

APPLICATION CHECKLIST

Mahoning Co. SWIW #15, Permit #

D & L Energy, Inc. Mohawk - Mt. Seneca #8
Knox - Mt. Seneca

| | Date | Initials |
|---|----------|-------------|
| Enter on Agenda | 12/29/11 | [Signature] |
| Completeness Review | 12/29/11 | [Signature] |
| Date - Time Stamp | 12/29/11 | [Signature] |
| Area of Review | 1/31/12 | [Signature] |
| Site Evaluation | | [Signature] |
| Permitting Section | 12/29/11 | [Signature] |
| Memo to Inspector | | [Signature] |
| Public Notice | | [Signature] |
| Letter _____ | | |
| Date Run _____ | | |
| 15 Days _____ | | |
| Review Public Notice | | [Signature] |
| Affidavit of Notification | 12/29/11 | [Signature] |
| Objections Received Yes _____ No _____ | | [Signature] |
| Public Hearing Date | | [Signature] |
| Chief's Order, if Required | | [Signature] |
| Schematic | | [Signature] |
| Plot on Map | 1/31/12 | [Signature] |
| Review by Geologist | | [Signature] |
| Permit Conditions (Same date as permit) | | [Signature] |
| Enter on Computer (Same or later date than Chief's Order) | | [Signature] |
| Enter on Master List | 1/31/12 | [Signature] |
| EPA Form | 1/31/12 | [Signature] |
| Mail Permit | | [Signature] |
| Update Agenda | | [Signature] |
| File | | [Signature] |

RECORD OF CONVERSATION

Proof Sheet

APPL NUMBER aAMY0000643
OWNER NUMBER 2651
OWNER NAME D & L ENERGY INC
EXISTING WELL 0
API PERMIT NO
APPL TYPE SWIW
TYPE OF WELL SWD
VARIANCE REQUEST
WELL NAME MOHAWK MEENACHAN
WELL NUMBER 8 (SWW# 15)
PREV/PROPOSED TD 9600
DRILL UNIT ACRES 3.48
TYPE OF TOOL RTAF
WELL CLASS SWW
FIRE PHONE () - 911
MEDICAL PHONE () - 911
COUNTY CODE 99
COUNTY NAME MAHONING
COAL (Y=-1/N=0) -1
CIVIL TOWNSHIP YOUNGSTOWN
SURF QUAD YOUNGSTOWN
Nad 27 SURF ORIG X 2511061
Nad 27 SURF ORIG Y 521733
GROUND ELEVATION 875
SURF SEC
SURF LOT
SURF QTR TWP
SURF ALLOT
SURF TRACT
SURF FRACTION

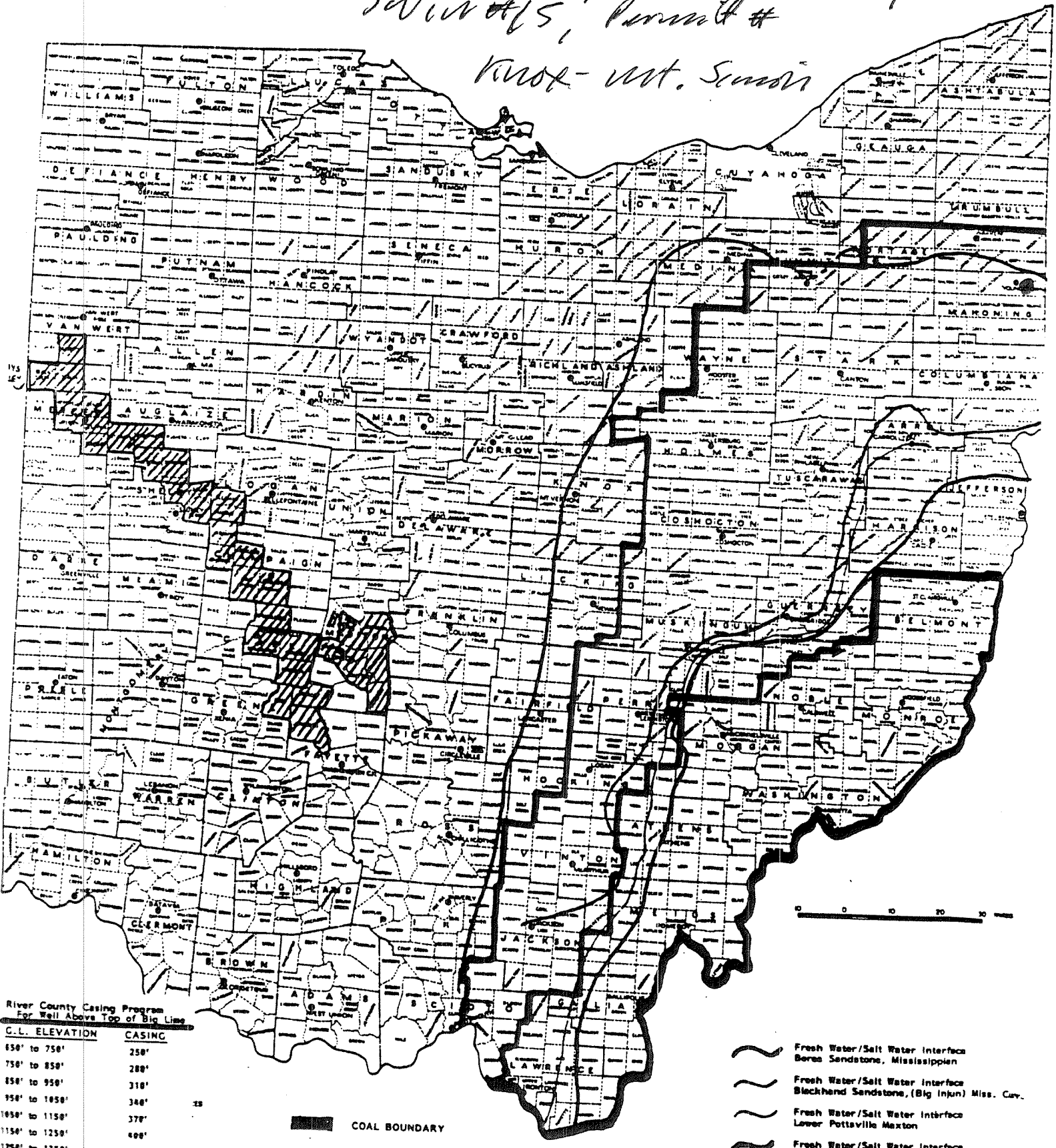
URBANIZED AREA ?
NAME YOUNGSTOWN

DISPOSAL PLAN 1 ND
DISPOSAL PLAN 2
DISPOSAL PLAN 3
DISPOSAL PLAN 4
DISPOSAL PLAN 5
MP Check # 0

PROPOSED FORMATIONS
 KNOX - LOWER CAMBRIAN

TARG CIVIL TWP
TARG QUAD
Nad 27 TARG ORIG X
Nad 27 TARG ORIG Y
TARG ELEV 0
TARG SECTION
TARG LOT
TARG QTR TWP
TARG ALLOT
TARG TRACT
TARG FRACTION

D & L Energy, Markey County
 Service # 5, Permit #
 Permit - Mt. Seneca



River County Casing Program
 For Well Above Top of Big Line

| G.L. ELEVATION | CASING |
|----------------|--------|
| 650' to 750' | 250' |
| 750' to 850' | 280' |
| 850' to 950' | 310' |
| 950' to 1050' | 340' |
| 1050' to 1150' | 370' |
| 1150' to 1250' | 400' |
| 1250' to 1350' | 430' |
| OVER 1350' | 500' |

COAL BOUNDARY

- ~~~~~ Fresh Water/Salt Water Interface
Boreas Sandstone, Missisippian
- ~~~~~ Fresh Water/Salt Water Interface
Bleckhard Sandstone, (Big Injun) Miss. Cuv.
- ~~~~~ Fresh Water/Salt Water Interface
Lower Pottsville Maxton
- ~~~~~ Fresh Water/Salt Water Interface
Upper Allegheny 2nd Cow Run

OPERATOR DLL Energy Inc.

COUNTY Mahoning

TOWNSHIP Youngstown

| P & A | FM | Permit Number | Casing/Cement Program | Well Log and/or Method of Plug |
|--------------------------|-------------|----------------|---|--------------------------------|
| <input type="checkbox"/> | <u>None</u> | <u>Newwell</u> | <u>11 3/4" - 100 - cemented to surface</u> <u>9 3/4" - 1200' - cemented to surface</u> | |
| <input type="checkbox"/> | | | <u>7" - 8100' - cemented at least 300'</u> <u>above injection zone</u> | |
| <input type="checkbox"/> | | | <u>No other wells in AOR.</u> | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
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| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |

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

E. Federal Street

MARIONING RIVER

SOUTH AVENUE

I-680

* SWIM
* Knox-Mt. Swain

22532
CL *

MARIONING CO.
YOUNGTOWN TWP.
- Proposed SWIM

DAILY ROUTE SLIP

Youngstown

APPLICATION NO. aAMY0000643

TYPE: Salt Water Injection Well Urban

CONAME D & L ENERGY INC

API

WELL NAME /NO. MOHAWK MEENACHAN

8

COUNTY 99 MAHONING

INITIALS

DATE

DATE APPLICATION REC'D

Am

12/29/2011

PERMIT FEE AND CHECK NO.

\$1,000.00

21595

RUSH AMOUNT RUSH CHECK NO.

\$0.00

0

APPLICATION ENTERED

Am

12/29/2011

APPLICATIONS AND PLATS SENT FOR MINE APPROVAL

Am

12/29/2011

COAL APPROVAL RECEIVED

PO

OIL/GAS AFFIDAVIT REC'D

PO

URBANIZED AREA NOTIFICATION SENT

PO

URBANIZED AREA NOTIFICATION SENT TO INSPECTOR/REC'D BACK

PO

URBAN MAP REVIEW

PO

SAMPLES: YES ___ /SPECIAL AREAS

PO

GEOLOGIST APPROVAL

PO

DATA ENTRY /ISSUED

PO

PERMIT: TAKEN ___ MAILED ___

PO

FAX TO: _____

FINAL MAP CHECK

COMMENTS: _____

Tomastik, Tom

From: Baker, Mike [Mike.Baker@epa.state.oh.us]
Sent: Friday, March 09, 2012 2:02 PM
To: Tugend, Thomas
Cc: Tomastik, Tom; Eggert, Michael; Lowe, Chuck
Subject: Class II Permiot Reviews

Attachments: ODNR Permit Review Summary 2.docx

Ohio EPA Division of Drinking and Ground Waters has completed its review of nine (9) Class II underground injection well permits.

Our review of the Class II permits focused on well construction relative to the protection of underground sources of drinking water (USDW) and the location of the surface facilities relative to public water system source water protection areas and other sensitive hydrogeologic settings.

None of the reviewed Class II permits are within 2,000 feet of a public water system well or within a source water protection area. However, we do have a couple overarching comments concerning the surface casing of the well construction. More specifically, our review assessed the placement of surface casing and cement relative to the lowest most USDW. Ohio EPA would recommend that a class A cement with appropriate additives be specified as well as the use of centralizers to assure an adequate bond.

Attachment A is a summary of our comments concerning each permit application. Please contact Chuck Lowe of my staff at 614-644-2752 if you have questions on the specific comments.

This message was secured by Zix (R).

3/9/2012

Attachment A: ODNR Permit Review Summary

9 permits reviewed, including:

- 6 new drills; and,
- 3 conversions of existing wells.

None of the Class II SWDWS reviewed are within 2,000 feet of a PWS well or within a protection area.

New Wells

1. Muskingum Co., Jackson Twp. OOGC #1 Black Run Disposal Well
 - Surface casing depth and amount of cement appear adequate. The type of cement, and number and location of centralizers used on the surface casing should to be specified. Lack of this information limits our review.
 - The injection zone is the Knox through the Mt. Simon; however, completion schematic shows only the Mt. Simon as perforated. The injection zone perforations should be corrected to reflect the revised injection zone.
 - Well surface construction appears sufficient.
2. Mahoning Co., Springfield Twp. D&L #7 Mohawk Printup
 - Surface casing depth and amount of cement appear adequate. The permit to drill specifies 350 sacks of superlite cement – Ohio EPA recommends that Class A be used instead. The number of centralizers and their location should be specified. The lack of this information limits our review.
 - The well is located outside of the Youngstown area of concern.
 - Well surface construction appears sufficient.
3. Mahoning Co., Youngstown Twp. D&L #8 Mohawk Meenchan
 - Well construction comments are the same as for the #7 Mohawk Printup well.
 - The #8 Mohawk Meechan well is within the AOR that has experienced seismic activity. This should be evaluated in siting, construction and injection requirements.
4. Muskingum Co., Union Twp. 1960 Well Services #1 C. Goff
 - Surface casing and amount of cement appears adequate. The type of cement, and number and location of centralizers used on the surface casing should to be specified. Lack of this information limits our review.
 - The plat map shows two small wetland areas that are adjacent to the well and offloading pad. The permittee should be made aware of associated regulatory requirements.
 - Well surface construction appears sufficient.
5. Trumbull Co., Weathersfield Twp. American Water Mgt. #1 AWM
 - Both surface and injection casing depths and cement appear adequate. The type of cement, and number and location of centralizers used on the surface casing should to be specified. Lack of this information limits our review.
 - Open hole disposal into the "Newburg". There are sixteen existing "Clinton" wells within the AOR that are likely un-cemented above the "Clinton" cement top and the base of the surface casing. These well bores could act as a conduit for fluid migration (i.e. either brine or brine displacing formation waters).

