

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMLC070344A ✓
6. Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

7. If Unit or CA/Agreement, Name and/or No.
891001066X nmm12292X

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

KAISER FRANCIS OIL COMPANY

Contact: CHARLOTTE VAN VALKENBURG

E-Mail: Charlottv@kfoc.net

3a. Address

TULSA, OK 74121-1468

3b. Phone No. (include area code)

Ph: 918-491-4314

8. Well Name and No.
BELL LAKE UNIT NORTH 230H

9. API Well No.

30-025-43033-00-X1

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 6 T23S R34E NESE 2057FSL 875FEL

11. County or Parish, State

LEA COUNTY, NM

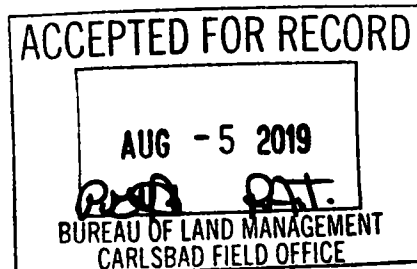
12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☒ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

This is to request approval to dispose of produced water from the above well.

- Formation Bone Spring
- Amount of water produced 500 BWPD ✓
- See attached water analysis
- Storage method Multiple 1000 bbl coated steel tanks ✓
- Method of removal from lease pipelined ✓
- Operator and disposal facility ✓
Kaiser-Francis Oil Company
Bell Lake 4-15 SWD ✓
8 23S 34E
Lea Co., NM



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

Electronic Submission #476178 verified by the BLM Well Information System
For KAISER FRANCIS OIL COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 08/01/2019 (19PP2714SE)

Name (Printed/Typed) CHARLOTTE VAN VALKENBURG

Title MGR., REGULATORY COMPLIANCE

Signature (Electronic Submission)

Date 08/01/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KZ



DownHole SAT®
SURFACE WATER CHEMISTRY INPUT

Kaiser Francis

North Bell Lake Unit 230H

Heater

Account Manager: Steve Tigert

Report Date: 04-13-2018

Sampled: 04-09-2018
at 1711

CATIONS

Calcium (as Ca)	3830
Magnesium (as Mg)	3535
Barium (as Ba)	0.00
Strontium (as Sr)	135.60
Sodium (as Na)	26762
Iron (as Fe)	0.100
Manganese (as Mn)	1.10

ANIONS

Chloride (as Cl)	60000
Sulfate (as SO ₄)	1611
Dissolved CO ₂ (as CO ₂)	297.00
Bicarbonate (as HCO ₃)	250.00
H ₂ S (as H ₂ S)	30.00

PARAMETERS

Calculated T.D.S.	94885
Molar Conductivity	127080
Resistivity	7.87
Sp.Gr.(g/mL)	1.07
Pressure(psia)	50.00
pCO ₂ (psia)	0.0102
pH ₂ S(psia)	0.111
Temperature (°F)	105.00
pH	7.20

COMMENTS

Analyst: Davida Lowery

ROCKWATER ENERGY SOLUTIONS
7906 West Highway 80, Midland, TX 79706



DownHole SAT®
SURFACE WATER
DEPOSITION POTENTIAL INDICATORS

Kaiser Francis

North Bell Lake Unit 230H

Heater

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SATURATION LEVEL

Calcite (CaCO ₃)	6.96
Aragonite (CaCO ₃)	5.94
Witherite (BaCO ₃)	0.00
Strontianite (SrCO ₃)	0.404
Magnesite (MgCO ₃)	8.16
Anhydrite (CaSO ₄)	0.403
Gypsum (CaSO ₄ *2H ₂ O)	0.502
Barite (BaSO ₄)	0.00
Celestite (SrSO ₄)	0.586
Siderite (FeCO ₃)	0.230
Halite (NaCl)	0.0212
Iron sulfide (FeS)	0.830

MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO ₃)	0.0217
Aragonite (CaCO ₃)	0.0153
Witherite (BaCO ₃)	-27.42
Strontianite (SrCO ₃)	-0.788
Magnesite (MgCO ₃)	0.0261
Anhydrite (CaSO ₄)	-413.25
Gypsum (CaSO ₄ *2H ₂ O)	-324.10
Barite (BaSO ₄)	-0.238
Celestite (SrSO ₄)	-71.89
Siderite (FeCO ₃)	-0.218
Halite (NaCl)	-174639
Iron sulfide (FeS)	0.00686

SIMPLE INDICES

Langelier	1.30
Ryznar	4.60
Puckorius	3.91
Larson-Skold Index	416.18
Stiff Davis Index	0.744
Oddo-Tomson	0.322

BOUND IONS

	TOTAL	FREE
Calcium	3830	3677
Barium	0.00	0.00
Carbonate	18.84	0.359
Sulfate	1611	467.00

