District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV

State of New Mexico **Energy Minerals and Natural Resources**

Form C-101 June 16, 2008

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

Submit to appropriate District Office

☐ AMENDED REPORT

1220 S. St Fr	rancis Dr , S	Santa Fe,	NM 87505		Sa	inta Fe, N	M 875	505					
AP	PLICA	TION				RE-EN	TER,	DEEP	EN, PLUGE				
March	0:1.0		' Operator Nam	e and Addre	SS					² OGRID 147			
PO BOX 52	70	any							30-	Ol 5 -	umber 29	129	
		9			Prop Fail	erty Name child 13	wh				Well #1 -S	No WD-	
2	710	0	9 Proposed Pool 1		۱ ۱		¹⁰ Proposed Pool 2						
	NM 88241 operty Code 3 8 708 5 WD; CANYON O Section Township Range Lo 13 198 25E 8 Proposed 1 Ook Type Code Rentry Ook Type Code Rentry Ook Section Township Range Lo Ook Type Code Rentry Ook Section Township Range Lo Ook Type Code Rentry Ook Type Code Rentry Ook Section Township Range Lo Ook Type Code Rentry Ook Section Township Range Lo Ook Type Code Rentry Ook SwD Ook Section Township Range Lo Ook Section Towns	(96	184)										
	· · · · · ·			/		rface Lo	í .			л			
	l	l	' °	Lot I	dn Fo	eet from the		South line UTH	Feet from the /	East/Wes WES	· /	County EDDY	
			8 Pr	oposed B	ottom Hole	Location	If Diffe	rent Fro	m Surface				
UL or lot no	Section	Townshi				eet from the		South line	Feet from the	East/Wes	st line	County	
	<u> </u>				Addition	al Well I	nforma	ation					
		7		ode /	13	Cable/Rotary		14	Lease Type Code FEE				
				pth	1	8 Formation			19 Contractor		20	Spud Date	
	<i>V0</i>		8200'			CANYON			PATT-UTI			07/15/11	
				21 Prop	osed Co	sing and	Cama	nt Drog	rom				
Hole S	176	T ,	Cacina Size				Setting D		Sacks of C	ement		Estimated TOC	
		<u> </u>			# & 26#	- '	7800		820			surface	
0 3, 1			<u> </u>	23.			7000		020			Surrace	
							e the dat	a on the p	resent productive 2	one and pro	oposed n	ew productive zone	
	-					·			sup	R-	130	412-	
This well is a	re-entry I	t was drill	led and P&A'd by N	learburg Pro	oducing Co	in 1997		•	, עריין	/ \	, , ,		
								rface Sho	e joint and open h	ole will be	drilled o	ut to TD @ 8200'	
	•		-		,		9			R		EIVED	
										- 1		1 1	
Mud Program	Surface to) 1025' FV	V spud mud. 1025'	- 6300' TD .	Brine water					•	JUN :	27 2011	
										NM	OCD	ARTESIA	
			tion given above is	true and co	mplete to the	;		OII C	ONICEDIA	LION D	IVICI	ONI	
ocst of my kin	owieuge un	d ocher		٠					ONSERVA	HON D	1 1 1 5 1	ON	
Signature.	haul		. sent	e.		Appro	ved by [.]		Maior				
						Title [.]		//	Geolo	aist			
By Proposed Bott UL or lot no Section Township Range Lot Idn ACC Work Type Code SWD 16 Multiple 17 Proposed Depth 8200' Hole Size Casing Size Casing w 8 3/4" 7" 23# & 23 Describe the proposed program. If this application is to DEEPEI Describe the blowout prevention program, if any Use additional si This well is a re-entry It was drilled and P&A'd by Nearburg Production of the blowout prevention ground and Arrowset 1X nickel pla BOP Program Shaffer or equivalent 11" 2000# Annular Mud Program Surface to 1025' FW spud mud. 1025' – 6300' TD Britand Arrowset of my knowledge and belief Signature When Arrowset IX much and complete the proposed program given above is true and complete to my knowledge and belief Signature Printed name. Charles Martin Title. Engineer					Appro	val Date	07		Expiration D	Date 0	1/14/13		
E-mail Addres	ss. cmart	ın@mew	bourne com					7	- /				
Data: 06/24	/2011		Dhone: (5	75) 202 500	15	Condi		1 ^				-	

District I
PO Bex 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztoc, NM 87410
District IV

PO Box 1088. Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102
Revised February 10, 1994
Instructions on back
Supplie to Appropriate District Office
State Lease - 4 Copies

AMENDED REPORT

Fee Lease - J Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

		***		CATIO	N AND A	HCI	JEVOR DEDI	CATION F	~~ 1				
	API Nem	ber		Pool Co	ie	* Pool Name							
Property	Code	1	!	· · · /							Well Number		
j		FAIR	CHILD	13	SWP						1		
OGRO	No.				' Ope	- TALOP	stor Name 'Elevation						
14744	Code Property Name Well Number												
					10 Surfa	ace	Location		· · · · · · · · · · · · · · · · · · ·				
L'L or lot so.	Section	Township	Range	Los Ida	Feet from t	he	North/South Ene	Foot from the	East/Wes	i line	County		
М	13	19-S	25-R	l	660		SOUTH	660	WEST	ľ	RDDY		
<u></u>	<u></u>		11 Bot	tom Hol		n If	Name 'Elevation 34 14. Cocation North/South line Foot from the East/West line County SOUTH 660 WEST EDDY Different From Surface North/South line Foot from the East/West line County North/South line Foot from the East/West line County N UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED IN APPROVED BY THE DIVISION 17 OPERATOR CERTIFICATION I hardry certify that the information constant herein is true and complete to the best of my knowledge and belief Charles Martin Signature Charles Martin Frinted Name						
UL or lot se.	Section	Township							East Wes	fine	County		
	ĺ										1		
12 Dedicated Acr	es " Joint	er lafil " (onsolidatio	a Code 4 0	rder No.		1 1				<u> </u>		
					,	54	U]) R-	-134.	12				
NO ALLOY	WABLE									N CON	SOLDATED		
,		OR A	NON-STA	NDARD	UNIT HAS	BE	EN APPROVED	BY THE DIVI	NOIS				
16	1]		\cdot		¹⁷ OPER	ATOR	CERT	IFICATION		
1 hereby ca								4	-				
								THE DIE COMP	use to the bi	at of my m	rowests and send		
	ł			1		-		il .					
	I					-		11			4		
	1			1				16	11				
	1			1		7		Siegold	20.0	lea	<u> </u>		
	- 1			1		_ _		Charle	,5 M	t	in.		
	1			F	ECEI	VE		Printed Name	t				
	ł			1 1	EUL.		.44	Engi	neer	-			
	}			1 \	JUN 27	170	,,,	1/2	4/11				
	1			1	JO		resial	Date	7	, (j.ij.			
				1 100	MOCD /	#	TLO:	Herman	YOR C	VED 77	EICATION		
				سنا ا		1		#					
	ł					1							
	- 1			j							the same is true		
	-			i				J		•	ľ		
	1							Date of Survey					
						╀-	 	Signature Mas	A.R.E.	Mari Sun	reyer:		
	ł							10	MALE	(V)	\		
,	j		j						EM MES	8	\		
660 p	1		- 1						TRYEYOR CERTIFICATION of the Same will location shown on this plat and from field notes of my belief. INVEYOR CERTIFICATION overeity that the well location shown on this plat and from field notes of my browledge and belief overeity that the well location shown on this plat and from field notes of exact surveys made by note my supervision, and that the same is true rect to the best of my belief. INVEYOR CERTIFICATION overeity that the well location shown on this plat and from field notes of exact surveys made by note my supervision, and that the same is true rect to the best of my belief. INVEYOR CERTIFICATION overeity that the well location shown on this plat and from field notes of exact surveys made by note my supervision, and that the same is true rect to the best of my belief. INVEYOR CERTIFICATION overeity that the well location shown on this plat and from field notes of exact surveys made by supervision, and that the same is true rect to the best of my belief. INVEYOR CERTIFICATION overeity that the well location shown on this plat and from field notes of exact surveys made by surveyor.				
ام	- 1		l						3412	p 1	ָּבֶּל		
099	1		İ				• •	Marie X	Xell	* / 5			
10	1		1			1		H Certificate Hund	SURVE	アノベ	i i		

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. 14606 ORDER NO. R-13412

APPLICATION OF MEWBOURNE OIL COMPANY FOR APPROVAL OF A SALT WATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 3, 2011 and again on March 31, 2011, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 23rd day of June, 2011, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, Mewbourne Oil Company ("Mewbourne" or "applicant"), seeks authority to utilize its Fairchild 13 SWD Well No. 1 (API No. 30-015-29729, the "subject well"), located 660 feet from the South line and 660 feet from the West line, Unit M of Section 13, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, for oil field water disposal into a Canyon formation open hole interval from approximately 7800 feet to \$200 feet.
- (3) The Division has previously approved Canyon salt water disposal wells offsetting this location. The Cotton MX Federal Com Well No 1 (API No. 30-015-23315), located in Unit C of Section 14 was approved as a Canyon disposal well by-administrative permit SWD-370. The Ann SWD Well No 1 (API No. 30-015-23580), located in Unit G of Section 18 was approved as a Canyon disposal well by administrative permit SWD-246. The Ann SWD Well No. 1 is now operated by Mesquite SWD, Inc. and being used as a commercial disposal well.



