-					<i>j</i>
	3/2071 SUSPENSI		2/23/2-0/6	TYPESCO	PHA 11605554734
Mesd DAJ	nny vet	- Eng	ABOVE THIS LINE FOR DIVISION USE ONLY L CONSERVATION D ineering Bureau - ancis Drive, Santa Fe, NM 8		
X LOG	P, 5 109	ADMINISTRAT		ON CHECK	LIST
- / KTH	/ IIS CHECKLIST IS MAI	NDATORY FOR ALL ADMINI WHICH REQUIRE	STRATIVE APPLICATIONS FOR E PROCESSING AT THE DIVISION	XCEPTIONS TO DIVIS	ION RULES AND REGULATIONS
Applic	[DHC-Down [PC-Poo [	idard Location] [NSP hole Commingling] of Commingling] [OI WFX-Waterflood Expa [SWD-Salt Water	Disposal] [IPI-Injection	] [PLC-Pool/Le [OLM-Off-Lease   Maintenance Exp Pressure Increas PR-Positive Prod	ase Commingling] Measurement] ansion] e] uction Response]
[1]	TYPE OF AP [A]		Those Which Apply for [A Init - Simultaneous Dedicat D SD	A] $-SC$ tion $-G4$	undian OpenHingf D 287300 Jell Linkes SWD#1 30-015 - 23299
	Check [B]	One Only for [B] or [C Commingling - Stora DHC CTI	ge - Measurement		
	[C]		Pressure Increase - Enhan X 🗙 SWD 🗌 IPI [		$\frac{1}{100} \frac{1}{100} \frac{1}$
	[D]	Other: Specify			- J Ü
[2]	NOTIFICATI [A]		: - Check Those Which Ap ty or Overriding Royalty Ir		$\begin{array}{ccc} \text{Apply} & \overset{\overset{\scriptstyle \sim}}{\underset{\scriptstyle S_{3}}{\overset{\scriptstyle \sim}}} & \overset{\scriptstyle \bigcirc}{\underset{\scriptstyle S_{3}}{\overset{\scriptstyle \circ}}} \\ \end{array}$
	[B]	Offset Operators	s, Leaseholders or Surface	Owner	- Poy
	[C]	Application is O	ne Which Requires Publish	ned Legal Notice	-Sudj Chenry
	[D] ·		/or Concurrent Approval by lagement - Commissioner of Public Lands		-Suoj Chenry CAnyon 97003
	<b>[E]</b>	For all of the abo	ove, Proof of Notification of	or Publication is A	ttached, and/or,
	[F]	Waivers are Atta	ached		

#### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ben Stone	_ Sentin	Agent for Guardian	Operating Corp. 2/18/16
Print or Type Name	Signature	Title	Date
	_	ben@sosconsultin	g.us
		e-mail Address	



February 18, 2016

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

Attn: Mr. David Catanach, Director

*Re:* Application of Guardian Operating Corp. to permit for salt water disposal its Kirkes Com No.1 well, located in Section 10, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico.

Dear Mr. Catanach,

Please find enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to for disposal in the Kirkes Com Well No.1.

Guardian Operating seeks to permit this well as a private disposal solution for its operations in southeast New Mexico. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste, protection of correlative rights and the environment.

Published legal notice ran in the February 18, 2016 edition of the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit forwarded upon receipt. The application also includes wellbore schematics, area of review maps, leaseholder plats and other required information for a complete Form C-108. The well is located on private land and minerals.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

Ben Stone, Partner SOS Consulting, LLC Agent for Guardian Operating Corp.

Cc: Application attachment and file

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

#### **APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Salt Water Disposal and the application QUALIFIES for administrative approval.
- II. OPERATOR: Guardian Operating Corp. ADDRESS: 203 W. Wall St Midland, TX 79701

CONTACT PARTY: Randall Cate, Owner 432-553-1849; Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850

- III. WELL DATA: Shut-in GAS Well Convert to SWD. All well data and applicable wellbore diagrams are ATTACHED.
- IV. This is not an expansion of an existing project.
- V. **A map is attached** 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. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. There are 4 Wells in the subject AOR. The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail. 1 P&A Well, schematic ATTACHED.
- VII. The following data is ATTACHED 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. Appropriate geologic data on the [Cherry Canyon] injection zone is ATTACHED 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. Stimulation program a conventional acid job may be performed to open new injection perfs and formation.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). 2 Well Logs are on File with OCD and available through OCD Online. Subject Well Log Strip ATTACHED.
- \*XI. There are domestic water wells within one mile of the proposed salt water disposal well. Analyses of 2 wells are included and ATTACHED. (Water well locations are indicated on the 2 Mile AOR Map.)
- XII. An affirmative statement is ATTACHED that available geologic and engineering data has been examined and no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. "Proof of Notice" section on the next page of this form has been completed and ATTACHED. There are 3 offset lessees and/or operators within ½ mile, one land owner; private surface and minerals all have been noticed.
- 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:	Ben Stone	TITLE: SOS	Consulting, LLC agent for Gu	uardian Opera	nting Corp.		
SIGNATURE		True			DATE:	2/18/2016	
		) - 					

E-MAIL ADDRESS: ben@sosconsulting.us

\* 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:

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

#### FORM C-108 - APPLICATION FOR AUTHORIZATION TO INJECT (cont.)

#### III. WELL DATA - The following information and data is included (See ATTACHED Wellbore Schematic):

- 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 pursuant to the following criteria is ATTACHED.

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.

## C-108 - Items III, IV, V

#### Item III - Subject Well Data

- 1. Wellbore Schematic PROPOSED
- 2. Wellbore Schematic CURRENT

#### Item IV – Tabulation of AOR Wells

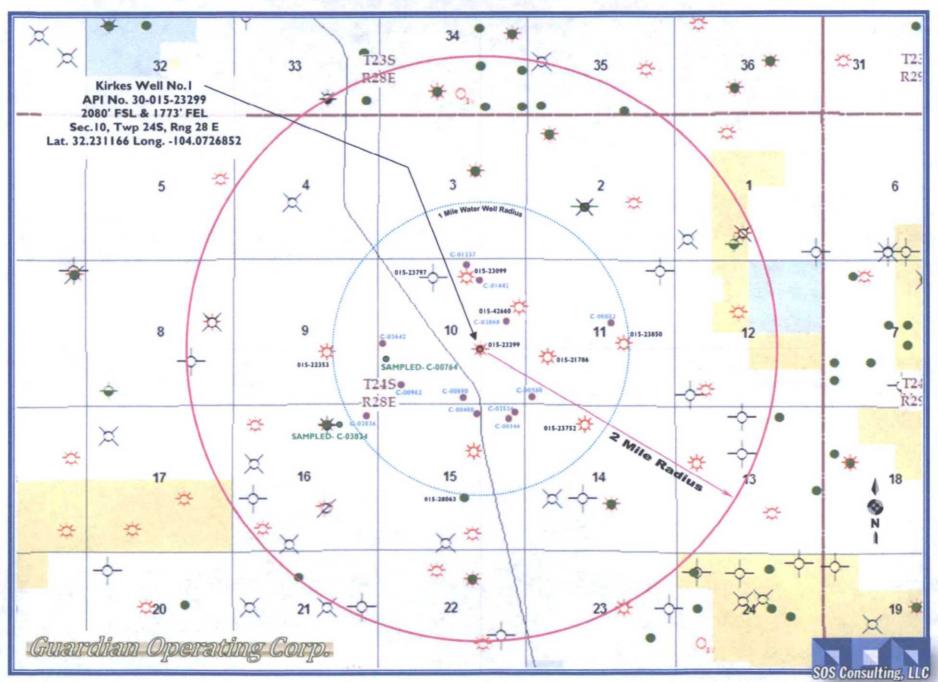
- 1. Tabulation includes all construction data for all wells within a one-half mile Radius of the subject well and which penetrate the proposed interval.
- 2. Additionally, wells outside one-half but within a ONE mile radius are listed with Basic data such as location, operator, type, depth and status.

#### Item V – Area of Review Maps

1. Two Mile AOR Map with One-Mile Fresh Water Well Radius

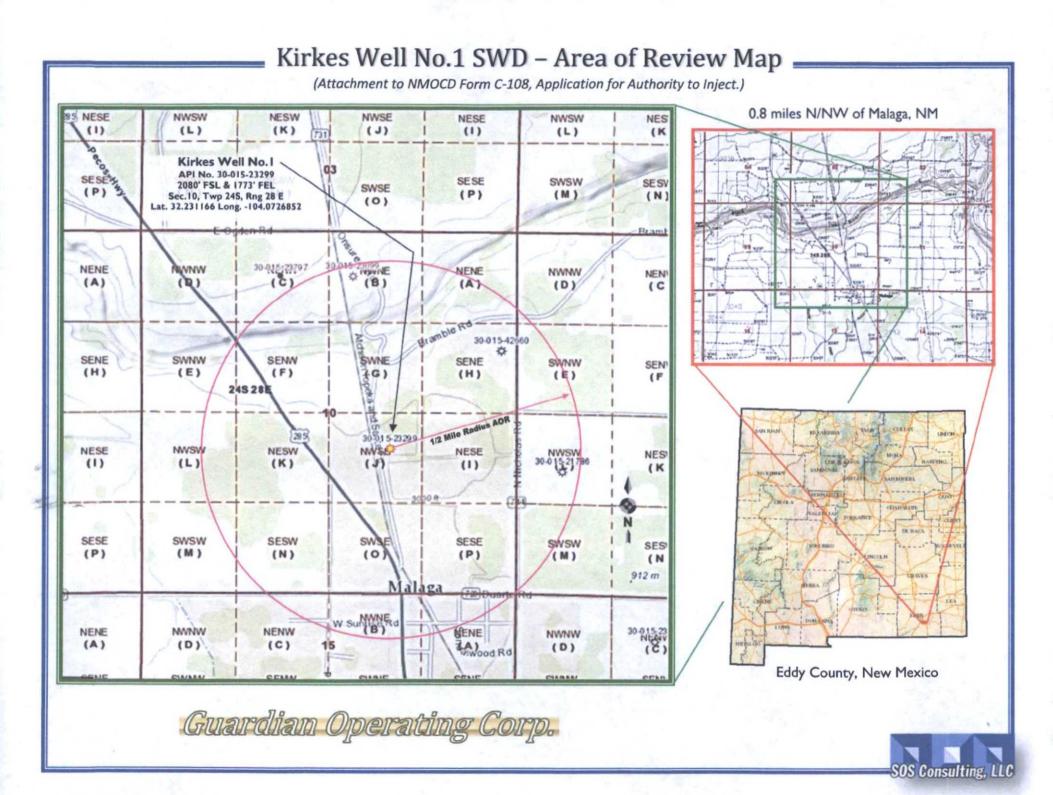
2. One-Half Mile AOR Map

All Above Exhibits follow this page.



Kirkes Well No.1 SWD - Area of Review / 2 Miles (Water Wells 1 Mile)

(Attachment to NMOCD Form C-108 - Item V)



#### Form C-108 Item VI - Tabulation of AOR Wells

	Top of Proposed CHERRY CANYON Interval 3800'					ALL W	ells Penetrate Subj	ect Formation.	
	interval 5000					L			
VELLS INSIDE 1	1/2 MILE RADIUS AOR								
PI	Current Operator	Well Name	Well No.	Туре	Lease	Status	ULSTR	M/PB/TV Depth	Plugged O
ubject Well									
0-015-23299	[287300] GUARDIAN OPERATING CORP.	KIRKES COM	#001	Gas	Private	Active	J-10-245-28E	1 <b>2,8</b> 00'	
	MORROW Perfs: 12,312'-6	57' (Shut-In Gas Producer);	20.0" (26.0"	hole) @	400' w/ 57!	5 sx - Circ.; 1	.3.375" (17.5" hole	e) @ 2509' w/ 2440s	x - Circ. 250
	9.675" (12.25" hole) @ 9830' w/ 28	40sx - TOC @ 40' by Temp.;	7.375" LNR 9	532'-11,	997' w/ 435	sx, TOC @	TOL; 4.5" LNR 11,1	.71'-12,799' w/ 270	sx - TOC @ 1
ection 10 Well	<u>ls</u>	•							
80-015-23099	[228937] MATADOR PROD. CO.	GUITAR 10	#001	Gas	Private	Shut in	8-10-24S-28E	12,210/11,106	
WOLFCAMP Pe	e <b>rfs: 10,614'-721';</b> 20.0" (26.0" hole) @ 374' w/	875 sx - Circ.; 13.375" (17.5	' hole) @ 25:	.0' w/ 27	40sx - Circ.;	9.675" (12.	25" hole) @ 9846'	w/ 2800sx - TOC @	720' by Ten
	7.375" LNR 9564'-12,098' w/ 450 sx, TOC @					-			
0-015-23797	[214263] PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil		P&A	C-10-245-28E	11,778'	3/24/198
								SEE P&A DIAGRA	
0-015-42660	[228937] MATADOR PROD. CO.	GUITAR 10 245 28E RB	#202H	Gas	Private	Active	H-10-245-28E	14150'/9475'	
HZNTL	WOLFCAMP Perfs: 9785' - 12,725' (Lateral TVD	~9500'+/-); 13.375" (17.5"	hole) @ 610'	w/ L-335	sx, T-175 s	x - Circ.; 9.6	75" (12.25" hole) (	@ 2520' w/ L-542 sx	, T-251 sx, C
		7.0" (8.75" h	ole) @ 9731'	w/ L-638	sx, T-270 s	x, Circ.; 4.5"	(6.125" hole) 800	0' - 12,710' w/ 591 s	x - TOC @ T
ection 11 Well	<u> s</u>		· · · · · · · · · · · · · · · · · · ·				annandi i man fhiolofit alar shira na i ana		
0-015-21786	[229137] COG OPERATING LLC	CNB COM	#001	Gas	Private	Active	L-11-245-28E	12,835'	
		.375" (17.5" hole) @ 630' w	/ 485 sx - Cir	c. 75 sx: 9	).675" (12.2	25" hole) @	9925' w/ 1600 sx :	1st stg./1500 BH Sa	z - TOC @ Su
	MORKOW Perts: 12,266'-402'; 13								
	MORROW Perfs: 12,266'-402'; 13		7.625" LNR 9	532'-11.	786' w/ 350	SX. TOC @	TOI : 5.0" I NR 11.1	71'-12.834' w/ 250	SX - IUL (Q) I
	MOKKOW Perjs: 12,266'-402' ; 13		7.625" LNR 9	532'-11,:	786' w/ 350	sx, TOC @	TOL; 5.0" LNR 11,1	.71'-12,834' w/ 250	sx - TOC @ +
	SUMMARY: 4 wells							71'-12,834' w/ 250	sx - 10C @ 1
	SUMMARY: 4 wells	in 1/2 mile radius pe	enetrate p					71'-12,834' w/ 250	sx - TOC @ 1
	SUMMARY: 4 wells	in 1/2 mile radius pe	enetrate p					71'-12,834' w/ 250	sx - TOC @ 1
REMAINING WI Section 11 Well 30-015-02489	SUMMARY: 4 wells	in 1/2 mile radius pe	enetrate p					71'-12,834' w/ 250	4/23

[229137] COG OPERATING LLC VASQUEZ #001 Gas Private Active J-11-24S-28E 12,900'

.

30-015-23850



PAGE ONE

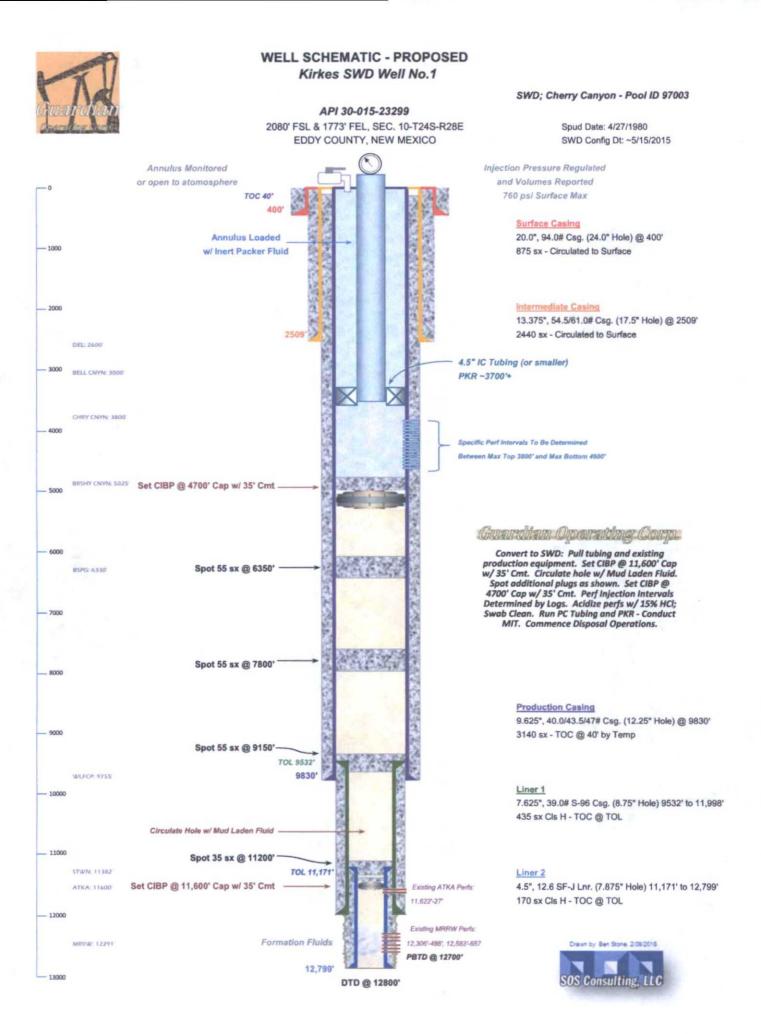
## Form C-108 Item VI - Tabulation of AOR Wells (cont.)

Section 14 Well									
30-015-23752	[287300] GUARDIAN OPERATING CORP.	MARRA	#001	Gas	Private	Active	C-11-245-28E	12,880'	
Section 15 Wells	<u>6</u>								
30-015-28063	[12361] KAISER-FRANCIS OIL CO	WILLOW LAKE 15	#002	Oil	Private	Active	J-15-24S-28E	4912'	
30-015-23036	[228937] MATADOR PROD. CO.	ANN COM	#001	Gas	Private	Shut In	G-15-245-28E	11,127'	
Section 9 Well									
30-015-22353	[241333] CHEVRON MIDCONTINENT, L.P.	WOODS 9 COM	#001	Gas	Private	Active	J-09-245-28E	12,752'	

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	er-Francis Oil Company	Kirkes #1 (Current)
ocation:	2080' FSL, 1773' FEL, Sec 10, T24S, R28E	API - 30-015-23299
County:	Eddy	Spud Date: 4/27/80
State:	New Mexico	Completed: 4/81
Elevation:	GL - 3003' KB - 3024'	
levation.	GL - 3003 KB - 3024	Diagram: Updated - 9/11/2014 Work History:
	2 3/8" 4.7# N80@ 14,010'	
		4/80-Well drilled by Aminoil to 12,800'. Mild deviation throughout. Took gain 11,620-626 (Atoka).
	> 20* 94# H-40 BTC @ 400' w/ 875 sxs (circ)	8/80: Perf Atoka 11,622-27' through tubing w/ 1 9/16" gun. Went on vac pos perf. Az perfs w/ 2000 7.5% MS Acid w/ 15 BS ATP-7800 AIR-3 BPM ISIF 5000 15-4950#. Swabbed and well wouldn't maitain much flow.
<	13-3/8" 54.5# & 61# K-55 & S-80 @ 2509'. Cmt'd w/ 2440 sx. Circ Tbg Detail	8/80: Cicr 2436 gal 6% HCl + 1% HF over perfs w/ CT. Rec some mud and barite.
	303 jts 2 3/8" N-80 35 jts 2 3/8" N80 w/ TD collars SN	8/80: Re-Perf Atoka 11,622-27' through tubing w/ 1 9/16" gun. Went on vac post perf. Az perfs w/ 9534 gal 6%HCl/1% HF + N2 15 BS ATP-7000 AIR- 7.4BPM. Jet well w/ CT
	Model R DG Pkr @ 12,167'	8/80: Ran temp log and it indicated gas migration 11,360-538' (poor cement behind 7 5/8" liner).
M	TOL @ 9532'	<b>10/80:</b> Ran BHP srvy on Atoka. BHP 6000++# <b>10/80:</b> Frac Atoka dwn 2 7/8" w/ 572 bbls YFCO2 + 30,000# sand. AR-10.7 AP-8100. ISIP-5200#.
	9-5/8" 40,43.5 & 47# N-80 & S95 @ 9830'. Cemt'd w/ 3140 sx. (TOC @ 40' by TS)	<b>10/80:</b> Parted 1" CT @ 8890' trying to jet well in. Eventually fished CT out. Rec cmt and mud during fishing job. Re-ran tubing and pkr, and tried to produce Atoka, but kept producing mud.
	**Cmt behind 7 5/8" is patchy**	2/81: Milled up GR/JB that was lost in hole to access 4 1/2" liner top. <u>Ran</u> 2nd 4 1/2" 12.24# N-80 SFJ liner f/ 11,694-11,171'. Cmt'd w/ 100 sx Class Found good cement on top of lap liner. C/O 4 1/2" liner to 12,700'.
	New TOL 11,171 (not tested) < 7 5/8" leaking/collapsed	
	Atoka Perfs 11,622-27' Orig TOL 11,684"	<b>3/81:</b> Set Baker Model DB pkr @ 12,230, ran 2 7/8" X 2 3/8" tbg string. <u>Perf'd Morrow 12,654'-57, 12,590-92, 12,583-86' (16 holes)</u> w/ 1 9/16" gun. Az w/ 2000 gal 7 1/2% MSR acid + 32 BS. 4-5' flare.
	7 5/8" 39# S-95 SFJ 9532-11,998'. Cmt'd w/ 435 sx Class H. Tested top to 1500#	<b>3/81:</b> Perf'd Morrow 12,306-12 (12 holes), 12,468-486 (36 holes) w/ 1 9/16" gun (lost gun in hole). Az 12,306-657' OA w/ 20,000 gal 7.5% MSR-100 + 1000 scf/bbl N2 + 128 BS. TP- 900-7000#. TR-2-6.9 BPM. ISIP-5650#. Morrow IP'd at 1.147 MMcf/d.
	Model R DG pkr @ 12,167	2/86: Az Morrow w/ 1500 gal 7.5% MSA + N2 + BS
- 6	Top of 2 3/8" CS tbg @ 12,167'	3/01: Change to 2 3/8" tbg string. Couldn't sting out of packer. Eventually got backed off at 12,167' (2 3/8" CS tubing looking up). Ran all 2 3/8" string and Model R packer to just above fish.
X	Baker Model DB @ 12,230'	4/05: Swabbed. Rec 58 BF in 2 days. TL-found hole 35 jts above packer
	6.82' M/O ext 10' sub	6/06: Swabbed. Rec 10 bbls in 2 runs
	F 1.87" ID F nipple	2/07: Wtr prod increasing. Swabbed. Rec 40 bbls in 15 runs. IFL-5000 EF
	10' sub	9000
t t	F 1.81" ID F nipple	6/09: TL-Release pkr. LD 41 bad joints and found hole in another 377 jts from surface. Test IH to 7000#. Swabbed well and POL
-	===== <u>Morrow Perfs 12,306'- 12,486' OA</u> ===== <u>Morrow Perfs 12,583- 12,657' OA</u>	10/12: Swabbed. IFL 4700'. 15 runs. Rec 75 BW. EFL @ 8600'. Noted cups dragging on bad pipe or scale 9500-11,200'. Swabbed 7 more suns. Rec 29 BW. Left to sales via compressor.
	4 1/2", 12.6# SFJ-Hydril liner 11,684-12,799' Crnt'd w/ 170sx Class H.	

