CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS SWD 571

Operator: SIETE O+G CORP. Well: GERONIMO FED WELL NO. 11

Contact: DARRIN STEED Title: RES. ENG. Phone: (505) 622-2202

DATE IN 9-14-94 RELEASE DATE 9-28-94 DATE OUT 11-2-94

Proposed Injection Application is for: ___ WATERFLOOD ___ Expansion ___ Initial

Original Order: R- _____ ___ Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS X SALT WATER DISPOSAL

___WIPP ___ Capitan Reef ___ Commercial Operation

Data is complete for proposed well(s)? ___ Additional Data _____

AREA of REVIEW WELLS

12 Total # of AOR 1 # of Plugged Wells

4+3 Tabulation Complete 4+5 Schematics of P & A's

4+5 Cement Tops Adequate NO AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) DELAWARE (4636'-5198') (CHERRY CANYON)

Source of Water PRODUCED - DELAWARE, QUEEN, GRAYBURG Compatible 4+3

PROOF OF NOTICE

X Copy of Legal Notice X Information Printed Correctly

X Correct Operators X Copies of Certified Mail Receipts

___ Objection Received ___ Set to Hearing _____ Date

NOTES: _____

_____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL 4+5

COMMUNICATION WITH CONTACT PERSON:

1st Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

2nd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

3rd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Siete Oil & Gas Corporation

Address: P.O. Box 2523 Roswell, NM 88202-2523

Contact party: Darrin Steed Phone: 505-622-2202

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 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.

Name: DARRIN STEED Title RESERVOIR ENGINEER

Signature: Darrin Steed Date: August 22, 1994

* 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.

DISTRIBUTION: Original and one copy to Santa Fe

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.

SIETE OIL & GAS CORPORATION

Geronimo Federal No. 11 - Convert to Injection

NMOCD Form C-108 Section III

III. Data on injection well.

A. Injection well information (see attached schematic)

1. Lease: Geronimo Federal

   Well No: 11

   Location: 990' FSL & 330' FEL
   Section 24, T-18-S, R-31-E
   Eddy County, NM

2. Casing: Surface - 8 5/8", 24# @ 364', cmt'd w/230 sks., circ to surface.

   Production - 5 1/2", 15.5# @ 5499', cmt'd w/1330 sks., cmt to surface.

3. Tubing: 2 3/8", 4.7#, J-55 internally coated set @ 4580'

4. Packer: Baker Model AD-1 set @ 4580'.

B. Other well information

1. Injection formation: Delaware

   Field: East Shugart Delaware

2. Existing cased hole perforated from 4636' - 4651' and proposed perforations from 5102' - 5198'.

3. The Geronimo Federal #11 was originally drilled for oil and gas production.

4. There are no other perforated or tested zones in the Geronimo Federal #11.

5. The Grayburg is productive at about 4300' and there are no lower productive zones below the Delaware.

SIETE OIL & GAS CORPORATION

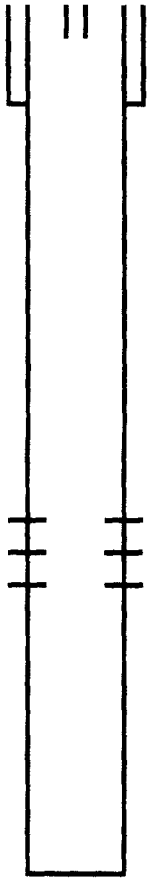
WELL: GERONIMO FEDERAL #11
FIELD: E. SHUGART DELAWARE
INTERVAL: DELAWARE
Comp: 9/30/87
IP: 50 BOPD, 115 BWPD, 30 MCFGPD (GOR 600)
Spudded: 12 1/4" HOLE ON 9/3/87

LOCATION:
990 FSL & 330' FEL
SEC 24 T18S R31E
EDDY COUNTY, NM

API #: 30-015-25803

CURRENT STATUS

ELEVATION: 3709' KB
ZERO: 8' AGL



SURFACE CASING:
RAN 8 JTS, 8 5/8", 24# CSG, SET @ 364'
CMT W/230 SXS, CIRC.

