



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 20, 2013

WELL WORK PERMIT
Rework-Brine Disposal

This permit, API Well Number: 47-3902419, issued to EXCO RESOURCES (WV), INC., 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: L. C. WILSON 4
Farm Name: GROSE, RICHARD A. & PATRICIA
API Well Number: 47-3902419
Permit Type: Rework-Brine Disposal
Date Issued: 08/20/2013

Promoting a healthy environment.

39024192

WW - 2B
(Rev. 8/10)

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

1) Well Operator: EXCO Resources (PA), LLC 307860 Kanawha Elk Blue Creek
Operator ID County District Quadrangle

2) Operator's Well Number: 47-039-02419 3) Elevation: 1039'

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

5) Proposed Target Formation(s): Salt Sands Proposed Target Depth: 1568-1674'
6) Proposed Total Depth: 1850' Feet Formation at Proposed Total Depth: _____
7) Approximate fresh water strata depths: 250' _____
8) Approximate salt water depths: 1100' _____

9) Approximate coal seam depths: N/A

10) Approximate void depths,(coal, Karst, other): N/A

11) Does land contain coal seams tributary to active mine? N/A

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Locate leak in production casing and repair

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						
Fresh Water	8-5/8	H-40	24	254		Surface
Coal						
Intermediate						
Production	4-1/2	J-55	13.5	2,169		TOC 1,090'
Tubing	2-7/8	J-55	4.7	1,510		
Liners						

Packers: Kind: Halliburton R-4
Sizes: 4-1/2"
Depths Set 1,510

Office of Oil and Gas
WV Dept. of Environmental Protection
JUN 11 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

WW-2A
(Rev. 6-07)

1). Date: 5/24/2013
 2.) Operator's Well Number L C Wilson #4
 State 47- County 039 Permit 02419
 3.) API Well No.:

**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: W

(a) Name Richard A. & Patricia Grose
 Address PO Box 277
Pinch, WV 25156

(b) Name _____
 Address _____

(c) Name _____
 Address _____

5) (a) Coal Operator

Name N/A
 Address _____

(b) Coal Owner(s) with Declaration

Name N/A
 Address _____

(c) Coal Lessee with Declaration

Name N/A
 Address _____

6) Inspector Terry Urban
 Address PO Box 1207
Charleston, WV 25045
 Telephone 304-549-5915

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

x 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)
x 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.

COMMONWEALTH OF PENNSYLVANIA



Well Operator

EXCO Resources (PA), LLC

By:

Brian E. Rushe, P.E.

Its:

Designated Agent

Address

3000 Ericsson Drive, Suite 200

Telephone

Warrendale, PA 15086

724-720-2500

Subscribed and sworn before me this 24th day of May, 2013

Rebecca Shrum
 My Commission Expires March 9, 2016

15/24/2013

Notary Public

Received

Oil and Gas Privacy Notice

County of Allegheny

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

WV Dept. of Environmental Protection

SURFACE OWNER WAIVER

County Kanawha Operator EXCO Resources (PA), LLC
Operator well number L C Wilson #4

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 a 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.

Richard A. Grose Date 6-3-13 Company Name
Signature By
Its
Richard A. GROSE
Print Name

Received Date
Signature JUN 11 2013 Date

Office of Oil and Gas
WV Dept. of Environmental Protection

WW-2A1
(Rev. 1/11)

Operator's Well Number L.C. Wilson # 4

**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
SEE ATTACHED LAND OWNER AGREEMENT			

**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.

AUG - 7 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Well Operator:

By: Its:

Exco Resources (PA), LLC
3000 Ericsson Drive Suite 200
Warrendale, PA 15086
Brian E. Rushe, P.E.
Brian E. Rushe

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXCO Resources (PA), LLC OP Code 307860

Watershed (HUC 10) Wills Creek Quadrangle Blue Creek

Elevation 1039' County Kanawha District Elk

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

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

If so, please describe anticipated pit waste: _____

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

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 _____)

Will closed loop system be used? No

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. No

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-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 Brian E. Rushe

Company Official (Typed Name) Brian E. Rushe, P.E.

Company Official Title Regulatory Manager

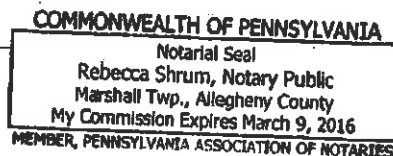
Subscribed and sworn before me this 24th day of July, 2013

Rebecca Shrum

Notary Public
West Virginia Dept. of Environmental Protection

My commission expires March 9, 2016

Commonwealth of Pennsylvania, County of Allegheny



Form WW-9

Operator's Well No. L.C. Wilson #4

EXCO Resources (PA), LLC

Proposed Revegetation Treatment: Acres Disturbed 0.0 Prevegetation pH N/A

Lime N/A Tons/acre or to correct to pH N/A

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

Mulch N/A Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
N/A		N/A	

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: All Roads Existing

Title: Inspute

Date: 7-25-13

Field Reviewed?

