

Application and site evaluation for SWIW permit
Operator: K&H Partners LLC.
Well Name & Number: K&H Partners #2
Permit Number: New Well

Andrew,

Well stake GPS N39.23487/ W081.75710. Well site is located in a mixed forest woodland. Elevation 779'. The well site drains North East into an unnamed tributary then into Skunk Run. The existing surface facility for the K&H # 1, API #34-009-23821-00-00 is located at GPS N39.23578/ W081.75805. There are six water wells within ½ mile of the K&H #2 well location.

Well log numbers: 288118, 465032, 396966, 57315, 57319, and 57358.

I have attached a PDF with a topo map with the well stake location, K&H # 1 surface facility location and the 6 water well locations.

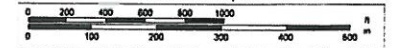
Jon Scott MRI 3

K&H Partners # 2 Site Evaluation

www.delorme.com

MN (7.7'W)

Scale 1 : 11,200



1" = 933.3 ft Data Zoom 14-2



Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **288118**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: *HOBERT MORRIS*

County: *ATHENS*

Township: *TROY*

Section Number: *11*

Address: *CR 62*

Lot Number:

City:

State: *OH*

Zip Code:

Location Number: *13*

Location Map Year: *1981*

Location Area:

Latitude: *39.240514*

Longitude: *-81.749667*

CONSTRUCTION DETAILS

Borehole Diameter: 1:

Borehole Depth: 1: *80 ft.*

Depth to Bedrock:

2:

2:

Casing Diameter: 1: *5.63 in.*

Casing Length: 1: *35 ft.*

Casing Thickness: 1:

2:

2:

2:

Casing Height Above Ground:

Aquifer Type: *STONE*

Date of Completion: *5/16/1963*

Total Depth: *80 ft.*

Well Use:

Driller's Name: *BOARD WATER WELL DRILLING*

Screen Diameter:

Slot Size:

Screen Length:

Type:

Material:

Set Between:

Gravel Pack Material/Size:

Vol/Wt Used:

Method of Installation:

Placed:

Grout Material/Size:

Vol/Wt Used:

Method of Installation:

Placed

WELL TEST DETAILS

Static Water Level:

Test Rate:

[Associated Reports](#)

Drawdown:

Test Duration:

COMMENTS:

WELL LOG

Formations	From	To
CLAY	0	24
SAND	24	30
GRAY STONE	30	45
WHITE STONE	45	80
WATER AT		38
WATER AT		68

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Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **465032**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: *EARNEST SIMMONS*

County: *ATHENS*

Township: *TROY*

Section Number: *10*

Address: *CR 63*

Lot Number:

City:

State: *OH*

Zip Code:

Location Number: *12.10*

Location Map Year: *1981*

Location Area:

Latitude: *39.238922*

Longitude: *-81.752342*

CONSTRUCTION DETAILS

Borehole Diameter: 1:

Borehole Depth: 1: *70 ft.*

Depth to Bedrock:

2:

2:

Casing Diameter: 1: *5.63 in.*

Casing Length: 1: *40 ft.*

Casing Thickness: 1:

2:

2:

2:

Casing Height Above Ground:

Aquifer Type: *SANDSTONE*

Date of Completion: *10/11/1974*

Total Depth: *70 ft.*

Well Use:

Driller's Name: *BOARD WATER WELL DRILLING*

Screen Diameter:

Slot Size:

Screen Length:

Type:

Material:

Set Between:

Gravel Pack Material/Size:

Vol/Wt Used:

Method of Installation:

Placed:

Grout Material/Size:

Vol/Wt Used:

Method of Installation:

Placed

WELL TEST DETAILS

Static Water Level: *38 ft.*

Test Rate: *20 gpm*

[Associated Reports](#)

Drawdown: *4 ft.*

Test Duration: *8 hrs.*

COMMENTS:

WELL LOG

Formations

SAND

From

To

SANDSTONE

0

40

WATER AT

40

70

51

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Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **396966**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: *JAMES PERKINS*

County: *ATHENS*

Township: *TROY*

Section Number: *11*

Address: *TR 672*

Lot Number:

City:

State: *OH*

Zip Code:

Location Number: *11*

Location Map Year: *1981*

Location Area:

Latitude: *39.240414*

Longitude: *-81.75394*

CONSTRUCTION DETAILS

Borehole Diameter: 1:

Borehole Depth: 1: *60 ft.*

Depth to Bedrock:

2:

2:

Casing Diameter: 1: *6 in.*

Casing Length: 1: *10 ft.*

Casing Thickness: 1:

2:

2:

2:

Casing Height Above Ground:

Aquifer Type: *STONE*

Date of Completion: *6/1/1971*

Total Depth: *60 ft.*

Well Use:

Driller's Name: *BOARD WATER WELL DRILLING*

Screen Diameter:

Slot Size:

Screen Length:

Type:

Material:

Set Between:

Gravel Pack Material/Size:

Vol/Wt Used:

Method of Installation:

Placed:

Grout Material/Size:

Vol/Wt Used:

Method of Installation:

Placed

WELL TEST DETAILS

Static Water Level: *12 ft.*

Test Rate: *1 gpm*

[Associated Reports](#)

Drawdown: *48 ft.*

Test Duration: *8 hrs.*

COMMENTS:

WELL LOG

Formations

CLAY

From

To

STONE

0

8

SHALE

8

12

STONE

12

15

15

60

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Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **57315**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: *O. B. DAVIS*

County: *ATHENS*

Address:

City:

Location Number: *100*

Latitude: *39.230536*

Township: *TROY*

State: *OH*

Location Map Year: *1945*

Longitude: *-81.763496*

Section Number: *10*

Lot Number:

Zip Code:

Location Area:

CONSTRUCTION DETAILS

Borehole Diameter: 1:

2:

Borehole Depth: 1: *80 ft.*

2:

Depth to Bedrock:

Casing Diameter: 1: *8 in.*

2:

Casing Length: 1: *23 ft.*

2:

Casing Thickness: 1:

2:

Casing Height Above Ground:

Date of Completion: *7/27/1950*

Driller's Name:

Screen Diameter:

Type:

Set Between:

Gravel Pack Material/Size:

Method of Installation:

Grout Material/Size:

Method of Installation:

Aquifer Type: *SANDSTONE*

Total Depth: *80 ft.*

Well Use:

Slot Size:

Material:

Screen Length:

Vol/Wt Used:

Placed:

Vol/Wt Used:

Placed

WELL TEST DETAILS

Static Water Level:

Drawdown:

COMMENTS:

Test Rate:

Test Duration:

[Associated Reports](#)

WELL LOG

Formations

SOIL

SANDSTONE

WATER AT

From

0

23

To

23

80

55

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Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **57319**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: JESS SMITH

County: ATHENS

Address:

City:

Location Number: 12.20

Latitude: 39.239958

Township: TROY

State: OH

Location Map Year: 1981

Longitude: -81.749578

Section Number: 11

Lot Number:

Zip Code:

Location Area:

CONSTRUCTION DETAILS

Borehole Diameter: 1:

2:

Borehole Depth: 1: 66 ft.

2:

Depth to Bedrock:

Casing Diameter: 1: 5.63 in.

2:

Casing Length: 1: 41 ft.

2:

Casing Thickness: 1:

2:

Casing Height Above Ground:

Date of Completion: 10/10/1950

Driller's Name:

Screen Diameter:

Type:

Set Between:

Gravel Pack Material/Size:

Method of Installation:

Grout Material/Size:

Method of Installation:

Aquifer Type: SANDSTONE

Total Depth: 66 ft.

Well Use:

Slot Size:

Material:

Screen Length:

Vol/Wt Used:

Placed:

Vol/Wt Used:

Placed

WELL TEST DETAILS

Static Water Level:

Drawdown:

COMMENTS:

Test Rate:

Test Duration:

[Associated Reports](#)

WELL LOG

Formations	From	To
SOFT SOIL	0	37
SOFT SAND	37	37
SOLID SANDSTONE	37	66

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Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Soil and Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: **57358**

[View Image of Original Well Log](#)

ORIGINAL OWNER AND LOCATION

Original Owner Name: *R HEATHERLY*

County: *ATHENS*

Township: *TROY*

Section Number: *11*

Address:

Lot Number:

City:

State: *OH*

Zip Code:

Location Number: *78*

Location Map Year: *1945*

Location Area:

Latitude: *39.243259*

Longitude: *-81.759771*

CONSTRUCTION DETAILS

Borehole Diameter: 1:

Borehole Depth: 1: *165 ft.*

Depth to Bedrock:

2:

2:

Casing Diameter: 1: *5.63 in.*

Casing Length: 1: *40 ft.*

Casing Thickness: 1:

2:

2:

2:

Casing Height Above Ground:

Aquifer Type: *SHALE & SANDSTONE*

Date of Completion: *7/12/1949*

Total Depth: *165 ft.*

Well Use:

Driller's Name:

Screen Diameter:

Slot Size:

Screen Length:

Type:

Material:

Set Between:

Gravel Pack Material/Size:

Vol/Wt Used:

Method of Installation:

Placed:

Grout Material/Size:

Vol/Wt Used:

Method of Installation:

Placed

WELL TEST DETAILS

Static Water Level:

Test Rate:

[Associated Reports](#)

Drawdown:

Test Duration:

COMMENTS:

WELL LOG

Formations	From	To
CLAY	0	40
SHALE & SANDSTONE	40	165

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Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
2045 Morse Road, Building F-2
Columbus, OH 43229-6693
Phone: (614) 265-6922; Fax: (614) 265-6910

August 16th, 2013

Mr. Jeff D. Harper
K & H Partners, LLC.
P.O. Box 1366
Parkersburg, WV 26102

RE: Public Notification for SWIW application, Athens County, Troy Twp., new well, K & H Partners # 2 injection well

Dear Mr. Harper:

As outlined in Rule 1501: 9-3-06 (H) (1) of the Ohio Administrative Code, please consider this letter as notification from the Division for you to proceed with the public notice. Enclosed, please find a copy of the notice you will need to have run in the newspaper of general circulation in the county of the proposed injection well. **The public notice must be run for no less than five consecutive days. After running this notice in the newspaper, please send me the original proof-of-publication from the newspaper as soon as possible.**

If you have any questions regarding this matter, please feel free to contact me at (614) 265-6673.

Sincerely,

Andrew Adgate, Geologist
UIC Section
Division of Oil and Gas Resources Management
2045 Morse Road, F-2
Columbus, Ohio 43229-6693

Cc: File

PUBLIC NOTICE

K & H Partners, LLC, P.O. Box 1366, Parkersburg, WV 26102, (304) 863-8867 is applying to permit a well for the injection of brine water produced in association with oil and natural gas. The location of the proposed injection well is the K & H Partners #2, Fraction 5, Troy Township, Athens County, Ohio. The proposed well will inject into the Ohio Shale through Big Lime at a depth of 2000 to 4100 feet. The average injection is estimated to be 3000 barrels per day. The maximum injection pressure is estimated to be 460 psi. Further information can be obtained by contacting K & H Partners, LLC, or the Division of Oil and Gas Resources Management. The address of the Division is: Ohio Department of Natural Resources, Division of Oil and Gas Resources Management, 2045 Morse Road, Building F-2, Columbus, Ohio 43229-6693, (614) 265-6922. For full consideration, all comments and objections must be received by the Division, in writing, within fifteen calendar days of the last date of this published legal notice.