6. Trumbull Co., Weathersfield Twp. American Water Mgt. #2 AWM
 - Surface casing depth appears adequate and cemented to surface. The type of cement, and number and location of centralizers used on the surface casing should to be specified. Lack of this information limits our review.
 - The injection casing cement top is shown to surface on the diagram, but states the cement top is at 4000 feet. This should be clarified because the plat map show 112 feet between the two disposal wells (same concerns as outlined in #5).

Converted Wells

1. Athens Co., Rome Twp., D.T. Atha #1 M. Frost
 - Surface casing depth appears adequate; however, no inspectors report to verify cement to surface (315 sacks used on completion report). The surface cement should be verified.
 - Operator proposes to squeeze off the existing perms in the Berea and Ohio Shale, but doesn't show the proposed injection zone perms.
 - Injection casing and tubing construction depths don't agree with the well schematic diagram. This should be resolved.
2. Knox Co., Morgan Twp., Knox Energy #2 Harstine Trust
 - Surface casing and cement job appear adequate.
3. Morgan Co., Marion Twp., Broad Street Energy #102 Cook
 - Surface casing and cement volume (90 sacks) appear adequate.
 - Well surface construction appears adequate.

Geologic Review for Class II Wells

Application No. aAMY0000643

SWIW: (Salt Water Injection Well)

Proposed Well Depth: 9,600 feet

Proposed Injection Zone: Knox – Mt. Simon

Mahoning County, Youngstown Twp

Study area investigated ~ 15 mile radius centered on the proposed well location for all maps except gravity and magnetic maps, which used a 30 mile radius

Gravity Bouguer Anomaly

- There is a strong Northeast-Southwest lower gravity trend that stands out less than 1 mile to the south of the proposed well location. There is also a subtle Northwest-Southeast trend of higher gravity that terminates into the previously mentioned strong lower reading about 8 miles to the southwest.

Gravity Free Air

- There is a Northeast-Southwest lower gravity trend that stands out less than 5 miles to the southeast of the proposed well location. There is also a subtle Northwest-Southeast trend of higher gravity that terminates into the previously mentioned trend about 3 miles to the south.

Magnetic First Derivative

- The magnetic first derivative map shows the proposed location sits on a local high magnetic zone. There are however multiple subtle, low magnetic crossing trends having orientations of Northwest-Southeast and Northeast-Southwest. These can be seen across the mapped area, one is within 6 miles to the northwest from the proposed location and others can range out to nearly 30 miles away.

Magnetic Second Derivative

- The magnetic second derivative map shows the proposed well location on a local magnetic high. There are no other major trends that stand out on this map.

Magnetic Reduce Dipole

- The magnetic reduce dipole map shows again that the proposed well location sits on a local magnetic high. There are trends that occur on this map the closest is a Northeast-Southwest trend that is about 4 miles to the northwest from the proposed well location. The southern portion of this trend terminates into two sets of parallel Northwest-Southeast and Northeast-Southwest magnetic low trends that intersect each other about 16 miles from the proposed location. Other things to mention are possible trends in magnetic lows about 16 miles to the North of the proposed location.

Precambrian Structure from PG-23

- Nothing of note

Knox Structure

- Nothing of note

Trenton Structure

- Nothing of note

EGSP Onondaga Structure

- The EGSP Onondaga surface shows a Northwest-Southeast trend that is about a mile to the Southwest of the proposed location. There are parallel trends to the previously mentioned trend one of which is about 4 miles to the Northeast of the proposed well location. These structures are parallel to the Mason (1999) Blairsville-Broadtop Lineament.

MRCSP Onondaga Structure

- Nothing of note

EGSP Berea Structure

- The EGSP Berea surface does show a slight North Northwest trend that is mapped within 1 mile to the east of the proposed well location.

Mississippian/Pennsylvanian Unconformity Surface

- Nothing of note

Middle Kittanning Coal Structure

- Not present

Upper Freeport Coal Structure

- Not present

Pittsburgh Coal Structure

- Not present

Bedrock Geology

- The bedrock geology shows a major Northwest-Southeast trend under a mile to the northeast of the proposed location. This trend directly coincides with the Mason (1999) Blairsville-Broadtop Lineament. This bedrock illustrating this lineament is the Logan and Cuyahoga group which the well sits on top of.

Bedrock Topography

- The bedrock topography shows a major Northwest-Southeast trend under a mile to the northeast of the proposed location. This trend directly coincides with the Mason (1999) Blairsville-Broadtop Lineament.

EGSP Aerial Photo Lineament

- Numerous lineaments generally less than 1 mile in length have been interpreted from aerial photos by Gray and others (1982) over and in the immediate vicinity of the permit application with 2 dominant directions oriented northwest-southeast and northeast-southwest.

EGSP LANDSAT Lineament

- The closest lineament on this map is a North-South lineament about 4 miles to the north of the proposed well location.

Mason Lineament

- The Mason Lineament maps shows two major lineaments in the area. The first is the Mason (1999) Blairsville-Broadtop lineament which is a Northwest-Southeast lineament that is less than a mile to the northwest of the proposed well location. The second is similarly oriented however is about 12 miles to the Northeast of the proposed well location.

Oil and Gas fields

- The closest oil or gas field is about 2 miles to the Northwest and is producing from the Clinton. There are other fields in the area though producing from the Berea, Devonian Shale, and Big Lime.

Earthquakes

- There is a cluster of 11 earthquakes in the area all of which are within 6 miles to the Northwest from the proposed well location. These earthquakes have all occurred since 2010 and range in Magnitude from 2.1 – 4. All of these earthquakes are within 6 miles on trend of the Mason (1999) Blairsville-Broadtop Lineament.

Injection Wells

- There are 15 injection wells in the mapping area of the proposed well. 7 are active salt water injection wells (SWIW), 6 are inactive saltwater Injection wells (ISWIW), and 2 are SWIW wells that are drilled. The closest active injection well is the Northstar #3 well which is about a mile and a half to the Northeast of the proposed location. The next closest active injection well is the Northstar #1 well and is about 3.5 miles to the Northwest of the permit location. The Northstar #1 and the proposed well location are on the same Mason (1999) Blairsville-Broadtop Lineament.

To summarize, this well is of concern to ODGS due to its proposed location and target injection interval. This concern is based on it being located on the major trend that can be seen along the Mahoning River Valley known as the Mason (1999) Blairsville-Broadtop Lineament. The D&L North Star #1 well is also located along this lineament. This strong lineament can be seen on the Mason (1999) lineament map, bedrock geology and topography maps, and similar structure is present on Onondaga structure map. Parallel and perpendicular trends to this lineament can also be seen on the gravity and magnetic maps. The presence of other injection wells on this

lineament, both in the Youngstown area and about a mile and a half northeast, on the other side of the lineament contribute to our concern. There have been 12 earthquakes detected in this region within the last 2 years, all of which are located within 2½ miles of the Blairsville-Broadtop Lineament.

APPLICATION FOR A PERMIT (Form 1)
 OHIO DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF MINERAL RESOURCES MANAGEMENT
 2045 Morse Road, Building H-3
 COLUMBUS, OHIO 43229-6693
 (614) 265-6633

C #21595
 \$1,000.00

@AM0000643

SEE INSTRUCTIONS ON PAGE 2 (BACK)

| | | |
|---|--|--|
| 1. I, We (applicant) <u>D&L ENERGY, INC.</u> | | 2. Owner #: <u>2651</u> |
| (address) <u>2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509</u> | | Phone #: <u>330-792-9524</u> |
| hereby apply this date <u>DEC 7</u> , 20 <u>11</u> for a permit to: | | |
| <input type="checkbox"/> Reissue (check appropriate blank) | <input type="checkbox"/> Revised Location | <input type="checkbox"/> Convert |
| <input checked="" type="checkbox"/> Drill New Well | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Deepen |
| <input type="checkbox"/> Drill Directionally | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Reopen |
| <input type="checkbox"/> Drill Horizontally | <input type="checkbox"/> Orphan Well Program | <input type="checkbox"/> Temporary Inactive |
| 3. TYPE OF WELL: | | |
| <input type="checkbox"/> Oil & Gas | <input type="checkbox"/> Annular Disposal | <input checked="" type="checkbox"/> Saltwater Injection |
| <input type="checkbox"/> Stratigraphic Test | <input type="checkbox"/> Gas Storage | <input type="checkbox"/> Other (explain): _____ |
| <input type="checkbox"/> Solution Mining* | <input type="checkbox"/> Enhanced Recovery* (* if checked, select appropriate box below) | |
| <input type="checkbox"/> Input/Injection | <input type="checkbox"/> Water Supply | <input type="checkbox"/> Observation |
| <input type="checkbox"/> Production/Extraction | | |
| 4. MAIL PERMIT TO: D&L ENERGY, INC. 2761 SALT SPRINGS RD. YOUNGSTOWN, OH 44509 | | 20. TYPE OF TOOLS: |
| | | <input type="checkbox"/> Cable |
| | | <input type="checkbox"/> Cable / Air Rotary |
| | | <input type="checkbox"/> Cable / Fluid Rotary |
| | | <input type="checkbox"/> Cable / Air / Fluid Rotary |
| | | <input type="checkbox"/> Air Rotary |
| | | <input checked="" type="checkbox"/> Air / Fluid Rotary |
| | | <input type="checkbox"/> Fluid Rotary |
| | | <input type="checkbox"/> Service Rig |
| 5. COUNTY: <u>MAHONING</u> | | 21. PROPOSED CASING PROGRAM: 11-3/4" FOR 100 FT , 9-3/4" FOR 400 FT CEMENTED TO SURFACE, 7" CEMENTED TO SURFACE |
| 6. CIVIL TOWNSHIP: <u>YOUNGSTOWN</u> | | |
| 7. SECTION: _____ 8. LOT: _____ | | |
| 9. FRACTION: _____ 10. QTR TWP: _____ | | |
| 11. TRACT / ALLOT: _____ | | |
| 12. WELL #: <u>8</u> | | |
| 13. LEASE NAME: <u>MOHAWK MEENACHAN</u> | | |
| 14. PROPOSED TOTAL DEPTH: <u>9,600</u> | | |
| 15. PROPOSED GEOLOGICAL FORMATION: <u>KNOX-LOWER CAMBRIAN</u> | | |
| 16. DRILLING UNIT IN ACRES (must be same as acres indicated on plat): <u>3.48</u> | | |
| 17. IF PERMITTED PREVIOUSLY: | | 22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site) Fire: <u>911</u> Medical: <u>911</u> |
| API #: | | |
| OWNER: | | |
| WELL #: | | |
| LEASE NAME: | | |
| TOTAL DEPTH: | | 23. MEANS OF INGRESS & EGRESS: Township Road: _____ County Road: _____ Municipal Road: <u>BRITTAIN ST.</u> State Highway: _____ |
| GEOLOGICAL FORMATION: | | |
| 18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES | | |
| Division Name: <u>N/A</u> | | 24. IS THE WELL LOCATION OR PRODUCTION FACILITIES WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01(Y) ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Division Phone: _____ | | |
| 19. LANDOWNER ROYALTY INTEREST: Is There An Attached List? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| Name: <u>SEAN & LINDA MEENACHAN</u> | | |
| Address: <u>108 SPRING GARDEN DR., BOARDMAN, OH 44512</u> | | |
| Name: _____ | | |
| Address: _____ | | |
| Name: _____ | | |
| Address: _____ | | |

RECEIVED

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 Mineral Resources Management.

Signature of Owner/Authorized Agent Nicholas Paparodis

Name (Type or Print) NICHOLAS PAPARODIS Title V.P. LAND OPERATIONS

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

Sworn to and subscribed before me this the 27 day of December, 20 11.



KIMBERLY A. LITTLE
 MY COMMISSION EXPIRES
 JUNE 1, 2014

Kimberly A. Little
 (Notary Public)
Kimberly A. Little
June 1, 2014
 (Date Commission Expires)

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

Ohio Department of Natural Resources, Division of Mineral Resources Management
2045 Morse Road, Bldg H3
Columbus, OH 43229-6693

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 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 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: Knox-Lower Cambrian
 Injection Interval: From: 8100 feet to 9600
 Geologic description of injection zone: Interbedded, sandstone, limestone, dolomite, arkose sands

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:
Set 100' of 11-3/4" conductor and cement with 85 sacks, drill to 1200' and set 1200' of 9-3/4" casing with 430 sacks of superlite cement, drill 8-3/4" hole from 1200' to 9600' and set 8100' of 7" casing, set casing annulus packer (cap) at 8100', cement 7" casing from 8100' with 80 sacks SFL cement.
- B. Proposed method for testing the casing:
Mechanical Integrity test, then daily monitoring with a chart recorder.
- C. Description of the proposed method for completion and operation of the injection well:
Acidize and injection test thru 7" casing. Install 4" lined tubing with Baker packer set.
- D. Description of the proposed unloading, surface storage, and spill containment facilities:
Concrete unloading pad
 18 - 500 BBL steel holding and settling tanks contained in a 100'x100' concrete containment area with 5ft. high concrete walls.

RECEIVED

33. PROPOSED INJECTION VOLUMES

- A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:
 AVERAGE: 1500 BBL MAXIMUM: 3000 BBL
- B. Indicate the method to be used to measure the actual amount of saltwater injected into the well:
Daily water tickets and BBL counter.