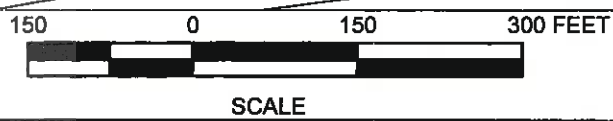
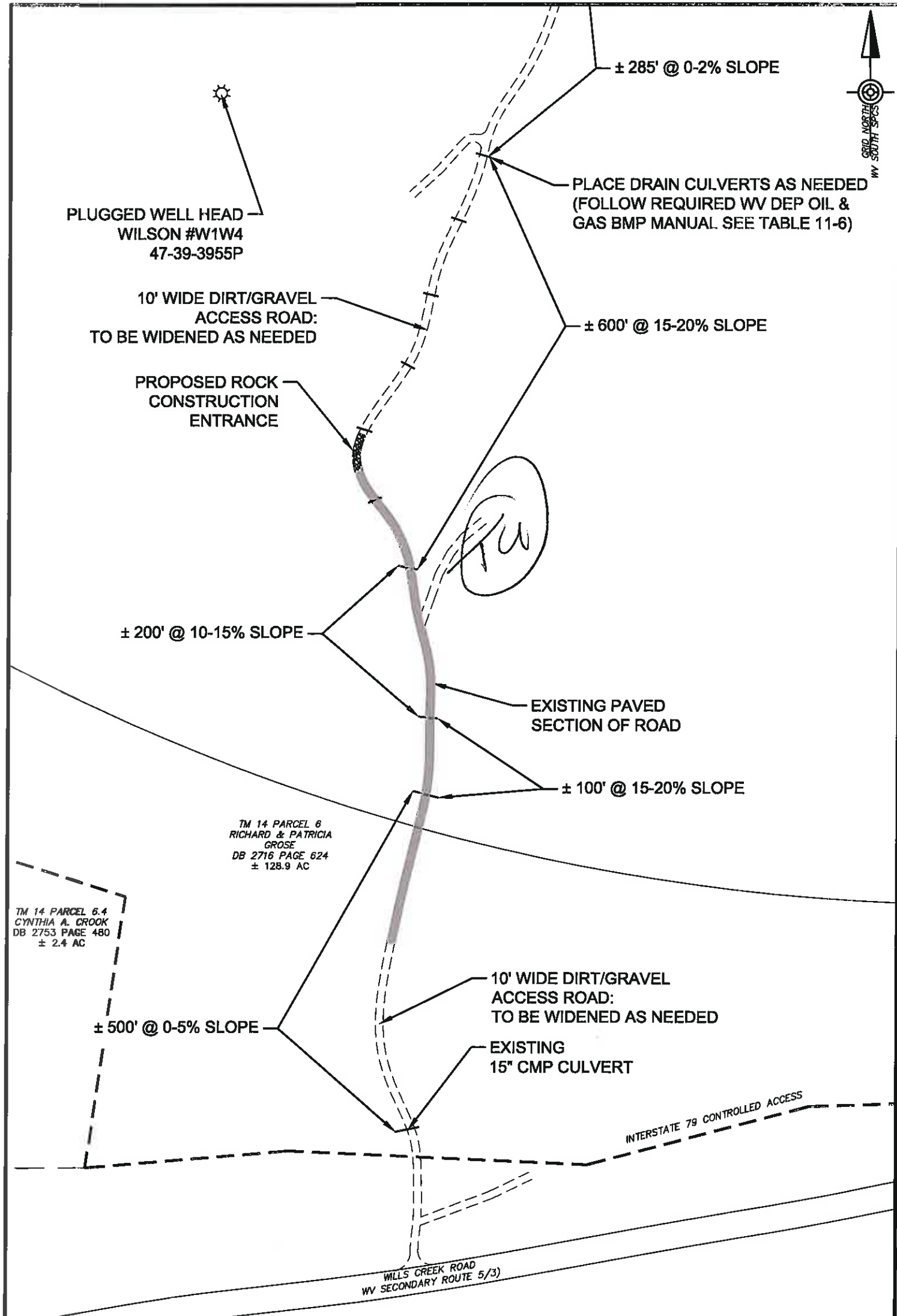
☒ Yes

☐ No

Received

AUG -7 2013

Office of Oil and Gas
WV Dept. of Environmental Protection



It is a violation of the law for any person, unless acting under the direction of a licensed Architect, Engineer or Land Surveyor, to alter an item in any way. Plans, maps, specifications, studies, and reports not containing a red ink seal imprint on the cover sheet accompanied by an original signature by the licensed professional may have been fraudulently altered and shall not be considered an original copy. Copyright Protected 2013, Larson Design Group

PROJECT NO.: 8013-005	SHEET NO.: 1 of 3	RECLAMATION PLAN LC WILSON WELL #4 ELK DISTRICT, KANAWHA COUNTY, WEST VIRGINIA	
	EXCO RESOURCES, INC P.O. BOX 8 RAVENSWOOD, WV 26164 PHONE (304) 273-5371 DATE: 7/1/13 DRAWN BY: RTC CHECKED BY: THK	Larson Design Group • Architects Engineers Surveyors 2502 Cranberry Square Morgantown, WV 26508 PHONE 877.323.6603 FAX 570.323.9902 • www.larsondesigngroup.com Office of Environmental Protection WV Dept. of Environmental Protection Larson Design Group®	

