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	UNITED STATES PARTMENT OF THE IN REAU OF LAND MANA	NTERIOR	SIA	OME	M APPROVED 3 No. 1004-0137 es: July 31, 2010				
Do not use this :	NOTICES AND REPOI form for proposals to Use Form 3160-3 (AF	NMNM23765 6. If Indian, Allottee or Tribe Name							
	IT IN TRIPLICATE – Other in	nstructions on page 2.		7. If Unit of CA/Agreeme	nt, Name and/or No.				
1. Type of Well Gas V	Vell Other			8. Well Name and No.					
2. Name of Operator Claco Oil Company				Phillips Federal #1 9. API Well No. 30-015-25167					
3a. Address 13 Havenhill Road, Artesia NM 88210	Ĩ	Bb. Phone No. (include ar		10. Field and Pool or Exp	,				
4. Location of Well (Footage, Sec., T., 660' FSL & 660' FEL, Section 1, 126S, R29E	R.,M., or Survey Description)	Brushy Draw Delaware 11. Country or Parish, Sta							
660' FSL & 660' FEL, Section 1, T26S, R29E	· · · · · · · · · · · · · · · · · · ·			Eddy County, New Mex					
12. CHEC	CK THE APPROPRIATE BOX	(ES) TO INDICATE NA	TURE OF NOTIC	E, REPORT OR OTHER	DATA				
TYPE OF SUBMISSION		1. Marcana	TYPE OF ACTI	ION					
Notice of Intent	Acidize	Decpen		action (Start/Resume)	Water Shut-Off Well Integrity				
Subsequent Report	Casing Repair	New Construction		mplete [Other				
Final Abandonment Notice	Change Plans	Plug and Abandon	C	orarily Abandon r Disposal					
to following completion of the involve testing has been completed. Final determined that the site is ready for APPLY FOR OPP L CASE	r final inspection.) PERMIT To	O DISPOS	5.5 0 1 1	Produced	b water				
SEE ATTACHI CONDITIONS	ED FOR OF APPROVAI	RE J NMC Accepte NN	CEIVE AN 06 2011 DCD ARTE d for record MOCD RE 1/13/11		JAN 4 2011 JAN 4 2011 /s/ JD Whitlock Jr EAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE				
14. I hereby certify that the foregoing is t	rue and correct. Name (Printed)								
BUSSELL C	LACK	Title	WNER						
Signature Sindel	1 Clack	Date	12/5/	2010					
	THIS SPACE F	OR FEDERAL OR	STATE OFF	ICE USE					
Approved by		Title		Date					
Conditions of approval, if any, are attached that the applicant holds legal or equitable t entitle the applicant to conduct operations	title to those rights in the subject l thereon.	ot warrant or certify lease which would Offic							
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or repre			ngly and willfully to	make to any department or	agency of the United States any false,				

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The following information is needed before your disposal of produced water can be approved, per Onshore Oil & Gas Order #7.

- You may attach this information to your Sundry Notice (3160-5). Submit all required information as per this attachment, submit a Sundry Notice(3160-5), one original and five copies to this office within the required time.
- 1. Name(s) of all formation(s) producing water on the lease. Cherry Carven Delautre
- 2. Amount of water produced from all formations in barrels per day.
- 3. A CURRENT water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.
- 4. How water is stored on the lease. $-\mathcal{O}$ -

5. How water is moved to the disposal facility. SEPERATOR PRESURE PUShes WATER TO DISPOSAL FRANLITY.

6. Identify the Disposal Facility by A. Operators' Name <u>STEPHENS & JOHNSON OPERATING GO.</u> B. Well Name <u>MOBIL "22" # 5</u> C. Well type and well number IN ECTION WELL D. Location by quarter/quarter, section, township, and range 5E /4 SW /4 R 29East

- --
- 7. A copy of the Underground Injection Control Permit issued for the injection well by the Environmental Protection Agency or New Mexico Oil Conservation Division where the State has achieved primacy.

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 9646 ORDER NO. R-9001

APPLICATION OF SUN EXPLORATION AND PRODUCTION COMPANY FOR A WATERFLOOD PROJECT, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 12, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>26th</u> day of September, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Sun Exploration and Production Company ("Sun"), seeks authority to institute a pilot waterflood project on its Mobil "22" Federal Lease comprising the E/2 NW/4 and S/2 of Section 22, Township 26 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the Brushy Draw-Delaware Pool through its existing Mobil Federal "22" Well No. 5 located 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 22.

(3) J.C. Williamson, an operator in the Brushy Draw-Delaware Pool and operator of a commercial disposal well in the area, filed a written objection to Sun's application prior to the hearing and at the time of the hearing appeared in opposition to this case.

