OIL AND GAS DOCKET NO. 7B-0270443

THE APPLICATION OF L.C.S. PRODUCTION COMPANY FOR A PERMIT TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL OR GAS PURSUANT TO STATEWIDE RULE 46 IN THE TOLIVER LEASE, WELL NO. 1WI, WEINERT, W. (STRAWN) FIELD, HASKELL COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Marshall F. Enquist - Legal Examiner

APPEARANCES:	**REPRESENTING:**
APPLICANT:	
David Gross	L.C.S. Production Company
Dale E. Miller	
PROTESTANT:	
Rex White	AAH Fidelity, LLC and Sam Henshaw

PROCEDURAL HISTORY

Application Filed:	December 27, 2010
Protest Received:	January 12, 2011
Request for Hearing:	April 19, 2011
Notice of Hearing:	May 5, 2011
Date of Hearing:	June 24, 2011
Transcript Received:	July 7, 2011
Proposal For Decision Issued:	September 23, 2011

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

L.C.S. Production Company ("L.C.S.") requests authority pursuant to Statewide Rule 46 to inject produced saltwater into the Strawn formation in the Toliver Lease, Well No. 1WI, Weinert, W. (Strawn) Field, Haskell County, Texas.

Notice of the subject application was published in the *Abilene Reporter-News*, a newspaper of general circulation in Haskell County, on December 17, 2010. Notice of the application was sent to the Haskell County Clerk, offset operators within ½ mile and the

surface owner of the injection tract on December 16, 2010.

The RRC technical permitting staff has reviewed the application and found it to be administratively and technically complete. The application was protested by AAH Fidelity, LLC and Sam Henshaw, who are the surface owners of the tract on which the proposed injection well will be located.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The applicant in this proceeding, L.C.S. Production Company, is owned by Cliff Smith, who also owns Smith Pipe in Abilene. The companies have their own pipe yards and drilling rigs. Mr. Smith has been successful in going into old fields in the Strawn and reinitiating production. L.C.S. begins the process by attempting pressure maintenance. Before re-entry of any other wells to establish production, L.C.S. makes sure it has a place to dispose of any water accompanying production. If that is successful, it will begin drilling wells, by re-entry or infill drilling, and initiate a waterflood if a water source is available. L.C.S. has already done this in several instances by starting a waterflood project and then selling it to another company that completes the project.

The proposed injection well is located in Haskell County approximately two miles southeast of the town of Rochester, Texas. L.C.S. seeks authority to inject produced saltwater from the Weinert, W. (Strawn) Field back into the productive Weinert, W. (Strawn) Field in the 282.94 acre Toliver Lease, Well No. 1WI (see Appendix I - the applied-for well (API# 207-31779) is shown as the Thompson No. 1 with a dry hole symbol). The proposed injection interval is located between 4,810 feet and 5,000 feet. The proposed injection is for the purpose of maintaining reservoir pressure and disposing of produced saltwater from the field. L.C.S. requests a maximum injection volume of 2,000 BWPD and a maximum surface injection pressure of 2,400 psig.

L.C.S. has leased several contiguous tracts in the field as shown by attached Appendix I. The leased tracts are shown in green. Solid green tracts have 100% of the minerals leased and the green cross-hatched tracts have some portion of the minerals leased but less than 100%. The tracts are not currently unitized. L.C.S. plans to re-establish production from the field by infill drilling and by re-entering existing plugged wellbores.

All of the wells on the green-shaded tracts on Appendix I are plugged. The only producing well in Weinert, W. (Strawn) Field in the map area of Appendix I is outside the green-shaded leased area and to the northeast. The producing well, the W.G. Arnot, Well No. 1C (API# 207-02144), is highlighted in yellow on Appendix I. There are two other producing wells in the field, the Bevel -A-, Well No. 4R and the Chambers Well No. 1, operated by Sojourner Drilling Corporation. Both of these wells are to the northeast of the

plat area shown on Appendix 1 and are not shown on that exhibit.

