

OIL AND GAS DOCKET NO. 09-0250425

THE APPLICATION OF DIAMONDBACK-DISPOSAL, L.P. TO INJECT FLUID INTO A RESERVOIR NOT PRODUCTIVE OF OIL OR GAS, HICO SWD LEASE WELL NO. 1WD, NEWARK, EAST (BARNETT SHALE) FIELD, HAMILTON COUNTY, TEXAS

HEARD BY: Andres J. Trevino P.E., Technical Examiner
James M. Doherty, Hearings Examiner

APPEARANCES:

APPLICANT:

George C. Neale
Rick Johnston
Jack Little
Charles Dobson

REPRESENTING:

Diamondback-Disposal, LP

PROTESTANTS:

John Bonner

Hamilton County, Precinct 3

PROCEDURAL HISTORY

Application Filed:	December 19, 2006
Request for Hearing:	January 23, 2007
Notice of Hearing:	February 5, 2007
Date of Hearing:	February 26, 2007
Transcript Received:	March 15, 2007
Proposal For Decision Issued:	July 2, 2007

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Diamondback-Disposal, LP ("Diamondback") requests authority pursuant to Statewide Rule 9 to operate Well No. 1WD on its Hico SWD Lease in Hamilton County as a commercial disposal well. This application is protested by John Bonner, Hamilton County Precinct 3 County Commissioner representing surface owners adjacent to the tract on which the proposed disposal well is located and residents of Hamilton County in general.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The subject well has not yet been drilled but a permit to drill was issued by the Commission on February 23, 2007. It is proposed that the well be drilled through the Ellenburger to a maximum depth of 8,500 feet. It is proposed that the well have 1,200 feet of 9⁵/₈" surface casing with cement circulated from the casing shoe to the ground surface, and 7" casing set at the base of the Ellenburger, estimated to occur no deeper than 8,000 feet. The top of cement behind the longstring casing is estimated to be 3,500 feet. (See **Diamondback Exh. No. 3 Wellbore Diagram attachment**). The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth 20 feet below the base of the Cretaceous-age beds, which is expected to occur at 425 feet. TCEQ therefore recommends that surface casing be set no higher than 445 feet.

The proposed injection will be through 4½" tubing set on a packer at approximately 4,500 feet, but no higher than 100 feet above the top of the injection interval. The proposed injection interval is the Ellenburger formation, the top of which is expected to occur at about 4,415 feet. The proposed injection interval is between 4,500 and 8,000 feet. This estimated depth of the Ellenburger is based on the log of the HNG Oil - Ryan No. 1 well. This well is approximately 3.3 miles to the northeast of the proposed well and is the closest well which penetrated the Ellenburger and for which an electric log is available. In the Ryan No. 1, the top of the Ellenburger is at 4,415 feet and the top of the Barnett Shale is at 4,210 feet. The proposed maximum injection volume is 20,000 BWPD, with an estimated average of 15,000 BWPD. The proposed maximum injection pressure is 2,250 psig.

There are no oil or gas wellbores within a **3/4** mile radius of the proposed disposal well. The city of Hico and any residences outside the city of Hico generally rely on personal water wells. The surface casing recommended by the TCEQ will protect any water wells in the area. There is an approved commercial disposal well approximately .85 miles northeast of the Hico SWD well known as the Majestic Hamilton SWD well. The Majestic well is ¼ mile south of Hico's city limits. According to testimony given by Mr. Bonner the Majestic well is in litigation. The Majestic's well completion reports had not been filed with the Railroad Commission at the time of the hearing. The Majestic Hamilton SWD facility has not been completed and there is no estimated time when it will be operational.

Diamondback plans to use the proposed well to dispose of produced water and frac water generated as a result of the active and ongoing development of the Barnett Shale in this area. Diamondback believes that additional disposal facilities are necessary to accommodate the active drilling. The Hico disposal well will service southern Erath County, Hamilton County and western Bosque County. Diamondback operates three commercial facilities currently, two of which are in Hood County and one in Johnson County.

Diamondback has an active P-5 on file with the Commission, with \$25,000 financial assurance. There are **no pending enforcement actions against Diamondback**.

Notice of the subject application was published in *The Hico News Review*, a newspaper of general circulation in Hamilton County, on November 30, 2006. A copy of the application was mailed on November 20, 2006 to the Hamilton County Clerk's Office and the offsetting surface owners and operators within ½ mile of the proposed well. Diamondback owns the surface of the 17 acre tract on which the well is proposed.

