ENGINEER PRG

01/23/14

TYPE SWID

RPNG 1402859907

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



		ADMINISTRATIVE APPLICATION CHECKLIST	
т	HIS CHECKLIST IS M	IANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATION WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE	IS
Applic	[DHC-Dow [PC-Po		
[1]	TYPE OF AI [A]	PPLICATION - Check Those Which Apply for [A] Location - Spacing Unit - Simultaneous Dedication NSL NSP SD	
	Check [B]	Cone Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM Triste Draw	ves u3F
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery ☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR	45i8
	[D]	Other: Specify (Active Gas	
[2]	NOTIFICAT [A]	Other: Specify ION REQUIRED TO: - Check Those Which Apply, or \(\text{Does Not Apply Son Range} \) Working, Royalty or Overriding Royalty Interest Owners Offset Operators, Leaseholders or Surface Owner Application is One Which Requires Published Legal Notice	ch emp
	[B]	☐ Offset Operators, Leaseholders or Surface Owner	,
	[C]	Application is One Which Requires Published Legal Notice	eval
	[D]	Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office	
	[E]	For all of the above, Proof of Notification or Publication is Attached, and/or,	
	[F]	☐ Waivers are Attached	
[3]		CURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYI ATION INDICATED ABOVE.	PE
	val is <mark>accurate</mark> a	TION: I hereby certify that the information submitted with this application for administrative and complete to the best of my knowledge. I also understand that no action will be taken on quired information and notifications are submitted to the Division.	
	Note	: Statement must be completed by an individual with managerial and/or supervisory capacity.	
	an Wagner or Type Name	Regulatory Analyst 1/15 Signature Title Date	5/14_
		e-mail Address	

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

1.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? X Yes No
11.	OPERATOR: EOG Resources, Inc.
	ADDRESS: P.O. Box 2267 Midland, TX 79702
	CONTACT PARTY: Stan Wagner PHONE: 432-686-3689
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 X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
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:
	 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; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, 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: Stan Wagner TITLE: Regulatory Analyst
	NAME: Stan Wagner SIGNATURE: DATE: 01/15/2014
*	E-MAIL ADDRESS: If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: Item X: type log previously submitted for SWD Order-1359

APPLICATION FOR AUTHORIZATION TO INJECT TRISTE DRAW 3 FED NO. 1

PROPOSED OPERATION VII.

- (1) Proposed Average Daily Rate and Volume: 5200 BWIPD Proposed Maximum Daily Rate and Volume: 10000 BWIPD
- (2) Open or Closed System: Closed
- (3) Proposed Average Injection Surface Pressure: 1000 psi Proposed Maximum Injection Surface Pressure: 2000 psi Note: Original Delaware formation BHP 9500 psi.



(5) N/A

VIII. GEOLOGIC DATA ON INJECTION ZONE

Injection Zone: Delaware Sandstone Perfs 5000' – 7200'

Lithologic Detail: Fine grain sandstone

Geological Name: Delaware Mountain Group (Guadalupian)

Thickness: Delaware – 3730'

Depth: Top of Delaware at 3200'

Underground Sources of Drinking Water:

Fresh water sources in the immediate area have been encountered in aguifers above 250'. These aguifers are found in the Pliocene age Ogallala and Pleistocene age alluvial sediments and consist for the most part of alternating calcareous silt, fine sand and clay. There are no other sources of fresh water underlying the injection interval.

- Ehron's 4/15/99 Sundry
een Delaware5/148/
ers
cene BS - 9278/ 3rd BS - 11940 WC-12418

- PROPOSED STIMULATION IX. 72 bbls Acetic Acid across perforations
- X. LOGGING AND TESTING DATA ON INJECTION WELL Logs have been previously submitted for this well.
- CHEMICAL ANALYSIS OF WATER FROM FRESH WATER WELLS XI. WITHIN ONE MILE OF THE INJECTION WELL

A review of the State Engineers records shows two freshwater wells within one mile of the injection well.



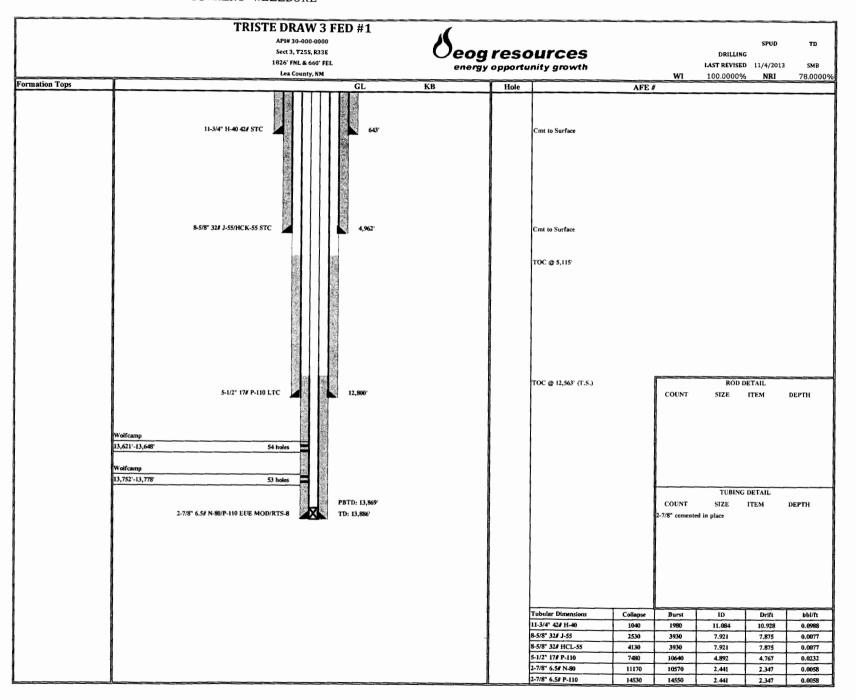
- XII. Available geologic and engineering data has been examined and no evidence has been found of open faults or any other hydrologic connection between the injection zone and any underground source of drinking water.
- XIII. See attached "Proof of Notice".