34. PROPOSED INJECTION PRESSURES

- A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:
 AVERAGE: 1200 MAXIMUM: 1890 *1865 psi*
- B. Indicate the method to be used to measure the actual daily injection pressure:
Chart recorder

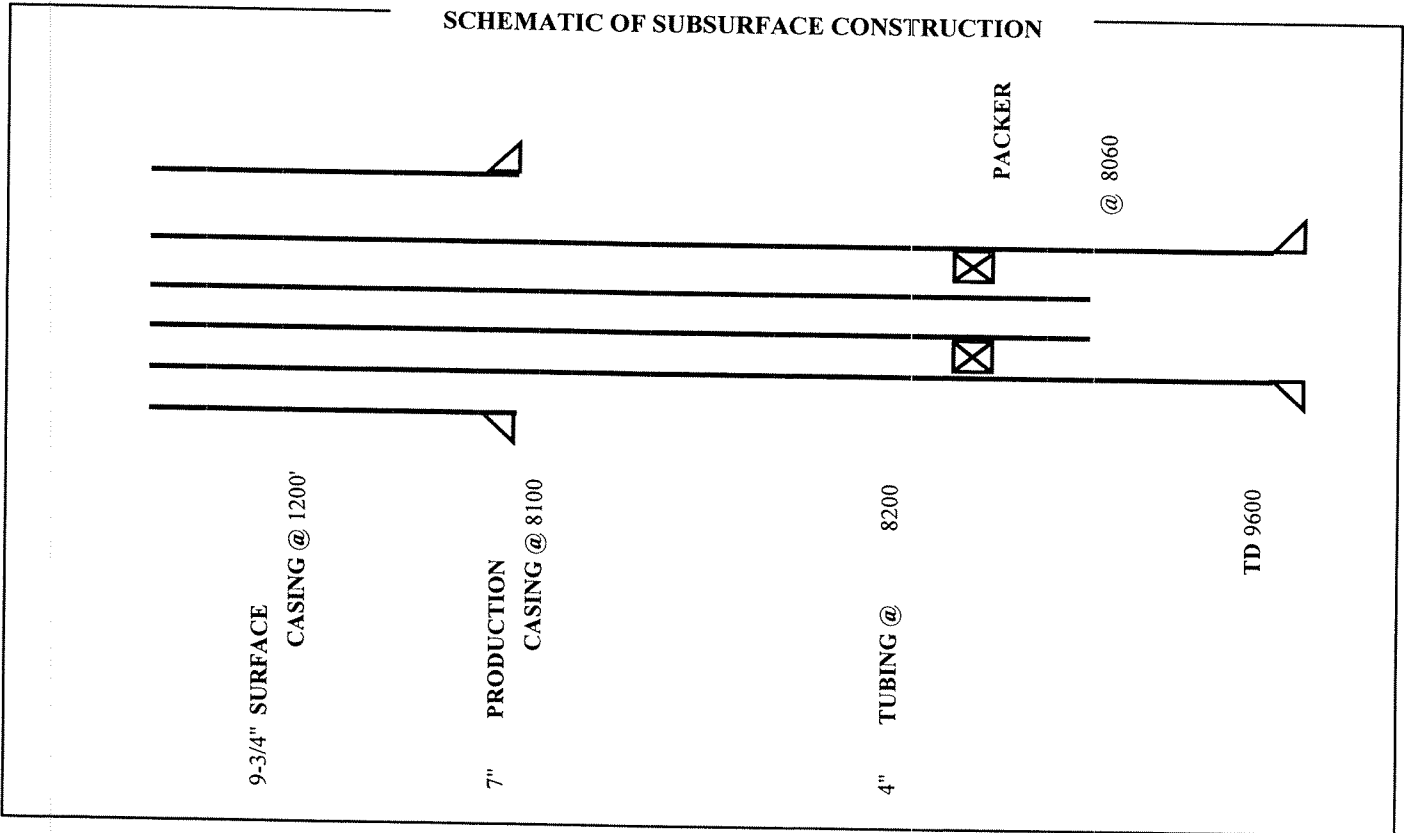
35. PROPOSED CORRECTIVE ACTION

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

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 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 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 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 Mineral Resources Management.

Owner/Authorized Agent (Type or Print): Nicholas C. Paparodis
 Signature of Owner/Authorized Agent: [Signature] Title: V.P. - LEAD OPERATIONS
 Permanent Address of Home Office: 2761 Salt Springs Road, Youngstown, OH 44509

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

SWORN to and subscribed before me this 27 day of December, 2011.



KIMBERLY A. LITTLE
 MY COMMISSION EXPIRES
JUNE 1, 2014

Kimberly A. Little
 Notary Public
June 1, 2014
 Date Commission Expires

Latitude: 41° 04' 56.47"

NORTH: 521265

Longitude: 80° 38' 05.84"

EAST: 2482603

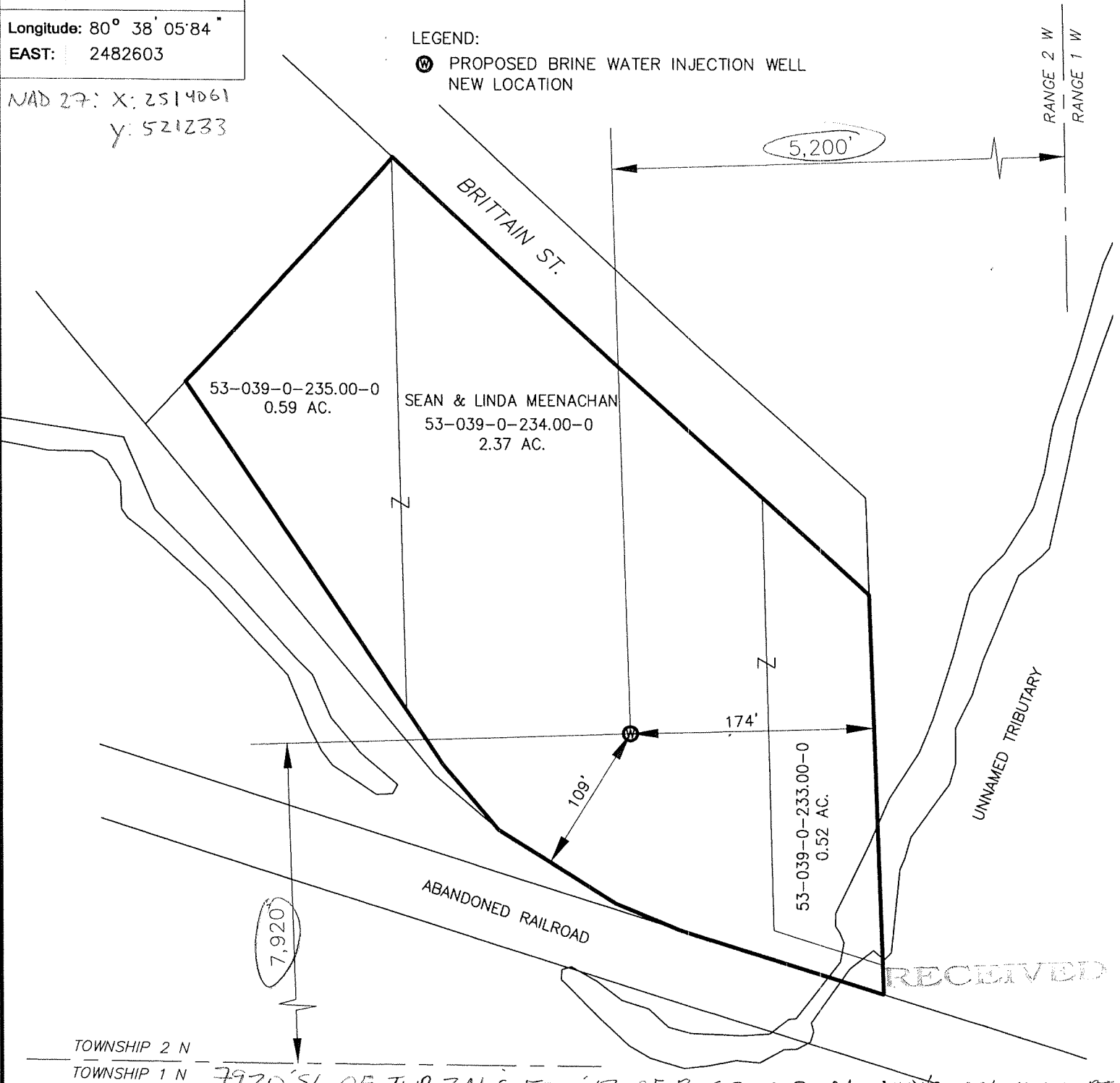
NAD 27: X: 2514061

Y: 521233

WELL LOCATION PLAT

LEGEND:

- ⊙ PROPOSED BRINE WATER INJECTION WELL NEW LOCATION



RECEIVED

TOWNSHIP 2 N

TOWNSHIP 1 N

7920' SL OF TWP 2N & 5200' EL OF RNG 2W 3.48AC KNYCMBRL-SWIW-RT

| | | | | | | | | | | | | | |
|--------------------------------|--|----------|--------------|--|--------------------------------|---------------------------|------------|-------------------------|----------|-------|--------|-------------|----------|
| Surveyor or Engineer | GARY TANERI | Phone # | 330-207-5502 | Date | REVISED 1/9/12 DEC. 9, 2011 | Scale | 1"=100' | Acreage | 3.48 | | | | |
| Lat. & Long Metadata Method | GPS | Accuracy | 3 ft. | Datum | NAD83 | Elevation Metadata Method | USGS | Accuracy | 10 ft. | Datum | NGVD29 | Survey Date | 12/01/11 |
| Applicant / Well Operator Name | D & L ENERGY, INC. | | | Well (Farm) Name | MOHAWK MEENACHAN | Well # | 8 | | | | | | |
| Address | 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509 | | | County | MAHONING | Municipality | YOUNGSTOWN | | | | | | |
| Surface Landowner | SEAN & LINDA MEENACHAN | | | USGS 71/2 Quadrangle Map Name | YOUNGSTOWN | | | | | | | | |
| Surface Lessor | D & L ENERGY, INC. | | | Angle & Course of Deviation (Drilling) | VERTICAL | Surface Elevation | 875 ft. | Anticipated Total Depth | 9600 ft. | | | | |

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
MINERAL RESOURCES MANAGEMENT
COLUMBUS, OH 43224



Gary Richard Taneri 1/10/12
Date
Registered Professional Surveyor No. 7672



APPLICATION FOR A PERMIT (Form 1)
 OHIO DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF MINERAL RESOURCES MANAGEMENT
 2045 Morse Road, Building H-3
 COLUMBUS, OHIO 43229-6693
 (614) 265-6633

SEE INSTRUCTIONS ON PAGE 2 (BACK)

| | | |
|--|---|--|
| 1. I, We (applicant) <u>D&L ENERGY, INC.</u> | | 2. Owner #: <u>2651</u> |
| (address) <u>2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509</u> | | Phone #: <u>330-792-9524</u> |
| hereby apply this date <u>DEC 7</u> , 20 <u>11</u> for a permit to: | | |
| <input type="checkbox"/> Reissue (check appropriate blank) | <input type="checkbox"/> Revised Location | <input type="checkbox"/> Convert |
| <input checked="" type="checkbox"/> Drill New Well | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Deepen |
| <input type="checkbox"/> Drill Directionally | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Reopen |
| <input type="checkbox"/> Drill Horizontally | <input type="checkbox"/> Orphan Well Program | <input type="checkbox"/> Temporary Inactive |
| 3. TYPE OF WELL: | | |
| <input type="checkbox"/> Oil & Gas | <input type="checkbox"/> Annular Disposal | <input checked="" type="checkbox"/> Saltwater Injection |
| <input type="checkbox"/> Stratigraphic Test | <input type="checkbox"/> Gas Storage | <input type="checkbox"/> Other (explain): _____ |
| <input type="checkbox"/> Solution Mining* | <input type="checkbox"/> Enhanced Recovery* (* if checked, select appropriate box below) | |
| <input type="checkbox"/> Input/Injection | <input type="checkbox"/> Water Supply | <input type="checkbox"/> Observation |
| | | <input type="checkbox"/> Production/Extraction |
| 4. MAIL PERMIT TO: D&L ENERGY, INC. 2761 SALT SPRINGS RD. YOUNGSTOWN, OH 44509 | | 20. TYPE OF TOOLS: |
| | | <input type="checkbox"/> Cable |
| | | <input type="checkbox"/> Cable / Air Rotary |
| | | <input type="checkbox"/> Cable / Fluid Rotary |
| | | <input type="checkbox"/> Cable / Air / Fluid Rotary |
| | | <input type="checkbox"/> Air Rotary |
| | | <input checked="" type="checkbox"/> Air / Fluid Rotary |
| | | <input type="checkbox"/> Fluid Rotary |
| | | <input type="checkbox"/> Service Rig |
| 5. COUNTY: <u>MAHONING</u> | | 21. PROPOSED CASING PROGRAM: 11-3/4" FOR 100 FT , 9-3/4" FOR 400 FT CEMENTED TO SURFACE, 7" CEMENTED TO SURFACE |
| 6. CIVIL TOWNSHIP: <u>YOUNGSTOWN</u> | | |
| 7. SECTION: _____ 8. LOT: _____ | | |
| 9. FRACTION: _____ 10. QTR TWP: _____ | | |
| 11. TRACT / ALLOT: _____ | | |
| 12. WELL #: <u>8</u> | | |
| 13. LEASE NAME: <u>MOHAWK MEENACHAN</u> | | |
| 14. PROPOSED TOTAL DEPTH: <u>9,600</u> | | |
| 15. PROPOSED GEOLOGICAL FORMATION: <u>KNOX-LOWER CAMBRIAN</u> | | |
| 16. DRILLING UNIT IN ACRES (must be same as acres indicated on plat): <u>3.48</u> | | |
| 17. IF PERMITTED PREVIOUSLY: | | 22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site) |
| API #: _____ | | Fire: <u>911</u> |
| OWNER: _____ | | Medical: <u>911</u> |
| WELL #: _____ | | |
| LEASE NAME: _____ | | 23. MEANS OF INGRESS & EGRESS: |
| TOTAL DEPTH: _____ | | Township Road: _____ |
| GEOLOGICAL FORMATION: _____ | | County Road: _____ |
| 18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES | | Municipal Road: <u>BRITAIN ST.</u> |
| Division Name: <u>N/A</u> | | State Highway: _____ |
| Division Phone: _____ | | |
| 19. LANDOWNER ROYALTY INTEREST: | | 24. IS THE WELL LOCATION OR PRODUCTION FACILITIES WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01(Y) ? |
| Is There An Attached List? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Name: <u>SEAN & LINDA MEENACHAN</u> | | |
| Address: <u>108 SPRING GARDEN DR., BOARDMAN, OH 44512</u> | | |
| Name: _____ | | |
| Address: _____ | | |
| Name: _____ | | |
| Address: _____ | | |

RECEIVED

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 Mineral Resources Management.