EQUIPMENT IN HOLE

2 JTS OF 2 3/8"

PRESENT COMPLETION INTERVAL:
DELAWARE
PERF 4636-4651' (11 SHOTS) W/1000 GAL 15%,
32,000 CROSSLINK, 4,000# 100 MESH, 44,000# 20/40
20,000# 12/20.

PRODUCTION CASING:
RAN 136 JTS, 5 1/2", 15.5# CSG, SET @ 5500'
CMT W/1330 SXS, CMT TO SURF.

WELL T & A

DRAWN BY: BJG
DATE: MAY 13, 1993

TD: 5500'
PBTD: 5489'

SIETE OIL & GAS CORPORATION

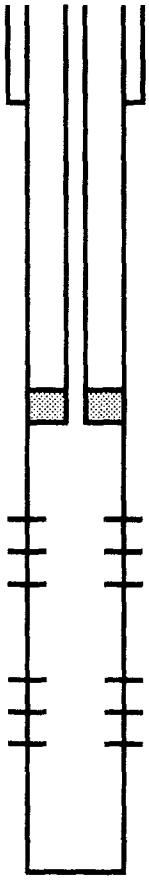
WELL: GERONIMO FEDERAL #11
FIELD: E. SHUGART DELAWARE
INTERVAL: DELAWARE
Comp: 9/30/87