INTER-OFFICE MEMO

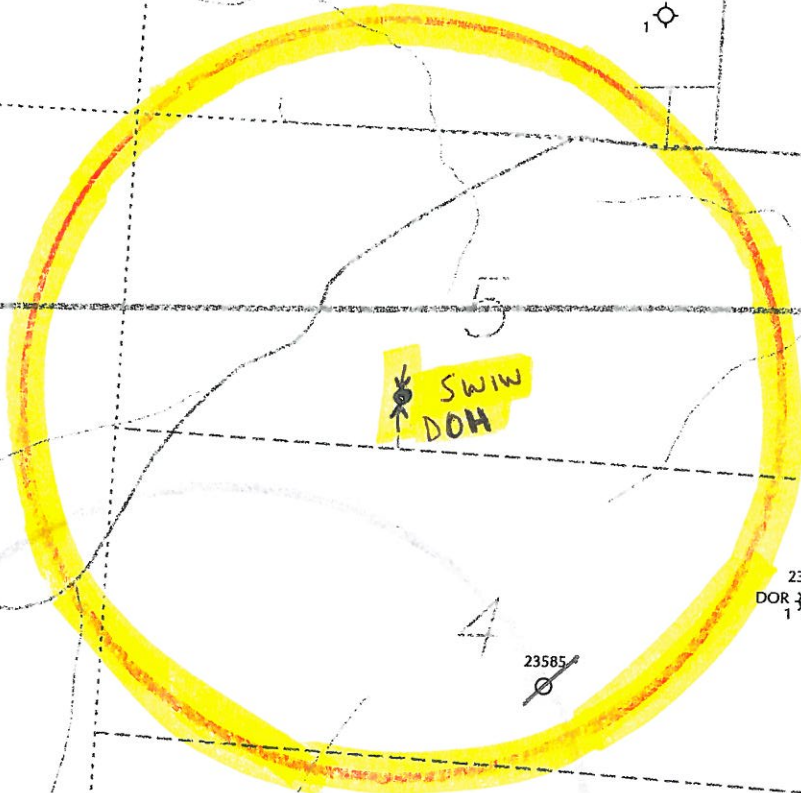
TO: Jon Scott, Mineral Resources Inspector
FROM: Andrew Adgate, Geologist AA
SUBJECT: Application and site evaluation for SWIW permit
DATE: August 7th, 2013

The Division of Oil and Gas Resources Management has received an application for the proposed saltwater injection well as described below:

OPERATOR: K & H Partners, LLC.
WELL NAME & NUMBER: K & H Partners #2
PERMIT NUMBER: New well
LOCATION: 358' SL & 1957' WL of Sec 10, Fraction 5, Troy Twp., Athens County
PROPOSED INJECTION ZONE: Ohio Shale
DATE RECEIVED: July 22nd, 2013

Please inspect proposed site and evaluate for any potential water wells or surface bodies of water within close proximity that would require any additional permit conditions for the construction of the SWIW surface facilities. Please e-mail me a copy of the site inspection report with any recommendations.

Athens County
Troy Twp



SWIN
DOH

3821
SWIN
DOH

24 (E)

61575
KE

21516
BINJ

23542
DOH
DOR

61574

23541
DOR

23572
DOR

23575
DOR

23585

23518
DOR

21811
23452
CL
MED

23552
DOR

17

16

12

6

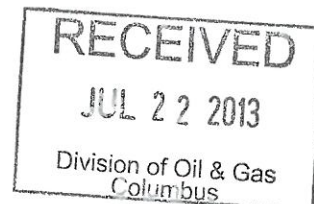
3

Troy

1

NOTE: Proposed injection well should be circumscribed with appropriate radius and all wells clearly labeled and identified. A legend depicting color code is requires.

APPLICATION FOR A PERMIT (Form 1)
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT
2045 MORSE ROAD, BUILDING F-2
COLUMBUS, OHIO 43229-6693
(614) 265-6922