Signature of Owner/Authorized Agent Nicholas Paparodis

Name (Type or Print) NICHOLAS PAPANODIS Title V.P. LAND OPERATIONS

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

Sworn to and subscribed before me this the 27 day of December, 20 11.



KIMBERLY A. LITTLE
 MY COMMISSION EXPIRES
 JUNE 1, 2014

Kimberly A. Little
 (Notary Public)
Kimberly A. Little
June 1, 2014
 (Date Commission Expires)

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

Ohio Department of Natural Resources, Division of Mineral Resources Management
2045 Morse Road, Bldg H3
Columbus, OH 43229-6693

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 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 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: Knox-Lower Cambrian
Injection Interval: From: 8100 feet to 9600
Geologic description of injection zone: Interbedded, sandstone, limestone, dolomite, arkose sands

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:
Set 100' of 11-3/4" conductor and cement with 85 sacks, drill to 1200' and set 1200' of 9-3/4" casing with 430 sacks of superlite cement, drill 8-3/4" hole from 1200' to 9600' and set 8100' of 7" casing, set casing annulus packer (cap) at 8100', cement 7" casing from 8100' with 80 sacks SFL cement.
- B. Proposed method for testing the casing:
Mechanical Integrity test, then daily monitoring with a chart recorder.
- C. Description of the proposed method for completion and operation of the injection well:
Acidize and injection test thru 7" casing. Install 4" lined tubing with Baker packer set.
- D. Description of the proposed unloading, surface storage, and spill containment facilities:
Concrete unloading pad
18 - 500 BBL steel holding and settling tanks contained in a 100'x100' concrete containment area with 5ft. high concrete walls.

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33. PROPOSED INJECTION VOLUMES

- A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:
AVERAGE: 1500 BBL MAXIMUM: 3000 BBL
- B. Indicate the method to be used to measure the actual amount of saltwater injected into the well:
Daily water tickets and BBL counter.

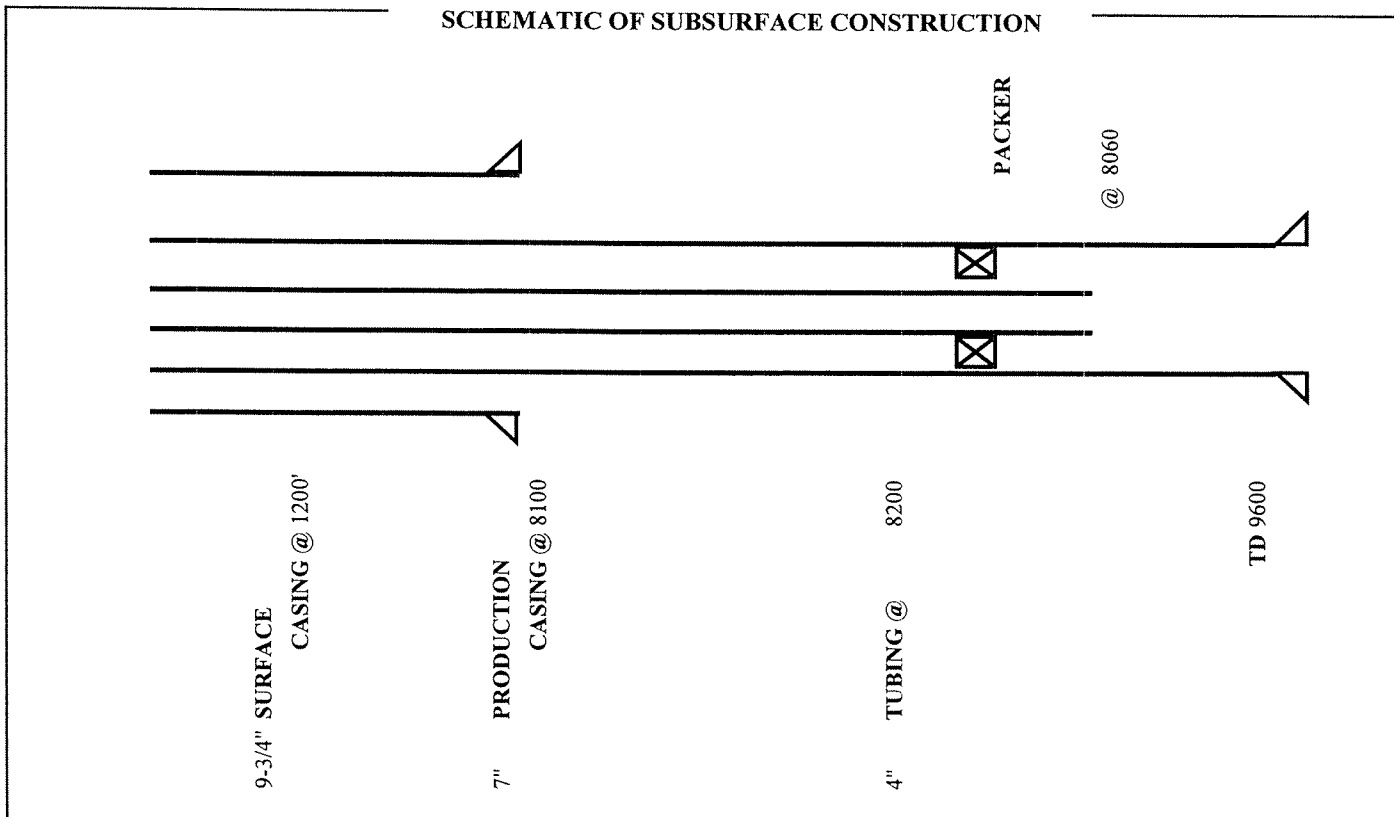
34. PROPOSED INJECTION PRESSURES

- A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:
AVERAGE: 1200 MAXIMUM: 1890 1865 psig
- B. Indicate the method to be used to measure the actual daily injection pressure:
Chart recorder

35. PROPOSED CORRECTIVE ACTION

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

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 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 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 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 Mineral Resources Management.

Owner/Authorized Agent (Type or Print): Nicholas C. Paparodis
 Signature of Owner/Authorized Agent: [Signature] Title: V.P. LAWN OPERATIONS
 Permanent Address of Home Office: 2761 Salt Springs Road, Youngstown, OH 44509

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

SWORN to and subscribed before me this 27 day of December, 2011.



KIMBERLY A. LITTLE
 MY COMMISSION EXPIRES
JUNE 1, 2014

Kimberly A. Little
 Notary Public
June 1, 2014
 Date Commission Expires

RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Mineral Resources Management, 2045 Morse Road, Bldg. H-3, Columbus OH 43229-6693

| | |
|--|--|
| 1. DATE OF APPLICATION: 5-Dec-11 | |
| 2. OWNER NAME, ADDRESS, & TELEPHONE NO.: D&L ENERGY, INC., 2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509 | 3. API #: 4. WELL #: 8 5. LEASE NAME: MOHAWK MEENACHAN 6. PROPERTY OWNER: SEAN & LINDA MEENACHAN 7. COUNTY: MAHONING 8. CIVIL TOWNSHIP: YOUNGSTOWN 9. SECTION: 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 checked="" type="checkbox"/> Industrial <input type="checkbox"/> Unreclaimed strip mine <input 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 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% |
| 12. SLOPE GRADIENT & LENGTH DETERMINED FROM: <input type="checkbox"/> Ground Measurement <input type="checkbox"/> U.S. Geological Survey Topographical Maps <input checked="" type="checkbox"/> Other: (explain) COUNTY GIS MAP | 19. LENGTH OF STEEPEST SLOPE CROSSING SITE: <input type="checkbox"/> 1 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input checked="" type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft. |
| 13. TYPE OF FALL VEGETAL COVER: <input checked="" 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 type="checkbox"/> Trees with sparse low brush <input type="checkbox"/> Trees with dense low brush | 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 _____ 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 type="checkbox"/> Grade to approximate original contour <input checked="" type="checkbox"/> Grade to minimize erosion & control offsite runoff <input type="checkbox"/> Proposed alternative _____ |
| 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 checked="" type="checkbox"/> No resoiling planned <input type="checkbox"/> Proposed alternative _____ | 22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE: <input type="checkbox"/> Seeding plan <input type="checkbox"/> Sod <input type="checkbox"/> Agricultural crops <input type="checkbox"/> Trees and/or Bushes <input checked="" type="checkbox"/> Proposed alternative NONE |
| 15. DISPOSAL PLAN FOR TREES AND TREE STUMPS: <input checked="" type="checkbox"/> No trees disturbed <input type="checkbox"/> Haul to landfill <input type="checkbox"/> Cut into firewood <input type="checkbox"/> Sell to lumber <input type="checkbox"/> Bury with landowner's approval company <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 _____ | 23. ADDITIONAL HOLES: <input checked="" type="checkbox"/> Rat/Mouse, if used, will be plugged 24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD: <input checked="" type="checkbox"/> 100 ft. or less <input type="checkbox"/> 101 to 500 ft. <input type="checkbox"/> 501 to 1500 ft. <input type="checkbox"/> greater than 1500 ft. |
| 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 | 25. CURRENT LAND USE OF PATH OF ACCESS ROAD: <input type="checkbox"/> Cropland <input type="checkbox"/> Pasture <input type="checkbox"/> Commercial <input type="checkbox"/> Idle land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input checked="" 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 |

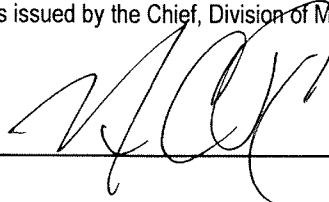
****PITS MUST BE FILLED WITHIN TWO MONTHS AFTER COMMENCEMENT OF THE WELL AND WITHIN FOURTEEN DAYS AFTER COMMENCEMENT OF THE WELL IN AN URBANIZED AREA.**

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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 type="checkbox"/> Gravel <input type="checkbox"/> Brick and/or tile waste <input type="checkbox"/> Slag <input type="checkbox"/> Crushed stone <input checked="" type="checkbox"/> No surfacing material to be used <input type="checkbox"/> Proposed alternative _____ | 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 type="checkbox"/> Landowner <input type="checkbox"/> Contractor <input type="checkbox"/> Existing access road <input checked="" type="checkbox"/> Operator | 30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD: <input type="checkbox"/> 0 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input checked="" type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft. |
| 28. GRADING AND EROSION CONTROL PRACTICE ON ROAD: <input type="checkbox"/> Diversions <input type="checkbox"/> Filter strips <input type="checkbox"/> Drains <input type="checkbox"/> Riprap <input type="checkbox"/> Open top culverts <input type="checkbox"/> Water breaks <input type="checkbox"/> Outsloping of road <input type="checkbox"/> Pipe culverts <input checked="" type="checkbox"/> Proposed alternative NONE | 31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN? <input type="checkbox"/> Yes <input checked="" 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 Mineral Resources Management.

Signature of Owner/Authorized Agent 

Name (Typed or Printed) NICHOLAS PAPARODIS Date 12/27/2011

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.

