



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

November 04, 2013

WELL WORK PERMIT


Rework-Secondary Recovery

This permit, API Well Number: 47-10301658, 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: C. C. PENNICK G-15
Farm Name: WV PUBLIC LANDS CO.

API Well Number: 47-10301658

Permit Type: Rework-Secondary Recovery

Date Issued: 11/04/2013

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.
8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work



Farm name: WV PUBLIC LANDS CORP.

Operator Well No.: C C PENNICK G-15

LOCATION: Elevation: 1,295.00

Quadrangle: CENTERPOINT 7.5'

District: GREEN

County: WETZEL

Latitude: 7,625 Feet south of

39 Deg 30 Min 0 Sec.

Longitude: 7,900 Feet west of

80 Deg 40 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: MICHAEL MCCOWN

Inspector: MIKE UNDERWOOD

Permit Issued: 07/08/03

Well work Commenced: 10/03/03

Well work Completed: 11/07/03

Verbal plugging

permission granted on:

Rotary X Cable _____ Rig _____

Total Depth (feet) 3371

Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	528.00	528.00	existing
4 1/2"	3276.00'	3276.00'	existing
2 7/8"	3343.80'	3343.80'	50 sks

OPEN FLOW DATA

Waterflood injector directionally drilled to new bottom hole location

Producing formation Gordon Pay zone depth (ft) 3257-3274

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) _____ after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) _____ after _____ Hours

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

RECEIVED
Office of Oil and Gas
SEP 26 2013

For: EAST RESOURCES, INC.

By: [Signature]

Date: 11/7/03

WV Department of
Environmental Protection

Treatment :

Treated perforations 3262'-3273' w/ 250 gals 15% HCL, 294 bbls cross linked gel and 19,800 # 20/40 sand

This well was partially plugged, a whipstock set at 2330', and directionally drilled to a new bottom hole location 433' S 78.6° W of surface location.

Well Log :

See original well record	0'	2330'	TVD
Big Lime	2330'	2420'	MD
Big Injun	2420'	2538'	MD
Shale	2538'	3220'	MD
Gordon Stray	3220'	3246'	MD
Shale	3246'	3254'	MD
Gordon	3254'	3274'	MD
Shale	3274'	3371'	MD
TD	3371'		MD

WW-2B1

Well No. C. C. Pennick No. G-15

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:

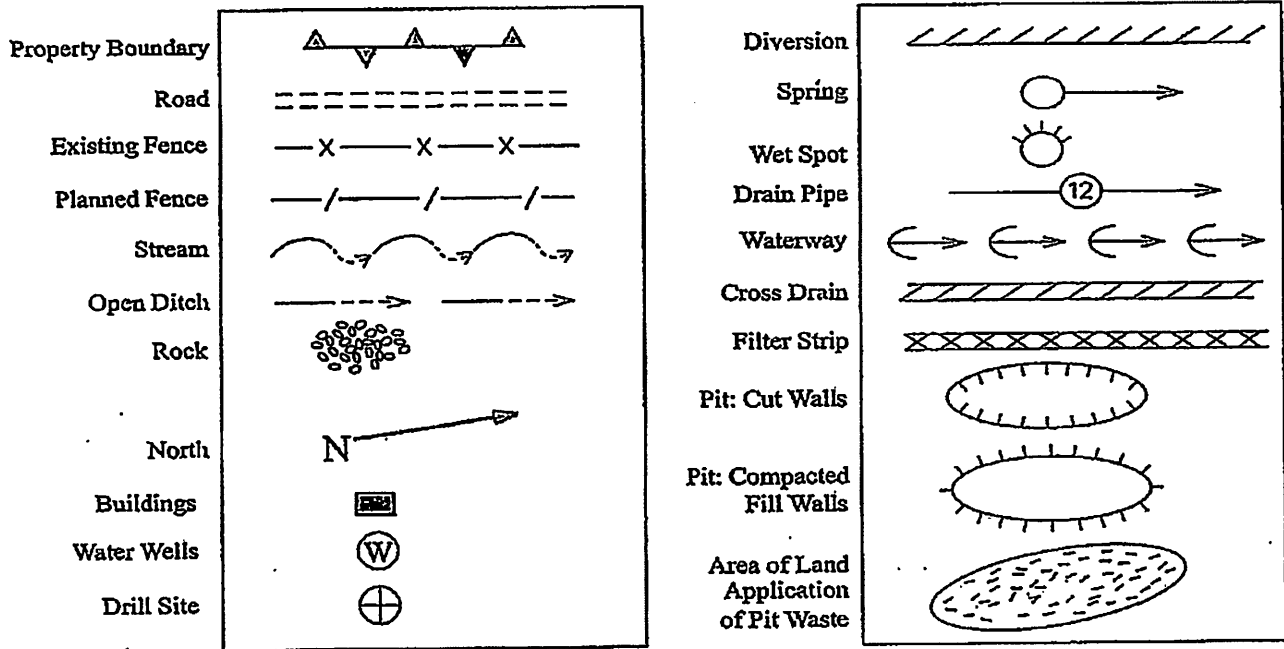
Contractor Name Sturm Environmental Services
 Well operator's private laboratory

