

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance ☒ Disposal Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: ENDURANCE RESOURCES LLC
ADDRESS: P.O. BOX 1466 ARTESIA, NM 88211
CONTACT PARTY: RANDALL HARRIS PHONE: (575) 308-0722
- 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.
- 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 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.
- 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 sources 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.
- NAME: RANDALL HARRIS TITLE: GEOLOGIST
SIGNATURE: [Signature] DATE: 6/30/11
E-MAIL ADDRESS: rharrisnm@yahoo.com
- * If the information required under Sections VI, VII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances 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 the 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.

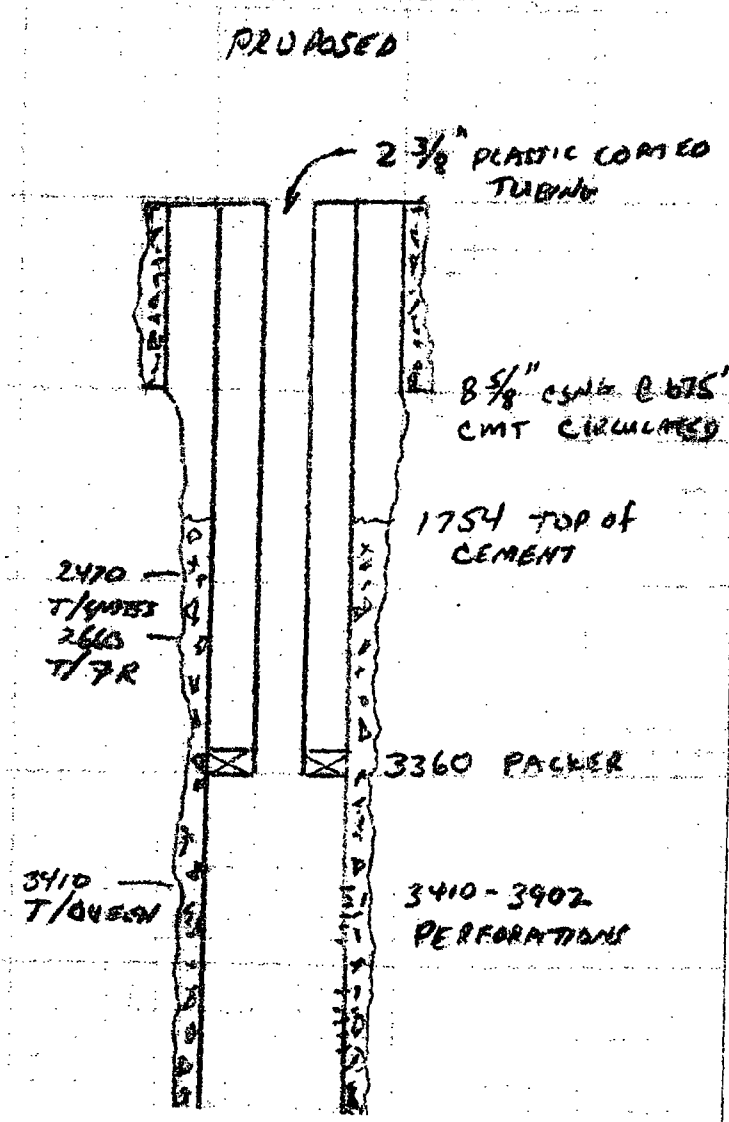
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

INJECTION WELL DATA SHEET

OPERATOR: ENDURANCE RESOURCES LLCWELL NAME & NUMBER: HINKLE B FEDERAL #19 30-015-24527WELL LOCATION: 990 FNL & 330 FWL D 34 185 31E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 11 1/4" Casing Size: 8 5/8"Cemented with: 400 SX. or _____ ft³Top of Cement: SURFACE Method Determined: CIRCULATEDIntermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ SX. or _____ ft³

Top of Cement: _____ Method Determined: _____

Production CasingHole Size: 7 7/8" Casing Size: 4 1/2"Cemented with: 930 SX. or _____ ft³Top of Cement: 1754' Method Determined: BOND LOGTotal Depth: 4200'Injection Interval3410 feet to 3902 PERFORATED

