



RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 8A-0263107

THE APPLICATION OF PYOTE WATER SYSTEMS, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE W. R. BELL LEASE, WELL NO. 1, KELLY-SNYDER FIELD, SCURRY COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Mark J. Helmueller - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

John G. Soule
Jenni Usher
Andy Torres
Joe C. Neal
Nelson Patton
Trip Wommack

Pyote Water Systems, LLC

PROTESTANT:

Vicki Rosenstein

Alexander and Vicki Rosenstein

PROCEDURAL HISTORY

Application Filed:	August 31, 2009
Protest Received:	September 10, 2009
Request for Hearing:	September 18, 2009
Notice of Hearing:	October 1, 2009
Hearing Held:	December 10, 2009
Transcript Received:	December 28, 2009
Proposal for Decision Issued:	January 14, 2010

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Pyote Water Systems, LLC ("Pyote") requests commercial disposal authority

pursuant to Statewide Rule 9 for the W. R. Bell Lease, Well No. 1, Kelly-Snyder Field, Scurry County, Texas.

This application is protested by Alexander and Vicki Rosenstein who are surface owners adjacent to the tract on which the proposed disposal well is located. In addition, numerous letters of protest were received from other adjacent surface owners.

MATTERS OFFICIALLY NOTICED

Official Notice was taken of the printout of reports from the Commission's mainframe database for Pyote's most recent Commission Form P-5 (Organization Report) filing. Pyote is not currently the operator of any wells. It has posted a \$25,000 blanket bond as its financial assurance.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The W. R. Bell Lease, Well No. 1, was drilled to a total depth of 7,036 feet and plugged and abandoned as a dry hole in December 1962. In July 2009, Pyote re-entered the Bell #1 to determine its suitability for use as a disposal well. The hole was cleaned out to a depth of 4,361 feet and a cement plug was set from 4,058 feet to 4,186 feet, resulting in a plug-back depth of 4,058 feet. The well has 8 5/8" surface casing set at 1,826 feet and it is cemented to the surface with 1,100 sacks of cement. A cement bond log confirms good cement behind the 8 5/8" casing. The well has new 5 1/2" casing set at 1,778 feet and it is cemented with 250 sacks of cement. The top of cement from a temperature survey log is 560 feet. The well is equipped with new 2 7/8" tubing and packer set at 1,752 feet (See attached Pyote Exhibit No. 23 - Wellbore Diagram). A successful mechanical integrity test was run on August 14, 2009.

The proposed disposal interval is in the San Andres and Clearfork formations between 1,752 feet and 4,058 feet. The nearest San Andres production is in the Varel, N. (San Andres) Field located more than six miles to the northwest. The nearest Clearfork production is in the Diamond -M- (Clear Fork) Field located more than five miles to the southwest. The nearest production is from the Canyon Reef formation in the Kelly-Snyder Field. The Kelly-Snyder Field produces from a depth of approximately 6,000 feet and there is more than 2,000 feet of impermeable rock between the field and the base of the proposed injection interval.

Pyote applied for authority to dispose of a maximum of 12,000 barrels of water per day with a maximum injection pressure of 876 psig. At the hearing, Pyote reduced its requested maximum volume from 12,000 barrels of water per day to 6,000 barrels of water per day with an average injection volume expected to be approximately 3,500 barrels of water per day. Pyote requests commercial authority to allow disposal of saltwater

produced by wells in the area, including wells permitted, drilled and completed since 2007, most of which are east and north of the proposed injection well.

The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 450 feet below the land surface. There are approximately 1,300 feet of impermeable shale and clay between the top of the proposed injection interval at 1,752 feet and the base of usable quality water at 450 feet. The TCEQ has concluded that injection of produced water into the proposed injection interval will not harm usable quality water.

There are no wells located within the ¼ mile radius of review for the proposed disposal well. The nearest wellbore that penetrates the proposed disposal interval is a dry hole that is located approximately ¾ of a mile to the southeast and is properly plugged. There are only seven wellbores located within a one mile radius of review. Five of those seven are properly plugged and abandoned. The other two are active injectors in the Kelly-Snyder Field and are properly cased and cemented.