Surface Owner:

United States Bureau of Land Management 620 E. Greene Carlsbad, NM 88220

Operators within a ½ mile radius of the proposed injector:

EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702



INJECTION WELL DATA SHEET

OPERATOR: EOG Resources, Inc.						
WELL NAME & NUMBER: Triste Draw 3 Fe	d 1					
WELL LOCATION: 1826' FNL & 660' FEL				3	25S	33E
FOOTAGE LOCATION		UNI	T LETTER	SECTION	TOWNSHIP	RANGE
WELLBORE SCHEMATIC				WELL CO Surface C	NSTRUCTION DAT asing	<u>ra</u>
11-3/4" H-40 42# STC 8-5/8" 32# J-55/HCK-55 STC 4,962" - 5 5	14-3/4"	Squeezed TOC @ 4,462' Squeeze 105sx Class C behind 5- Perforate 5-1/2" csg @ 5,065' Current TOC @ 5,115' Spot 30sx Class H @ 7,500'	Hole Size:14-3/4" Cemented with:350 Top of Cement: Surface Hole Size:11" Cemented with:1025 Top of Cement: Surface	sx. Intermediate	Casing Size: 13 or Method Determine Casing Casing Size: 8-5	ft ³ d: Circulation 5/8" @ 4962' ft ³
5-1/2" 17# P-110 LTC 12,800' 13,648' 54 boles 19 2-7/8" 6.5# N-80/P-110 EUE MOD/RTS-8 PBTD: 13,869' TD: 13,866'	7-7/8" 4-3/4"	2-7/8" Stub +/-9,600' TOC @ 12,563' (T.S.) 100sx Class H @ 12,850' Dump Bail 35' Class H CIBP @ 13,571'	Hole Size:	Production sx. Injection In	Casing Casing Size: 5-1/ or Method Determine	/2" @ 12800' ft³

(Perforated or Open Hole; indicate which)

Side 1		INJECTION WELL DATA SHEET			
OPERATOR: EOG	Resources, Inc.				
WELL NAME & NU	MBER: Triste Draw 3 Fed 1		•		
WELL LOCATION:	1826' FNL & 660' FEL	Н	3	25S	33E
•	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WEL	LBORE SCHEMATIC		WELL C	ONSTRUCTION DAT Casing	<u>'A</u>
		Hole Size:		Casing Size:	
PERATOR: EOG Resources, Inc. ELL NAME & NUMBER: Triste Draw 3 Fed 1 ELL LOCATION: 1826' FNL & 660' FEL	Cemented with:	sx.	or	ft ³	
		Top of Cement:		Method Determined	l:
			<u>Intermedia</u>	te Casing	
		Hole Size:		Casing Size:	
		Cemented with:	sx.	or	ft ³
		Top of Cement:		Method Determined	i:
			Productio	n Casing	
		Hole Size: 4-3/4"		Casing Size: 2-7/8	9" @ 13866'
		Cemented with: 135	sx.	or	
		Top of Cement: 12563	l	Method Determined	i: TS
		Total Depth: 13866			
			Injection		
			5000 fee	t to7200	

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Γub	ing Size: _	2-7/8"	Lining Materia	ı: Pla	astic	Coated
Тур	e of Packer:	5-1/2" Plastic Co	ated / Nickel Plated			
Pac	ker Setting	Depth: +/- 4950'	-			
Oth	er Type of	Tubing/Casing Seal (if	applicable):			
			Additional Data			
1.	Is this a no	ew well drilled for injec	tion?	_Yes _	X	_No
	If no, for	what purpose was the w	ell originally drilled?	Produ	uctio	n
2.	Name of t	he Injection Formation:	Delaware			
3.	Name of F	Field or Pool (if applical	ble): SWD; Delawar	е		
4.		-	in any other zone(s)? Lis, i.e. sacks of cement or pl		•	
	Wolfca	amp 13621 - 13778	3'. Plugback proce	edure	encl	osed.
5.		name and depths of any zone in this area:	oil or gas zones underlying	g or ove	rlying	the proposed
	Bone S	Spring	9278'			
	3rd Bo	one Spring Sand	11940'			
	Wolfca	amp	12418'			

	TRISTE DRAW 3 FED #1							
	API# 30-000-0000						SPUD	TD
	Sect 3, T25S, R33E	∪eog res	ources			DRILLING		
	1826' FNL & 660' FEL	energy opport				LAST REVISED		SMB
	Lea County, NM				WI	100.0000%	NRI	78.0000%
Formation Tops	GL See Field Language	KB Hole		AFE#				
	### 11-3/4" H-40 42# STC 6-5/8" 32# J-55/HCK-55 STC 4.96 Delaware Injection Perfs 5,000-7,200" 5-1/2" 17# P-110 LTC 12,800" Wolfcamp 13,621"-13,648" Wolfcamp 13,752"-13,778" 53 holes PBTD: 13,1 2-7/8" 6.5# N-80/P-110 EUE MOD/RTS-8 TD: 13,886	7-7/8"	Squeezed TOC @ 4,462' Squeezed TOC @ 4,462' Squeeze 105sx Class C behind 5 Perforate 5-1/2" csg @ 5,065' Current TOC @ 5,115' Spot 30sx Class H @ 7,500' Spot 30sx Class H @ 9,500' TOC @ 12,563' (T.S.) 100sx Class H @ 12,850' Dump Bali 35' Class H CIBP @ 13,571'	5-1/2" casing	COUNT 7/8" cement	SIZE TUBING SIZE	ETAIL ITEM	DEPTH
A .								
4		ı	Tubular Dimensions	Collapse	Burst	ID	Drift	bbl/ft
		X	11-3/4" 42# H-40	1040	1980	11.084	10.928	0.0988
			8-5/8" 32# J-55	2530	3930	7.921	7.875	0.0077
				2530 4130	3930 3930	7.921 7.921	7.875 7.875	0.0077
			8-5/8" 32# HCL-55	4130			7.875	
					3930	7.921		0.0077