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8 Lining Material: PLASTIC
 Type of Packer: NICKLE PLATED MOD R
 Packer Setting Depth: 3360
 Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes X No
 If no, for what purpose was the well originally drilled? OIL & GAS

2. Name of the Injection Formation: QUEEN/GRAYBURG
3. Name of Field or Pool (if applicable): SHUGART Y-7R-Qn-GB
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 2662-2802*
PROPOSE TO SQUEEZE WITH 500 SXS CLASS C
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: MORROW 11,500'

HINKLE B FED #19
30-05-24527

CURRENT
CONDITION

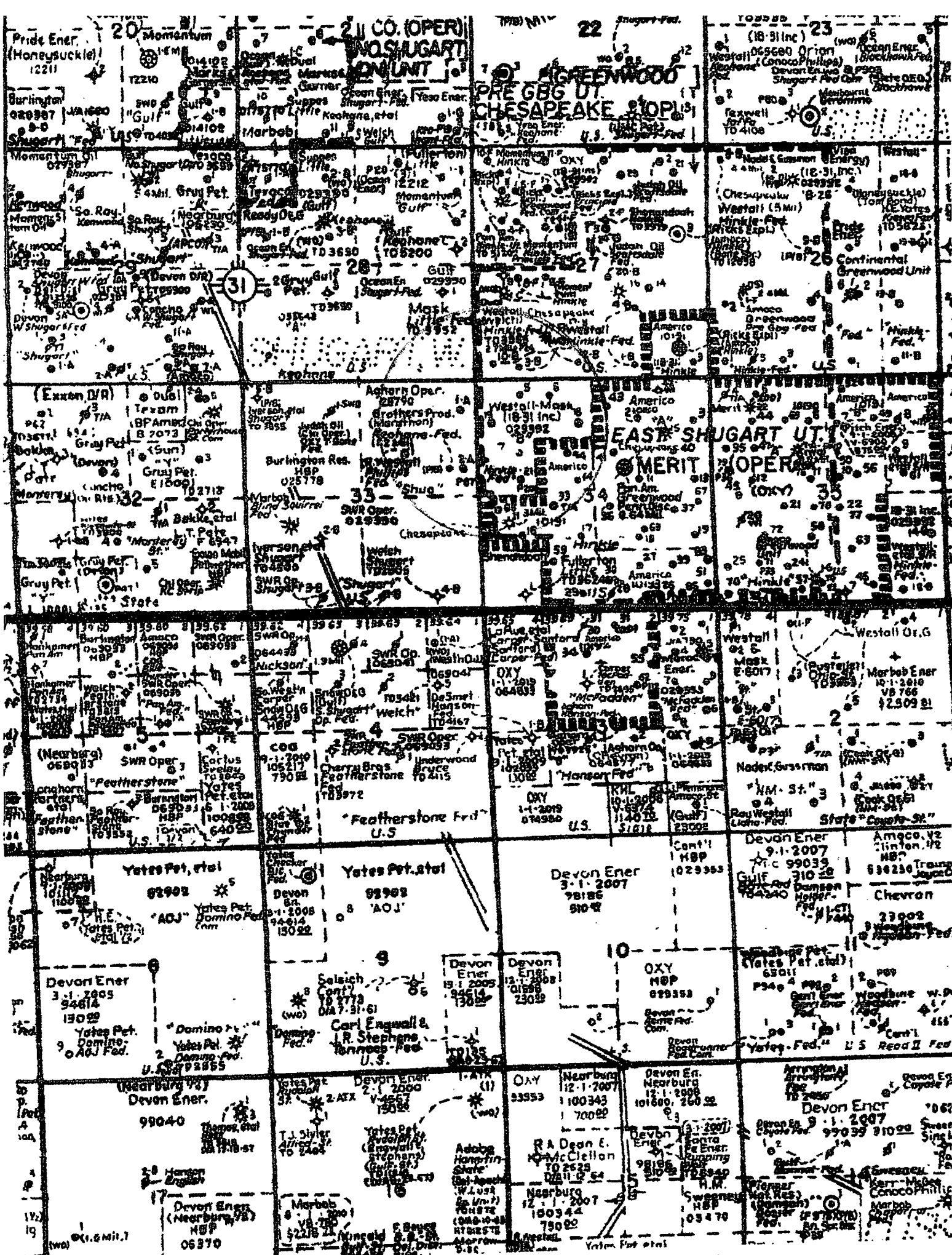
PROMISE
TO SUCCEED

2662-2802
YATES 7-R
PERFS

3410-3902
QA-68
PERFS

ATTACHMENT V

Maps that identifies all wells of public record within two miles of each proposed injection well, and the area of review one-half mile radius around each proposed injection well.





