THE APPLICATION OF PRO FIELD SERVICES, INC. TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL OR GAS, PRO FIELD SWD LEASE WELL NO. 1, ALOE (CATAHOULA) FIELD, VICTORIA COUNTY, TEXAS

HEARD BY: Donna K. Chandler, Technical Examiner Marshall F. Enquist, Hearings Examiner

APPEARANCES:

APPLICANT:

REPRESENTING:

Doug Dashiell David Klatt **Pro Field Services**

PROTESTANTS:

James Allison Katherine Howard Tim Andruss Victoria County Groundwater Conservation District

Gary Burns, Commissioner

Victoria County

Daniel Jimenez Ron Kramer Homer Ortiz Quail Creek Municipal Utility District

PROCEDURAL HISTORY

Application Filed: Request for Hearing: Notice of Hearing: Date of Hearing: Transcript Received: Proposal For Decision Issued: May 29, 2008 September 3, 2008 September 26, 2008 October 30, 2008 December 4, 2008 January 24, 2008

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Pro Field Services, Inc. requests authority pursuant to Statewide Rule 46 to inject fluids into its Pro Field SWD No. 1 in Victoria County. The well will be used as a commercial disposal well. This application is protested by the Victoria County Groundwater Conservation District, the Quail Creek Municipal Utility District and Victoria County Precinct 3.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The subject well has not yet been drilled. It is proposed to be drilled to a total depth of 3,400 feet. Applicant proposes to set 1,670 feet of 85% surface casing with cement circulated to surface. Applicant also proposes to set 3,400 feet of 51/2 casing with cement circulated to surface. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth of 1,650 feet. (See attached wellbore diagram for proposed wellbore configuration.)

The proposed injection interval is a lower portion of the Catahoula Sand between 2,720 and 3,000 feet, with actual perforations projected to be between 2,940 and 3,000 feet. Injection of fluids will be through 2⁷/₈" tubing set on a packer at approximately 2,650 feet, but no higher than 100 feet above the top of the injection interval. The proposed maximum injection volume is 5,000 BWPD and the proposed maximum injection pressure is 1,300 psig.

According to Commission maps, there are two wellbores within a ¼ mile radius of the proposed injection well. The County of Victoria No. 1 was drilled in 1954 to a total depth of 3,015 feet and plugged as a dry hole. The well has plugs set at 265 feet and 1,500 feet. The Hogan Unit No. 2 was drilled in 1989 to a total depth of 2,813 feet and is carried as a producing well in the Aloe (Catahoula) Field. During the course of the hearing, the location of the Hogan No. 2 came into question and it appears that the Commission map did not correctly reflect the proper location of the well. The actual location of the No. 2 is apparently more than ½ mile from the proposed injection well. The majority of the producing wells in the Aloe (Catahoula) Field are about one mile to the southwest of the proposed well. These wells produce from the very top portion of the Catahoula Sand. Regardless of the actual location of the Hogan No. 2, it has two strings of casing cemented to surface to protect usable quality water and prevent migration of fluids.

Applicant submitted a log of the Engle Trustee Well No. 1, which is located approximately ½ mile to the northwest of the proposed injection well. The log demonstrates that there are several hundred feet of shale between the Catahoula Sand and the base of usable-quality water at 1,650 feet in the area. Applicant believes that the

Catahoula Sand is a good candidate for injection in the proposed well. Over 40 million barrels of salt water have been injected into the Catahoula in other wells in Victoria County, including two commercial wells and several private wells.

The proposed well will be drilled on a 10 acre tract in an industrial area. The tract is owned by Pro Field Services and consists of two 5 acre tracts separated by a road which ends on the property. Pro Field Services currently has its offices on the acreage and parks its salt water hauling trucks on the acreage. (See attached aerial photo.)

Pro Field Services operates one commercial disposal well in Victoria County, the Alkek No. 2 located approximately 4 miles to the southeast of the proposed injection well. Pro Field Services hauls produced salt water from Victoria and surrounding counties to the Alkek No. 2 and to five other commercial disposal facilities in Lavaca, Goliad and Victoria Counties. However, injection volume into the Alkek No. 2 has decreased significantly from 1,600 BWPD in late 2007 to 700 BWPD currently. More water is therefore being diverted to other facilities for disposal, at increased costs. In August 2008, Pro Field Services hauled 47,906 barrels of salt water produced from wells in DeWitt, Goliad and Victoria Counties to the various commercial disposal wells. It is estimated that 18,000 barrels of that monthly volume of water could be disposed of into the Pro Field SWD No. 1, at decreased costs compared to using facilities operated by others. Additionally, the only other commercial well available to Pro Field Services in Victoria County is the Minnie Welder No. 2D. In recent times, long wait times to unload have occurred at this facility. There are two other commercial facilities in Victoria County. However, these facilities will not accept water from Pro Field Services because they only dispose of water they haul. With increased drilling in the area, it is expected that there will be an increased demand for saltwater disposal services.

Commission records indicate that Pro Field Services, Inc. has a current P-5 with the Commission and has financial assurance posted in the amount of \$25,000.

Notice of the subject application was published in the *Victoria Advocate*, a newspaper of general circulation in Victoria County, on June 24, 2008. A copy of the application was mailed to the Victoria County Clerk's Office on June 30, 2008. Also on June 30, 2008, Applicant mailed copies of the application to all adjacent surface owners and to all operators within ½ mile of the proposed well.

Protestant's Evidence

The Victoria County Groundwater Conservation District ("VCGCD") and the Quail Creek Municipal Utility District ("MUD") object to the proposed application and believe that the injection well will pose a threat to groundwater. They also believe that the location for the well is not suitable for commercial use.