TD - 12,800'

**C-108 ITEM VI – AOR WELL INFORMATION** 

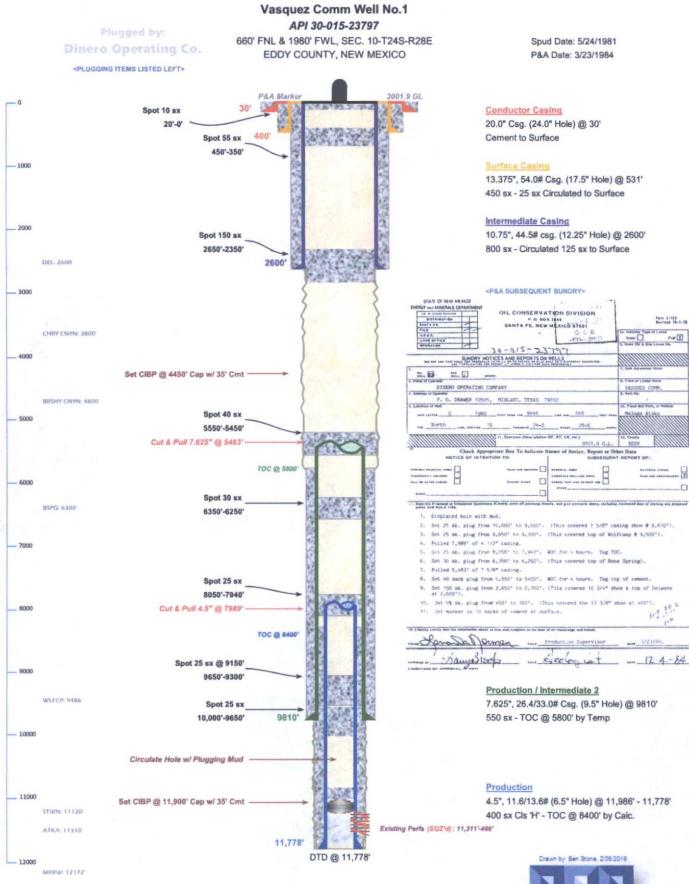
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**Plugged Well Schematics** 

For 1 P&A Well in 1/2 mile AOR

30-015-23797

#### PLUGGED WELL SCHEMATIC



SOS Consulting, LLC

## C-108 ITEM X – LOGS and AVAILABLE TEST DATA

A log strip from subject well is attached.

LOG STRIP FOLLOWS

.

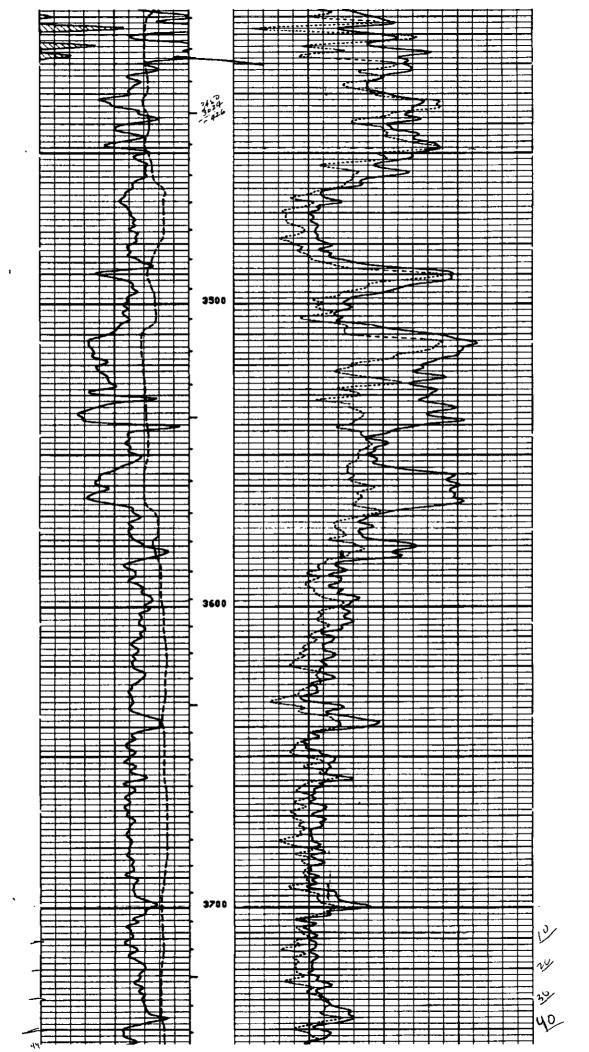
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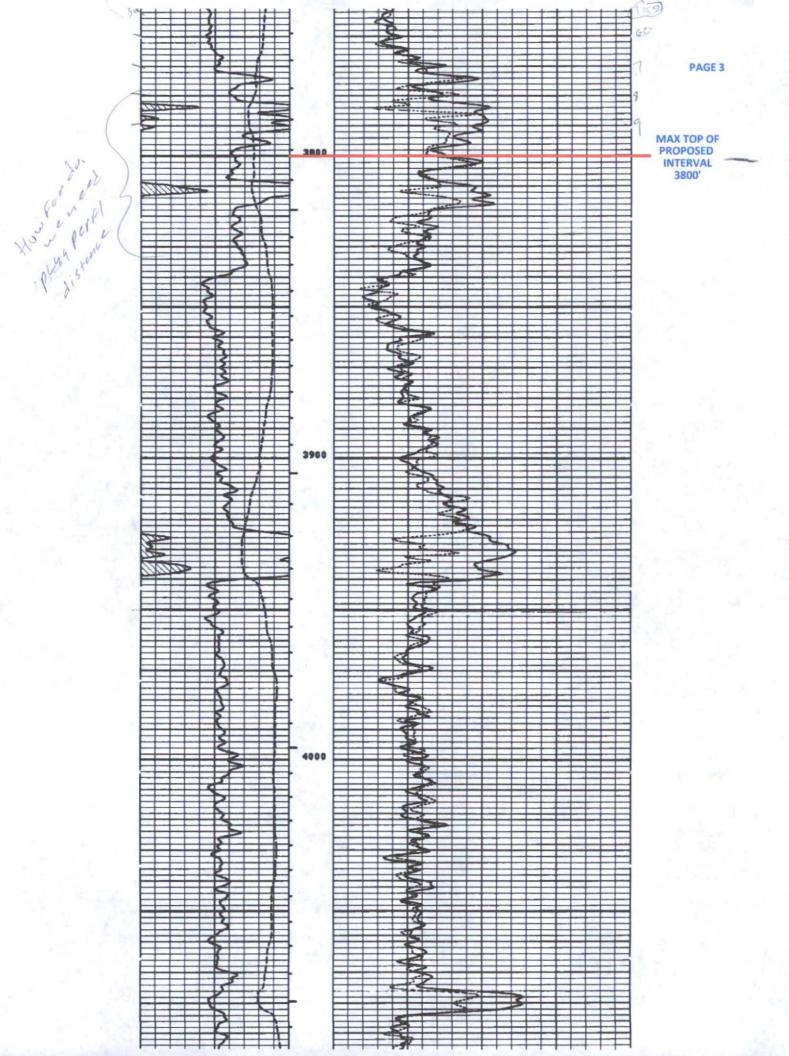
COMPENSATED NEUTRON- Schlumberger FORMATION DENSITY	CONDITIONS CONDITIONS CONDITIONS COR CAR CAR CAR CAR CAR CAR CAR CAR CAR CA	3.000 -0.100
COMPANYAMINOIL USA, INC	Promised by the customer.       Type log     Depth       REMARKS:     BAD HOLE C       RUN 2: BAD HOLE C     C       PDC	
x $x$	ond borchole reference data were THREE FULL 0 2400 8067 807 807 807 807 807 807 807 80	au affect, series a applying -0.050 2.000 0.3000
Top tog Interval         SURF         9800         11966           Casing-Driller         133/9         2505         95/9         9830         75/8         12000         @           Casing-Logger         2509         931         12000         @	The well mome, loc           To NE         To NE         To NE           127813         127813         7           127813         127813         8           127813         127813         8           127813         127813         8           127813         127813         8           127513         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13425         13425         1           13444         1054         1           13454         1         1           1354         1         1           1354         1         1           1354         1         1           1354         1         1           1354         1         1           1354         1         1           135         1         1	GR (GAP1) In provide the second secon
Circulation Stopped         2030         6-3         0300         0900           Logger on Bottom         1000         6-4         1400         1530           Max. Rec. Temp.         150         "F         173         "F         176         "F           Equip.         Location         8185         HOBBS         8057         HOBBS         "F           Recorded By         SEVOIIGIAN         SPRINGER         SPRINGER         "F         "F           Witnessed By Mr.         MCCASLAND         MCCASLAND         MCCASLAND         MCCASLAND         MCCASLAND	rouch Hrank RUN NO. Service Noto. Fluid Level Secul DMENT DA Cert. Brank Ci. Seved - F.P.M. Ci. Seved - F.P.M. Ci. Seved - F.P.M. Ci. Seved - F.P.M. Ci. Bern. Source Dem. Suid Dem. Suid Dem. Suid Dem. Suid Dem. Suid Dem. Suid Neuri. Formel Neuri. Formel Neuri. Source Dem. Suid Dem. Suid Dem. Suid Neuri. Source Dem. Suid Dem. Suid Neuri. Source Dem. Suid Dem. Suid	100.0

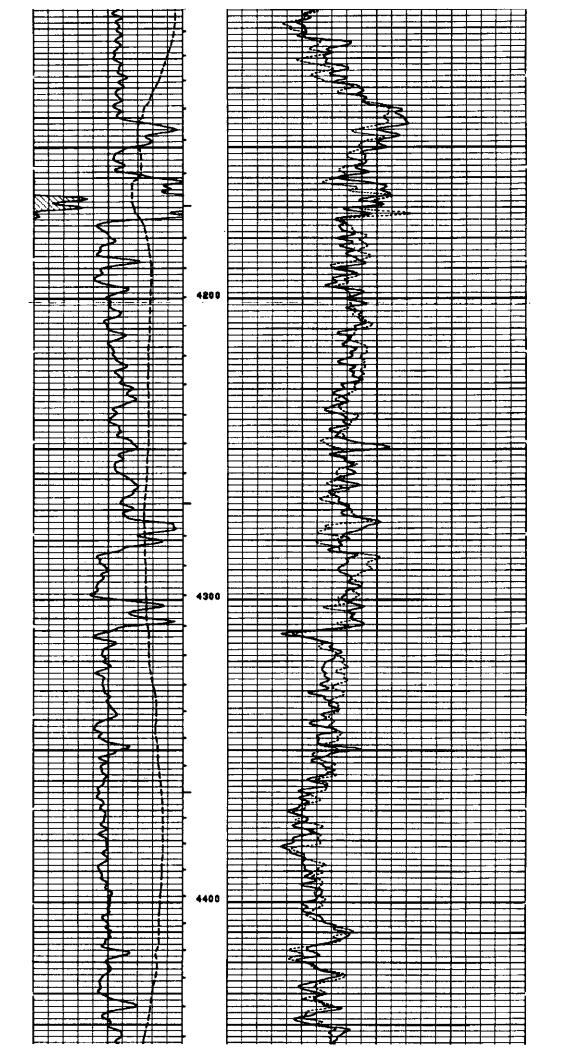
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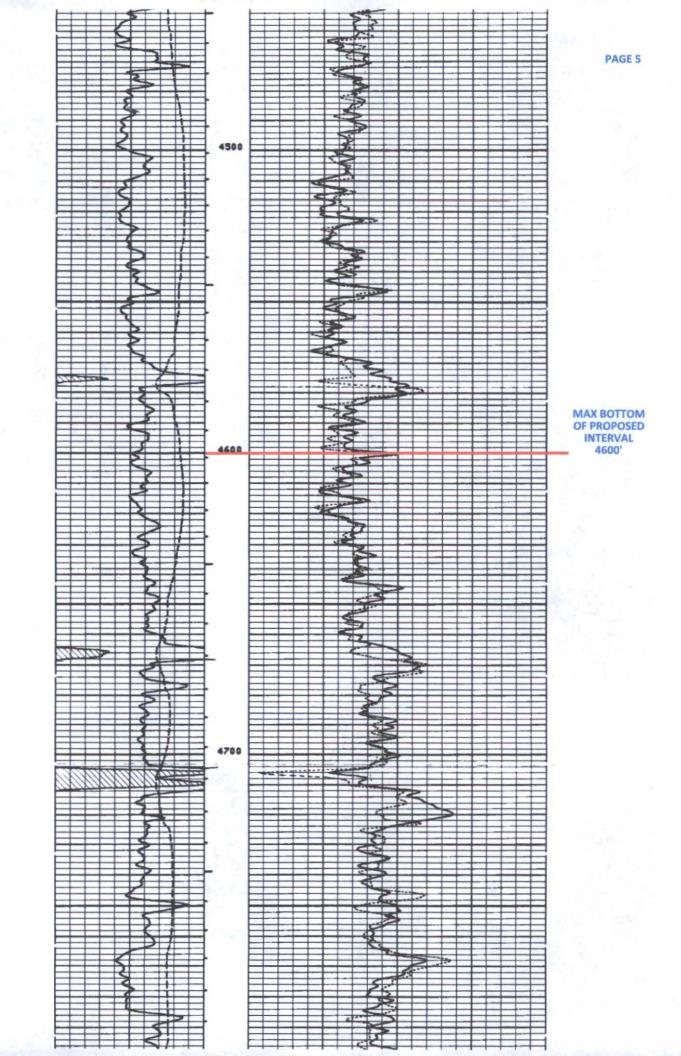
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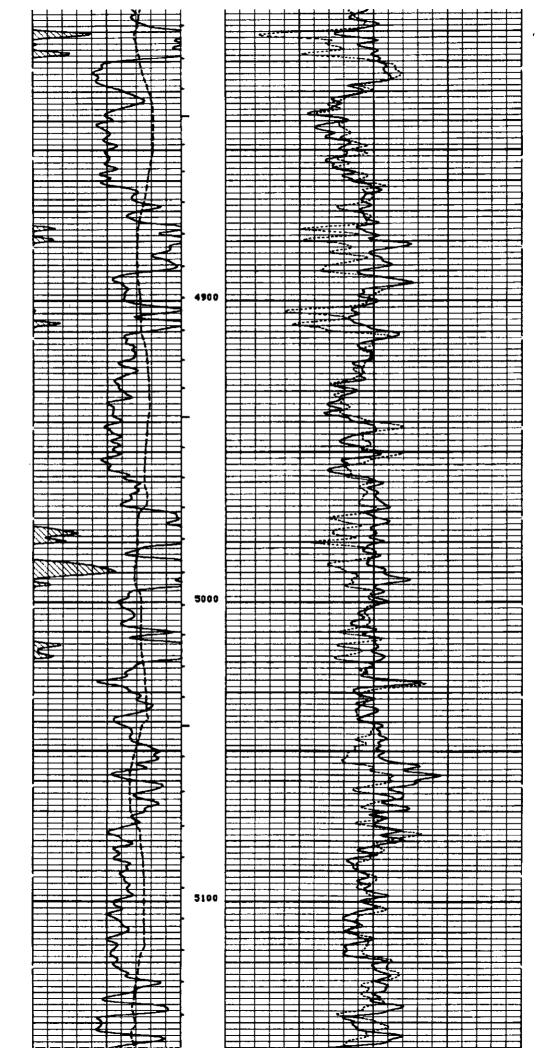
PAGE 2





PAGE 4





PAGE 6

#### C-108 ITEM VII – PROPOSED OPERATION

The Kirkes SWD Well No.1 will be operated as a private disposal facility for Guardian Operating Corp. and its operational partners' wells only. This well will help facilitate disposal of Bone Spring, Atoka and Morrow produced water from the company's existing wells and projects. *(NM Waids data are included in this application from Delaware, Bone Spring, Atoka and Morrow formations obtained in the general vicinity and indicate formation waters - chlorides and TDS are relatively compatible.)* 

The system will be closed utilizing a tank battery facility located at the well site to accommodate all produced water. Pipelines will be laid from some current and future wells owned and operated by Guardian Operating and its partners.

Injection pressure will be 760 psi with rates limited only by that pressure. In the future, Guardian may opt to conduct a step rate test if it is determined that greater rates may be required. This would be submitted to OCD as a request to increase the injection pressure.

Routine maintenance will be ongoing and any releases will be reported within 24 hours to OCD on form C-141 pursuant to various portions of 19.15.30 NMAC.

The facility will not be manned but will be available for inspections at any time deemed necessary by OCD.

## C-108 ITEM VII – PRODUCED WATER ANAYLSES

Item VII.4 - Water Analysis of Source Zone Water

Bone Spring Atoka Morrow

Item VII.5 – Water Analysis of Disposal Zone Water

Delaware (x2)

Water Analyses follow this page.

## Guardian Operating Corp. – Kirkes No.1 SWD Project

## SOURCE ZONE

Lab ID

#### BONE SPRING

API No	3001529	9396								Sample			6747
Well Name	CORRA	L DRA	W AC	)H FI	EDER	AL 001				Sample	No		
Location	ULSTR	13	24	s	29	E	Lat / Long	32.21	635	-103	3.94508		
	2	2310	Ş	3	30	W				County	Eddy		
Operator	· (when sa	ample	d)										
-	•	Fiel		LłV	INGS	TON RID	GE			Unit L			
San	nple Date		1	2/27	/2000	)	Analysis Date						
		Son	nple S	0.00	~			-	Sameth /:6	(			
			ter Ty		ę			Ŀ	vebru (ir	known)			
				-		<b>F F C</b>							
ph	_					5.59			caco3_r	-			
ph_ter							hardne	ess_as_	_caco3_	mgL			
specifi	icgravity					1.183	hardn	ess_mg	L				
specif	icgravity_t	temp_l	F				resisti	vity_ohr	n_cm				
tds_m	gL						resisti	vity_ohr	m_cm_t	emp			
tds_m	gL_180C						condu	ctivity					
chloric	ie_mgL					164963	condu	ctivity_t	emp_F				
sodiur	n_mgL						carbo	nate_mg	ցև				
calciu	m_mgL					25552	bicarb	onate_n	ngL			73	
iron_m	ngL					175	sulfate	_mgL				190	
barium	n_mgL					0	hydrox	ide_mg	JL				
magne	esium_mg	jL.				4471	h2s_n	ıgL				0	
potass	sium_mgL						co2_n	ıgL					
stronti	um_mgL						o2_m	ιL					
manga	anese_mg	ιL					anionr	emarks					
Remarks													



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#### Guardian Operating Corp. – Kirkes No.1 SWD Project

## SOURCE ZONE

#### ΑΤΟΚΑ

.

(A						Lab ID
API No	3001500	)389				Sample ID 5359
Well Name	FED D				00	2 Sample No
Locatio	n ULSTR	12	24	S 26	5 E	Lat / Long 32.22646 -104.23957
	(	660	Ş	660	Ė	County Eddy
Operato	or (when sa	ample	d)			
		Fie	id	BLAC	K RIVER	Unit P
Sa	imple Date					Analysis Date
		Sar	nple \$	Source L	INKNOWI	Depth (if known)
			ter Ty		• • • •	
ph						alkalinity_as_caco3_mgL
ph_t	emp_F					hardness_as_caco3_mgL
spec	ificgravity					hardness_mgL
spec	ificgravity_	temp_	F			resistivity_ohm_cm
tds_	ngL				60623	resistivity_ohm_cm_temp
tds_i	mgL_180C					conductivity ·
chlor	ide_mgL					conductivity_temp_F
sodi	ım_mgL					carbonate_mgL
calci	um_mgL					bicarbonate_mgL
iron_	mgL					sulfate_mgL
bariu	ım_mgL					hydroxide_mgL
mag	nesium_mç	βL				h2s_mgL
pota	ssium_mgL	-				co2_mgL
stror	tium_mgL					o2_mgL
	ganese_mo	gL				anionremarks
Remarks						



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#### Guardian Operating Corp. – Kirkes No.1 SWD Project

## SOURCE ZONE

#### MORROW

ROW API No Weli Name Location		FEDE	RAL 24 Ş	S 26 660	00 E W	1	Lab ID Sample ID 59 Sample No Lat / Long 32.23043 -104.26911 County Eddy					
Operator	(when s	ample	d)	MALLC		OMPANY						
		Fie	ld	CARLS	SBAD SC	UTH			Unit L			
San	nple Date	!		8/27/199	99	Analy	sis Date	8/3	31/1999			
			mple S Iter Ty	Source p				Depth (i	f known)			
ph					5.7	,	alkalinit	y_as_caco3_	mgL			
ph_ten	np_F						hardnes	ss_as_caco3_	_mgL			
specifi	cgravity				1.08	1	hardnes	ss_mgL				
specifi	cgravity_	temp_	F				resistivi	ty_ohm_cm				
tds_m	gL				123887	,	resistivi	ty_ohm_cm_i	temp_			
tds_m	gL_180C						conduct	tivity				
chlorid	e_mgL				81000	)	conduc:	tivity_temp_F				
sodiun	n_mgL				49189.7	,	carbona	ate_mgL				
calciur	n_mgL				2808	6	bicarbo	nate_mgL		368.28		
iron_m	igL				351		sulfate_	mgL		81		
barium	_mgL						hydroxi	de_mgL				
magne	esium_m	ցե					h2s_mg	μ		0		
potass	ium_mgl	-					co2_mg	βL				
stronti	um_mgL						o2_mgl	-				
-	inese_m	зL					anionre	marks				
Remarks												



#### Guardian Operating Corp. – Kirkes No.1 SWD Project

#### **DISPOSAL ZONE**

#### DELAWARE

WARE									Lab ID Sample	e ID		5254
API No	3001502								Sample			•
Well Name	MALAG	A UNI	Γ			001			,			
Location	ULSTR		24	S 2		E	Lat / Long	32.22448		.03667		
		330	Ν	165	50 1	E			County	Eddy		
Operator	r (when sa	ample	d)									
		Fiel	d	MAL	AGA				Unit B			
Sar	nple Date						Analysis Date					
		Sar	nole S	Source	UNKI	NOWN		Depth (i	f known)			
			ter Ty		-	-			. ,			
ph							alkalin	ty_as_caco3_	mgL			
ph_te	mp_F						hardne	ss_as_caco3_	_mgL			
specif	icgravity						hardne	ss_mgL				
specif	icgravity_1	temp_	F				resistiv	/ity_ohm_cm				
tds_m	ıgL				1	48288	resistiv	ity_ohm_cm_	temp			
tds_m	igL_180C						condu	tivity				
chlorid	de_mgL					91050	çondu	ctivity_temp_F				
sodiur	m_mgL						carbon	ate_mgL				
calciu	m_imgL						bicarbo	onate_mgL			182	
iron_n	ngL						sulfate	_mgL			400	
bariun	n_mgL						hydrox	ide_mgL				
magn	esium_mg	μL					h2s_m	gL <sup>i</sup>	•			
potas	sium_mgL	-					co2_m	gL				
stront	ium_mgL						o2_mg	L				
mang	anese_mç	gL					anionh	emarks				
Remarks												



~

Lab ID

## Guardian Operating Corp. – Kirkes No.1 SWD Project

## **DISPOSAL ZONE**

#### DELAWARE

							Labib	
API No	3001510	)872					Sample ID	1754
Well Name	GUY A I					001	Sample No	
Location	ULSTR	24	24	s	28	Е	Lat / Long 32.20544 -104.04631	
	1	1980	N	6	60	w	County Eddy	
Operator	(when sa	mple	d)					
-	<b>、</b>	Fiel		MA		٩	Unit E	
San	nple Date			10/26	6/1966	6	Analysis Date	
		6 or	nnla G	201150				
			ter Ty		Ϋ́ς ΥΫ́ς	ILLINEAL	D Depth (if known)	
. 1.			,	F		6.1		
ph	_					Q. I		
ph_ten							hardness_as_caco3_mgL	
	cgravity						hardness_mgL	
specifi	icgravity_1	temp_i	F				resistivity_ohm_cm	
tds_m	gL					130273	resistivity_ohm_cm_temp	
tds_m	gL_180C						conductivity	
chlorid	le_mgL					78600	conductivity_temp_F	
sodiun	n_mgL					·	carbonate_mgL	
calciur	m_mgL						bicarbonate_mgL 14	
iron_m	ngL						sulfate_mgL 605	
barium	ı_mgL						hydroxide_mgL	
magne	esium_mg	μL					h2s_mgL	
potass	ium_mgL						co2_mgL	
stronti	um_mgL						o2_mgL	
manga	inese_mg	jL.					anionremarks	
Remarks								



Guardian Operating Corp. 6824 Island Cir. Midland, Tx 79707

# Guardian\_op@yahoo.com 432-553-1849

#### C-108 ITEM VIII – GEOLOGIC INFORMATION

Disposal will be into the Cherry Canyon formation.

