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STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

June 17, 1991

Dwight A. Tipton P.O. Box 1597 Lovington, New Mexico 88260

Attention: Joe D. Ramey

Dear Mr. Ramey:

Reference is made to your request dated May 15, 1991, for an amendment to Division Order No. R-5792, dated August 25, 1978, which order authorized the use of the State "14" Well No. 1, located in Unit L of Section 14, Township 9 South, Range 32 East, NMPM, Lea County, New Mexico, as a salt water disposal well with injection into the Devonian formation at approximately 11,085 feet to 11,102 feet. It is our understanding that due to mechanical problems you now wish to expand the injection interval in the subject well to include the Glorieta, Blinebry, Tubb, Abo, Wolfcamp, Pennsylvanian and Devonian formations from a depth of approximately 5,000 feet to 11,102 feet.

Inasmuch as the proposed wellbore configuration will not pose a threat to underground sources of fresh water, and no objections from any offset operators has been received by the Division, you are hereby authorized to expand the injection interval in the subject well as described above subject to the following conditions:

- Injection into the subject well shall only be allowed as long as the water is being accepted on a vacuum.
- At such time as pressure is required to inject water, the subject well shall be plugged and abandoned in accordance with Division procedures.
- 3) The packer in the subject well shall be set at a depth of approximately 4,850 feet.

Sincerely, 0.0 William J. LeMay Director

xc: Case File 6259 OCD-Hobbs

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JOE D. RAMEY P. O. BOX 6016 HOBBS, NEW MEXICO 88241-6016 [505] 392-6525

MAY 15, 1991

MR. DAVID CATANACH NEW MEXICO OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87504-2088

DEAR MR. CATANACH:

ATTACHED PLEASE FIND AN APPLICATION WHEREIN MR. DWIGHT A. TIPTON REQUESTS AN EXTENSION OF THE INJECTION INTERVAL AND AN EXCEPTION TO THE PACKER DEPTH REQUIREMENTS.

IF YOU HAVE ANY QUESTIONS ON THIS MATTER, YOU CAN REACH ME AT THE ABOVE ADDRESS.

TRH JOE D. RAMEY

COPIES OF THIS APPLICATION HAVE BEEN FURNISHED, BY CERTIFIED MAIL, TO THE FOLLOWING:

STATE LAND OFFICE P. O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

SPENCE ENERGY COMPANY 381 TWO ENERGY SQUARE 4849 GREENVILLE AVENUE DALLAS, TEXAS 75206

YATES PETROLEUM CORPORATION 105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210

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AVERAGE VOLUME DISPOSED 300 BPD MAXIMUM VOLUME DISPOSED 400 BPD INJECTION PRESSURE VACUUM CLOSED SYSTEM

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PRODUCED WATERS BEING DISPOSED OF ARE FROM THE SAN ANDRES, ABO AND PENNSYLVANIAN. NO COMPATIBILITY TESTS HAVE BEEN TAKEN BUT THE FLUIDS HAVE EXHIBITED NO CHARACTERISTICS OF INCOMPATIBILITY IN THE FOUR PLUS YEARS OF OPERATIONS BY MR. TIPTON. THERE IS NO SCALING NOR SEDIMENTS IN THE RECEIVING OR INJECTION TANKS AT THE FACILITY AND THE INJECTION WELL HAS MAINTAINED 18 - 20 INCHES OF VACUUM DURING THIS FOUR YEAR PERIOD.

THE ATTACHED ANALYSIS OF DEVONIAN WATER FROM A WELL IN SECTION 14 INDICATES CHLORIDES OF 24,000 PPM. PENNSYLVANIAN WATERS NORMALLY HAVE CHLORIDES OF AROUND 30,000, ABO AROUND 25,000 AND SAN ANDRES 34,000 PPM.

ALTHOUGH THE WELL HAS COLLAPSED PIPE AT AROUND 5000 FEET, INJECTED WATER IS BEING DISPOSED OF IN THE DEVONIAN. THE DEVONIAN IS THE ONLY FORMATION IN THE AREA THAT WILL TAKE WATER ON A VACUUM. MR. TIPTON WILL NOT INJECT ANY WATER IF PRESSURE IS NECESSARY. THE WELL WILL BE TREATED EVERY SIX MONTH WITH 1000 GALS. 15% ACID.

INJECTION ZONE INFORMATION

DEVONIAN: TOP - 11,091' THICKNESS - NOT COMPLETELY PENETRATED BY ANY WELL IN THE AREA, ESTIMATED THICKNESS 450' LITHOLOGY - VUGGY DOLOMITE PENNSYLVANIAN: TOP - 8668' THICKNESS - 1762' 1302' TO TOP OF CEMENT LITHOLOGY - SHALE, SANDY LIMESTONE, WITH TIGHT SAND STRINGERS WOLFCAMP: TOP - 8153' 1HICKNESS - 514' LITHOLOGY - DENSE LIMESTONE WITH SHALE STRINGERS ABO: TOP - 7180' THICKNESS - 972' LITHOLOGY - SHALE, DENSE SANDY LIMESTONE TUBB: TOP - 6317' THICKNESS - 863' LITHOLOGY - SHALE, SHALY SANDSTONE, DENSE SANDY LIMESTONE CLEARFORK (BLINEBRY) TOP - 5624 THICKNESS - 693 LITHOLOGY - DENSE SHALY SANDSTONE, SHALE AND LIMESTONE GLORIETA. TOP - 4853' THICKNESS - 771' LITHOLOGY - SHALE, SHALY LIMESTONE

THE ONLY KNOWN FRESH WATER IN THE AREA IS IN THE OGALLALA FORMATION THE BASE OF WHICH IS AROUND 300 FEET. THERE ARE NO KNOWN FRESH WATER WELLS WITHIN THREE MILES OF THE DISPOSAL WELL. THE OGALLALA WATERS IN THE AREA ARE ASSUMED TO BE TYPICAL OGALLALA WATERS THAT ARE FOUND IN MOST OF LEA COUNTY.

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THE ONLY OIL PRODUCTION WITHIN TWO MILES OF THE DISPOSAL WELL IS IN THE E/2 E/2 SECTION 14, N/2 SW/4 SECTION 13 AND THE NE/4 NE/4 SECTION 23. THIS PRODUCTION IS FROM THE ABO AT A DEPTH OF AROUND 7000 FEEET. THERE IS ALSO A WELL IN THE SE/4 SECTION 14 THAT IS PRESENTLY BEING TESTED IN THE BOUGH C AT A DEPTH OF AROUND 8800 FEET.

ALL AVAILABLE GEOLOGIC AND ENGINEERING DATA HAS BEEN EXAMINED AND THERE IS NO EVIDENCE OF OPEN FAULTS OF ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE DISPOSAL ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER.

APPLICATION FOR AUTHORIZATION TO INJECT

Ι.	Purpose:	Secondary Recovery Pressure Maintenance, 🕅 Disposal 🔲 Storage
	Applica	tion qualifies for administrative approval? Xives no
11.	Operator:	Dwight A Tipton
	Address:	P. O. Box 1597 Lovington, NM 88260
	Contact pa	rty: Joe D. Romey Phone: (505) 392-6525
111.		Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

- IV. Is this an expansion of an existing project? yes 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.
- * 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.
 - VII. Attach data on the proposed operation, including:
 - 1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - 2. Whether the system is open or closed;
 - 3. Proposed average and maximum injection pressure;
 - 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 - 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.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological 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 source known to be immediately underlying the injection interval.
 - IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * 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.
 - 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 source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

and O Joe amey DASU Name: Title Signature: Date:

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.
- XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