Protestants point out that there is an assisted living center within ½ mile of the proposed location for the well and a public school and a day care center are within 2 miles of the proposed location for the injection well. The MUD serves approximately 500

residences in the area and about 50 industrial sites. Both the school and the day care have water supplied from MUD wells. A residential portion of the MUD exists within ½ mile of the proposed location. Three water wells operated by the MUD are within one mile of the proposed well, as well as four residential water wells. The closest MUD water well is approximately ¾ mile from the proposed injection well. The deepest of the MUD wells is 623 feet. However, City of Victoria water supply wells are deeper than 1,000 feet. The closest city water well is several miles from the proposed injection well and the proposed injection well location is not within the city limits of Victoria. The location is within three miles of the city limits.

Water from the three MUD wells is tested annually by TCEQ. However, protestants believe that additional testing should be required of Pro Field Services if the requested permit is approved. Protestants believe that a continuous monitoring system of pressures of the proposed well, as well as periodic sampling of water from area wells, should be conditions of any permit approved for the proposed well.

EXAMINERS' OPINION

The examiners recommend that the application be approved. The proposed well will be completed in a manner which will confine injected fluids to the proposed injection interval between 2,720 and 3,000 feet. The subject well will be drilled to a total depth of 3,400 feet, with two strings of casing cemented to surface, including 1,670 feet of 85%" surface casing. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth of 1,650 feet. There are no wells within a ¼ mile of the proposed well which will provide a conduit for migration of fluids from the injection zone. The examiners do not believe that any additional testing requirements should be required of Applicant.

Approval of the requested permit is in the public interest. Pro Field Services already operates one commercial disposal well in Victoria County, the Alkek No. 2 located approximately 4 miles to the southeast of the proposed injection well. This well is apparently experiencing mechanical problems which has resulted in inability to accept as much water as previously. Injection volume into the Alkek No. 2 has decreased from 1,600 BWPD in late 2007 to 700 BWPD currently. More water is therefore being diverted to other commercial facilities for disposal, at increased costs to Pro Field Services. Additionally, only one of the commercial facilities in Victoria County will accept water from Pro Field Services, and long wait times have been experienced at that facility recently. Drilling activity in Victoria County is also increasing. The examiners believe the evidence supports the need for an additional commercial disposal facility in the area.

Protestants concerns regarding the inappropriateness of the location of the proposed well have been considered by the examiners. However, the area is largely industrial and Pro Field Services already uses the surface facility and roads for their salt water hauling trucks.

FINDINGS OF FACT

- 1. Notice of this application was provided by Pro Field Services, Inc. to all persons entitled to notice pursuant to Statewide Rule 46. Notice of the application was published in The *Victoria Advocate,* a newspaper of general circulation in Victoria County, on June 24, 2008.
- 2. The Pro Field SWD No. 1 will be cased and cemented in a manner to protect usable quality water.
 - a. The Texas Commission on Environmental Quality recommends that usable-quality water be protected to 1,650 feet in the area of the proposed well.
 - b. The well will have approximately 1,670 feet of 85%" surface casing set and cemented to surface.
 - c. There are several hundred feet of shale between the Catahoula Sand and the base of usable-quality water at 1,650 feet.
- 3. Fluids injected into the Pro Field SWD No. 1 will be confined to the injection interval.
 - a. The well will have approximately 1,670 feet of 85%" surface casing set and cemented to surface.
 - b. The well will have approximately 3,400 feet of 5¹/₂" casing set and cemented to surface.
 - c. Injection will be through tubing set on a packer no higher than 100 feet above the top of the injection interval.
 - d. There are no wellbores within ¼ mile of the proposed injection well which would provide a conduit for migration of injected fluids from the injection interval.
 - e. The proposed injection interval is the lower portion of the Catahoula Sand between 2,720 and 3,000 feet.

- 4. Use of the Pro Field SWD No. 1 Well as a commercial disposal well is in the public interest.
 - a. Use of the well will provide a safe, economic means of disposal of produced salt water in the area.
 - b. The Alkek No. 2 is a commercial disposal well operated by Pro Field Services, Inc. approximately 4 miles to the southeast of the proposed well. Injection volumes into the Alkek No. 2 has decreased from 1,600 BWPD in late 2007 to 700 BWPD currently due to mechanical problems with the well.
 - c. Pro Field Services, Inc. operates salt water hauling trucks which have access to only one other commercial facility in Victoria County.
- 5. The use or installation of the proposed well will not endanger or injure any oil, gas, or other mineral formation.
- 6. With proper safeguards, as provided by terms and conditions in the attached final order which are incorporated herein by reference, both ground and surface fresh water will be adequately protected from pollution.
- 7. Pro Field Services, Inc. is an active operator with financial assurance in the amount of \$25,000.

CONCLUSIONS OF LAW

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things have occurred to give the Railroad Commission jurisdiction to consider this matter.
- 3. The use or installation of the proposed injection well is in the public interest.
- 4. The use or installation of the proposed injection well will not endanger or injure any oil, gas, or other mineral formation.
- 5. Operation of the well under the terms of the proposed permit will protect both ground and surface fresh water from pollution.
- 6. Pro Field Services, Inc. has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.

7. Pro Field Services, Inc. has met its burden of proof and satisfied the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 46.

EXAMINERS' RECOMMENDATION

Based on the above findings and conclusions, the examiners recommend that the application be approved as set out in the attached Final Order.

Respectfully submitted,

Donna K. Chandler Technical Examiner Marshall F. Enquist Hearings Examiner