RECEIVED

RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Mineral Resources Management, 2045 Morse Road, Bldg. H-3, Columbus OH 43229-6693

| | |
|---|--|
| 1. DATE OF APPLICATION: 5-Dec-11 | |
| 2. OWNER NAME, ADDRESS, & TELEPHONE NO.: D&L ENERGY, INC., 2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509 | 3. API #: 4. WELL #: 8 5. LEASE NAME: MOHAWK MEENACHAN 6. PROPERTY OWNER: SEAN & LINDA MEENACHAN 7. COUNTY: MAHONING 8. CIVIL TOWNSHIP: YOUNGSTOWN 9. SECTION: 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 checked="" type="checkbox"/> Industrial <input type="checkbox"/> Unreclaimed strip mine <input 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 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% |
| 12. SLOPE GRADIENT & LENGTH DETERMINED FROM: <input type="checkbox"/> Ground Measurement <input type="checkbox"/> U.S. Geological Survey Topographical Maps <input checked="" type="checkbox"/> Other: (explain) COUNTY GIS MAP | 19. LENGTH OF STEEPEST SLOPE CROSSING SITE: <input type="checkbox"/> 1 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input checked="" type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft. |
| 13. TYPE OF FALL VEGETAL COVER: <input checked="" 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 type="checkbox"/> Trees with sparse low brush <input type="checkbox"/> Trees with dense low brush | 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 _____ 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 type="checkbox"/> Grade to approximate original contour <input checked="" type="checkbox"/> Grade to minimize erosion & control offsite runoff <input type="checkbox"/> Proposed alternative _____ |
| 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 checked="" type="checkbox"/> No resoiling planned <input type="checkbox"/> Proposed alternative _____ | 22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE: <input type="checkbox"/> Seeding plan <input type="checkbox"/> Sod <input type="checkbox"/> Agricultural crops <input type="checkbox"/> Trees and/or Bushes <input checked="" type="checkbox"/> Proposed alternative NONE |
| 15. DISPOSAL PLAN FOR TREES AND TREE STUMPS: <input checked="" type="checkbox"/> No trees disturbed <input type="checkbox"/> Haul to landfill <input 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 _____ | 23. ADDITIONAL HOLES: <input checked="" type="checkbox"/> Rat/Mouse, if used, will be plugged 24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD: <input checked="" type="checkbox"/> 100 ft. or less <input type="checkbox"/> 101 to 500 ft. <input type="checkbox"/> 501 to 1500 ft. <input type="checkbox"/> greater than 1500 ft. |
| 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 | 25. CURRENT LAND USE OF PATH OF ACCESS ROAD: <input type="checkbox"/> Cropland <input type="checkbox"/> Pasture <input type="checkbox"/> Commercial <input type="checkbox"/> Idle land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input checked="" 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 |

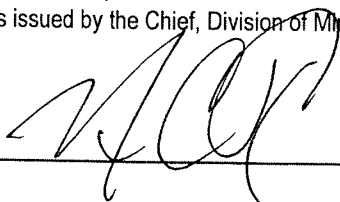
****PITS MUST BE FILLED WITHIN TWO MONTHS AFTER COMMENCEMENT OF THE WELL AND WITHIN FOURTEEN DAYS AFTER COMMENCEMENT OF THE WELL IN AN URBANIZED AREA.**

RECEIVED

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.

| | |
|---|--|
| <p>26. SURFACING MATERIAL FOR ACCESS ROAD:</p> <input type="checkbox"/> Gravel <input type="checkbox"/> Brick and/or tile waste <input type="checkbox"/> Slag <input type="checkbox"/> Crushed stone <input checked="" type="checkbox"/> No surfacing material to be used <input type="checkbox"/> Proposed alternative | <p>29. STEEPEST SLOPE GRADIENT ON ACCESS ROAD:</p> <input checked="" type="checkbox"/> 0 to 5% <input type="checkbox"/> 6 to 10% <input type="checkbox"/> greater than 10% |
| <p>27. PATH OF ACCESS ROAD TO BE DETERMINED BY:</p> <input type="checkbox"/> Landowner <input type="checkbox"/> Contractor <input type="checkbox"/> Existing access road <input checked="" type="checkbox"/> Operator | <p>30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD:</p> <input type="checkbox"/> 0 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input checked="" type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft. |
| <p>28. GRADING AND EROSION CONTROL PRACTICE ON ROAD:</p> <input type="checkbox"/> Diversions <input type="checkbox"/> Filter strips <input type="checkbox"/> Drains <input type="checkbox"/> Riprap <input type="checkbox"/> Open top culverts <input type="checkbox"/> Water breaks <input type="checkbox"/> Outsloping of road <input type="checkbox"/> Pipe culverts <input checked="" type="checkbox"/> Proposed alternative NONE | <p>31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN?</p> <input type="checkbox"/> Yes <input checked="" 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 Mineral Resources Management.

Signature of Owner/Authorized Agent 

Name (Typed or Printed) NICHOLAS PAPANODIS Date 12/27/2011

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.

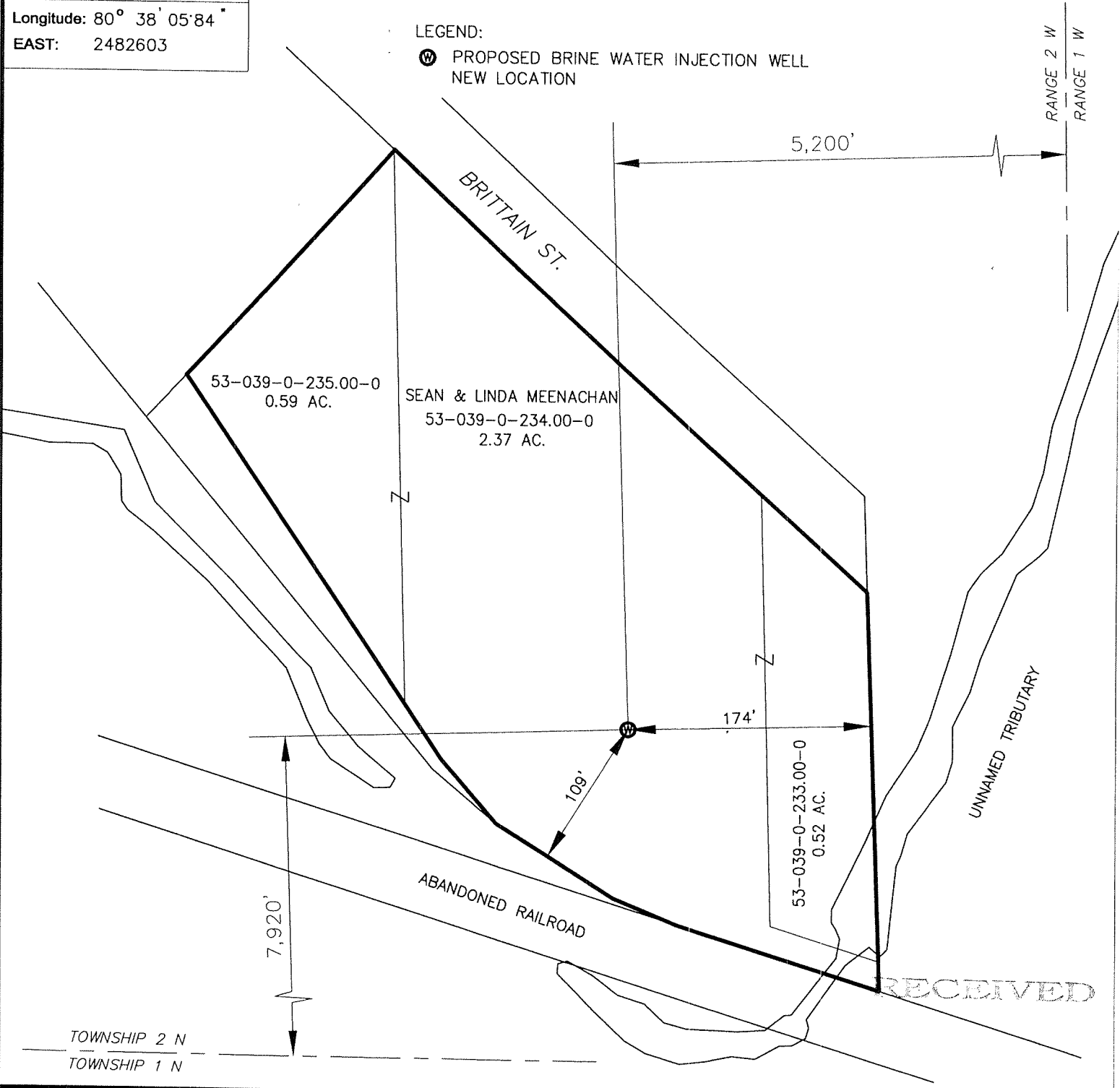
RECEIVED

Latitude: 41° 04' 56.47"
 NORTH: 521265
 Longitude: 80° 38' 05.84"
 EAST: 2482603

WELL LOCATION PLAT

LEGEND:

⊙ PROPOSED BRINE WATER INJECTION WELL
 NEW LOCATION



| | | | | | | | | | | | | | |
|--------------------------------|--|----------|--------------|--|--------------------------------|---------------------------|-------------------|-------------------|-------------------------|-------------------------|----------|-------------|----------|
| Surveyor or Engineer | GARY TANERI | Phone # | 330-207-5502 | Date | REVISED 1/9/12 DEC. 9, 2011 | Scale | 1"=100' | Acreage | 3.48 | | | | |
| Lat. & Long Metadata Method | GPS | Accuracy | 3 ft. | Datum | NAD83 | Elevation Metadata Method | USGS | Accuracy | 10 ft. | Datum | NGVD29 | Survey Date | 12/01/11 |
| Applicant / Well Operator Name | D & L ENERGY, INC. | | | Well(Farm) Name | MOHAWK MEENACHAN | | Well # | 8 | | | | | |
| Address | 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509 | | | County | MAHONING | | Municipality | YOUNGSTOWN | | | | | |
| Surface Landowner | SEAN & LINDA MEENACHAN | | | USGS 71/2 Quadrangle Map Name | YOUNGSTOWN | | | Surface Elevation | 875 ft. | Anticipated Total Depth | 9600 ft. | | |
| Surface Lessor | D & L ENERGY, INC. | | | Angle & Course of Deviation (Drilling) | VERTICAL | | Surface Elevation | 875 ft. | Anticipated Total Depth | 9600 ft. | | | |

STATE OF OHIO
 DEPARTMENT OF NATURAL RESOURCES
 MINERAL RESOURCES MANAGEMENT
 COLUMBUS, OH 43224



[Signature] 1/10/12
 Gary Richard Taneri
 Registered Professional Surveyor No. 7672

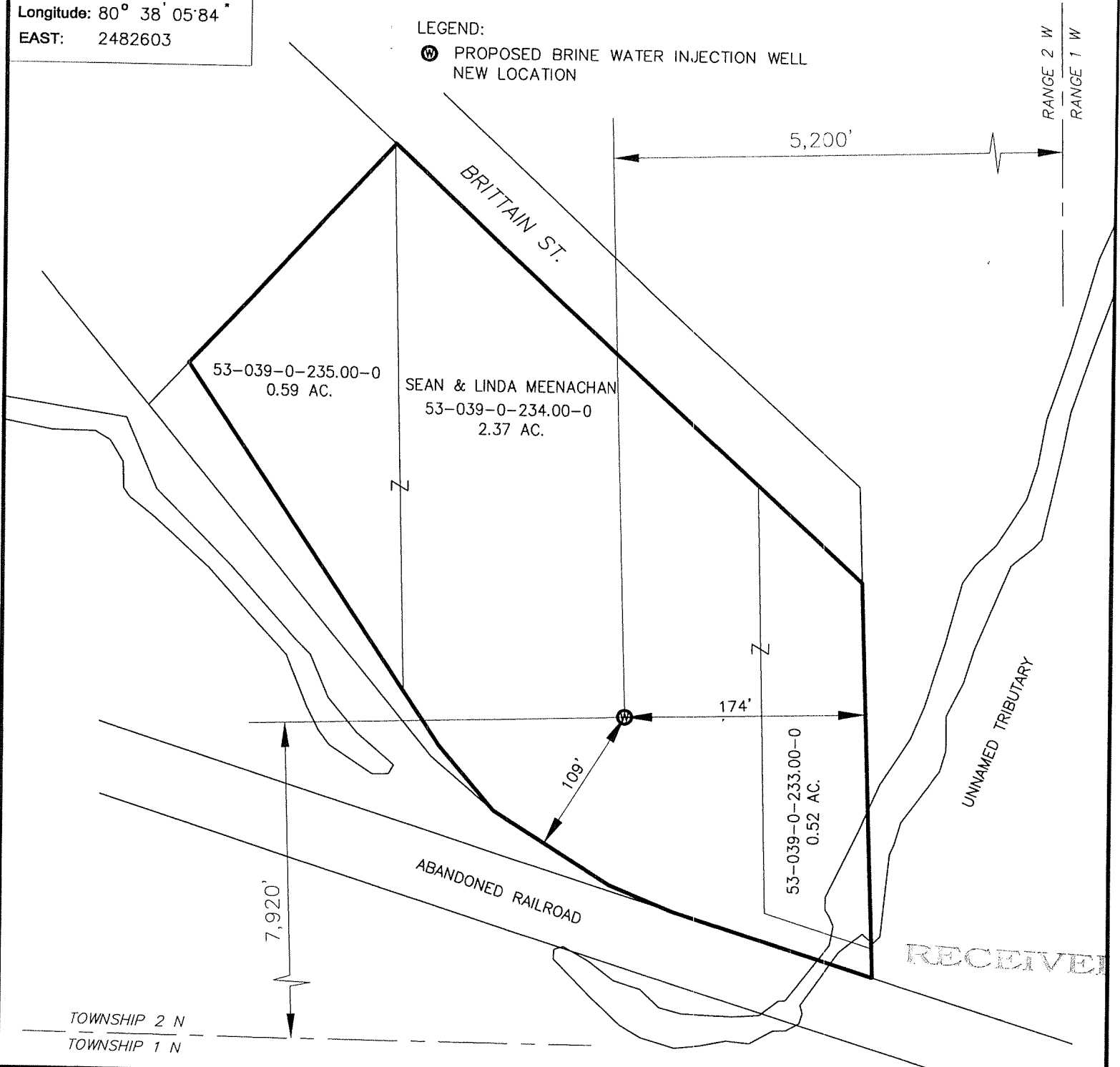


Latitude: 41° 04' 56" 47"
 NORTH: 521265
 Longitude: 80° 38' 05" 84"
 EAST: 2482603

WELL LOCATION PLAT

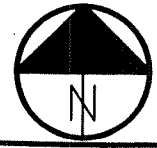
LEGEND:

- ⊕ PROPOSED BRINE WATER INJECTION WELL NEW LOCATION



| | | | | | | | | | | | | | |
|--------------------------------|--|----------|--------------|--|--------------------------------|---------------------------|-------------------|-------------------|-------------------------|-------------------------|----------|-------------|----------|
| Surveyor or Engineer | GARY TANERI | Phone # | 330-207-5502 | Date | REVISED 1/9/12 DEC. 9, 2011 | Scale | 1"=100' | Acreage | 3.48 | | | | |
| Lat. & Long Metadata Method | GPS | Accuracy | 3 ft. | Datum | NAD83 | Elevation Metadata Method | USGS | Accuracy | 10 ft. | Datum | NGVD29 | Survey Date | 12/01/11 |
| Applicant / Well Operator Name | D & L ENERGY, INC. | | | Well(Farm) Name | MOHAWK MEENACHAN | | Well # | 8 | | | | | |
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| Surface Lessor | D & L ENERGY, INC. | | | Angle & Course of Deviation (Drilling) | VERTICAL | | Surface Elevation | 875 ft. | Anticipated Total Depth | 9600 ft. | | | |