#2534
\$1,066
SEE INSTRUCTIONS ON BACK

APHS 22697

1. We (applicant) <u>K&H Partners, LLC.</u>		2. Owner #: <u>888 8</u>	
Address: <u>P.O. Box 1366, Parkersburg, Wv 26102</u>		Phone #: <u>304-863-8867</u>	
hereby apply this date _____, 20____ for a permit to:			
<input checked="" type="checkbox"/> Drill New Well <input type="checkbox"/> Drill Horizontally <input type="checkbox"/> Drill Directionally <input type="checkbox"/> Reissue		<input type="checkbox"/> Revised Location <input type="checkbox"/> Plug Back <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Orphan Well Program	
<input type="checkbox"/> Convert <input type="checkbox"/> Deepen <input type="checkbox"/> Reopen <input type="checkbox"/> Temporary Inactive			
3. TYPE OF WELL: <input type="checkbox"/> Oil & Gas <input type="checkbox"/> Stratigraphic Test <input type="checkbox"/> Solution Mining* <input checked="" type="checkbox"/> Input/Injection			
<input type="checkbox"/> Annular Disposal <input type="checkbox"/> Gas Storage <input type="checkbox"/> Enhanced Recovery* <input type="checkbox"/> Water Supply			
<input checked="" type="checkbox"/> Saltwater Injection <input type="checkbox"/> Other (explain): _____ (*if checked, select appropriate box below) <input type="checkbox"/> Observation <input type="checkbox"/> Production/Extraction			
4. IS THE WELL LOCATION OR PRODUCTION FACILITY(S) WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01 (Y)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		19. TYPE OF TOOLS: <input type="checkbox"/> Cable <input type="checkbox"/> Cable/Rotary	
5. MAIL PERMIT TO: <u>Jeff Harper</u> <u>P.O. Box 1366</u> <u>Parkersburg, Wv 26102</u>		<input checked="" type="checkbox"/> Rotary (<input checked="" type="checkbox"/> Air <input type="checkbox"/> Fluid) <input type="checkbox"/> Service Rig	
6. COUNTY: <u>Athens</u>		20. SOURCE(S) OF GROUND AND/OR SURFACE WATER USED IN PRODUCTION OPERATION: Watershed: <input type="checkbox"/> Lake Erie <input type="checkbox"/> Ohio River	
7. CIVIL TOWNSHIP: <u>Troy</u>		Estimated Withdrawal Rate (gal/day): _____	
8. SECTION: <u>10</u> 9. LOT: _____		Estimated Total Volume (gal): _____	
10. FRACTION: <u>5</u> 11. QTR TWP: _____		If Recycled Water – Estimated Total Volume (gal): _____	
12. TRACT/ALLOT: _____		21. EMERGENCY TELEPHONE NUMBERS: (closest to well site): Fire: <u>911</u> Medical: <u>911</u>	
13. WELL #: <u>2</u>		22. MEANS OF INGRESS & EGRESS: Road: <u>Athens County Road 63</u>	
14. LEASE NAME: <u>K&H Partners, Llc.</u>		23. ROAD USE FOR A HORIZONTAL WELL: Maintenance Agreement Attached <input type="checkbox"/> Non-agreement Affidavit Attached <input type="checkbox"/>	
15. PROPOSED TOTAL DEPTH: <u>4990</u>		24. ARE THE SURFACE RIGHTS OWNED BY STATE OF OHIO? Agency Name: <u>No</u>	
16. PROPOSED GEOLOGICAL FORMATION(S): <u>Ohio Shale</u>		25. ATTACH LANDOWNER ROYALTY LISTING	
17. DRILLING UNIT ACRES: <u>49.467</u>			
18. IF PERMITTED PREVIOUSLY: API #: _____ OWNER: _____			

26. PROPOSED CASING AND CEMENTING PROGRAM								
Type Casing	Borehole Diameter (in)	Borehole Depth (ft)	Casing Diameter (in)	Casing Depth (ft)	Cement Volume (sacks)	Formation	Zone Tested or produced (✓ if Yes)	Hydraulic Fracturing (✓ if Yes)
Drive Pipe							<input type="checkbox"/>	<input type="checkbox"/>
Conductor	15 1/4		13 3/8	65	55	Surficial	<input type="checkbox"/>	<input type="checkbox"/>
Mine String							<input type="checkbox"/>	<input type="checkbox"/>
Surface	12 1/4	360	9 5/8	349	135	Penn sands and shales	<input type="checkbox"/>	<input type="checkbox"/>
1 st Intermediate							<input type="checkbox"/>	<input type="checkbox"/>
2 nd Intermediate							<input type="checkbox"/>	<input type="checkbox"/>
Production	8 3/4	2010	7	2000	282	Ohio Shale	<input type="checkbox"/>	<input type="checkbox"/>
Liner							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I, the undersigned, further depose and state that I am the person who has the right to drill on the tract or drilling unit and to drill into and produce from a pool and to appropriate the oil or gas that I produce therefrom either for myself or others as described in this application. And furthermore, I the undersigned, being duly sworn, depose and state at this time that I am not liable for any final nonappealable order of a court for damage to streets, roads, highways, bridges, culverts, or drainage ways pursuant to Section 5577.12 of the Ohio Revised Code (ORC). I, the undersigned, further depose and state that all notices required by 1509.06 (A) (9) ORC for this application have been duly provided by me. If applying for a permit to plug and abandon a well, I hereby certify that the written notices, as required in Section 1509.13, ORC, have been given.

That I hereby agree to conform with all provisions of Chapter 1509., ORC, and Chapter 1501., OAC, and all orders and conditions issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Owner/Authorized Agent Jeff Harper

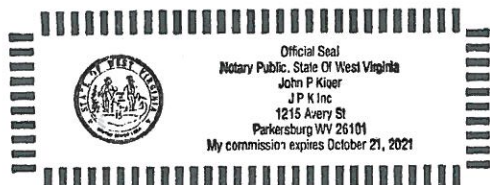
Name (Type or Print) Jeff Harper Title C.O.O.

If signed by Authorized Agent, a certificate of appointment of agent must be on file.

Sworn to and subscribed before me this the 15th day of July, 20 13.

(Notary Public)

(Date Commission Expires) 10-21-21



Before this application can be processed, an Authority and Organization Form (Form 9), indicating the exact owner name on this form, and proof of compliance with the surety and insurance requirements of Chapter 1509.07, Ohio Revised Code, must be on file with the Division of Oil and Gas Resources Management. The signature of owner/authorized agent must correspond with the signature(s) listed on the Form 9 on file with the Division.

All information requested on this form must be provided unless exempted by the instructions below. Incomplete applications may be returned to the applicant. An application for a permit requires the following:

1. Drill, Reopen, Deepen and Plug Back an *Oil and Gas Well* (non-urban valid for 24 months; urban valid for 12 months)

- a. Original and two (2) copies of Application for a Permit (Form 1);
- b. Original and four (4) copies of an Ohio registered surveyor's plat;
- c. Original and one (1) copy of the Restoration Plan (Form 4);
- d. Reopen, deepen, plug back and convert will require three (3) copies of the Well Completion Record (Form 8);
- e. \$500.00 check or money order payable to the Division of Oil and Gas Resources Management and;
- f. If requesting an expedited review, an additional \$250 fee is required; and an Oil & Gas Affidavit (if the proposed well location is in a coal-bearing township).
- g. For an **urbanized area** new well drilling permit, the fee is as follows: \$500 for a township with a population up to 9,999; \$750 for a township with a population of 10,000 to 14,999; \$1,000 for a township with a population exceeding 15,000; and \$1,000 for all municipal corporations regardless of population.
- h. For **mandatory pooling**, an additional \$5,000.