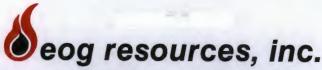
TRISTE DRAW 3 FED #1 SWD CONVERSION

SECT 3, T25S, R33E

1826' FNL & 660' FEL

API: 30-025-34518

- 1. Set CIBP @ 13,571'
- 2. Bail 2sx (35') Class H cement on CIBP and TAG
- 3. Cut and recover 2-7/8" tubing at ±9,600'
- 4. Spot 100sx Class H inside 2-7/8" tubing and fill tubing from 12,850' to top of stub at ±9,600'
- 5. Spot 30sx Class H @ 9,500' (Bone Spring) and TAG
- 6. Spot 30sx Class H @ 7,500' and TAG
- 7. Perforate 5-1/2" casing @ ±5,065' (50' above TOC behind 5-1/2" casing)
- 8. Squeeze 100sx Class C @ 5,065' to bring TOC behind 5-1/2" casing to 4,462'. Verify new TOC with CBL.
- 9. Perforate 5-1/2" casing across Delaware injection interval from 5,000'-7,200'
- 10. Run 2-7/8" injection string, set 5-1/2" packer at 4,950'
- 11. Run MIT on 5-1/2"X2-7/8" annulus
- 12. After good MIT, put well on injection



SECTION 3, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, NEW MEXICO

Idential Identi	1/2 8 STATE AND	O. Rec M.2 HOC A 4858 M.2 HOC A 4858 M.2 HOC M.2 HOC	19850 . TWIFLE X	(Ping) Ping) Ping)
R ER Roy HIRE MC Boss Fed Bay See Boss Fed Bay See	ST, UT. ETR.(OP) Baber Well Serv (Phillips) 19689 19689	EOG Res. M.B.P. B. 399 See Res. M. B. P. B. 399 EOG Res. M. Trigge Dr. 3t." EOG Res. M. Trigge Dr. 3t." ID 859 SELL	Trisle Drow P.R. Bass Fgd Advertise 195 Fed 193314 U.S. Hallwood Ulaster- Pat. Inc. Francis) ((kuiser- Francis) Fran	Second S
U.S. Devon Ener (wa) 97152 (wa) 97152 (ho) 260 2	R LR Roy 8 - 1 - 2011 2 - 2012 2 - 2012 3	"Triste Graw Fed."U.S. BTA , 97155	Stebe Hallwood Pet. Inc. Stebe Hallwood Pet. Inc. Stebe Hallwood Pet. Inc. Stebe Hallwood Pet. Inc. Stebe Hallwood Pet. Inc. Stebe Hallwood Pet. Inc. Stebe Stebe Stebe Stebe Hallwood Pet. Inc. Stebe Hallwood Pe	104 EOB Res. 103 104 104 105 105 105 107 106 107
BOOKES HOP ER 394	U.S. ING Dr.St. (*akg Dr.St.) Tom Brown, Inc. Dr. St. (*akg Dr.St.) (*a	(pa)	A S 4 62 A S A S A S A S A S A S A S A S A S A	### 192 193 194 195 19