TM 14 PARCEL 5.1
JEAN M. OTT
DB 2579 PAGE 535
± 54.6 AC

± 600' @ 15-20% SLOPE

LC WILSON #4
WELL HEAD
47-39-2419

NOTES

1. ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH THE WVDEP OIL & GAS BMP MANUAL. ALL CULVERTS SHOWN ON THIS PLAN ARE PROPOSED AND WILL BE A MINIMUM OF 12" IN DIAMETER UNLESS OTHERWISE DESIGNATED AND WILL BE PACKED AS NEEDED AND REQUIRED BY WVDEP OIL AND GAS BMP MANUAL.
2. SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL MEASURES IN ADDITION TO THOSE SHOWN ON THIS PLAN WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. THE ADDITIONAL MEASURES MAY CONSIST OF STRAW BALES, SILT FENCES, OR OTHER MEASURES AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL FIELD MANUAL.
3. SEDIMENT TRAPS ARE TO BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAIN INLETS AS REQUIRED IN THE WVDEP OIL & GAS BMP MANUAL. FIELD CONDITIONS SUCH AS ROCK OUTCROPS AND BEDROCK MAY PROHIBIT INLET TRAPS BEING INSTALLED, WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.
4. A SEDIMENT BARRIER OF EITHER BRUSH, STRAW BALES OR FILTER FENCE WILL BE MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DISCHARGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.
5. ENTRANCES AT COUNTY/STATES ROAD SHALL BE MAINTAINED IN ACCORDANCE WITH D.O.T. REGULATIONS, SEPERATE PERMITS MAY BE REQUIRED BY THE WVDOIT INSTALLED FOR A MIN. DISTANCE OF 50'.
6. A STABILIZED CONSTRUCTION ENTRANCE WILL BE INSTALLED AS SHOWN UNLESS OTHERWISE DIRECTED BY WVDEP INSPECTOR AND/OR WVDOIT.
7. CROSS DRAINS AND/OR WATERBARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH THE WVDEP CONTROL FIELD MANUAL.

PLUGGED WELL HEAD
WILSON #U1U3
47-39-3954P

EXISTING
12" CMP CULVERT

± 200' @ 10-15% SLOPE

TM 14 PARCEL 6
RICHARD & PATRICIA
GROSE
DB 2716 PAGE 624
± 128.9 AC

PLACE DRAIN CULVERTS AS NEEDED (FOLLOW
REQUIRED WV DEP OIL & GAS BMP MANUAL
SEE TABLE 11-6)

10' WIDE DIRT/GRAVEL
ACCESS ROAD:
TO BE WIDENED AS NEEDED

± 300' @ 0-5% SLOPE

± 285' @ 0-2% SLOPE

150 0 150 300 FEET

SCALE

It is a violation of the law for any person, unless acting under the direction of a licensed Architect, Engineer or Land Surveyor, to alter an item in any way. Plans, maps, specifications, studies, and reports not containing a red ink seal imprint on the cover sheet accompanied by an original signature by the licensed professional may have been fraudulently altered and shall not be considered an original copy. Copyright Protected 2013, Larson Design Group.

RECLAMATION PLAN LC WILSON WELL #4

ELK DISTRICT, KANAWHA COUNTY, WEST VIRGINIA

EXCO RESOURCES, INC
P.O. BOX 8
RAVENSWOOD, WV 26164
PHONE (304) 273-5371

DATE: 7/1/13 DRAWN BY: RTC CHECKED BY: THK

Larson Design Group • Architects Engineers Surveyors
2502 Cranberry Square
Morgantown, WV 26508
PHONE 877.323.6603
FAX 570.323.9902 • www.larsondesigngroup.com