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 2000' of proposed well.

Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.3 Ac. Prevegetation pH _____

Area II Approx. 0.2 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	5

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

Received
 SEP 26 2013
 Office of Oil and Gas
 Wyo Dept. of Environmental Protection

Plan approved by: [Signature]

Comments: _____

Title: Oil & Gas Inspector

Date: 8-12-17

Field Reviewed?

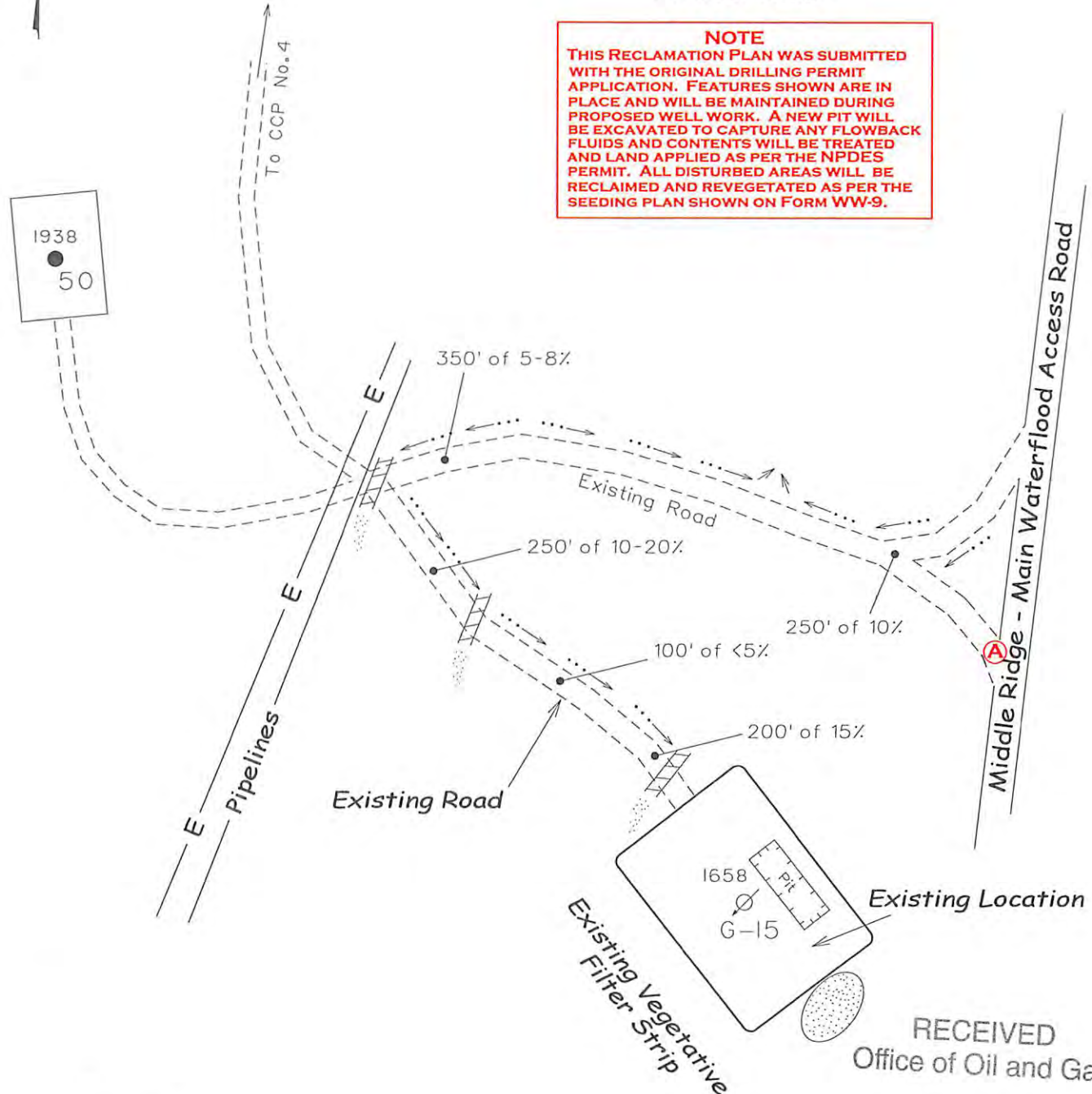
Yes

No

Reclamation Plan For: C.C. Pennick G-15

47-103-1658

NOTE
THIS RECLAMATION PLAN WAS SUBMITTED WITH THE ORIGINAL DRILLING PERMIT APPLICATION. FEATURES SHOWN ARE IN PLACE AND WILL BE MAINTAINED