



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0284786

THE APPLICATION OF KEY ENERGY SERVICES, LLC TO MODIFY PROJECT, F-04282 COMMERCIAL, FOR INJECTION AUTHORITY PURSUANT TO STATEWIDE RULE 46 FOR THE GEO C. FRASER -A- LEASE, WELL NO. 7W, HARPER FIELD, ECTOR COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Laura Miles-Valdez - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Lonnie Hobbs
Bill Godsey
Brian Kenne
Nate Upchurch

Key Energy Services, LLC

PROTESTANT:

Lloyd Muennink
Roland Baker

Walsh & Watts, Inc.

PROCEDURAL HISTORY

Application Filed:	July 22, 2013
Protest Received:	August 21, 2012
Request for Hearing:	September 20, 2013
Notice of Hearing:	October 22, 2013
Hearing Held:	November 14, 2013
Transcript Received:	November 22, 2013
Proposal for Decision Issued:	February 14, 2014

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

Key Energy Services, LLC ("Key") requests to modify Project No. F-04282 Commercial, for injection authority pursuant to Statewide Rule 46 for the Geo C. Fraser -A- Lease, Well No. 7W, in the Harper Field, Ector County, Texas. Key proposes to increase the injection interval in the San Andres formation from between 4,053 feet and 4,126 feet to between 3,650 feet and 4,126 feet. Key also proposes to reduce the injection pressure to 1,825 psig, since the top of the proposed injection interval will be located at a shallower depth.

Notice of the subject application was published in the *Odessa American*, a newspaper of general circulation in Ector County, on August 8, 2013. Notice of the application was sent to the Ector County Clerk, offset operators within 1/2 mile and the surface owner of the injection tract on August 13, 2013.

The application was determined to be administratively complete by Commission staff, but the application is protested by Walsh & Watts, Inc. ("W & W"), an offset operator adjacent to the tract on which the injection well is located.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

The Geo C. Fraser -A- Lease, Well Nos. 7W and 8W were originally permitted as injection wells in August 1992. Both wells were permitted for injection of 1,200 barrels of saltwater per day at a pressure of 1,000 psig. The disposal interval for Well No. 7W was 4,053 feet to 4,126 feet and the disposal interval for Well No. 8W was 3,818 feet to 4,222 feet. In March 2013, the permit for both wells was modified to a commercial permit to provide for the injection of 10,000 barrels of saltwater and RCRA Exempt Waste per day. In addition, the permitted injection pressure for Well No. 7W was amended to 2,026 psig and the permitted injection pressure for Well No. 8W was amended to 1,909 psig. Key is proposing to increase the injection interval in Well No. 7W to avoid having to move the packer, which is set at 3,618 feet, and to be equivalent to the injection interval permitted for Well No. 8W. The proposed expanded interval is entirely within the San Andres productive interval.

The Harper Field is in the later stages of secondary recovery and there are many active injection wells completed over the entire San Andres productive interval within the one-half mile radius of review. Key submitted a cross-section and well tabulation of all of the wells located within one-half mile of the Geo C. Fraser -A- Lease, Well No. 7W. The closest producing W & W oil well is located approximately 800 feet to the west of well No. 7W on the TXL -B- Lease. The TXL -B- Lease has three producing oil wells and one shut-

in oil well. Key submitted a production plot for the TXL -B- Lease and an injection plot for well No. 7W from November 2006 through March 2013. The TXL -B- Lease is currently producing approximately 3 barrels of oil per day and has a steady decline rate of less than 5% per year and has not seen any detrimental effects from injection into Well Nos. 7W and 8W to date, even though injection has already been going on for more than 20 years. Key opined that it did not plan on perforating any additional interval in Well No. 7W at this time and believed that an amended permit would not affect the production from the W & W - TXL -B- Lease.

Protestant's Evidence

The protestant is W & W, an offset operator adjacent to the tract on which the injection well is located. The protestant is concerned because, if the application for the Geo C. Fraser -A- Lease, Well No. 7W is granted, the well will have 400 feet of additional interval that can be perforated for injection and this interval includes the productive interval in the W & W wells on the TXL -B- Lease. Since Well No. 7W is permitted to inject 10,000 barrels of water per day, W & W believes the injection will interfere with their secondary recovery and the saltwater moving across the lease line will cause waste because it will water out the producing wells on the TXL -B- Lease.

EXAMINERS' OPINION

The examiners recommend that the application for modified commercial injection authority pursuant to Statewide Rule 46 for the Geo C. Fraser -A- Lease, Well No. 7W, be approved. The Harper Field is in the later stages of secondary recovery and there are five active injection wells completed over the entire San Andres productive interval within the one-half mile radius of review. The closest producing W & W oil well is located approximately 800 feet to the west of Well No. 7W on W & W's TXL -B- Lease, which has three producing oil wells and one shut-in oil well. The producing wells on the TXL -B- Lease currently produce approximately 3 barrels of oil per day and the lease has a steady decline rate of less than 5% per year. W & W failed to demonstrate any response to their waterflood on the TXL -B- Lease and the lease has not seen any detrimental effects from injection into Well Nos. 7W and 8W to date, even though injection has already been going on for more than 20 years. In addition, the proposed increase in the injection interval in Well No. 7W will be equivalent to the injection interval permitted for Well No. 8W and the five other offset injection wells.

FINDINGS OF FACT

1. Notice of the application and hearing was provided to all persons entitled to notice. Notice of the application was sent to the Ector County Clerk, offset operators within 1/2 mile and the surface owner of the injection tract on August 13, 2013.

2. Notice of the subject application was published in the *Odessa American*, a newspaper of general circulation in Ector County, on August 8, 2013.
3. The proposed increase in the injection interval for the Geo C. Fraser -A- Lease, Well No. 7W, will not endanger production from any oil, gas or mineral bearing formations.
 - a. The Harper Field is in the later stages of secondary recovery and there are five active injection wells completed over the entire San Andres productive interval within the one-half mile radius of review.
 - b. The closest producing Walsh & Watts, Inc. ("W & W") oil well is located approximately 800 feet to the west of Well No. 7W on W & W's TXL -B- Lease, which has three producing oil wells and one shut-in oil well. The producing wells on the TXL -B- Lease currently produce approximately 3 barrels of oil per day and the lease has a steady decline rate of less than 5% per year.
 - c. W & W failed to demonstrate any response to their waterflood on the TXL -B- Lease and the lease has not seen any detrimental effects from injection into Well Nos. 7W and 8W to date, even though injection has already been going on for more than 20 years.
 - d. The proposed increase in the injection interval in Well No. 7W will be equivalent to the injection interval permitted for Well No. 8W and the five other offset Harper Field injection wells within one-half mile.

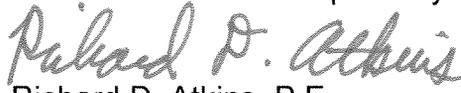
CONCLUSIONS OF LAW

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 modified injection authority will not harm useable-quality groundwater resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Ector County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Key Energy Services, 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 46.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application of Key Energy Services, LLC for modified commercial injection authority pursuant to Statewide Rule 46 for the Geo C. Fraser -A- Lease, Well No. 7W, as set out in the attached Final Order.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Laura Miles-Valdez
Legal Examiner