- (4) Mewbourne presented exhibits and testimony at the hearing from a geologist and an engineer. An affidavit of notice was presented at the hearing on March 31, 2011.
 - (5) The applicant's testimony and exhibits indicate the following:
 - a. The proposed disposal well is within one mile of the North Dagger Draw-Upper Pennsylvanian Pool (Pool Code 15472). This pool produces gassy oil and very high quantities of associated water from the Canyon formation. The Canyon oil field produced waters are typically relatively low in dissolved solids.
 - b. The proposed well was spud in December of 1997 as a Canyon test. The well was drilled to 8200 feet and plugged as a dry hole. The Canyon in this location is lower on structure than the main portion of the North Dagger Draw-Upper Pennsylvanian Pool. Offsetting wells that attempted to produce from the Canyon have produced at a very high water cut. Mewbourne does not intend to attempt any further Canyon formation production from this well.
 - c. Mewbourne intends to re-enter this plugged well to 8200 feet, run 7 inch casing to 7800 feet, set an external packer and cement this new casing, and utilize this well for disposal into the Canyon formation through an open hole interval.
 - d. Mewbourne expects disposal waters to preferentially enter the Canyon formation through the higher porosity interval located near the midpoint of the proposed disposal depth range.
 - e. The source waters going into this well would originate primarily from Mewbourne's local production from the Yeso formation. Currently Mewbourne's Yeso waters are being commercially disposed into the Ann SWD Well No. 1 which itself uses the Canyon formation for disposal.
 - f. Mewbourne does not expect any waste of oil or gas to occur as a result of disposal into this Canyon formation at this location.
 - g. Mewbourne owns the surface at this well location. Exhibit 3 details those who control the interests within ½ mile of this location and Exhibit A, presented on March 31, shows proof of notice to those affected parties.
 - h. Known fresh waters are located within 750 feet of surface. The well will be adequately equipped and cemented to isolate any fresh water intervals.

- (6) Affected parties have been notified and no objections have been received. There were no other appearances at the hearing or objections to this application.
- (7) The application has been duly filed under the provisions of 19.15.26.8 NMAC.
- (8) The half mile Area of Review around this well contains no plugged wells and one active well that penetrated the disposal interval. The Area of Review well is adequately cased and cemented in order to isolate the disposal interval.
- (9) The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.
 - (10) This application as presented by Mewbourne should be approved.

IT IS THEREFORE ORDERED THAT:

- (1) Mewbourne Oil Company ("Mewbourne" or "operator"), is hereby authorized to utilize its Fairchild 13 SWD Well No. 1 (API No. 30-015-29729) located 660 feet from the South line and 660 feet from the West line, Unit M of Section 13, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, for oil field water disposal (limited only to UIC Class II fluids) into the Canyon formation open hole interval from approximately 7800 feet to 8200 feet through lined tubing and a packer set within 100 feet above the permitted disposal interval.
- (2) The operator shall take all steps necessary to ensure that the disposed water enters only the permitted disposal interval depths and is not permitted to escape to other formations or onto the surface.
- (3) After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.
- (4) The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.
- (5) The wellhead injection pressure on the well shall be limited to **no more** than 1560 psi. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

- (6) The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.
- (7) The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rules 19.15.26.13 NMAC and 19.15.7.24 NMAC.
- (8) Without limitation on the duties of the operator as provided in 19.15.29 NMAC and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from or around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.
- (9) The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.
- (10) The Division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.
- (11) The Division director shall be authorized to amend this permit administratively after proper notice and opportunity for hearing.
- (12) The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause.
- (13) One year after disposal into the well has ceased, the well will be considered abandoned and the authority to dispose will terminate ipso facto.
- (14) Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.
- (15) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or

upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing or prior to notice and hearing in event of an emergency, terminate the disposal authority granted herein.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JAMI BAILEY Director STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? Yes X No
II.	OPERATOR: Mewbourne Oil Company
	ADDRESS: 3901 S. Broadway Tyler, TX 75701
	CONTACT PARTY: Bryan Montgomery PHONE: (903) 561-2900
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. See attached map.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. See attached schematic for the Fairchild 24 #1
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; NMOCD ARTESIA
	4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
	5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted)
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Bryan MontgomeryTITLE: Manager of Economics and Evaluations_
	NAME: Bryan MontgomeryTITLE: Manager of Economics and Evaluations_ SIGNATURE:DATE: January 21, 2011
*	E-MAIL ADDRESS: bmontgomery@mewbourne.com

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: Mewbourne Oil Company

WELL NAME & NUMBER: Fairchild 13 #1 SWD

WELL LOCATION: 660 FSL & 660 FWL

FOOTAGE LOCATION

M UNIT LETTER 13 SECTION 19S TOWNSHIP 25E RANGE

WELLBORE SCHEMATIC (See Attached)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14 3/4 in	Casing Size:9 5/8 in set at 1173 feet
Cemented with: 1050 sx.	orft³
Top of Cement: surface	Method Determined: circulated
Intermed	ate Casing
Hole Size:	Casing Size:
Cemented with:sx.	orft³
Top of Cement:	Method Determined:
Producti	on Casing.
Hole Size: 8 3/4 in	Casing Size: 7 in
Cemented with: 820 sx.	or ft ³
Top of Cement: surface	Method Determined: circulated
Total Depth: Drill to 8200 feet	and set casing at 7800 feet
<u>Injectio</u>	n Interval
7800 feet	To 8200 feet

Open Hole

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 in Lining Material: TK99 plastic

Type of Packer: Arrowset 1X Nickel Plated (10,000#)

Packer Setting Depth: 7700 feet

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

1. Is this a new well drilled for injection? No

If no, for what purpose was the well originally drilled? Canyon (Upper Penn) test.

Determined non-commercial and plugged in February, 1998 without any formation tests.

- 2. Name of the Injection Formation: Canyon (Upper Penn) Open hole
- 3. Name of Field or Pool (if applicable): North Dagger Draw Upper Penn
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No perforations.

See attached C103 plugging record from 1992.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Overlying producing zone - Yeso at 2640 feet

Underlying producing zone – Strawn at 8210 feet

Proposed Wellbore Diagram

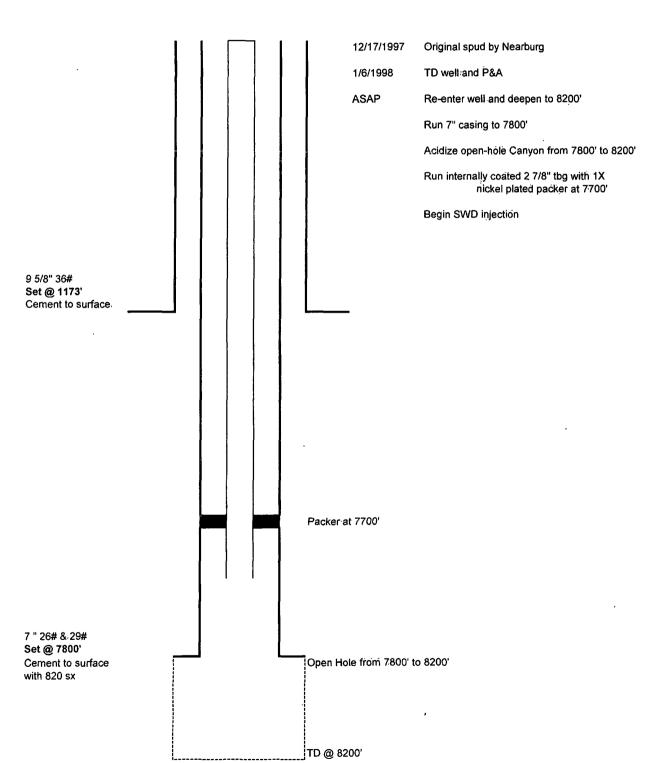
Operator: Mewbourne Oil Company

Well Name: Fairchild "13" #1 SWD

Location: 660 FSL & 660 FWL Section 13 19S-25E Eddy Co, NM

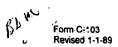
API# 30-015-29729 Current status: P&A Updated by: B. Montgomery