The area surrounding the proposed injection facility is rural ranching and farming land. There are more than 1,500 oil and gas wells producing within a 10-mile radius. Many of the protestants have producing oil and gas wells on their land. Access to the disposal facility will be from County Road 253, which is a paved public highway. The surface facility will comply with all permit conditions requested by the Commission staff. At an average injection rate of 3,500 BWPD, there will be approximately 35 trucks per day accessing the facility. The facility will accommodate 28 trucks at any one time and is of sufficient size to allow trucks access without having to wait on the highway.

There are 624 permitted injection wells within a 10-mile radius of the proposed injection well, including three commercial disposal wells. Many of the protestants have injection and/or disposal wells on their land. There are nine permitted commercial disposal wells in Scurry County, all located 10 miles or more south. Six of the nine permitted commercial disposal wells in Scurry County are permitted for disposal in the San Andres and/or Clearfork formations. Three of those six wells have a top of the permitted injection interval at approximately 1,750 feet. Of the three permitted commercial disposal wells within 10 miles, two are permitted for disposal in the San Andres and/or Clearfork. The Basic Energy Services - LP Bullard Lease, Well No. 2D, accepts water only from trucks operated by Basic Energy Services. The Smith Vacuum Service - Brooks "A" Lease, Well No. 1D, is currently severed and inactive. The Key Energy Services - James A. Clark Lease, Well No. 2A, is permitted but has never been activated for disposal.

Since 2007, there have been approximately 80 drilling permits issued for wells within a 10-mile radius of the proposed injection well. The majority of those wells are north and east and located away from the other permitted commercial disposal wells in the area. Wells within a 10-mile radius produce a minimum of one million barrels of water per day. Recent completions produce significant volumes of water, with an average water cut exceeding 93%. Existing commercial disposal capacity is inadequate to handle all of this

produced water or is much further from the point of production than the proposed injection well. Saltwater haulers stop by Pyote's site daily inquiring when the proposed injection well will be permitted and available for disposal. Three saltwater haulers have filed letters supporting the application and the need for additional commercial disposal. Approval of this application will provide disposal capacity that is needed and not now available in the area. No traffic safety hazard will be created by use of the proposed disposal well which will reduce traffic by shortening the distance produced water has to be hauled.

On August 20, 2009, notice of application was sent to the Scurry County Clerk, the surface owner of the tract on which the proposed injection well is located, operators in the area and to the surface owners of each tract which adjoins the disposal tract. Notice was also sent to other surface owners not adjacent to the disposal tract, but owning land in the sections adjoining the section on which the disposal tract is located. As a result, all surface owners for more than one mile around the proposed injection well received notice of the application and notice of hearing. Notice of the subject application was published in the *Snyder Daily News*, a newspaper of general circulation in Scurry County, on August 21, 2009. Notice of the hearing was also published in the *Snyder Daily News* on November 6, 2009.

Pyote submits that it has the expertise to build and manage the proposed facility. Pyote has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance bond and no pending Commission enforcement actions.

Protestants' Evidence

Since the proposed injection well is located in a rural ranching and farming area, the protestants' primary concern is the potential pollution of ground and surface water. Also of concern are truck traffic, dust, noise, odor and other aesthetics.

EXAMINERS' OPINION

The examiners recommend approval of the application for commercial disposal authority. Although the W. R. Bell Lease, Well No. 1, was originally drilled in 1962, it was re-entered and re-conditioned with new casing, cement, tubing and packer in 2009. The well successfully passed a mechanical integrity test in August 2009.

Although the applicant requested an injection interval of 1,752 feet to 4,058 feet, this interval would allow perforations across the 5 1/2" and 8 5/8" casing shoes from 1,752 feet to 1,826 feet. Therefore, in order to protect the integrity of the casing shoes, the examiners recommend that the injection interval be limited to the open hole portion of the wellbore from 1,827 feet to 4,058 feet.

Injected fluids will be confined to the injection interval by 1,300 feet of impermeable shale and clay between the top of the injection interval and the base of usable quality water

and by 2,000 feet of impermeable rock below the injection interval and above the shallowest production. Finally, there are no wellbores in the one-quarter mile area of review and only one plugged dry hole well within three-quarters of a mile.

Approval of the application is in the public interest. Disposal wells are the best means for disposing of produced water. Pyote has shown the proposed disposal well is necessary to provide needed capacity for disposal of produced water from numerous wells drilled and produced with an 10-mile radius of the W. R. Bell Lease, Well No. 1. The well is closer to a vast majority of recently permitted wells than any other commercial disposal well. The existing commercial disposal wells are not only further away from the new production but they also have limited capacity.

