RAILROAD COMMISSION OF TEXAS
HEARINGS DIVISION

OIL AND GAS DOCKET NO. 01-0274287

THE APPLICATION OF APEX ENVIRONMENTAL TEXAS, LLC PURSUANT TO 16
TEXAS ADMINISTRATIVE CODE §3.9 FOR A COMMERCIAL DISPOSAL PERMIT TO
DISPOSE OF OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION
NOT PRODUCTIVE OF OIL AND GAS FOR THE APEX ENVIRONMENTAL MILLET
LEASE, WELL NO. 1, PEARSCALL EAST (OLMOS) FIELD, LA SALLE COUNTY, TEXAS

HEARD BY: Brian Fancher, P.G. - Technical Examiner
Michael Crnich - Legal Examiner

APPEARANCES: REPRESENTING:

APPLICANT:

Derek McDonald
Amber Maclver
Jeff Hughes, P.E.
Ryan Mersmann, P.G.
Oscar Tomasich
Oscar Lopez
Ramiro Rodriguez

APEX ENVIRONMENTAL TEXAS, LLC

PROTESTANTS:

Lidia Rodriguez Self
R.H. Rodriguez Self
Hector J. Ortiz Self

PROCEDURAL HISTORY

Application Filed: November 09, 2011
Protest Received: November 28, 2011
Request for Hearing: January 10, 2012
Notice of Hearing: January 26, 2012
Hearing Held: April 02, 2012
Transcript Received: April 16, 2012
Proposal for Decision Issued: December 20, 2012
EXAMINERS’ REPORT AND PROPOSAL FOR DECISION
STATEMENT OF THE CASE

On March 09, 2012, the subject docket was called to order, appearances were noted, and the applicant’s request to reset the hearing to a future date was granted. The hearing was reconvened on April 02, 2012.

Apex Environmental Texas, LLC ("Apex") requests commercial disposal authority, pursuant to Statewide Rule 9, for its Apex Environmental Millett Lease, Well No. 1, Pearsall East (Olmos) Field located in the J. Poitevent Survey, A-632, La Salle County, Texas.

Notice of the subject application was published in the Frio-Nueces Current, a newspaper of general circulation in La Salle County, on September 08, 2011. Notice of the application was sent to the La Salle County Clerk and to the surface owners of each tract which adjoins the disposal tract on November 04, 2011. There were no operators identified within a half-mile radius of the subject well’s proposed location. This application is protested by multiple adjacent surface owners.

The examiners take Official Notice of the Railroad Commission’s public record relating to well locations placed on the Commission’s Geographic Information Systems ("GIS") database, as well as public information relating to the current Organization Report filed by Apex Environmental Texas, LLC.

DISCUSSION OF THE EVIDENCE

Applicant’s Evidence

Apex seeks commercial disposal authority for its proposed Apex Environmental Millett ("AEM") Lease, Well No. 1. The subject well’s proposed location is positioned on a 180-acre tract that is adjacent to Interstate Highway 35 ("IH-35"), approximately ten miles north of Cotulla, Texas (Tr., P. 36, L. 6-10).

The AEM Lease, Well No. 1, has yet to be drilled. Apex seeks to dispose of produced salt water and oil and gas wastes in the Edwards formation from 8,550 feet to 9,550 feet below ground surface. Apex testified it seeks a maximum daily injection volume of 10,000 barrels of fluid per day and estimates the daily average of fluids disposed to be 5,000 barrels per day (Tr., P. 43, L. 22-25 & P. 44, L. 7-10). Apex submitted a Commission Form W-14\(^1\) that indicates the proposed disposal well will be completed from the surface to 2,900 feet below ground surface with 10 3/4" surface casing, with cement circulated from the surface casing shoe to the ground surface.

Beyond that, Apex proposes 7" long-string casing be set at 9,550 feet back to surface with cement circulated from the 7" casing shoe to approximately 5,000 feet. Additionally, Apex proposes

\(^1\) See attached Apex Exhibit No. 2
a cement deviation ("DV") tool at 3,100 feet, with cement circulated back to surface. Apex proposes 4 ½" tubing and packer set at the top of the subject well's proposed injection interval. Finally, Apex proposes to set a cast-iron bridge plug at 9,450 feet with twenty feet of cement placed above it.²

The Commission’s Groundwater Advisory Unit ("GAU"), formerly the Texas Commission on Environmental Quality ("TCEQ"), concluded that the base of usable quality water ("BUQW") occurs at 2,700 feet below ground surface at the subject well’s proposed location. Moreover, the letter indicates that the water encountered from 2,000 feet to 2,350 feet contains superior quality water which must be isolated from water in underlying and overlying strata. Additionally, the base of the usable source of drinking water ("USDW") occurs at 4,100 feet.