LEASE NAME & WELL NO.: TRISTE DRAW 3 FED #1
#1 LATITUDE N 32.1616913 #1 LONGITUDE W 103.5533170

LEGEND _____

SECTION LINE

EXISTING PIPELINE

X FENCE LINE

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

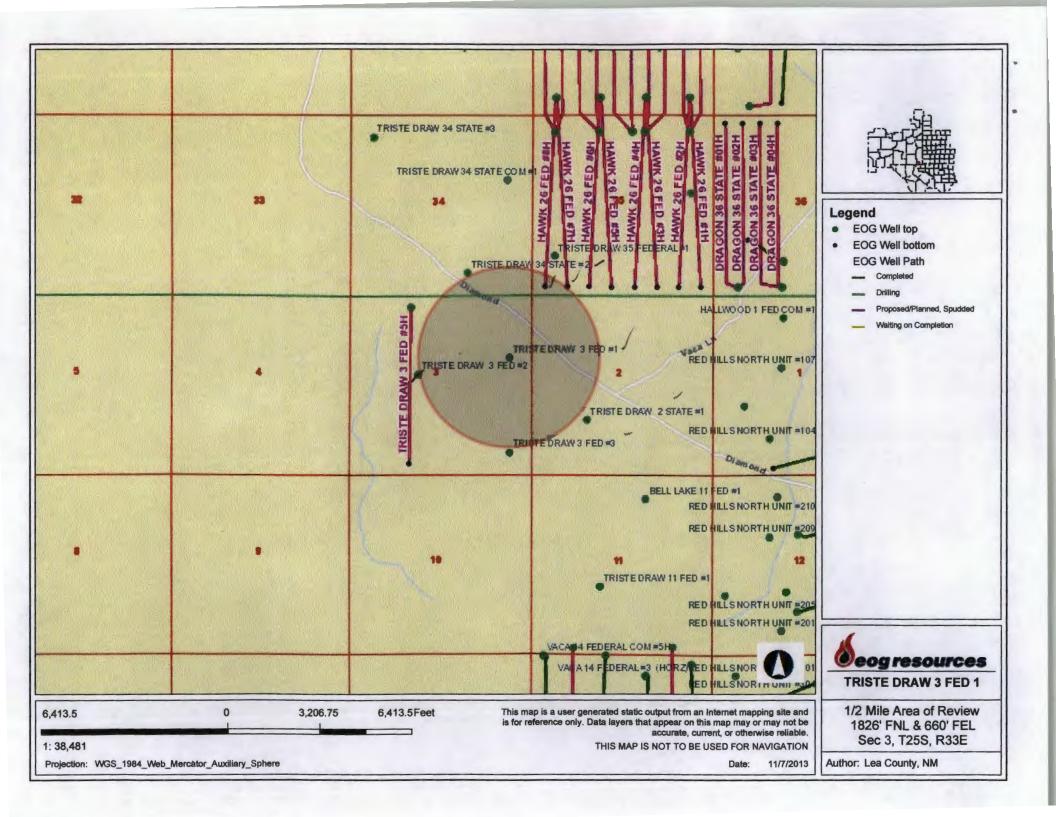
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



TOPOGRAPHIC

SURVEYING . MAPPING . GIS . GPS

2903 NORTH BIG SPRING * MIDLAND, TEXAS 79705 TELEPHONE: (432) 682-1653 * FAX (432) 682-1743 1400 EVERMAN PARKWAY, Sie. 197 * FT. WORTH, TEXAS 76140 TELEPHONE: (817) 744-7512 * FAX (817) 744-7548 2225 PERRYTON PARKWAY * PAMPA, TEXAS 79065 TELEPHONE: (806) 665-7218 * FAX (806) 665-7210 WWW.TOPOGRAPHIC.COM

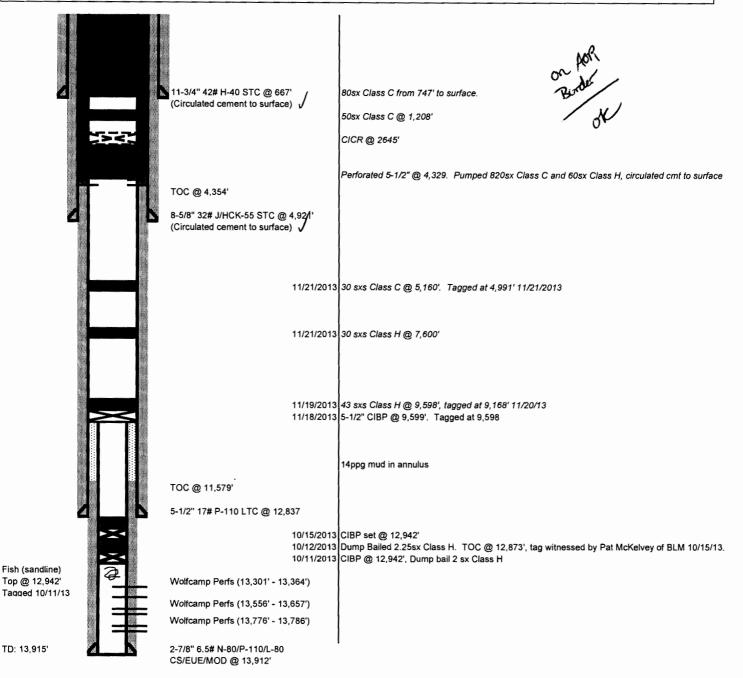


EOG Resources, Inc 1/2 Mile Area of Review Application for Authorization to Inject Triste Draw 3 Fed 1

							Surface C	asing		Productio	n Casing	
Operator	Lease/Well	Status	Location	Spud Date	TMD	Size	Depth	Cement	Size	Depth	Cement	Producing Perforations
FOG Resources	No active wells fall within a 1/2	mile radius										

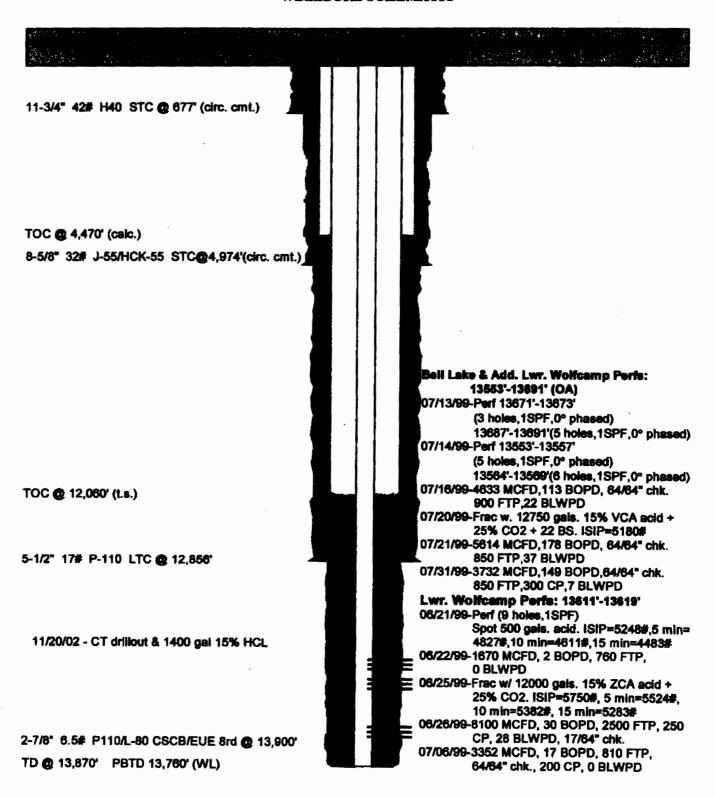


Triste Draw 3 Fed #2 2310' FNL & 1980' FWL Section 3-T2SS-R33E Lea, NM API # 30-02S-34585