Because the proposed injection well is closer to the point of production, use of the well for disposal of produced water will reduce traffic and use of public highways for hauling produced water to a disposal site. Access to the proposed disposal facility will be from a paved public highway. The surface facility is newly constructed and is of sufficient size to accommodate trucks hauling water to the facility without creating a traffic hazard on the highway that provides access to the facility. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both ground and surface water.

FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice. Notice of this application was published in the Snyder Daily News, a newspaper of general circulation for Scurry County, on August 21, 2009. Notice of hearing was published in the Snyder Daily News, a newspaper of general circulation for Scurry County, on November 6, 2009.
2. The proposed injection into the W. R. Bell Lease, Well No. 1, will not endanger useable quality water.
 - a. The TCEQ recommends that usable-quality ground water be protected to a depth of 450 feet below the land surface.
 - b. The well has 8 5/8" surface casing set at 1,826 feet and it is cemented to the surface with 1,100 sacks of cement. A cement bond log confirms good cement behind the 8 5/8" casing.
 - c. There is approximately 1,300 feet of impermeable shale and clay between the top of the injection interval and the deepest depth of usable quality water.

3. The proposed injection into the W. R. Bell Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
 - a. The well has new 5 ½" casing set at 1,778 feet and it is cemented with 250 sacks of cement. The top of cement from a temperature survey log is 560 feet.
 - b. The well is equipped with new 2 ⅞" tubing and packer set at 1,752 feet. A successful mechanical integrity test was run on August 14, 2009.
 - c. There are no wells located within the ¼ mile radius of review of the proposed disposal well. The nearest wellbore that penetrates the proposed disposal interval is a dry hole that is located approximately ¾ of a mile to the southeast.
 - d. The proposed disposal interval is in the San Andres and Clearfork formations between 1,827 feet and 4,058 feet which would limit injection to the open hole portion of the wellbore. The nearest production from the proposed injection interval is more than five miles away.
 - e. The nearest production is from the Canyon Reef formation in the Kelly-Snyder Field. This field produces from a depth of approximately 6,000 feet and there is more than 2,000 feet of impermeable rock between the field and the base of the proposed injection interval.
4. Use of the W. R. Bell Lease, Well No. 1, as a commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells being drilled, completed and produced east and north of the proposed facility.
5. Use of the W. R. Bell Lease, Well No. 1, for commercial disposal of produced saltwater will not create a traffic safety hazard.
 - a. Access to the disposal facility is from a public, paved highway.
 - b. The surface facility is of sufficient size to ensure saltwater haulers using the site for disposal will not have to form a line on the highway at the entrance to the facility.
 - c. The highway on either side of the entrance and exit of the facility is straight for a sufficient distance to ensure adequate visibility of trucks entering and existing the facility by drivers of other vehicles using the highway.

6. Pyote has a current approved Form P-5 (Organization Report) and has posted a \$25,000 financial assurance bond.

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. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Scurry County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Pyote Water Systems, LLC has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the application of Pyote Water Systems, LLC for commercial disposal authority in its W. R. Bell Lease, Well No. 1, be approved, as set out in the attached Final Order.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Mark J. Helmueller
Legal Examiner

Spud Date: 11 / 21 / 62
Drig Compl: 12 / 15 / 62
P & A Date: 12 / 16 / 62
Operator: Newman Bros Drig
API #: 42 - 415 - 02144
TD: 7036'

Temp Survey TOC @ 560'

8/7/09 RIH w/ a 5 1/2" AD-1 Nickel Plated & IPC packer
w/ a 2 7/8" nickel plated SN on 54 joints of 2 7/8" 6.5#
J-55 glassbore tubing. Pkr set @ 1752'.

5 1/2" 15.5# K-55 csg @ 1778' (no KB)
cmt w/ 250 sxs cmt

8 5/8" 24# & 32# Csg @ 1826'
cmt'd w/ 1100 Sxs

Top Glorieta @ 2619'

Top Clearfork @ 2770'

PBTD @ 4058'
Tagged w/ tubing

7/22/09 spot 50 sxs cmt from 4186' to 4058'

clean out OH to 4361'

Top Wolfcamp 4620'

7 7/8" Hole Size

TD @ 7036'

PYOTE WATER SYSTEMS LLC
DOCKET 8A-0263107
EXHIBIT 23