The Delaware is composed predominately of sandstones and shales. All the Delaware members are interbedded, poorly consolidated, light gray sandstones and shales with occasional dense dolomite horizons. The lateral transmissivities of the sandstone beds can be variable and often forms barriers to the movement of hydrocarbons while allowing down-gradient movement of water. The transmissivity variations are fundamentally due to the very-fine grained nature of the sands and the local percentage of silt and clay. The Delaware sandstone members are typically overlain and underlain by bounding shale, dolomite and/or silty shale horizons.

The Cherry Canyon in this area is generally 3500' to 4900'. There is no nearby commercial production. Log analysis in these intervals indicates low resistivity yielding high water saturations. A direct offset mud log has no oil shows in the Cherry Canyon.

Fresh water in the area is generally available from the alluvial sands and the Carlsbad Basin. State Engineer's records show water wells in the area to have an average depth to water of 19-30 feet.

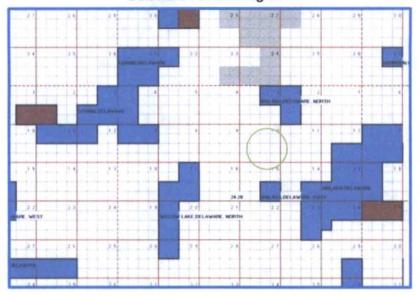
While the State Engineer's data indicates there are 14 water wells within one mile of the proposed SWD, only one was determined to be active. Its analysis is included as well as another outside the AOR. A foot search was conducted and local residents interviewed, and all wells represented by Office of the State Engineer's data could be located or were determined to be abandoned. The town of Malaga has its own water system and irrigation is achieved through use of river water run in a canal system. All of the OSE water wells are spotted and identified on appropriate maps with sampled wells being highlighted.

C

Randall Cate President

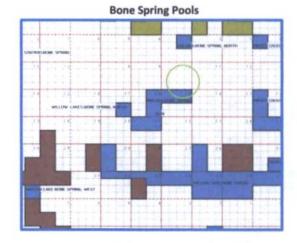
#### C-108 – Item VIII – Geologic Data SUPPLEMENTAL INFORMATION – POOL DATA

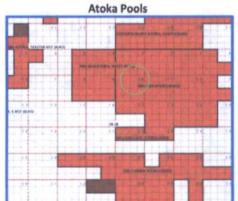
# In a two township area (23-28 & 24-28), there are 12 existing SWDs in the Delaware including Bell and Cherry Canyons.



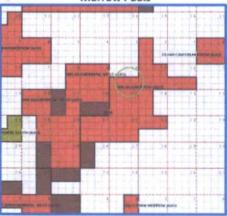
**Delaware Pools in Region** 

Most Area Production is from deeper Bone Spring, Atoka or Morrow Formations.





**Morrow Pools** 



Pool maps courtesy of Paul Kautz

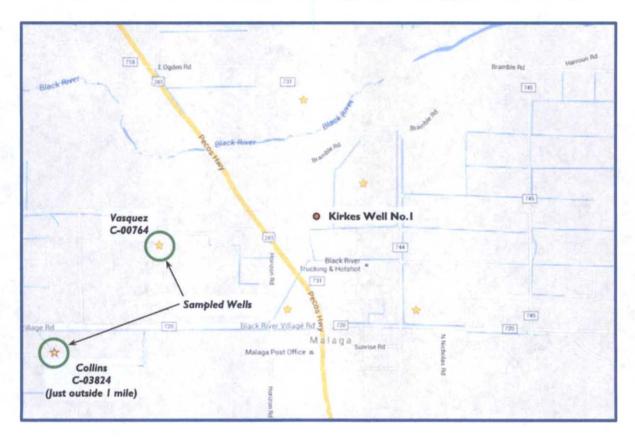


## C-108 - Item XI

#### Water Wells within One Mile of Proposed SWD

#### Water Well Locator Map

(Note: All 14 wells in the one-mile AOR are shown on the 2 mile AOR map. The group shown here was selected as ones to attempt to locate by foot search or by personal interviews.)



Sample analyses for the 2 wells identified above are included and attached hereto.



## C-108 - Item XI - Water Well Analysis

#### 2 wells sampled previously on 11/17/2015 and results were made available to Guardian Operating Corp. (Note: Collins well C-3824 is just outside 1 mile but was made available.)

#### PREPARED BY: DAVE ANDERSEN

#### MALAGA AREA (NOT ALL) WATER SOURCES GPS LOCATIONS

GENERIC NAME / GPS SAMPLENAMETHODCODE ANALYTE RESULT UNITS LABNAME COLLINS WELL C 3824 **Bicarbonate 310.1** Alkalinity, Bicarbonate **Cardinal Laboratories** 210 mg/l 32.224053" -104.090129" C 3824 Calcium 200.2 by ICP 804 Green Analytical Laboratories Calcium mg/l C 3824 Chloride, SM4500CI-B Chloride 1770 mg/L Cardinal Laboratories C 3824 Iron 200.2 by ICP Green Analytical Laboratories iron ND me/L C 3824 Magnesium 200.2 by ICP Magnesium 382 me/L Green Analytical Laboratories C 3824 pН pН 7,44 pH Units Cardinal Laboratories C 3824 Phosphorus, Total, 365.3 Phosphorus, Total ND me/L **Cardinal Laboratories** Sodium 200.2 by ICP C 3824 Sodium 1030 Green Analytical Laboratories me/L Sulfate C 3824 Sulfate 375.4 2060 mg/L Cardinal Laboratories C 3824 TDS 160.1 TDS 6880 mg/l **Cardinal Laboratories** VASQUEZ WELL C 764 Bicarbonate 310.1 Alkalinity, Bicarbonate 229 mg/L Cardinal Laboratories 32,230553\* -104,083518\* C 764 Calcium 200.2 by ICP Caldum 784 mg/L Green Analytical Laboratories C 764 Chloride, SM4500CI-8 Chloride 1600 mg/L **Cardinal Laboratories** C 764 Iron 200.2 by ICP [iron ND mg/L Green Analytical Laboratories C 764 Magnesium 200.2 by ICP Magnesium 197 Green Analytical Laboratories mg/L C 764 7.49 oH Units Cardinal Laboratories pН ØН C 764 Phosphorus, Total, 365.3 Phosphorus, Total ND mg/L Cardinal Laboratories C 764 Sodium 200.2 by ICP Sodium 780 Green Analytical Laboratories mg/L C 764 Sulfate 375.4 Sulfate 1330 mg/L Cardinal Laboratories C 764 TDS 160.1 TOS 5200 **Cardinal Laboratories** mg/L

2/16/2016



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a	(R=POD has been replaced O=orphaned, C=the file is	(quar						IE 3=SW					
water right file.)	closed)	(quai	ters	s ar	e s	smal	lest to	largest)	(NAD8	3 UTM in meters)		(In feel	t)
	POD		~	~	~						<b>Б</b> (1)	<b>Б</b> (1	
POD Number	Sub- Code basin (	County		Q 16			Tws	Rna	х	Y	-	•	Water j Column
<u>C 00346</u>	С	ED					24S		587715	3565591* 🤪	90	32	58
<u>C 00488</u>	C	ED	2	1	2	15	24S	28E	587412	3565688* 🚱	64	8	56
<u>C 00570</u>	С	ED		1	1	10	24S	28E	586490	3567195* 🤪	100	28	72
<u>C 00574</u>		ED	2	4	4	11	24S	28E	589452	3566081* 🎧	200	20	180
<u>C 00764</u>		ED	3	1	3	10	24S	28E	586399	3566292* 🚱	118	25	93
<u>C 00890</u>		ED	3	3	4	10	24S	28E	587211	3565897* 🚱	50		
<u>C 00962</u>	С	ED		3	3	10	24S	28E	586505	3565992* 🚱	63	9	54
<u>C 01082</u>		ED	3	3	2	11	24S	28E	588832	3566693* 🚱	120		
<u>C 01237</u>	С	ED	1	1	2	10	24S	28E	587197	3567298* 🚱	123		
<u>C 01442</u>	С	ED		1	2	10	24S	28E	587298	3567199* 🚱	100		
C 02524 POD2	С	ED	2	2	2	15	24S	28E	587814	3565690* 🚱	90	11	79
<u>C 03132</u>	С	ED	1	2	4	15	24S	28E	587616	3564877* 🚱	90	19	71
C 03604 POD1	CUB	ED	2	4	3	10	24S	28E	526534	3565712 🚱	38	24	14
										Average Depth t	o Water:	19 f	eet
										Minimur	n Depth:	8 f	feet
										Maximur	n Depth:	32 f	eet
Record Count: 13			-								****		

#### PLSS Search:

Section(s): 10, 11, 15

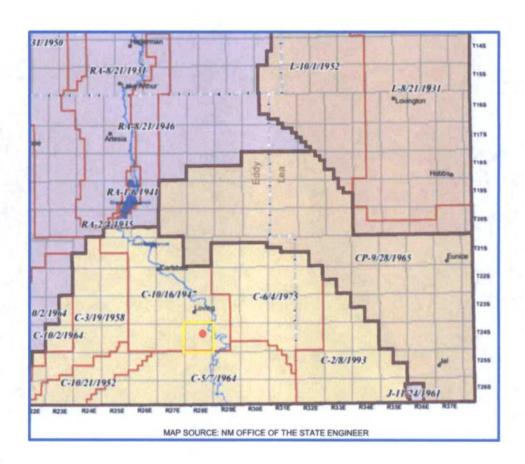
Township: 24S

Range: 28E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

C-108 - Item XI



Groundwater Basins - Water Column / Depth to Groundwater

The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available at shallow depths from alluvial sands near the Pecos and Black Rivers.

State Engineer's records show water wells in Sections 10,11 and 15-24S-28E with an average depth to water at 19 feet.

There are 14 water wells located within one mile of the proposed SWD. 2 of the wells were sampled and analyses are attached hereto. (1 FW well is located just outside 1 mile AOR but was readily available so it was included.)



## C-108 ITEM XII - GEOLOGIC AFFIRMATION

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.

Randal Cate Guardian Operating Corp.

Project: Kirkes No.1 Reviewed 2/16/16

# C-108 - Item XIV - Proof of Notice - List of Affected Parties

SURFACE OWNER Henry McDonald	/ P.O. Box 597	Loving, NM 88256
OFFSET OPERATORS	,	
Matador Production Company	5400 LBJ Freeway, Ste 1500	Dallas, TX 75240
Kaiser- Francis Oil Company	6733 South Yale Aveneue	Tulsa, OK 74136
Concho Operating, LLC	600 W. Illinois Ave.	Midland, TX 79701

#### SECTION 10 S2 UNMI

MIN OWNERS OF RECORD	ADDRESS	PLAT TRACT NUMBER
NANCY D. COLEMAN	2502 CONCORD, MIDLAND, TX 79701	4
HKN, Inc.	180 State Street, Ste. 200 Southlake, TX 76092	4
ROBERTO B. LUJAN	1907 MORA, CARLSBAD, NM 88220	5
MANUEL MEDRANO, 4547 E. EUGENIA AVE., FRESNO, CA 93725	4547 E. EUGENIA AVE., FRESNO, CA 93725	6
MALAGA WATER USERS COOPERATIVE ASSOCIATION	PO BOX 70, MALAGA, NM 88263- 0070	7
FEATHERSTONE DEVELOPMENT COMPANY	P.O. BOX 429, ROSWELL, NM 88202	9
BNSF Railway Corporate Headquarters	2650 LOU MENK DRIVE, FORT WORTH, TX 76131	10
STEPHEN GLENN HOPKINS	108 Chipmunk, Cloudcroft, NM 88317	13
TONY MORALES	3200 Del Rey Blvd, Trir 13, Las Cruces, NM 88012	14
HUMBERTO MORALES	1111 N. EIGHTH, ARTESIA NM 88210	14
CHRIS ANAYA	PO Box 1301, Loving, NM 88256	14
HELEN and PETER KARNOSKI	1588 SANDINISTA DR., LAS VEGAS, NV 89123	16
VIRGINIA ARLEENE AUSTIN BAGGERMAN	1603 LASALLE DR., AMARILLO, TX 79106	16

GAYLE HENSLEY	2022 Highway 144, Meridian TX 76665 PH. 254.435.2452	16
KAREN ANN AUSTIN CASE	Address Unknown	16
BETTY MILLER	6950 540 Loop, Trir A1, Logan, NM 88426	16
SHAWNA AND MIKE HUALMILTON, FL	5704 San Gabriel Dr, Pensacola, FL 32504	16
KELLY VAN DUSEN	Address Unknown	16
DEBORAH MILLER	Address Unknown	16
SANDRA PAULEY	address Unknown	16
KEVIN MILLER	6950 540 Loop, Trir A1, Logan, NM 88426	16
HARRIET WESTMORELAND	Address Unknown	16
EDNA GOLDEN	Address Unknown	16
BILL DICKINS	Address Unknown	16
GERALDINE DICKINS 3410 BRAGG DR., WILMINGTON, 28409		16
CHERYL STUMPFF	Address Unknown	16
LAURALEA BUCHWALD STEPHENS,	6409 Cromwell Dr Amarillo,TX,79109,	16
ROBERT JAMES STEPHENS	Address Unknown	16
CYNTHIA GAYLE STEPHENS	address Unknown	16
MICHAEL DAVID STEPHENS	Address Unknown	16
WILBUR MOTLEY.	4718 CINDY PLACE, MIDLAND, TX 79707	16
LEE MOTLEY UX PAULA, ODESSA, TX	2411 Oakwood Dr, Odessa, TX 79761	16
JEFF MOTLEY UX JENNIFER	307 E Pecos St, Uvalde, TX 78801	16
MATTHEW MOTLEY UX MICHELLE, MIDLAND, TX	4604 Spruce Dr, Apt 1107, Arlington, TX 76018	16
LISA MOTLEY, MIDLAND, TX	4700 Boulder Dr, Apt 1105, Midland, TX 79707	16
JERRY AND ARLENE HOLLOWAY	7 Nw Bent Tree Cir, Lawton, OK 73505	16
KENNETH AND SUE ANN HOLLOWAY	23998 State Highway 5, Chattanooga, OK 73528	16
DAVID AND JANICE HOLLOWAY	24040 State Highway 5, Chattanooga, OK 73528	16

KATIE MILLER	2501 CORNELL DR., ROSWELL, NM	
	88203	16
MONA M. MILLER	5313 Valerie St., Bellaire, TX 77401	
		16
Charles Ray Smith,Jr and Dashea Lynn	6500 N.W. Grand Blvd 165,	
Beesing	Oklahoma City, OK 73116 .	17
PEGGY VOREL, 19545	19545 NE 164th St ,	17
	Luther, OK 73054	
PHYLLIS JEAN HUMMEL PEAL	C/O MICHAEL KARSEK 8 ARMITAG DR., ST PETERS, MO	18
	63370	10
JOAN L. ANTHONY	2632 BENT TREE DR., HURST, TX	
	76054	19
JUANITA NAVARRETE	4411 EAST DERRICK ROAD,	
	CARLSBAD, NM 88220	20
Ms. Karen Prnka		·····
IVIS. Karen Prinka	c/o Rodrigo Garcia	
	2603 Covey Lane	21
	Pearland, TX 77584	
BILL CHAPMAN	P.O. BOX 158, WILTON IA 52778.	22
ANTONIO CARRASCO	953 S Jamaica St, Aurora, CO 80012	23
SUSEVIA C. ORTEGA	Address Unknown	23
ELIAZAR C. GUTIERREZ	2101 Camp Indianhead Rd, Land O	
	Lakes, FL 34639	23
CRUZ LOPEZ	2009 Platina Rd Se, Río Rancho, NM	
	87124	23
MARIA ARMENDAREZ	1303 Dixie Ave, Big Spring, TX 79720	
		23
ROSE GRAHAM AGENT & AINF FOR JOSE	2741 ASPEN LOOP, SANTA FE, NM.	24
MANUEL ESCAMILLA	PH. 505.577.3354	
BECKY ESCAMILLA ROBERTS, AGENT &	64 Yakima Road, Dexter, NM 88230.	
AINF FOR JOSE MANUEL ESCAMILLA	ph. 575.347.2625	24
ESTATE OF IRENE BROWN ESTATE BY	14415 87TH AVE., NE, KIRKLAND,	
PHYLLIS P. GUITIERREZ-BROWN, EXECUTRIX.	WA 98034	25 .
MANUEL FLOREZ	P.O. BOX 96, Maiaga, NM 88263	26
	P.O. BOX 105, MALAGA, NM 88263	
LUPE AND MARGARITA RAMIREZ	F.O. BOA 103, WIALAGA, NIVI 88203	26
D. STUART HARROUN, JR. INDIVIDUALLY	515 TRES LAGUNAS LANE NE,	
AND AS TRUSTEE OF THE STUART D.	ALBUQUERQUE, NM 87113	29
HARROUN, JR. TRUST		

ANASTACIA BLANCO	2720 SHANNON DR., SOUTH SAN FRANCISCO, CA 94080	30, 44
JON AND BARBARA BLACK	P.O. BOX 331, CROWELL, TEXAS 79227	31
EDMUND T. ANDERSON IV, OIL AND GAS PROPERTIES	P.O. BOX 8575. MIDLAND, TEXAS 79708-8575	32
HERNANDEZS, ANGEL, JR	5304 SIOUX ROAD, CARLSBAD, NM 88220	33
ERNEST LINCK	C/O RUSSELL LINCK, 2732 BIG SPRING RANCH RD., DELTA CO 81416	34
ELIZABETH ANN WILSON	P.O. Box 1434 Artesia, NM 88211	35
ROSS DUNCAN PROPERITES LLC	P.O. BOX 647, ARTESIA, NM 88211	35
XPLOR RESOURCES LLC	1104 N. SHORE, CARLSBAD, NM 88220	35
FEATHERSTONE DEVELOPMENT CORPORATION	P.O. BOX 429, ROSWELL, NM 88202	35
PROPSECTOR LLC	P.O. BOX 429, ROSWELL, NM 88202	35
BIG THREE ENRGY GROUP	P.O. BOX 429, ROSWELL, NM 88202	35
BRIAN AND KATHERINE REID	2502 CAMARIE, MIDLAND, TX 79705	35
HAZEL Walker, c/o DENNIS WALKER	P.O. Box 1315, Van Horn, TX 79855	37
ROY AND CARRIE PALOMINO	P.O. BOX 11, LOVING, NM 88256	40, 41
THE LEONARD TRUST	P.O. BOX 400, ROSWELL, NM 88202	44
KEVIN K. LEONARD, TRUSTEE OF THE KEVIN K. LEONARD CHILD'S TRUST,	P.O. BOX 50688, MIDLAND, TX 79710	44
MOLLY M. AZOPARDI, TRUSTEE OF THE MOLLY M. AZAPARDI CHILD'S TRUST,	P.O. BOX 620, WIMBERLEY, TX 78676	44
SHANNON C. LEONARD, TRUSTEE OF THE SHANNON C. LEONARD CHILD'S TRUST,	1018 SUNSET CANYON N., DRIPPING SPRINGS, TX 78620	44
MICHAEL KYLE LEONARD, TRUSTEE OF THE MICHAEL KYLE LEONARD CHILD'S TRUST	P.O. BOX 2625, EAGLE PASS, TX 78853	44
5. PATRICK LEONARD, TRUSTEE OF THE PATRICK LEONARD CHILD'S TRUST,	P.O. BOX 700633, SAN ANTONIO, TX 78270	44
EDDIE CARRASCO	1312 Chico St., Carlsbad 88220	44
RUIZ, BILL C., SSP	P.O. Box 161, Sultana, CA 93666	44
RUIZ, HARVEY C., SSP	P.O. Box 111, Malaga, NM 88263	44
Mary Jane Ruiz; c/o John Bill Ruiz	P.O.Box 161, Sultana, CA 93666	44

### **SEC 15 UNMI**

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ELOISA MORALES		122
JOSE SALGADO	27497 LEMONTREE COURT HAYWARD, CA 94545	
SOCORRO OLIVAS		124
EPIFNIA Z. OLIVAS	P.O. BOX 72 MALAGA, NM 88263	
Arnulfo and Sara Gonzales	P.O. Box 68, Malaga, NM 88263	125
CAROLINA RODRIGUEZ	P.O. BOX 12 MALAGA, NM 88263	129, 132, 133
RAY M. ANAYA PERSONAL REPRESENTATIVE FOR LUIS AND MARIA CARNERO	ADDRESS UNKNOWN	131
Flora Kemp, Ramon HERNANDEZ, ALFREDO HERNANDEZ, JR & M. SOTELLO	920 ADRIAN STREET LUBBOCK, TX 79403	138
EDUARDO CAMPOS & HEIRS OF JULIA AND ARCENIO CAMPOS	P.O. BOX 13 LOVING, NM 88256	139
ABEL CAMPOS	6145 Quail Ave, Trlr 601, El Paso, TX 79924	140
MARY J, CALVERT Estate, Marylee Alaniz	3821 North 7th CT., Apt C MCALLEN, TX 78501	148
HAROLD DON DREW WAYNE COLLINGSWORTH	HC 62 BOX 1285 SALYERSVILLE, KY 41465	166
WILLIAM D. SPAULDING REVOCABLE TRUST, WILLIAM D. SPAULDING, TRUSTEE	17736 TULIP LANE TINLEY PARK, IL 60477	170
BALM FAMILY TRUST, JOHN H. BALM & JULIE J. BALM, TRUSTEES	3118 THUNDER DRIVE OCEANSIDE, CA 92056	173, 174
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BENNIE GREER JACKIE ALLISON	4112 W. MISSOURI ARTESIA, NM 88220	183, 191, 192
A.G. TOLBERT & MARGIE COOPER TRUST, AGT & MARGIE COOPER, TRUSTEES	1261 W 71ST PLACE DENVER, CO 80221	207
MICHAEL J. BUCKLEY	145 AUHANA ROAD KEHEI, HI 96753	217



February 17, 2016

### NOTIFICATION TO INTERESTED PARTIES

via U.S. Certified Mail

To Whom It May Concern:

Guardian Operating, LLC, Midland, Texas, has made application to the New Mexico Oil Conservation Division to reconfigure and complete for salt water disposal the Kirkes Well No.1. The proposed SWD will be for private use. As indicated in the notice below, the well is located in Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico.