IP: 50 BOPD, 115 BWPD, 30 MCFGPD (GOR 600)
Spudded: 12 1/4" HOLE ON 9/3/87

LOCATION:
990 FSL & 330' FEL
SEC 24 T18S R31E
EDDY COUNTY, NM

API #: 30-015-25803

PROPOSED STATUS

ELEVATION: 3709' KB
ZERO: 8' AGL



SURFACE CASING:
RAN 8 JTS, 8 5/8", 24# CSG, SET @ 364'
CMT W/230 SXS, CIRC.

EQUIPMENT IN HOLE

2 3/8" COATED TUBING
BAKER MODEL AD-1 @ 4580'

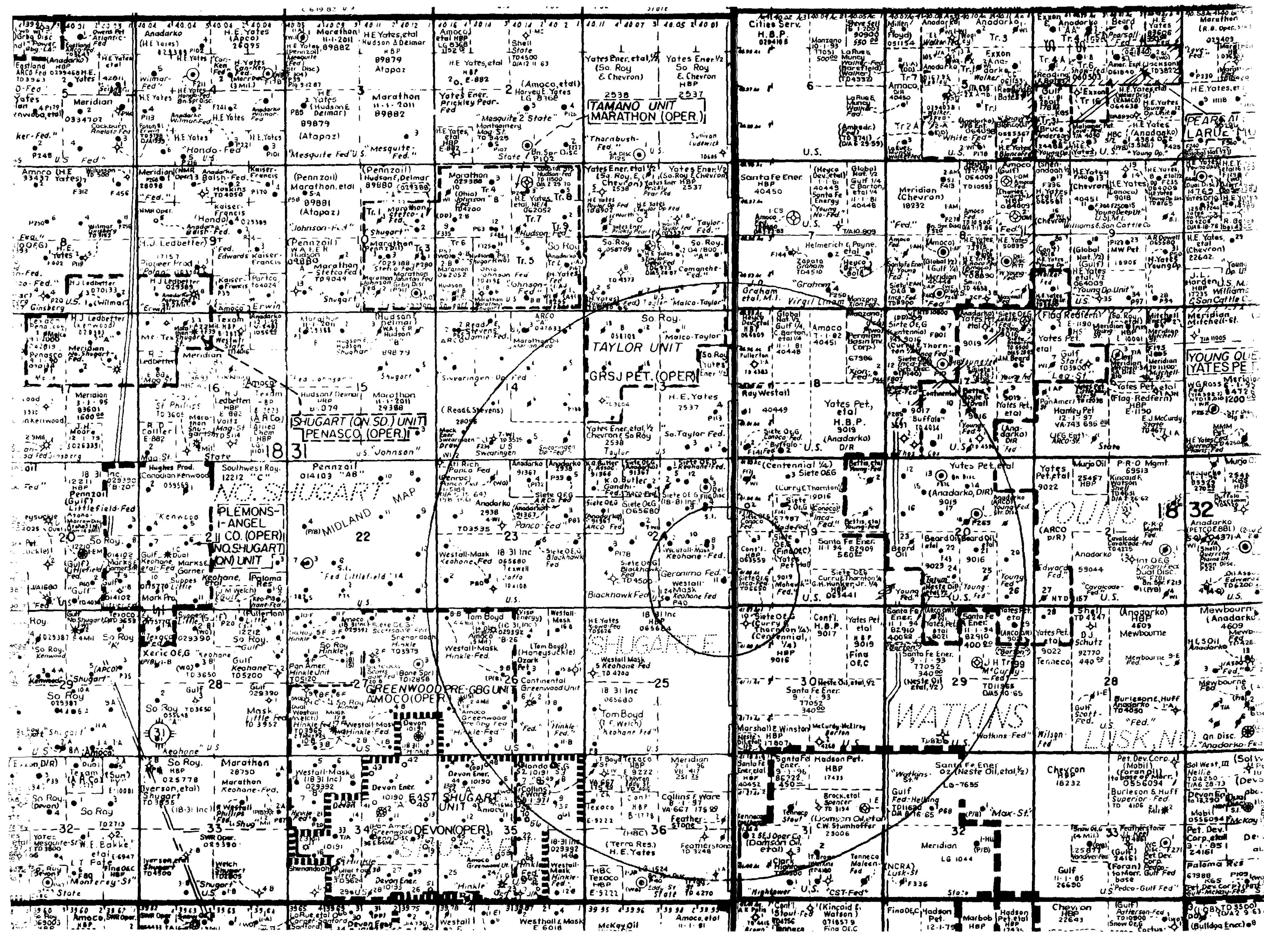
PRESENT COMPLETION INTERVAL:
DELAWARE
PERF 4636-4651' (11 SHOTS) W/1000 GAL 15%,
32,000 CROSSLINK, 4,000# 100 MESH, 44,000# 20/40
20,000# 12/20.