DURING PROPOSED WELL WORK. A NEW PIT WILL BE EXCAVATED TO CAPTURE ANY FLOWBACK FLUIDS AND CONTENTS WILL BE TREATED AND LAND APPLIED AS PER THE NPDES PERMIT. ALL DISTURBED AREAS WILL BE RECLAIMED AND REVEGETATED AS PER THE SEEDING PLAN SHOWN ON FORM WW-9.



Notes:

- Requested permit is for workover of existing well.
- Access from County Road to well location is existing. Structures will be maintained.
- 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 work-over pit may be changed based on as-built considerations.

DmH
8-12-13

RECEIVED
Office of Oil and Gas
SEP 26 2013

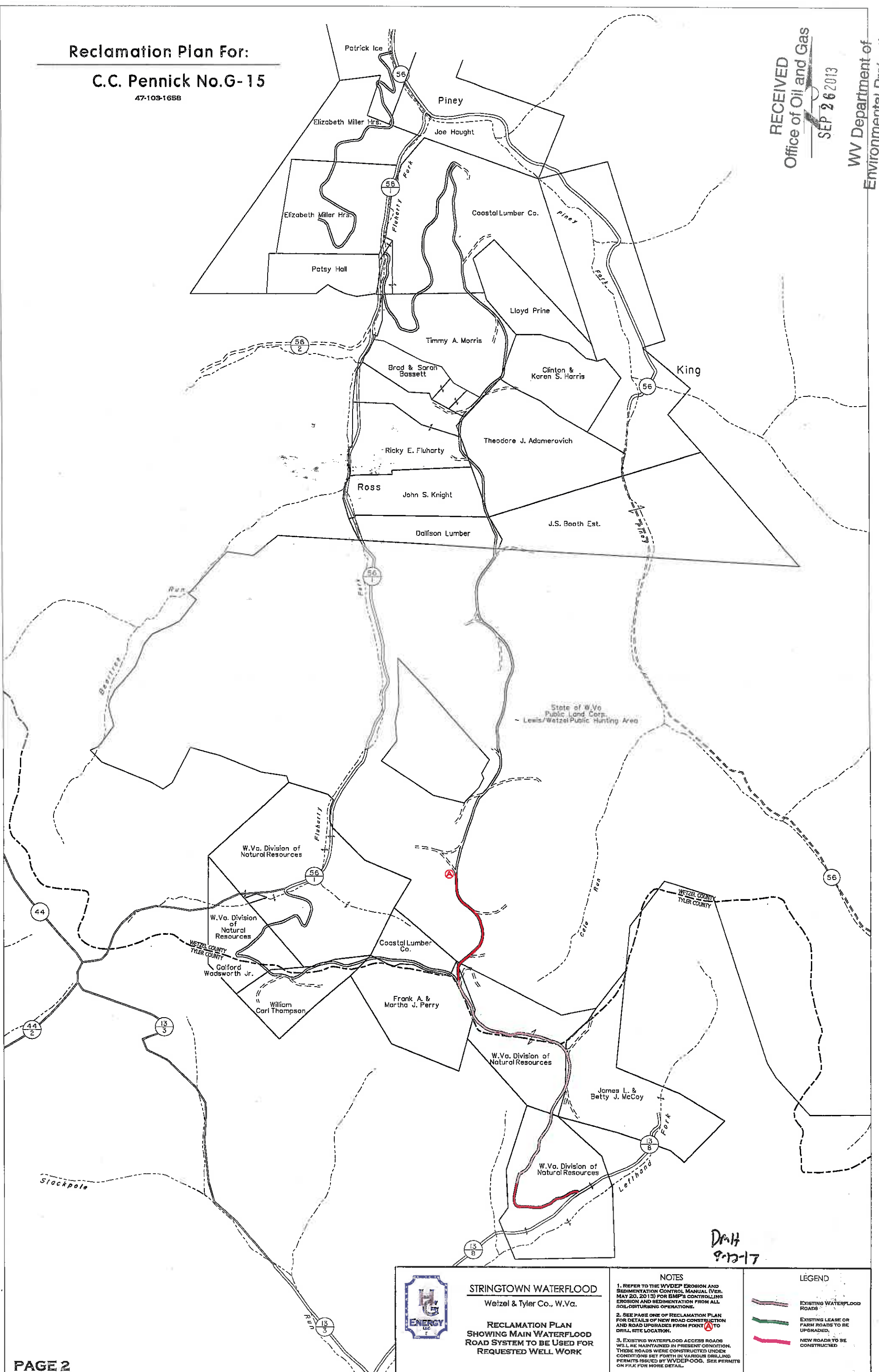
WV Department of
Environmental Protection
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.