Office of Oil and Gas
WV Dept. of Environmental Protection

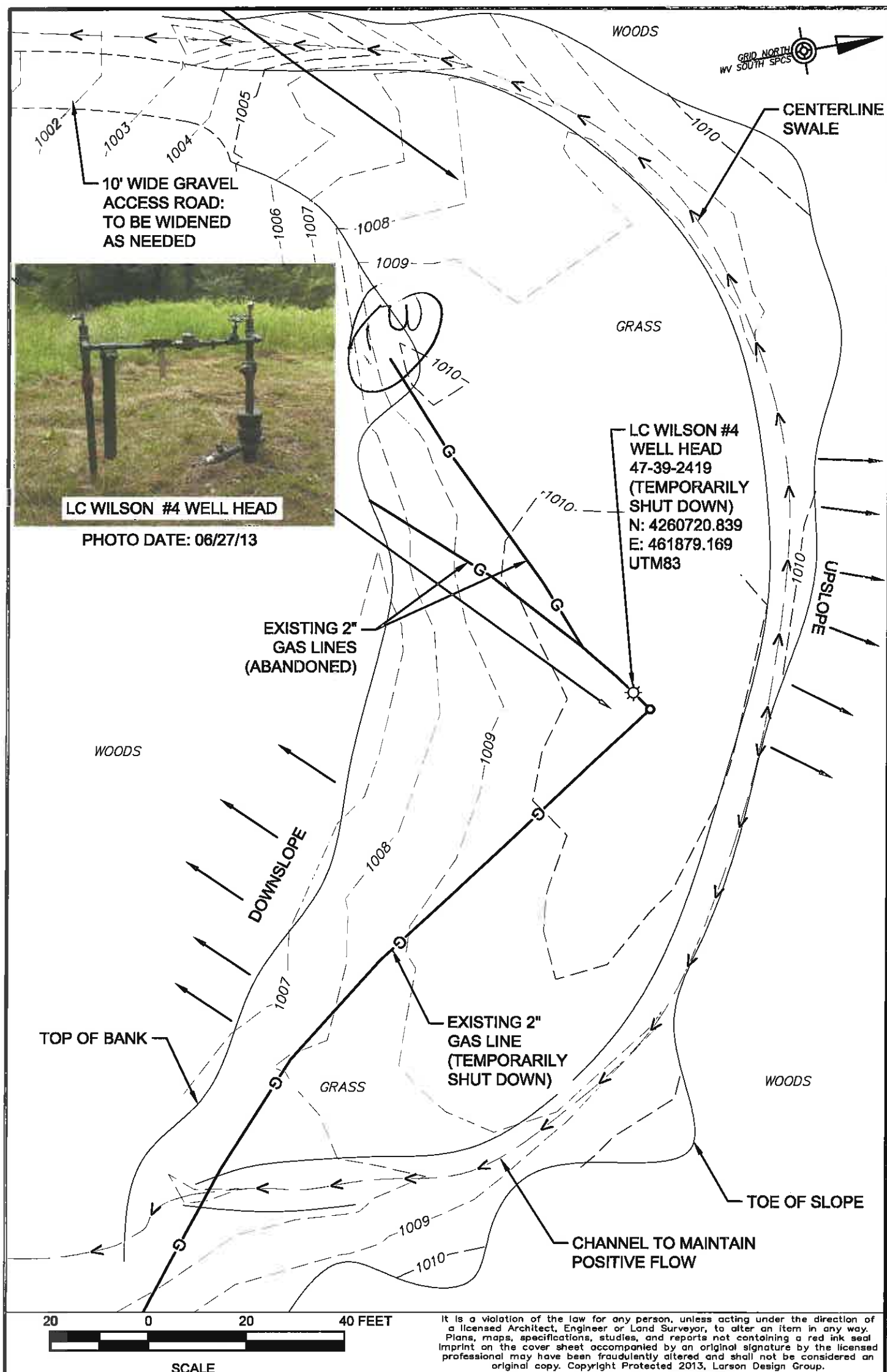
LDG

PROJECT NO.:
8013-005

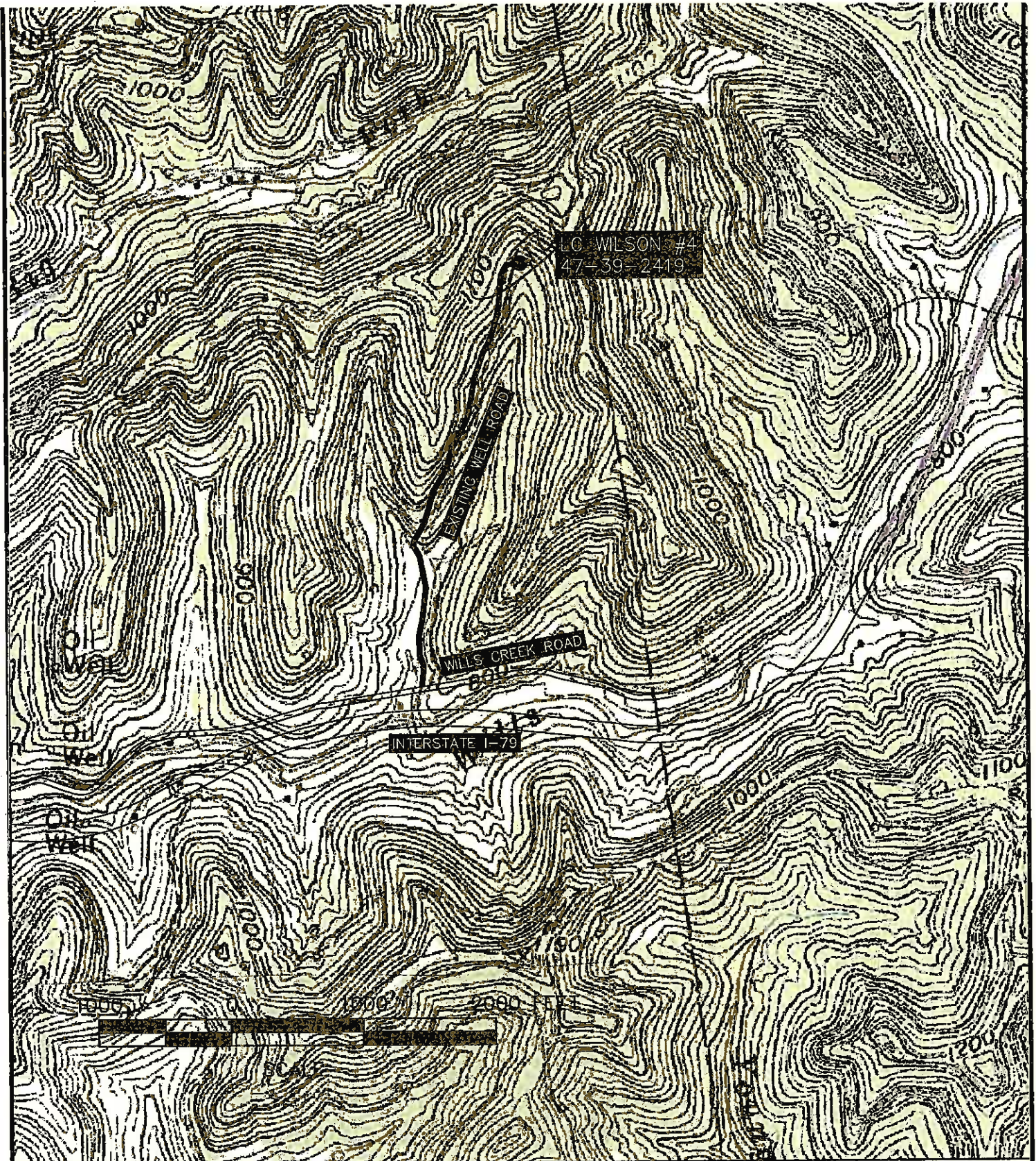
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2 of 3