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INJECTION WELL DATA SHEET

Dwight A. Tipton State 14 SWD 14 SECTION WELL NO. 1650 5 330 W 32E 95 TOWNSHIP Well drilled as a non-producing oil well Drilled in 1977 Schematic Tabular Data Surface Casing Size 12 3/4 Cemented with 450 sx. TOC Surface Feet determined by Circulated Hole size 15 12 /4" @ 385' Intermediate Casing Size <u>8 5/8</u> _____" Cemented with ______ TOC 1547 feet determined by $\frac{Form C}{Calculated}$ Top cement 1547' Hole size 278° Fiberglass tubing @ 4850' Long string size 52 Size 52 "Cemented with 200Form C-103 TOC 9970 feet determined by Calculated 854"@ 3504' 77/8 Hole size Baker Model R nickel Plated@4850' 11,117 Total depth 5±" casing collapsed @ 5000'+ Injection interval <u>//,099.5</u> feet to <u>//,/02.5</u> feet (perforated or open hele, indicate which) -27/8" Plastic coated tubing 5000'-10,855' Top cement 9970' Bater Loe-set packer 10,855 55 10 11,117' lined with Fiberglass Tubing size set in a Model R nickel plated _____ packer at _____ 4850 Baker feet (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation Devonion, Pennsylvanian, Wolfcamp, Abo, Tubb, Blinebry, Glorieta 2. Name of Field or Pool (if applicable) 5RRD3. Is this a new well drilled for injection? // Yes No 🕅 If no, for what purpose was the well originally drilled? <u>Dil prospect</u> Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) ____//o d name of any overlying and/or underlyimg oil or gas zones (pools) in Abo = 7000Give the depth to and $\langle D D \rangle$ 5. this area. Bough C - 8800 Undesignated

HAN IS 8 21 ANN 16. NY 55 8 11 ANN 16. NY 55 8 11 ANN ,

THE SUBJECT WELL WAS DRILLED IN 1977 AS A DEVONIAN OIL PRODUCER IN THE SRR DEVONIAN POOL. IN DECEMBER, 1984 THE WELL WAS CONVERTED TO A SALT WATER DISPOSAL WELL BY VF PETROLEUM AS AUTHORIZED BY DIVISION ORDER R-5792.

·. .

IN THE PROCESS OF CONVERSION THE WELL WAS FOUND TO HAVE HOLES IN THE 5 1/2 CASING AT 2911 FEET, 3099 FEET AND 5275 FEET. THESE HOLES WERE SQUEEZE CEMENTED AND IN THE PROCESS THE 5 1/2" X 8 5/8" ANNULUS WAS CIRCULATED AND FILLED WITH CEMENT. THE CASING WAS THEN TESTED TO 1000 POUNDS, TUBING AND PACKER RUN AND INJECTION COMMENCED.

IN 1986, DWIGHT A. TIPTON ASSUMED OPERATIONS. THE TUBING AND PACKER WERE REPLACED WITH PLASTIC COATED TUBING AND A NICKEL PLATED LOC-SET PACKER SET AT 10,855 FEET. THE ANNULUS WAS FILLED WITH A NON-CORROSIVE PACKER FLUID AND TESTED TO 400 PSI. THE WELL WAS TREATED WITH 1000 GALLONS 15% ACID AND RETURNED TO INJECTION ON A VACUUM.

A MECHANICAL INTEGRITY TEST WAS CONDUCTED IN 1990 AND THE WELL TESTED MECHANICALLY SOUND. A SIMILAR TEST WAS CONDUCTED IN 1991 AND THE CASING-TUBING, ANNULUS WOULD NOT HOLD PRESSURE. WHILE ATTEMPTING TO PULL THE TUBING, THE TUBING PARTED AT 4900 FEET. THE TUBING WAS CUT AT 5200 FEET BUT WOULD NOT JAR LOOSE. TUBING WAS BACKED-OFF AND TWO ADDITIONAL JOINTS PLUS ONE ALMOST COMPLETE, WHICH PARTED, WERE RECOVERED.

IN ATTEMPTING TO RECOVER ADDITIONAL TUBING, MR. TIPTON COULD GET TOOLS NO DEEPER THAN AROUND 5000 FEET AND IT WAS CONCLUDED THAT THE 5 1/2 CASING HAD COLLAPSED AND PROBABLY PARTED AT JUST BELOW 5000 FEET.

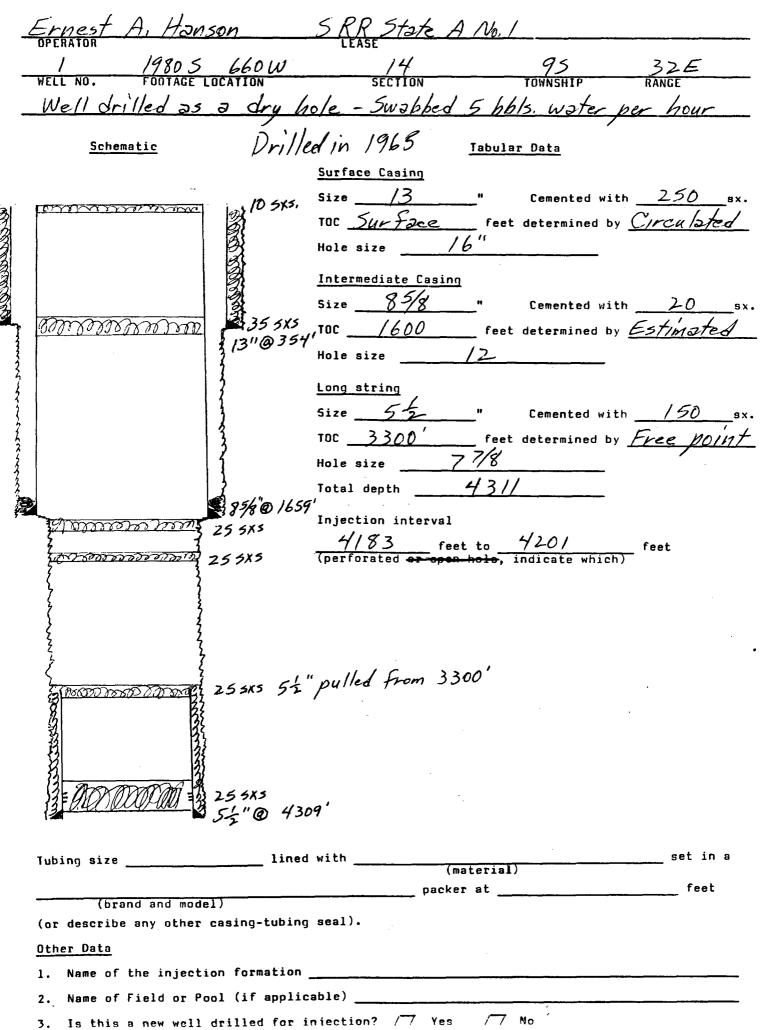
AFTER DISCUSSING THE SITUATION WITH MR. JERRY SEXTON AND SINCE THE WELL WAS STILL TAKING WATER ON A VACUUM, NEW 2 7\8" FIBERGLASS TUBING WAS RUN IN THE HOLE WITH A BAKER MODEL R. NICKELBUCKEL PLATED PACKER SET AT 4850 FEET AND THE WELL WAS RETURNED TO VACUUM.

THE WELL IS MECHANICALLY SOUND FROM THE SURFACE TO AROUND 5000 FEET. SURFACE PIPE IS CEMENTED TO THE SURFACE, INTERMEDIATE IS CEMENTED FROM 3504 FEET TO 1547 FEET AND THE 5 1\2 X 5 5\8 ANNULUS WAS CIRCULATED FROM ABOUT 4750 FEET TO THE SURFACE [SEE ATTACHED BONDLOG]. SO IT CAN BE CONCLUDED THAT NO DISPOSAL WATER, PARTICULARLY IF INJECTION IS ON A VACUUM, CAN ENDANGER ANY FRESH WATER SUPPLIES IN THE AREA.

THE ABO IN THIS WELL IS ESSENTIALLY SHALE IN THE UPPER PART AND VERY DENSE BANDY LIMESTONE IN THE BOTTOM. POROSITIES ARE IN THE TWO TO THREE PERCENT RANGE. THE BOUGH C IS PRESENT IN THIS WELL, BUT AGAIN THE POROSITY IS SUCH THAT IT WOULD NOT BE CONDUCTIVE TO WATER INJECTION.

THE ONLY DRILL STEM TEST, OTHER THAN THE TWO CONDUCTED IN THE DEVONIAN, WAS FROM 9174 FEET TO 9230 FEET AND THE RECOVERY WAS 96 FEET MUD WITH NO SHOWS OF OIL OR GAS.