Note: Drawing not to Scale

Reclamation Plan For:
C.C. Pennick No.G-15
 47-103-1658

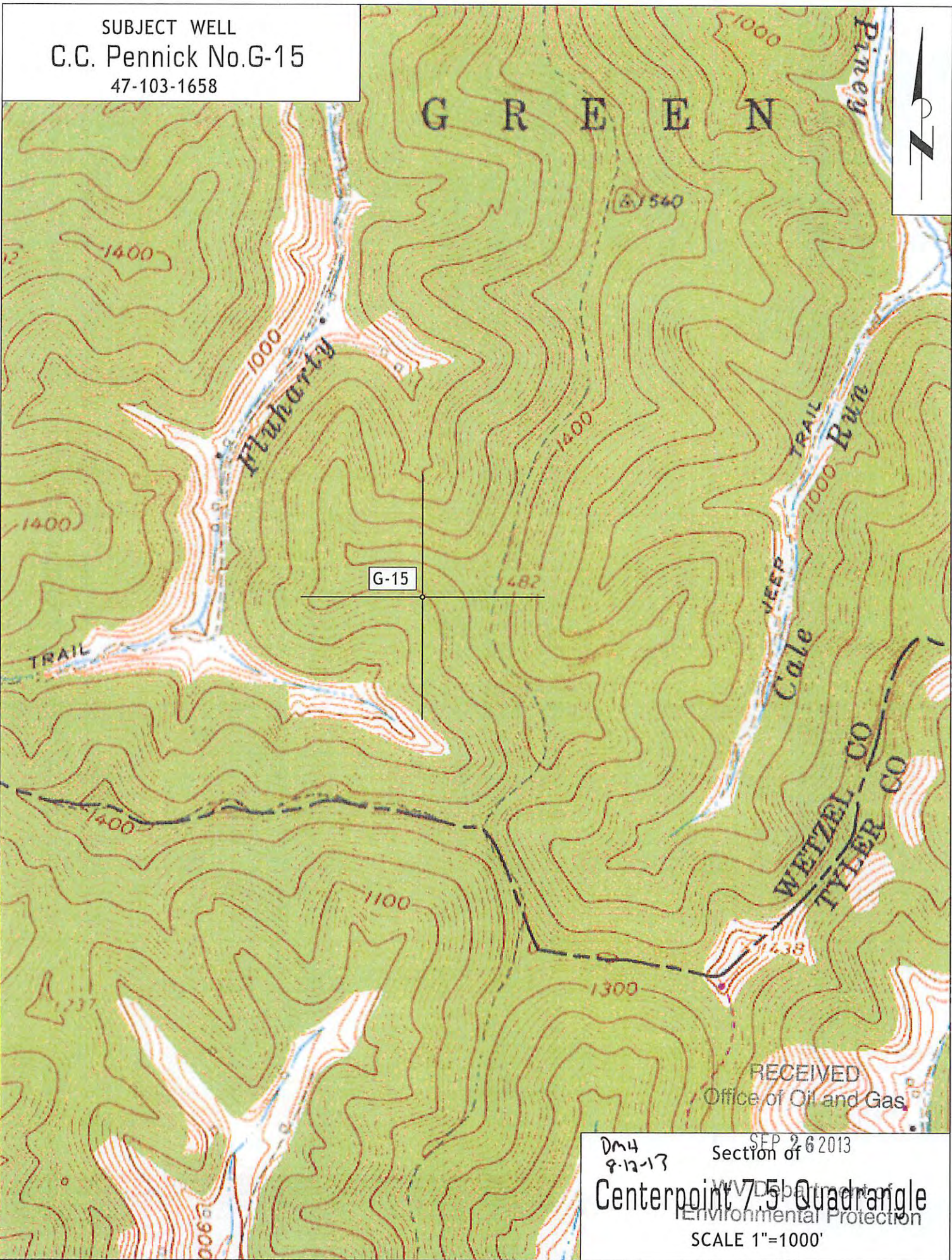
RECEIVED
 Office of Oil and Gas
 SEP 26 2013