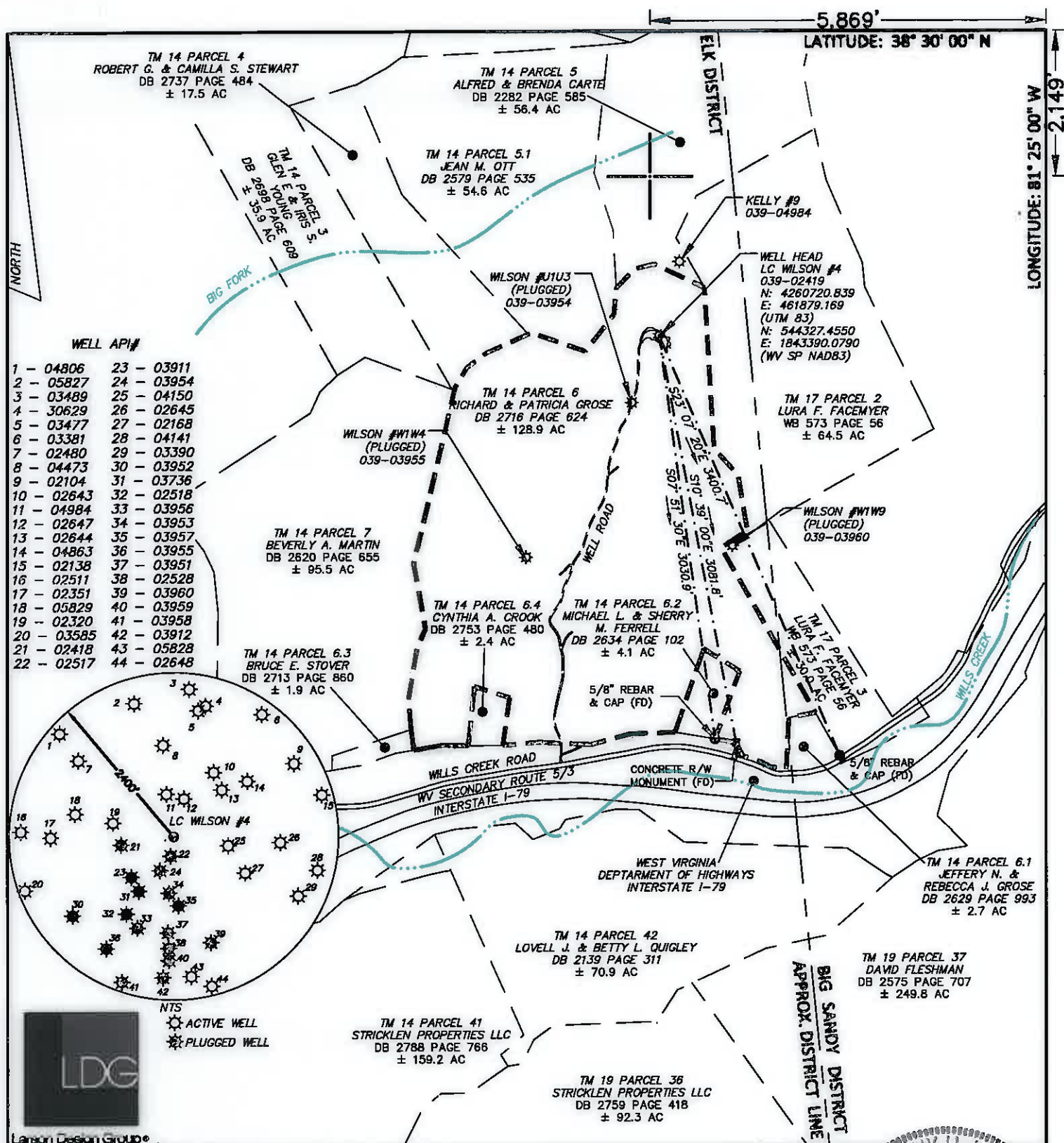
Received



PROJECT NO.: 8013-005	SHEET NO.: 3 of 3	RECLAMATION PLAN		
		LC WILSON WELL #4		
		ELK DISTRICT, KANAWHA COUNTY, WEST VIRGINIA		
		EXCO RESOURCES, INC P.O. BOX 8 RAVENSWOOD, WV 26164 PHONE (304) 273-5371 DATE: 7/1/13 DRAWN BY: RTC CHECKED BY: THK	Larson Design Group - Architects Engineers Surveyors 2502 Cranberry Square Morgantown, WV 26508 PHONE 877.323.6603 FAX 570.323.9902 • www.larsondesigngroup.com	



PROJECT NO.: 8013-005	SHEET NO.:	<div data-bbox="500 1733 993 1833">LOCATION MAP LC WILSON WELL #4 ELK DISTRICT, KANAWHA COUNTY, WEST VIRGINIA</div> <div data-bbox="203 1833 747 1967">EXCO RESOURCES, INC P.O. BOX 8 RAVENSWOOD, WV 26164 PHONE (304) 273-5371 DATE 7/24/13 DRAWN BY: SLN CHECKED BY: THK</div> <div data-bbox="747 1833 1299 1967">Larson Design Group • Architects Engineers Surveyors 2502 Cranberry Square Morgantown, WV 26508 PHONE 877.323.6603 FAX 570.323.9902 • www.larsondesigngroup.com</div>	<div data-bbox="1339 1741 1507 1913"></div> <div data-bbox="1328 1913 1523 1940">Larson Design Group®</div>
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FILE NO. 2013-005
 DRAWING NO. 1
 SCALE 1" = 1000'
 MINIMUM DEGREE OF
 ACCURACY 1 in 2500'
 PROVEN SOURCE OF
 ELEVATION SURVEY GRADE ADS

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 REGU-
 LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
 MENT OF ENVIRONMENTAL PROTECTION.
 (SIGNED) [Signature]
 R.P.E. L.L.S. 1969