TRISTE DRAW "34" STATE NO. 2 LEA CO., NEW MEXICO February 25, 2003 (updated)

WELLBORE SCHEMATIC



n:\schematics\lea\triste draw '34' st. no. 2\comp.doc



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

C 03603 POD4

4 35 24S 33E

637789 3560461

Driller License: ENVIRO-DRILL, INC,

Driller Name:

RODNEY HAMMER

Drill Start Date: 01/14/2013

Drill Finish Date:

01/14/2013

Plug Date:

Log File Date:

01/30/2013

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:

11/7/13 3:12 PM

Page 1 of 1

POD SUMMARY - C 03603 POD4



New Mexico Office of the State Engineer **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

C 03603 POD6

3 35 24S 33E

636749 3560447

Driller License: ENVIRO-DRILL, INC,

Driller Name:

RODNEY HAMMER

Drill Start Date: 01/13/2013

Drill Finish Date:

01/13/2013

Plug Date:

Log File Date:

01/30/2013

PCW Rcv Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:

POD SUMMARY - C 03603 POD6 Page 1 of 1 11/7/13 3:10 PM



Catalyst Oilfield Services 11999 E Hwy 158 Gardendale, TX 79758 (432) 563-0727 Fax: (432) 224-1038

Water Analysis Report

Customer:

EOG Resources - Permian

Sample #:

16230

Area:

Jal Area

Analysis ID #:

17130

Lease:

Section 32

Location:

Freshwater Well

0

Sample Point:

Wellhead

Sampling Date:	12/12/2013	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	12/13/2013	Chloride:	27.7	0.78	Sodium:	178.9	7.78
Analyst:	Catalyst	Bicarbonate:	480.7	7.88	Magnesium:	10.0	0.82
TDC (758.9	Carbonate:			Calcium:	13.8	0.69
TDS (mg/l or g/m3):	1.003	Sulfate:	40.0	0.83	Potassium:	6.0	0.15
Density (g/cm3):	1.003				Strontium:	1.6	0.04
					Barium:	0.0	0.
Hydrogen Sulfide:	0				iron:	0.2	0.01
Carbon Dioxide:	0				Manganese:	0.000	0.
		pH at time of sampling	g:	6.74			
Comments		pH at time of analysis	:				
		pH used in Calculati	pH used in Calculation:		Canductivity (mia	ro obmolom):	934
		Temperature @ lab	conditions (F):	75	Conductivity (mic Resistivity (ohm r	•	10.7066

		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp		Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ 0		Anhydrite CaSO ₄		Celestite SrSO ₄		rite ISO ₄		
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount		
80	-0.94	0.00	-2.67	0.00	-2.74	0.00	-1.88	0.00	0.00	0.00		
100	-0.80	0.00	-2.66	0.00	-2.67	0.00	-1.85	0.00	0.00	0.00		
120	-0.65	0.00	-2.65	0.00	-2.57	0.00	-1.81	0.00	0.00	0.00		
140	-0.49	0.00	-2.63	0.00	-2.46	0.00	-1.7 7	0.00	0.00	0.00		
160	-0.32	0.00	-2.60	0.00	-2.33	0.00	-1.71	0.00	0.00	0.00		
180	-0.14	0.00	-2.57	0.00	-2.19	0.00	-1.65	0.00	0.00	0.00		
200	0.04	1.05	-2.54	0.00	-2.04	0.00	-1.59	0.00	0.00	0.00		
220	0.23	4.20	-2.51	0.00	-1.88	0.00	-1.52	0.00	0.00	0.00		



Catalyst Oilfield Services 11999 E Hwy 158 Gardendale, TX 79758 (432) 563-0727 Fax: (432) 224-1038

Water Analysis Report

Customer:	EOG Resources - Permian	Sample #:	16231
Area:	Jal Area	Analysis ID #:	17131
Lease:	Section 13		

0

Sample Point: Wellhead

Freshwater Well

Location:

Sampling Date:	12/12/2013	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	12/13/2013	Chloride:	2255.1	63.61	Sodium:	220.4	9.59
Analyst:	Catalyst	Bicarbonate:	451.4	7.4	Magnesium:	30.3	2.49
TDS (mg/l or g/m3):	5 7 16	Carbonate:			Calcium:	43.5	2.17
Density (g/cm3):	1.006	Sulfate:	120.0	2.5	Potassium:	7.3	0.19
Density (granis).	1.000				Strontium:	2588.0	59.07
					Barium:	0.0	0.
Hydrogen Sulfide:	0				Iron:	0.0	0.
Carbon Dioxide:	0				Manganese:	0.000	0.
		pH at time of sampling	ng:	7.17			
Comments		pH at time of analysi	s:				
		pH used in Calculat	tion:	7.17			1484
		Temperature @ lab conditions (F):		75	75 Conductivity (micro-ohms/cm):		