ATTACHMENT VI

Data on all wells of public record within the area of review. Included are schematics of the plugged wells that penetrated the proposed injection zone within the area of review.

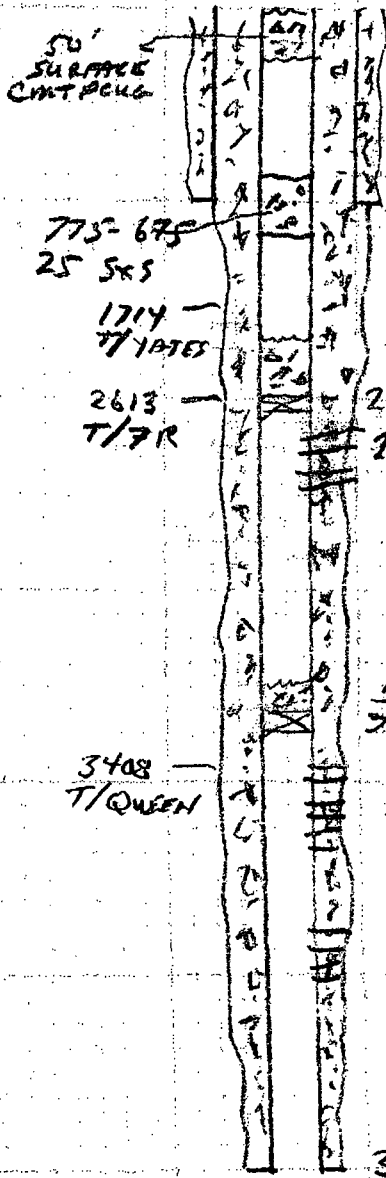
WELL NAME	API	LOCATION	SPUD DATE	SUR.CASING	INT.CASING	PROD. CASING	COMPLETION
Endurance Hinkle B Fed No. 2	30-015-21273	SWSE Sec 27 T18S-R31E	3/20/1974	8 5/8" @ 650' 390 sxs TOC Surface Calc.		4 1/2" @ 3643' 500 sxs TOC 1200' Calc	2576-2706 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 3	30-015-21273	SWSW Sec 27 T18S-R31E	8/27/1974	8 5/8" @ 650' 250 sxs TOC Surface Calc.		4 1/2" @ 3572' 400 sxs TOC 1500' Calc	3350-3500 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 10	30-015-22363	SWSW Sec 27 T18S-R31E	1/20/1978	8 5/8" @ 658' 300 sxs TOC Surface Calc		4 1/2" @ 3650' 400 sxs TOC 1600' Calc	3354-3506 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 17	30-015-10737	SESW Sec 27 T18S-R31E	re-entered 10/25/1981	7" @ 809' 300 sxs Circ		4 1/2" @ 3984' 700 sxs Circ	3580-3796 3460-3480 2552-2598 Shugart Y-7R-Qn-GB
Canyon E & P Shug A No.1	30-015-22209	NENE Sec 33 T18S-R31E	8/24/1977	8 5/8" @ 710' 500 sxs Circ		4 1/2" @ 4300' 675 sxs TOC 1900' Temp	2622-2714 3412-3622 3784-3903 Shugart Y-7R-Qn-GB
Canyon E & P Shug A No.2	30-015-22221	SENE Sec 33 T18S-R31E	9/7/1977	8 5/8" @ 720' 500 sxs Circ		4 1/2" @ 2900' 350 sxs TOC 1650' Temp	2672-2766 Shugart Y-7R-Qn-GB
Ray Westall Phillips Fed No. 1 P & A see schematic	30-015-26159	SWNE Sec 33 T18S-R31E	9/27/1989	8 5/8" @ 725' 400 sxs Circ		5 1/2 " @ 3930' 825 sxs Circ	2668-2731 3412-3563 3646-3857 Shugart Y-7R-Qn-GB