The cumulative production from the Weinert, W. (Strawn) Field is 4.4 MMBO. L.C.S.'s expert engineering witness performed a study of the leases within 1/2 mile of the proposed injection well and determined that over 2.8 MMBO had been produced. Using a 35% secondary to primary recovery factor, the expert calculated that L.C.S. could expect to recover approximately 1 MMB of additional oil as result of the pressure maintenance project.

The Toliver Lease, Well No. 1WI, was drilled to a total depth of 5,872 feet as a dry hole and was plugged in January 1986. The well has 200 feet of 8 5/8" surface casing cemented to surface with 100 sacks. L.C.S. proposes to re-enter the well and run 5,000 feet of 4 1/2" production casing cemented to 1,000 feet with 750 sacks. Injection will be into perforations between 4,810 feet and 5,000 feet through 2 3/8" tubing set on a packer at 4,753 feet (See attached L.C.S. Exhibit No. 15 - Wellbore Diagram). The Texas Commission on Environmental Quality recommends that usable quality ground water be protected to a depth of 100 feet.

L.C.S.'s expert engineering witness estimated a current reservoir pressure of 700 psi. Since L.C.S. will be re-injecting only produced water and no water from an outside source, the expert opined that the reservoir pressure will continue to decline. In addition, using a .44 psi per foot saltwater gradient, a 700 psi reservoir pressure will only support a 350 foot column of saltwater. As a result, the expert felt that the groundwater would never be at risk, as it is located 4,710 feet above the proposed injection interval.

There are 9 wellbores located within a 1/4 mile radius of the proposed injection well. The 9 wells are properly plugged and abandoned and are cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval. There are 32 wellbores located within a 1/2 mile radius of the proposed injection well. The 32 wells are classified as one active injection well and 31 plugged and abandoned wells. The plugged wells are properly plugged and abandoned and are cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

L.C.S. has an active P-5 Organization Report and a $250,000 financial assurance bond on file with the Commission.

Protestant's Evidence

Attorney Rex White appeared at the hearing to represent the interests of AAH Fidelity, LLC and Sam Henshaw (hereinafter collectively "Henshaw"), who are the surface owners of the injection tract. Mr. White submitted a Warranty Deed showing that the protestants had purchased the surface estate on January 5, 2010, establishing the standing of the protestants.

The protestants are concerned that produced saltwater from other offset leases will be injected into the proposed injection well and that the proposed well is really a disposal well disguised as a pressure maintenance well. Mr. White noted that, at this early stage, his client doesn't really know the scope of the project, when it will start or the impact of the water injection. Nor does his client believe that L.C.S. will limit the injected water to that produced on the Henshaw tract.

Through cross-examination, Protestant established that there are no producing wells on the Henshaw Tract. Indeed there are no producing wells on any of the tracts that have been leased by L.C.S. The applied-for permit will allow injection of up to 2,000 BWPD, although the applicant believes the actual figure will be on the order of 500 BWPD. Protestant stresses that this is the water that will be injected into the single applied-for well, not several wells throughout all of L.C.S.'s leased acreage. Protestant also elicited applicant's statement that, over time, the produced water for injection will come from the wells that are drilled or re-entered in the field to produce under secondary recovery.

Protestant also established that the wells marked with a "star" symbol on the lease plat (Appendix I) as those that L.C.S. intends to develop first might be either injectors or producers. If production of water from the L.C.S. Well No. 1, on the surface estate owned by Henshaw, were to exceed the capacity of the applied-for well, then L.C.S. would inject the water into other injection wells within the project area. At this point, Protestant asked if the project as outlined in green was currently unitized, and received a reply that it was not. Protestant also asked if L.C.S. intended to build any roads on the AAH Fidelity and Sam Henshaw property or install any equipment. L.C.S.'s witness replied that there would be equipment by the wellbores, pipelines to a central facility and roads to every well in order to service the wells.

In closing, Mr. White drew the examiners' attention to the case of Robinson v. Robbins Petroleum Corporation, Inc., 501 S.W.2d 865 (Tex. 1973), and asked that the case be considered in the context of the examiners' decision. Henshaw believes the L.C.S. application will improperly burden their surface estate for the benefit of off-lease tracts.