		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl									
Temp °F	1				ydrite aSO ₄	Celestite SrSO ₄		Barite BaSO ₄			
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	-0.37	0.00	-2.53	0.00	-2.60	0.00	0.99	71.79	0.00	0.00	
100	-0.25	0.00	-2.55	0.00	-2.56	0.00	0.99	71.79	0.00	0.00	
120	-0.11	0.00	-2.56	0.00	-2.49	0.00	1.01	72.14	0.00	0.00	
140	0.03	1.05	-2.56	0.00	-2.39	0.00	1.03	72.49	0.00	0.00	
160	0.18	6.27	-2.55	0.00	-2.28	0.00	1.07	73.19	0.00	0.00	
180	0.35	11.50	-2.54	0.00	-2.16	0.00	1.11	73.54	0.00	0.00	
200	0.51	16.38	-2.52	0.00	-2.01	0.00	1.15	74.23	0.00	0.00	
220	0.68	21.26	-2.50	0.00	-1.86	0.00	1.20	74.93	0.00	0.00	

Martin Water Laboratories, Inc.

P. O. BOX 1468 MONAHANS, TEXAS 79756 PH. 943-3234 OR 563-1040 709 W. INDIANA MIDLAND, TEXAS 79701 PHONE 683-4521

RESULT OF WATER ANALYSES

	1	ABORATORY NO.	598173	
TO: Mr. Gary Smith		SAMPLE RECEIVED	5-19-98	
P.O. Box 2267, Midland, TX 79702-	2067	RESULTS REPORTED		
COMPANY Enron Oil & Gas Company	LI	EASE Hallwe	ood "12" #9	
FIELD OR POOL	Red Hill			
SECTION BLOCK SURVEY	COUNTY	Leasta	TENM	
SOURCE OF SAMPLE AND DATE TAKEN:				
NO.1 Produced water - taken from	Hallwood "12	2" #9		
NO. 2				
NO. 3	,			
NO. 4	Bone Spri			
REMARKS:				
CHEM	CAL AND PHYSIC			
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0677			
pH When Sampled	5 00			
pH When Received	5.99			
Bicarbonate as HCO ₁	98	 		
Supersaturation as CaCO ₁				
Undersaturation as CaCO;	10,600			
Total Hardness as CaCO,				
Calcium as Ca	3,440	 		
Magnesium as Mg				
Sodium and/or Potassium	34,734	 		
Sulfate as SO.	900			
Chtoride as Cl	60,350			
Iron as Fe	113			
Barlum as Ba				
Turbidity, Electric				
Color as Pt	100 009			
Total Solids, Calculated	100,008			
Temperature *F.	 	+		
Carbon Dioxide, Calculated Dissolved Oxygen,	 			
Hydrogen Sulfide	0.0			
Resistivity, ohma/m at 77 ° F.	0.09	4		
Suspended Oil	0.03			
Filtrable Solids as mg/l				
Volume Filtered, mi				
	Results Reported As Milli			
Additional Determinations And Remarks In comparing	ng this water	with our reco	rds in this f	ield, we find
it correlates well with what woul	d be expecte	d from a natur	al Bone Sprin	gs. It is
also noted that it is reasonably	comparable t	o Hallwood "12	" #1 reported	on labora-
tory #398152 (3-18-98) and #59811	L4 (5 -15-98)	as well as cor	relating with	Hallwood
"12" #2 and "12" #3 reported on 1	aboratory #7	97195 (7-25-97	′).	
		Y.Co.	no	<u> </u>
		All	11 8 10 10 1 10 10	T

Form No. 3

FAX: Mr. Emery Bartimus, Midland (682-0046)

Waylan C. Martin, M.A.

Martin Water Laboratories, Inc.

P.O. BOX 98 MIDLAND, TX. 79702 PHONE (432) 683-4521

RESULT OF WATER ANALYSES

709 W. INDIANA MIDLAND, TEXAS 79701 FAX (432) 682-8819

	·			11	103-109	
O: Mr. Hal Crabb P.O. Box 2267, Midland, Texas 79702			LABORATORY NO		11/ 19/03 11/21/03	
			SAMPLE RECEIVED _ RESULTS REPORTED_	T		
	EOG Resources, Inc.		Rec	Hills North Un	it #209	
MPANY_		Pitchfork Ranch L	EASE	I I I I I I I I I I I I I I I I I I I		
ELD OR PO	00L		<u> </u>		exas	
	BLOCK SURVEY	COUNTY	STAT	E		
	F SAMPLE AND DATE TAKEN: Produced water - taken from 1	Red Hills North Unit	#209			
NO. 1	1100000 776001 (68071 110111					
NO. 2				 		
NO. 3						
NO. 4		 				
EMARKS:						
	C	HEMICAL AND PHYSIC	AL PROPERTIES			
		NO. 1	NO. 2	NO. 3	NO. 4	
Specific Grav	vity at 60° F.	1.0610				
pH When Sar	mpled		· · · · · · · · · · · · · · · · · · ·			
pH When Rec		6.84	 		-	
Bicarbonate		329	 		 	
	ration as CaCO,		+			
	ration as CaCO;	10 200			 	
Total Hardne		10,200 3,520	+		 	
Calcium as C		340	+			
Magnesium a		31,819			 	
Sulfate as SC	or Potassium	956	 		 	
Chloride as (55,395				
Iron as Fe	<u> </u>	156				
Barium as Be	•	130			 	
Turbidity, Ele						
Color as Pt			1			
Total Solids,	, Calculated	92,359				
Temperature) *F.					
Carbon Diox	ide, Calculated					
Dissolved Ox	xygen,					
Hydrogen Su	ulfide	0				
Resistivity, c	ohms/m et 77° F.	0.10				
Suspended (OII				 	
Filtrable Sol	lds as mg/l					
Volume Fi	iltered, mi				 	
					 	
	•	Results Reported As Milli	grams Per Liter		<u> </u>	
Additional C	Determinations And Remarks		relates well with our	recorded Bone	Springs in	
	Hills field.					
		· ,, F*				
		दल विदेश				
			Λ			
form No. 3			By Hage	De.		

