Maptech, Inc.

HARRISVILLE QUADRANGLE

SCALE 1" = 1000'

HAUGHT ENERGY CORP.

IRA M. HAUGHT 53 ACRE LEASE

UNION DISTRICT RITCHIE COUNTY WEST VIRGINIA Department of Environmental Protection

Dual
5-5-14

07/25/2014

RECEIVED
Office of Oil and Gas

MAY 08 2014

81°03' 16.42" (81.054561)

3670'

LATITUDE

39°12' 30"

LONGITUDE

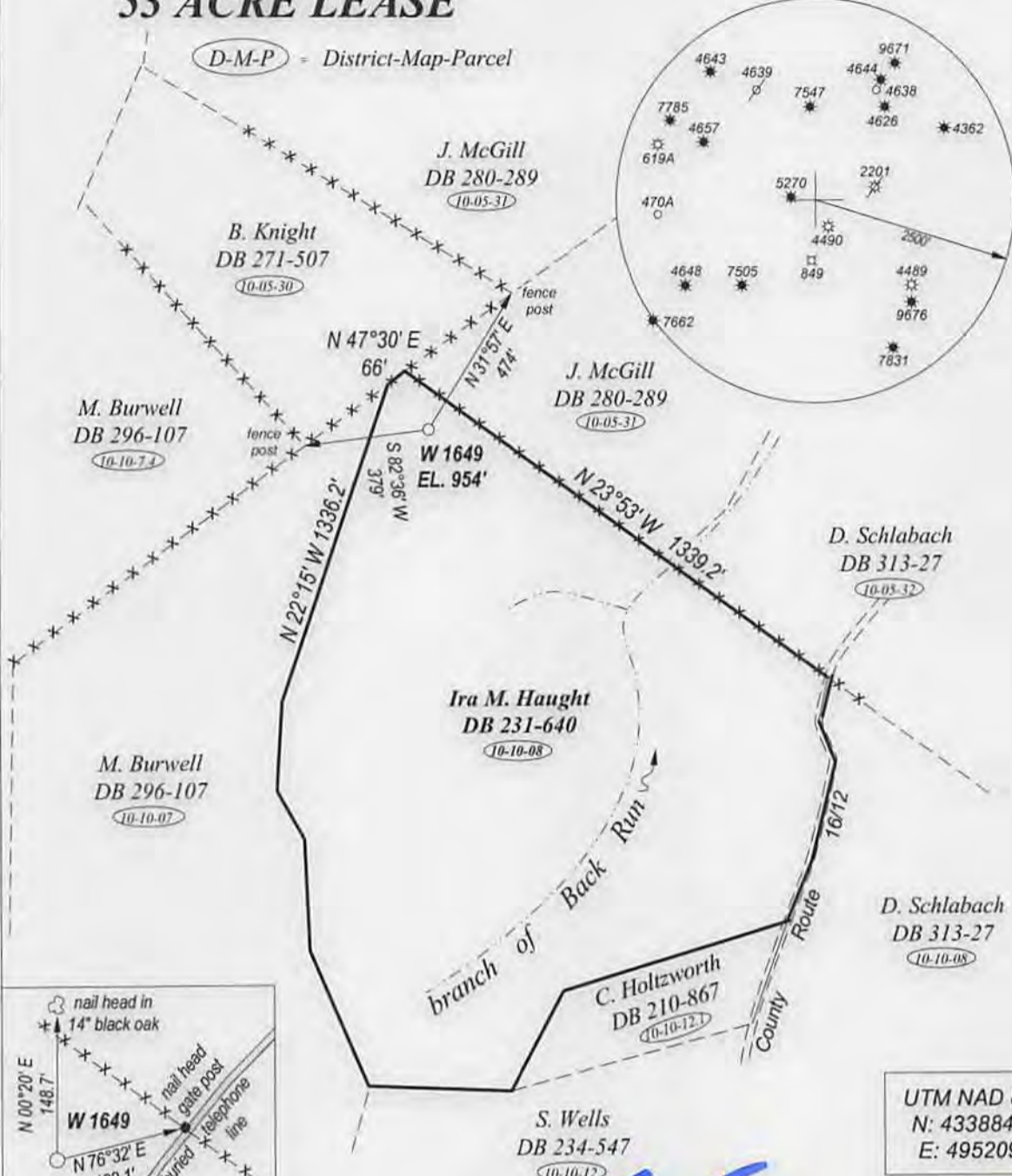
81°02' 30"

3440'

39°11' 55.93" (39.198869)

IRA M. HAUGHT 53 ACRE LEASE

(D-M-P) = District-Map-Parcel



UTM NAD 83
N: 4338847
E: 495209

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION GPS OBSERVATION

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) _____
PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

DATE APRIL 29TH, 2014
OPERATORS WELL NO. W 1649

API 47 - 085 - 10112
STATE COUNTY PERMIT

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

LOATION: ELEVATION 954' WATER SHED BACK RUN
DISTRICT UNION COUNTY RITCHIE QUADRANGLE HARRISVILLE

SURFACE OWNER IRA M. HAUGHT ACREAGE 53
OIL & GAS ROYALTY IRA M. HAUGHT LEASE AC. 53

PROPOSED WORK: DRILL XX CONVERT DRILL DEEPER REDRILL
FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION
OTHER PHYSICAL CHANGE IN WELL
PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION LOWER DEVONIAN - MARCELLUS ESTIMATED DEPTH 6000'

WELL OPERATOR HAUGHT ENERGY CORP. DESIGNATED AGENT WARREN HAUGHT
ADDRESS 12864 STAUNTON TURNPIKE ADDRESS 12864 STAUNTON TURNPIKE
SMITHVILLE, WV 26178 SMITHVILLE, WV 26178

FORM WW - 6

COUNTY NAME
PREMIT

07/25/2014

8510112



May 6, 2014

To: WVDEP
Office of Oil and Gas
601 57th St SE
Charleston, WV 25304

From: Haught Energy Corporation
12864 Staunton Turnpike
Smithville, WV 26178

Re: Permit Applications for new wells: W-1646 & W-1649

Enclosed are the Haught Energy Corporation permit applications for two separate wells located on separate lease properties. Also enclosed is a check for the fees associated with both permit applications. The surface owner waiver is attached for the W-1649 well along with the affidavit of delivery to the surface owner. The certified receipts for the surface owners of the W-1646 well are attached to that permit and we will send down images of the green cards once we receive them back in the mail. Please let us know if there is anything further you may need to process these permits.

Thanks,

A handwritten signature in blue ink, appearing to read "Bobby Haught", is written over a light blue horizontal line.

Bobby Haught

Business Development Manager

07/25/2014