2. Reissue or Revised Location

- a. Same as above: 1(a), (b), (c), (d), (f);
- b. \$250 check or money order payable to the Division of Oil and Gas Resources Management.

3. Plug and Abandon (valid for 24 months)

- a. Original copy of Application for a Permit (Form 1);
- b. Two (2) copies of the Ohio registered surveyor's plat originally filed, or modified, if available;
- c. Three (3) copies of the Well Completion Record (Form 8) if available; if there is no Well Completion Record on file with the Division, provide any drilling information that is available;
- d. \$250 check or money order payable to the Division of Oil and Gas Resources Management;
- e. If requesting an expedited review, an additional \$500 fee is required.

4. Drill, Reissue, Reopen, Deepen, Plug Back or Convert a Well to Saltwater Injection

- a. Same as above: 1(a), (b), (c), (d); and
- b. \$1,000 check or money order payable to the Division of Oil and Gas Resources Management.

5. Temporary Inactive (valid for 12 months)

- a. Original and one (1) copy of Application for a Permit (Form 1);
- b. A map, on a scale not smaller than four hundred feet to the inch, that shows the location of the well and the tank battery, that includes the latitude and longitude of the well;
- c. A written statement that demonstrates all of the following: 1) the well is of future utility, 2) the applicant has a viable plan to use the well within a reasonable period of time, and 3) the well poses no threat to the health or safety of persons, property or the environment;
- d. For first application, \$100 check or money order payable to the Division of Oil and Gas Resources Management;
- e. For first renewal, \$250 check or money order payable to the Division of Oil and Gas Resources Management;
- f. For subsequent renewals, \$500 check or money order payable to the Division of Oil and Gas Resources Management; additional bonding may be required.

Item 1. Permit holder's name - as it appears on Form 9. Indicate the type of or combination of activities to be permitted.

Item 2. Indicate owner number, if the owner number is not known, please contact the Division.

Item 3. Indicate the type of well for which the application is being submitted.

Item 4. An "urbanized area" is a municipal corporation or a township that has an unincorporated population of more than five thousand, as defined under Section 1509.01 (Y) of the Ohio Revised Code. Notice must be provided by regular mail to the owner of each parcel of real property that is located within five hundred feet of the surface location of the well, and to either the executive authority of the municipal corporation or the board of township trustees (see 1509.06 (A) (9)).

Item 5. Provide name, address, city, state and zip code where the permit is to be mailed.

Items 6-12. Indicate drilling location.

Items 13-17. Provide requested information.

Item 18. Complete when application is for a permit to reopen, deepen, reissue, plug back, convert, or plug and abandon.

Item 19. Indicate type of tools that may be used.

Item 20. Indicate sources and volume of water to be used in drilling and completion operations.

Item 21. Indicate fire and medical department emergency telephone numbers closest to the well site.

Item 22. List all county, township, and/or municipal roads, streets and highways by name or number that applicant anticipates to use as means of ingress and egress to and from the well site.

Item 23. Attach a copy of an agreement entered into for road use maintenance or an affidavit of non-agreement.

Item 24. Complete if surface rights are owned by the State of Ohio.

Item 25. Attach a list showing the names and addresses of all landowner royalty interest holders. Names must coincide with those shown on the designated unit or subject tract on the surveyor's plat.

Item 26. Complete proposed casing and cementing program. Indicate zone to be produced and/or hydraulically fractured.

SUPPLEMENT TO APPLICATION
PERMIT FOR A SALTWATER INJECTION WELL (Form 210)

Ohio Department of Natural Resources, Division of Oil and Gas Resources Management
2045 Morse Road, Building F-2, Columbus, Ohio 43229-6693

RECEIVED

JUL 22 2013

Division of Oil & Gas
Columbus

AREA OF REVIEW. An application for a saltwater injection well (SWIW) will be evaluated on the basis of an "area of review" surrounding the proposed well. The area of review for wells, in which injection of greater than two hundred (200) barrels per day is proposed, shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-half mile. The area of review for wells, in which a maximum injection of two hundred (200) barrels per day or less is proposed, shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-quarter mile.

31. PROPOSED INJECTION ZONE

Geological Formation:

Injection Interval: From: 2010 2000' AA Feet to 3990 4100' AA

Geologic description of injection zone: Shale

Composition of Proposed Fluids to be Injected: (Check all that apply)

☒ Brine ☒ Flow-Back ☐ Drilling Fluids ☐ Other Approved Fluids

32. WELL CONSTRUCTION AND OPERATION

A. Description of the proposed casing and cement program for new wells, or of the casing, cementing or sealing with prepared clay for existing wells to be converted: (Tab to next line to continue)

13 And 3/8 " Conductor Set At 65'. (55) Sacks Of Cement. Surface Casing Will Be 9 And 5/8 " Set At 349' 135 Sacks Of Cement. 2000' Of 7 Inch Production Casing With 282 Sacks Of Cement. Open Hole Injection From 2000' To 3990'. 4100' AA
2 3/8" tubing to 1975'

B. Proposed method for testing the casing: (Tab to next line to continue)

Pressure Test After Each Stage Of Casing.

C. Description of the proposed method for completion and operation of the injection well: (Tab to next line to continue)

Open Hole Completion And Standard Salt Water Injection .

D. Description of the proposed unloading, surface storage, and spill containment facilities: (Tab to next line to continue)

K&H #1 Unloading And Containment Facility Will Be Used For K&H #2 Well.