Oille Gas Accounting --- Regulatory Processing Assistance --- Oil Field Technical Assistan

The disposal interval will be through perforations between a maximum interval of 3800 feet to 4600 feet in the Cherry Canyon formation.

Following is the legal notice published in the Artesia Daily Press, Artesia, New Mexico on or about February 18, 2016.

### LEGAL NOTICE

Guardian Operating, LLC, 203 W Wall St Midland, TX 79701, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit and configure for salt water disposal its Kirkes Well No.1. The well is located 2080' FSL & 1173' FEL in Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico. Produced water from area production will be privately disposed into the Cherry Canyon formation through selectively perforated intervals between a maximum applied for top of 3800 feet to maximum depth of 4600 feet based on log analysis. The maximum injection pressure will be 760 psi surface (0.2 psi/ft gradient) and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format on a mini-CD will be arriving within a few days of this notice. If you do not receive it, please call or email SOS Consulting, LLC at 903-488-9850, info@sosconsulting.us, and a copy will be expedited to you and may also be sent via email if preferred. For technical questions you may contact Randall Cate with Guardian Operating Corp. at 432-553-1849, guardianopcorp@yahoo.com.

Thank you for your attention in this matter.

Best regards,

Ben Stone, SOS Consulting, LLC Agent for Guardian Operating, LLC

Cc: Application File

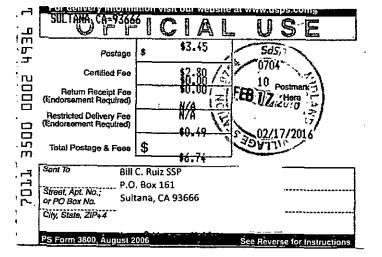
# C-108 - Item XIV Proof of Notice

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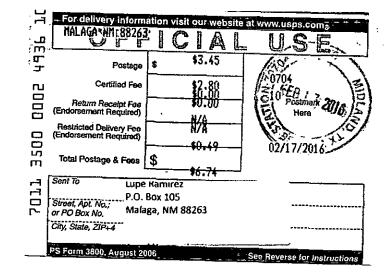
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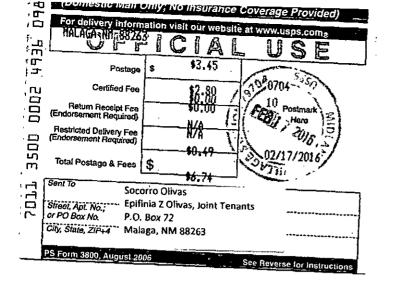








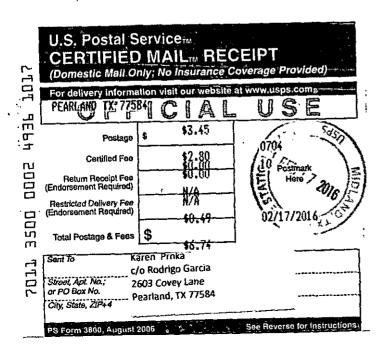




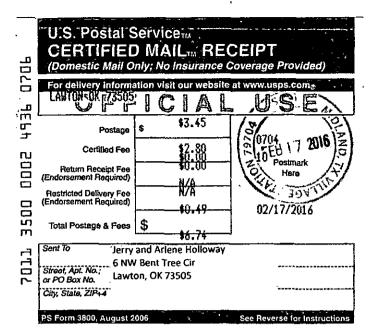
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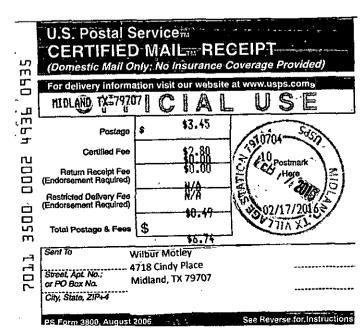


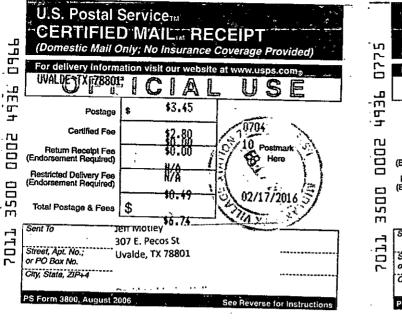






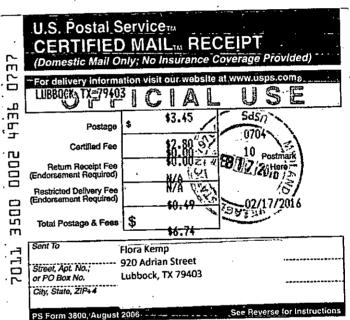












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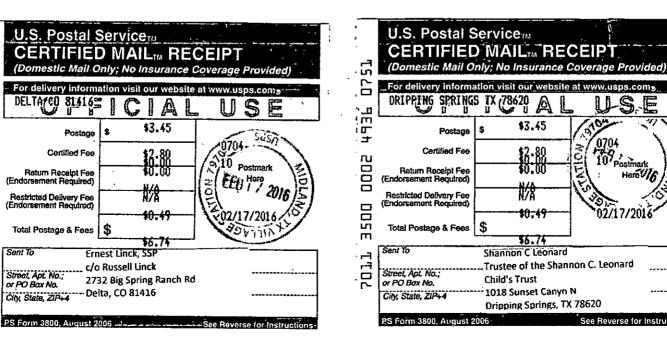
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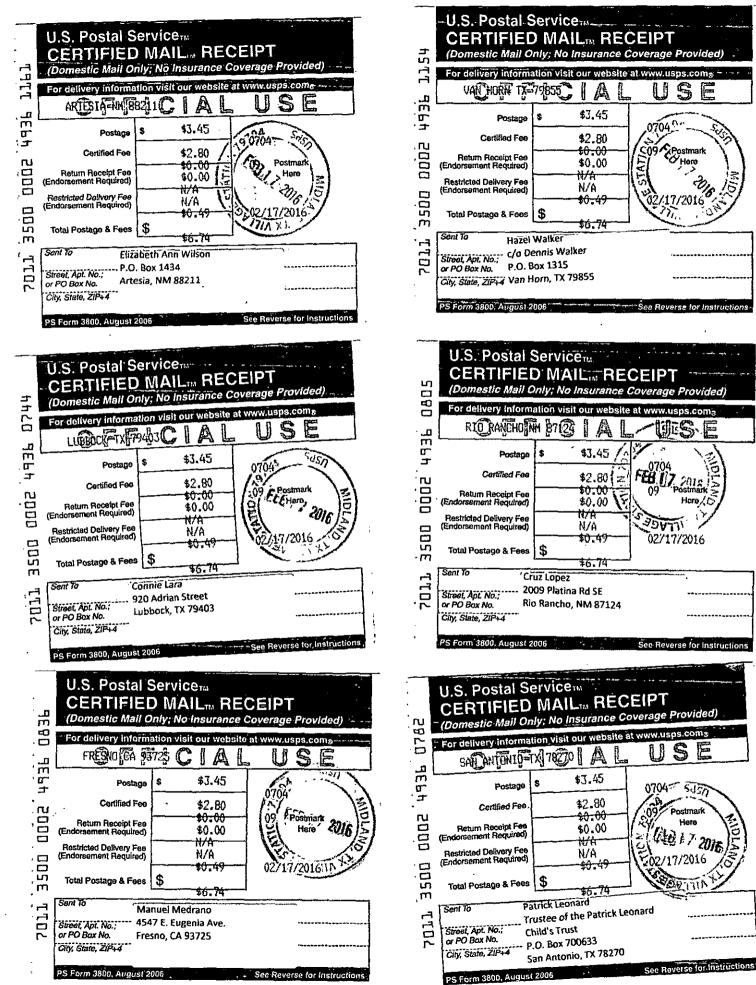
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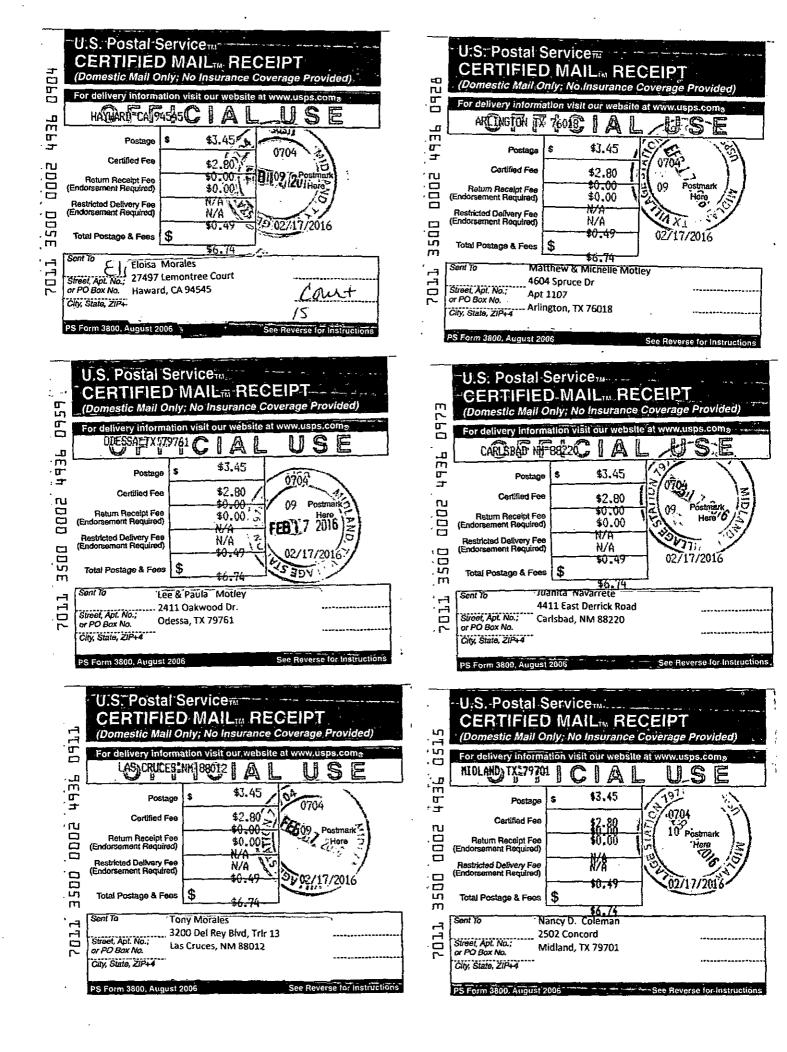
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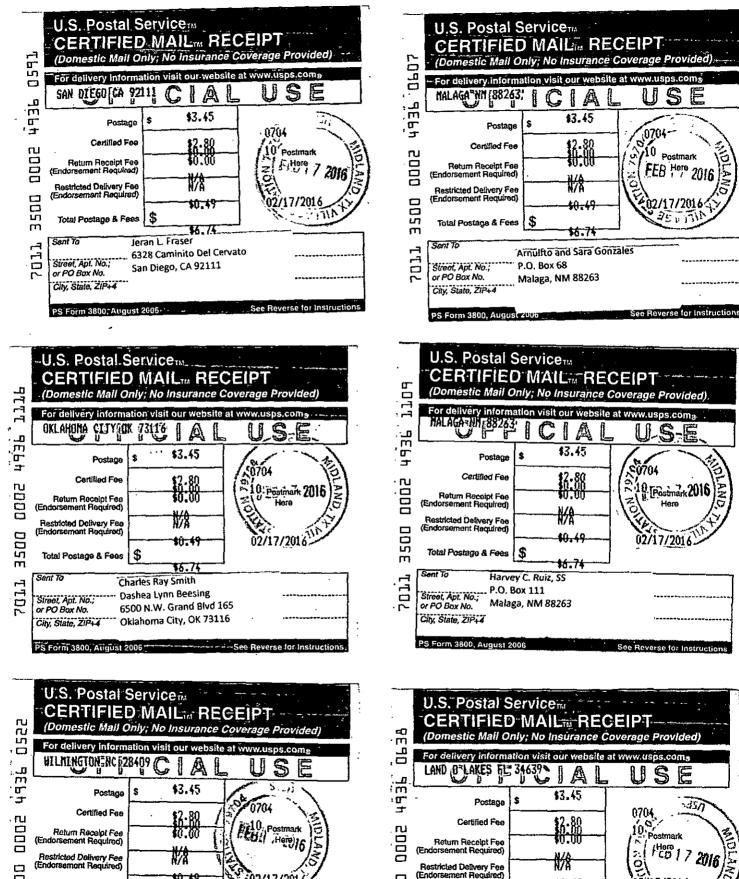


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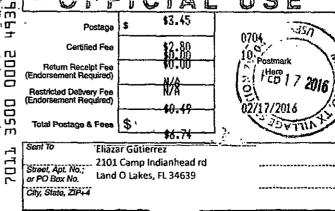


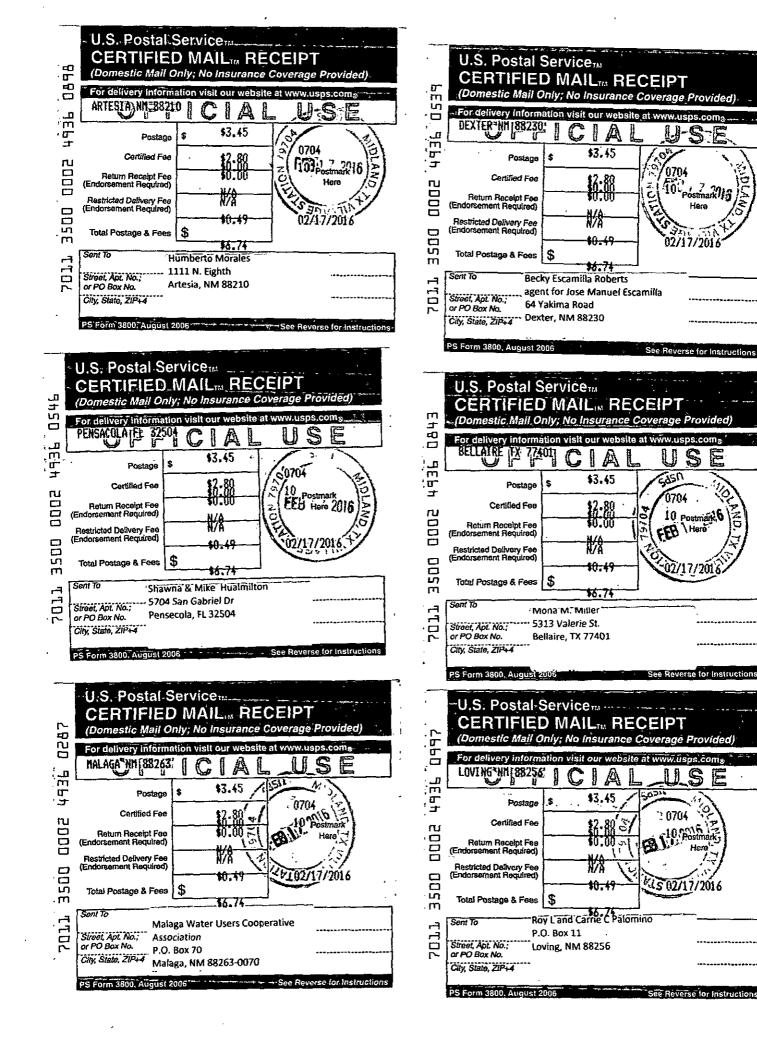


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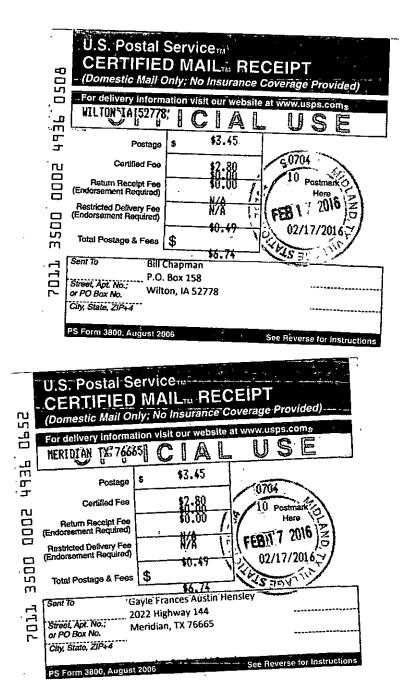


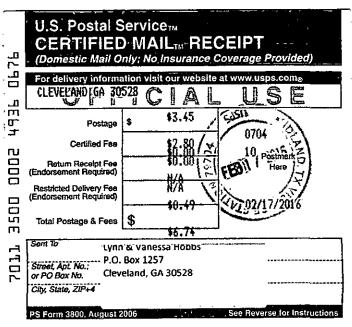
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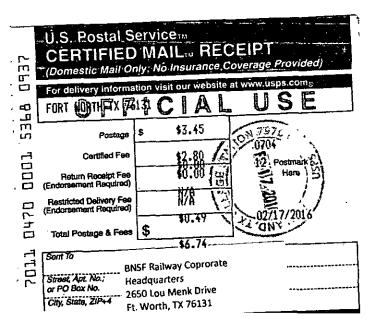


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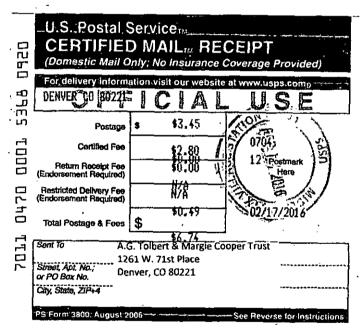


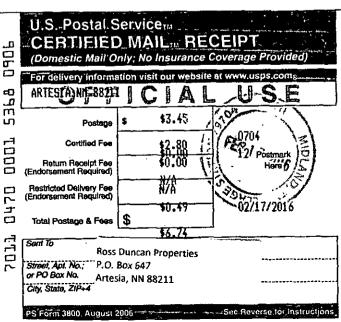




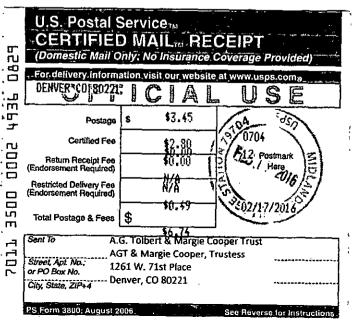


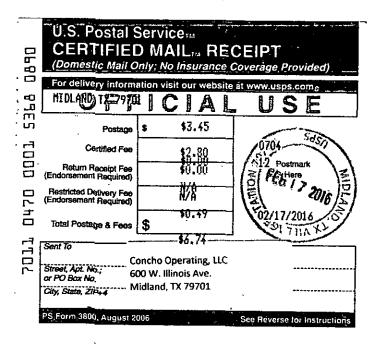










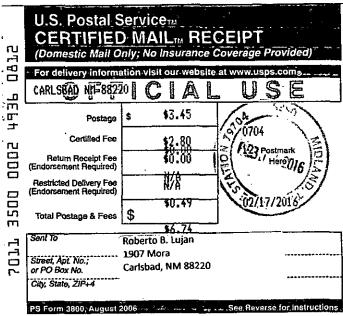


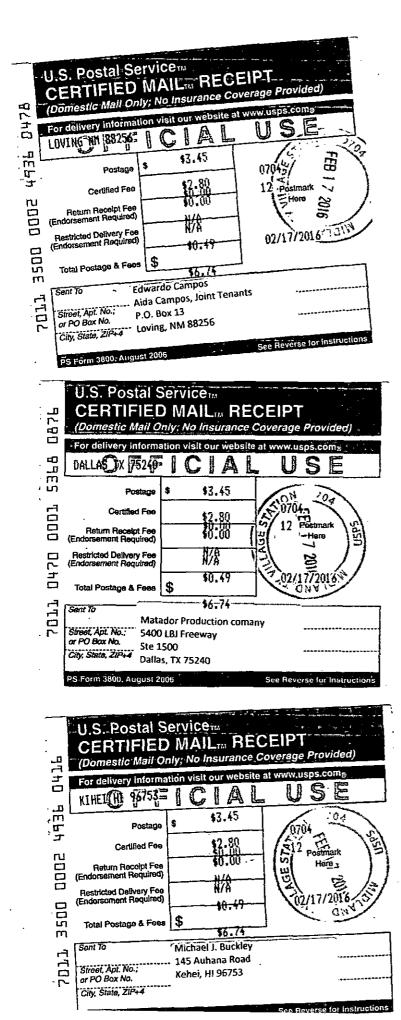


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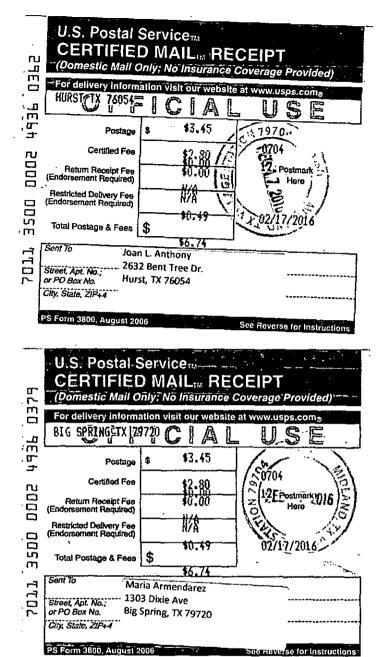












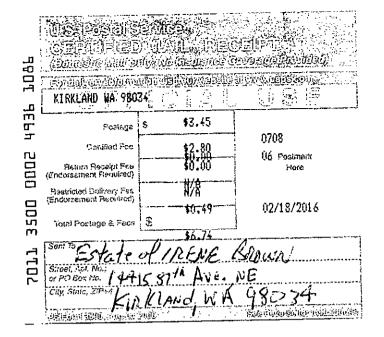






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### C-108 ITEM XIII – PROOF OF NOTIFICATION Regulatory Filings

Guardian Operating Corp.

Kirkes No.1

C-108 sent 2/19/16

FedEx Tracking Nos.

OCD SF - 7756 8582 0875

OCD Art - 7756 8584 1005

I hereby certify that a full copy of the subject C-108 application was sent to the applicable regulatory agencies as indicated above.

Jour

Ben Stone, Partner SOS Consulting, LLC Agent for Guardian Operating Corp.

### **C-108 - Item XIV**

Proof of Notice – Legal Notice Newspaper of General Circulation

### LEGAL NOTICE

Guardian Operating, LLC, 203 W Wall St Midland, TX 79701, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit and configure for salt water disposal its Kirkes Well No.1. The well is located 2080' FSL & 1173' FEL in Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico. Produced water from area production will be privately disposed into the Cherry Canyon formation through selectively perforated intervals between a maximum applied for top of 3800 feet to maximum depth of 4600 feet based on log analysis. The maximum injection pressure will be 760 psi surface (0.2 psi/ft gradient) and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Feb. 18, 2016 Legal No. 23836.