SO IT CAN BE CONCLUDED THAT INJECTION INTO THIS WELL WOULD NOT BE DETRIMENTAL TO ANY OIL AND GAS PRODUCTION IN THE AREA. FURTHER IT CAN BE CONCLUDED THAT DEVONIAN IS THE ONLY ZONE IN THE WELL CAPABLE OF TAKING WATER IN OTHER THAN INSIGNIFICANT QUANTITIES. INTERIOR WELL DATA SHEET



INJECTION WELL DATA SHEET

Major Giebel + Forster Gulf State USAN ANDE 15 95 32E WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as dry hole Drilled in 1970 Schematic Tabular Data 2 10 3×3 Surface Casing Size ______ Cemented with _______ sx. TOC Surface feet determined by Circulated Hole size _____15 Intermediate Casing 25 5x5@ 355' Size $\frac{85/8}{100}$ " Cemented with $\frac{400}{100}$ sx. 113/4 @ 355' 25 3×3 @ 1160' TOC _______ feet determined by Coloulated 8 5/8 pulled From 1159' Hole size // Long string Size _____ Cemented with _____sx. TOC _____ feet determined by _____ Hole size Total depth _____/90' Injection interval feet to feet to feet to feet 125 5x5@ 3600' ann 85/8 @ 3575' 25 5x3 @ 4878' 25 5×5 @ 7212' 25 5×5 @ 8827' 25 5K3 @ 10,732' 25 5×5 @ 11,490' _____ set in a Tubing size ______ lined with ______ (material) feet packer at (brand and model) (or describe any other casing-tubing seal). Other Data _____ 1. Name of the injection formation _____ 2. Name of Field or Pool (if applicable)

JHREETION WELL DATA SHEET

Amerada Petroleum Corporation State SR"B" 2 1980 5 1980 E 15 95 32 E WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as 2 dry hole Drilled in 1956 Tabular Data Schematic 10 585 Surface Casing Size 13 3/8 " Cemented with 275 sx. TOC Surface feet determined by Circulated 13% @ 338' Hole size 174 amme 70 4x5 @ 316 Intermediate Casing \$ 87/8 pulled from 402' Size <u>85/8</u>" Cemented with 1500 sx. Hole size ____// Long string Size ______ Cemented with ______sx. 50 5x 5 @ 2250' MMI тос _____ feet determined by Hole size _____7 7/8 Total depth 11, 360 35 5x5 @ 3490' 85/8 @ 3535' Injection interval 2272 feet to 2365 feet (perforated or open-bole, indicate which) Tested For salt water disposal! Perforated Vates 2272-2365 Pumped 4320 BWPD @ 1000 # ----- 35 5x5 @ 10,287' mm 35 5x5 @ 11,181' Tubing size ______ lined with _____ set in a (material) ____ packer at feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable)

INDECTION WELL DATA SHEET

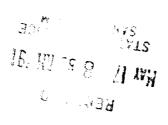
Amerada Ketroleum Corp. State SR"B" 6605 660E 15 95 32E FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled 25 2 Devonian producer - Now PYA Drilled in 1956 Schematic Tabular Data Surface Casing Size 13 3/8 " Cemented with 275 sx. TOC Surface feet determined by Circulated Hole size /7-Intermediate Casing mm 40 5x5 @ 525' Size <u>85/8</u> " Cemented with <u>1500</u> sx. 85/8 pulled from 600' TOC 644 feet determined by Temp Survey Hole size - / / Long string Size $5\frac{1}{2}$ " Cemented with 900 sx. Amman 25 5x3 @ 3505' TOC 7315 _____ feet determined by Temp. Survey 85/8 @ 3550' Hole size $7\frac{3}{4}$ Total depth 11, 12.5 Injection interval 25 5x5 @ 4802' 11,085 feet to 11,125 feet (perforeted_or open-hole, indicate which) 52 pulled from 6600' 25 5×5 @ 6542' 30 5×5, (A) 10,965 52 @ 11,085' morge _____ set in a lined with Tubing size (material) feet ___ packer at (brand and model) (or describe any other casing-tubing seal). Other Data Name of the injection formation ____ 1. 2. Name of Field or Pool (if applicable) Te this a new wall drilled for injection? /7 Yes /7 No

FREEDELIN WELL DATA SHEET

Dwight A. Tipton	State 15	
	15 SECTION TOWNSHIP	32E
WELL NO. FOOTAGE LOCATION	SECTION TOWNSHIP	RANGE
	producer - Now PtA	
Schematic	Drilled in 1976 Tabular Data	
m m m m	Surface Casing Size $123/4$ "Cemented wi TOC $54rF3ce$ feet determined the Hole size 15	th <u>415</u> sx. by <u>Circulated</u>
Ann 50 5x5 @ 2200'	<u>Intermediate Casing</u> Size <u>8 5/8</u> "Cemented wi TOC <u>1479</u> feet determined b Hole size <u>11 3/4</u>	th <u>400</u> sx by <u>Calculated</u>
	Long string Size $4/2$ "Cemented wi TOC $9/03$ feet determined b Hole size $77/8$	th <u>350</u> sx y <u>Calculated</u>
mm 35 5x5 @ 3550'	Total depth	
3 85/8 @ 3552'	Injection interval <u>11,056</u> feet to <u>11,087</u> (perferented-or open-hole, indicate whic	feet
25 5x5 @ 8150	(performed open-hole, indicate whic DST 9172-9241 Flowed 260 MCF/Day Recovered 282' GCM 1722 GCSW	h)
	DST 10,220-10,440	
Tommy 30 5x5 @ 9748'	Recovered 530'VSGCDF	
Tubing pulled from 10,	2001	
Tubing size lined		
'Tubing size lined	d with (material)	set in a
	packer at	feet
(brand and model) (or describe any other casing-tubing	q seal).	
Other Data		
1. Name of the injection formation		
2. Name of Field or Pool (if applic		·····
To this a new well drilled for i	· · · · · · · · · · · · · · · · · · ·	

INJECTION WELL DATA SHEET

Amerson Petroleum Corporation Federal E 660 N 660 E 22 95 32E FOOTAGE LOCATION SECTION TOWNSHIP RANGE VELL NO. Drilled as a dry hole in Devonian - Produced from Pennsylvanian Drilled in 1955 Tabular Data Schematic Surface Casing TA 10 5×5 Size <u>13 3/8</u> " Cemented with _____ sx. TOC <u>Surface</u> feet determined by _____ Hole size Intermediate Casing Z5 5x5 @ 320' Size <u>85/8</u> " Cemented with _____sx. 133/8"@ 340' TOC Not available feet determined by Hole size mmmm? 60 5x5 @ 1372' Long string 85/8 pulled From 1440' Size <u>55</u>" Cemented with _____sx. TOC Not available * feet determined by _____ Hole size Total depth ______ 11,125____ Injection interval feet to feet (perforated or open-hole, indicate which) Well file incomplete - Information on file with BLM is indicated here. 55" pulled from 6684" 8 5/8 @ 7945' * See attached sheet Re-entry attempted by Ernest A. Honson, Reach a TD of 1485 + P+A. CIBPO 9183' w/ 12 sxs cement on top 60 5×3 @ 1372 35 5x5 @ 320' 10 5x5 Surface 54011,125' Lined with _____ _____ set in a Tubing size (material) packer at _____ feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation ____ 2. Name of Field or Pool (if applicable) _



AMERADA FEDERAL E

, _ _ _

BASED ON AMERADA'S CEMENTING PRACTICES IN THE AREA, THE FOLLOWING CAN BE ASSUMED:

TOP OF CEMENT BEHIND 5 1/2" CASING IS NEAR THE CUT-OFF POINT OF 6684 FEET

TOP OF CEMENT BEHIND 8 5/8 CASING IS AROUND 4000 FEET ASSUMING 1500 SXS, CEMENT USED

INSECTION WLLL DATA SHEET

Spence Energy Company State 14 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as a dry hole - Tested Devenion and Atoka - Recovered water From both. Drilled in 1985 Tabular Data Schematic ZECATE 10 SKS Surface Casing Size $13\frac{3}{8}$ " Cemented with 425 sx. TOC Surface feet determined by Circulated 17-2 Hole size 13 18 @ 400' Intermediate Casing Size <u>85/8</u>" Cemented with <u>//00</u>sx. TOC Surface feet determined by Circulated ____ // Hole size Long string Size $5\frac{1}{2}$ " Cemented with $\frac{40}{2}$ sx. TOC $\frac{8600}{100}$ feet determined by $\frac{Ca/cu/ated}{100}$ 35 5x5 @ 3377' mann \$ 85% @ 3800' 50 5x5 @ 3827' Hole size _____7 7/8 52 pulled from 3827' Injection interval 10,036 <u>11,055</u> feet to <u>11,068</u> (perforated or open dule, indicate 50 5×5 @ 7/00' anny DV Tool @ 10,493 CIBP@ 11,000 capped with 40' cement 54 @ 11,115' _____ set in a Tubing size ______ lined with _____ (material) _____ packer at _____ feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation _____ 2. Name of Field or Pool (if applicable) ____ 3. Is this a new well drilled for injection? /7 Yes /7 No