(4) At the hearing, Sun demonstrated that an incremental secondary recovery of oil of 220.8 MSTBU could be obtained by institution of the proposed pilot waterflood project, resulting in the recovery of additional oil which would not otherwise be recovered, and the waste of oil would thereby be prevented. Case No. 9646 Order No. R-9001 Page No. 2

(5) The volumes which Sun proposes to inject do not exceed the current reservoir voidage from the proposed injection well and the four offsets thereto and the correlative rights of operators in the pool will therefore not be impaired by the proposed injection.

(6) The wells in the proposed project area are in an advanced state of depletion and should therefore be properly classified as "stripper wells."

(7) Sun proposes to utilize the Mobil Federal "22" Well No. 5 to inject water produced from the Brushy Draw-Delaware Pool back into this pool in the perforated interval from approximately 4938 feet to 5010 feet.

(8) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(9) Injection should be accomplished through 2 7/8-inch internally cement-lined tubing installed in a packer set at approximately 5850 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(10) Prior to commencing injection operations, the casing of the subject well should be pressure-tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(11) Sun testified that injection at a pressure equal to 0.2 psi per foot of depth to the uppermost perforation (987.6 psi) may be sufficient but requested that it be authorized to inject at higher rates to be administratively approved by the Division after step-rate tests are run by Sun and witnessed by the Division and establishing that injection under higher pressures will not damage the confining strata.

(12) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such high pressure will not result in migration of the injected waters from the Delaware formation.

(13) The operator should give advance notification to the supervisor of the Artesia District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(14) The subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations. Case No. 9646 Order No. R-9001 Page No. 3

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Sun Exploration and Production Company, is hereby authorized to institute a pilot waterflood project on its Mobil "22" Federal Lease, as described below, by the injection of water into the Brushy Draw-Delaware Pool through its existing Mobil Federal "22" Well No. 5 located 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 22, Township 26 South, Range 29 East, NMPM, Eddy County, New Mexico:

> MOBIL "22" FEDERAL LEASE <u>EDDY COUNTY, NEW MEXICO</u> TOWNSHIP 26 SOUTH, RANGE 29 EAST, NMPM Section 22: E/2 NW/4 and S/2

(2) Injection into said well shall be accomplished through 2 7/8inch internally cement-lined tubing installed in a packer set at approximately 5850 feet, with injection into the perforated interval from approximately 4938 feet to 5010 feet;

<u>PROVIDED HOWEVER THAT</u>, the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

<u>PROVIDED FURTHER THAT</u>, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 987 psi.

(4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Delaware formation.

(5) The operator shall notify the supervisor of the Artesia District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(6) The operator shall immediately notify the supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The subject waterflood project is hereby designated the Mobil

Case No. 9646 Order No. R-9001 Page No. 4

"22" Federal Lease Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(8) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations. $\stackrel{\leftarrow}{\rightarrow}$

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY Director



November 12, 2010

Rusty Clack Claco Oil Company 13 Haven Hill Road Artesia, NM 88210

RE: PHILLIPS FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 11/08/10 9:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager

Page 1 of 4



Analytical Results For:

Claco Oil C	ompany
Rusty Clack	ĸ
13 Haven H	till Road
Artesia NM	, 88210
Fax To:	None

Received:	11/08/2010	Sampling Date:	11/05/2010
Reported:	11/12/2010	Sampling Type:	Water
Project Name:	PHILLIPS FEDERAL #1	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: WATER SAMPLE (H021246-01)

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Chloride, SM4500CI-B	mg,	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	198000	4.00	11/10/2010	ND	100	100	100	3.92	
рн	pH (Units	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed Method Blank		BS	% Recovery	True Value QC	RPD	Qualifier
рH	4.82	0.100	11/11/2010		6.89	98.4	7.00	0.624	
Sulfate 375.4	mg/	′L	Алајуze	d By: HM			ومراجع المراجع الجرية المترابل فالمراجع والتركية المتعالم		
Analyte	Analyte Result Rep		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate	91.3	10.0	11/10/2010	ND	38.3	95.8	40.0	1.44	
TDS 160.1	mg/	L	Analyze	d By: NM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS	325000	5.00	11/10/2010	ND				5.65	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed valued unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal to liable for incidental or consequential damages, Including, without limitation, business interruptions, loss of uses, or loss of profils incurred by client, its subsidiaries, aritiates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based in the service stated reservice of therwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with writter approval of Cardinal Laboratories.

Celen D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



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PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6° C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celev & Keine

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
- 6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.

9. Disposal at any other site will require prior approval.

10. Subject to like approval by NMOCD.

9/30/2010