Apex submitted quarter-mile and half-mile areas of review ("AOR") that surround the proposed disposal well location. No wells were identified within the AORs (Tr., P. 61, L. 8-21). Apex testified that a dry hole, the Kirkwood & Morgan, Inc, Will Nagy Lease, Well No. 1 (Nagy No. 1), is located 0.65 miles and was plugged and abandoned on March 19, 1952. Apex submitted a plugging record for the Nagy No. 1 that indicates the Nagy No. 1 was drilled to a total depth of 4,255 feet.

Apex testified that it attempted to identify the location of water wells, with respect to the subject well’s proposed location, based on information it obtained through the Texas Water Development Board website. Apex testified no water wells are located within a half-mile radius of the subject well’s location (Tr., P. 62, L. 13-21).

Apex testified the nearest hydrocarbon productive well from the subject well is the Leede Oil & Gas, Inc., Ledwig Lease, Well No. 3 (API No. 42-283-31367), situated approximately one and one half to two miles northeast of the subject well. A Commission Form W-2 (Completion Report) for the Ledwig No. 3, dated December 17, 1990, indicates the Legwig No. 3 is completed in the Pearsall (Austin Chalk) Field and produces through perforations from 7,400 feet to 11,216 feet, measured depth.

Apex testified that it seeks an injection interval based on the correlative interval from 8,500 feet to 9,550 feet, as seen in the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353). Apex testified the KEL B-1 is located approximately ten miles west of the proposed disposal well location (Tr. P. 72, L. 18-24).

Apex testified that it determined its proposed injection interval, as observed from 8,500 feet to 9,550 feet in the KEL B-1, is appropriate for the subject well’s proposed location. Apex testified it reviewed studies relating to the area of the subject well’s location, as well as observing the well log for the KEL B-1 to verify the subject well’s proposed schematic coincided with its proposed injection interval (Tr., P. 73, L. 1-6). No other petrophysical data or sub-surface mapping was submitted on behalf of Apex to support its requested correlative injection interval. Additionally, no evidence was submitted supporting confinement at the base of the proposed injection interval.

² See attached Apex Exhibit No. 3 - Wellbore Diagram
Apex testified that the drilling and use of the subject well for the injection of disposal fluids will not adversely impact any usable water, or any oil, gas, or geothermal resources (Tr., P. 64, L. 1-9). Additionally, Apex testified the subject application contains all the information required by 16 TAC §3.9 (Tr., P. 64, L. 10-17).

Apex testified it believes that the correlative interval it proposes as its injection interval will properly confine injected fluids to the injection interval. Apex testified the top of its proposed injection interval is capped by the Georgetown formation, a semi-confining layer, and then the Del Rio formation (Tr., P. 77, L. 3-11).

At the hearing, Apex testified that La Salle County is centrally located to service the Eagle Ford operations that are growing exponentially in the area (Tr., P. 37, L. 15-19). No physical evidence or testimony was presented by Apex to indicate the number of wells in the immediate area surrounding the proposed subject well, or if any of the surrounding wells were completed in a Commission designated oil or gas field producing from the Eagle Ford formation.

Finally, Apex submitted a copy of its current Commission Form P-5 (Organization Report). Apex is a limited liability corporation. Commission public records currently reflect that Apex does not have financial assurance filed with the Commission.

**Protestants’ Evidence**

R.H & Lidia Rodriguez

Mr. and Mrs. Rodriguez are adjacent surface owners to the tract in which the subject well’s proposed location is placed. Mr. Rodriguez testified he and his wife protest the subject application due to the proximity of the subject well’s proposed location with respect to his property. Moreover, Mr. Rodriguez testified he is concerned with the consequential road traffic, due to the operations of the subject well. Also, Mr. Rodriguez testified he and his wife are concerned with the potential odor that may accompany the operation of the subject well. Finally, Mr. Rodriguez testified he is concerned his water supply may be potentially affected from the disposal operations (Tr., P. 11, L. 6-19).