PROPOSED ADDITIONAL PERFS:
PERF 5102' - 5198'

PRODUCTION CASING:
RAN 136 JTS, 5 1/2", 15.5# CSG, SET @ 5500'
CMT W/1330 SXS, CMT TO SURF.

DRAWN BY: BJG
DATE: MAY 13, 1993

TD: 5500'
PBTD: 5489'


TAMANO UNIT MARATHON (OPER.)
TAYLOR UNIT
GRSJ PET. (OPER)
SHUGART (QN. SD.) UNIT PENASCO (OPER.)
NO. SHUGART "MIDLAND" MAP
PLEMONS-I-ANGEL CO. (OPER) NO. SHUGART (QN) UNIT
GREENWOOD PRE-GBG UNIT AMOCO (OPER)
EAST SHUGART UNIT
DEVON (OPER)
SHUGART E.
YOUNG
WATKINS
LUSK, NO.
YOUNG QUE[EN] YATES PET
PEARSALL LARUE

WELL NAME	OPERATOR	LOCATION	TYPE OF WELL	SPUD DATE	COMP. DATE	TD PBTD	COMP. INTERVAL	PROD. FORM.	CASING PROGRAM
CONOCO #3	SIETE	2310' FSL & 660' FWL SEC. 19, T18S R32E	OIL	12/27/87	2/12/88	5650' 5596'	5054–5215'	DEL	8 5/8" SRF. CSG @ 376', CMT W/230 SKS, CIRC. 5 1/2" PRD. CSG @ 5636', CMT W/1425 SKS
GERONIMO #1	SIETE	2310' FNL & 2310' FEL SEC. 24, T18S R31E	OIL	11/7/84	2/17/85	6417' 4748'	4268–4285' 3754–3774'	QPG	8 5/8" SRF. CSG @ 846', CMT W/415 SKS, CIRC. 5 1/2" PRD. CSG @ 5367', CMT W/900 SKS
GERONIMO #4	SIETE	1650' FNL & 990' FEL SEC. 24, T18S R31E	OIL	11/30/85	12/20/85	6550' 5321'	5016–5074'	DEL	13 3/8" SRF. CSG @ 357', CMT W/400 SKS, CIRC. 8 5/8" INT. CSG @ 2248', CMT W/1030 SKS, CIRC. 5 1/2" PRD. CSG @ 5365', CMT W/840 SKS.
GERONIMO #7	SIETE	1750' FNL & 990' FEL SEC. 24, T18S R31E	OIL	4/21/86	5/06/86	4500' 4489'	4299–4310' 4250–4262' 3750–3770'	QPG	8 5/8" SRF. CSG @ 362', CMT W/230 SKS, CIRC. 5 1/2" PRD. CSG @ 4499', CMT W/700 SKS, CIRC.
GERONIMO #8	SIETE	2310' FSL & 990' FEL SEC. 24, T18S R31E	OIL	9/08/86	10/02/86	5500' 5441'	5042–5094'	DEL	8 5/8" SRF. CSG @ 350', CMT W/250 SKS, CIRC. 5 1/2" PRD. CSG @ 5497', CMT W/910 SKS, CIRC.
GERONIMO #9	SIETE	1730' FNL & 1650' FEL SEC. 24, T18S R31E	OIL	12/01/86	2/02/87	5400' 5360'	5022–5072' 5136–5166' 5258–5273'	DEL	8 5/8" SRF CSG @ 345', CMT W/200 SKS, CIRC. 5 1/2" PRD. CSG @ 5400', CMT W/1360 SKS, CIRC.
GERONIMO #10	SIETE	2310' FSL & 1650' FEL SEC. 24, T18S R31E	OIL	3/02/87	3/23/87	5500' 5471'	5041–5079'	DEL	8 5/8" SRF. CSG @ 350', CMT W/230 SXS, CIRC. 5 1/2" PRD. CSG @ 5496', CMT W/1300 SKS, CIRC.
GERONIMO #11	SIETE	990' FSL & 330' FEL SEC. 24, T18S R31E	OIL	9/03/87	9/30/87	5500' 5489'	4636–4651'	DEL	8 5/8" SRF. CSG @ 364', CMT W/230 SKS, CIRC. 5 1/2" PRD. CSG @ 5499', CMT W/1330 SKS.
INCA #2	SIETE	1700' FNL & 330' FWL SEC 19, T18S R32E	OIL	6/08/87	6/28/87	5500' 5460'	5259–5274'	DEL	8 5/8" SRF. CSG @ 372', CMT W/225 SKS, CIRC. 5 1/2" PRD. CSG @ 5500', CMT W/1170 SKS, CIRC.
INCA #10	SIETE	660' FNL & 330' FWL SEC 30, T18S R32E	P&A	5/31/88	6/16/88	6650'			8 5/8" SRF. CSG @ 373', CMT W/230 SKS, CIRC.
KEOHANE 24–1	WESTALL	330' FSL & 2310' FEL SEC. 24, T18S R31E	OIL	11/30/78	12/27/78	4200'	3785–4135'	QPG	8 5/8" SRF. CSG @ 685', CMT W/300 SKS. 4 1/2" PRD. CSG @ 4200', CMT W/365 SKS.
KEOHANE 24–2	WESTALL	2310' FSL & 2200' FEL SEC. 24, T18S R31E	OIL	10/18/85	12/11/85	4500' 4496'	4266–4338'	QPG	8 5/8" SRF. CSG @ 687', CMT W/410 SKS. 4 1/2" PRD. CSG @ 4496', CMT W/870 SKS.
KEOHANE 24–3	WESTALL	2200' FSL & 990' FEL SEC. 24, T18S R31E	OIL	10/9/87	11/25/87	4500'	4252–4292' 4300–4328'	QPG	8 5/8" SRF. CSG @ 749', CMT W/400 SKS. 4 1/2" PRD. CSG @ 4500', CMT W/750 SKS.

