STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ____X____ Disposal _____Storage
Application qualifies for administrative approval? ____X____ Yes _____No

RECEIVED 4/5/2010

II. OPERATOR: Reliant Exploration and Production LLC

ADDRESS: 300 N. Marienfeld, Suite 600
Midland, Texas 79701

CONTACT PARTY: Scott Vanderburg PHONE: (432) 617-4209

Main Points:

(1) The proposed injection well is the Hayoz Well 005 (API # 30-021-20185) located 1980 feet FSL and 1980 feet FEL (Unit J) of Section 14, T19N, R30E, a former producing CO2 wellbore in the Tubb formation to be converted to injection ("SWD") into the Tubb formation. Please see wellbore schematics of the current configuration and the proposed SWD configuration in Attachment "A".

(2) The source of injection water will be produced water from Well 6-1-F, UL or Lot No. F, Section 6, Township 19 North, Range 31 East, NMPM, Harding County, NM, Well 18-1-F, UL or Lot No. F, Section 18, Township 19 North, Range 31 East, NMPM, Harding County, NM, other CO2 wells which may be drilled by the Operator in Harding County, NM, and sale by Operator of injection rights to other operators of CO2 wells located in New Mexico.

(3) Using OCD guidelines, the maximum surface pressure will be not greater than 396 PSI (top of Tubb at 1,980 feet X 0.2 psi/ft of Depth).

(4) There are no other wells within one-half mile of this SWD – area of review.

(5) The Steel Windmill in Unit C of Section 23 at the southern edge of the one-half mile area of review is a dry well.

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

See Attachment "A".

IV. Is this an expansion of an existing project? _____Yes ____X____ No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

See Attachment "B".

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

None.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;

a. Average daily rate of 13 bbls per day or .379 gallons per minute.

b. Maximum daily rate of 1440 bbls per day or 1 bbl per minute.

2. Whether the system is open or closed;

Closed.

3. Proposed average and maximum injection pressure;

a. Average injection pressure of 50 psi.

b. Maximum injection pressure of 400 psi.

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water;

Reinjected produced water.

5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

See Attachment "C".

VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

The depth to the top of the Tubb Sandstone in the Hayoz Well 005 is approximately 1,980 feet. The Tubb consists of fine to medium grain, well sorted, orange, feldspathic sandstone and minor thin bedded orange to red shale and rare dolostone. The orange color in the Tubb can be attributable to small amounts of iron oxide and clays. In the area of the Hayoz Well 005 the Tubb averages approximately 140 feet in thickness. For more detail please see papers in Attachment "D".

IX. Describe the proposed stimulation program, if any.

None planned at this time.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

1. Logs on file with State of New Mexico.

2. Test Data contained in Attachment "E".

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

None producing.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

The impermeable Cimarron Anhydrite is a vertical seal for the CO2 trapped in the Tubb sandstone. This seal is present in the Hayoz Well 005 as well as all the surrounding wells as evidenced in the evaluation of available logs. There is no evidence of faults or any other hydrologic connection between the Tubb and any underground sources of drinking water in the Hayoz Well 005.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

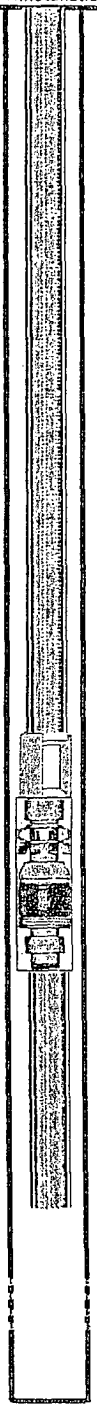
See Attachment "F".