WV Department of
 Environmental Protection



 ENERGY LLC	STRINGTOWN WATERFLOOD Weitzel & Tyler Co., W.Va. RECLAMATION PLAN SHOWING MAIN WATERFLOOD ROAD SYSTEM TO BE USED FOR REQUESTED WELL WORK	NOTES 1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR EMEP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS. 2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT A TO DRILL SITE LOCATION. 3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OGG. SEE PERMITS ON FILE FOR MORE DETAIL.	LEGEND  EXISTING WATERFLOOD ROADS  EXISTING LEASE OR FARM ROADS TO BE UPGRADED.  NEW ROADS TO BE CONSTRUCTED
	Draft 9-12-17		10301658R2

SUBJECT WELL
C.C. Pennick No.G-15
47-103-1658



DM4
8-12-13
Section of
Centerpoint 7.5 Quadrangle
WVD Department of
Environmental Protection
SCALE 1"=1000'

RECEIVED
Office of Oil and Gas

SEP 26 2013

NOTES ON SURVEY

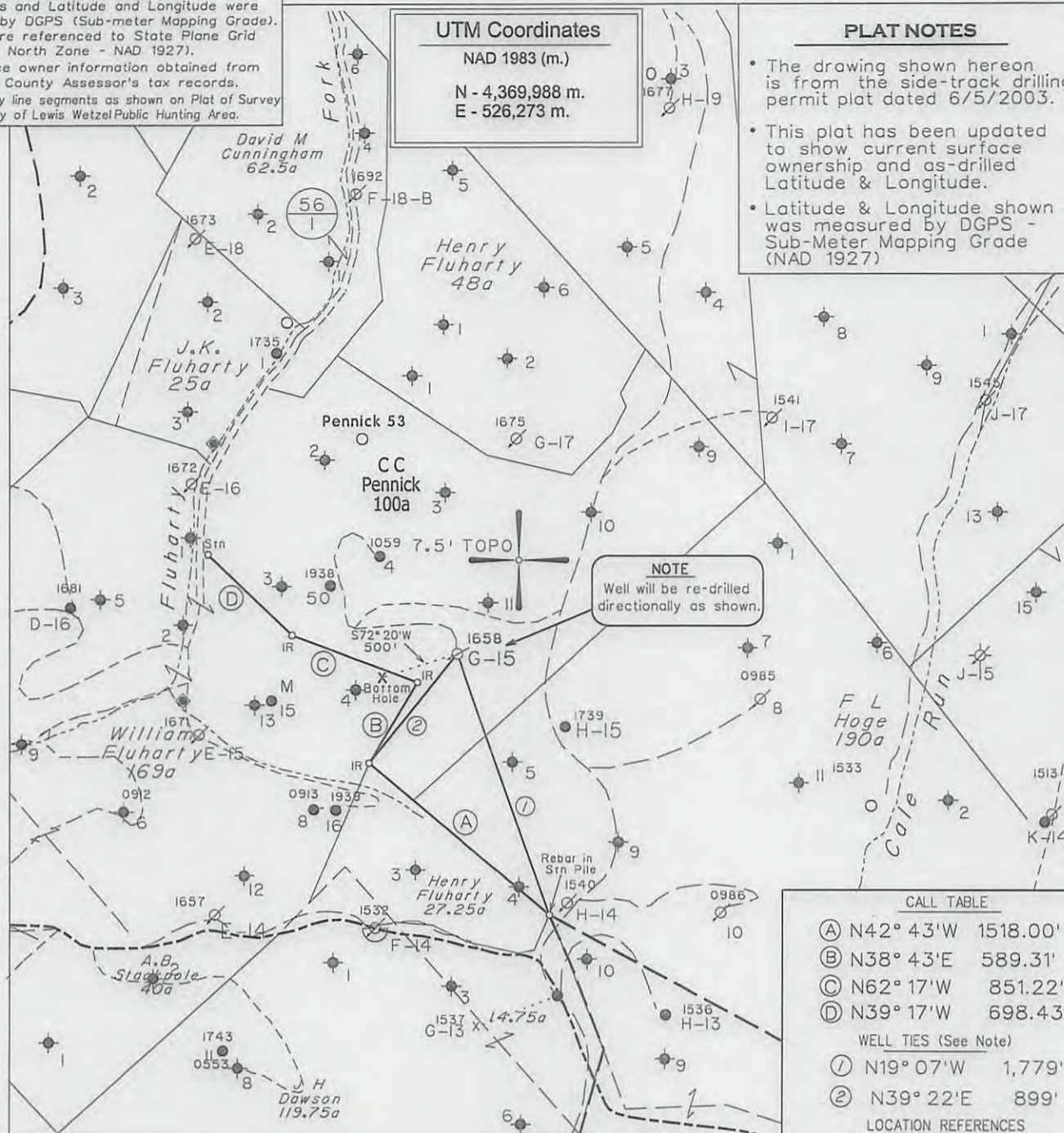
- 1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to State Plane Grid North (WV North Zone - NAD 1927).
- 2 - Surface owner information obtained from the Wetzel County Assessor's tax records.
- 3 - Property line segments as shown on Plat of Survey by W.P. Foley of Lewis Wetzel Public Hunting Area.