SIETE OIL & GAS CORPORATION

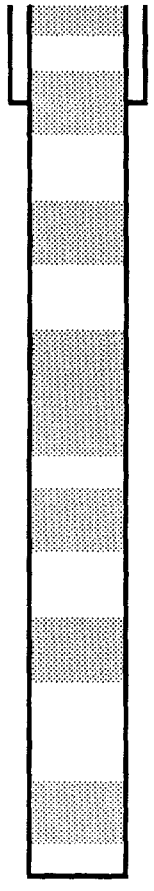
WELL: INCA FEDERAL #10
FIELD: E. SHUGART DELAWARE
INTERVAL: DELAWARE
Comp:
IP:
Spudded: 12 1/4" HOLE ON 6/1/88

LOCATION:
660' FNL & 330' FWL
SEC 30 T18S R32E
LEA COUNTY, NM

API #: 30-025-30346

CURRENT STATUS

ELEVATION: 3707' KB
ZERO: 8' AGL



TOPS

1. QUEEN – 3570'
2. GRAYBURG – 4060'
3. DELAWARE – 4746'
4. BONE SPRING – 6600'

EQUIPMENT IN HOLE

SURFACE CASING:
RAN 10 JTS, 8 5/8", 23# CSG, SET @ 373'
CMT W/230 SXS, CIRC.

PLUGS SET AS FOLLOWS:

1. 6495' – 6595' W/30 SKS.
2. 4646' – 4746' W/38 SKS.
3. 3470' – 3570' W/34 SKS.
4. 2070' – 2270' W/129 SKS.
5. 1000' – 1100' W/68 SKS.
6. 335' – 435' W/38 SKS.
7. 0' – 50' W/16 SKS.

WELL P & A

DRAWN BY: BJG
DATE: MAY 13, 1993

TD: 6650'
PBTD:

BUREAU OF LAND MANAGEMENT

NM-9016

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

OIL WELL [X] GAS WELL [ ] OTHER

NAME OF OPERATOR: Siete Oil & Gas Corporation

8. FARM OR LEASE NAME: Inca Federal

ADDRESS OF OPERATOR: P.O. Box 2523 Roswell, NM 88202

9. WELL NO.: 10

LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface: 660' FNL & 330' FWL, Unit Letter D

10. FIELD AND POOL, OR WILDCAT: E. Shugart Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 30: T18S, R32E

14. PERMIT NO.: 30-025-30346

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3707' KB

12. COUNTY OR PARISH: Lea

13. STATE: NM

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[X]
(Other)			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

6/12/88 Amend TD from 6500' to 6650'.

6/14/88 Reached TD 6650' on 6/14/88 @ 11:45 AM, RU Schlumberger, ran CNL-LDT-FDC, DLL-MSFL, EPT & Sonic logs from TD to 2400'. Well determined non-commercial. Plug and abandon as follows:

Set cement plugs:

1. 30 sx plug from 6595'-6495' (100')
2. 38 sx plug from 4746'-4646' (100')
3. 34 sx plug from 3570'-3470' (100')
4. 129 sx plug from 2270'-2070' (200')
5. 68 sx plug from 1100'-1000' (100')
6. 38 sx plug from 435'-335' (100')
7. 16 sx plug from 50'-surface (50')

Release rig @ 4:15 AM on 6/16/88.

RECEIVED

BLM verbal approval received from Mr. Shannon Shaw on 6/15/88.

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Production/Reservoir Engineer DATE 6/16/88

(This space for Federal or State office use)

APPROVED BY [signature] TITLE DATE 6-27-88

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Siete Oil and Gas Corporation

Geronimo Federal No. 11 - Convert to Injection

NMOCD Form C-108 Sections VII - XIII

VII. 1. Proposed average daily injection is 400 BWPD. Maximum daily injection is 750 BWPD.

2. This will be a closed system.

3. Proposed average injection pressure 700 psi. Proposed maximum injection pressure 920 psi*. *Note: Maximum injection pressure abides by the .2 psi/ft maximum injection pressure imposed by the NMOCD. Future increases in surface pressure will be obtained administratively from the NMOCD using field obtained "Step Rate Test" data.