STATE OF OHIO
 DEPARTMENT OF NATURAL RESOURCES
 MINERAL RESOURCES MANAGEMENT
 COLUMBUS, OH 43224



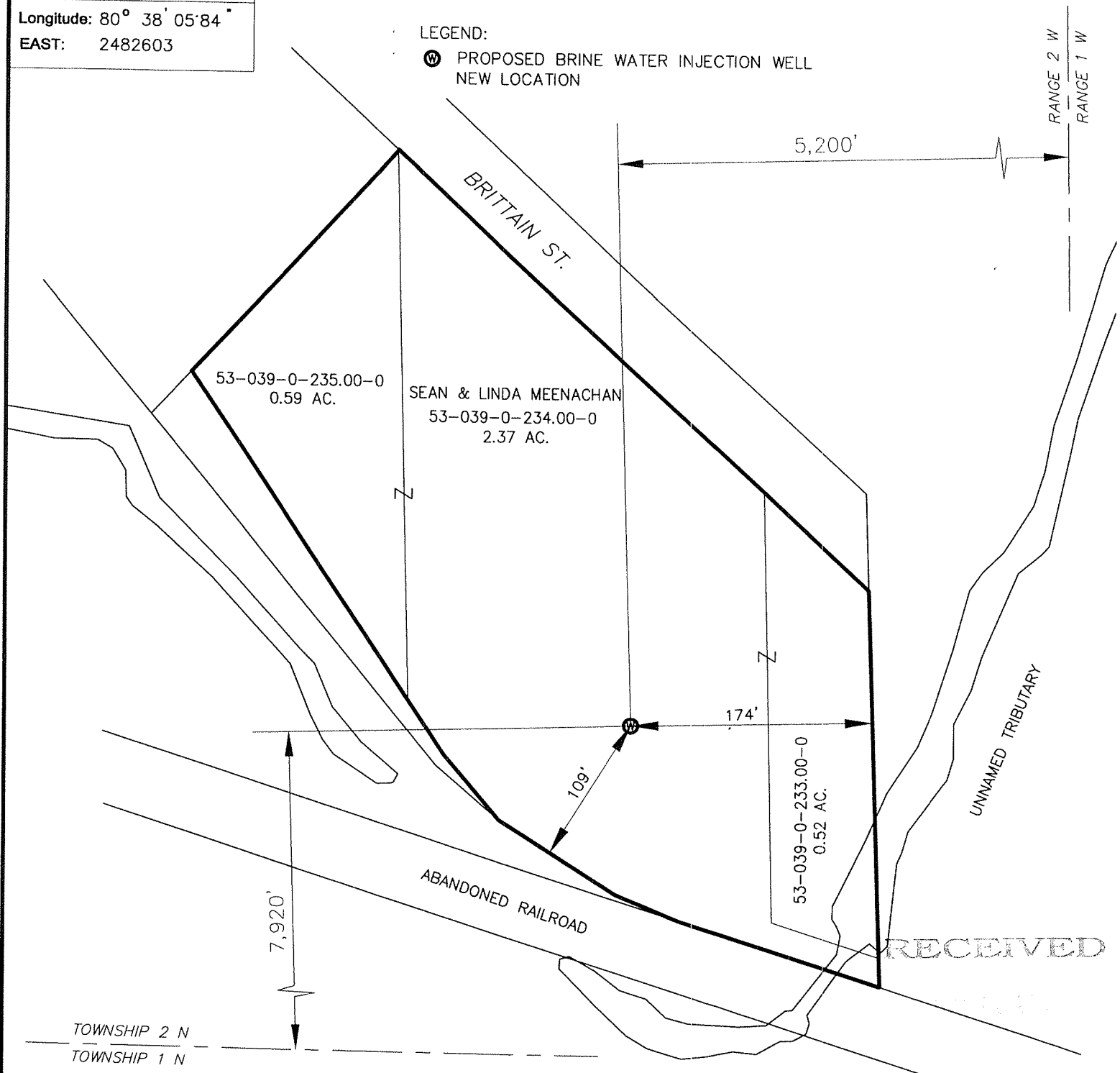
[Signature]
 Gary Richard Taneri
 Registered Professional Surveyor No. 7672
 Date 1/10/12



Latitude: 41° 04' 56.47"
 NORTH: 521265
 Longitude: 80° 38' 05.84"
 EAST: 2482603

WELL LOCATION PLAT

LEGEND:
 (W) PROPOSED BRINE WATER INJECTION WELL
 NEW LOCATION



RECEIVED

| | | | | |
|---|--|--|------------------|-----------------|
| Surveyor or Engineer GARY TANERI | Phone # 330-207-5502 | Date REVISED 1/9/12 DEC. 9, 2011 | Scale 1"=100' | Acreage 3.48 |
| Lat. & Long Metadata Method GPS Accuracy 3 ft. Datum NAD83 | Elevation Metadata Method USGS Accuracy 10 ft. Datum NGVD29 | Survey Date 12/01/11 | | |
| Applicant / Well Operator Name D & L ENERGY, INC. | Well(Farm) Name MOHAWK MEENACHAN | Well # 8 | | |
| Address 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509 | County MAHONING | Municipality YOUNGSTOWN | | |
| Surface Landowner SEAN & LINDA MEENACHAN | USGS 71/2 Quadrangle Map Name YOUNGSTOWN | Anticipated Total Depth 9600 ft. | | |
| Surface Lessor D & L ENERGY, INC. | Angle & Course of Deviation (Drilling) VERTICAL | Surface Elevation 875 ft. | | |

STATE OF OHIO
 DEPARTMENT OF NATURAL RESOURCES
 MINERAL RESOURCES MANAGEMENT
 COLUMBUS, OH 43224



[Signature] 1/10/12
 Gary Richard Taneri
 Registered Professional Surveyor No. 7672

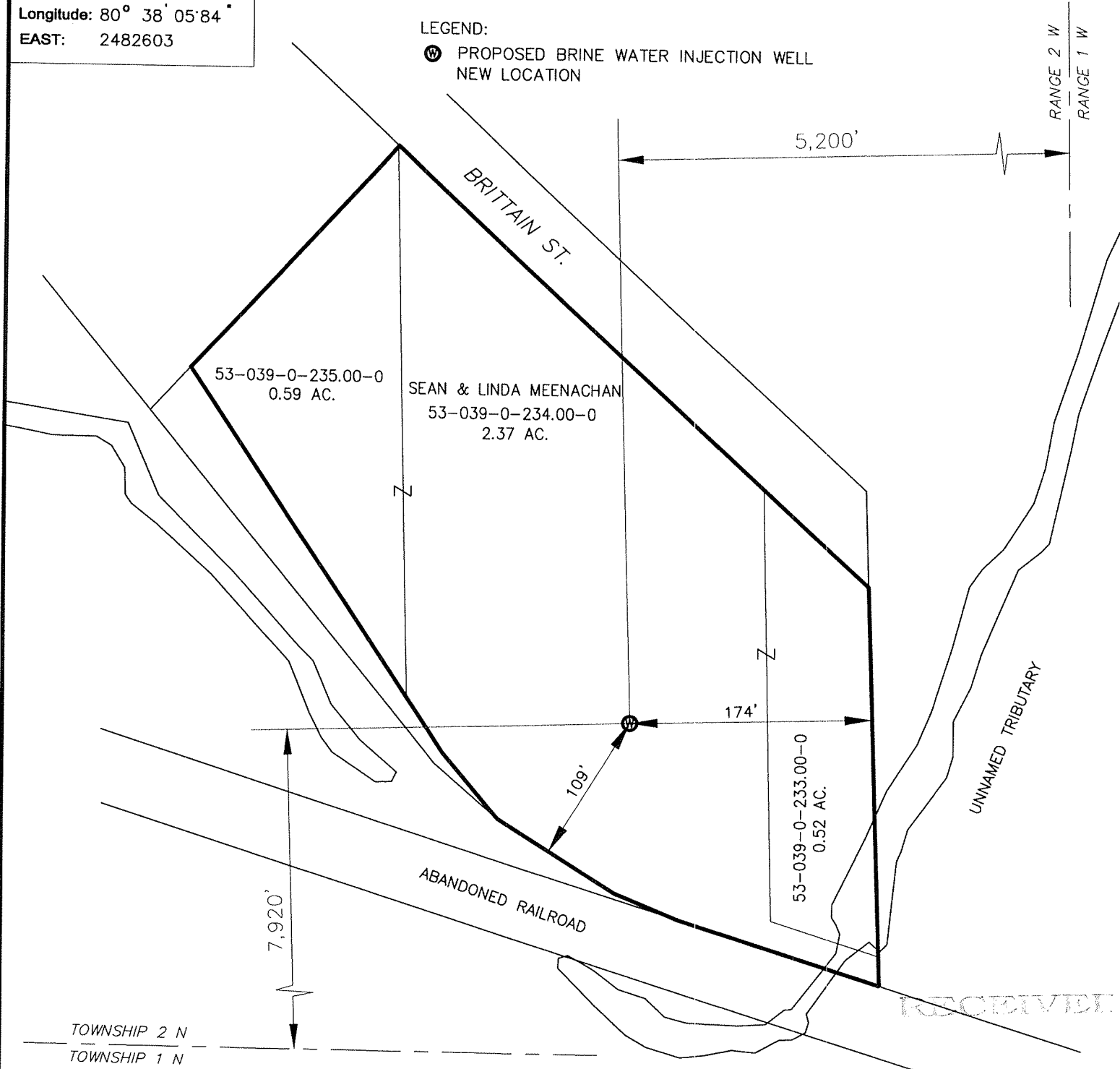


Latitude: 41° 04' 56.47"
 NORTH: 521265
 Longitude: 80° 38' 05.84"
 EAST: 2482603

WELL LOCATION PLAT

LEGEND:

- ⊕ PROPOSED BRINE WATER INJECTION WELL NEW LOCATION



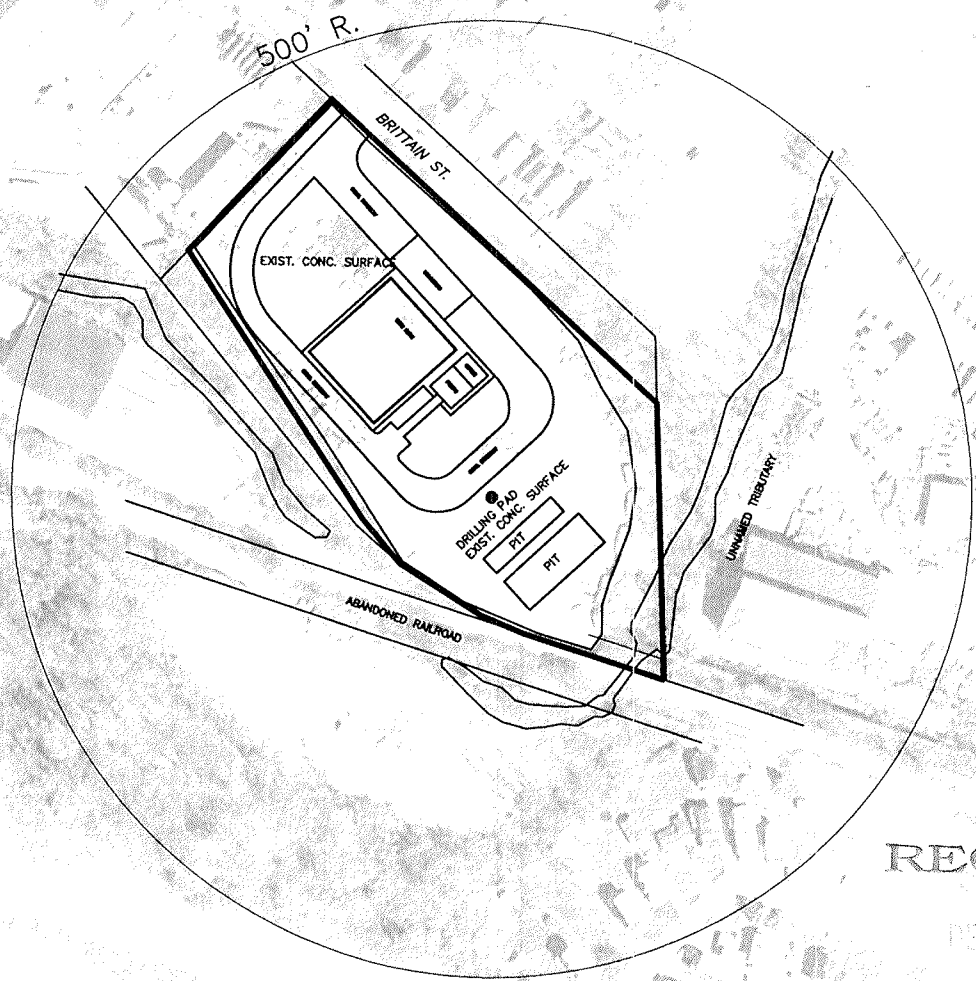
| | | | | |
|---|--|--|------------------------------|-------------------------------------|
| Surveyor or Engineer GARY TANERI | Phone # 330-207-5502 | Date REVISED 1/9/12 DEC. 9, 2011 | Scale 1"=100' | Acres 3.48 |
| Lat. & Long Metadata Method GPS Accuracy 3 ft. Datum NAD83 | Elevation Metadata Method USGS Accuracy 10 ft. Datum NGVD29 | Survey Date 12/01/11 | | |
| Applicant / Well Operator Name D & L ENERGY, INC. | Well(Farm) Name MOHAWK MEENACHAN | Well # 8 | | |
| Address 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509 | County MAHONING | Municipality YOUNGSTOWN | | |
| Surface Landowner SEAN & LINDA MEENACHAN | USGS 71/2 Quadrangle Map Name YOUNGSTOWN | Angle & Course of Deviation (Drilling) VERTICAL | Surface Elevation 875 ft. | Anticipated Total Depth 9600 ft. |
| Surface Lessor D & L ENERGY, INC. | | | | |