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



DATE JULY 11, 20 13
 OPERATOR'S WELL NO. L.C. WILSON #4
 API WELL NO. 47 - 039 - 02419 R
 STATE COUNTY PERMIT

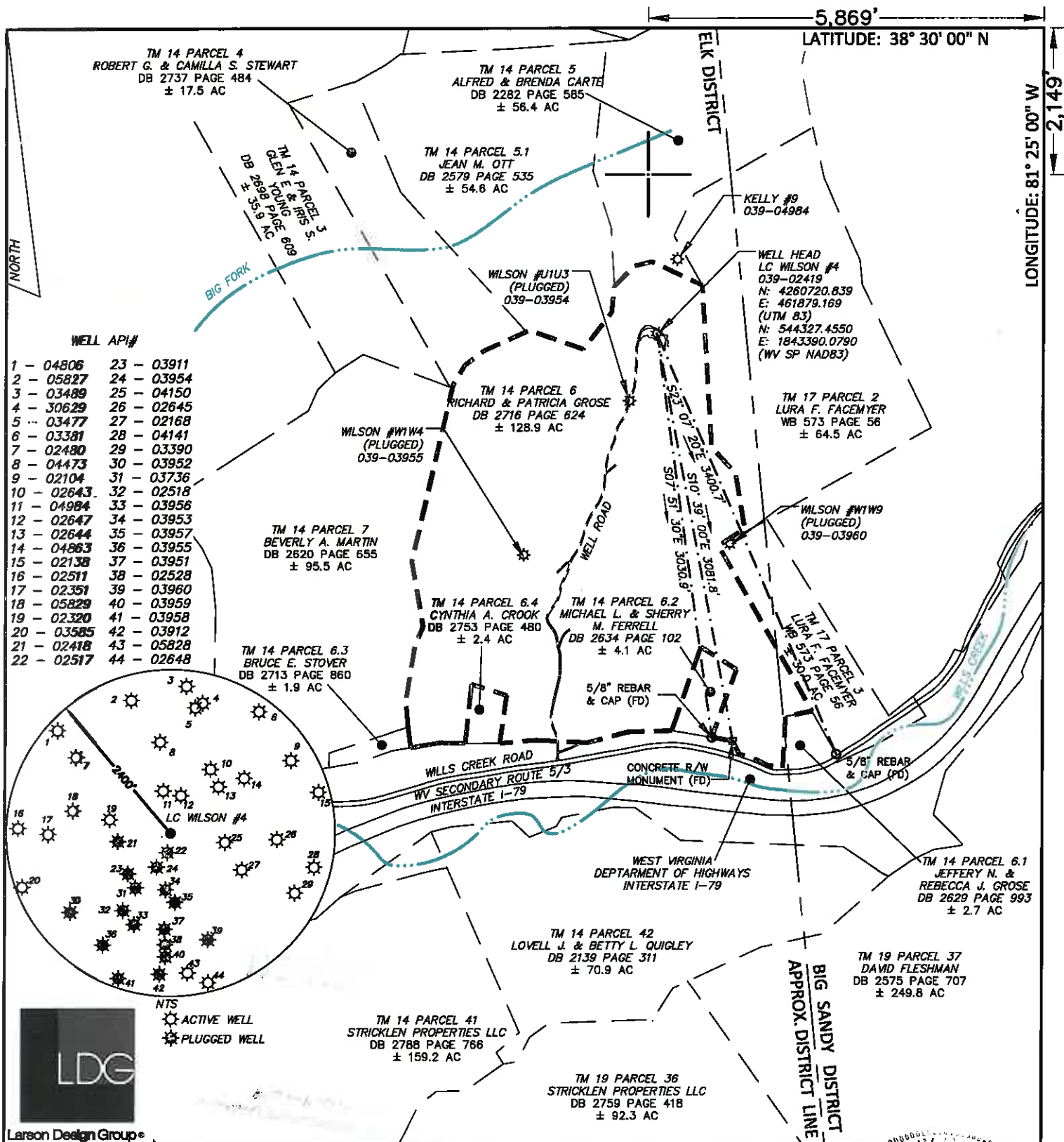
WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW X
 LOCATION: ELEVATION 1010 WATERSHED WILLS CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK
 SURFACE OWNER RICHARD A. or PATRICIA A. GROSE ACREAGE 128.85
 OIL & GAS ROYALTY OWNER N/A LEASE ACREAGE N/A
 LEASE NO. N/A

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
 FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) X (WORK IS TO LOCATE AND REPAIR
A LEAK IN PRODUCTION CASING)

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION SALT SANDS ESTIMATED DEPTH 1588'-1674'
 WELL OPERATOR EXCO Resources (PA) LLC DESIGNATED AGENT MIKE CHURCH-EXCO RESOURCES
 ADDRESS 3000 ERISSON DRIVE, SUITE 200 WARRENDALE, PA 15082 ADDRESS P.O. BOX 8 RAVENSWOOD, WV 26164

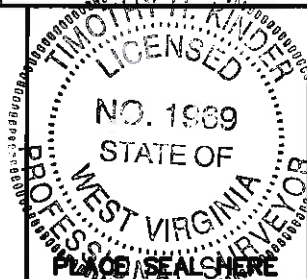
COUNTY NAME

PERMIT



FILE NO. 8013-005
DRAWING NO. 1
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1 in 2500'
PROVEN SOURCE OF
ELEVATION SURVEY GRADE GPS

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF ENVIRONMENTAL PROTECTION.
(SIGNED) [Signature]
R.P.E. _____ L.L.S. 1969



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



DATE JULY 11, 20 13
OPERATOR'S WELL NO. LC WILSON #4
API WELL NO. 47-039-02419
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1010 WATERSHED WILLS CREEK
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK

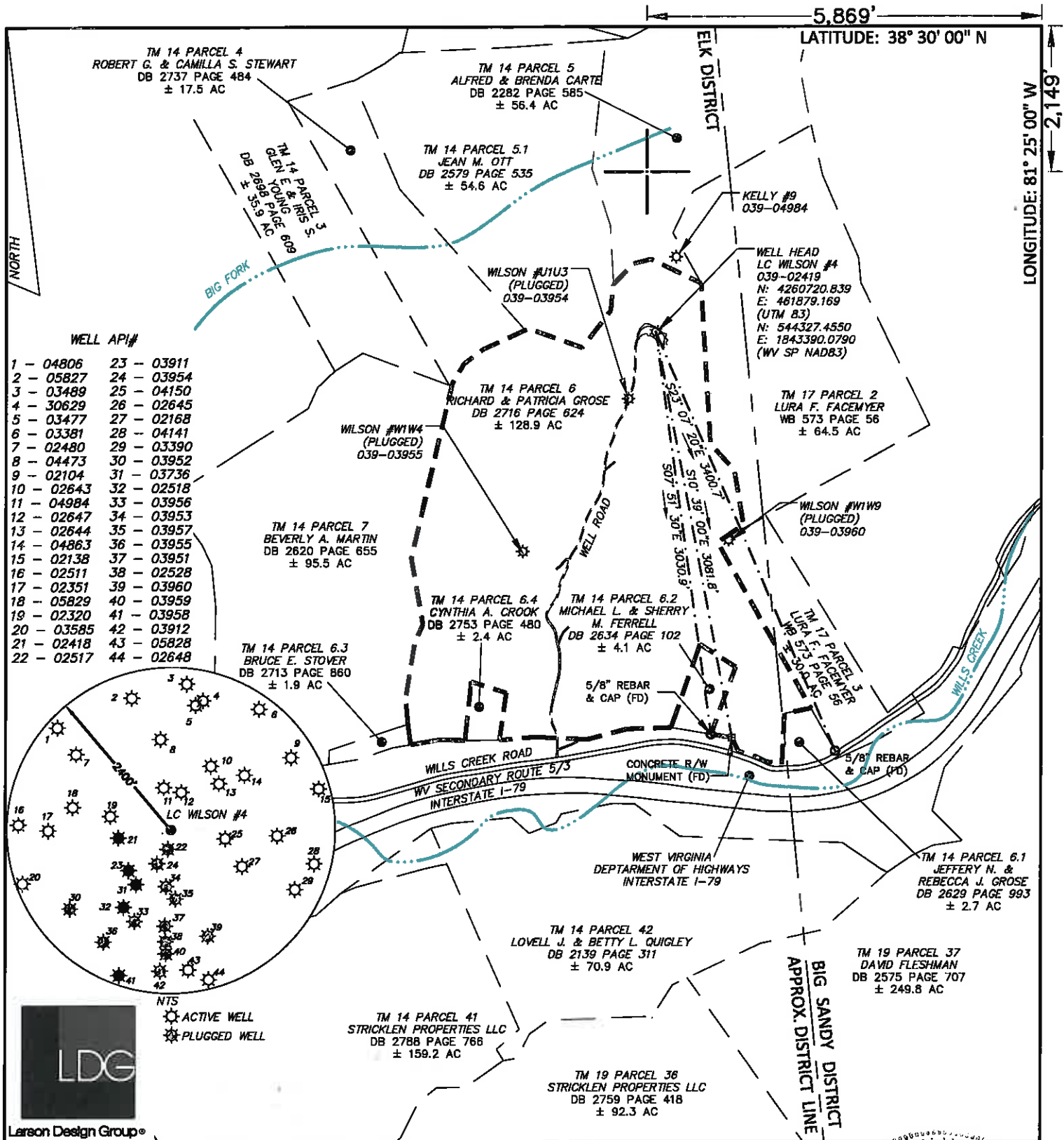
SURFACE OWNER RICHARD A. or PATRICIA A. GROSE ACREAGE 128.85
OIL & GAS ROYALTY OWNER N/A LEASE ACREAGE N/A
LEASE NO. N/A

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) X (WORK IS TO LOCATE AND REPAIR
A LEAK IN PRODUCTION CASING)

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION SALT SANDS ESTIMATED DEPTH 1568'-1674'
WELL OPERATOR EXCO Resources (PA), LLC DESIGNATED AGENT MIKE CHURCH-EXCO RESOURCES
ADDRESS 3000 ERICSSON DRIVE, SUITE 200 WARRENDALE, PA 15086 ADDRESS P.O. BOX 8 RAVENSWOOD, WV 26164

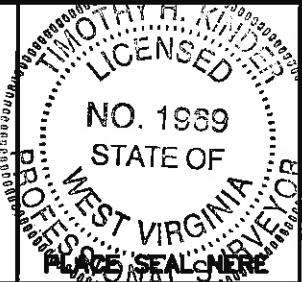
COUNTY NAME

PERMIT



FILE NO. 8013-005
DRAWING NO. 1
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1 in 2500'
PROVEN SOURCE OF
ELEVATION SURVEY GRADE GPS

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF ENVIRONMENTAL PROTECTION.
(SIGNED) [Signature]
R.P.E. LLS. 1969