4. Chemical analysis of injection and formation water (see attached water analysis).

   a. Proposed injection fluid will be produced water from offsetting Siete operated leases which currently produce from both the East Shugart Delaware and Shugart Queen/Grayburg Formations. These leases are:

Arco Federal	SE/4	NE/4	SEC 23	T-18-S	R-31-E
	N/2	NE/4	SEC 23	T-18-S	R-31-E
	SW/4	NW/4	SEC 24	T-18-S	R-31-E
	NE/4	NW/4	SEC 24	T-18-S	R-31-E
Conoco Federal	SW/4	SW/4	SEC 18	T-18-S	R-32-E
	NW/4	SW/4	SEC 19	T-18-S	R-32-E
Geronimo Federal	E/2		SEC 24	T-18-S	R-31-E
Inca Federal	NW/4	NW/4	SEC 19	T-18-S	R-32-E
	NE/4	NW/4	SEC 19	T-18-S	R-32-E
	SW/4	NW/4	SEC 19	T-18-S	R-32-E
Jade Federal	SE/4	NW/4	SEC 19	T-18-S	R-32-E
Mohawk Federal	NE/4	SW/4	SEC 19	T-18-S	R-32-E

5. Water injection will be into a zone productive of oil and gas.

VIII. 1. The injection interval in the proposed disposal well is in the Cherry Canyon Formation of the Delaware Mountain Group. The Cherry Canyon formation is a very fine to fine grained sandstone of the Guadalupian Series and Permian age. The Cherry Canyon formation occurs at a depth of 4576' (-867 subsea) and has a gross thickness of 516'. The proposed injection interval has a net porous thickness of about 65'. There are no sources of drinking water overlying or underlying the proposed injection interval.

IX. The proposed additional perforations will be stimulated similiar to the original completion.

X. Logs were filed at your office when the well was drilled. This well is currently uneconomic and has been shut-in since 12/92.

XI. There are no fresh water wells within one mile of this well.

XII. I, Darrin Steed, a Reservoir Engineer for Siete Oil and Gas Corporation and in behalf of, have compiled and examined all available geologic and engineering data and have not found any evidence of hydrologic connections between the proposed injection zone and any sources of underground drinking water.

XIII. See attached mailing list and registered mail cetificates for Proof of Notice.

EnviroChem, Inc.

WATER ANALYSIS REPORT

SAMPLE

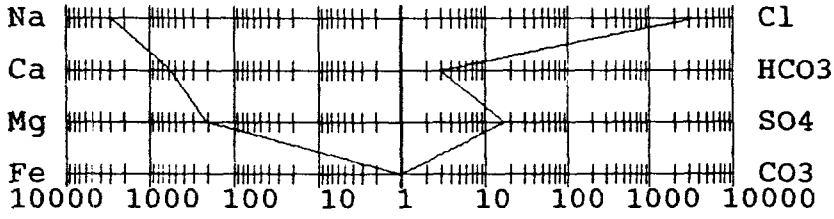
Oil Co. : **Siete Oil & Gas**
Lease : **Geronimo**
Well No.: **Federal 2**
Analysis:

Sample Loc. : **Injection Pump**
Date Sampled : **27-July-1994**
Attention :

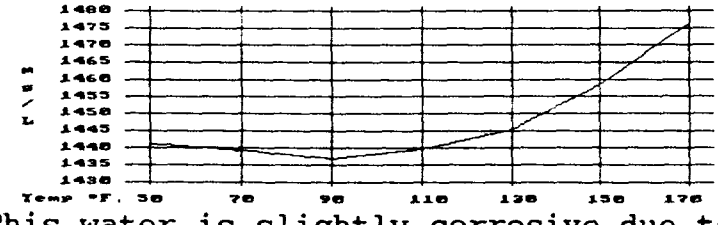
ANALYSIS

1.	pH		6.600		
2.	Specific Gravity 60/60 F.		1.133		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+0.890		
		@ 140 F.	+2.170		
	Dissolved Gasses		**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide		Not Present		
5.	Carbon Dioxide		Not Determined		
6.	Dissolved Oxygen		Not Determined		
	Cations				
7.	Calcium	(Ca^{++})	10,822	/ 20.1 =	538.41
8.	Magnesium	(Mg^{++})	2,431	/ 12.2 =	199.26
9.	Sodium	(Na^{+}) (Calculated)	65,122	/ 23.0 =	2,831.39
10.	Barium	(Ba^{++})	Not Determined		
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	171	/ 61.1 =	2.80
14.	Sulfate	($SO_4^{=}$)	800	/ 48.8 =	16.39
15.	Chloride	(Cl^{-})	125,972	/ 35.5 =	3,548.51
16.	Total Dissolved Solids		205,318		
17.	Total Iron (Fe)		12	/ 18.2 =	0.63
18.	Total Hardness As $CaCO_3$		37,033		
19.	Resistivity @ 75 F. (Calculated)		0.001 /cm.		