Endurance Hinkle B Fed No. 5	30-015-21613	NWNW Sec 34 T18S-R31E	8/17/1975	8 5/8" @ 650' 300 sxs TOC Surface Calc	5 1/2" @ 3634 300 sxs TOC 2650' Bond log	2536-2790 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 6	30-015-21697	NENW Sec 34 T18S-R31E	1/8/1976	8 5/8" @ 650' 300 sxs TOC Surface Calc	4 1/2" @ 4481' 300 sxs TOC 2074' Bond log	2554-2750 3600-3662 3782-3800 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 7	30-015-21888	SWNW Sec 34 T18S-R31E	8/27/1976	8 5/8" @ 650' 272 sxs TOC Surface Calc	4 1/2" @ 3935' 800 sxs TOC 1538 Bond log	3558-3854 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No. 18	30-015-24279	NENW Sec 34 T18S-R31E	10/13/1982	9 5/8" @ 654' 400 sxs Circ	4 1/2" @ 4492' 875 sxs + 300 Bradenhead squeeze Surface	3756-3804 2594-2746 Shugart Y-7R-Qn-GB
Endurance Hinkle B Fed No 21	30-015-26579	SWNW Sec 34 T18S-R31E	2/14/1991	8 5/8" @ 790' 500 sxs Circ	4 1/2" @ 4500' 900 sxs Circ	2694-2757 Shugart Y-7R-Qn-GB
Americo Energy East Shugart Unit No. 15	30-015-05687	SENW Sec 34 T18S-R31E	1/7/1959	8" @ 875' 50 sxs TOC 675' EST	7" @ 4075' 225 sxs TOC 2110' Bond Squeeze 2070' w 550 sxs Circ	SWD 3821-3838 Shugart Y-7R-Qn-GB
Americo Energy East Shugart Unit No. 16	30-015-05688	SWNW Sec 34 T18S-R31E	7/26/1959	8" @ 862' 50 sxs TOC 682' EST	5 1/2" @ 2900' 150 sxs TOC 2230 CBL Squeeze @ 890' W/ 870 sxs Squeeze @ 2634-2777 W/1250 sxs	SWD open hole 2902-3892

Americo Energy East Shugart Unit No. 33	30-015-26484	NESW Sec 34 T18S-R31E	9/28/1990	8 5/8" @ 963' 600 sxs Circ		5 1/2" @ 3999' 1500 sxs Circ	SWD 3400-3875 Shugart Y-7R-Qn-GB
Americo Energy East Shugart Unit No. 54	30-015-27948	SENW Sec 34 T18S-R31E	7/30/1994	8 5/8" @ 954' 500 sxs Circ.		5 1/2" @ 3923' 1050 sxs Circ	2670-2727 3757-3763 3824-3834 Shugart Y-7R-Qn-GB
Americo Energy East Shugart Unit No. 66	30-015-27955	NWSW Sec 34 T18S-R31E	7/23/1994	8 5/8" @ 975' 500 sxs Circ		5 1/2" @ 3988' 1000 sxs Circ	2642-2784 3660-3686 3801-3888 Shugart Y-7R-Qn-GB
Chesapeake Greenwood No. 11	30-015-22602	NWSW Sec 34 T18S-R31E	10/15/1978	13 3/8" @ 721' 800 sxs Circ	9 5/8" @ 4601' 1875 sxs Circ	5 1/2" @ 12220' 1950 sxs TOC 4020' Temp	11854-11906 Shugart Penn

PFA

PHILLIPS FED #1
30-025-26159
G SEC 33
185-31E



725' 8 1/8" CMT
CMT CIRC

2568'-2618 CMT 10 SXS
2618 CTRP
2668-2731
YATES 7R PERFS

5 SXS CMT
3380 CTRP

3412-3857
ON - 68 PERFS

3930 5 1/2"
CMT CIRCULATED

ATTACHMENT VII

Endurance Resources LLC proposed to convert this to a SWD. Cement squeeze perforations 2662-2802. . Pressure test well as OCD requires.