The above is the "Proof Copy" sent from the Artesia Daily Press. The affidavit of publication will be forwarded as soon as it is received.

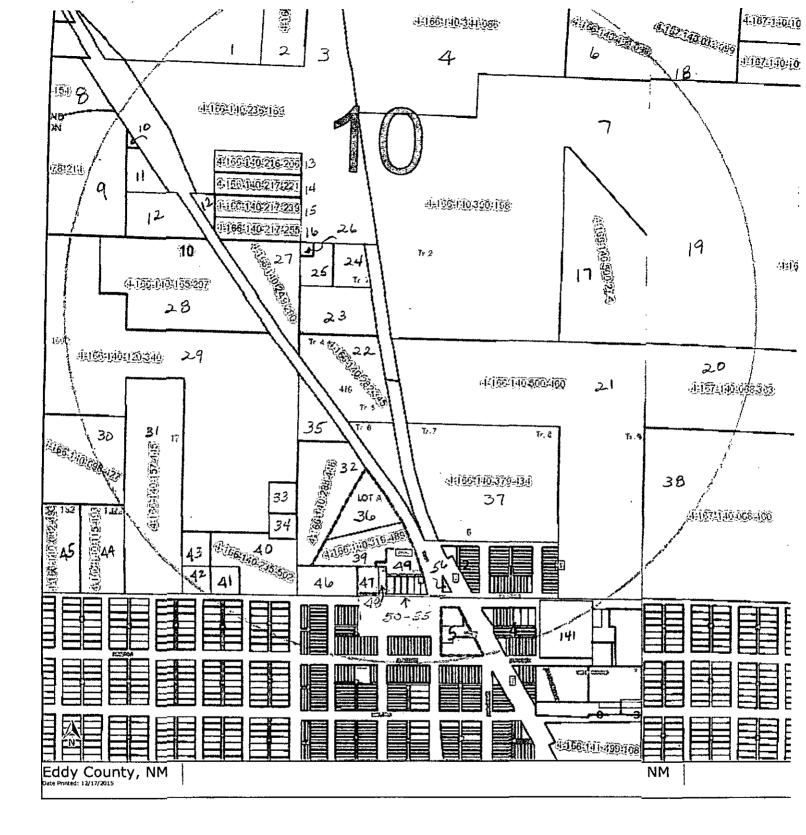
### C-108 Item XIV – Proof of Notice

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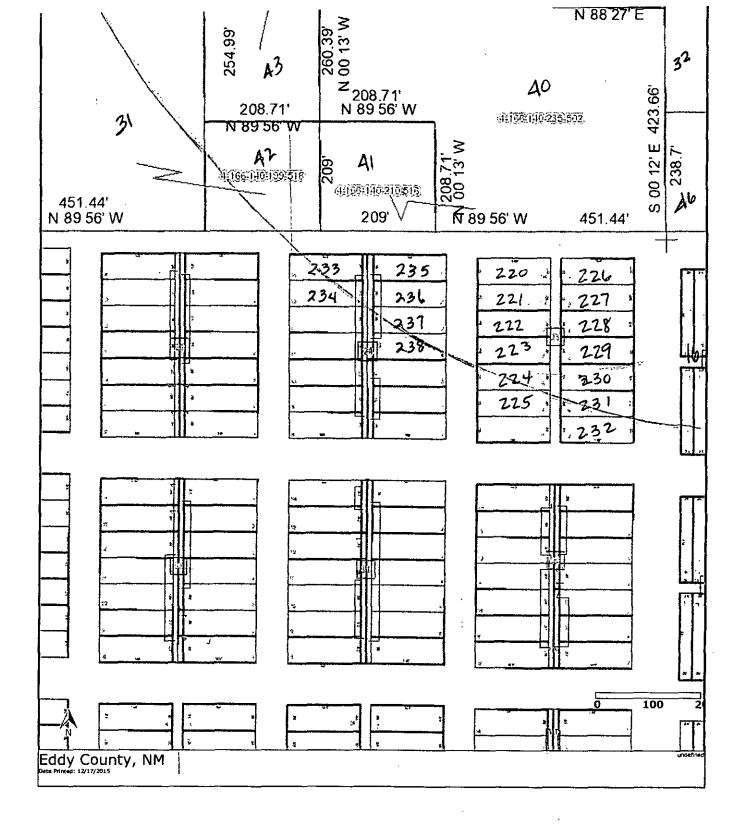
## Surface and Mineral Owner Plat

1/2 Mile AOR - Proposed Kirkes SWD No.1

Detail worksheets follow this page.



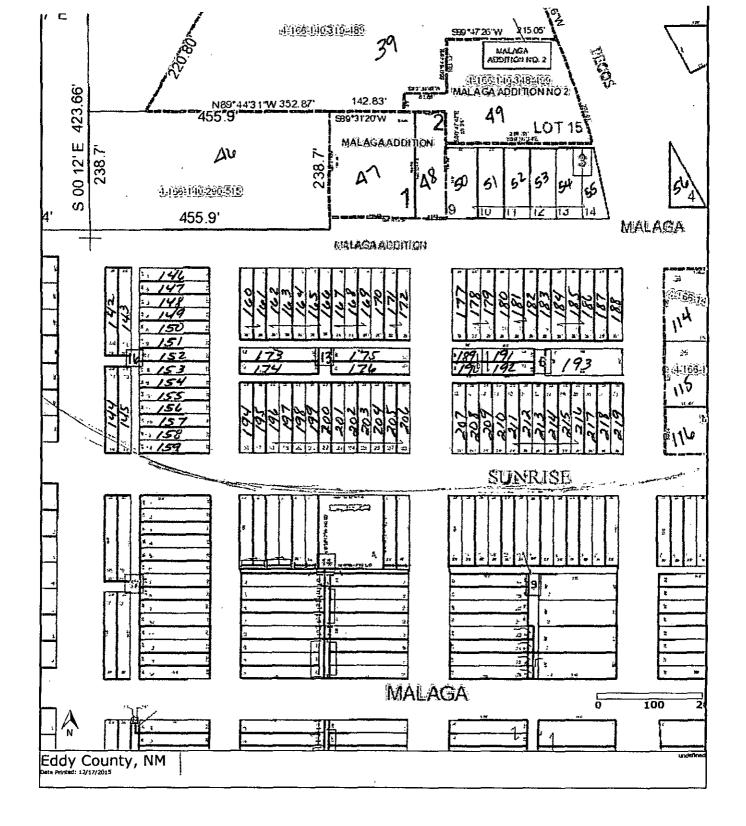
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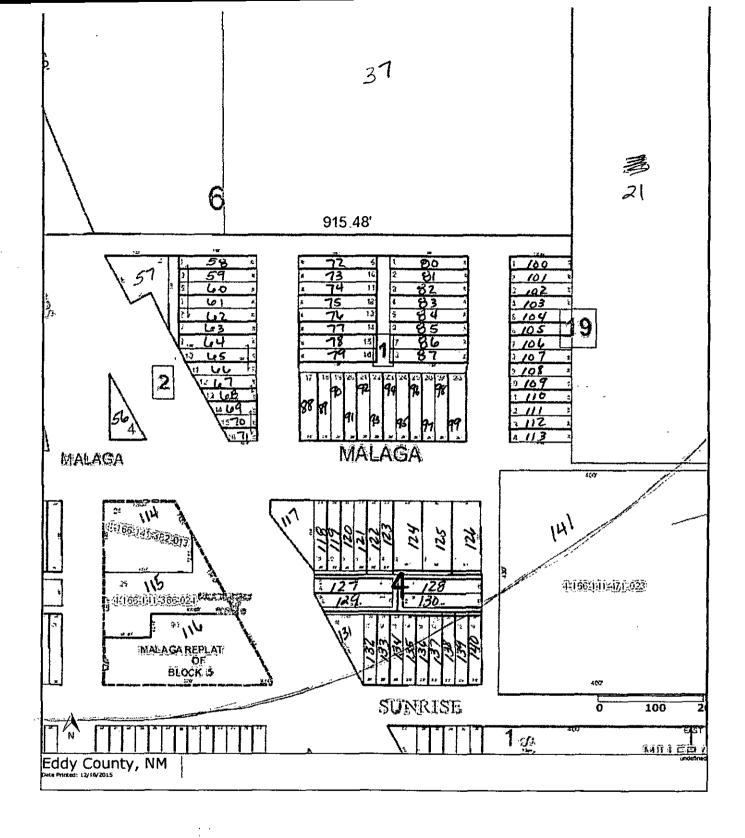
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### McMillan, Michael, EMNRD

From: Sent:	McMillan, Michael, EMNRD Thursday, February 25, 2016 12:44 PM
То:	'Ben Stone'
Cc:	Jones, William V, EMNRD; Goetze, Phillip, EMNRD; Lowe, Leonard, EMNRD
Subject:	Guardian Operating Corporation Kinkes SWD Well No.1

Ben:

I received your application yesterday for the Kinkes SWD Well No.1.

Can you provide the following:

Affidavit of publication

Copy of the porosity log between 3700 and 3800. Your copy left off the porosity log between approximately 3740 and 3755.

Provide log analysis that between 3500 and 4900 feet. Your application by Randall Cate states that log analysis states low resistivity.

Your application stated that a direct offset mud log offset mudlog was wet, provide the mudlog and cross-section of the offset well and the proposed injection well.

Thank You

•

### Michael A. McMillan

Engineering and Geological Services Bureau, Oil Conservation Division 1220 South St. Francis Dr., Santa Fe NM 87505 O: 505.476.3448 F. 505.476.3462 Michael.mcmillan@state.nm.us

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was published in a reg	gular 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 Law	s of the state of New Mexico for	
1 Consecut	ive weeks/day on the same	
day as follows:		
First Publication	February 21, 2010	5
Second Publication		
Third Publication		
Fourth Publication		
Fifth Publication		
Sixth Publication		
Subscribed and sworn	before me this	
22nd day of	February	2016
OFFICIAL SEAL Latisha Romine NOTARY PUBLIC-STATE OF NEW MEXICO My commission expires: 5 112 2019		
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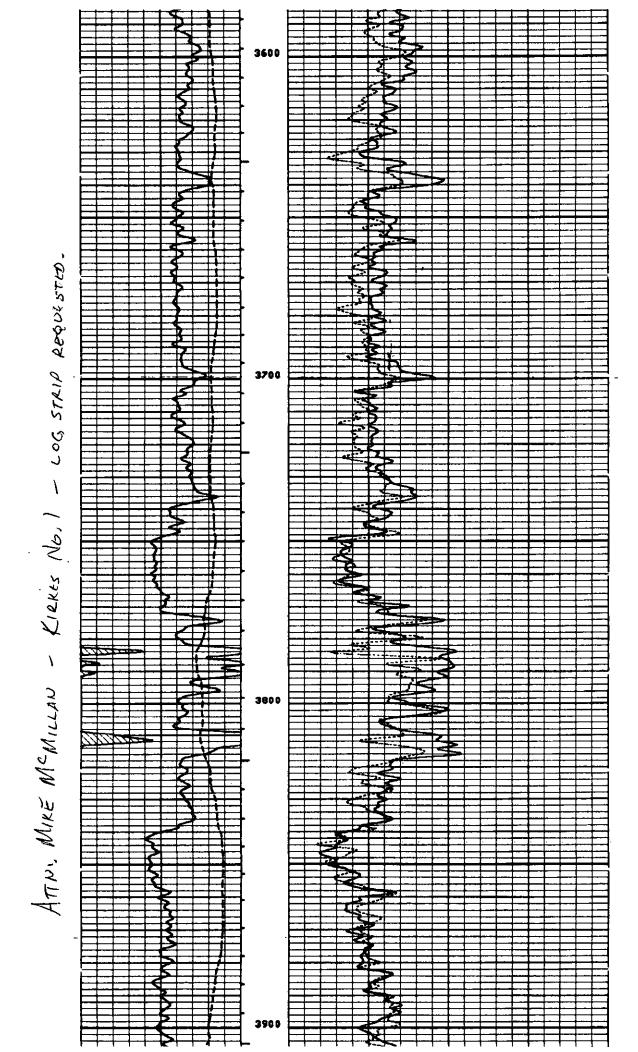
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### LEGAL NOTICE

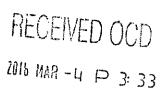
Guardian Operating Corp. 203 W Wall St Midland, TX 79701, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit and configure for salt water disposal its Kirkes Well No.1. The well is located 2080' FSL & 1173' FEL in Section 10, Township 24 South, Range 28 East.in Eddy County, New Mexico. Produced water from area production will be privately disposed into the Cherry Canyon formation through selectively perforated intervals between a maximum applied for top of 3800 feet to maximum depth of 4600 feet based on log analysis. The maximum injection pressure will be 760 psi surface (0.2 psi/ft gradient) and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Feb. 21, 2016 Legal No. 23840.



C-108 ITEM VIII – GEOLOGIC INFORMATION



### Addendum to Original C-108 Filing for the Kirkes SWD No.1; Guardian Operating Corp.

### <u>Issue</u>

Upon initial review of the subject C-108 submitted on 2/19/16, Michael McMillan of the NMOCD Engineering Bureau requested additional information by the following statement in an email notification (2/26/16) to Ben Stone of SOS Consulting, agent for the applicant; "*Provide log analysis that between 3500 and 4900 feet. Your application by Randall Cate states that log analysis states low resistivity.*"

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The interval requested for log analysis, 3500' to 4900' was mentioned as being the "general range" of the Cherry Canyon formation in this area. That depth range is valid (and approximate) for the area however; the top of the Cherry Canyon in the subject well is 3420' with the requested interval is wholly contained within this formation. This is the interval recognized by Guardian Operating and agreed to by Matador Production Company, one of the offset operators to the project.

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Respectfully submitted on 3/03/16,

Ben Stone SOS Consulting, LLC, partner Agent for Guardian Operating, Corp. C-108 ITEM VIII - GEOLOGIC INFORMATION

Addendum to Original C-108 Filing

# EXHIBITS

### 1. Geologic Opinion; Additional text from Mr. Randy Cate

2. Cross-Section of Cherry Canyon SWD Interval

3. Dual Laterolog (Resistivity) Log Strip

4. Water Saturation Strip Chart; With Data Table

5. Offset Well Mudlog; Guitar 10 24S 28E RB No.202H

6. Matador Producing Co. Waiver Agreement; For Specified Injection Interval

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#### C-108 ITEM VIII – GEOLOGIC INFORMATION

#### Addendum to Original C-108 Filing

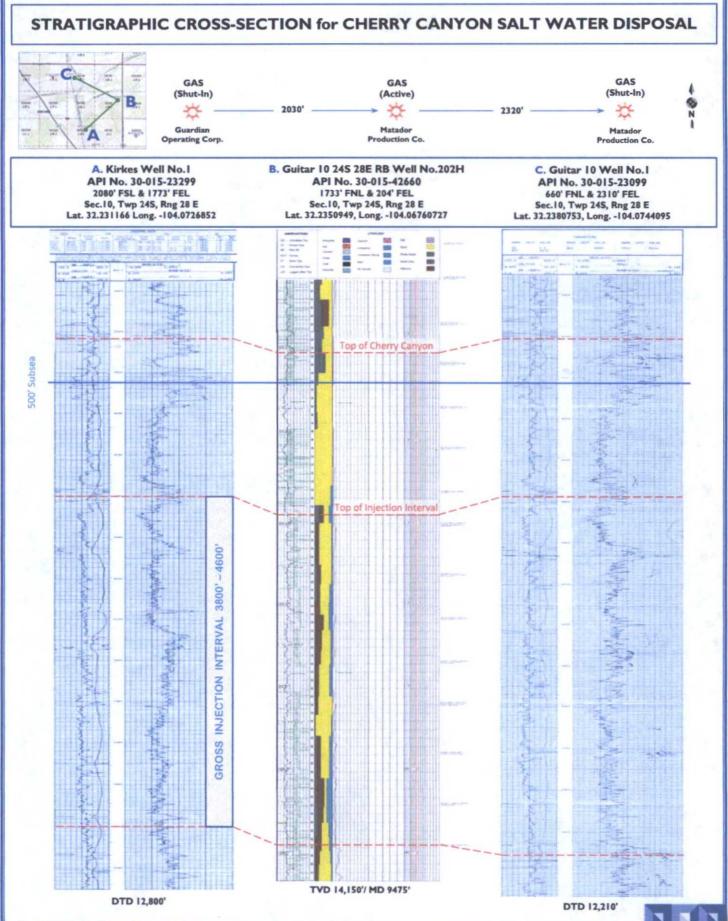
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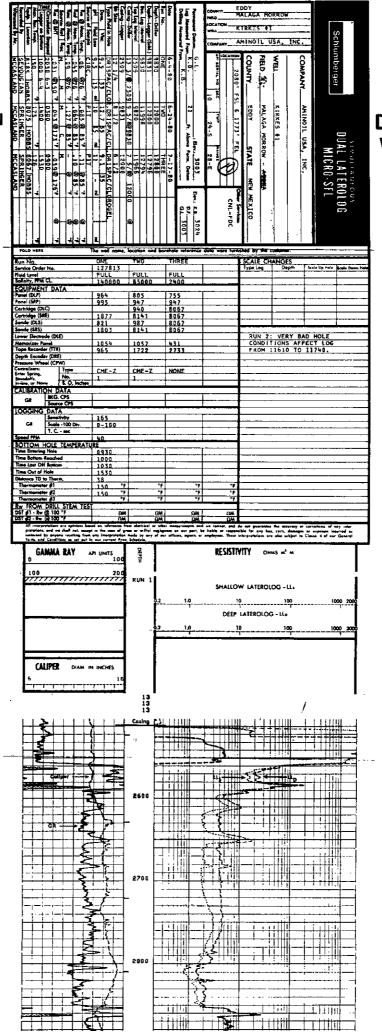
## Kirkes No.1 Proposed SWD - Guardian Operating Corp.



## C-108 ITEM VIII

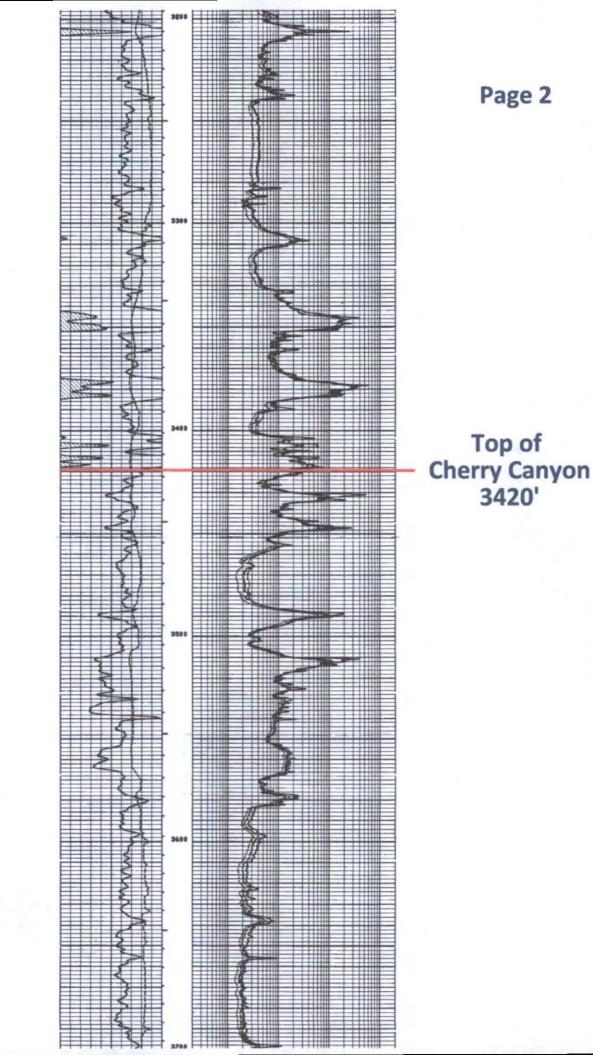
#### **GEOLOGIC INFORMATION**

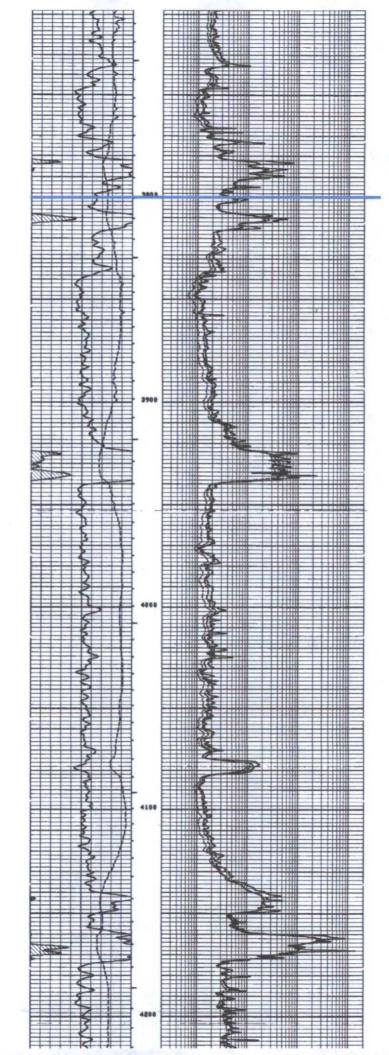
## Addendum to Original Filing



## **EXHIBIT 3**

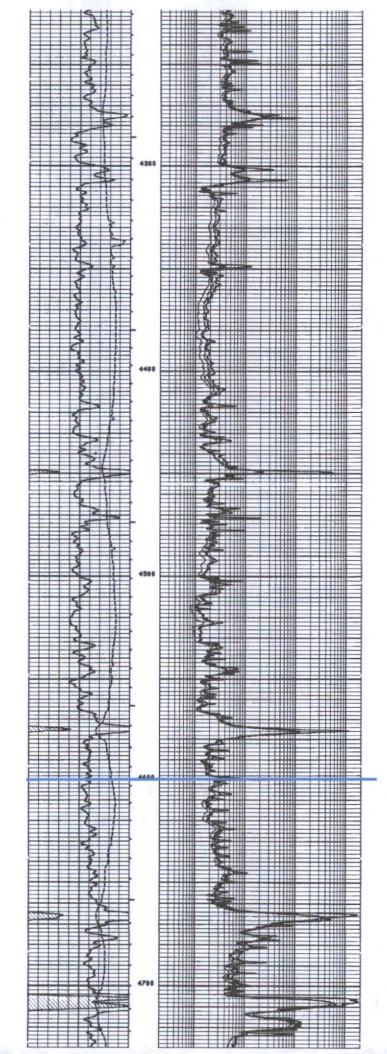
## DLL RESISTIVITY LOC W/ TOP OF CHERRY CANYON AND FULL INTERVAL



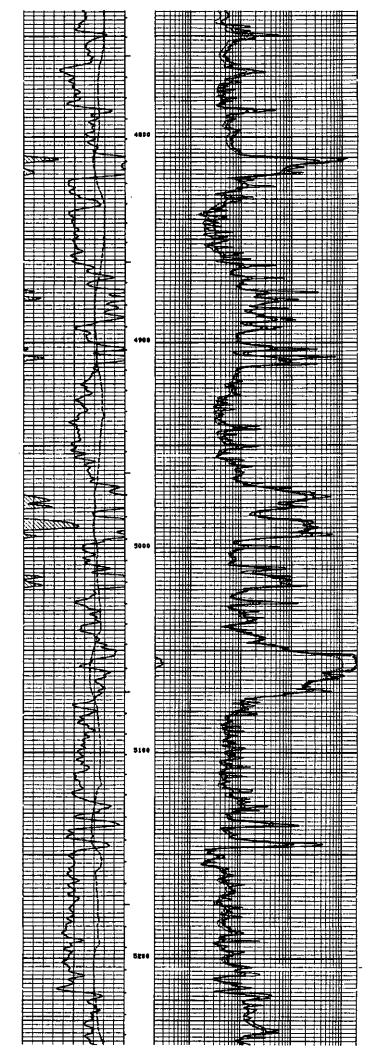








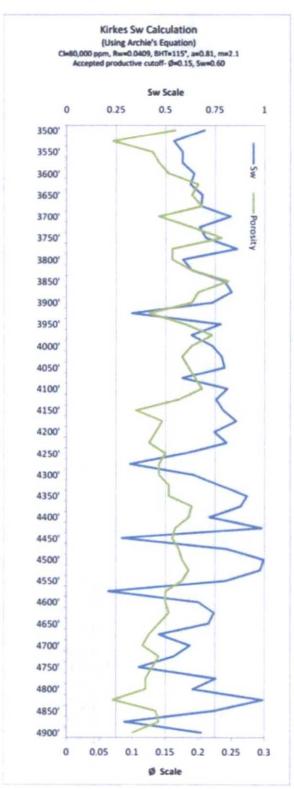




Addendum to Original C-108 Filing for the Kirkes SWD No.1; Guardian Operating Corp.