EXAMINERS' OPINION

The examiners recommend that the application be approved. The proposed injection well will be completed in a manner that will protect usable-quality groundwater and will confine injected fluids to the injection interval. In addition, the use of the well for injection will ultimately result in the recovery of hydrocarbons that could not be recovered by any other means.

The examiners are not persuaded by protestant's reference to Robinson v. Robbins Petroleum Corporation, Inc., 501 S.W.2d 865 (Tex. 1973). This case stands, in part, for the proposition that the owner of the surface estate "...is entitled to protection from uses thereof, without his consent, for the benefit of owners outside of and beyond the

premises...” of the underlying mineral estate.

In Robinson, the issue was the use by an operator of saltwater obtained from an 80-acre lease to flood three secondary recovery units, ranging in size from 1295 acres to 1807 acres. The court found that use of water obtained from the 80-acre tract was permissible to recover hydrocarbons under the 80 acres, but that the surface owner must be compensated for the value of the water used to flood the remainder of the unit. The complainant, Mr. Robinson, had a remedy at law based on the peculiar circumstances of his case, which apparently involved a history in which his 80-acre tract was the sole source of saltwater used in the waterflood operations of the operator. It is notable that the court did not preclude the operator from using Mr. Robinson’s saltwater, but only required that Mr. Robinson be compensated for the use of his saltwater which may have flooded land off the premises of his 80-acre tract.

The use of Henshaw’s surface estate for the site of an injection well as proposed by L.C.S. does not immediately result in an impermissible burdening of the Henshaw surface estate. “The oil and gas lessee’s estate is the dominant estate and the lessee has an implied grant, absent an express provision for payment, of free use of such part and so much of the premises as is reasonably necessary to effectuate the purposes of the lease, having due regard for the rights of the owner of the surface estate.” Humble Oil & Refining Co. v. Williams, 420 S.W.2d 133 (Tex. 1967); Warren Petroleum Corp. v. Martin, 271 S.W.2d 410 (Tex. 1954); Warren Petroleum Corp. v. Monzingo, 304 S.W.2d 362 (Tex. 1957); Brown v. Lundell, 344 S.W.2d 863 (Tex. 1961). L.C.S. has the right to use the Henshaw Tract surface for the placement of an injection well, a producing well, or both.

L.C.S. has stated its intent to use produced water from the Weinert, W. (Strawn) Field for re-injection back into the Weinert, W. (Strawn) Field. At this point in time, it is not known whether L.C.S. will derive this sourcewater from a producing well on the Henshaw Tract or another tract. If the sourcewater is produced from the Henshaw Tract, and injected through the proposed well, the amount of water the well will take and the speed at which a pressure front will expand to benefit tracts other than the Henshaw Tract is unknown. It is also not known how many other injection wells L.C.S. may install on a future secondary recovery unit, or how many producing wells may be used as the source of the injected fluids. In short, there is not yet any history available upon which Henshaw may assert a claim that his tract is being used for the benefit of other tracts.

Counsel for Henshaw has ably elicited the intentions of L.C.S., recorded in the transcript of the hearing, setting the stage for any future claims against L.C.S. should the proposed well be used for some purpose other than pressure maintenance. “A person who seeks to recover from the lessee for damages to the surface has the burden of alleging and proving either specific acts of negligence or that more of the land was used by the lessee than was reasonably necessary.” Humble Oil & Refining Co. v. Williams, 420 S.W.2d 133 (Tex. 1967); Robinson Drilling Co. V. Moses, Tex. Civ. App. 1953, 256 S.W.2d 650, no writ.

A grant of the proposed injection well permit does not prejudice the rights of Henshaw. In discussing the effect of the Commission's grant of a drilling permit, the Texas Supreme Court stated "The function of the Railroad Commission in this connection is to administer the conservation laws. When it grants a permit to drill a well it does not undertake to adjudicate questions of title or rights of possession. These questions must be settled in the courts.....In short, the order granting the permit is purely a negative pronouncement.....It merely removes the conservation laws and regulations as a bar to drilling the well, and leaves the permittee to his rights at common law. Where there is a dispute as to those rights, it must be settled in court." Magnolia Petroleum Co. v. Railroad Commission, 170 S.W.2d 189 (Tex. 1943). While the grant of a permit leaves an applicant to his rights at common law, it equally leaves a protestant to his rights at common law.