Protestant's Evidence

John Bonner is Precinct 3 County Commissioner and was present to represent Hamilton County and its residents. Mr. Bonner is a landowner in Hamilton County. Mr. Bonner stated the county is not opposed to disposal wells in general, but is opposed to the close proximity to incorporated towns. He stated he would like there to be some regulation as to how close the disposal facilities can be located to towns like Hico. Mr. Bonner raised concerns of truck traffic, truck noise, impacted property values and a general reduction in quality of life for Hico and its residents if the Hico SWD disposal facility is approved. Mr. Bonner stated he wanted to see the Barnett Shale developed and did not believe the Barnett Shale could be developed with out disposal wells. Mr. Bonner stated he did not believe the proposed disposal well will contaminate the groundwater if the well is completed as proposed.

EXAMINERS' OPINION

The examiners believe that this application should be approved. The Hico SWD No. 1WD will be completed in a manner which will confine disposal fluids to the proposed disposal interval in the Ellenburger. Surface casing will be set and cemented through the base of usable quality water. The longstring production casing will also be cemented up through the top of the Barnett Shale to prevent migration from the injection interval. There are no oil or gas wells within the one-quarter mile radius of review and the water wells in the area will be protected by surface casing as recommended by the TCEQ.

Approval of the requested permit is in the public interest given it is in the public interest to produce the Barnett Shale in the area. The Barnett Shale wells in Hamilton County are currently marginally economic. Having a disposal facility close to the marginal wells will reduce disposal cost. Lower disposal costs will extend the economic of the well. Extending the economic life of the well will allow the well to produce more hydrocarbons. Diamondback has three commercial disposal facilities in Hood and Johnson Counties. Currently produced water from the Hamilton County area wells are taken to Diamondback's Wood #1 well in Hood County. It is estimated that by approving the proposed Hico SWD disposal well a minimum of 2 million truck miles will be eliminated by taking produced water from current Hamilton County Barnett Shale wells to the proposed Hico SWD disposal well. This estimate is based on 80 trucks per day (approximately 8,000 BWPD) saving 70 miles per round trip, 360 days per year. The significant reduction in truck miles driven will reduce the operating costs for wells in the area and will result in the recovery of additional hydrocarbons.

The Commission does not have jurisdiction over issues regarding site selection, traffic patterns and property values. These concerns raised by the protestant must be addressed in another forum. The evidence indicates that the operation of the subject disposal well and facility will not adversely impact any surface or subsurface useable quality water.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten (10) days prior to the hearing. Notice of the application was published in *Hico News Review*, a newspaper of general circulation in Hamilton County, on November 30, 2006.
2. The Hico SWD No. 1WD has not been drilled. Diamondback-Disposal, LP plans to drill the well to a maximum depth of approximately 8,500 feet. The top of the Ellenburger is expected to occur at approximately 4,415 feet.
3. The maximum requested injection volume is 20,000 barrels of water per day and the maximum requested surface injection pressure is 2,250 psi. The requested disposal interval is the Ellenburger formation between approximately 4,500 and 8,000 feet.
4. The Hico SWD No. 1WD will be cased and cemented in a manner to protect usable quality water and injection will be confined to the injection interval.
 - a. The subject well will have 1,200 feet of 9⁵/₈" surface casing cemented to surface.
 - b. The subject well will have approximately 8,000 feet of 7" casing with top of cement at approximately 3,500 feet, which is above the top of the Barnett Shale.
 - c. Injection will be through tubing set on a packer no higher than 100 feet above the top of the injection interval.
 - d. The Texas Commission on Environmental Quality recommends that usable-quality water be protected to 445 feet in the area of the proposed well.
5. There are no wellbores within three-quarter mile of the proposed disposal well.
6. Due to increasing development of the Barnett Shale in this area, large quantities of produced water must be disposed of. The Barnett Shale wells in Hamilton County are marginal producers and require an economic means to dispose of the produced water in order to recover the hydrocarbons. Use of the Hico SWD No. 1WD Well as a commercial disposal well is in the public interest to promote this development by providing a safe and economic means of disposal of the fluids associated with

production. Currently there is no commercial disposal facility operating in Hamilton County.

7. Diamondback-Disposal, LP has an active P-5 on file with the Commission, with \$25,000 financial assurance.

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. 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 can be adequately protected from pollution.
6. Diamondback-Disposal, LP has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.
7. Diamondback-Disposal, LP 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 9.

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,

Andres J. Trevino

James M. Doherty

Technical Examiner

Hearings Examiner