Date Updated: 1/21/11



. Gubmit'3 Copies to Appropriate District Office

State of New Mexico Energy, Minerals and Natural Resources Department



CONDITIONS OF APPROVAL, IF ANY:

OIL CONDEDUKTION BILLIOLON

Brigg	Form C=103 Revised 1-1-89

DISTRICT I	OIL CONSERVATION	N DIVISION		
P.O. Box 1980, Hobbs, NM 88240	2040 Pacheco St.		WELL API NO.	
DISTRICT II	Santa Fe, NM 87	7505	30-015-29729	
P O Drawer DD, Artesia, NM 88210			sindicate Type of Lea	
DISTRICT III				STATE FEE
1000 Rio Brazos Rd., Aztec, NM 87410			State Oil & Gas Lea	se No.
OLIVED VALOTIC	SEC AND DEPOSITO ON ME	1.0	Buarasita da managaran	Commence and the control of the cont
SUNDRY NOTICE (DO NOT USE THIS FORM, FOR, PROF	CES AND REPORTS ON WEL			Manager and the second
DIFFERENT RESERV	OIR. USE "APPLICATION FOR PER		Lease Name or Unit	Agreement Name
	01) FOR SUCH PROPOSALS.)		ļ	ļ
Type of Well: OIL GAS GAS			Fairchild "13"	
WELL WELL	OTHER			
2Name of Operator Nearburg Producing Company			aWell No.	
₃Address of Operator			∘Pool name or Wildo	at
3300 North A Street, Building 2, Suite	e 120, Midland, Texas 79705		Dagger Draw; U	pper Penn, North
₄Well Location				
Unit Letter M : 660	eet From The South	Line and660	Feet From The	West Line
		055		<u></u> .
Section 13		Range 25E	NMPM	Eddy County
	₀Elevation (Show whether DF, I 3,414' GR'	KKB, KI, GK, BIC.)		
	CL COMP I BUT TO		<i>r</i> 0.1 5	Calabat Roll-Stole Trans. 112, 1
11 Check App	propriate Box to Indicate Na	iture of Notice, Re	port, or Other L	ata
NOTICE OF INT	ENTION TO:	SUBS	SEQUENT RE	PORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WORK		ALTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILLING O	PNS	PLUG AND ANBANDONMENT
PULL OR ALTER CASING		CASING TEST AND CEME	NT JOB	
OTHER:		OTHER:		Γ
Office.				
¹² Describe Proposed or Completed Operations work) SEE.RULE 1103.	(Clearly state all pertinent details, and give	pertinent dates, including es	timated date of starting	any proposed
1) Set 45-sx cement plug from 7,82	6'-7 700'			Bat TO 3
2) Set 45 sx cement plug from 6,82	6'-6,700'.			Post ID-2 9-4-98
	93'-5,982'. PUH & WOC. TIH.& ta	g cmt @ 5,925'.		•
4) Set 40 sx cement plug from 2,765) Set 60 sx cement plug from 1,24	/ -2,046 . 1'-1,123'. WOC & tag cmt at 1,144	١.	4	PXPT
Set 10 sx cement plug from surfa	ace. ND BOPE. Cut off csg & cap	well.	Min	
7) RDMO drilling rig.			OF RECE FER	7
8) P&A'd well. Final report.			OCO CEIVED	-
			OCO RECEIVED ARTESIA	· · ·
			5/A	
	_			
I hereby certify that the information above is to	and complete to the best of my knowled	ge and belief.		
The state of the s	/ C			2/2/90
SIGNATURE -	TITT	LE Manager of Drilling	and Production	DATE
E SeeM Vinderstall				TEL ERUDAIE NO (015) 696 9995
TYPE OR PRINT NAME E. Scott Kimbrough				TELEPHONE NO. (915) 686-8235
(This space for State Use)	1. Sumi	0.4.		<i>i</i> :
5000		Districts	upervisor	3/12/99
APPROVED BY		LE	-	DATE