LATHAM PRINTING CO. - \$33-1292

P.O. BOX 98 MIDLAND, TX. 79702 PHONE (432) 683-4521

Martin Water Laboratories, Inc.

709 W. INDIANA MIDLAND, TEXAS 79701 FAX (432) 682-8819

RESULT OF WATER ANALYSES

	WESTER OF WATER	AMALIGES	607	1.158 (ng 2)		
ro: Mr. Larry Brazile			6.1	607-158 (pg 2) 6-18-07		
PO Box 2267, Midland, TX, 79702		()	(22 02			
PO Box 2207, Wildians, 17, 79702		RESULTS REPORTED_	(7-2	2-07		
COMPANY EOG Resources		LEASERed	Hills North Unit			
FIELD OR POOL	Red Hills	LEASE				
SECTION BLOCK SURVEY	COUNTY	Lea STATE	. NM	1		
SOURCE OF SAMPLE AND DATE TAKEN:						
NO. 1 RHNU #209. 6-18-07						
NO.2 RHNU #211. 6-18-07						
NO.3 RIINU #213. 6-18-07						
10.07						
	- Arthur Manner					
REMARKS:						
Ç	HEMICAL AND PHYSIC					
	NO. 1	NO. 2 1.0488	NO. 3	NO. 4 1.0625		
Specific Gravity at 60° F.	1.0600	1.0488	1,10/1	1.0023		
pH When Sampled	7.13	6.39	5.56	6.57		
pH When Received Bicarbonate as HCO,	85	183	24	122		
Supersaturation as CaCO,		100				
Undersaturation as CaCO,						
Total Hardness as CaCO,	12,000	10,200	70,000	12,400		
Calcium as Ca	4,000	3,120	23,200	3,920		
Magnesium as Mg	486	583	2,916	632		
Sodium and/or Potassium	33,659	25,998	77,526	35,661		
Suifate as SO.	970	475	243	697		
Chloride as Cl	59,640	46,860	168,980	63,190		
Iron as Fe	80	153	91	86		
Barium as 8a	0	0	0	()		
Turbidity, Electric						
Color as Pt						
Total Solids, Calculated	98,840	77,219	272,889	104,222		
Temperature *F.						
Carbon Dioxide, Calculated						
Dissolved Oxygen,						
Hydrogen Sulfide	0.0	0.0	0.0	0,0 1(40,0		
Resistivity, ohms/m at 77* F.	0.095	0.114	0.046	1,000		
Suspended Oil		+				
Filtrable Solids as mg/i Volume Filtered, mi						
Voiding - Highes, III						
	Results Reported As Mil	lligrama Per Liler				
Additional Determinations And Remarks						
			•			

Form No. 3



EOG Resources, Inc. 4000 North Big Spring, Suite 500 Midland, TX 79705 (915) 686-3600

January 9, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bureau of Land Management 620 E. Greene Carlsbad, NM 88220

Re:

Application of EOG Resources, Inc. for administrative approval of

Triste Draw 3 Fed 1 – Lea County, New Mexico. Application for a Water Disposal Injection well

Ladies and Gentlemen:

Enclosed please find a copy of the application of EOG Resources, Inc. (Oil Conservation Division Form C-108) in the above-referenced matter for approval of a Water Disposal Injection Well: the Triste Draw 3 Fed 1 is located 1826 feet from the North line and 660 feet from the East line of Section 3, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico. EOG proposes to re-inject water produced from the Bone Spring formation into the Delaware Sand formation at a measured depth of 5000 feet to 7200 feet. This injection will occur with a maximum injection pressure of 2000 psi and a maximum injection rate of 10000 barrels of water per day as fully described in the application.

This application is provided to you as owner of the surface of the land upon which the subject well is located. If you object to this application your objection must be filed in writing with the Santa Fe Office of the Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days of the date of this letter. If there is no objection, the Division Director may approve this application.

Sincerely,

EOG RESOURCES, INC.

Stan Wagner

Regulatory Analyst

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: 	A. Signature X
BLM 620 E. GREENE CARLSBAD, NM 88220	If YES, enter delivery address below: 3. Service Type Certified Mail Express Mail
OARLOBAD, NW 00220	☐ Registered ☐ Return Receipt for Merchand ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number 7002 2410 00	101 5911 8537
PS Form 3811, February 2004 Domestic R	Return Receipt 102595-02-

Affidavit of Publication

State of New Mexico, County of Lea.

> I, DANIEL RUSSELL PUBLISHER

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

of 1 issue(s).
Beginning with the issue dated
November 15, 2013
and ending with the issue dated
November 15, 2013

PUBLISHER

Sworn and subscribed to before me this 15th day of November, 2013

Notary Public

My commission expires January 29, 2015

(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico

My Commission Expires 1-29-15

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



LEGAL

LEGAL NOTICE November 15, 2013

EOG Resources, Inc., P.O. Box 2267, Midland, TX 79702, will file form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a water injection well.