- 1) Plan to inject approximately 250 bpd of produced water from Tritex own operation on lease.**
- 2) System will be closed.**
- 3) Average injection pressure should be approximately 500#.**
- 4) Water from the offset production if from the Shugart Y,7-R-Q,Grayburg.**

ATTACHMENT VIII

The proposed injection zone is sands of the Queen and Grayburg formations. In this area the Queen Grayburg is approximately 500' thick and consists of limestone and sand. In the proposed disposal well the Queen is 3400' and the Grayburg 3820'.

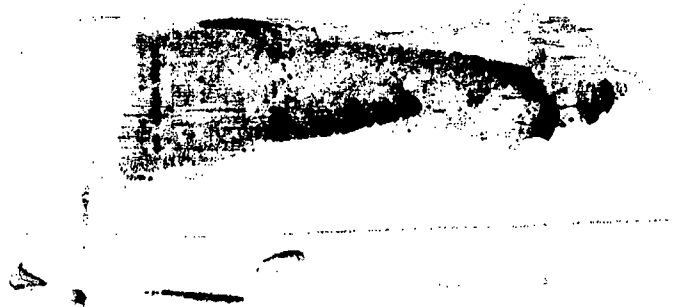
There is possible drinking water overlying the injection in the surface sands at a depth of 0-250'. There is no known source underlying the injection interval, But non reported by the New Mexico State Engineer Office.

ATTACHMENT IX

No stimulation proposed.

ATTACHMENT XI

There is no active fresh water wells within one mile.





New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

Basin/County Search:

Basin: Carlsbad

County: Eddy

UTMAD83 Radius Search (In meters):

Easting (X): 602284

Northing (Y): 3622196

Radius: 3000

Usage Filter:

Use: All Usages

ATTACHMENT XII

I, Randall L. Harris, have examined all available geologic and engineering data and there is no evidence of open faults or any other hydrologic connection between the disposal zone and any source of drinking water.

ATTACHMENT XIV

PROOF OF NOTICE

Leasehold operators within one-half mile of the well location are: Canyon E & P, Americo Energy and Chesapeake. Each of the operators were provided a copy of our application by certified mail. Proof of notice is enclosed. The surface owner is the United States of America, BLM.

PROOF OF PUBLICATION

Proof of publication is attached.

Copies of this application have been sent to:

Canyon E & P Co
251 O'Connor Ridge Blvd
Suite 253
Irving, Tx 75039

Americo Energy
7575 San Felipe
Suite 200
Houston, TX 77063

Chesapeake Operating
P.O. Box 18496
Oklahoma City, OK 73154-0496

Surface Owner

BLM
620 E. Greene
Carlsbad, NM 88220

Affidavit of Publication

NO.

21633

STATE OF NEW MEXICO

County of Eddy:

Walt Green

Walt Green

being duly sworn, says that he is the Publisher
of the Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/days on the same

day as follows:

First Publication

April 21, 2011

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

22nd day of

April

2011



OFFICIAL SEAL

Danny Scott

NOTARY PUBLIC STATE OF NEW MEXICO

My commission expires: 3/18/2014

Danny Scott
Danny Scott

Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICES

Endurance Resources LLC P.O. Box 1266 Artesia, New Mexico 88211 Phone (575) 308-0722. Contact party for Endurance Resources LLC Operator is Randall Harris. Is seeking administrative approval from the New Mexico Oil Conservation Division to utilize a well located 990 FNL & 330 FWL Section 34 Township 18 South Range 2 East Eddy County, New Mexico known as the Hinkle B Federal #19 for water injection. Proposed injection is in the Grayburg formation through perforations 3786-3902 feet. Expected maximum injection rate of 300 bbls per day at 650 psi. Interested parties must file objection or requests for hearing with the Oil Conservation Division, 1220 So. St. Francis Drive, Santa Fe, NM 87505 within 15 days of the notice. Published in the Artesia Daily Press, Artesia, N.M., April 21, 2011. Legal Notice 21633.

Sent To **AMERICO ENERGY**
Street, Apt. No. or PO Box No. **7575 SAN FELISA STE 200**
City, State, ZIP+4 **HOUSTON, TX 77063**
PS Form 3800, August 2006 See Reverse for Instructions