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.80	227
$CaSO_4$	68.07	16.39	1,116
$CaCl_2$	55.50	519.22	28,816
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	199.26	9,489
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	2,830.03	165,443

***Milli Equivalents per Liter**

This water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

EnviroChem, Inc.

WATER ANALYSIS REPORT

SAMPLE

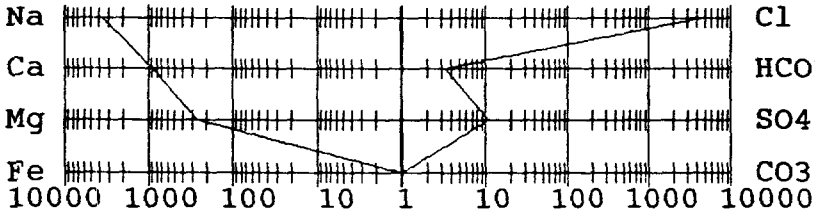
Oil Co. : **Siete Oil & Gas**
Lease : **Inca 1**
Well No.: **# 4**
Analysis:

Sample Loc. : **Battery**
Date Sampled : **27-July-1994**
Attention :

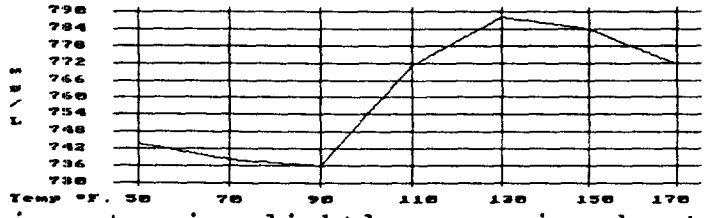
ANALYSIS

1.	pH		**6.200**		
2.	Specific Gravity 60/60 F.		**1.168**		
3.	$CaCO_3$ Saturation Index	@ 80 F.	**+1.551**		
		@ 140 F.	**+3.391**		
	Dissolved Gasses		**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide		**Not Present**		
5.	Carbon Dioxide		**Not Determined**		
6.	Dissolved Oxygen		**Not Determined**		
	Cations				
7.	Calcium (Ca^{++})		**17,335**	/ 20.1 =	**862.44**
8.	Magnesium (Mg^{++})		**3,100**	/ 12.2 =	**254.10**
9.	Sodium (Na^{+})	(Calculated)	**78,293**	/ 23.0 =	**3,404.04**
10.	Barium (Ba^{++})		**Not Determined**		
	Anions				
11.	Hydroxyl (OH^{-})		**0**	/ 17.0 =	**0.00**
12.	Carbonate ($CO_3^{=}$)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate (HCO_3^{-})		**195**	/ 61.1 =	**3.19**
14.	Sulfate ($SO_4^{=}$)		**500**	/ 48.8 =	**10.25**
15.	Chloride (Cl^{-})		**159,964**	/ 35.5 =	**4,506.03**
16.	Total Dissolved Solids		**259,387**		
17.	Total Iron (Fe)		**9**	/ 18.2 =	**0.49**
18.	Total Hardness As $CaCO_3$		**56,050**		
19.	Resistivity @ 75 F. (Calculated)		**0.001** /cm.		

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	3.19	259
$CaSO_4$	68.07	10.25	697
$CaCl_2$	55.50	849.00	47,120
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	254.10	12,100
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	3,402.93	198,935

***Milli Equivalents per Liter**

This water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

EnviroChem, Inc.