HEEDTLON WELL DATA SHEET

Deray Sumruld South Roberts SWD 95 TOWNSHIP 660 5 660 W 14 FOOTAGE LOCATION SECTIO 32E Drilled in 1955 Schematic Tabular Data Data Pumped 10 5x5 into the 175 x 133/8 annulus Cemented with 250 sx. Surface Casing 10 583 133/8 Size TOC Surface feet determined by ____ っち Hole size 133/8 @ 340' Intermediate Casing 8 5/8 Size Cemented with 500 sx. TOC ______ feet determined by Temp. Survey 200 3×3 @ 1546' 5' pulled from 1490' 12 1/4 Hole size mm Long string Size 5-2 Cemented with <u>900</u> 100 3×5 @ 1982' TOC _ 7927 _ feet determined by Temp. Survey 7 7/8 Hole size 85/8 @ 3533 1,177 Total depth 27/8 tubing Injection interval <u>////03</u> feet to <u>////30</u> feet (perforated or open-hole, indicate which) top @ 1982 Well drilled by Amerada as a Devonion producer, Converted to SWD as per Order No, R-1709. Ownership changed to Sum ruld with intent to test the Bough C 9100-9200' Attempted to pull tubing + tubing parted. Milled + Fished for pround 60 days + could get no deeper than 1982'. PtA 52 @ 11, 177' lined with _____ set in a Tubing size (material) feet packer at (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation _ 2. Name of Field or Pool (if applicable) ____

INJECTION WELL DATA SHEET

Amerada Petroleum Grporation F. E. Chartier 660N 660W 23 95 32E FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled 25 2 Pennsylvanian oil well Drilled in 1955 Schematic Tabular Data Surface Casing Size $13\frac{3}{8}$ " Cemented with 275 sx. 113 10 5K3 TOC Surface feet determined by Circulated Hole size 172133/8 @ 300' Intermediate Casing Size $\frac{85/8}{100}$ "Cemented with $\frac{500}{100}$ sx. $\frac{85/8}{100}$ pulled from 320' TOC $\frac{735}{100}$ feet determined by Temp. Survey 255x5 @ 750' Hole size 11 Long string Size $5 \frac{5}{2}$ " Cemented with 600TOC ______ Feet determined by Temp. Survey 7 7/8 Hole size Injection interval 25 5x3 3456' $\frac{9202}{(\text{perforated or open-hole, indicate which})}$ feet hann 5'2" pulled from 4150' 25 5x5 @ 7600' m mm 25 3x3 @ 8990' mm 3255x5 @ 9840' 51/2 @ 10,170' mm 50 5x 5 @ 10,436' Tubing size ______ lined with _____ _____set in a (material) feet _ packer at (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable) _____

LEGAL NOTICE

APPLICANT:

- -----

DWIGHT A. TIPTON P. 0. 1597 LOVINGTON, NEW MEXICO 88260 [505] 396-2114

REQUESTS THE OIL CONSERVATION DIVISION TO AUTHORIZE A CHANGE IN THE PACKER SETTING DEPTH IN THE STATE 14 SALT WATER DISPOSAL WELL NO.1, LOCATED 1650 FEET FROM THE SOUTH AND 330 FEET FROM THE WEST OF SECTION 14, TOWNSHIP 9 SOUTH, RANGE 32 EAST, NMPM, LEA COUNTY, NEW MEXICO, FROM 10,855 FEET TO A DEPTH OF 4850 FEET. IT IS FURTHER REQUESTED THAT THE INJECTION INTERVAL BE EXTENDED TO INCLUDE THE INTERVAL FROM 5000-9970 FEET AND FROM 11,085-11,102 FEET TO INCLUDE THE FOLLOWING FORMATIONS:

GLORIETA BLINEBRY TUBB ABO WOLFCAMP PENNSYLVANIAN DEVONIAN

THE SUBJECT WELL IS USED TO DISPOSE OF PRODUCED OIL FIELD BRINE WATERS AND THE PRESENT VOLUME DISPOSED OF IS 300 BARRELS PER DAY WITH A MAXIMUM VOLUME OF 400 BARRELS PER DAY. THE PRESENT INJECTION PRESSURE IS ZERO AND THE INJECTION PRESSURE WILL NEVER EXCEED ZERO.

INTERESTED PARTIES MUST FILE OBJECTIONS OR REQUESTS FOR HEARING WITH THE OIL CONSERVATION DIVISION, P. O. BOX 2088, SANTA FE, NEW MEXICO 87504-2088 WITHIN 15 DAYS.

REQUESTS FOR FURTHER INFORMATION SHOULD BE MADE TO :

JOE D. RAMEY P. O. BOX 6016 HOBBS, NEW MEXICO 88241-6016 [505] 392-6525 JOE D. RAMEY P. O. BOX 6016 HOBBS, NEW MEXICO 88241-6016 [505] 392-6525

MAY 15, 1991

MR. DAVID CATANACH NEW MEXICO OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87504-2088

DEAR MR. CATANACH:

ATTACHED PLEASE FIND AN APPLICATION WHEREIN MR. DWIGHT A. TIPTON REQUESTS AN EXTENSION OF THE INJECTION INTERVAL AND AN EXCEPTION TO THE PACKER DEPTH REQUIREMENTS.

IF YOU HAVE ANY QUESTIONS ON THIS MATTER, YOU CAN REACH ME AT THE ABOVE ADDRESS.

OURS TRULY JOE D. RAMEY

COPIES OF THIS APPLICATION HAVE BEEN FURNISHED, BY CERTIFIED MAIL, TO THE FOLLOWING:

STATE LAND OFFICE P. O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

SPENCE ENERGY COMPANY 381 TWO ENERGY SQUARE 4849 GREENVILLE AVENUE DALLAS, TEXAS 75206

YATES PETROLEUM CORPORATION 105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210

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	Sent to <u>Vates</u> <u>Petroleur</u> Street & NO. <u>105 South</u> <u>Four</u> <u>H</u> PO., State & ZIP Code	Street
	Postage	\$98
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APPLICATION FOR AUTHORIZATION TO INJECT

1.	Purpose: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? yes no	
II.	Operator: Dwight A. Tinton	_
	Address: P.O. Box 1997 Lowington, NM 88260	_
	Contact party: Noe D. Romey Phone: (505) 392-6525	_
111.	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.	
IV.	Is this an expansion of an existing project? 🗌 yes 🛛 🕅 no	

- 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.
- * 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.
 - VII. Attach data on the proposed operation, including:
 - 1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - Whether the system is open or closed;
 - Proposed average and maximum injection pressure;

If yes, give the Division order number authorizing the project

- 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
- 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.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological 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 source known to be immediately underlying the injection interval.
 - IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if avai¹able and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
 - 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 source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

10er Name: Title 01 3U mrn Signature: me Date:

* If the information required under sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.
- XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them. 1039 40'

103° 35'

R32E

6.22 <i>Ac</i> 31 46.36 <i>Ac</i> 21 46.46 <i>Ac</i> 1 Yates Pet,etal 9 1 - 92 V- 2417 56 ¥s. ⊥ ⊥ -	11 Heman" Mag. Sr		Riul Oil 22 Rial Oil 06 3920 Fras 66-3920 Briawell-St.	3986At 4 ¹ 4ct t ⁺ ac 3 ¹ 41 (3At 1 ¹ 4c. 5 At 1 ¹ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Yetes Pet, etg	4607Ac. 4 41 3Ac. 3. Yates Pet,etal 12.: 69. V-1267 74 55
4	C.F. Harding to 11292 L 623 O 554. F51	R.C. Hanks LowerSt Phillips	Bridwell-St		Belco Sodie-St - 29.x 5 STOCK ST. UNIT	
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AVERAGE VOLUME DISPOSED 300 BPD MAXIMUM VOLUME DISPOSED 400 BPD INJECTION PRESSURE VACUUM CLOSED SYSTEM

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PRODUCED WATERS BEING DISPOSED OF ARE FROM THE SAN ANDRES, ABO AND PENNSYLVANIAN. NO COMPATIBILITY TESTS HAVE BEEN TAKEN BUT THE FLUIDS HAVE EXHIBITED NO CHARACTERISTICS OF INCOMPATIBILITY IN THE FOUR PLUS YEARS OF OPERATIONS BY MR. TIPTON. THERE IS NO SCALING NOR SEDIMENTS IN THE RECEIVING OR INJECTION TANKS AT THE FACILITY AND THE INJECTION WELL HAS MAINTAINED 18 - 20 INCHES OF VACUUM DURING THIS FOUR YEAR PERIOD.