Current Tubing and Packer Installation

Reliant Exploration and Production LLC

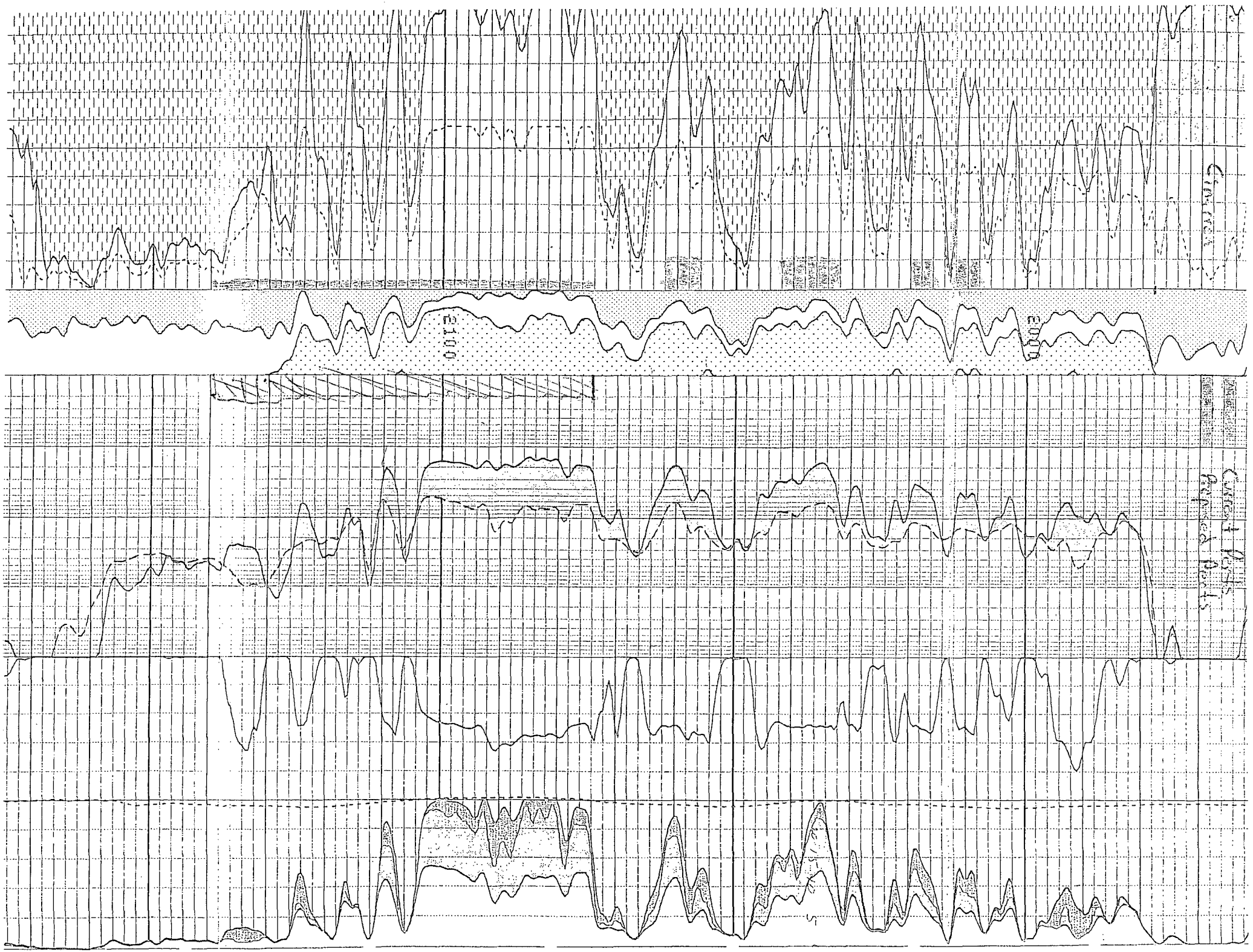
Tubing and Packer Installation

Harding County NM
Hayoz #5



Installation	Length	Depth	Description	OD	ID
	6.00	6.00	KB		
	4.20	10.20	2 7/8 X 4' Tubing sub	2.875	2.441
	0.43	10.63	2 7/8 box X 2 3/8 pin Crossover	2.375	1.995
	10.15	20.78	2 3/8 X 10" Tubing sub	2.375	1.995
	1,946.27	1,967.05	62 Joints of 2 3/8 J-55 Tubing	2.375	1.995
	1.10	1,968.15	2 3/8 Seating Nipple	2.375	1.780
	3.35	1,971.50	7" X 2 3/8 Baker Style AD-1 tension packer 50K shear 80 duro rubber Set with 30,000# tension	6.078	2.375
	31.43	2,002.93	1 joint 2 3/8 tailpipe	2.375	1.995
			Perfs 2008-2104 Perfs from 2074-2104 are in question due to conflicting C-105 and C-103 filed by previous operator		