STATE OF OHIO
 DEPARTMENT OF NATURAL RESOURCES
 MINERAL RESOURCES MANAGEMENT
 COLUMBUS, OH 43224



Gary Richard Taneri
 Gary Richard Taneri
 Registered Professional Surveyor No. 7672
 Date 1/10/12





RECEIVED

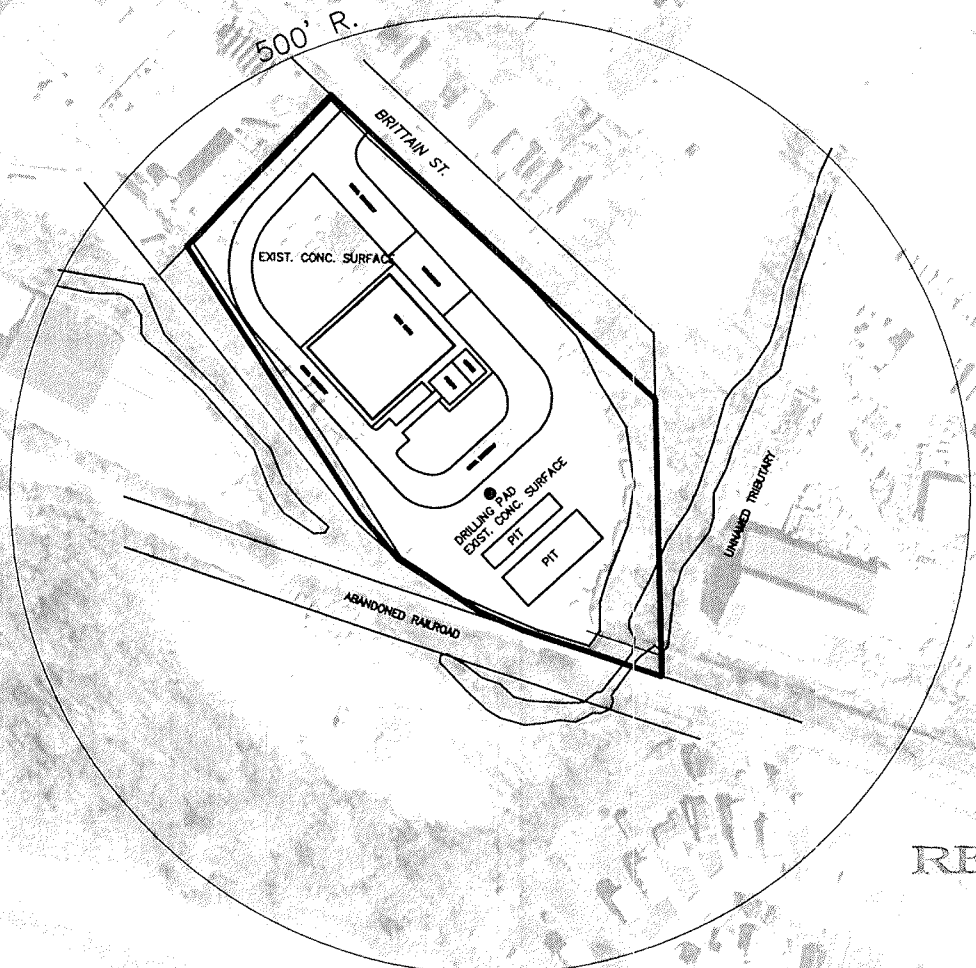
DEC 23 2011



SCALE: 1"=200'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524



RECEIVED

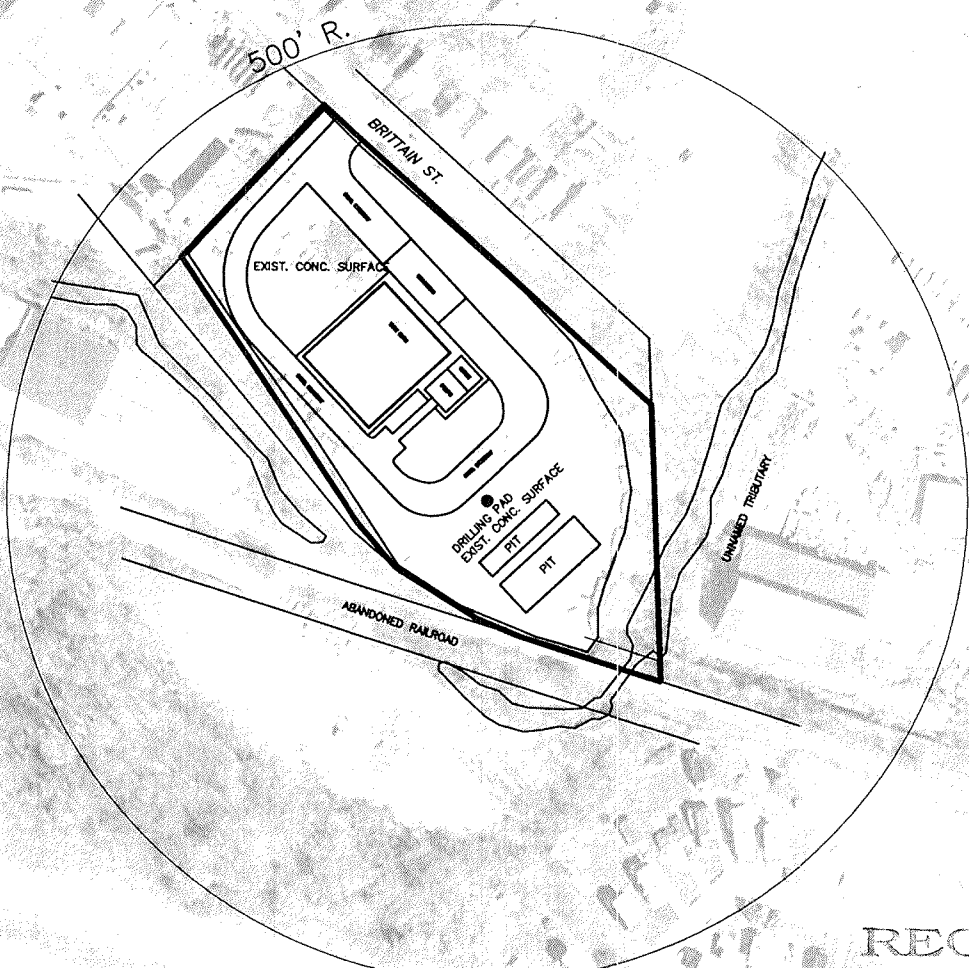
DEC 29 2011



SCALE: 1"=200'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524



RECEIVED



SCALE: 1"=200'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

500' R.

BRITAIN ST.

EXIST. CONC. SURFACE

ABANDONED RAILROAD

UNNAMED TRIBUTARY

RECEIVED

DRILLING PAD
EXIST. CONC. SURFACE

PIT

PIT



SCALE: 1"=100'

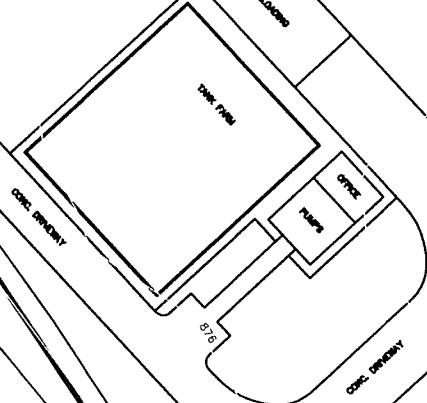
PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

500' R.

BRITAIN ST.

EXIST. CONC. SURFACE



DRILLING PAD
EXIST. CONC. SURFACE
PIT
PIT

ABANDONED RAILROAD

UNNAMED TRIBUTARY

RECEIVED



SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

500' R.

BRITAIN ST.

EXIST. CONC. SURFACE

CONC. DRIVEWAY

UNLOADED

OVER FILL

OFFICE

TRUCK

CONC. DRIVEWAY

DRILLING PAD
EXIST. CONC. SURFACE

PIT

PIT

ABANDONED RAILROAD

UNNAMED TRIBUTARY

RECEIVED



SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

500' R.

BRITAIN ST.

EXIST. CONC. SURFACE

ABANDONED RAILROAD

UNNAMED TRIBUTARY

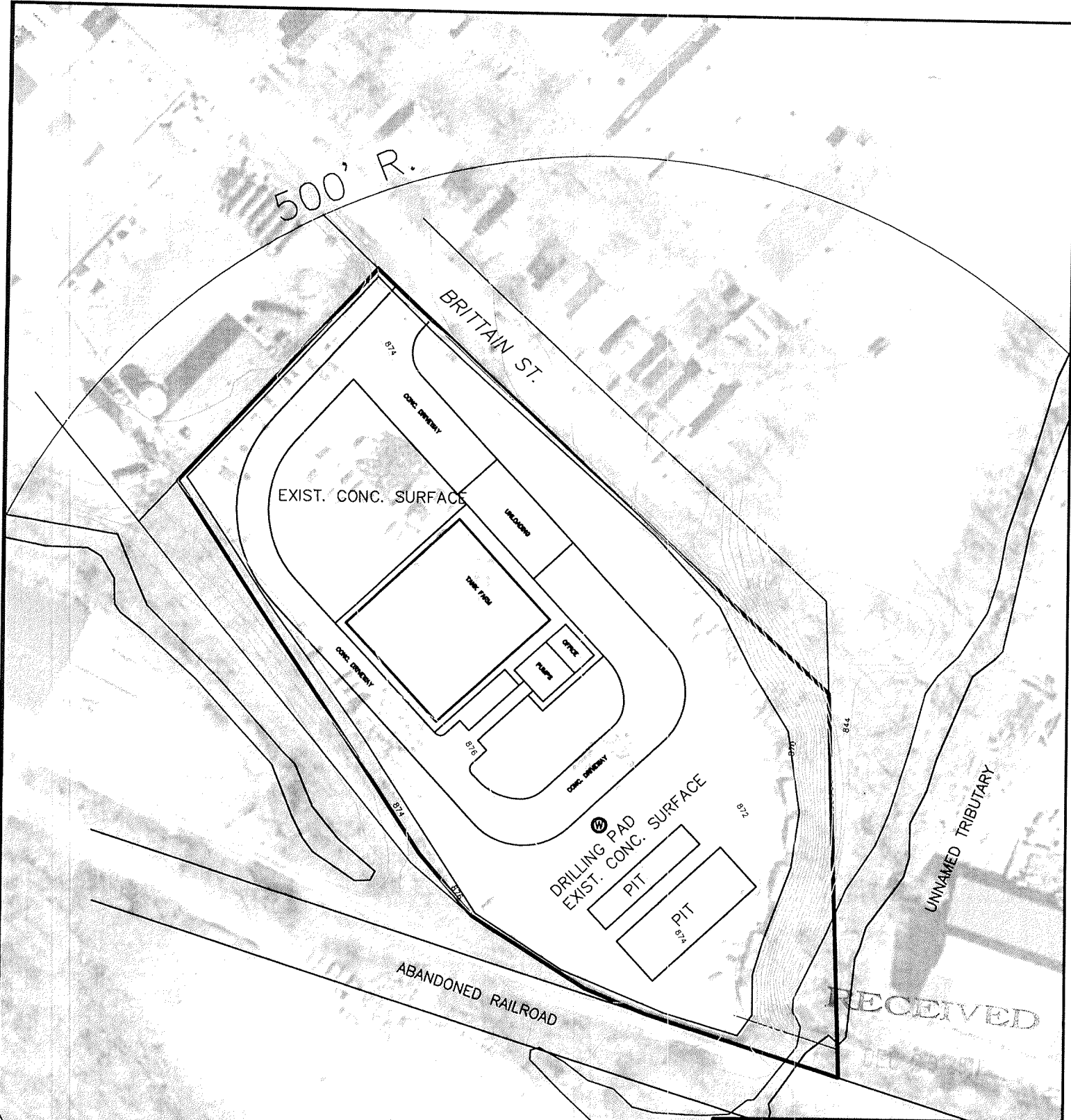
RECEIVED



SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524



500' R.

BRITAIN ST.

EXIST. CONC. SURFACE

ABANDONED RAILROAD

DRILLING PAD
EXIST. CONC. SURFACE

PIT
PIT

UNNAMED TRIBUTARY

RECEIVED



SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

500' R.

BRITAIN ST.

EXIST. CONC. SURFACE

ABANDONED RAILROAD

UNNAMED TRIBUTARY

RECEIVE



SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
MOHAWK MEENACHAN NO.8

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

SALTWATER INJECTION WELL – AFFIDAVIT

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

State of ohio, mahoning County, ss
Nicholas C. Paparodis being
first duly sworn says that as principal, or authorized agent, for D&L Energy, Inc., he or
she has made application for a saltwater injection well in the State of Ohio mahoning
County, City of Youngstown Township, section/lot number 542; and
further certifies that notice of application has been delivered to each individual entitled to personal
notification in accordance with paragraph (E) of Rule 1501:9-3-.06 of the Ohio Administrative Code.
And further affiant saith not.