THE ATTACHED ANALYSIS OF DEVONIAN WATER FROM A WELL IN SECTION 14 INDICATES CHLORIDES OF 24,000 PPM. PENNSYLVANIAN WATERS NORMALLY HAVE CHLORIDES OF AROUND 30,000, ABO AROUND 25,000 AND SAN ANDRES 34,000 PPM.

ALTHOUGH THE WELL HAS COLLAPSED PIPE AT AROUND 5000 FEET, INJECTED WATER IS BEING DISPOSED OF IN THE DEVONIAN. THE DEVONIAN IS THE ONLY FORMATION IN THE AREA THAT WILL TAKE WATER ON A VACUUM. MR. TIPTON WILL NOT INJECT ANY WATER IF PRESSURE IS NECESSARY. THE WELL WILL BE TREATED EVERY SIX MONTH WITH 1000 GALS. 15% ACID.

INJECTION ZONE INFORMATION

DEVONIAN: TOP - 11,091' THICKNESS - NOT COMPLETELY PENETRATED BY ANY WELL IN THE AREA, ESTIMATED THICKNESS 450' LITHOLOGY - VUGGY DOLOMITE PENNSYLVANIAN: TOP - 8668' THICKNESS - 1762' 1302' TO TOP OF CEMENT LITHOLOGY - SHALE, SANDY LIMESTONE, WITH TIGHT SAND STRINGERS WOLFCAMP: TOP - 8153' THICKNESS - 514' LITHOLOGY - DENSE LIMESTONE WITH SHALE STRINGERS ABO: TOP - 7180' THICKNESS - 972' LITHOLOGY - SHALE, DENSE SANDY LIMESTONE TUBB: TOP - 6317' THICKNESS - 863' LITHOLOGY - SHALE, SHALY SANDSTONE, DENSE SANDY LIMESTONE CLEARFORK [BLINEBRY]: TOP - 5624' THICKNESS - 693' LITHOLOGY - DENSE SHALY SANDSTONE, SHALE AND LIMESTONE GLORIETA: TOP - 4853' THICKNESS - 771' LITHOLOGY - SHALE, SHALY LIMESTONE

THE ONLY KNOWN FRESH WATER IN THE AREA IS IN THE OGALLALA FORMATION THE BASE OF WHICH IS AROUND 300 FEET. THERE ARE NO KNOWN FRESH WATER WELLS WITHIN THREE MILES OF THE DISPOSAL WELL. THE OGALLALA WATERS IN THE AREA ARE ASSUMED TO BE TYPICAL OGALLALA WATERS THAT ARE FOUND IN MOST OF LEA COUNTY.

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THE ONLY OIL PRODUCTION WITHIN TWO MILES OF THE DISPOSAL WELL IS IN THE E/2 E/2 SECTION 14, N/2 SW/4 SECTION 13 AND THE NE/4 NE/4 SECTION 23. THIS PRODUCTION IS FROM THE ABO AT A DEPTH OF AROUND 7000 FEEET. THERE IS ALSO A WELL IN THE SE/4 SE/4 SECTION 14 THAT IS PRESENTLY BEING TESTED IN THE BOUGH C AT A DEPTH OF AROUND 8800 FEET.

ALL AVAILABLE GEOLOGIC AND ENGINEERING DATA HAS BEEN EXAMINED AND THERE IS NO EVIDENCE OF OPEN FAULTS OF ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE DISPOSAL ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER.

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INJECTION WELL DATA SHEET

State 14 SWD Dwight A. Tipton WELL NO. FOOTAGE LOCATION 95 TOWNSHIP 32E 14 SECTION Well drilled as a non-producing oil well Drilled in 1977 Schematic Tabular Data Surface Casing Size 12 3/4 Cemented with <u>450</u>sx. TOC Surface feet determined by Circulate 15 Hole size 123/4"@ 385' Intermediate Casing Cemented with $\frac{400}{547}$ TOC <u>1547</u> feet determined by <u>Colculated</u> Hole size 11 Top coment 1547' 278" Fiberglass tubing @ 4850' Long string size 52 Size 52 "Cemented with 200 Form C-103 TOC 9970 feet determined by Calculated 854"@ 3504' Hole size ___ 77/8 Bater Model R nickel Plated@4850' Total depth _____1/__7 5±" cosing collopsed @ 5000'± Injection interval <u>//,099.5</u> feet to <u>//,/02.5</u> feet to <u>//,/02.5</u> feet to <u>her</u> for the sector of the s -27/8" Plastic coated tubing 5000'-10,855' Top coment 9970' Bater Loc-set packer 10,855 5生"@ 11,117' Tubing size 278''ize <u>2/8</u> <u>lined with</u> <u>Fiberg/255</u> (material) (brand and model) <u>Joted</u> packer at <u>4850</u> set in a Baker (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation Devonion, Pennsylvanian, Wolfcomp, Abo, Tubb, Blinebry, Glorieta 2. Name of Field or Pool (if applicable) 5RRDIs this a new well drilled for injection? /_____ Yes X No If no, for what purpose was the well originally drilled? <u>Dil prospect</u> 4. Give the depth to and name of any overlying and/or underlyimg oil or gas zones (pools) in this area. SRRABO - 70005. Undesignated Bough C-8800'

THE SUBJECT WELL WAS DRILLED IN 1977 AS A DEVONIAN OIL PRODUCER IN THE SRR DEVONIAN POOL. IN DECEMBER, 1984 THE WELL WAS CONVERTED TO A SALT WATER DISPOSAL WELL BY VF PETROLEUM AS AUTHORIZED BY DIVISION ORDER R-5792.

IN THE PROCESS OF CONVERSION THE WELL WAS FOUND TO HAVE HOLES IN THE 5 1/2 CASING AT 2911 FEET, 3099 FEET AND 5275 FEET. THESE HOLES WERE SQUEEZE CEMENTED AND IN THE PROCESS THE 5 1/2" X 8 5/8" ANNULUS WAS CIRCULATED AND FILLED WITH CEMENT. THE CASING WAS THEN TESTED TO 1000 POUNDS, FUBING AND PACKER RUN AND INJECTION COMMENCED.

IN 1986, OWIGHT A. TIPTON ASSUMED OPERATIONS. THE TUBING AND PACKER WERE REPLACED WITH PLASTIC COATED TUBING AND A NICKEL PLATED LOC-SET PACKER SET AT 10,855 FEET. THE ANNULUS WAS FILLED WITH A NON-CORROSIVE PACKER FLUID AND TESTED TO 400 PSI. THE WELL WAS TREATED WITH 1000 GALLONS ...5% ACID AND RETURNED TO INJECTION ON A VACUUM.

A MECHANICAL INTEGRITY TEST WAS CONDUCTED IN 1990 AND THE WELL TESTED MECHANICALLY SOUND. A SIMILAR TEST WAS CONDUCTED IN 1991 AND THE CASING-TUBING, ANNULUS WOULD NOT HOLD PRESSURE. WHILE ATTEMPTING TO PULL THE TUBING, THE TUBING PARTED AT 4900 FEET. THE TUBING WAS CUT AT 5200 FEET BUT WOULD NOT JAR LOOSE. TUBING WAS BACKED-OFF AND TWO ADDITIONAL JOINTS PLUS ONE ALMOST COMPLETE, WHICH PARTED, WERE RECOVERED.