Hector Ortiz

Mr. Ortiz is an adjacent surface owner to the tract comprising the location of the proposed subject well. Mr. Ortiz testified there are two water wells located on his property that are within 1/4-mile from the subject well location. Mr. Ortiz testified he is concerned with the potential pollution to his water wells, as a consequence to the disposal operation of the subject well. Additionally, Mr. Ortiz testified he is concerned about the potential adverse affect to his property value as a result of the subject well’s approval for disposal. No physical evidence was submitted on behalf of Mr. Ortiz identifying the location and depth of the two water wells on his property.
EXAMINERS' OPINION AND DISCUSSION

Based on the testimony and physical evidence submitted at the hearing, the examiners recommend the application for the proposed Apex Environmental Millett ("AEM") Lease, Well No. 1 be denied. The examiners conclude the applicant has failed to meet the burden of proof in establishing that fluids disposed in the proposed injection interval will be confined to the injection interval.

First, the examiners note that 16 Texas Administrative Code ("TAC") §3.9 governs the permitting, use, and maintenance of a disposal well under the jurisdiction of the Railroad Commission. Specifically, 16 TAC §3.9(1) provides oil and gas operators the following requirement:

"Every applicant who proposes to dispose of saltwater or other oil and gas waste into a formation not productive of oil, gas, or geothermal resources must obtain a permit from the Commission authorizing the disposal in accordance with this section"

Under the provisions of 16 TAC §3.9, an operator is required to demonstrate that fluids will be confined to the injection interval that is requested. In the subject application, Apex has failed to meet this burden.

Apex testified it seeks an injection interval from 8,550 feet to 9,550 feet, as shown on the log of the Hurd Enterprises, Ltd., Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353). Apex testified the KEL B-1 is located approximately ten miles west of the proposed disposal well location (Tr. P. 72, L. 18-24). No where in its application did Apex submit a map identifying the location of the subject well with reference to the KEL B-1. As a result, the examiners reviewed the Commission's GIS system in an attempt to verify the distance separating the subject well and the KEL B-1. Subsequently, it came to light the subject well and the KEL B-1 are separated by approximately 24.5 miles, not ten miles as testified by Apex. No subsurface mapping was presented at the hearing on behalf of Apex to identify that the injection interval from 8,550 feet to 9,550 feet, as observed in the KEL B-1, will occur at the same depth in the subject well’s proposed location.

At the hearing, the examiners inquired as to what stratigraphic formation above it's proposed injection interval will provide for impervious confinement of fluids injected in its proposed injection interval³ (Tr., P. 74, L. 24-25). In response, Apex testified that the Georgetown formation, followed by the Del Rio formation, sequentially occurs stratigraphically above its proposed injection interval. Beyond that, Apex testified that the Georgetown formation is a semi-confining layer and that the Del Rio formation is the primary confining layer above the Edwards formation (Tr., P. 77, L. 9-11).

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³ Apex seeks to solely permit the Edwards formation as it’s proposed injection interval - see Apex Exhibit No. 2, Item No. 34.
Next, the examiners inquired as to where on the KEL B-I well log the top of the Georgetown formation (base of the Del Rio formation) is established (Tr., P. 81, L. 3-5). Apex testified that the top of the Georgetown formation occurs at 7,500 feet (Tr., P. 88, L. 1-5). That is, Apex testified that the confining formation, to the top of its proposed injection interval, occurs 1,000 feet above 8,550 feet. Accordingly, the examiners recommend that the application be denied due to lack of confinement of disposal fluids to its requested injection interval.

**FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice. Notice of the subject application was published in the *Frio-Nueces Current*, a newspaper of general circulation in La Salle County, on September 08, 2011.

2. Notice of the application was sent to the La Salle County Clerk, surface owner of the location for the proposed disposal well, and the adjacent surface owners of each tract which adjoins the disposal tract on November 04, 2011. There were no offset operators identified within the half-mile area of review.

3. Apex Environmental Texas, LLC ("Apex") requests disposal authority pursuant to 16 TAC §3.9 to commercially dispose of waste in the proposed Apex Environmental Millet ("AEM") Lease, Well No. 1, Pearsall, East (Olmos) Field, La Salle County, Texas.

4. Apex seeks to permit the correlative interval from 8,550 feet to 9,550 feet, as seen on the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-I ("KEL B-I") (API No. 42-127-33353), located 24 miles west of the proposed disposal well location, as the injection interval for the AEM Lease, Well No. 1.

5. Apex failed to demonstrate that fluids injected in the correlative interval from 8,550 feet to 9,550 feet, as seen on the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353), will be confined to the injection interval at the location of the AEM Lease, Well No. 1.
   
   a. The Del Rio formation, the confining stratigraphic unit above the top of the proposed injection interval, is 1,000 feet above the top of the proposed injection interval.
   
   b. No evidence was submitted supporting confinement at the base of the proposed injection interval.
   
   c. Apex primarily based its geologic evidence on the KEL B-1 well log, which is located 24 miles apart from the proposed location for its AEM Lease, Well No.1.
d. No convincing geologic evidence was submitted to indicate whether faulting occurs within the Del Rio, Georgetown, or Edwards formations between the location of the KEL B-1 and the AEM Lease, Well No.1.