## Water Saturation Strip Chart

(Data pages follow.)



## Kirkes Sw Calculations, using Archie's Equation

#### Cl=80,000 ppm, Rw=0.0409, BHT=115 °, a=0.81, m=2.1

Accepted productive cutoff- Ø=0.15, Sw=0.60

Acceptea proau	ctive cutoff- Ø=0.15, Sw=C	.60	
Depth	Porosity	Rt	Sw
3500'	0.165	3	0.696924
3525'	0.07	30	0.542239
3550'	0.13	7	0.586023
3575'	0.14	6	0.585591
3600'	0.155	4	0.644504
3625'	0.1995	2.5	0.625452
3650'	0.19	2.3	0.686355
3675'	0.205	2	0.679591
3700'	0.14	3	0.82815
3725'	0.19	2.4	0.671904
3750'	0.235	1.4	0.703751
3775'	0.16	2.1	0.860337
3800'	0.16	4.5	0.587722
3825'	0.19	2.7	0.633477
3850'	0.245	1	0.797039
3875'	0.2	1.4	0.833602
3900'	0.19	2	0.736034
3925'	0.125	24	0.329794
3950'	0.18	2	0.779028
3975'	0.22	2	0.631023
4000'	0.19	2	0.736034
4025'	0.175	2.1	0.783077
4050'	0.185	1.8	0.79788
4075'	0.195	3	0.5848
4100'	0.205	1.4	0.812267
4125'	0.17	2.4	0.755139
4150'	0.105	6	0.7921
4175'	0.145	2.6	0.857395
4200'	0.135	4	0.745116
4225'	0.125	4	0.807828
4250'	0.15	5	0.596655
4275'	0.14	20	0.320741
4300'	0.14	5	0.641482
4325'	0.155	2.8	0.77033
4350'	0.155	2	0.911467
4375'	0.19	1.4	0.879729
4400'	0.185	2.2	0.72171
4425'	0.165	1.5	0.985599
4450'	0.16	20	0.278781

4475'	0.17	2.1	0.807278
4500'	0.175	1.3	0.995274
4525'	0.185	1.2	0.977199
4550'	0.175	2	0.802415
4575'	0.15	40	0.210949
4600'	0.15	4	0.667081
4625'	0.155	3	0.74421
4650'	0.14	4	0.717199
4675'	0.125	12	0.466399
4700'	0.115	8	0.623486
4725'	0.14	7	0.542152
4750'	0.13	18	0.36545
4775'	0.12	5	0.754187
4800'	0.12	7	0.637404
4825'	0.07	9	0.989988
4850'	0.135	4	0.745116
4875'	0.14	24	0.292795
4900'	0.1	9	0.680743

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## **EXHIBIT 5**



#### 711 WEST 10TH STREET, RESERVE, LA.

Five Inch Log: 5n= 100ft Measured Depth

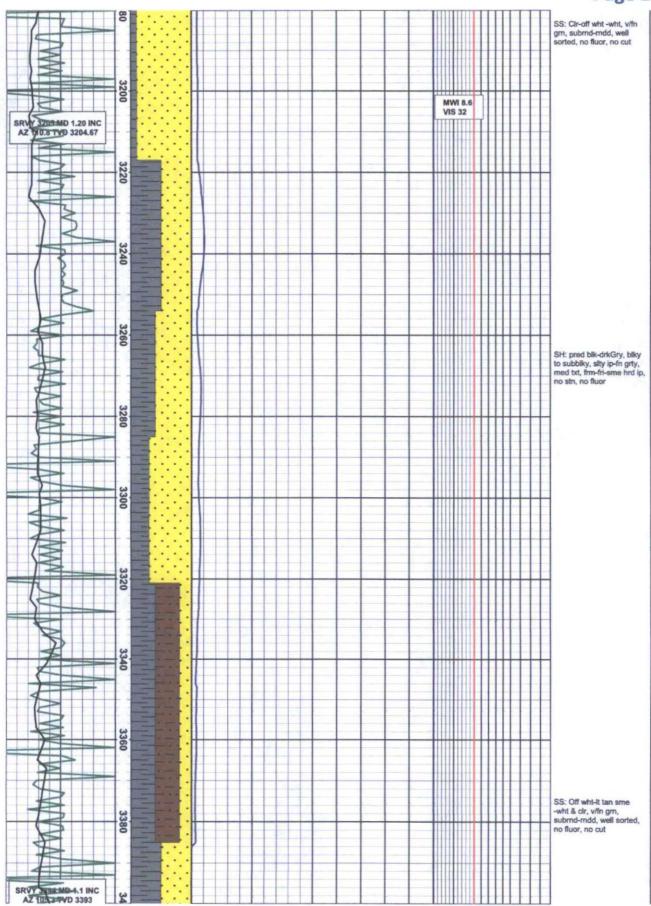
Page 1

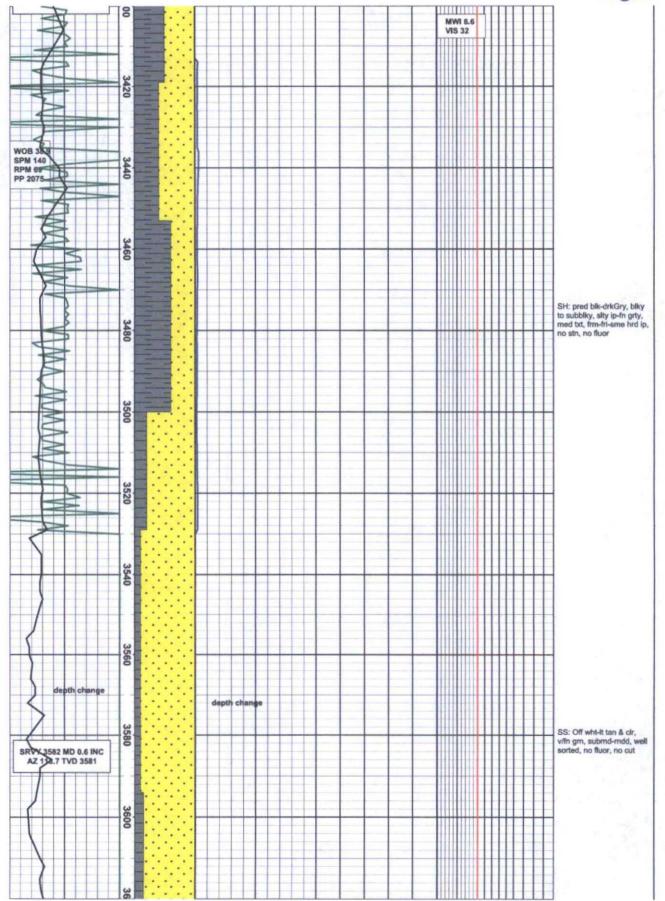
261'-14150

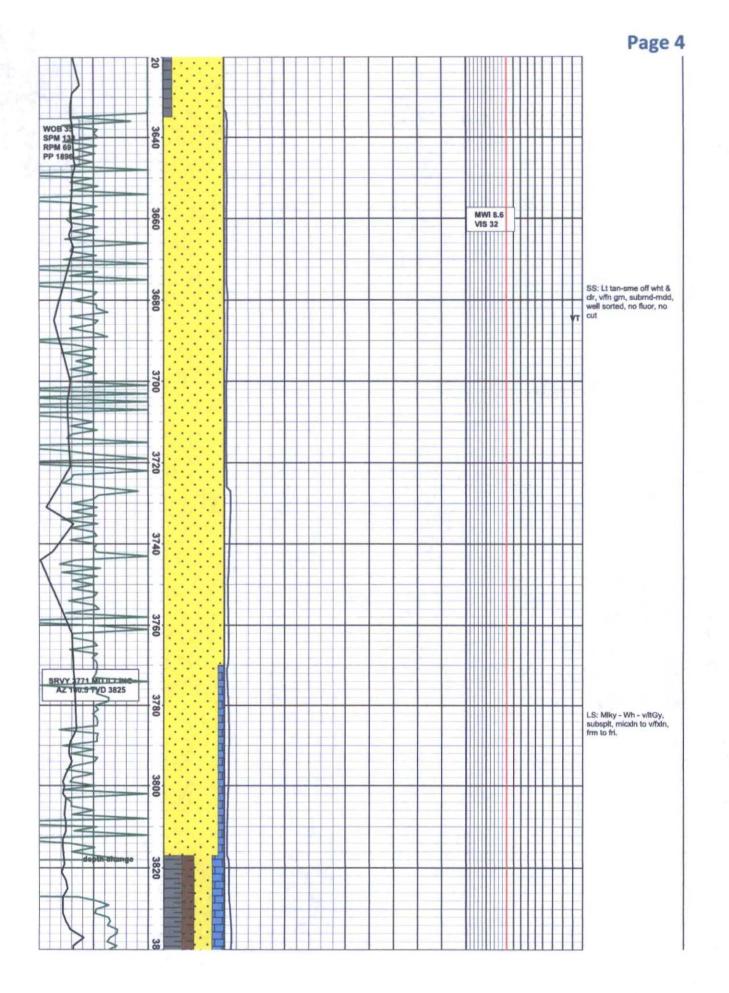
12/3/14-12/26/14

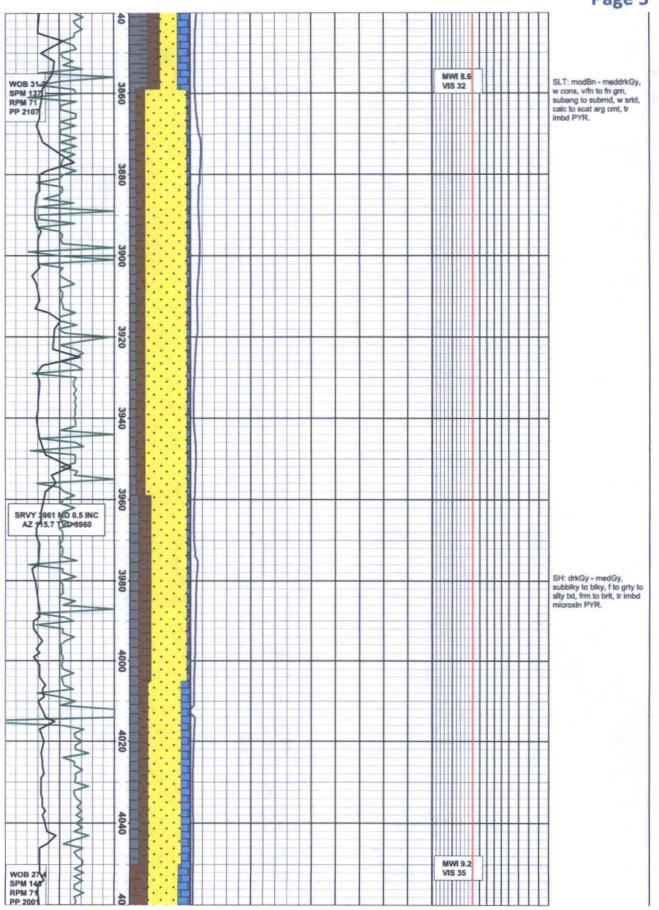
COMPANY :	Matador Proc	ador Production Company API:		30015426600000			
WELL:	GUITAR 10-2	24S-28E RB 202H	RIG:	Patterson 203			
FIELD: WILDCAT			SUPERVISO	R: PETE CANALAS			
REGION:	Delaware Ba	sin	CREW:	VERA T/ TANNA M.			
COUNTY	EDDY		UNIT:	Port-18			
STATE:	Texas		CO. REP(S):	RON SCHITOSKEY/ GARY	WHETSIN		
RKB ELE:	3029'		SPUD DATE				
ABBREVIA	TIONS		LITHOLOG	βY			
CO - Circulate	ed Out	Anhydrite	Gypsum	Salt			
CF - Check Flow NB - New Bit SVY - Survey ST - Short Trip CG - Connection Gas		Ash	Linestone	Sand			
			Limestone Sandy	Shale Green			
		Chalk	Marl	Shale Grey	-		
		Coal		- date			
LAT - Logged	After Trip	Dolomite	Z No sample	Siltstone	1 1		
MODIFIER	s	SYMBOLS					
Anhydritic			-	Secola Quality Good	0		
Argillaceou		Core		Sample Quality Good Sample Quality Fair	F		
Calcareous		(Recover	ed)	Sample Quality Poor	P		
Carbonace	ous		_	Gas Show (Fair)	-Q-		
Conglomeratic O Dolomite Stringer		Core	$\backslash /$	Gas Show (Good)	Q		
		(Lost)	1XI	Gas Show (Moderate)	Q		
				Gas Show (Poor)	Q		
Fossiliferou			4	Oil Show (Fair)			
Marly	5	Casing S	hoe	Oil Show (Good)			
Micaceous	M	SWC (No		Oil Show (Moderate)			
Pyritic	•	SVAC (NO	ne) <				
Sandy SWC (Recove			Oil Show (Poor)				

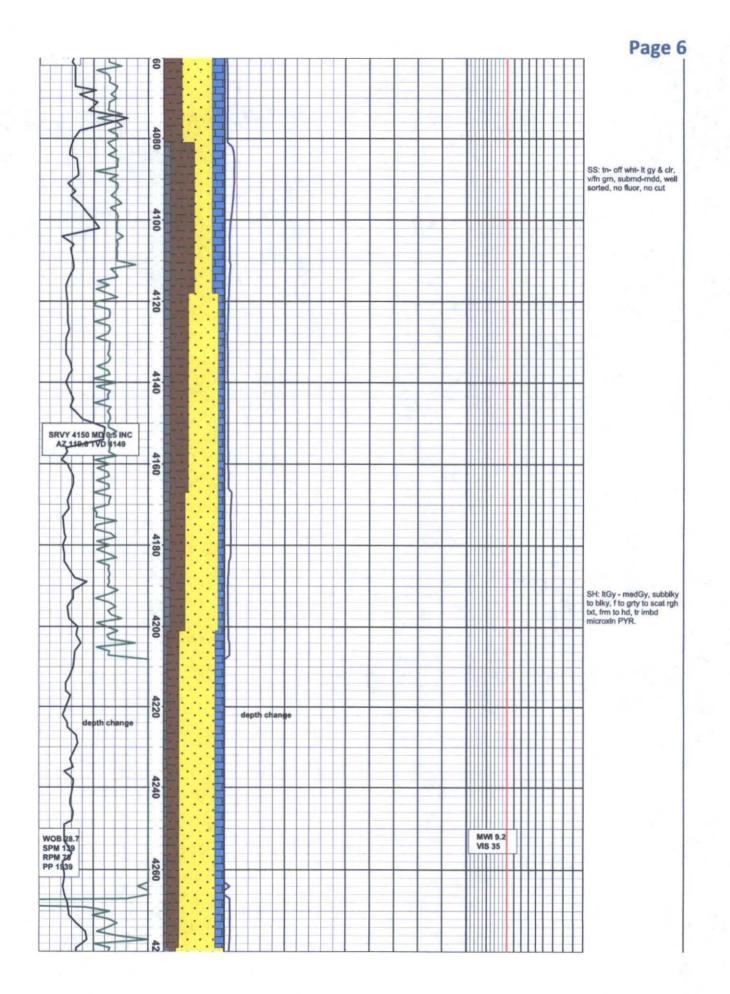
ROP / Gamma		Lithology	Total Gas /	Chrom.	Cuttings Chrom	. Calc	Fluor	Oil	Remarks
ROP	DEP		Total Ga	IS	Ethane	Casing	Fluor	Oil Cut	
00 Ft/Hr	0 I		0 Units	500	100 %	0300251	00 units 5	0 units20	
MWD Gamma			Methan	e	Normal Butane	CALC			
API 30	0		0 ppm	100000	0 %	1000 %10	00		
			Ethane	,	Iso Pentane				
			0 ppm	30000	0 %	100			

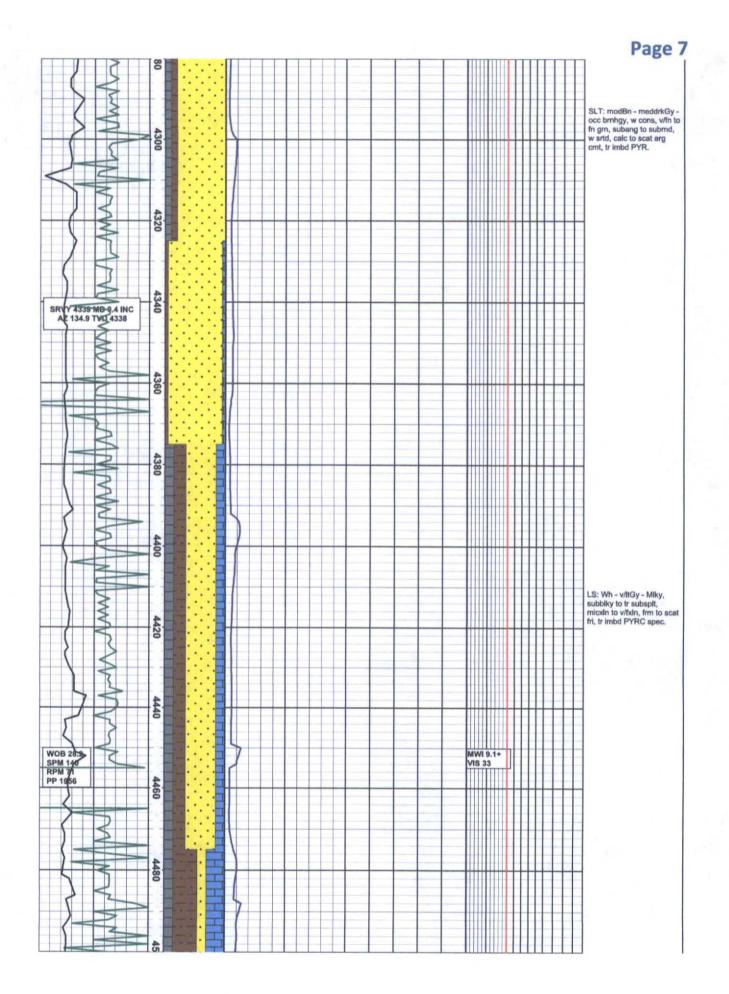


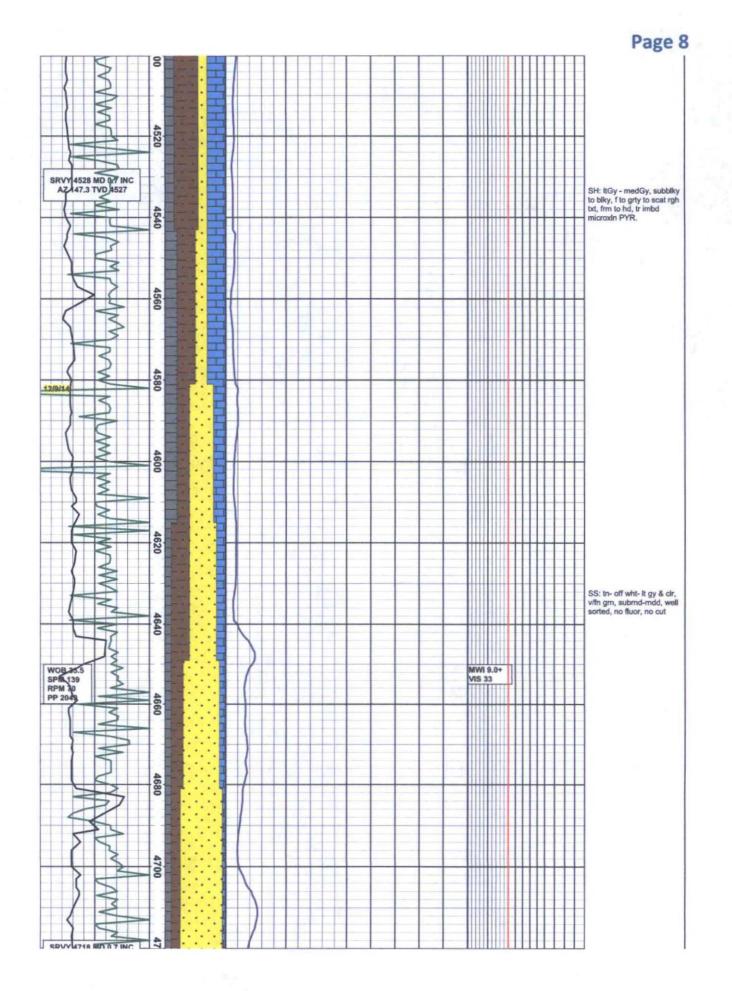












### **EXHIBIT 6**

# MRC Permian Company

One Lincoln Centre • 5400 LBJ Freeway • Suite 1500 • Dallas, Texas 75240 Voice 972.371.5273 • Fax 214.866.4883 vsingleton@matadorresources.com

Van H. Singleton, II Executive Vice President--Land

January 19, 2016

Guardian Operating Corporation Attn: Mr. Randy S. Cate 6824 Island Circle Midland, TX 79707

Re: Letter Agreement for the Kirkes Com #1 well, API #- 30-015-23299 located in Section 10, Township 24 South, Range 28 East, Eddy County, New Mexico (the "Kirkes Well") and the Craft #1 well, API #30-15-2412 located in Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico (the "Craft Well" and collectively with the Kirkes Well the "SWD Well(s)")

Dear Randy:

MRC Permian Company and its operating affiliate Matador Production Company ("Matador") understand that Guardian Operating Corporation ("Guardian") is in the process of filing for permits with the New Mexico Oil Conservation Division to convert the Kirkes Well and the Craft Well to salt water disposal wells. Guardian has requested that Matador waive objection to said permits. Matador agrees to grant a waiver on the following terms and conditions:

- The permit for the Kirkes Well will have an injection interval depth of 3800' to 4600'; and
- The permit for the Craft Well will have an injection interval depth of 3800' to 4500'; and
- The SWD Well permits will be in accordance with the rules and regulations of the State of New Mexico; and
- Guardian agrees to work with Matador, and if Matador requests Guardian shut-in the SWD Wells to reduce interference with any of its drilling or completion operations, then Guardian will do so.