Permisson S. (WC Disc)	P2 01 (Date 1044)	Yotes Pet, etal Yotes Pet, etal Yotes Yotes Yotes Yotes Feteral Eloss Fot Com." State	vates Pet. Suburtion Prop. Ric Penesca A.M. Buith M. M. P. Ji. Hingke, shall B. Nicholgs, ald	Yates Pet etal merrow Disc essecond 1 1 Mil RE ress. 96 F.E. Colling, etal	Yates Pel. Metropolis AZI St Com. To 9630 on State (many 1800)	MARGON TO THE WATER OF THE WATE
77 B MAD 17 YEARS 124031	AMST. 14831 314431 3445 .	1 1 10.73 140.41 140.41 144.34	Yares Pet, etc. Yares and Yores Per			Yorks Pet. And highest the state of the feet of Yorks Pet, etcl
Vales Pet, etal OG-783 A BO B	etal 06 783 10 Map F. Inic	CT YolgaPar L-18167	4. 26 2006 Ect Million	HBP HBC H.B.P. etal	# # # # # # # # # # # # # # # # # # #	Gottus Transport Control of Chiefer Andrews Control of Chiefer Control
Manicary 0353654	"Greasewood" LC.Horris/2			(978) 0 - QXX - 19620	Alley 9-20-2018 13-20-2018 Chase Oil A-73-2011	Sinding Edith Forms
State Featy St. Feat	pso Srate	JAME Blockmart I Yates Pet.	Yers Fel, Ital Scould's Vales Fel, Ital		1, 13, 2015	Chief to Minister Company Comp
(Mobil) (Meretes II eral)	Yotes Pet.	DE Blockmar) (WB Barnhill V2) Pure Res. (Yates Pet.) (WW. M. Brod show	The process of the pr	B TOSETS RIO R.GIOSS.	3-6-2011 109345	10-9-1015 3-15-2019 (log trung C.C EINSE
TIAL POTOTO SHIT VOTES		W Boutstone Purs Pas	Constitution (Constitution of the Constitution	M1704	(C) 0/4 / 1/ 32 C / C / C / C	Limet / Cat Ligger Hin 10 B Monthson Ligger Limet Ligger L
"Mebil-Fed" Nodin Rushing		Bonnie Merlocketol Bradshow Pi	N OHOW FRO U. S TOES	R.Gloss R.E.Gloss R.E.Gloss	R. Glass (Glass R. Glass	Oorchester
4.75 / Yates Pet. Yates Pet. etal	C Johnston BE	Yorles Patr. Dame Feeken	(Yates Bros.	Dugan Productol g. p. Wilocat Ener. Thompsin Byron 3 kg Thompsin 3 kg Benge Murrison, stal	an a	Grand St. (170) (1
Giore 82044 Beulan Collins etc.	of Totes, Per etail	Volta Pel Live Brasken Ough Ming 1501 Partick-API	Se Service Marrison, et al	A Routh 4	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
Johnston Yoles Pet etal	Yafes Pet. 5-4.1 8-2 P217	Tin Tologo Norman Agr	F9467 A Symmetries (No. 1) A Co. 1	200 3 Mile Mile Pangasco	A Tonkin Billow Born (1952) Thomas Fuller Bucholos Hilliams Monn Raboss p60035 G.1.955	Pinth yates, ctol C. E. Nelson, et al C. H. Barry
1977 1972	6 Totas	Marshall Bonrio Malleck, et al	Yates Pat atal (Oovid	A Control Cont	Monii Ir giosa	Yotes DMD, LLC Pet, event 10.6. 2013
	2770Y (000.0-7-6	4 - 1372 14mw 14mw 15 15 15 15 15 15 15 1	Yates Pet. etal O (David	Yotes Pet.	SEVEN RWERS M.	Attack Attackers Attackers L
R.E. Glass	IValue Del V Yester Des	et. 10. oster 1972 oj 2. anv Sanster 3-Anv 4. anv 487 937 9103 Warren Fed.	(1.65 M) 013655	SI 427AR LA CONCCU	1	CANTEN J. L. Saida Server SANTEN SOLL ASSERTED WILLIAMS GOAL J. BIA HESSAN Est. La BIE etc. Roserrol W. P. Ingersoll
Marshalle, Winston, etal	WD ATT PER COMPOSED		(2313) 3 MF olo-F # 113811. 2 mg.	"5errana - Fed"U. S. 18820 40000	R.R. Hinkle, et al	J. BIA Mew CMEn Mew Me Forland
(1)	Vates Pal et al Partie	couring) (Amoco) of state Yafes Couring) (Amoco) of state Yafes Transmitted than State of the Control of the Contro		Yotas Pet, etal Harburg	1 2:0:2012 Mawbeared 2 4:201 Mar. 019K Marbob 1:29-2012 Myeri Oz. R Moore 1:4:209 Mar. 019K Marbob 1:6:1:201	
Yares Pet, etal syn / a.g. P	y des en	APA WO APA TCOQUIGO 12.X	Buyet and S. Spello-Fed APU	11 6 2014	Forchild 708200 Mexicuses 3m Trs Wyott Or No.	(a) (a) (b) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
	# (DOS PROPERTY MATERIAL CONT. NO. 19 P. C. Gieras No.	To the Laguage 19. Mary and St.		Yores Per. Vi	These Jones Those of Mann, et al	Pitch Enercetal Description Moore
L MARKETON NAMES	Coneco Vales L. Johnston		(was) Pref. [5] Yateg Pet. (Henda) Saya Moort Disc. (Henda) Saya Moort Disc. (1 Me) 179418 Z.S.N. (1 Me)	- 4 C.C. Greeniss	Yates Pet. et al Yates Pet et al 4 25 2012	O IH West Or No. Mewbourns
worth seas-	Ceneco Yates L Johnston 4 is of Pet, stal Walter Pet stal President Presiden	E-10167 PHOTO PROPERTY LG-864	TO SATE TO SERVE SUPPLIES TO SERVE	Piostyptes Patron	Mewbourne 12 9 7012	(1997)41 Van Horn, Santa Fe
Marie Wall Son or Control of the Con	ed Johnston Gorbera Clarbara-SE	2-April 2-April 2-1 (Coquire) 2-4 (Coquire)		1975a Toyd Tres Pel III M.	antha E J. W ockey, elal	TOZZE
J States Armour Mondo Pet et la france 9 17 9 1 france 10 6602 Fee 1 5	to be set of the set o	\$1	25 Arichen CC Grimlan (S)	2. 07.007.07.52	Boyd Snyder John Fefining	IBAL 1 Struckelford Shockelford Harbara
	3-60 - 2-60	Total Pet Votes Pet Sales Pet Total	gersachen Senther	Bonnie Marlock	Hearburg Olice 1 91-1012 Expl. Hewbour Membourne, 12-31-2009 10-11-2017	One case wolfman etal PKHEMMON. Mart
ME TO U.S. HECK	116. Yates Pet. Hondo 56. War	tes Without Par HEC NELD NEARLY	Antwent Antwent 868	Noorburg Morshall Machurg	Forchild S I I had En	
TO ME TO PROPERTY OF THE PROPE	10 1-66 10-6	Print Total 14 June 18	And Co	es Meleli O Nevelulo	Quertino 145 5. P. 40/es	
132 mil Paris 20 Ross	20	1016 Sares Pet.	Varies Ress Ren 22 - 11 PM	Nearburg Prod. (Tylongs	Hembaume (Phel)	THE TOTAL SEGULATION OF THE PART AND LOCATE
Tetalage care (DD, attac) Prot 6	Street 1-EG Street 1-EG Street 1-EG PET 1-17 U.S. Fed."	Cited Total Park Thing Pet	Posseci, Pris	Parino Att. (El Paso Gas.	(Amoco) Hearburg G-29-2014 (Sm. Trs)	Businessed A.A. 2013 D. Forming Rea Corp 1/
The state of the s	PET 1 1 ST SEED . SEED	The property of the property o	N 167 burg (1977)	d'immer		
# 180 rey varies sales form	Penhangie Kby Jol Adri C.E. Ross (SIGEC) CRo	SELS! Boy Corl E Roberts King, III To	Ross Ach. TIM Minnie Robert McCaw Ross Rch. (**plang ***be- Magrourg Expl. Nearburg Expl.)	Carl Ross etal YOMO. Scarretal		Lee Pandagriff John Fanning Sandartal A Lander
Notes: (File) Per et	THE PERSON NAMED AND POST OF THE PERSON NAMED	A MELL OF STATE OF ST	PRE (FILEDIA)	rear burg cabl Landurger		V 7484 (5/25m TG) SWA 56/2,
Hohks Yates Pet etal os Yates Pet HEC N/2	Whose for S.P. who	Heartury Votes Pet.	Neorbyrg " V/A Neorbyrg Neorbyrg " Neorbyrg " Barris South Color III Barris B "Sa flaud"	ear burg cast when burg cast and a standard cast a	Cor. Murchison Ross 118486 /Marshyll, 1	Tess 1 (mortes Pel J. Bor Cone Scoop
Son " Danger Draw" say Ed Pr	P Sin Air	Hinger 112 Fed. Fed. Ross' [PIB1 Morshall Winston doctor Morse Ref. 519]. MWJ/S1E, 12 M	Neorburg Neorbu	The state of the s	「	Murrou, (1973) (1971) 9255 22 887) (1973) (1975) (1
(Conoco) Yates O works or		Burgandy 06,0 Neorburg		Newburg Expl.	Morshall Marshall Winston 2-1-201 M-7 2019 5 13 7013	Morbob Miresus a 1 2010
S Production in the State of th	140 P518 (Monagarto) PII P	Surgandy Of,GI Negrourd Pubcdi System K 5G36 Series	10504364	1 M 35 steamburg	SSASS Marshall E SSASS	1 the therebox of 7 1405 (a) 11 tone 7 1405 (b) 11 tone 70185 (c) 15 tone 70185 (c) 1
(Conoco) that your last one	Yales Pet, Boyd'x"Sto	orte Bul I.K.() Starte Beker F. 107 27 F3TT 0 Carbberries William Helen Mollion	Hearburg A2 Nowk Fed. Coquino Coquino Marie V. A151 Bood V. A151 Bood DAS 22-74 U.S.	Had seemburg	94-2016 116565 850 22 2 2 10 17 8 7 6	7018 7018 7018 7018 7018 7018 7018 7018
on 1 S. Covery of a Party of the Covery of t	170 Aspath Fed 9310 5101	State (wo) Catherine William Helen Mullan			U.S. Marbob Marbob	Yates Pet., Yates Pet., etal
es 41.35 Hearthurg Excel. 8746 (1.35 Hearthurg) (1	Vales fet, efal passe Hills	System 1: Texas interest in 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	N'ATES PETETAL (OP) N'DAGGER DRAW UPENN UNIT PONCORPOSION OSOA	4-H Marbab 07-H 8-5-1-12054 013927 F Marbab 1150 00 1 Noose-Fed	0H W Marbob Marbob 9 1 2012 8 1 2010 V- 9012 VE 707 1,7533 120592	They ran gray 11 1 2011
A 3125 2 CHARD (1984)	U.5 Jayre Fed : the Gert	A E WIN ENDOUGHE ON THE PORT OF	Unit Pd. Pan Concaign	Za Morbeb #4	(Mar bob	Toles Pet etal 8 11 - 2015
one run (File) pre-red To Bo	7 V-3501 Mentente Toset 87 12 Toset Symp	E-6096 5141 (25-6-4)	Atoka (PPB) Penn Disch	Hany en High Fed	· L	whitwortheta 1.6 finesti
- 3	Near burg			51 [1 1	Marbob 1-1002 y.5017 (75017	Yotes Petietal XX Yores Pet. Helsen
7. 10 1 10 10 10 10 10 10 10 10 10 10 10 1	Albert Foster 2150 99		(Unit Pet) 1 12 12 12 12 12 12 12 12 12 12 12 12 12	"Gulf-Fed" III 946	1	
21.65 3 Heartong Espl. QXY	USA Mansanto Come Control Cont	ngamb) Mark Proc Mastum Holstum TO 9550 Borami-Fed." U.S 0(A7-20-74	a) TO See Heartury Head	LOKEWOOD "Tombstone Fed."	Gulf B 1 2010 3hugari V 8 707 1 10 9 194 1 1 20 9 00 1 1 1 20 9 00 1 1 20 9 00	Pitch Ener. Mourray Ophi-13-70 Frank Street Mourray President Frank Street Fran