IN ATTEMPTING TO RECOVER ADDITIONAL TUBING, MR. TIPTON COULD GET TOOLS NO DEEPER THAN AROUND 5000 FEET AND IT WAS CONCLUBED THAT THE 5 1/2 CASING HAD COLLAPSED AND PROBABLY PARTED AT JUST BELOW 5000 FEET.

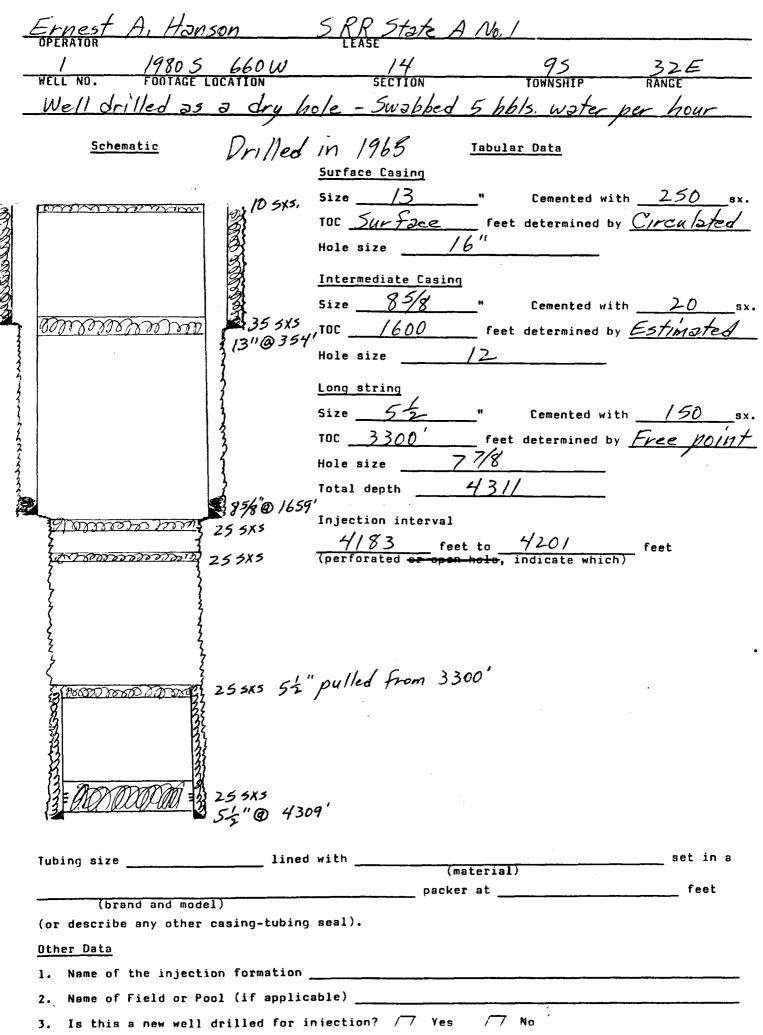
AFTER DISCUSSING THE SITUATION WITH MR. JERRY SEXTON AND SINCE THE WELL WAS STILL TAKING WATER ON A VACUUM, NEW 2 7\8" FIBERGLASS TUBING WAS RUN IN THE HOLE WITH A BAKER MODEL R. NICKELBUCKEL PLATED PACKER SET AT 4850 FEET AND THE WELL WAS RETURNED TO VACUUM.

THE WELL IS MECHANICALLY SOUND FROM THE SURFACE TO AROUND 5000 FEET. SURFACE PIPE IS CEMENTED TO THE SURFACE, INTERMEDIATE IS CEMENTED FROM 3504 FEET TO 1547 FEET AND THE 5 1N2 X 3 5N8 ANNULUS WAS CIRCULATED FROM ABOUT 4750 FEET TO THE SURFACE [SEE ATTACHED BONDLOG]. SO IT CAN BE CONCLUDED THAT NO DISPOSAL WATER, PARTICULARLY IF INJECTION IS ON A VACUUM, CAN ENDANGER ANY FRESH WATER SUPPLIES IN THE AREA.

THE ABO IN THIS WELL IS ESSENTIALLY SHALE IN THE UPPER PART AND VERY DENSE SANDY LIMESTONE IN THE BOTTOM. POROSITIES ARE IN THE TWO TO THREE PERCENT RANGE. THE BOUGH C IS PRESENT IN THIS WELL, BUT AGAIN THE POROSITY IS SUCH THAT IT WOULD NOT BE CONDUCTIVE TO WATER INJECTION.

THE ONLY ORILL STEM TEST, OTHER THAN THE TWO CONDUCTED IN THE DEVONIAN, WAS FROM 9174 FEET TO 9230 FEET AND THE RECOVERY WAS 96 FEET MUD WITH NO SHOWS OF OIL OR GAS.

SO IT CAN BE CONCLUDED THAT INJECTION INTO THIS WELL WOULD NOT BE DETRIMENTAL TO ANY OIL AND GAS PRODUCTION IN THE AREA. FURTHER IT CAN BE CONCLUDED THAT DEVONIAN IS THE ONLY ZONE IN THE WELL CAPABLE OF TAKING WATER IN OTHER THAN INSIGNIFICANT QUANTITIES. INTERION WELL DATA SHEET



INJECTION WELL DATA SHEET

Major Giebel + Forster Gulf State USELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as dry hole Drilled in 1970 Schematic Tabular Data 2 10 JO 5x5 Surface Casing Size $1/\frac{3}{4}$ " Cemented with 355 sx. TOC Surface feet determined by Circulated Hole size <u>15</u> Intermediate Casing 25 5x5@ 355' Size $\frac{85/8}{100}$ " Cemented with $\frac{400}{100}$ sx. 113/4 @ 355' 25 383 @ 1160' TOC 1845 feet determined by Calculated 8 5/8 pulled from 1159' Hole size // Long string Size _____ Cemented with _____sx. _____feet determined by _____ TOC Hole size Total depth <u>11,490'</u> Injection interval feet to ______ feet to ______ feet to ______ feet to ______ feet _____ feet _____ feet ______ feet _____ feet ______ feet fee 25 5x5@ 3600' ann 8 % @ 3575' an 25 5x3 @ 4878' 25 5×5 @ 7212' 25 5×5 @ 8827' 25 5K3 @ 10,732' 24mm 25 5×5 @ 11,490' Tubing size ______ lined with _____ _____ set in a (material) packer at feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation _____ Name of Field or Pool (if applicable)

INDECTION WLLL DATA SHEET

Amerada Petroleum Corporation State SR"B" 2 1980 5 1980 E 15 95 32 E WELL NO. FODTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as 2 dry hole Drilled in 1956 Tabular Data Schematic 10 585 Surface Casing Size 13 3/8 " Cemented with 275 sx. TOC Surface feet determined by Circulated Hole size 174 133/8 @ 338' amm 70 5×5 @ 316 Intermediate Casing \$ 878 pulled from 402" Size 85/8 " Cemented with 1500 sx. TOC <u>8/0'</u> feet determined by Temp, Survey Hole size // Long string Size _____ Cemented with _____ sx. 50 5x 5 @ 2250' MMAS TOC ______ feet determined by _____ Hole size 77/8 Total depth _//, 360 35 5x5 @ 3490' 85/8 @ 3535' Injection interval 2272 feet to 2365 feet (perforated or open-bole, indicate which) Tested For salt water disposal! Perforated Vates 2272-2365 Pumped 4320 BWPD @ 1000 # ----- 35 5x5 @ 10,287' mm 35 5x5 @ 11,181 Tubing size _____ lined with _____ _____ set in a (material) packer at _____ feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable)

INSECTION WELL DATA SHEET

Amerada Petroleum Corp. State SR "B" 660 5 660 E 15 95 32 E FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled 25 2 Devonian producer - Now PYA Drilled in 1956 Schematic <u>Tabular Data</u> Surface Casing Size 133/8 " Cemented with 275 sx. TOC Surface feet determined by Circulated 3 13 3/8 @ 338' 40 5x5 @ 313' Hole size mm Intermediate Casing 10 5x5 @ 525' Size <u>85/8</u> " Cemented with <u>1500</u> sx. 85/8 pulled From 600' TOC 644 feet determined by Temp Survey Hole size _____/_ Long string Size $5\frac{1}{2}$ " Cemented with 900 sx. TOC 73/5 feet determined by Temp. Survey 25 5x3 @ 3505' 85/8 @ 3550' Ammun Hole size 11,125 Total depth Injection interval man 25 5x5 @ 4802' <u>11,085</u> feet to <u>11,125</u> feet (perforsted or open-hole, indicate which) 52 pulled from 6600' 25 5×5 @ 6542' 30 5×5, (A, 10,965 5/2 @ 11,085' man _____ set in a Tubing size ______ lined with _____ (material) feet _ packer at (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable) _