Please indicate your agreement with the terms and conditions outlined above by signing below and executing below. After Matador has received your acceptance, Matador will sign the waiver

attached hereto as "<u>Exhibit A</u>" (the "Waiver") for the SWD Well permits contemplated herein. In the case of a conflict between the provisions of the Waiver and the provisions of this Letter Agreement, the provisions of the Letter Agreement shall control.

Sincerely, L H-Van H. Singleton, II

Executive Vice President of Land

AGREED AND ACCEPTED THIS THE DAY OF JANUARY, 2016.

RSC RESOURCES, LP

By: Coger	t Energy, Inc., its General Partner
By:	Ifthe ata
Name:	RANDALL CATE
Title:	PAGSIDENT

**GUARDIAN OPERATING CORPORATION** 

By: 2/ALO RANDAU PERCIPEN Name: Title:

## MITCHELL ANALYTICAL LABORATORY

2638 Faudree Odessa, Texas 79765-8538 561-5579 **EXHIBIT 7** Additional Analysis Wolfcamp Water

							woncamp
Company:	WadeC	o Speci	alties, LL	с			-
Well Number: Lease: Location: Date Run: Lab Ref #:	Marra Guardian WC17689 12/9/2013 13-dec-h1	3			Sample Ter Date Samp Sampled by Employee # Analyzed by	led: 11/2! /: Wade #:	5/2013 e Havens
			Dissolv	ed Gases			
					ˈ Mg/	L Eq. Wt.	MEq/L
Hydrogen Sulf	fide (H	2S)			.0	0 16.00	.00
Carbon Dioxid	le (C	:02)	NOT A	NALYZED	•		
Dissolved Oxy	gen (C	2)	NOT A	NALYZED			
			Cati	ons			
Calcium	(C	a++)			3,867.2	4 20.10	192.40
Magnesium	(M	lg++)			570.9	6 12.20	46.80
Sodium	(N	a+)			34,145.3	4 23.00	1,484.58
Barium	(В	a++)	ΝΟΤ Α	NALYZED			
Manganese	(M	ln+)			1.7	<b>2</b> 27.50	.06
Strontium	(S	r++)	NOT A	NALYZED			
			Anio	าทร			
Hydroxyl	(0	) H-)	21/10	7110	.0	0 17.00	.00
Carbonate	•	03=)			.0		
BiCarbonate	-	CO3-)			73.3		
Sulfate	•	04=)			126.0		
Chloride	•	il-)			61,067.1		
	(-	. ,			01/00/11	0 35.50	1,720120
Total Iron	(F	e)			2.5	9 18.60	.14
Total Dissolve					99,854.2	7	
Total Hardnes					12,009.0		
Conductivity N	1ICROMHO	S/CM			141,30	0	
рН	7.160			Spe	cific Gravity 6	0/60 F.	1.069
CaSO4 Solubili	ty @ 80 F.		44.26MEq/L	., CaSO	4 scale is unli	kely	
CaCO3 Scale Inc	lex						
70.0	135	10	.0 .1	.85 13	30.0	.775	
80.0	025	5 11	).0 .4	25 14	40.0	.775	
90.0	.185	i 120	0.0 .4	25 15	50.0	1.115	

WadeCo Specialties, LLC

# APPLICATION PROTESTED

Applicant:	Guardian O	peroting	<u> </u>
Application T	ype: <u>SwD</u>		
Well Name:	Kirkes Com #	API: 3	0-0 <u>15-23299</u>
	1 R. Morales		
Protestant:	(2) Meubourne	<u>.</u> () 03/04/20	
Date Protest	Received:	2 03/08/20	•
Notification of	f Applicant: _	03/09/2016	(single e-mail)
Resolution:	Hearing	. □ Negotiation	Withdrawn
		••••••••••••••••••••••••••••••••••••••	

Copy to Technical Reviewer:

#### **C-108 ITEM VIII – GEOLOGIC INFORMATION**

Addendum to Original C-108 Filing for the Kirkes SWD No.1; Guardian Operating Corp.

#### <u>Issue</u>

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RECEIVED OCD 2016 MAR - 4 P 3: 33 Addendum to Original C-108, page 2

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Respectfully submitted on 3/03/16,

Ben Stone SOS Consulting, LLC, partner Agent for Guardian Operating, Corp. C-108 ITEM VIII – GEOLOGIC INFORMATION

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Addendum to Original C-108 Filing

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3. Dual Laterolog (Resistivity) Log Strip

4. Water Saturation Strip Chart; With Data Table

5. Offset Well Mudlog; Guitar 10 24S 28E RB No.202H

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#### C-108 ITEM VIII – GEOLOGIC INFORMATION

#### Addendum to Original C-108 Filing

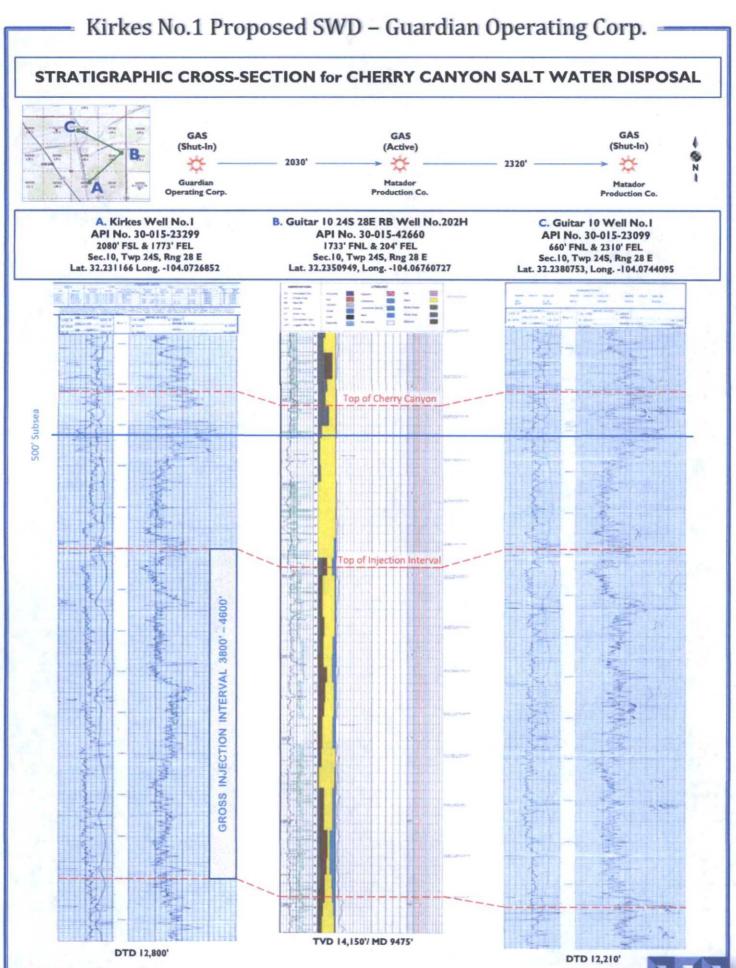
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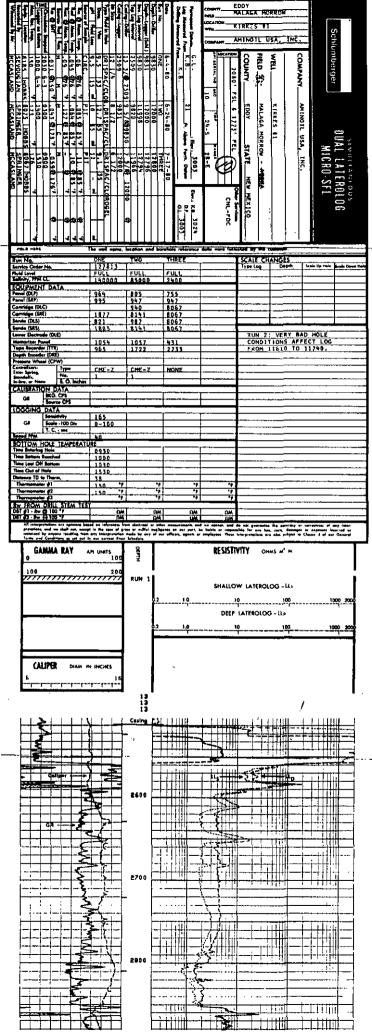


SOS Consulting, LL

## C-108 ITEM VIII

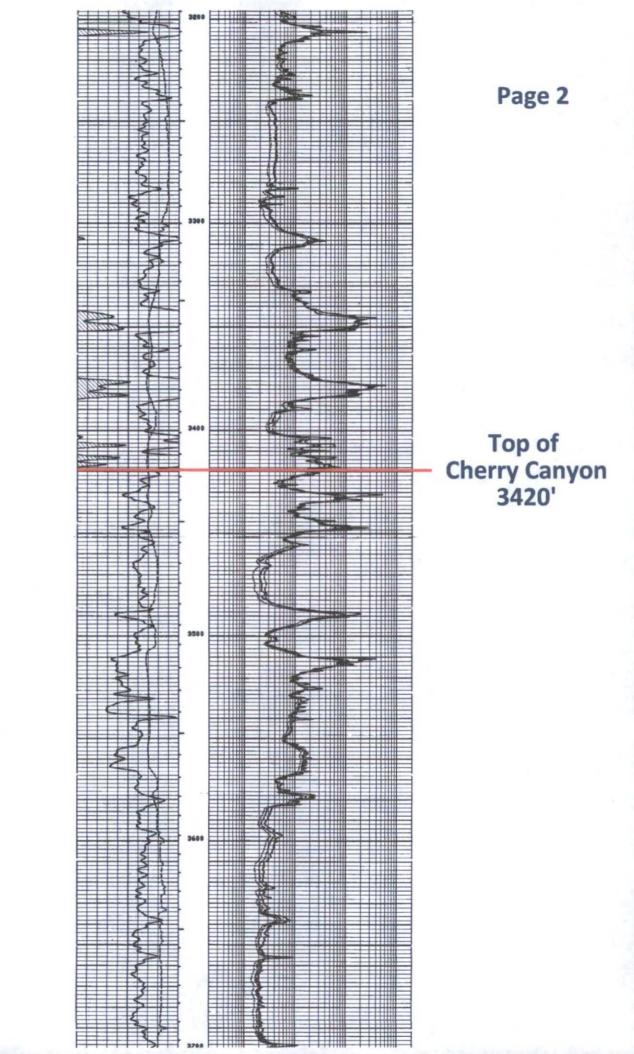
**GEOLOGIC INFORMATION** 

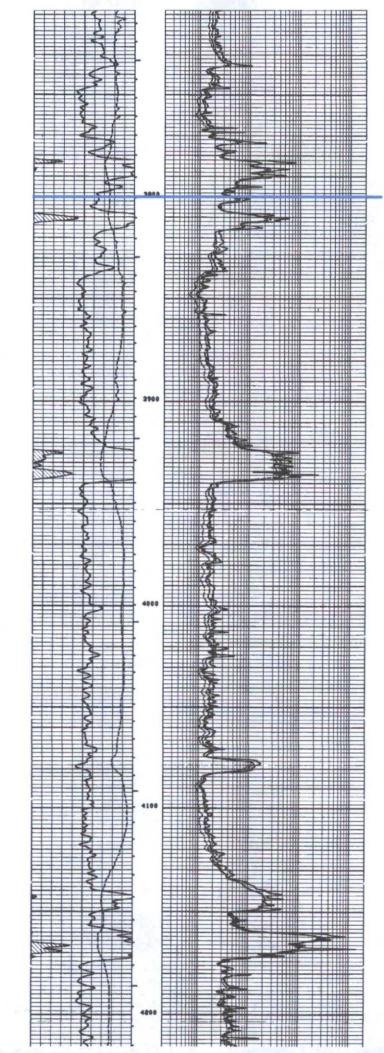
## Addendum to Original Filing

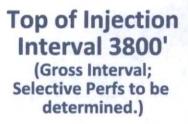


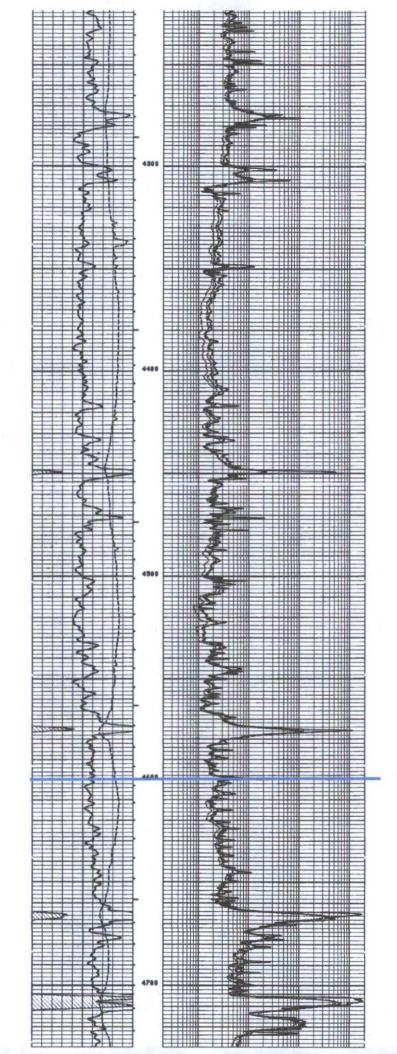
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## DLL RESISTIVITY LOC W/ TOP OF CHERRY CANYON AND FULL INTERVAL

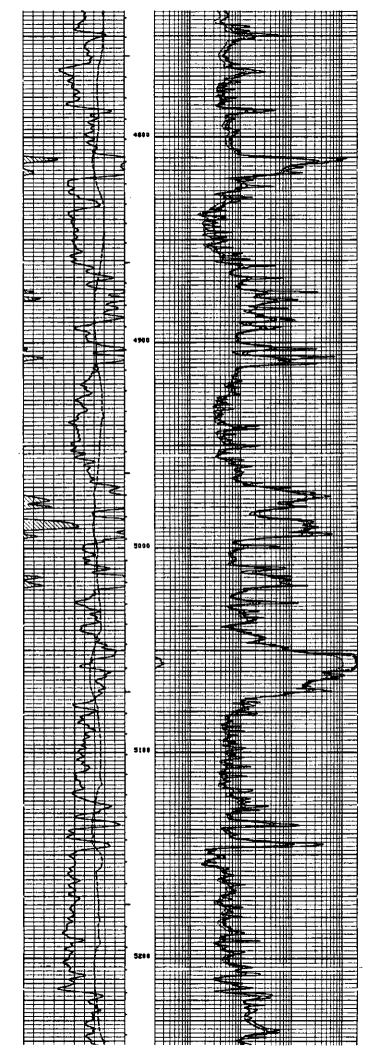








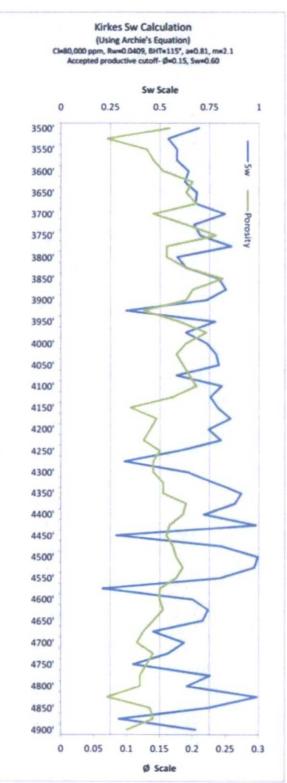
Bottom of Injection Interval 4600'



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Addendum to Original C-108 Filing for the Kirkes SWD No.1; Guardian Operating Corp.

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3675'	0.205	2	0.679591
3700'	0.14	- 3	0.82815
3725'	0.19	2.4	0.671904
3750'	0.235	1.4	0.703751
3775'	0.16	2.1	0.860337
3800'	0.16	4.5	0.587722
3825'	0.19	2.7	0.633477
3850'	0.245	1	0.797039
3875'	0.2	1.4	0.833602
3900'	0.19	2	0.736034
3925'	0.125	24	0.329794
3950'	0.18	2	0.779028
3975'	0.22	2	0.631023
4000'	0.19	2	0.736034
4025'	0.175	2.1	0.783077
4050'	0.185	1.8	0.79788
4075'	0.195	3	0.5848
4100'	0.205	1.4	0.812267
4125'	0.17	2.4	0.755139
4150'	0.105	6	0.7921
4175'	0.145	2.6	0.857395
4200'	0.135	4	0.745116
4225'	0.125	4	0.807828
4250'	0.15	5	0.596655
4275'	0.14	20	0.320741
4300'	0.14	5	0.641482
4325'	0.155	2.8	0.77033
4350'	0.155	2	0.911467
4375'	0.19	1.4	0.879729
4400'	0.185	2.2	0.72171
4425'	0.165	1.5	0.985599
4450'	0.16	20	0.278781

4475'	0.17	2.1	0.807278
4500'	0.175	1.3	0.995274
4525'	0.185	1.2	0.977199
4550'	0.175	2	0.802415
4575'	0.15	40	0.210949
4600'	0.15	4	0.667081
4625'	0.155	3	0.74421
4650'	0.14	4	0.717199
4675'	0.125	12	0.466399
4700'	0.115	8	0.623486
4725'	0.14	7	0.542152
4750'	0.13	18	0.36545
4775'	0.12	5	0.754187
4800'	0.12	7	0.637404
4825'	0.07	9	0.989988
4850'	0.135	4	0.745116
4875'	0.14	24	0.292795
4900'	0.1	9	0.680743

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## **EXHIBIT 5**



Five Inch Log: 5n= 100ft Measured Depth

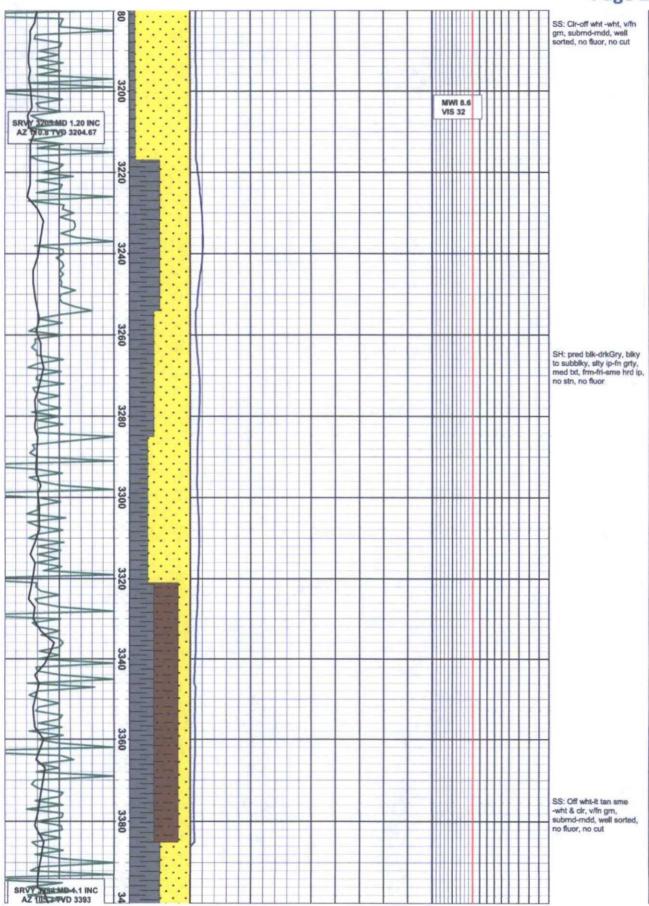
Page 1

261'-14150

12/3/14-12/26/14

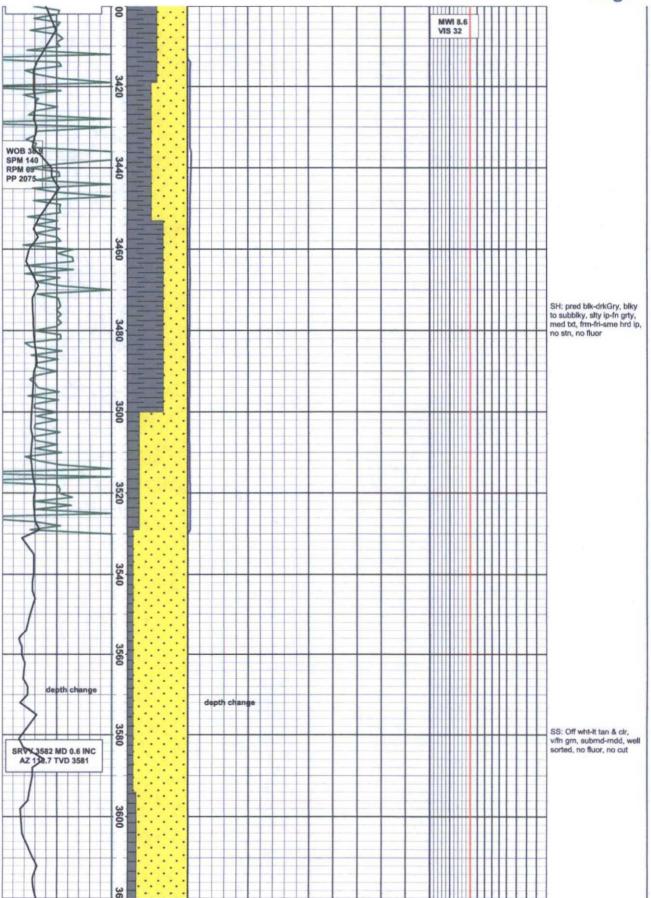
COMPANY :	Matador Pro	duction Company	API:	30015426600000			
WELL:	GUITAR 10-	24S-28E RB 202H	RIG:	Patterson 203			
FIELD:	WILDCAT		SUPERVIS	DR: PETE CANALAS			
REGION:	Delaware Ba	isin	CREW:	VERA T/ TANNA M.			
COUNTY	EDDY		UNIT:	Port-18			
STATE:	Texas		CO. REP(S)	RON SCHITOSKEY/ GARY WI	HETSIN		
RKB ELE:	3029'		SPUD DATE	E: 12/3/14			
ABBREVIA	TIONS		LITHOLO	GY			
CO - Circulate	ed Out	Anhydrite	Gypsum	Salt			
CF - Check Flow NB - New Bit SVY - Survey ST - Short Trip		Asn		Sand	·		
		Cement	Limestone Sandy	Shale Green	and a second of the		
		Chalk 2	Marl	Shale Grey			
CG - Connect	ion Gas	Coal		Siltstone			
LAT - Logged	After Trip	Dolomite	Z No sample	Sitstone			
MODIFIER	S	SYMBOLS					
Anhydritic					-		
Argillaceou	s <u> </u>	Core		Sample Quality Good Sample Quality Fair	G		
Calcareous		(Recover	red)		F		
Carbonace Cherty	ous				Q.		
Conglomera	atic O	Core	$\mathbb{N}$	Gas Show (Good)	à		
Dolomite Stringer		(Lost)	X		Q.		
Dolomitic					Q		
Fossiliferou	s n		4		•		
Marly Micaceous	M	Casing S	noe	Oil Show (Good)	•		
Pyritic	•	SWC (No	one) <	Oil Show (Moderate)	•		
Sandy		SWC (Re	ecovered)				

