OIL AND GAS DOCKET NO. 09-0278063

THE APPLICATION OF FINLEY RESOURCES, INC. FOR AMENDED COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE WEST TARRANT CO. WATER DISPOSAL LEASE, WELL NO. 1, NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Terry Johnson - Legal Examiner

APPEARANCES: REPRESENTING:

APPLICANT:
Paul Tough
James L. Nance
Zachary Archer
Gerald Rich
Ted Ruesewald

Finley Resources, Inc.

PROCEDURAL HISTORY
Application Filed: June 7, 2012
Request for Hearing: June 7, 2012
Notice of Hearing: September 12, 2012
Date of Hearing: October 12, 2012
Record Closed: October 12, 2012
Proposal For Decision Issued: October 17, 2012

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Finley Resources, Inc. ("Finley") requests to amend its commercial disposal authority pursuant to Statewide Rule 9 for the West Tarrant Co. Water Disposal Lease, Well No. 1 (Permit No. 12604), Newark, East (Barnett Shale) Field, Tarrant County, Texas. Finley proposes to increase the daily injection volume from 25,000 BWPD to 35,000 BWPD.
On August 14, 2012, Commission staff administratively denied an amended commercial disposal permit pursuant to Statewide Rule 9 because the application violated the staff’s permitting policy. Under that policy, commercial injection in the Newark, East (Barnett Shale) Field area cannot exceed 25,000 BWPD. The Commission staff did not appear at the hearing to oppose the application.

The examiners recommend that the application for an amended commercial disposal permit pursuant to Statewide Rule 9 be approved.

**DISCUSSION OF THE EVIDENCE**

**Applicant's Evidence**

The West Tarrant Co. Water Disposal Lease, Well No. 1, was drilled to a total depth of 10,000 feet and completed in July 2008, as a commercial disposal well in the Ellenger formation from 7,150 feet to 10,000 feet. The well is located on a 150 acre tract west of Interstate 820 and is situated approximately 10.0 miles northwest of the city of Fort Worth, Texas.

The well has 10 3/4" surface casing that is set at 1,130 feet and is cemented to the surface with 540 sacks. The 7 5/8" production casing is set at 7,150 feet and is cemented to the surface in two stages with 1,970 sacks (DV Tool set at 4,231 feet). The well is equipped with 4 1/2" tubing with a packer set at 7,086 feet (See Finley Exhibit No. 13 - Wellbore Sketch). The Texas Commission on Environmental Quality (“TCEQ”) recommends that usable-quality groundwater be protected to a depth of 770 feet below the land surface.¹

The top of the Barnett Shale formation is at 6,378 feet and the top of the Ellenburger formation is at 6,800 feet. The disposal interval is the Ellenburger formation between 7,150 feet and 10,000 feet, which is 350 feet below the base of the Barnett Shale formation. The permitted disposal volume is 25,000 BWPD with a maximum injection pressure of 3,400 psig. Finley requests to increase the daily injection volume to 35,000 BWPD. The maximum injection pressure would remain at 3,400 psig.

There are six producing Barnett Shale horizontal drainhole wells located within a 1/2 mile radius of review for the West Tarrant Co. Water Disposal Lease, Well No. 1. All of the wells have surface casing set and cemented to surface below the usable-quality groundwater at 770 feet. The closest commercial disposal well is the Benco - Diamondback Disposal FW SWD, Well No. 1, which is located approximately six miles to the southwest. Finley submitted an area map showing a ten mile radius of review around

¹ Groundwater depth determinations are now managed by the Commission’s Groundwater Advisory Unit (“GAU”).
the subject disposal well. Within the ten mile radius, there are 1,360 producing gas wells, 130 wells that have drilling in progress and 175 permitted wells. In addition, there are a total of four commercial disposal facilities.

Most of the saltwater trucked into the facility originates from the north and east. Finley submitted a graph of their monthly injection volumes that showed the disposal facility has been at or near capacity since January 2011. As a result, Finley has to refuse 60 to 100 truck loads per day and send the saltwater hauling trucks to other disposal facilities that are at least six miles southwest of its facility. In addition, there are approximately 12 wells in the area that are currently shut-in due to the high trucking costs. Finley believes that it could pipe in an additional 2,600 BWPD from the shut-in wells if it had additional disposal capacity. Finley submitted letters of support for it’s application from two offset operators and one trucking company in the area.

Finley has a current approved Form P-5 (Organization Report), a posted $250,000 financial assurance bond and no pending Commission enforcement actions.

EXAMINERS’ OPINION

The examiners recommend approval of the application to increase the permitted injection volume to 35,000 BWPD for the existing commercial disposal authority. Approval of the amended application is in the public interest. The Barnett Shale development area encompasses Tarrant County and the adjacent Johnson County and disposal wells are the best means for disposing of produced frac and saltwater. Finley has shown that the increased disposal capacity is necessary to accommodate the Barnett Shale development that is ongoing in the area within hauling distance of the West Tarrant Co. Water Disposal Lease, Well No. 1.

The West Tarrant Co. Water Disposal injection facility has been at or near capacity since January 2011. As a result, Finley has to refuse 60 to 100 truck loads per day and send the saltwater hauling trucks to other disposal facilities that are at least six miles southwest of its facility. In addition, there are approximately 12 wells in the area that are currently shut-in due to the high trucking costs. Finley believes that it could pipe in an additional 2,600 BWPD from the shut-in wells if it had additional disposal capacity. The proposed increased injection capacity will eliminate the additional milage traveled on public highways by the saltwater disposal trucks.