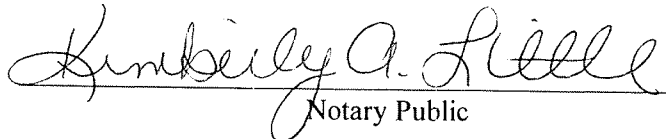


Affiant Signature

Sworn to before me and subscribed in my presence this 27 day of December,
2011.



KIMBERLY A. LITTLE
MY COMMISSION EXPIRES
JUNE 1, 2014



Notary Public

RECEIVED



*D&L ENERGY, INC.
LAND DEPARTMENT*

2761 Salt Springs Road, Youngstown, Ohio 44509
330-792-9524 888-343-4427 Fax 330-270-1202
www.dandlenergy.com

Charles Sammarone, Mayor
City of Youngstown
26 S. Phelps Street
Youngstown, OH 44503

December 27, 2011

Dear Landowner(s):

D & L Energy, Inc. is writing to let you know that we have made an application with the Ohio Department of Natural Resources, Division of Mineral Resources Management, in Columbus, Ohio to drill a salt water injection well (MOHAWK MEENACHAN NO. 8) shown on the enclosed well plat. As required we are notifying all property owners located within 500' of the well site.

If you have any questions concerning this application, please feel free to contact me at 330-270-1211.

Very truly yours,

Kimberly A. Little

Kimberly Little
Land Administration


Enclosure

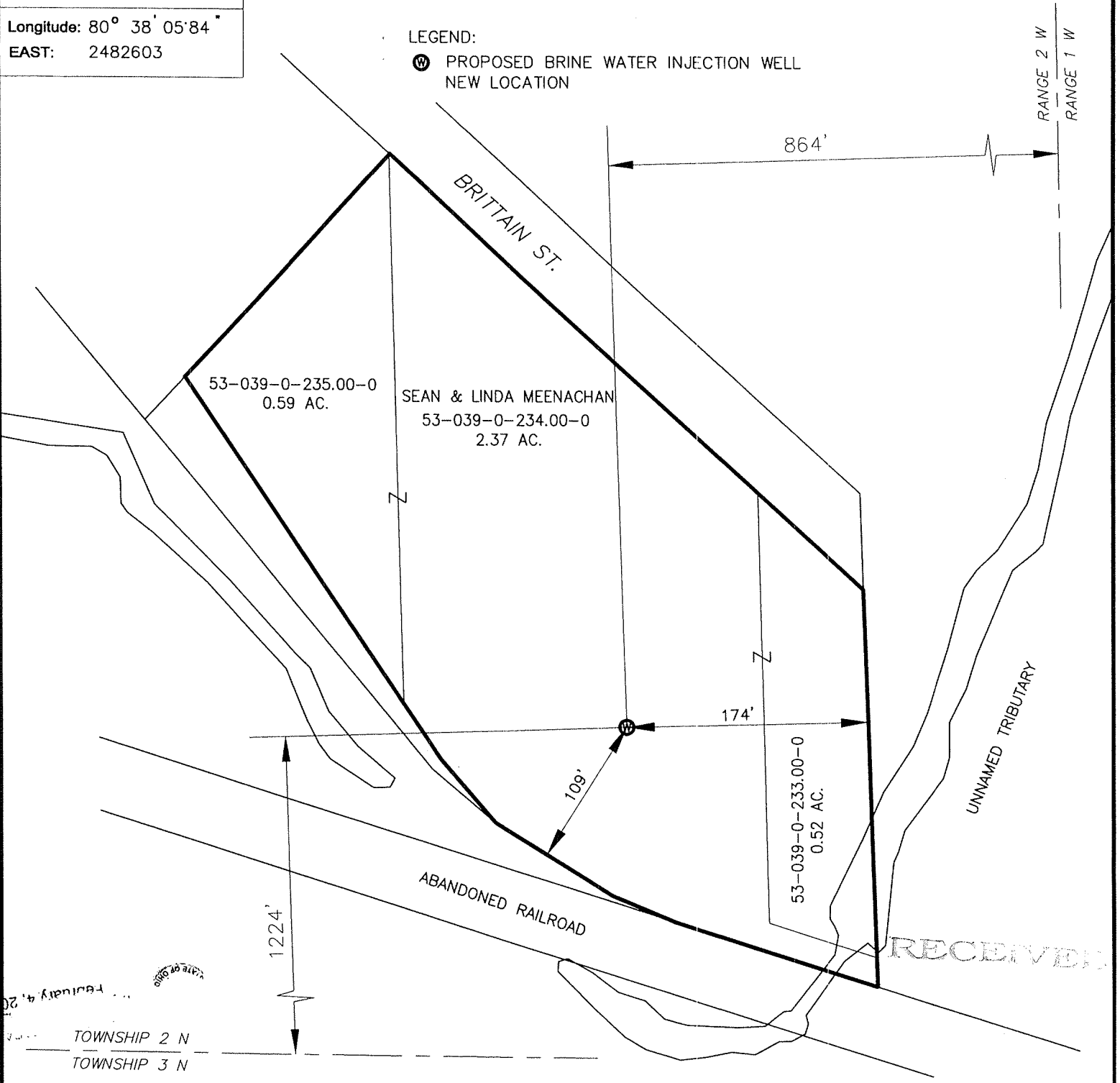
"Sample"
COPY

RECEIVED

Latitude: 41° 04' 56" 47"
 NOR: 521265
 Longitude: 80° 38' 05" 84"
 EAST: 2482603

WELL LOCATION PLAT

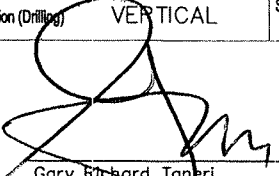
LEGEND:
 PROPOSED BRINE WATER INJECTION WELL
 NEW LOCATION



| | | | | | | | | | | | | | |
|--------------------------------|--|----------|--------------|--|------------------|---------------------------|-------------------|------------|-------------------------|----------|--------|-------------|----------|
| Surveyor or Engineer | GARY TANERI | Phone # | 330-207-5502 | Date | DEC. 9, 2011 | Scale | 1"=100' | Acreage | 3.48 | | | | |
| Lat. & Long Metadata Method | GPS | Accuracy | 3 ft. | Datum | NAD83 | Elevation Metadata Method | USGS | Accuracy | 10 ft. | Datum | NGVD29 | Survey Date | 12/01/11 |
| Applicant / Well Operator Name | D & L ENERGY, INC. | | | Well(Farm) Name | MOHAWK MEENACHAN | | | Well # | 8 | | | | |
| Address | 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509 | | | County | MAHONING | | Municipality | YOUNGSTOWN | | | | | |
| Surface Landowner | SEAN & LINDA MEENACHAN | | | USGS 71/2 Quadrangle Map Name | YOUNGSTOWN | | | | | | | | |
| Surface Lessor | D & L ENERGY, INC. | | | Angle & Course of Deviation (Drilling) | VERTICAL | | Surface Elevation | 875 ft. | Anticipated Total Depth | 9600 ft. | | | |

STATE OF OHIO
 DEPARTMENT OF NATURAL RESOURCES
 MINERAL RESOURCES MANAGEMENT
 COLUMBUS, OH 43224




 Gary Richard Taneri
 Registered Professional Surveyor No. 7672
 Date 12/12/11



MOHAWK #8 LANDOWNERS WITHIN 500 FEET

| PARCEL NUMBER | | NOTIFICATION SENT TO | MAILING ADDRESS |
|---------------|--------|---|--|
| N/A | | Charles Sammarone, Mayor | City of Youngstown, 26 S. Phelps Street, Youngstown, OH, 44503 |
| 530390 | 143000 | Barrich, Rose | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 241000 | Budd Brothers | 3857 Fairway Drive, Canfield, OH, 44406 |
| 530390 | 138000 | Cominsky, Donald R | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 139000 | Cominsky, Vickie L. | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 225000 | | |
| 530390 | 226000 | Dillon, David C. | 1258 Brittain, Youngstown, OH, 44502 |
| 530390 | 142000 | Drobik, Patricia | 426 Alexander Street, Youngstown, OH, 44502 |
| 530390 | 217000 | Faust, Robin | 1232 Brittain Street, Youngstown, OH, 44502 |
| 530390 | 218000 | Faust, Robin | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 220000 | Faust, Robin | 1238 Brittain Street, Youngstown, OH, 44502 |
| 530390 | 185000 | Florand Co. | 5213 Lemoyne, Youngstown, OH, 44514 |
| 530390 | 135000 | Frottaroli, Frank & Ann | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 237000 | Garlick Company | 601 Jones Street, Youngstown, OH, 44502 |
| 530390 | 230000 | | |
| 530390 | 227000 | Hernandez, Victor M Jr. | 1260 Brittain Street, Youngstown, OH, 44502 |
| 530390 | 161000 | | |
| 530390 | 162000 | | |
| 530390 | 163000 | | |
| 530390 | 164000 | | |
| 530390 | 165000 | | |
| 530390 | 166000 | | |
| 530390 | 167000 | | |
| 530390 | 168000 | | |
| 530390 | 169000 | | |
| 530390 | 170000 | | |
| 530390 | 171000 | | |
| 530390 | 176000 | | |
| 530390 | 183000 | Hirt, Andrew J. & Florence J. Trustees | 5213 Lemoyne, Youngstown, OH, 44514 |
| 530390 | 184000 | | |
| 530390 | 228000 | | c/o Victor M. Hernandez, Jr., 1260 Brittain Street, Youngstown, OH, 44502 |
| 530390 | 229000 | Lopez, Margarita G. | |
| 530390 | 242000 | Mahoning Paint Corp. | P.O. Box 1282, Youngstown, OH, 44501-1282 |
| 530390 | 233000 | | 108 Spring Garden Drive, Youngstown, OH, 44512 |
| 530390 | 234000 | Meenachan, Sean | |
| 530390 | 235000 | Meenachan, Sean | 1214 Poland Avenue, Youngstown, OH, 44507 |
| 530390 | 174000 | | |
| 530390 | 175000 | Mega Mfg. Inc. | 518 Powersdale, Youngstown, OH, 44502 |
| 530390 | 144000 | | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 145000 | Miller, Wilma E. | |
| 530390 | 136000 | | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| 530390 | 137000 | Murphy, Michael J. & Suzanne | |
| 530390 | 268000 | Port Authority for Columbiana County Ohio | 1250 George Street, East Liverpool, OH, 43920 |
| 530390 | 157000 | Praxair, Inc. | 39 Old Ridgebury Road, Danbury, CT, 06810-5113 |
| 530390 | 140000 | | |
| 530390 | 141000 | Randall, Nicole | 502 Alexander Street, Youngstown, OH, 44502 |
| 530390 | 219000 | Rhodes, Jack W. Jr. & Amy L. Wright | 2215 Hubbard Masury Road, Hubbard, OH, 44425 |
| 530390 | 223000 | Ritchie, Robert L. | 1252 Brittain, Youngstown, OH, 44502 |
| 530390 | 224000 | Ritchie, Terry R. | 1254 Brittain Street, Youngstown, OH, 44502 |
| 530390 | 153010 | State of Ohio | 705 Oakwood, Ravenna, OH, 44266 |

RECEIVED

MOHAWK #8 LANDOWNERS WITHIN 500 FEET

| PARCEL NUMBER | | NOTIFICATION SENT TO | MAILING ADDRESS |
|---------------|--------|--------------------------|--|
| 530390 | 221000 | | |
| 530390 | 222000 | Stone, John | 2735 Dearborn Ave., Youngstown, OH, 44510 |
| 530390 | 156000 | The Extendit Company | 601 Jones Street, Youngstown, OH, 44502 |
| 530390 | 172000 | Walker, Richard D. Jr. & | |
| 530390 | 173000 | Brocker, Brad B. | 518 Powersdale, Youngstown, OH, 44502 |
| | | | |
| 530390 | 154000 | Webster, Arthur E. Etal | c/o Mahoning County Treasurer, 120 Market Street, 1st Floor, Youngstown, OH, 44503 |
| | | | |
| 530390 | 150010 | Wester, Arthur | c/o Economic Development, 20 W. Federal Plaza, Youngstown, OH, 44503 |
| 530390 | 186000 | | |
| 530390 | 193000 | | |
| 530390 | 231000 | | |
| 530390 | 232000 | Youngstown Tool & Die | 1261 Poland Avenue, Youngstown, OH, 44502 |

RECEIVED

11



*D&L ENERGY, INC.
LAND DEPARTMENT*

2761 Salt Springs Road, Youngstown, Ohio 44509
330-792-9524 888-343-4427 Fax 330-270-1202
www.dandlenergy.com

December 28, 2011

Ohio Department of Natural Resources
Division of Mineral Resources Management
2045 Morse Road, Building H-3
Columbus, OH 43229-6693

Ladies and Gentlemen:

Enclosed please find the Application for a Permit to drill a Saltwater Injection Well (**Mohawk Meenachan Well #8**) and check #21595 in the amount of \$1,000.00.

This well is in an urban area so I have also enclosed a Sample Landowner Notification Letter and a Listing of all Landowners Notified within 500 feet of the well. Water tests are not necessary; all landowners receive their water from a municipal source.

If you have any questions, feel free to contact me at 330-270-1211.

Very truly yours,

A handwritten signature in cursive script that reads 'Kimberly A. Little'.

Kimberly Little
Land Administration
D&L Energy, Inc.

Enclosures

RECEIVED

DEC 29 2011