ROP / Gam		Litho	logy	Total Gas / Ch	rom.	Cuttings Chrom	. Calc	Fluor	Oil	Remarks
ROP	1 I	DEP		Total Gas		Ethane	Casing	Fluor	Oil Cut	
00 Ft/Hr	0	2	0	Units	5001	100 %	0300251	00 units 5	0 units20	
MWD Gamm	na	1		Methane		Normal Butane	CALC			
API	300		0	ppm	100000	) %	1000 %10	0		
				Ethane		Iso Pentane				
			0	ppm	30000	%	100			

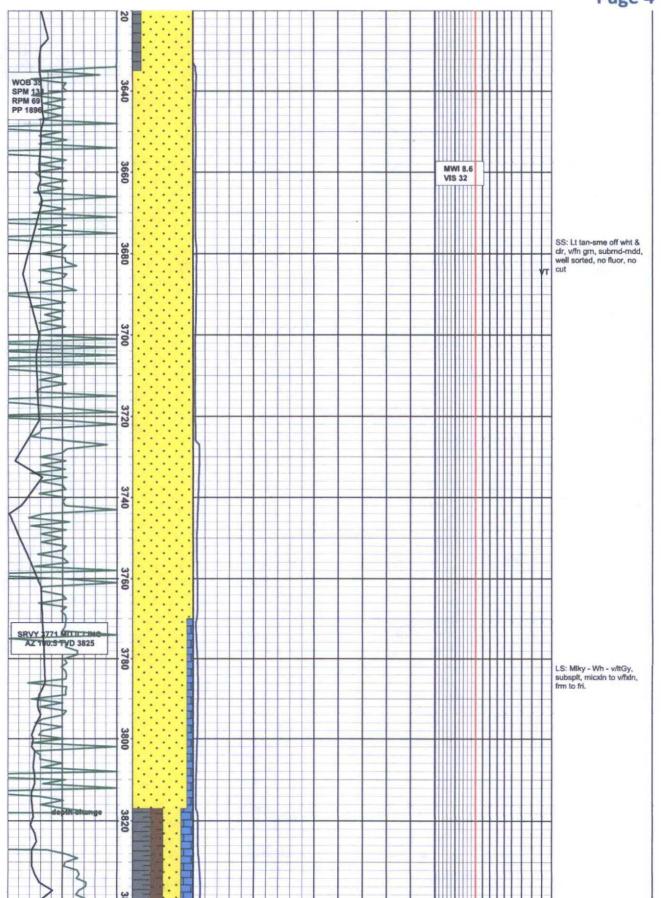


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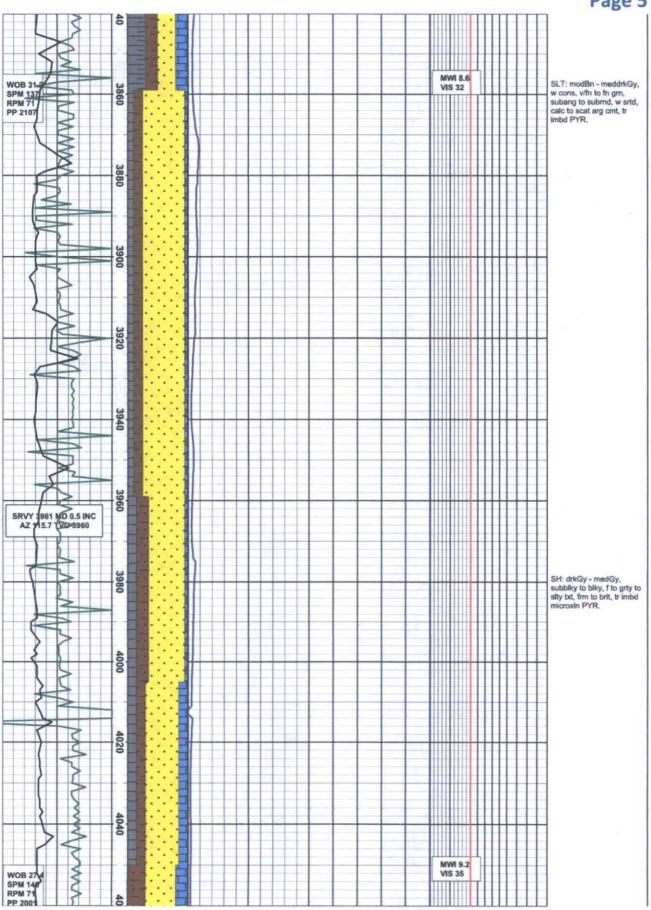
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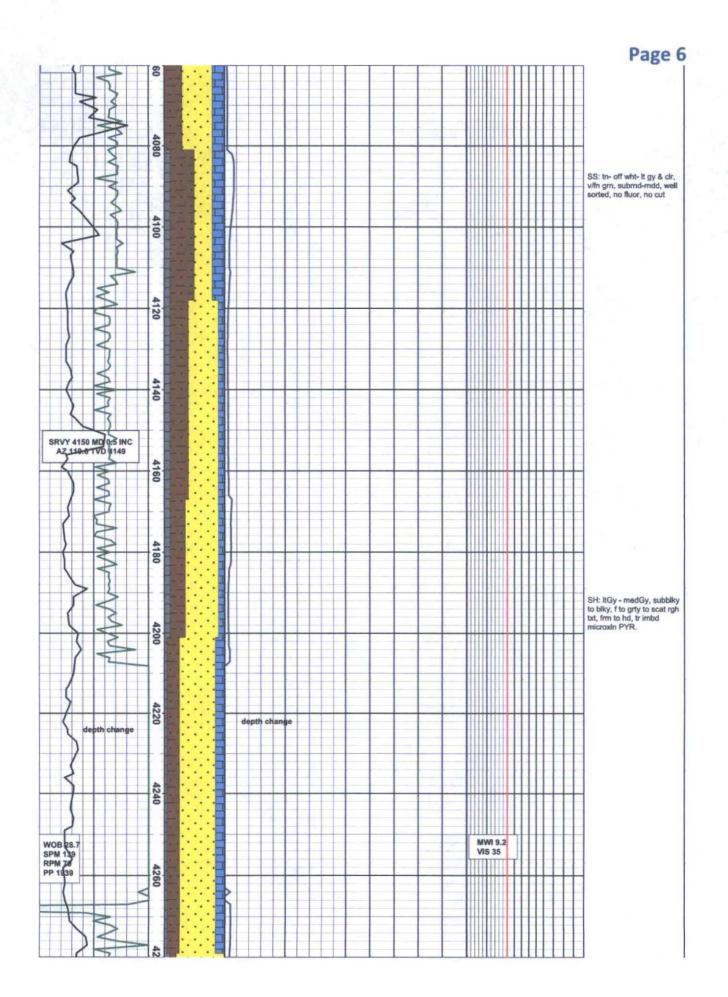
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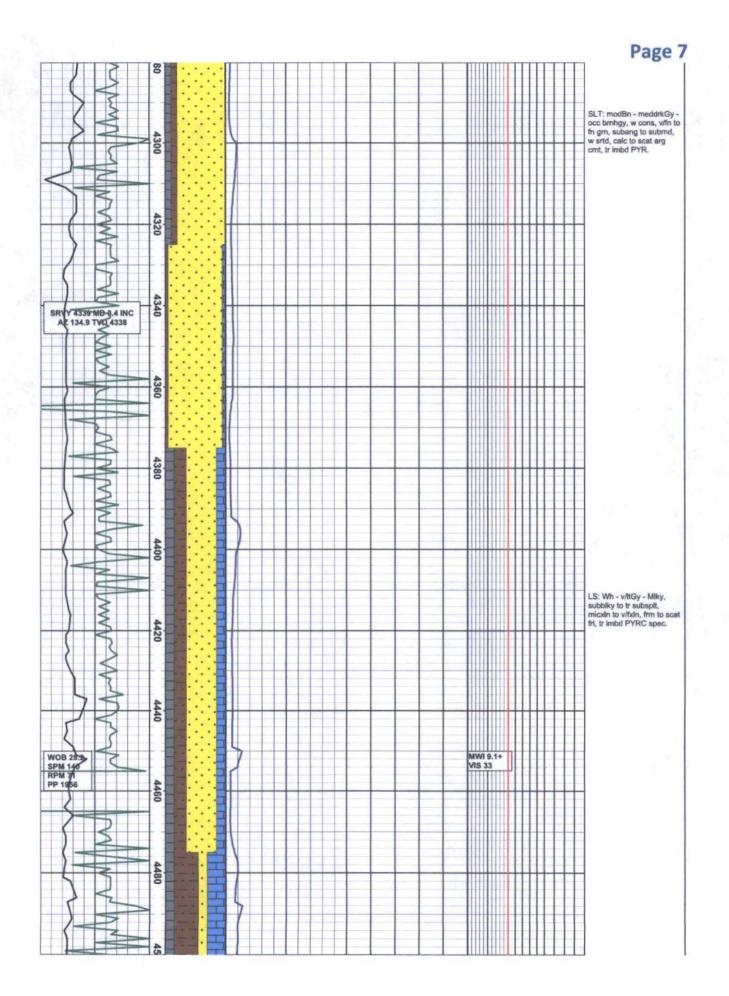


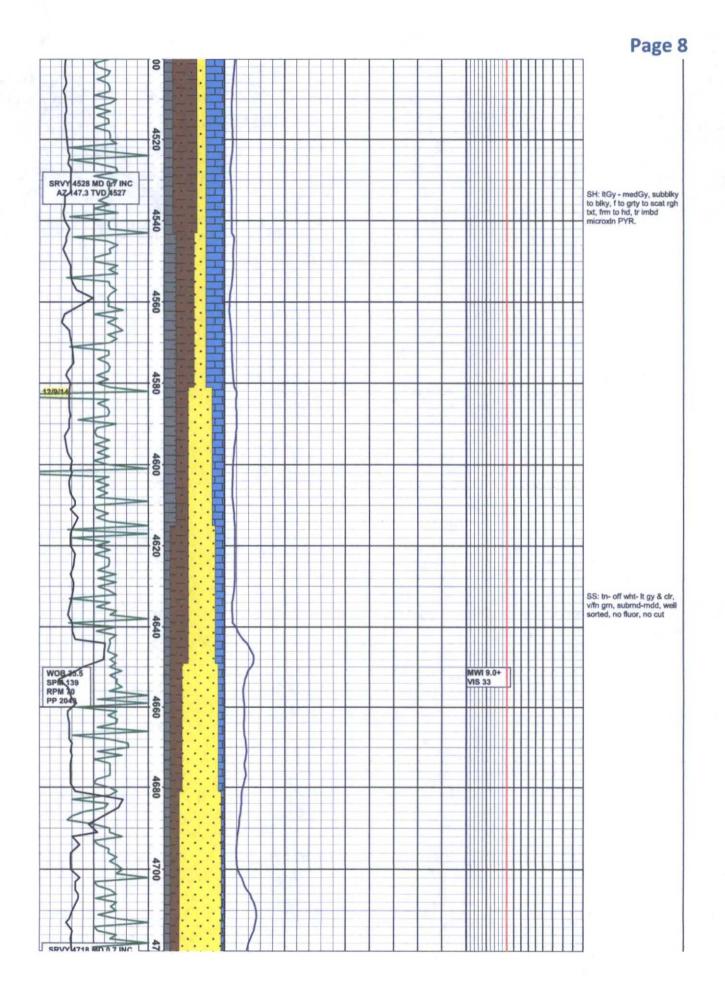
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#### **EXHIBIT 6**

# MRC Permian Company

One Lincoln Centre • 5400 LBJ Freeway • Suite 1500 • Dallas, Texas 75240 Voice 972.371.5273 • Fax 214.866.4883 vsingleton@matadorresources.com

Van H. Singleton, II Executive Vice President--Land

January 19, 2016

Guardian Operating Corporation Attn: Mr. Randy S. Cate 6824 Island Circle Midland, TX 79707

Re: Letter Agreement for the Kirkes Com #1 well, API #- 30-015-23299 located in Section 10, Township 24 South, Range 28 East, Eddy County, New Mexico (the "Kirkes Well") and the Craft #1 well, API #30-15-2412 located in Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico (the "Craft Well" and collectively with the Kirkes Well the "SWD Well(s)")

Dear Randy:

MRC Permian Company and its operating affiliate Matador Production Company ("Matador") understand that Guardian Operating Corporation ("Guardian") is in the process of filing for permits with the New Mexico Oil Conservation Division to convert the Kirkes Well and the Craft Well to salt water disposal wells. Guardian has requested that Matador waive objection to said permits. Matador agrees to grant a waiver on the following terms and conditions:

- The permit for the Kirkes Well will have an injection interval depth of 3800' to 4600'; and
- The permit for the Craft Well will have an injection interval depth of 3800' to 4500'; and
- The SWD Well permits will be in accordance with the rules and regulations of the State of New Mexico; and
- Guardian agrees to work with Matador, and if Matador requests Guardian shut-in the SWD Wells to reduce interference with any of its drilling or completion operations, then Guardian will do so.

Please indicate your agreement with the terms and conditions outlined above by signing below and executing below. After Matador has received your acceptance, Matador will sign the waiver

attached hereto as "<u>Exhibit A</u>" (the "Waiver") for the SWD Well permits contemplated herein. In the case of a conflict between the provisions of the Waiver and the provisions of this Letter Agreement, the provisions of the Letter Agreement shall control.

Sincerely, Van H. Singleton, II

Executive Vice President of Land

AGREED AND ACCEPTED THIS THE  $\frac{19}{10}$  DAY OF JANUARY, 2016.

RSC RESOURCES, LP

By: Coge	nt Energy, Inc., its General Partner
By:	Ma ata
Name:	RANDALL CATE
Title:	PAGSIDENT

**GUARDIAN OPERATING CORPORATION** 

By: Name: Title:

## MITCHELL ANALYTICAL LABORATORY

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> 2638 Faudree Odessa, Texas 79765-8538 561-5579

EXHIBIT 7 Additional Analysis Wolfcamp Water

	_			501 5	272		N	/olfcamp \
Company:	Wad	eCo Sp	ecialtie	es, LLC		,		
Well Number: Lease: Location: Date Run:	r: Marra Guardian WC17689 12/9/2013					Sample Temp: Date Sampled: Sampled by: Employee #:	70 11/25/3 Wade H	
Lab Ref #:		c-h13087				Analyzed by:	GR	
			Ţ	Dissolved (	Fases			
			-	///////////////////////////////////////	54363	Mg/L	Eq. Wt.	MEq/L
Hydrogen Su	lfide	(H2S)				.00	16.00	.00
Carbon Dioxi Dissolved Ox		(CO2) (O2)		NOT ANA NOT ANA				
				Cations				
Calcium		(Ca++)				3,867.24	20.10	192.40
Magnesium		(Mg++)				570.96	12.20	46.80
Sodium		(Na+)				34,145.34	23.00	1,484.58
Barium		(Ba++)	1	NOT ANAI	LYZED			
Manganese		(Mn+)				1.72	27.50	.06
Strontium		(Sr++)		NOT ANAI	LYZED			
				Anions				
Hydroxyl		(OH-)				.00	17.00	.00
Carbonate		(CO3=)				.00	30.00	.00
BiCarbonate		(HCO3-	-			73.32	61.10	1.20
Sulfate		(SO4=)				126.00	48.80	2.58
Chloride		(Cl-)				61,067.10	35.50	1,720.20
Total Iron		(Fe)				2.59	18.60	.14
Total Dissolve	ed Solids	5				99,854.27		
Total Hardne	ss as Ca	CO3				12,009.04		
Conductivity	MICROM	IHOS/CM				141,300		
рН	7.16	C			Specifi	c Gravity 60/60	) F.	1.069
CaSO4 Solubi	lity @ 80	) F.	44.2	6MEq/L,	CaSO4 s	scale is unlikely	,	
CaCO3 Scale In	Idex							
70.0	-	.135	100.0	.185	130.	0.77	5	
80.0	-	.025	110.0	.425	140.	0.77	5	
90.0		.185	120.0	.425	150.	0 1.11	5	

WadeCo Specialties, LLC

Affidavit	of Publicat	tion	Cop	oy of Publica	ition:
No	). 	23840		LEGAL NOTICE	namen ang situ si 2018 tanan ang mang pang situ situ si 20 kilan anang sakang katang situ situ situ situ situ s
State of New Mexico			Guardian Operating C	orp. 203 W Wall St Midland, 1 ithority to Inject) with the New	X 79701 is filing Form C-
County of Eddy:	1		Division for administra	tive approval to permit and co to 1. The well is located 2080	FSL& 1173' FEL in Sec-
Danny Scott	my A cate	,	tion 10, Township 24 S Produced water from (	South, Range 28 East in Eddy area production will be private bugh selectively perforated into	Lounty, New Mexico.
being duly s sworn sayes that	it she is the Pi	ublisher	applied for top of 3800 sis. The maximum Ini	) feet to maximum depth of 40 ection pressure will be 760 ps	00 feet based on log analy- I surface (0.2 psi/ft gradi-
of the Artesia Daily Press, a	daily newspaper of Gene	eral	interested parties wist	ate limited only by such press ning to object to the proposed	application must file with
circulation, published in Eng	glish at Artesia, said cour	nty	the New Mexico Oll C 87505 (505)476-3460	onservation Division, 1220 St ) within 15 days of the date of	this notice. Additional in-
and state, and that the hereto	attached		(903)488-9850 or, em	ained from the applicant's age all info@sosconsulting.us.	
Legal A	Ad		Published in the Artes	ia Daily Press, Artesia, N.M.,	Feb. 21, 2016 Legal No.
was published in a regular a	and entire issue of the sai	d			
Artesia Daily Press, a daily,	newspaper duly qualified	ľ		. <i>m</i> **	
for that purpose within the n	neaning of Chapter 167 c	)1	15 <sub>μ</sub> ., 11 ματ. τ. τολ. τ. τ. Αλο	N - 2007 - 200 - 20 11 - 2009 - 1000 - 2001	мала на на на на
the 1937 Session Laws of th	he state of New Mexico f	or			× ×
1 Consecutive we	eeks/day on the same				
day as follows:					
First Publication	February 21, 2	016			
Second Publication					
Third Publication					
Fourth Publication					() ()
Fifth Publication		-			
Sixth Publication					
Subscribed and sworn before	e me this				
22nd day of	February	2016			
OFFICIAL SE Latisha Rom NOTARY PUB		09			
Ratisto	Romine			~	
Latisha Romir	10				
Notary Public,	, Eddy County, New M	1exico			^v.

From:	Goetze, Phillip, EMNRD
Sent:	Wednesday, March 09, 2016 8:37 AM
То:	Ben Stone (ben@sosconsulting.us)
Cc:	'Morales, Ron'; jamesbruc@aol.com; Jones, William V, EMNRD; McMillan, Michael,
	EMNRD; Lowe, Leonard, EMNRD
Subject:	Two Protests of Application to Inject - Kirkes Com No. 1

RE: Kirkes Com No. 1 (API 30-015-23299) - Sec 10, T. 24 S., R. 28 E., NMPM, Eddy County.

Mr. Stone:

OCD was notified through counsel that Mewbourne Oil Company is protesting this application for approval of a salt water disposal well. Mewbourne has stated that commercial disposal will impact their Delaware operations in Section 10. A second party, Mr. Ron Morales, has also submitted a written protest of the proposed injection application. Therefore, you are being notified that if Guardian Operating wishes for this application to be considered, it must either go to hearing or may be reviewed administratively if the protests are withdrawn as a result of a negotiated resolution with these parties. The application will be retained by OCD, but suspended from further administrative review. Please contact OCD once you have made a decision regarding the application within the next 30 days. If the protest remains after 30 days, OCD will initiate the process for the application to be reviewed at hearing. Please call me with any questions regarding this matter. PRG

**Contact Information:** 

Mr. Ron Morales 1111 North 8th Artesia, NM 88210 Phone: 575.624.7397 E-mail: Ron.Morales@rm01.enmuros.cc.nm.us

Counsel for Mewbourne Oil Jim Bruce, Attorney P.O. Box 1056 Santa Fe, NM 87504 Phone: 505.928.2043 E-mail: jamesbruc@aol.com

Phillip R. Goetze, PG Engineering and Geological Services Bureau Oil Conservation Division New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505 Direct: 505.476.3466 e-mail: phillip.goetze@state.nm.us

From:	jamesbruc@aol.com
Sent:	Tuesday, March 08, 2016 4:59 PM
То:	Goetze, Phillip, EMNRD; WilliamJones@state.nm.us; McMillan, Michael, EMNRD
Cc:	tcude@mewbourne.com
Subject:	Guradian Operating Corp./SWD Application/Kirkes Well No. 1/Sec. 1024S-28E

Gentlemen: Merwbourne Oil Co. objects to the above application, because it may interfere with its operations in the . Delaware formation in Section 3 to the north of the proposed injector.

Jim Bruce

Attorney for Mewbourne Oil Co.

March 4, 2016

New Mexico Oil Convservation Division Attention: Mr. Phillip Goetze 1220 South St. Frances Dr. Santa Fe, NM 87505

To whom it may concern:

This letter serves as my notice and my objection to Guardian Operating, LLC Midland, Texas application and request to reconfigure and complete for salt water disposal (the Kirkes Well No.1) in or around Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico.

Best regards,

Ron H. Morales 1111 N. 8<sup>th</sup> Artesia, NM 88210 575-624-7397

CC: Ben Stone/info@sosconsulting.us Randall Cate/Guardian\_op@yahoo.com RECEIVED OCD

From:	Ben Stone <ben@sosconsulting.us></ben@sosconsulting.us>
Sent:	Friday, March 04, 2016 6:08 PM
To:	Morales, Ron
Cc:	Guardian_op@yahoo.com; info@sosconsulting.us; Goetze, Phillip, EMNRD
Subject:	Re: Kirkes Well No. 1

Hello Mr. Morales,

Thank you for your email. Please let me know if there is any additional information we can provide that might address your concerns. We would appreciate some clarification as to the nature of your objection; we're somewhat surprised since this is a relatively low impact, private SWD proposal.

Thank you for your attention to this matter and further communications.

Best regards,

Ben Stone SOS Consulting, LLC Agent for Guardian Operating Corp.

### Morales, Ron

Friday, March 04, 2016 11:54 AM

To whom it may concern:

This email serves as my notice as my objection to your application and request to reconfigure and complete for salt water disposal (the Kirkes Well No.1) in or around Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico.

Best regards, Ron H. Morales 1111 N. 8<sup>th</sup> Artesia, NM 88210 Confidentiality Notice: This e-mail, including all attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure, or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message.





## P.O. Box 300 - Como, TX 75431

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CONFIDENTIALITY NOTICE: This message is confidential and may be privileged. If you believe that this email has been sent to you in error, please reply to the sender that you wrongly received the message; then please delete this email. Thank You.

From: Sent: To: Subject: Morales, Ron <Ron.Morales@rm01.enmuros.cc.nm.us> Friday, March 04, 2016 11:03 AM Goetze, Phillip, EMNRD FW: Kirkes Well No. 1

From: Morales, Ron Sent: Friday, March 04, 2016 10:55 AM To: 'Guardian\_op@yahoo.com' <Guardian\_op@yahoo.com>; 'info@sosconsulting.us' <info@sosconsulting.us>; 'phillip.goetze@state.nm.us' <phillip.goetze@state.nm.us> Subject: Kirkes Well No. 1

To whom it may concern:

This email serves as my notice and my objection to your application and request to reconfigure and complete for salt water disposal (the Kirkes Well No.1) in or around Section 10, Township 24 South, Range 28 East in Eddy County, New Mexico.

Best regards, Ron H. Morales 1111 N. 8<sup>th</sup> Artesia, NM 88210 575-624-7397

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