WATER ANALYSIS REPORT

SAMPLE

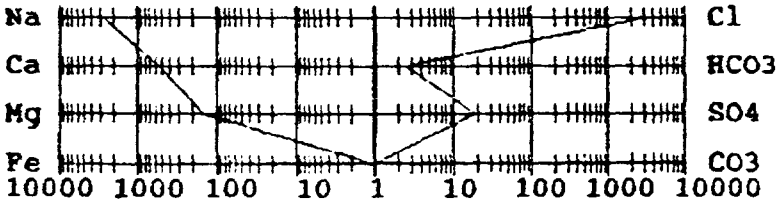
Oil Co. : Sicte Oil & Gas
Lease : Anadarko Tyke
Well No.: Federal #1
Analysis:

Sample Loc. : Water Tank
Date Sampled : 27-July-1994
Attention :

ANALYSIS

1.	pH		6.500		
2.	Specific Gravity 60/60 F.		1.128		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+0.561		
		@ 140 F.	+1.671		
	Dissolved Gasses		**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide		71		
5.	Carbon Dioxide		220		
6.	Dissolved Oxygen		Not Determined		
	Cations				
7.	Calcium	(Ca^{++})	10,120	/ 20.1 =	503.48
8.	Magnesium	(Mg^{++})	1,763	/ 12.2 =	144.51
9.	Sodium	(Na^{+}) (Calculated)	60,072	/ 23.0 =	2,611.83
10.	Barium	(Ba^{++})	Not Determined		
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	142	/ 61.1 =	2.32
14.	Sulfate	($SO_4^{=}$)	850	/ 48.8 =	17.42
15.	Chloride	(Cl^{-})	114,974	/ 35.5 =	3,238.70
16.	Total Dissolved Solids		187,921		
17.	Total Iron (Fe)		14	/ 18.2 =	0.77
18.	Total Hardness As $CaCO_3$		32,529		
19.	Resistivity @ 75 F. (Calculated)		0.007 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.32	188
$CaSO_4$	68.07	17.42	1,186
$CaCl_2$	55.50	483.74	26,848
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	144.51	6,881
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	2,610.46	152,607

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts, and the presence of H2S, CO2, Oxygen in solution.

Names and Addresses

Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Oil Conservation Division
P. O. Drawer DD
Artesia, New Mexico 88210

Ray Westall Operation, Inc.
Box 4
Loco Hills, New Mexico 88255

Bureau of Land Management
P. O. Box 1778
Carlsbad, New Mexico 88220

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Ray Westall
Box 4
Loco Hills, nm
88255

4a. Article Number
P 369 829 337

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
8-23-94

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
Dave Jackson

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

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- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Air Conservation
Division
P.O. Drawer DD
Artesia, nm 88210

4a. Article Number
P 369 829 338

4b. Service Type
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
08-23-94

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
Mark Ashley

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

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1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Bureau of Land Management
P.O. Box 1778
Carlsbad, NM 88220

4a. Article Number
P 369 829 339

4b. Service Type
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
8/23/94

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

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I also wish to receive the following services (for an extra fee):
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2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM
87504-1148

4a. Article Number
P 369 829 341

4b. Service Type
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
AUG 29 1994

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of

one weeks.

Beginning with the issue dated

August 26, 19 94

and ending with the issue dated

August 26, 19 94

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 30 day of

August, 19 94

Charlene Perrin
Notary Public.

My Commission expires
March 15, 1997
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
August 26, 1994

This is to advise all parties concerned, Siete Oil and Gas Corporation intends to convert the following well to Salt Water Disposal.

Geronimo Federal #11
990' FSL & 330' FEL
Section 24, T-18-S, R-31-E
Eddy County, New Mexico

The formation to be injected into is the Delaware at a depth of 4636' - 5200'. The maximum expected injection rate is 750 BWPD at a maximum injection pressure of 920 psi. Questions can be addressed to:

Siete Oil and Gas Corporation
P.O. Box 2523
Roswell, New Mexico 88202
Attention: Darrin Steed
Phone: (505) 622-2202

Interested parties must file objections or requests for hearing within 15 days of this notice to the:

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Affidavit of Publication

№ 16213

State of New Mexico,
County of Eddy, ss.

Amy McKay,
being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

August 26, 1994
_____, 19___
_____, 19___
_____, 19___
_____, 19___
_____, 19___
_____, 19___

That the cost of publication is $ 21.61, and that payment thereof has been made and will be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this 9th day of September, 1994

Donna Crump

My commission expires 08/01/98
Notary Public

August 26, 1994

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