Filename:
Hayoz 5J



Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Thursday, April 15, 2010 4:15 PM
To: 'Thomas Kellahin'
Cc: Ezeanyim, Richard, EMNRD; Martin, Ed, EMNRD; wcarr@hollandhart.com
Subject: Disposal application from Reliant Exploration and Production, LLC: Hayoz #5 30-021-20185 Tubb fm

Hello Tom:
Must formally let you know, this administrative application has been protested by both Hess and Oxy and can no longer be considered administratively.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

From: Jones, William V., EMNRD
Sent: Tuesday, April 06, 2010 11:44 AM
To: 'Thomas Kellahin'
Cc: Ezeanyim, Richard, EMNRD; Martin, Ed, EMNRD
Subject: Disposal application from Reliant Exploration and Production, LLC: Hayoz #5 30-021-20185 Tubb formation

Hello Tom....
As attorney for Reliant, would you please forward these questions and requests concerning the recently submitted disposal application in Bravo Dome.

The following concerns arose from the Division's practice of restricting injection or disposal into gas producing formations so as to prevent waste as well as the charge to not allow disposal of saline waters into fresh water (<10,000 mg/l tds) bearing formations. Clearly the Tubb formation is not a "fresh" water interval, but if this interval is not used for disposal, the applicant would likely be requesting disposal into higher, less saline reservoirs where the tds may be an issue. I realize also the proposed disposal rates are very low.

a. Geologist: Please ask a geologist to pick or estimate formation tops in this area, from the surface down and including the top of the Abo.
b. Geologist: Is the ABO or other formation located just below the TUBB in this well prospective for CO2 production and has it been tested.
c. Geologist: Is the lower Glorieta from 1460 to 1540 prospective?

d. I did not see a reason for running the 4-1/2 inch casing in the application. Is this to correct some casing corrosion or leaks or is it to cover the upper Tubb producing interval so as to protect against "waste" of CO2 gas? Or is the new casing/cement to cover/squeeze off the entire Tubb and you will perf it only from 2074 to 2140 feet?
e. The application said 2000 feet of 4-1/2 inch would be run or 2000 feet plus 145 feet more? Which is correct, 2000 feet or 2145 feet or other?
f. Why are you only requesting to inject from 2074 to 2140 and not higher? Beyond this wellbore, where is the reservoir barrier that would protect any higher interval from being invaded with disposal waters?

g. The structure and strat data and maps sent don't have this well located on them, at least I cannot find where this well would be. Pick at least one of these maps and locate this well on it clearly and send to me to replace the equivalent exhibit.
h. Send a list of all wells within 2 miles of this well with API number, well name, status, completion zone, and operator.
i. Send a CO2/water rate vs time plot from the time this well was completed until the present.
j. Send these plots for the nearest surrounding producers in the Tubb formation within 2 miles.
k. Reservoir Engineer: Please ask a reservoir engineer to discuss how disposal into this reservoir would affect CO2 production from this reservoir in surrounding wells and what reasons for this assumption.

l. Please re-publish in the newspaper after correcting the disposal depths on the ad. Also please add a general location (layman's) description within the newspaper notice. i.e. 2 miles south of Amistad.
m. Send to me a copy of the actual newspaper notice as published and copies of the certified notice receipts or rejections. Is OXY in San Francisco the place to send them notice?

This application was very well done – THANK YOU.

Hopefully these concerns can be addressed and the questions will not be too big a burden. Please attempt or do your best to obtain the data requested.

There is still a likelihood this application would only be considered after an examiner hearing as the practice here is to deny or only process after a hearing any applications to dispose of waste water into oil or gas reservoirs.

Thank You,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448