The top of the Barnett Shale formation is at 6,378 feet and the top of the Ellenburger formation is at 6,800 feet. The permitted disposal interval is the Ellenburger formation between 6,800 feet and 10,000 feet, which is over 400 feet below the base of the Barnett Shale formation. As result, the examiners believe that the increased injection rate will be contained within the Ellenburger formation and will not pose a threat to the productive Barnett Shale formation. The Commission has already approved an injection rate of 35,000 BWPD in the Western Assets Management, Inc. - Pent Lease, Well No. 1, and the
EOG Resources, Inc. - Meadows SWD Lease, Well No. 1, which are located approximately 15 miles south of the subject disposal facility in Johnson County.

The examiners recommend that the amended application for a commercial disposal permit pursuant to Statewide Rule 9 be approved and that the Commission adopt the following Findings of Fact and Conclusions of Law.

**FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice.

2. Finley Resources, Inc. ("Finley") currently has commercial disposal Permit No. 12604 authorizing injection of 25,000 barrels per day of produced saltwater and RCRA Exempt Waste into the Ellenburger formation in the subsurface depth interval between 6,800 feet and 10,000 feet at a maximum operating surface injection pressure of 3,400 psig. Finley seeks to amend its existing permit to increase the permitted injection volume from 25,000 barrels per day to 35,000 barrels per day.

3. The proposed injection into the West Tarrant Co. Water Disposal Lease, Well No. 1, will not endanger useable quality water.
   a. The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality groundwater be protected to a depth of 770 feet below the land surface.
   b. The well has 10 3/4" surface casing that is set at 1,130 feet and is cemented to the surface with 540 sacks.
   c. There are six producing Barnett Shale horizontal drainhole wells located within a 1/2 mile radius of review for the West Tarrant Co. Water Disposal Lease, Well No. 1. All of the wells have surface casing set and cemented to surface below the usable quality water at 770 feet.

4. The proposed injection into the West Tarrant Co. Water Disposal Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
   a. The 7 5/8" production casing is set at 7,150 feet and is cemented to the surface in two stages with 1,970 sacks (DV Tool set at 4,231 feet).
   b. The well is equipped with 4 1/2" tubing with a packer set at 7,086 feet.
c. The top of the Barnett Shale formation is at 6,378 feet and the top of the Ellenburger formation is at 6,800 feet. The disposal interval is the Ellenburger formation between 7,150 feet and 10,000 feet, which is 350 feet below the base of the Barnett Shale formation.

5. Amending the commercial disposal permit for the West Tarrant Co. Water Disposal Lease, Well No. 1, is in the public interest because it will provide needed commercial disposal capacity to accommodate the Barnett Shale development that is ongoing in the area of the facility.

a. The Barnett Shale development area encompasses Tarrant County and the adjacent Johnson County.

b. The West Tarrant Co. Water Disposal injection facility has been at or near capacity since January 2011.

c. Finley has to refuse 60 to 100 truck loads per day and send the saltwater hauling trucks to other disposal facilities that are at least six miles southwest of its facility.

d. There are approximately 12 wells in the area that are currently shut-in due to the high trucking costs. Finley believes that it could pipe in an additional 2,600 BWPD from the shut-in wells if it had additional disposal capacity.

e. The proposed increased injection capacity will eliminate the additional milage traveled on public highways by the saltwater disposal trucks.

6. The Commission has already approved an injection rate of 35,000 BWPD in the Western Assets Management, Inc. - Pent Lease, Well No. 1, and the EOG Resources, Inc. - Meadows SWD Lease, Well No. 1, which are located approximately 15 miles south of the subject disposal facility in Johnson County.

7. Finley has a current approved Form P-5 (Organization Report), a posted $250,000 financial assurance bond and no pending Commission enforcement actions.

**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 the area of Tarrant County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.

4. Finley Resources, Inc. 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 Commission approve the application of Finley Resources, Inc. for amended commercial disposal authority pursuant to Statewide Rule 9 for its West Tarrant Co. Water Disposal Lease, Well No. 1, as set out in the attached Final Order.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner

Terry Johnson
Legal Examiner
Finley Resources, Inc.
West Tarrant County Water Disposal #1
230’ FNL, 710’ FEL, GL: 607’ KB: 626’ (DF 19’)
J.H. Smallwood A-1485 API # 42 439 32779
Tarrant Co. Texas Compl Date 7/19/08 RRC# 648142

16” Conductor. Grouted to surface. Pump 200 sx Pumpco #1 blend

BASE of Usable Quality Water: 770’ (750-20)
10 ¾”od, 40.5#/ft @ 1130’ (13 3/8” hole) w/ 540 sx PumpCo#1 cmt. Top of Cmt:
Surface. Circ 25 sx.

DV Tool @ 4231’
TUBING STRING
4 ½” 12.95#/ft lined tubing to
BJ/Arrowset 7 5/8” x 3 ½” retr. pkg @ 7086’
Arrowset 1X, nickel plated, F type on/off tool
w/ stainless 3 ½ EUE to 4 ½ EUE crossover

Top of Ellenburger: 6680’
7 5/8”od, 33.7 #/ft, P-110 @ 7150’ (9 7/8” hole)
Stg 1: 970 sx Cl.H/Poz cmt. DV tool @ 4231’
Circ 8 bbls cmt. Stg 2: 1000 sx Cl.H/Poz cmt.
Circ 15 bbls cmt. CBL shows good bond below 2800’.

Ellenburger 6 ½” Openhole
7150 – 10000’

Current 10/2012