Fairchild 13 #1 SWD C-108

Additional Details

- VII. 1. Proposed average rate of 5000 bwpd and maximum rate of 10,000 bwpd.
 - 2. Closed system.
- 3. Proposed average injection pressure is unknown and the maximum injection pressure is 1560 psig (0.2 psi/ft).
- 4. Injection fluid will be from the Mewbourne Oil Company operated Yeso producing wells in the area. See attached water analysis for both the Yeso and Canyon produced water in this area and the water mixing reports of those waters.
 - 5. See attached analysis.
- VIII. 1. The proposed injection interval is in the Canyon (Upper Penn) formation which is a porous dolomite about 240' thick at depths 7843' 8083'.
 - 2. The underground fresh water aquifers (unnamed) are present at shallow depths down to about 750'. There are no known fresh water intervals underlying the injecting formation.
- IX. The proposed stimulation is an ope-hole acid treatment of 5000 gallons of 20% HCL.
- X. All logs were filed with the OCD in 1997 when the Fairchild 13 #1 was drilled.
- XI. See attached.
- XII. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water.

XIII. Proof of Notice

- 1. A certified letter, and a copy of this application, to offset operators are attached. Mewbourne Oil Company owns the surface.
- 2. N/A

Fairchild 13 # 1 SWD C-108 Application Attachments # 7-4&5

Samples of produced water were all taken 1/20/11 on the following wells

Mewbourne Oil Co	Wyatt Draw 18/19 LD # 1H	Yeso horizontal	(Sec
18/19, T19S, R26E)			
Mewbourne Oil Co	Wyatt Draw 24/25 LE:# 1H	Yeso horizontal	(Sec
24/25, T19S, R25E)			
Nearburg Producing	B & B # 4	Cisco/Canyon .	(Sec 22, T19S,
R25E)		·	•

These are the waters that would be commingled if Mewbourne Oil Company is granted permission to dispose water into Canyon zone we are requesting for the Fairchild 13 # 1 SWD well.

Samples were taken to BJ for complete composition analysis and are attached below.

Also attached are results of the compatibility study done by baker Hughes Petrolite.

The results concluded that these three waters are compatible together and could be commonly disposed of.



Individual Water Analyses

	Summary	of Mixing Waters	
Sample Number	538168	538169	538170°
Coinpany	MEMBOURNE OIL CO	MEWBOURNE OIL CO	MEWBOURNE OIL CO
Lease	B & B C SISCO CANYON	WYATT DRAW 24/25	WYATT DRAW 18/19
Well	4	LE 1H	LO 1H.
Sample Location	WELLHEAD	WELLHEAD	WELLHEAD
Anions (mg/L)			
Chloride	1;842	89,335	5;432
Bicarbonate	976	988	780
Sulfate	2,330	4,287	.2,82
Cations (mg/L)			
Sodium	2,019	55,640	3,896
Magnesium	59.0		
Calcium	444	•)
Strontium	7.50	48.0	11.0
Barium	0.10	0.10	0.10
iron	21.0	3.50	1.50
Potassium	26.0	560	
Manganese	0.90	0.10	0:06
Anion/Cation Ratio	1.00	1.00	1.00
TDS (mg/L)	7,726	I	
Density (g/cm)	1 01	1.10	1.01
Sampling Date	1719/11		
Account Manager	GENE ROGERS	GENE ROGERS	GENE ROGERS
Analyst	STACY SMITH	STACÝ SMITH	STACY SMITH
Analysis Date	1/21/11	1/21/11	, · · · · · · · · · · · · · · · · · · ·
H at time of sampling	7.50		
oH used in Calculations	7.50	7.00	7.50

Water Analysis Report



Baker Petrolite

MEWBOURNE OIL CO B & B C SISCO CANYON

4

WELLHEAD.

Account Manager GENE ROGERS

Summary of Enter	ed Data		Sai	mple 53	8168 @ 75°F		
Sampling Date	1/19/11	Anions r	ng/l	meq/l	Cations	.mg/i	meq/į
Analysis Date	1/21/11	Chloride	1,842	52.	0 Sodium	2,019	87.8
Analyst	STACY SMITH	Bicarbonate	976	16:	0 Magnesium	59:0	4.85
•		Carbonate	0.00		0 Calcium	444	22.2
TDS (mg/l·or g/m³)	7,726	Sulfate	2,330	48.	5 Strontium	7.50	0:17
Density (g/cm³ or tonne/m³)	1.0060	Phosphate	N/A	N/	A Barium	0:10	0:00
Anion/Cation Ratio	1.00	Borate	N/A	. N/	Alron	21.0	0.75
		Silicate	N/A	N/A	A Potasşium	26,0	0.66
Çarbon Dioxide	120 PPM				Aluminum	N/A	N/A
		Hydrogen Sulfide		493 PPM	// Chromium	Ņ/A	N/A
					Copper	N/A	, N/A
		pH at time of sampling	}	7.5	0 Lead	N/A	N/A
		pH at time of analysis			Manganese	0.90	0.03
		pH used in Calculation	ons	7.5	0 Nickel	N/A	N/A

Specific ion interactions calculated for ions in bold faced type; other ions contribute to ionic strength.

Cond	itions	v	/alues Ca	alculate	d at the (Given C	onditions	- Amou	ınts of S	cale in l	b/1000bb	ol,
Тетр.	Gauge Press.	Cal Ca(sum •2H ₂ O		ydrite SO₄		estite SO 4		rite SO ₄	CO.2
°F	psi	Index	Amount	Index	Amount	Index	Amount'	Index	Amount	Index	Amount	psi
80	0.00	1 09	96	-0.20		-0.27		-0.30		0.99	0.05	0:36
100	0:00	1.19	109	-0.21		-0.22		-0.29		0.83	0.05	0 50
120	0 00	1.29	123	-0.22		-0.14		-0.27		0:71	0:05	0.66
140	0.00	1.40	138	-0.21		-0.04		-0:25		0:60	0.04	0.85

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.

The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem

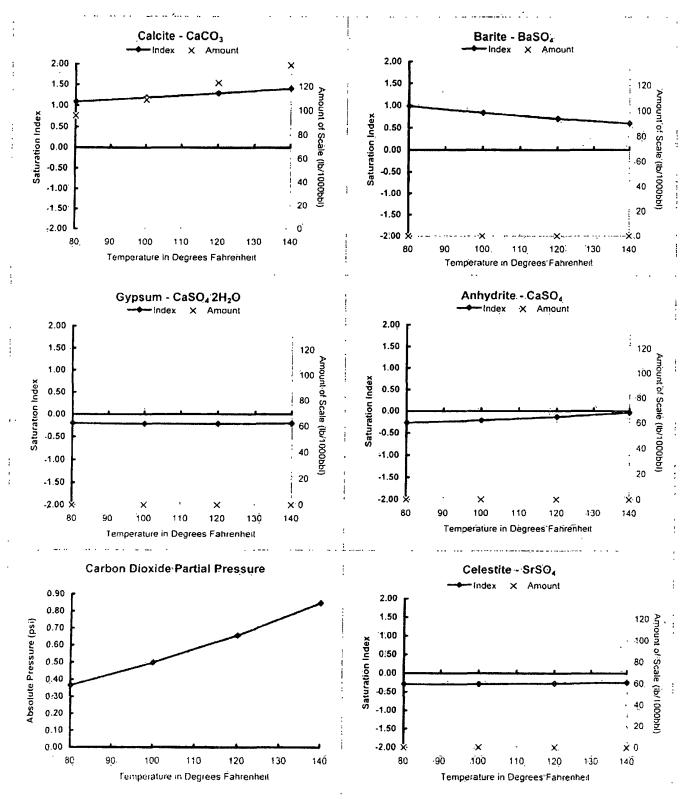
The CO₂ fugacity is reported .Under usual conditions it is essentially the same as the .CO₂ partial pressure.