The **Triste Draw 3 Fed No. 1** is located 1826' FNL & 660' FEL, Section 3, Township 25 South, Range 33 East. Lea County, New Mexico. Injection water will be sourced from area wells producing from the Bone Spring formation. The injection water will be injected into the Delaware formation at a depth of 5000' - 7200', a maximum surface pressure of 2000 psi, and a maximum rate of 10000 BWIPD.

All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 with 15 days. Additional information may be obtained by contacting Stan Wagner at P.O. Box 2267, Midland, TX 79702, or 432-686-3600.

00126170

#28585

01105308 00 STAN WAGNER EOG RESOURCES,INC. P.O. BOX 2267

MIDLAND, TX 79702

C-108 Review	Checklist: Re	ceived 01 /23/14Add. Reques	04/15/14	Reply Date:	Suspended: [Ver 13]		
PERMIT TYPE: WF	X / PMX SWD NL	ımber: 1478 Permi	t Date: OH	Legacy Permi	ts/Orders: NA		
Well No. Well Name(s): Triste Draw 3 Federal							
4		te: 02/03/1999 N	lew or Old:	New (UIC Class II	Primacy 03/07/1982)		
Footages 1826 FNL/6601	FELLot_	or Unit H Sec 3	_Tsp <u>25</u>	55 _{Rge} 336	E_County_Lea		
General Location: 4m, S of	3R128/SWOF	-achoa Pool: S	inason Ro	uch wifeans	1 -Pool No.:		
BLM 100K Map: 301	Operator: FOG	Resources Tor	SWD D	dance Therry	& Stan Warner		
COMPLIANCE RULE 5.9: Total Wells					9 , ; ,		
					.9 OK? 163 Date: 0 1/19/1		
WELL FILE REVIEWED Current	Status: Woffcam	p jornación. au	piecea pri	puit pur			
WELL DIAGRAMS: NEW: Proposed	or RE-ENTER:	Before Conv. After C	onv. 🕜 L	ogs in Imaging: DLL	-GR-DL-CN-CAP-Cel		
Planned Rehab Work to Well:							
Well Construction Details:	Sizes (in)	Setting	, ()	Cement	Cement Top and		
Planned _or Existing _Surface	Borehole / Pipe	Depths (ft)	Stage Tool	Sx or Cf	Determination Method		
/	Plants State	0 to 643	13.741	350 1025	Circ to surface		
Planned_or ExistingProd	71/9 / 51/2	0 to 4962	None		circ to surface		
Planned_or Existing Vinterm Prod		0 to 12800	None	1160	TS/TOC 5115"		
Planned_or Existing / ProdiLiner	474/21/8	0 to 13886	None	HOPE EMICE	TS/TOC 12563'		
Planned_or Existing _ Liner			Ini Langth	512 (10054)	A Proposed Case		
Planned or Existing OH PERF) [Erist: 7%/5)	75000 to 7200	2200	Completion	/Operation Details:		
Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	31 10 Bs		© PBTD 13869		
Adjacent Unit: Litho. Struc. Por.	100				_ NEW PBTD _7500		
Confining Unit: Litho. Struc. Por.	41	Custile		NEW Open Hole	or NEW Perfs 🕖		
Proposed Inj Interval TOP:		Delaware Bell	5148	Tubing Size <u>Z 1/ ê</u>	in. Inter costed? 105		
Proposed Inj Interval BOTTOM:	7200	Cherry		Proposed Packer D	epth 4950 Changed		
Confining Unit: Litho. Struc. Por.		Delaurie Brushis	~7/da0	Min. Packer Depth	5090 (100-ft limit) pa- A		
Adjacent Unit: Litho. Struc. Por.	The state of the s	201022	9278	Proposed Max. Sur	1030 at 5138 1030 at 5138 18.2 psi per ft)		
AOR: Hydrologic a			4.4				
POTASH: R-111-P Noticed? No	BLM Sec Ord	WIPP WNoticed?	NA SALT	/SALADO T:B	:CLIFF HOUSEVA		
FRESH WATER: Aquifer Shalk	on alward /	MC PMAX Depth < 350) HYDRO	AFFIRM STATEME	NT By Qualified Person		
PRESH WATER: Aquifer Shallow allowed we have Depth < 350 Hypro Affirm STATEMENT By Qualified Person Of NMOSE Basin: Carlsbaa CAPITAN REEF: thru adjo NAO No. Wells within Mile Radius? FW Analysis Of Francisco CAPITAN REEF: thru adjo NAO No. Wells within Mile Radius? FW Analysis On Lease Operator Only of Commercial Of The Commercial Of The Commercial Of The Carlsbaar Capitan Commercial Of The Capitan Capi							
Disposal Fluid: Formation Source(s	3) Bone Spri	Analysis Analysis	? <u>4es</u>	On Lease Operat	or Only or Commercial O		
Disposal Int: Inject Rate (Avg/Max BWPD): 500 / CCO Protectable Waters? NO Source: 00 100 System: Closed (2014 Open)							
HC Potential: Producing Interval? No Formerly Producing? No Method: Logs/DST/P&A/Other Legional historical Charges Map Map							
AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: Horizontals?							
Penetrating Wells: No. Active Wells Num Repairs?on which well(s)? Diagrams?							
Penetrating Wells: No. P&A Wells Num Repairs?—on which well(s)? Diagrams? 14							
NOTICE: Newspaper Date 11 15 2013 Mineral Owner BLM Surface Owner BLM N. Date 01 01 14							
RULE 26.7(A): Identified Tracts? Yes Affected Persons: EOG -only affected Person N. Date NA							
Permit Conditions: Issues: CBL for squeeze; 2200 interval - injection suren							
Add Permit Cond: CBL \$ in	jection surve	¥			<u> </u>		