5 Te, this a new woll drilled for injection? /7 Yes /7 No

FREEPELLIN WELL DATA SHEET

Dwight A. Tipton State 15 95 32E TOWNSHIP RANGE <u>9905330E</u> 15 FOOTAGE LOCATION SECTION Drilled 25 Devonian producer - Now PtA Drilled in 1976 Tabular Data Schematic Surface plug 0-350' Surface Casing Size <u>12³/4</u> " Cemented with <u>415</u> sx. TOC <u>Surface</u> feet determined by <u>Circulated</u> M 15 Hole size Intermediate Casing 123/4 C 361' Size 8 5/8 Cemented with 400 sx. ____ feet determined by Calculated Hole size ____ // 3/4 50 5×5 @ 2200' mm Long string Size 42 Cemented with 350 sx. TOC ______ _ feet determined by Calculated Hole size 77/8 mm \$ 35 5x5 @ 3550' Injection interval 85/8 @ 3552' <u>11,056</u> feet to <u>11087</u> feet (perfected or open-hole, indicate which) 50 5x5 @ 5950' m DST 9172-9241 Flowed 260 MCF/Day Recovered 282' GCM 1722 GCSW mm } 25 5x5 @ 8150 DST 10,220-10,440 Recovered 530' VSGCDF 30 5×5 @ 9748' tomm Fubing pulled from 10,200' R 4/2 @ 11,056 lined with ____ ______set in a Tubing size (material) packer at _____ feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation ____ 2. Name of Field or Pool (if applicable) 17 No 2 To this a new wall drilled for injection? /7 Yes

DI DI C		
Amerodo Petroleum Corp OPERATOR	LEAGE	
1 660 N 660 E	22 95 SECTION TOWNSHIP	32E
	role in Devonion - Produced From	<u>n lennsylvon ion</u>
Schematic Dri	led in 1955 Tabular Data	
p /0 5×5	Surface Casing	
	Size <u>1338</u> " Cemented wi	ithsx.
3	TOC <u>Surface</u> feet determined t	
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mmmm 1 25 5×5 @ 320'	Size <u>85/8</u> " Cemented wi	thsx.
J 133/8"@ 340'	TOC Not available feet determined t)y
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(Annonanna) 60 5K5 @ 1372'	Long string $140'$ Size $5\frac{1}{2}$ "Cemented wi	
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$\langle \langle \rangle$	feet to (perforated or open-hole, indicate whic	feet
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} }	with BLM is indicated h	eve-
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2 352" pulled from 6	684'	
55'z" pulled from 6 85's @ 7945'	* + + + + + + + +	
	* See attached sheet	+11 Curl
3 3	Re-entry attemp. Honson, Reach a	Ted by Ernest
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	35 5K5 @ 320 10 5K5 Sur Fac	e
7 151 @ 11,125' Tubing size li		set in a
Tubing size li	(material)	········
(brand and model)	packer at	feet
(or describe any other casing-tub	ing seal).	
Other Data		
1. Name of the injection formati	on	
	licable)	

AMERADA FEDERAL E

2000 - 1440 1

BASED ON AMERADA'S CEMENTING PRACTICES IN THE AREA, THE FOLLOWING CAN BE ASSUMED:

TOP OF CEMENT BEHIND 5 1/2" CASING IS NEAR THE CUT-OFF POINT OF 6684 FEET

TOP OF CEMENT BEHIND 8 5/8 CASING IS AROUND 4000 FEET ASSUMING 1500 SXS, CEMENT USED

INSECTION WELL DATA SHEET

Spence Energy Company State 14 330 5 330 W 14 95 32E FOOTAGE LOCATION SECTION TOWNSHIP RANGE Drilled as a dry hole - Tested Devenion and Atoka - Recovered water From both. Drilled in 1985 Tabular Data Schematic 10 SXS Surface Casing Size <u>13³/8</u> " Cemented with <u>425</u> sx. TOC <u>Sur Face</u> feet determined by <u>Circulated</u> Hole size 17-133/8 @ 400' Intermediate Casing Size 8 5/8 " Cemented with ______sx. TOC Surface feet determined by Circulated 11 Hole size Long string Size $5\frac{1}{2}$ " Cemented with $\frac{40}{9}$ sx. TOC 8600 feet determined by $\frac{Ca/cu/sted}{2}$ 35 5x5 @ 3377' mann \$ 85% @ 3800' 50 5x5 @ 3827' Hole size _____ 77/8 mmy Total depth ______115 52 pulled from 3827 Injection interval /0,036 ///.055 feet to //.068 (perforated or epeedede, indicate) feet 50 5x5 @ 7100' givnm DV Tool @ 10,493 CIBP@ 11,000 capped with 40' cement 54 @ 11,115' Tubing size ______ lined with ______(material) _____ set in a _____ packer at _____ feet (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation ____ 2. Name of Field or Pool (if applicable) ____ 3. Is this a new well drilled for injection? /7 Yes /7 No

INTEGELON WELL DATA SHEET

Leroy Sumryld South Roberts SWD 95 TOWNSHIP 660 5 660 W 32E Drilled in 1955 Schematic Tabular Data Pumped 10 5x5 into the 175 x 133/8 annulus Cemented with 250 sx. Surface Casing 10 583 nontin STATION I Size 133/8 TOC Surface feet determined by 17之 Hole size 133/8@ 340' Intermediate Casing 8 5/8 Cemented with 500 sx. ** Size TOC 684' feet determined by Temp. Survey 200 3×3 @ 1546' 5' pulled from 1490' 12/4 Hole size mm ino Long string Size 5-2 Cemented with _______ 100 5x5 @ 1982' тос 7927 _ feet determined by Temp. Survey 77/8 Hole size 85/8 @ 3533 11.177 Total depth 27/8 tubing Injection interval <u>//,/03</u> feet to <u>//,/30</u> feet (perforated or open-hole, indicate which) top @ 1982 Well drilled by Amerada as a Devonion producer, Converted to SWD as per Order No, R-1709. Ownership changed to Sum ruld with intent to test the Bough C 9100-9200' Attempted to pull tubing t tubing parted. Milled t Fished For around 60 days t could get no deeper than 1982'. PtA 5= @ 11, 177' _____ set in a ____ lined with _____ Tubing size (material) feet packer at (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable) ____

_ . . . _ ,_ ,_ ,

INJECTION WELL DATA SHEET

Amerada Petroleum Grporation F. E. Chartier <u>2</u> <u>660N 660W</u> <u>23</u> <u>95</u> <u>32E</u> WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE</u> Drilled 25 2 Pennsylvanian oil well Drilled in 1955 Schematic Tabular Data Surface Casing Size $13\frac{1}{8}$ " Cemented with 275 sx. TOC Surface feet determined by Circulated Hole size 172 Intermediate Casing Size $\frac{85/8}{750}$ "Cemented with $\frac{500}{500}$ sx. 85/8 pulled from 320' TOC 735 feet determined by Temp. Survey 255x5@750' Hole size // 133/8 @ 300' mm min Long string Size 55 "Cemented with 600 sx. TOC 7516 feet determined by Temp. Survey Hole size 77/8 85/8"@ 3522' <u>9202</u> feet to <u>92/4</u> feet (perforated or open-hole, indicate which) 5'z" pulled from 4150' 325 5x3 3456' m 25 5x5 @ 7600' mul mm 25 3x3 @ 8990' mm 3255x5 @ 9840' 51/2 @ 10,170' nm 50 5x 5 @ 10,436' Tubing size ______ lined with _____ _____ set in a (material) feet _ packer at (brand and model) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable) ____

LEGAL NOTICE

APPLICANT:

DWIGHT A. TIPTON P. O. 1597 LOVINGTON, NEW MEXICO 88260 [505] 396-2114

REQUESTS THE OIL CONSERVATION DIVISION TO AUTHORIZE A CHANGE IN THE PACKER SETTING DEPTH IN THE STATE 14 SALT WATER DISPOSAL WELL NO.1, LOCATED 1650 FEET FROM THE SOUTH AND 330 FEET FROM THE WEST OF SECTION 14, TOWNSHIP 9 SOUTH, RANGE 32 EAST, NMPM, LEA COUNTY, NEW MEXICO, FROM 10,855 FEET TO A DEPTH OF 4850 FEET. IT IS FURTHER REQUESTED THAT THE INJECTION INTERVAL BE EXTENDED TO INCLUDE THE INTERVAL FROM 5000-9970 FEET AND FROM 11,085-11,102 FEET TO INCLUDE THE FOLLOWING FORMATIONS:

GLORIETA BLINEBRY TUBB ABO WOLFCAMP PENNSYLVANIAN DEVONIAN

THE SUBJECT WELL IS USED TO DISPOSE OF PRODUCED OIL FIELD BRINE WATERS AND THE PRESENT VOLUME DISPOSED OF IS 300 BARRELS PER DAY WITH A MAXIMUM VOLUME OF 400 BARRELS PER DAY. THE PRESENT INJECTION PRESSURE IS ZERO AND THE INJECTION PRESSURE WILL NEVER EXCEED ZERO.