L.C.S. has not yet unitized its leased acreage for secondary recovery. However, L.C.S. has indicated that it is still obtaining the consent of mineral owners for a possible secondary recovery unit, and already has 100% sign-up on the green-shaded tracts on Appendix I and is working to obtain 100% sign-up on the cross-hatched tracts.

There is currently no producing well on the Henshaw Tract or any of the tracts that have been leased by L.C.S. However, one of the "starred" wells, the LCS Well No. 1, that L.C.S. may turn into a producing well, is located on the Henshaw Tract.

If the applied-for permit is granted, the permit will be good for two years, which is sufficient time for L.C.S. to unitize its tracts or permit a producing well on the Henshaw Tract. The Commission has no requirement that an applicant for an injection well apply first for a permit for a producing well, or even apply simultaneously for permits for an injection well and a producing well. If, in the future, L.C.S. fails to consider the rights of the surface owner, it may find itself subject to the legal remedies suggested by the Robinson case.

L.C.S. has stated that successful unitization will necessarily cause increased use of the surface of all its tracts, through infill drilling and re-entry of plugged wells, establishment of a central processing and storage facility, building of roads, and the laying of collection pipelines. L.C.S. fully expects to pay damages to the surface owners for those uses.

The proposed injection well would be completed in a manner which would protect useable-quality groundwater resources and confine the injected fluids to the injection interval. Use of the well for injection would result in the recovery of additional oil reserves produced by wells in the field by maintaining reservoir pressure, as well as, providing an economic means of produced saltwater disposal. Therefore, the approval of the application would be in the public interest.

L.C.S. presented sufficient evidence to establish that all of the wells within a 1/2 mile radius are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval. In addition,

using a .44 psi per foot saltwater gradient, a 700 psi reservoir pressure will only support a 350 foot column of saltwater. As a result, the groundwater will not be at risk, as it is located 4,710 feet above the proposed injection interval.

FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.

2. Notice of the subject application was published in the *Abilene Reporter-News*, a newspaper of general circulation in Haskell County, on December 17, 2010. Notice of the application was sent to the Haskell County Clerk, offset operators within ½ mile and the surface owner of the injection tract on December 16, 2010.

3. The Toliver Lease, Well No. 1WI, is 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 100 feet in the area of the proposed injection well.

    b. The well has 200 feet of 8 5/8" surface casing cemented to surface with 100 sacks.

    c. Using a .44 psi per foot saltwater gradient, a 700 psi reservoir pressure will only support a 350 foot column of saltwater. As a result, the groundwater will never be at risk, as it is located 4,710 feet above the proposed injection interval.

4. Fluids injected into the Toliver Lease, Well No. 1WI, will be confined to the injection interval.

    a. The well will have 5,000 feet of 4 1/2" production casing cemented to 1,000 feet with 750 sacks.

    b. Injection will be into Strawn perforations between 4,810 feet and 5,000 feet through 2 3/8" tubing set on a packer at 4,753 feet.

    c. There are 32 wellbores located within a 1/2 mile radius of the proposed injection well. All of the wells are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

5. Use of the Toliver Lease, Well No. 1WI, as an injection well is in the public interest.

    a. The proposed injection is for the purpose of implementing a pressure maintenance project in the Weinert, W. (Strawn) Field.

    b. Use of the injection well will provide a safe and economic means of disposal of produced saltwater in the field.

    c. It is estimated that the pressure maintenance project will recover approximately 1 MMB of additional oil.

6. L.C.S. has an active P-5 Organization Report and a $250,000 financial assurance bond on file with the Commission.

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. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources and will result in the further recovery of additional reserves from the Weinert, W. (Strawn) Field.

5. L.C.S. has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.

6. L.C.S. 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.

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EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application, as set out in the attached Final Order.

Respectfully submitted,

Marshall F. Enquist
Legal Examiner

Richard D. Atkins, P.E.
Technical Examiner