Scale Predictions



For Sample 538168 @ 75°F from MEWBOURNE OIL CO , B & B C SISCO CANYON , 4 , WELLHEAD , Jan/21/11

Baker Petrolite



01/21/2011 16:23 5057462293

						Artesi	a Diștri	NAL \ ct Labora 46-3140				
Operator: Well:	ŧ	Męwboi 3&B #4	ume Oil	Compa	any		ite: strict:		012011 Artesia			
Formatior Field: County;		Cisco C	·			Te	queste chnicia iurce:		Dustin			
Depth:	(Disco C	anyon				S Test		Posenta más			
	pH:	6.8	3			10.		nalysis\ Femp (F):	Custome	63:8		
Specific G	•	1.01					•	H2\$:		0,0.0		
CATION	S							mg/l	m	e/I	ppm	
Sodium (c	_							1743		5.8	1718	
Calcium								385).2	379	
Magnesiu	m							4.4		3.6	43	
3arium								< 25		J.Q		
Potassium	1							< 10				
ron								0		0.0	0	
ANIONS												
Chloride								1600	45	. i	1576	
Sulfate								1600	_		1576	
Carbonate	•							< 1			1010	
Bicarbona	tė							1232	20	.2	1214	
otal Disse	olved Solie	ds(calc	:.)				•	6604			6507	
otal Hard	ness as C	eCO3						1141	22	;8	1125	
	is 1.2(325 NALYSI		712						le Probabil robability:		Rémote Passible.	
60	50	40	30	20	10	00	10	20	30 4	0	50	60
	STIFF PL	ot	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	 		1				1.1.5]
Na & K		-		1 1 1	•	#				16.		CI
Ca	<u> </u>	4	· · · · · · · · · · · · · · · · · · ·			4						нсоз
Mg												504
										, A. W	SEPT CONTRACT	
1		3.1			• •	V:_				5 Au.	1	1



Water Analysis Report



Baker Petrolite

MEWBOURNE OIL CO WYATT DRAW 18/19 LD 1H WELLHEAD

Account Manager GENE ROGERS

Summary of Enter	ed Data	Sample 538170 @ 75°F								
Sampling Date	1/19/11	Anions i	ng/l	meq/l	Cations	mg/l	meq/l			
Analysis Date	1/21/11	Chloride	5,432	153	Sodium	3,896	169			
Analyst	STACY SMITH	Bicarbonate	7.80	12.8	Magnesium	1.99	16.4			
		Carbonate	0.00	0.00	Calcium	7,62	38.0			
TDS (mg/l or g/m³)	13,936	Sulfate	2,827	58.9	Strontium	11.0	0.25			
Density (g/cm ³ or tonne/m ³)	1.0110	Phosphate	N/A	N/A	Barium	0.10	0.00			
Anion/Cation Ratio	1.00	Borate	N/A	N/A	Iron	1.50	0.05			
		Silicate	N/A	N/A	Potassium	'27°Ö	0 69			
Carbon Dioxide	280 PPM				Aluminum	N/A	N/A			
		Hydrogen Sulfide		'850'PPM	Chromium	N/A	N/A			
					Copper	N/A	N/A			
		pH at time of sampling	}	7.50	Lead	N/A	N/A			
		pH at time of analysis			Mañgañese	,0.06	0.00			
		pH used in Calculation	ons.	7.50	Nickel	N/A	N/A			

Specific ion interactions calculated for ions in bold faced type; other ions contribute to ionic strength

Cond	itions	V	Values Calculated at the Given Conditions - Amounts of Sc								b/1000bb	I
Temp.	Gauge Press.	Cal Ca(Gyp CaSO ₄	sum •2H ₂ O	Anhy Cas			stite SO 4	Ba Ba	rite SO₄	CÓ 2
۶F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0:00	1.13	84	-0.06		-0.13		-0:20		0.91	0:05	0.27
100	0.00	1.22	95	-0.08		-0.08		-0.20		0.75	0:05	0.37
120	0 00	1.31	107	-0.08		0.00	0	-0:18		0.62	0.04	0.50
140	0.00	1 40	119	-0.07		0.10	142	-0.15		0 52	0 04	0.66

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales

The amount of scale indicates the seventy of the problem; the index (equivalent to Stiff Davis St) indicates how difficult it is to control the problem.

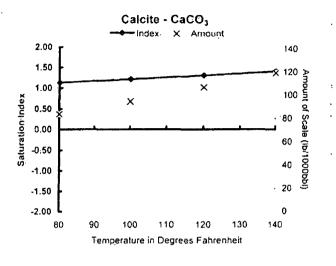
The CO₂ fugacity is reported. Under usual conditions it is essentially the same as the CO₂ partial pressure

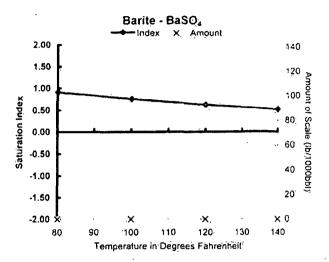


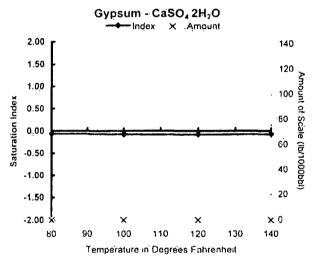


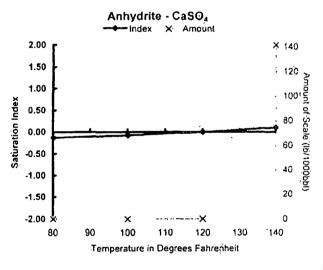
BEREPIGE 2817/10 35°F from MEWBOURNE OIL CO , WYATT DRAW 18/19 , LD 1H , WELLHEAD , Jan/21/11

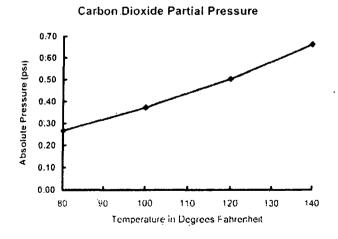
Baker Petrolite

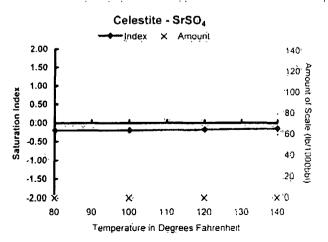




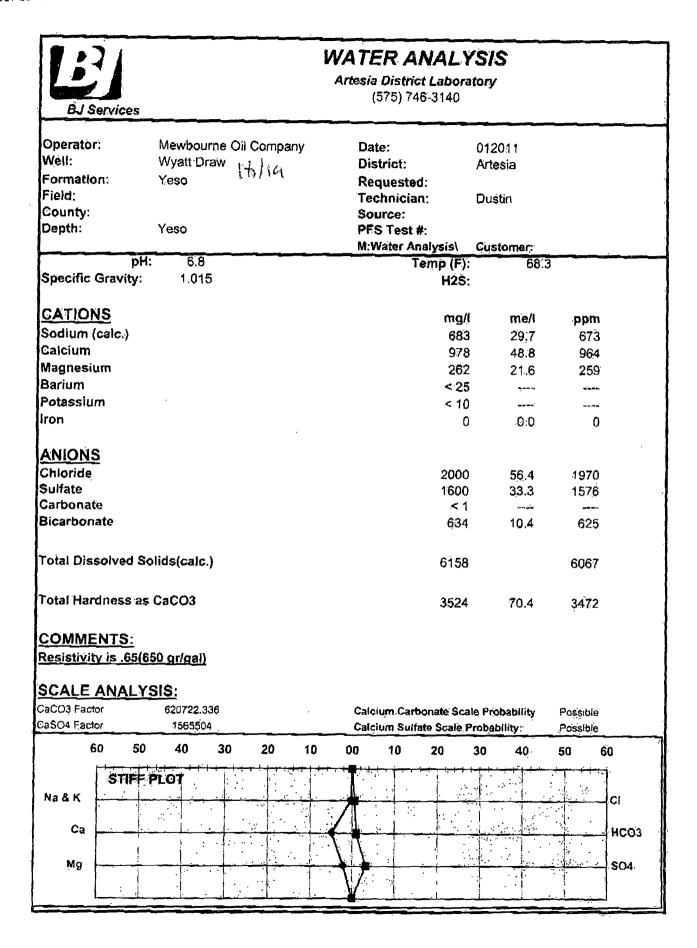








Page:2





Water Analysis Report

BAKER HUGHES

Baker Petrolite

MEWBOURNE OIL CO WYATT DRAW 24/25 LE 1H WELLHEAD

Account Manager GENE:ROGERS

Summary of Enter	ed Data	Sample 538169 @ 75°F							
Sampling Date	1/19/11	Anions n	ng/l	meq/l	Cations	mg/l	meq/i		
Analysis Date	1/21/11	Chloride	89,335	2,520	Sodium	55,640	2,420		
Analyst	STACY SMITH	Bicarbonate	988	16.2	Magnesium	640	52:7		
•		Carbonate	0.00	0.00	Calcium	2,743	137		
TDS (mg/l or g/m²)	154,244	Sulfate	4,287	89.3	Strontium	48:0	1,10		
Density (g/cm³ or tonne/m³)	1.1030	Phosphate	N/A	Ņ/A	Barlum	0.10	0.00		
Anion/Cation Ratio	1.00	Borate	N/A	N/A	Îron	3.50	0.13		
		Silicate	N/A	N/A	Potassium	560	14.3		
Carbon Dioxide	600 PPM				Aluminum	'N/A	N/A		
		Hydrogen Sulfide		340 PPM	Chromium	N/A	Ň/A		
		' '			Copper	N/A	N/A		
		pH at time of sampling	I	7.00	Lead	N/A	N/A		
		pH at time of analysis			Manganese	0:10	0.00		
_		pH used in Calculation	ons	7.00	Nickel	. N/A	Ņ/A		