Description Provided As Attachment

33. PROPOSED INJECTION VOLUMES

A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:

AVERAGE: 3,000 Bbl MAXIMUM: 4,000 Bbl

B. Indicate the method to be used to measure the actual daily injection pressure:

Silversmith Measurement Software With Totalizer Metering Devices.

34. PROPOSE INJECTION PRESSURES

A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:

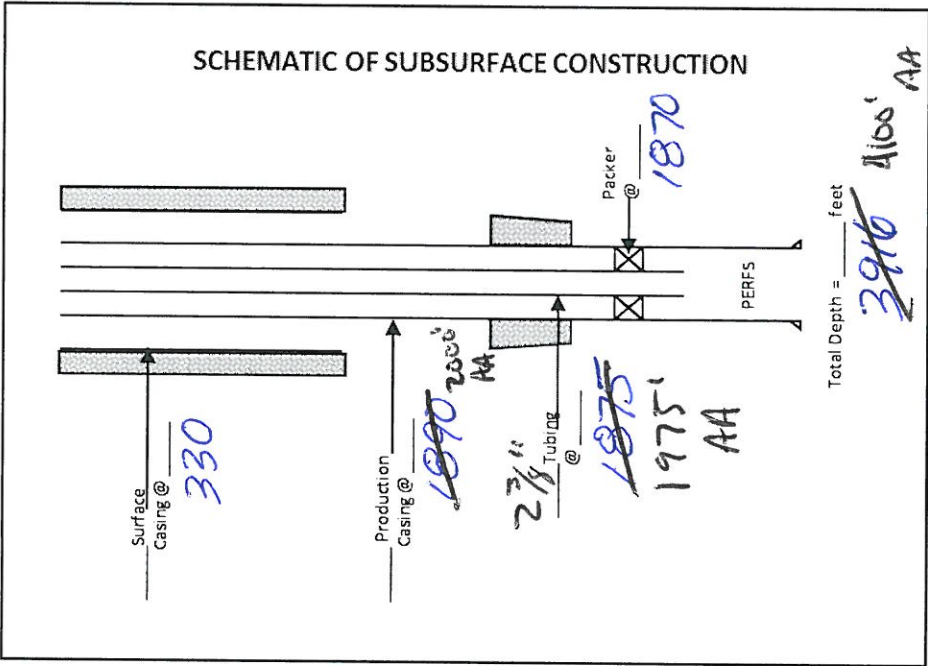
AVERAGE: 0 Psi MAXIMUM: 435psi 460 psi AA

35. PROPOSED CORRECTIVE ACTION

Explain any corrective action proposed for wells penetrating the proposed injection formation or zone within the area of review:

No wells within 1/2 mile of the proposed well location.

36. **MAP.** Each application for a permit shall be accompanied by a map or maps showing and containing the following information:
- A. The subject tract of land on which the proposed injection well is to be located.
 - B. The location of the proposed injection well on the subject tract established by an Ohio registered surveyor showing the distances in feet from the proposed well site to the boundary lines on the subject tract;
 - C. The geographic location of all wells, penetrating the formation proposed for injection regardless of status, within the area of review;
 - D. All holders of the land owner's royalty interest of record, or holders of the severed oil and gas mineral estates of record in the subject tract;
 - E. All owners or operators of wells producing from or injecting into the same formation proposed as the injection formation.
37. **SCHEMATIC DRAWING OF SUBSURFACE CONSTRUCTION.** Label the schematic drawing below indicating size and setting depth of surface casing, intermediate (if any) and production casings; amount of cement used, measured or calculated tops of cement; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval. If the proposed input well design is substantially different from the schematic below, attach on a separate sheet a schematic of your proposal labeled with the above information.



38. Public notice of an application for an enhanced recovery project is required by law. In addition, the applicant must submit, on an attached sheet, a list of the names and address(es) of those persons required to receive personal notice in accordance with Rule 1501:9-5-05(E)(1), of the Ohio Administrative Code.

After submitting the application, and after a determination by the Division that it is complete as required by the rules of the Division, a legal notice must be published by the applicant in a newspaper of general circulation in the area of review. The legal notice must contain the information described in Rule 1501:9-5-05(E)(1) of the Ohio Administrative Code. A copy of the notice must be delivered to all owners or operators of wells within the area of review producing from or injecting into the same formation proposed as the injection formation. Proof of publication, publication date, and an oath as to the delivery to those entitled to receive personal notice under this method must be filed with the Division within thirty (30) days after the Division determines that the application is complete.

In addition, notice of all applications for enhanced recovery projects will be published in the *Division's Weekly Circular*.

The undersigned hereby agrees to comply with all provisions for an enhanced recovery project as required by Chapter 1501:9-5 of the Ohio Administrative Code. In addition, the undersigned deposed and says that s/he shall conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all orders and rules issued by the Chief, Division of Oil and Gas Resources Management.

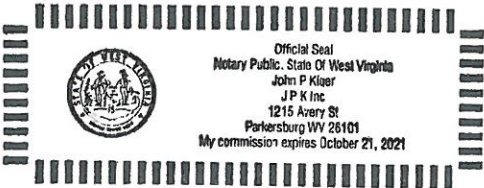
Owner/Authorized Agent (Type or Print): Jeff D Harper