UTM Coordinates

NAD 1983 (m.)
 N - 4,369,988 m.
 E - 526,273 m.

PLAT NOTES

- The drawing shown hereon is from the side-track drilling permit plat dated 6/5/2003.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)



NOTE
 Well will be re-drilled directionally as shown.

CALL TABLE

- (A) N42° 43'W 1518.00'
- (B) N38° 43'E 589.31'
- (C) N62° 17'W 851.22'
- (D) N39° 17'W 698.43'

WELL TIES (See Note)

- (1) N19° 07'W 1,779'
- (2) N39° 22'E 899'

LOCATION REFERENCES (Magnetic Bearing - Slope Dist.)

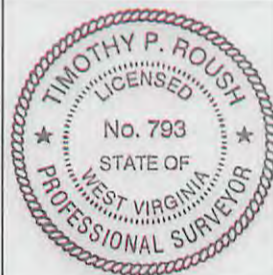
EXISTING WELL

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

FILE NO. _____
 MAP NO. _____ N _____ S _____ E _____ W _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION WVDEP Records

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) *[Signature]*
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA

Division of Environmental Protection
 Office of Oil and Gas
 601 57th Street
 Charleston, West Virginia 25304



July 19, 2013

FARM C.C. Pennick NO. G-15

API WELL NO.

47-103-01658 RS

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1,295' WATERSHED Fluharty Fork
 DISTRICT Green COUNTY Wetzel
 QUADRANGLE Centerpoint 7.5'

SURFACE OWNER W.Va. Public Lands Corp. ACREAGE 100 Ac.

OIL & GAS ROYALTY OWNER East Resources, et al. LEASE ACREAGE

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 ___ 3371

TARGET FORMATION Gordon ESTIMATED DEPTH 3,297' MD

WELL OPERATOR HG Energy, LLC

DESIGNATED AGENT Mike Kirsch

ADDRESS 5260 Dupont Road Parkersburg, WV 26101

ADDRESS 5260 Dupont Road Parkersburg, WV 26101



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

10301658RS

CK#2317 \$650⁰⁰

July 25, 2013

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

RE: C. C. Pennick No. G-15 (47-103-1658)
Green District, Wetzel County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: WV Public Lands Corporation - Certified
Department of Natural Resources - Certified
Derek Haught - Inspector

RECEIVED
Office of Oil and Gas

SEP 26 2013

WV Department of
Environmental Protection