Specific ion interactions calculated for ions in bold-faced type; other jons contribute to lonic strength

Cond	itions	V	'alues Ca	alculated	d at the (Given Conditions - Amounts of Scale in Ib/1000bbl						
Тетр.	Gauge Press.	Cąl CaC		Gyp CaSO 4		,	drite SO₄		stite 604		rite SO₄	CO ₂
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	'Amount'	Index	'Amount'-	psi
80	0:00	1.13	112	0.04	132	0.04	116	-0:00		0.43	-0:03	0.76
100	0:00	1.18	123	-0.03		0 04	110	-0.03		0:23	0:02	1.03
120	0.00	1.22	134	-0.09		0.06	170	-0.05		0:06	0.0.1	1.37
140	0.00	1.26	145	-0.13		0.11	283	-0:05		-0:09	. —	1.80

Precipitation of each scale is considered separately, total scale will be less than the sum of the amounts of the five scales.

The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem

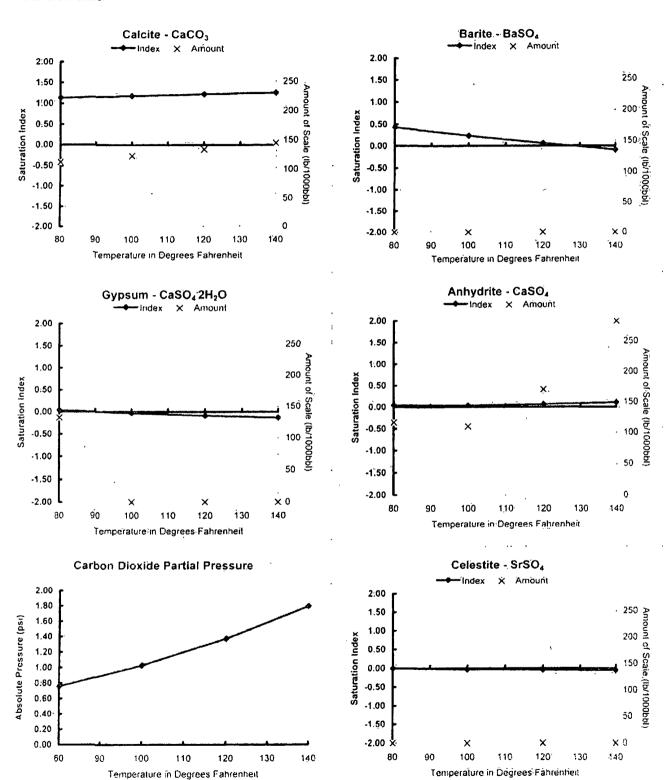
The CO₂ fugacity is reported, Under usual conditions it is essentially the same as the CO₂ partial pressure.



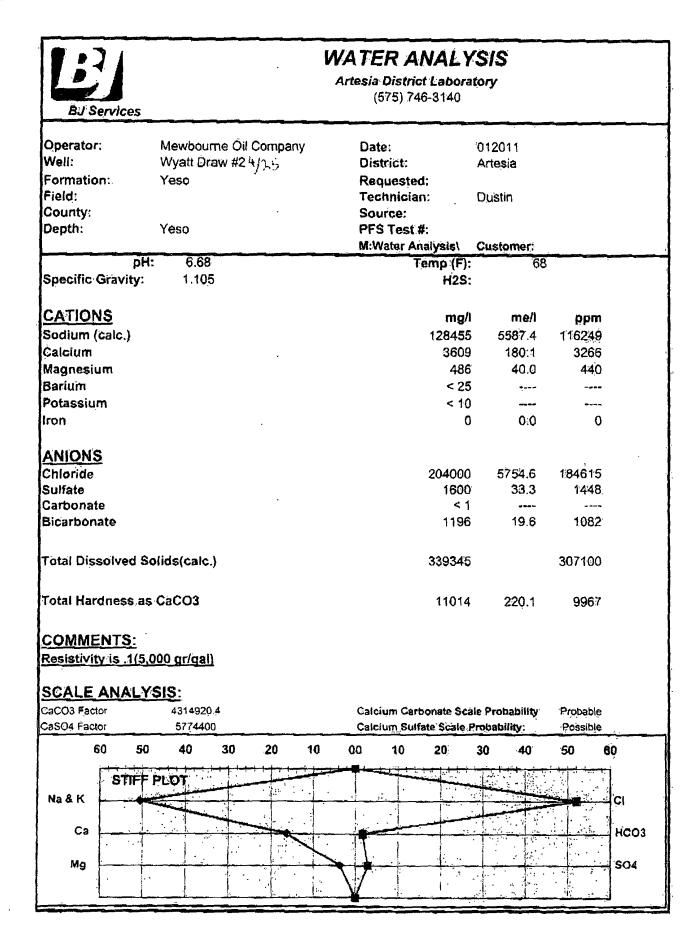
V/25 BAKER HUGHES

Barer 1216 R 25 F from MEWBOURNE OIL CO, WYATT DRAW 24/25, LE 1H, WELLHEAD, Jan/21/11

Baker Petrolite



01/21/2011 16:23.





Mixed Water Analysis Report

Mixes at 80°F and 0 psi

Miva	es of	Predictions of Saturation Index and Amount of Scale in lb/1000bbl									•		
53816 53816	58 and 59 with 170.	Calc Ca(Gyps CaSO₄•	٠ .	Anhyo CaS	.1	Cele SrS		Bas Bas		.C.Ó. _{2:} Fugacity	
538168	538169	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi	
33%	34%	1 02	92.1	-0.17		-0.21		-0:17		.0.60	0:04	0.45	

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.

Disclaimer of Liability: Baker Petrolite Corporation and its affiliates (BPC) disclaim-all warranties or representations express or implied, including any implied warranties of merchantability or fitness for a particular purpose or to the accuracy, correctness or completeness of such information herein or that reliance on such information, will accomplish any particular result. All such information is furnished "as is" and by using such information the user is assuming all liabilities for the use or reliance on such information. BPC SHALL NOT.BE-LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES OR LOSSES FROM ANY CAUSE-WHATSOEVER INCLUDING BUT NOT-LIMITED TO ITS NEGLIGENCE.