Signature of Owner/Authorized Agent: _____ Title: Coo

Permanent Address of Home Office: 2130 Harris Highway Washington, Wv 26181

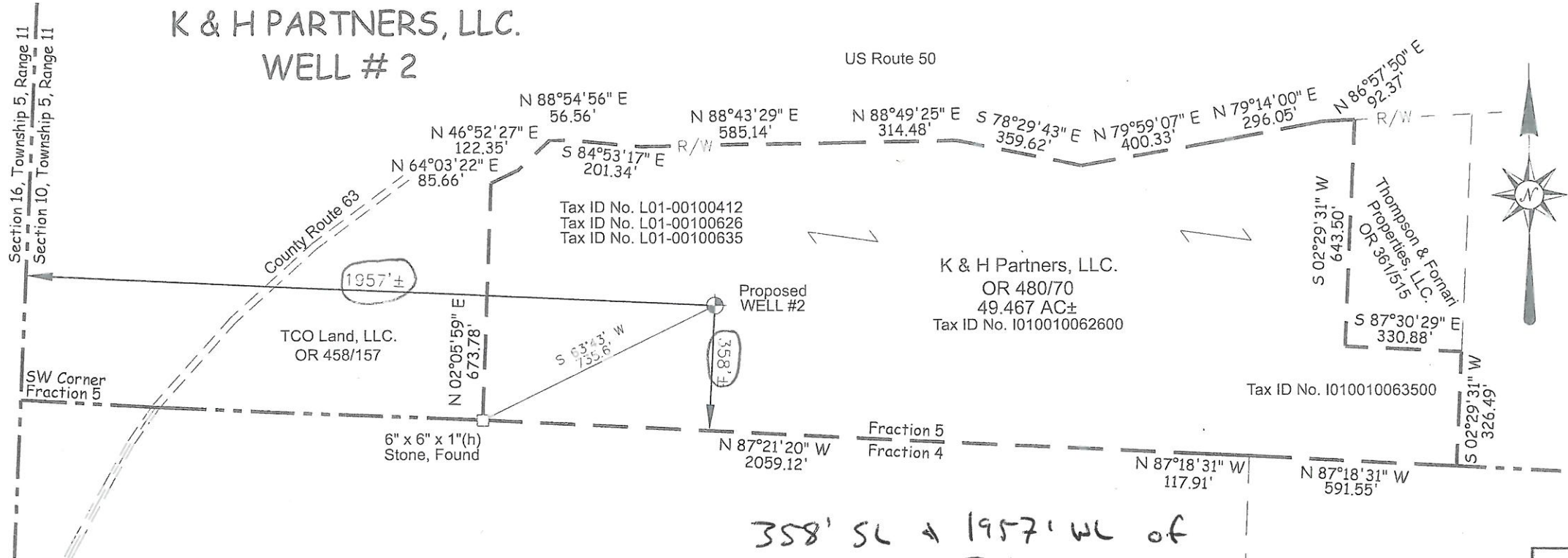
If signed by Authorized Agent, a certified copy of appointment of agent must be on file with the Division.

SWORN to and subscribed to me
this 15th day of July, 20 13.



Notary Public
Date Commission Expires 10-21-21

K & H PARTNERS, LLC. WELL # 2



I hereby certify that all drilling or producing wells within 600 feet and all buildings and structures within 100 feet have been shown, there are no drilling unit lines nearer than 250 feet, that this plat is true and correct and was prepared according to the current State of Ohio, Department of Natural Resources, Division of Oil and Gas Regulations.

Jeffrey D. Harper
OR 480/828

Ernest T. & Rebecca
G. Cale
OR 397/2101

Division of Oil & Gas
Columbus

RECEIVED
JUL 22 2013

REGISTERED SURVEYOR

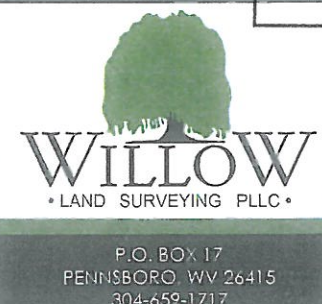
WELL OPERATOR K & H PARTNERS, LLC.
ADDRESS P.O. BOX 1365
PARKERSBURG, WV 26102
SURFACE OWNER K & H PARTNERS, LLC.
MINERAL OWNER K & H PARTNERS, LLC.
WELL NO. 2 DRILLING UNIT AC. 49.467
COUNTY ATHENS TWP. TROY
QUADRANGLE COOLVILLE
ELEVATION 806' (NAVD 88)
OHIO PLANE COORDINATES X: 2,210,409
NAD 27 Y: 450,595
OHIO PLANE COORDINATES X: 2,178,945
NAD 83 Y: 450,632

WILLOW LAND SURVEYING PLLC
P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SUBDIVISION CIVIL TWP.
TWP. 5
RANGE 11
QUARTER TWP. N/A
SECTION 10
TRACT N/A
ALLOTMENT N/A
FRACTION 5
OTHER N/A
DATE: 06/28/13



0' 400' 800'
SCALE: 1 INCH = 400 Feet



RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Oil and Gas Resources Management, 2045 Morse Road, Bldg. F-2, Columbus OH 43229-6693