6. Apex has a current approved Form P-5 (Organization Report) and no financial assurance filed with the Railroad Commission of Texas.

**CONCLUSIONS OF LAW**

1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.

2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.

3. Apex has not complied with the requirements for approval set forth in 16 Texas Administrative Code §3.9.

**EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the application of Apex Environmental Texas, LLC, for commercial disposal authority in its Apex Environmental Millet Lease, Well No. 1, be denied, as set out in the attached Final Order.

Respectfully submitted,

Brian Fancher, P.G.
Technical Examiner

Michael Crnich
Legal Examiner
RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION  

APPLICATION TO DISPOSE OF OIL AND GAS WASTE BY INJECTION  
INTO A FORMATION NOT PRODUCTIVE OF OIL AND GAS  

1. Operator Name: Apex Environmental Texas, LLC  
2. Operator P-5 No.: 027451  
3. Operator Address: 9332 Bluebonnet Blvd., Baton Rouge, LA 70810  

4. County: LaSalle  
5. RRC District No.: 01  
6. Field Name: Pearsall, East (Olmos)  
7. Field Number: 69982500  
8. Lease Name: Apex Environmental Millett  
9. Lease/Gas ID No.: Y-1  

10. Well is 10.2 miles in a NNE direction from Cotulla (center of nearest town).  
11. No. acres in lease: 180  
12. Legal description of location including distance and direction from survey line: 1.056' S of 1.240' W of J Pottevent SW 1/4 A-432  
13. Latitude/Longitude, if known (Optional):  
   Lat.: 29.5850  
   Long.: -99.2013  

14. New Permit: Yes ☑ No  
15. Reason for amendment: Pressure ☐ Volume ☐ Interval ☐ Commercial ☐ Other (explain):  

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<th>16. Well No.</th>
<th>17. API No.</th>
<th>18. Date Drilled</th>
<th>19. Total Depth</th>
<th>20. Plug Date, if re-entry</th>
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<td>NA</td>
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</tbody>
</table>

21. Casing Size: 10-3/4"  
22. Setting Depth: 10-1/2"  
23. Casing Weight: 40.0 lb/ft  
24. Cement Class: Type B  
25. Cement Sacks (#): 3  
26. Top of Cement: Surface  
27. Top Determined by: Visual  
28. Multiple completion: Yes ☑ No ☐  
29. Multistage cement: Yes ☑ No ☐  
30. Injection Tubing Size: 2-1/4"  
31. Packer Pressure: 3,550 psi  
32. Cement Squeeze Operations (List all giving interval and number of sacks of cement and cement top and whether Proposed or Complete): NA  
33. Injection Interval from: 8,550 ft to 9,550 ft  
34. Name of Disposal Formation: Edwards  
35. Any Oil and Gas Productive Zone within two miles: Yes ☑ No ☐  
36. Maximum Daily Injection Volume: 10,000 bpd  
37. Estimated Average Daily Injection Volume: 5,000 bpd  
38. Maximum Surface Injection Pressure: 4,275 psi  
39. Estimated Average Surface Injection Pressure: 3,000 psi  
40. Source of Fluids (Formation, depths and types): Source of fluids from various formations, depths.  
41. Are fluids from leases other than lease identified in Item 8? Yes ☐ No ☑  
42. Commercial Disposal Well: Yes ☑ No ☐  
43. If commercial disposal, will non-hazardous oil and gas waste other than produced water be disposed of? Yes ☑ No ☐  
44. Type(s) of Injection Fluid: Salt Water ☑ Brackish Water ☑ Fresh Water ☑ CO₂ ☑ N₂ ☑ Air ☑ H₂S ☑ LPG ☑ NORM ☑ Natural Gas ☑ Polymer ☑ Other (explain): LPG  

CERTIFICATE  
I declare under penalty prescribed in Sec. 91.143, Texas Natural Resources Code, that I have authorized to make this report, that this report is in my supervision and direction, and that all the information herein are true, correct, and complete, to the best of my knowledge.  

Signature: Mitch Killough  
Date: 09/23/2011  

PHONE: 281-882-8667  
FAX: 281-872-4521  

O&G  
AUSTIN TX  
REGISTER NO: 34377  
AMOUNT: 100  

APPLICANT ALSO MUST COMPLY WITH THE INSTRUCTIONS ON THE REVERSE SIDE

APPLICANT'S EXHIBIT  
NO. 2