INTERESTED PARTIES MUST FILE OBJECTIONS OR REQUESTS FOR HEARING WITH THE OIL CONSERVATION DIVISION, P. O. BOX 2088, SANTA FE, NEW MEXICO 87504-2088 WITHIN 15 DAYS.

REQUESTS FOR FURTHER INFORMATION SHOULD BE MADE TO :

JOE D. RAMEY P. O. BOX 6016 HOBBS, NEW MEXICO 88241-6016 [505] 392-6525 MUL CONSERV IN DIVISION STATE OF NEW MEXICO



ENERGYFMINERALS AND NATURAL RESOURCES DEPARTMENT 91 MAY 20 AM 9 30 IL CONSERVATION DIVISION

5-17-91

HOBBS DISTRICT OFFICE

BRUCE KING GOVERNOR POST OFFICE BOX 1980 HOBBS, NEW MEXICO 88241-1980 (505) 393-6161

OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

RE: Proposed: MC DHC______ NSL NSP______ SWD X amend (R-57612) WFX_____ PMX

Gentlemen:

I have examined the application for the:

ate 14 #1-2 14-9-32 ase & Well No. Unit S-T-R Operator

and my recommendations are as follows:

44 mh ÷ . 1220 onia

very truly. Yours Jerry Sexton

Supervisor, District 1

/ed

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Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size	11,102 500-F 8 \$ 18 @ 3504 3487 7 18 54H Gel Starcht Oil	· · · · · · · · · · · · ·		@	@ 			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole	11,102 500 F 8 \$ /8 @ 3504 3487. 7 1/8 Salt Gel Starcht Oil 9.6 60		CC		@ 			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity	11,102 500-F 8 5/8 @ 3504 3487 7 1/8 Salt Gel Starcht Oil 9.6 60							
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss	11,102 500-F 8 5/8 @ 3504 3487 7 1/8 Salt Gel Starcht Dil 9.6 60 7.0 6.4 cc Dit			c				
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample	11,102 5007 8 5/8 @ 3504 3487 7 1/8 Satt Sel Starch + Oil 9.6 60 7.0 6.4 cc Dit .087@75 °F	@		c	c c			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample Rm @ Meas. Temp. Rmf @ Meas. Temp.	11,102 500-F 8 5/8 @ 3504 3487 7 18 59H Sed 57Arch+ Oil 9.6 60 7.0 6.4 cc 10;7 087@75 °F 083@75 °F	 @	°F	© °	C			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample Rm @ Meas. Temp. Rmf @ Meas. Temp. Rmc @ Meas. Temp.	11,102 5urf 8 ⁵ /8 @ 3504 3487 7 ¹ /8 Salt Gel Starcht Oil 9.6 60 7.0 6.4 cc 10;7 087@ 75 °F 083@ 75 °F - @ - °F	 @ @	°F °F	© °	C			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample Rm @ Meas. Temp. Rmf @ Meas. Temp. Rmc @ Meas. Temp. Source of flmf and Rmc	11,102 5urf 8 ⁵ /8 @ 3504 3487 7 ¹ /8 Salt Gel Starcht Oil 9.6 60 7.0 6.4 cc 10:7 087@75 °F 083@75 °F - @ - °F M -	@ @ @ @	°F °F		C			
Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample Rm @ Meas. Temp. Rmf @ Meas. Temp. Rmc @ Meas. Temp. Source of Rmf and Rmc Rm @ BHT	11,102 500-F 8 5/8 @ 3504 3487 7 7 8 54H Ge 5tarch + Oil 9.6 60 7.0 6.4 cc 12; + .083@ 75 °F - @ - °F M - 032@ 200°F	@ @ @ @	°F °F °F		c F C F C F C C C C C C C C C C C C C C			
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Depth—Logger Bottom Logged Interval Top Logged Interval Casing—Driller Casing—Logger Bit Size Type Fluid in Hole Density and Viscosity pH and Fluid Loss Source of Sample Rm @ Meas. Temp. Rmf @ Meas. Temp. Rmf @ Meas. Temp. Source of Rmf and Rmc Rm @ BHT Time Since Circ. Max. Rec. Temp. Deg. F.	11,102 500-F 8 5/8 @ 3504 3487 7 1/8 Saft Gel Starch + Oil 9.6 60 7.0 6.4 cc Dit .087@75 °F .083@75 °F .083@75 °F .083@75 °F .083@75 °F .032@200°F 5 h-s 200 °F	@ @ @ @	° F ° F ° F		C			
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DG MERSURED FROM KB 12.0 FT. ABOVE PERM. DATUM D.F. NR RILLING MEASURED FROM KB G.L. NA ATE • TIME LOGGED 04/18/91 12:30 PM TYPE OF FLUID IN HOLE MATER UN NO. OME DENSITY OF FLUID NA EPTH - DRILLER 5000 PBTD FLUID LEVEL FLUID LEVEL FALLING EPTH - LOGGER 4993 CEMENT TOP EST LOGGED NA TM. LOGGED INTERVAL 4983 EQUIPMENT : LOCATION 3416 HOBBS.NH OP LOGGED INTERVAL SURFACE RECORDED BY HAMMOND AX TEMP. DECREE NA HITNESSED BY PORTER EMENTING DATA SURFACE STRING PROTECTION STRING PRODUCTION STRING LINER ATEMT GENENTED NA Internet Internet RIMARY/SQUEEZE NA Internet Internet Internet VPCTED NA Internet Internet Internet ORMULATION Internet Internet Internet Internet UD TYPE/MUD HEIGHT Internet Internet Internet Internet IND BOREHOLE RECORD CASING AND TUBING RECORD Internet Internet		LIBURTON G SERVICES, INC LOG	. A	COUSTIC Bowd		
ENRANGENT DATUM GL ELEV. NA ELEV. :K.B. NA DG MEASURED FROM KB 12.0 FT. ABOVE PERM. DATUM D.F. NA RILLING MEASURED FROM KB 12.0 FT. ABOVE PERM. DATUM D.F. NA RILLING MEASURED FROM KB G.L. NA G.L. NA ATE @ TIME LOGGED 04/18/91 12:30 PM TYPE OF FLUID IN HOLE WATER UN NO. ONE DENSITY OF FLUID NA G.L. NA EPTH - DRILLER 5000 PBTD FLUID LEVEL FLUID LEVEL FALLING EPTH - LOGGER 4993 CEMENT TOP EST LOGGED NA TM. LOGGED INTERVAL 4983 EOUIPMENT 1 LOCATION 3416 HOBBS.NH OP LOGGED INTERVAL SURFACE RECORDED BY HOMMOND AX TEMP. DECREE NA HITNESSED BY PORTER EMENTING DATA SURFACE STRING PROTECTION STRING PRODUCTION STRING LINER ATEMP. JCCREE NA HITNESSED BY PORTER EMENTING DATA SURFACE STRING PROTECTION STRING PRODUCTION STRING LINER ATEMP. STRENGTH	DWIGHT A. T.L.T.CH. STATE 14 NO. 1 SWD D NA V LEA ST	HELL STATE : FIELD NA COUNTY LEA API NO. NA	14 NO.1 SHD	10TH		
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