1. DATE OF APPLICATION: 15-Jul-13		3. API #:	
2. OWNER NAME, ADDRESS, & TELEPHONE NO.: K&H Partners, LLC. 2130 Harris Highway Washington, WV 26181 304-863-8867		4. WELL #:	
		5. LEASE NAME: K&H Partners	
		6. PROPERTY OWNER: K&H Partners, LLC.	
		7. COUNTY: Athens	
		8. CIVIL TOWNSHIP: Troy	
		9. SECTION: 9,10 10. LOT:	
11. CURRENT LAND USE: <input type="checkbox"/> Cropland <input type="checkbox"/> Commercial <input type="checkbox"/> Pasture <input type="checkbox"/> Idle Land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Unreclaimed strip mine <input checked="" type="checkbox"/> Woodland: <input type="checkbox"/> Broadleaf <input type="checkbox"/> Needlelike		17. TYPE OF WELL: <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other	
12. SLOPE GRADIENT & LENGTH DETERMINED FROM: <input type="checkbox"/> Ground Measurement <input checked="" type="checkbox"/> U.S. Geological Survey Topographical Maps <input type="checkbox"/> Other: (explain)		18. STEEPEST SLOPE GRADIENT CROSSING SITE: <input checked="" type="checkbox"/> 0 to 2% <input type="checkbox"/> 2.1 to 8% <input type="checkbox"/> 8.1 to 10% <input type="checkbox"/> 10.1 to 24% <input type="checkbox"/> greater than 24%	
13. TYPE OF FALL VEGETAL COVER: <input type="checkbox"/> Little or no vegetal cover <input type="checkbox"/> Short grasses <input type="checkbox"/> Tall weeds or short brush (1 to 2 ft.) <input type="checkbox"/> Brush or bushes (2 to 6 ft.) <input type="checkbox"/> Agricultural crops <input checked="" type="checkbox"/> Trees with sparse low brush <input type="checkbox"/> Trees with dense low brush		19. LENGTH OF STEEPEST SLOPE CROSSING SITE: <input checked="" type="checkbox"/> 1 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft.	
14. SOIL & RESOILING MATERIAL AT WELLSITE: <input type="checkbox"/> Stockpile and protect topsoil to be used when preparing seedbed <input type="checkbox"/> Use of soil additives (e.g., lime, fertilizer) <input type="checkbox"/> No resoiling planned <input type="checkbox"/> Proposed alternative		20. RESTORATION OF DRILLING PITS: ** <input checked="" type="checkbox"/> Haul drilling fluids and fill pits <input type="checkbox"/> Use steel circulating tanks <input type="checkbox"/> Proposed alternative	
15. DISPOSAL PLAN FOR TREES AND TREE STUMPS: <input type="checkbox"/> No trees disturbed <input type="checkbox"/> Haul to landfill <input checked="" type="checkbox"/> Cut into firewood <input type="checkbox"/> Sell to lumber company <input type="checkbox"/> Bury with landowner's approval <input type="checkbox"/> Mulch small trees and branches, erosion control <input type="checkbox"/> Use for wildlife habitat with landowner approval <input type="checkbox"/> Proposed alternative		21. BACKFILLING AND GRADING AT SITE: <input type="checkbox"/> Construct diversions channeled to naturally established drainage systems <input type="checkbox"/> Construct terraces across slopes <input checked="" type="checkbox"/> Grade to approximate original contour <input type="checkbox"/> Grade to minimize erosion & control offsite runoff <input type="checkbox"/> Proposed alternative	
16. SURFACE AND SUBSURFACE DRAINAGE FACILITIES: <input checked="" type="checkbox"/> No existing drainage facilities for removal of surface and/or subsurface water <input type="checkbox"/> Tile drainage system underlying land to be disturbed <input type="checkbox"/> Drain pipe(s) underlying land to be disturbed <input type="checkbox"/> Surface drainage facilities on land to be disturbed		22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE: <input checked="" type="checkbox"/> Seeding plan <input type="checkbox"/> Sod <input type="checkbox"/> Agricultural crops <input type="checkbox"/> Trees and/or Bushes <input type="checkbox"/> Proposed alternative	
		23. ADDITIONAL HOLES: <input checked="" type="checkbox"/> Rat/Mouse, if used, will be plugged	
		24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD: <input type="checkbox"/> 100 ft. or less <input type="checkbox"/> 101 to 500 ft. <input checked="" type="checkbox"/> 501 to 1500 ft. <input type="checkbox"/> greater than 1500 ft.	
		25. CURRENT LAND USE OF PATH OF ACCESS ROAD: <input type="checkbox"/> Cropland <input type="checkbox"/> Pasture <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Idle land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Unreclaimed strip mine <input type="checkbox"/> Woodland: <input type="checkbox"/> Broadleaf <input type="checkbox"/> Needlelike	

**PITS MUST BE FILLED WITHIN TWO MONTHS AFTER COMMENCEMENT OF THE WELL AND WITHIN FOURTEEN DAYS AFTER COMMENCEMENT OF THE WELL IN AN URBANIZED AREA.

REQUIRED BY SECTION 1509.06 (A)(10), OHIO REVISED CODE -- FAILED TO SUBMIT MAY RESULT IN AN ASSESSMENT OF CRIMINAL FINES NOT LESS THAN \$100.00 NOR MORE THAN \$2,000.00 OR CIVIL PENALTIES NOT LESS THAN \$4,000.00.

26. SURFACING MATERIAL FOR ACCESS ROAD: <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Slag <input type="checkbox"/> No surfacing material to be used <input type="checkbox"/> Proposed alternative <input type="checkbox"/> Brick and/or tile waste <input type="checkbox"/> Crushed stone	29. STEEPEST SLOPE GRADIENT ON ACCESS ROAD: <input checked="" type="checkbox"/> 0 to 5% <input type="checkbox"/> 6 to 10% <input type="checkbox"/> greater than 10%
27. PATH OF ACCESS ROAD TO BE DETERMINED BY: <input checked="" type="checkbox"/> Landowner <input type="checkbox"/> Existing access road <input type="checkbox"/> Contractor <input type="checkbox"/> Operator	30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD: <input checked="" type="checkbox"/> 0 to 100 ft. <input type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> 101 to 200 ft. <input type="checkbox"/> greater than 400 ft.
28. GRADING AND EROSION CONTROL PRACTICE ON ROAD: <input checked="" type="checkbox"/> Diversions <input type="checkbox"/> Drains <input type="checkbox"/> Open top culverts <input type="checkbox"/> Outsloping of road <input type="checkbox"/> Pipe culverts <input type="checkbox"/> Proposed alternative <input type="checkbox"/> Filter strips <input type="checkbox"/> Riprap <input type="checkbox"/> Water breaks	31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

The undersigned hereby agrees to implement all restoration operations identified on this form, and conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all Orders and rules issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Owner/Authorized Agent 

Name (Typed or Printed) Jeff Harper Date 7/15/2013

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.