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



DATE JULY 11, 20 13
OPERATOR'S WELL NO. LC WILSON #4
API WELL NO. 47-039-02419
STATE COUNTY PERMIT

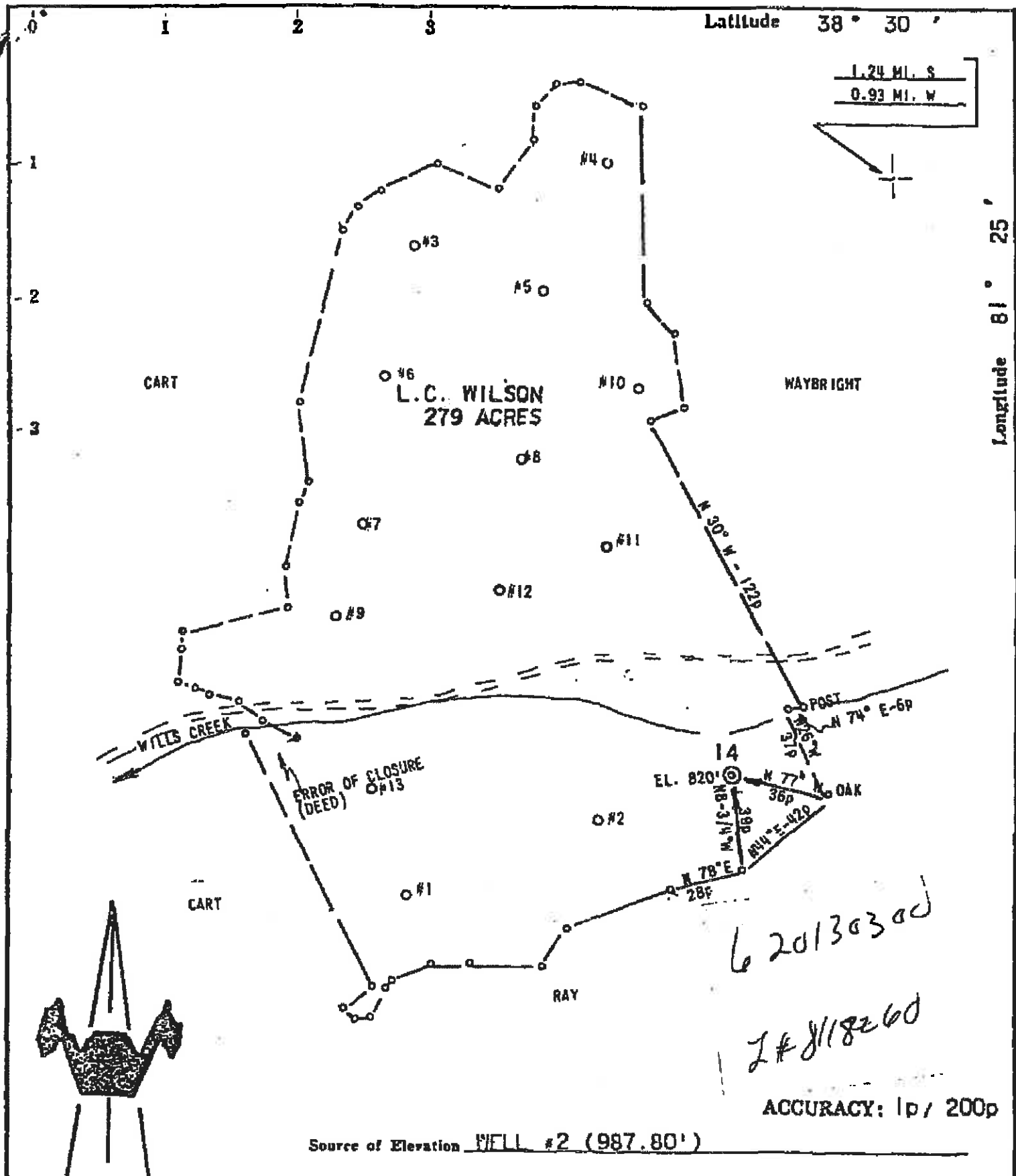
WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1010 WATERSHED WILLS CREEK
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK

SURFACE OWNER RICHARD A. or PATRICIA A. GROSE ACREAGE 128.85
OIL & GAS ROYALTY OWNER N/A LEASE ACREAGE N/A

LEASE NO. N/A
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) X (WORK IS TO LOCATE AND REPAIR
A LEAK IN PRODUCTION CASING)

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION SALT SANDS ESTIMATED DEPTH 1568'-1674'
WELL OPERATOR EXCO Resources (PA) LLC DESIGNATED AGENT MIKE CHURCH-EXCO RESOURCES
ADDRESS 3000 ERICSSON DRIVE, SUITE 200 WARRENDALE, PA 15086 ADDRESS P.O. BOX 8 RAVENSWOOD, WV 26164

COUNTY NAME
PERMIT



New Location ☒

Drill Deeper ☐

Abandonment ☐

Fracture ☐

Redrill ☐

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Company QUAKER STATE OIL REF. CORP.

Address PARKERSBURG, WV

Farm L.C. WILSON

Tract Acres 279 Lease No.

Well (Farm) No. 14 Serial No.

Elevation (Spirit Level) 820'

Quadrangle CLENDENIN

County KANAWHA District ELK

Engineer CHET WATERMAN

Engineer's Registration No. 3788

File No. 74003-63 Drawing No.

Date 2/14/74 Scale 1" = 50p

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP

FILE NO.

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

Nottingham, Justin E

From: Nottingham, Justin E
Sent: Wednesday, June 12, 2013 9:45 AM
To: 'rshrump@excoresources.com'
Subject: Well Work Permit Application Deficiency
Attachments: CHECK LIST FOR FILING A PERMIT 7-29-09.doc; Permit Packet. 05-07-2013.pdf; 47-039-02419 W.pdf

Rebecca ,

I received an application for a Well Work Permit from EXCO Resources (PA), LLC for well # 47-039-02419 "L C Wilson #4" Injection Well in Kanawha ,WV. After looking over it, I found that it is lacking some of the required paperwork we need to review and approve it. If you would look at the attachments and links that I provided below and return the remainder of the paperwork that is needed , then I can get your application entered and reviewed. I have also attached the application in question. If you have any questions , then feel free to contact me.

<http://www.dep.wv.gov/oil-and-gas/GI/Forms/Documents/Permit%20Packet.%2005-07-2013.pdf>

<http://www.dep.wv.gov/oil-and-gas/GI/Forms/Pages/default.aspx>

Thanks,
Justin

Justin E. Nottingham

West Virginia Department of Environmental Protection

Office of Oil and Gas

Environmental Technician

601 57th Street, S.E.

Charleston, WV 25304

(304)-926-0499 (Ext. 1650)

(304)-926-0452 (fax)

Jusitn.E.Nottingham@wv.gov

Received

JUN 11 2013

**Office of Oil and Gas
WV Dept. of Environmental Protection**