			Complete Water	Compositions		
538168	538169	538170			,	
33.0%	34.0%	33.0%				

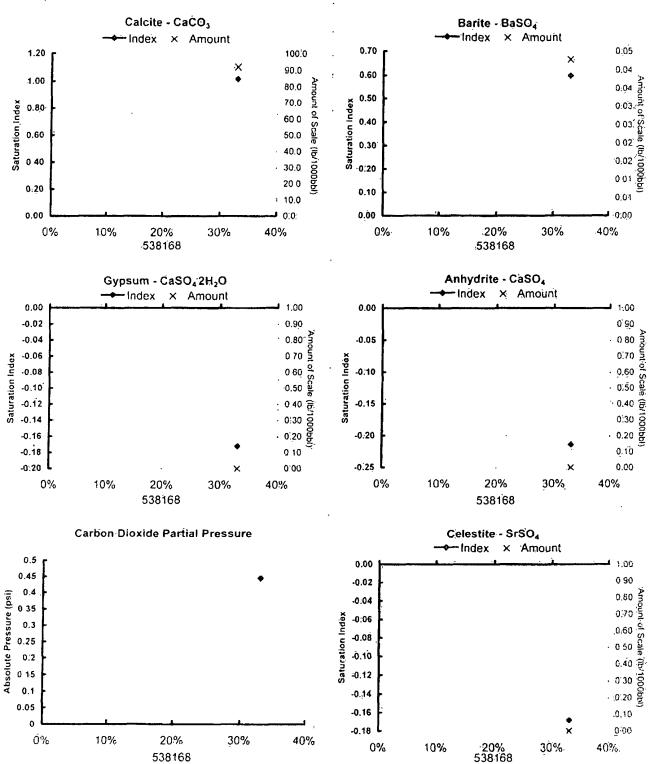
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem

The CO_2 fugacity is calculated. Under usual conditions it is essentially the same as the CO_2 partial pressure..

redictions

and 538169 with 538170 at 80°F and 0 psi

Baker Petrolite



Fairchild 13 # 1 SWD C-108 Application Attachments # 11

Samples were all taken 1/21/11

Samples were all taken in three wells in the SE4 of Section 13 approximately 3300' due East of proposed SWD site.

The New Mexico Office of State Engineer showed there to be 6 fresh water wells in this 1 mile radius. One of the six was never drilled, another is without pump or unable to produce now, and another had no trespassing signs up all around the property with dogs, and no means of getting in touch with property owners. We have provided here samples from the 3 closes fresh water wells. I spoke to Richard Ezeanyim w/OCD and he told me that the samples collected from these three wells would be more than adequate to satisfy this portion of the application.



BRANDON & CLARK, INC.

Keeping Industry Humming SINCE 1950

Sales - Service - Repair - Installation

	Early Mild	100 13#1
	2;	
5		(19)

Sumples token from John Sumples token from John



New Mexico Office of the State Engineer

Point of Diversion by Location

(with Owner Information)

								(quarters are 1=NW 2=	NE 3=SW 4=SE)			
		•	cre ft per an	num)				(quarters are sn	nallest to largest)	(NAD83	UTM in meter	s)
		Sub				•		9 9 9	1 ·			
	WR File Nbr	basin Use	Diversion	Owner	County	POD Number	Grant-	Source 6416 4	Sec.Tws Rng	×	· Y D	istance
Ì	RA 09295	EXP	3	COX JOE	ED	RA 09295		Shallow 4 3 4	4 13 19S 25E	552979	3613115*	764
;. (~	RA 07864	DOM	0	J T. ROSS	'ED	RA 07864		•	13 19S 25E	553081	3613417*	803
2	RA 09293	DOM	3	COX JOE	ED	RA 09293		Shallow 3 4 4	13 19S 25E	553180	3613114*	952
cţ	RA 09294	EXP	3	COX JOE	ED	RA 09294		Shallow 3 4 4	4 13 19S 25E	553180	3613114"	952
i,	RA 10407	DOL	0	JOAN MULLARKEY	ED	RA 10407		Shallow 4	2 23 19S 25E	551678	3612409°	1174
6	RA 08611	DOM	3	JOSEPH B. HUBER	ED	RA 08611		Shallow 1 1	1 19 19S 26E	553583	3612909*	1401

Record Count: 6

POD Search:

POD Basin: Roswell Artesian

UTMNAD83 Radius Search (in meters):

Easting (X): 552278

Northing (Y): 3613419

Radius: 1609.4

Sorted by: Distance

incteis.

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, or suitability for any particular purpose of the data.

[&]quot;UTM location was derived from PLSS - see Help



Water Analysis

Date: 22-Jan-11

2708 West County Road, Hobbs NM 88240 Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Company	V	lell Name	Co	unty	State	
Mewbourne		Lisas	l	_ea	New Mexico	
Sample Source	Sourc	e	Sample #		1	
Formation			Depth		•	
Specific Gravity	1.000		s G @	60 °F	1.002	
pН	7.18		Su	ılfides	Absent	
Temperature (°F)	70		Reducing A	gents		
Cations						
Sodium (Calc)		in Mg/L	655	in PPM	654	
Calcium		in Mg/L	316	in PPM	315	
Magnesium		in Mg/L	48	in PPM	48	
Soluable Iron (FE2)		in Mg/L	0.0	in PPM	0	
Anions				1-444 4444		
Chlorides		in Mg/L	200	in PPM	200	
Sulfates		in Mg/L	2,000	in PPM	1,996	
Bicarbonates		in Mg/L	59	in PPM	58	
Total Hardness (as CaCÓ	3)	in Mg/L	990	in PPM	988	
Total Dissolved Solids (Ca	lc)	in Mg/L	3,278	in PPM	3,271	
Equivalent NaCl Concentra	ation	in Mg/L	2,263	in PPM	2,258	
Scaling Tendencies	•					
*Cálcium Carbonate Index Below 500,000	Remote / 500.	000 - 1,000,00	0 Possible / Above 1	.000,000 Probabl	18,505	
*Calcium Sulfate (Gyp) Inde	<i>∍x</i>) Possible / Above 10		632,000	
This Calculation is only an appr	oximation and	is only valld	before treatment of	a well or severa	al weeks after	



Water Analysis

Date: 22-Jan-11

2708 West County Road, Hobbs NM 88240 Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Company	V	Vell Name	Со	unty	State	
Mewbourne	1	Ross East	l	.ea	New Mexico	
Sample Source	Sourc	:e	Sample #		1	
Formation			Depth			
Specific Gravity	 1.000				1.002	
pH	7.24	•	_	lfides	Absent	
Temperature (°F)	70		Reducing A	gents		
Cations						
Sodium (Calc)	- Table to the state of the sta	in Mg/L	655	in PPM	654	
Calcium		in Mg/L	31.6	in PPM	315	
Magnesium		in Mg/L	48	in PPM	48	
Soluable Iron (FE2)		in Mg/L	0.0	in PPM	0	
Anions					100.47 ·1 · · · ·	
Chlorides		in Mg/L	200	in PPM	200	
Sulfates		in Mg/L	2,000	in PPM	1,996	
Bicarbonates		in Mg/L	59	in PPM	58	
Total Hardness (as CaCO	 3)	in Mg/L	990	in PPM	988	
Total Dissolved Solids (Ca	lc)	in Mg/L	3,278	in PPM	3,271	
Equivalent NaCl Concentra	ntion	in Mg/L	2,263	in PPM	2,258	
Scaling Tendencies						
Calcium Carbonate Index					18,505	
		.000 - 1,000,00	0 Possible / Above 1.	000,000 Probab!		
Calcium Sulfate (Gyp) Inde		000 - 10 000 0) Possible / Above 10	000 000 Prohah	632,000	
Веюм эоо,ооо This Calculation is only an appr reatment.						



Water Analysis

Date: 22-Jan-11

2708 West County Road, Hobbs NM 88240 Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Company	Well Na Ross W		County Lea	State New Mexico
Sample Source	Source	Sample		1
Formation		Depth	,	
Specific Gravity	1.000	\$	G @ 60 °F	1.002
рН	7.22		Sulfides	Absent
Temperature (°F)	70	Reduc	ing Agents	
Cations				
Sodium (Calc)	in M	g/L 670	in PPM	669
Calcium	in M	g/L 300	in PPM	299
Magnesium	in M	g/L 48	in PPM	48
Soluable Iron (FE2)	in M	g/L 0.0	in PPM.	0
Anions	. , ,		to a section of the s	#188 #4# > #8
Chlorides	in Mg	g/L 200	in P.P.M	200
Sulfates	in Mg	g/L 2,000	in PPM	1,996
Bicarbonates	in M	g/L 49	in PPM	49
Total Hardness (as CaCO3)	in.M	g/L 950	in PPM	948
Total Dissolved Solids (Calc)	in M	g/L 3,267	in PPM	3,260
Equivalent NaCl Concentration	on in Mi	g/L 2,260	in PPM	2,255
Scaling Tendencies				
Calcium Carbonate Index			** * * * * *** ** · · · · · · · · · · ·	14,640
Below 500,000 Re	mote / 500,000 - 1;0	00:000 Possible / Al	Sove-1,000;000 Rrobab	le
Calcium Sulfate (Gyp) Index Below 500,000 Rei	note / 500,000 - 10,0	000,00 Possible / Ab	ove:10.000,000 Probaț	600,000 же
This Calculation is only an approxi reatment.	mation and is only	valid before treatm	ent of a well or sever	al weeks after
Remarks rw=5@70f				