OPERATING CONDITIONS

Temperature (°F)	105.00
Time(mins)	3.00

ROCKWATER ENERGY SOLUTIONS
7906 West Highway 80, Midland, TX 79706



DownHole SAT®
WATER CHEMISTRY VERSUS PRESSURE

Kaiser Francis

North Bell Lake Unit 230H

Heater

Account Manager: Steve Tigert

Report Date: 04-13-2018 Sampled: 04-09-2018
at 1711

	Pressure (psi)						
CATIONS	50.00	291.67	533.33	775.00	1017	1258	1500
Calcium(as Ca)	3830	3830	3830	3830	3830	3830	3830
Magnesium(as Mg)	3535	3535	3535	3535	3535	3535	3535
Barium(as Ba)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strontium(as Sr)	135.60	135.60	135.60	135.60	135.60	135.60	135.60
Sodium(as Na)	26762	26762	26762	26762	26762	26762	26762
Iron(as Fe)	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Manganese (as Mn)	1.10	1.10	1.10	1.10	1.10	1.10	1.10
ANIONS							
Chloride(as Cl)	60000	60000	60000	60000	60000	60000	60000
Sulfate(as SO ₄)	1611	1611	1611	1611	1611	1611	1611
Acidity	81.03	136.29	176.56	198.19	216.36	235.22	256.18
"M" Alkalinity	279.04	231.98	201.45	191.58	187.23	184.94	183.56
Oxalic acid(as C ₂ O ₄)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H ₂ S(as H ₂ S)	29.20	170.33	311.46	452.58	593.71	734.84	875.97
PARAMETERS							
pH	8.34	7.86	7.39	7.10	6.90	6.74	6.60
Temperature(°F)	105.00	105.00	105.00	105.00	105.00	105.00	105.00
Pressure(psia)	50.00	291.67	533.33	775.00	1017	1258	1500
Sp.Gr.(g/mL)	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Calculated TDS	94911.1	94984.8	95065.8	95154.9	95246.9	95342.3	95440.3
Calc. Conductivity	126987.	127065.	127121.	127154.	127181.	127203.	127225.
Calc. Resistivity	7.87	7.87	7.87	7.86	7.86	7.86	7.86

ROCKWATER ENERGY SOLUTIONS
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DownHole SAT®
DEPOSITION POTENTIAL INDICATORS
VERSUS PRESSURE

Kaiser Francis

North Bell Lake Unit 230H

Heater

Account Manager: Steve Tigert

Report Date: 04-13-2018

Sampled: 04-09-2018
at 1711

	Pressure (psi)						
SATURATION LEVEL	50.00	291.67	533.33	775.00	1017	1258	1500
Calcite	47.08	23.94	9.69	5.15	3.22	2.20	1.58
Aragonite	40.22	20.46	8.28	4.40	2.75	1.88	1.35
Witherite	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strontianite	2.73	1.41	0.577	0.311	0.197	0.136	0.0990
Magnesite	55.24	28.68	11.84	6.43	4.10	2.86	2.10
Anhydrite	0.402	0.388	0.374	0.360	0.347	0.334	0.321
Gypsum	0.502	0.486	0.471	0.456	0.441	0.426	0.412
Barite	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Celestite	0.586	0.565	0.544	0.524	0.505	0.486	0.468
Siderite	1.45	0.791	0.332	0.181	0.115	0.0803	0.0589
Halite	0.0211	0.0208	0.0205	0.0201	0.0198	0.0195	0.0191
Iron sulfide	12.29	24.28	14.05	9.55	7.05	5.38	4.16
SIMPLE INDICES							
Langelier	2.44	1.95	1.46	1.16	0.948	0.776	0.630
Ryznar	3.46	3.96	4.46	4.78	5.00	5.18	5.34
Oddo-Tomson	1.47	0.984	0.509	0.221	0.0178	-0.142	-0.278
Stiff-Davis	1.89	1.41	0.933	0.644	0.442	0.283	0.148
Puckorius	3.68	3.82	3.94	3.99	4.03	4.06	4.09
Larson-Skold	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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DEPOSITION POTENTIAL INDICATORS VERSUS PRESSURE

Kaiser Francis

North Bell Lake Unit 230H

Heater

Account Manager: Steve Tigert

Report Date: 04-13-2018

Sampled: 04-09-2018
at 1711

		Pressure (psi)						
TOTAL VS FREE IONS		50.00	291.67	533.33	775.00	1017	1258	1500
Ca	Total	3830	3830	3830	3830	3830	3830	3830
	Free	3676	3673	3670	3667	3663	3659	3655
Ba	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Free	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₃	Total	127.29	67.31	28.30	15.64	10.16	7.20	5.37
	Free	2.43	1.28	0.538	0.297	0.193	0.137	0.102
PO ₄	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Free	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SO ₄	Total	1611	1611	1611	1611	1611	1611	1611
	Free	466.98	465.09	463.12	461.07	458.85	456.64	454.36

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite	1.38	0.714	0.281	0.139	0.0774	0.0433	0.0217
Aragonite	1.38	0.708	0.275	0.134	0.0714	0.0371	0.0153
Witherite	-23.82	-24.82	-25.62	-26.14	-26.58	-27.01	-27.42
Strontianite	1.31	0.315	-0.335	-0.560	-0.669	-0.737	-0.788
Magnesite	1.17	0.605	0.241	0.123	0.0715	0.0435	0.0261
Anhydrite	-304.95	-321.53	-338.69	-356.45	-374.81	-393.73	-413.25
Gypsum	-235.64	-249.24	-263.28	-277.79	-292.79	-308.21	-324.10
Barite	-0.191	-0.198	-0.206	-0.213	-0.221	-0.230	-0.238
Celestite	-47.64	-51.45	-55.34	-59.31	-63.41	-67.60	-71.89
Siderite	0.0198	-0.0166	-0.0971	-0.152	-0.184	-0.204	-0.218
Halite	-164634	-166252	-167891	-169552	-171231	-172927	-174639
Iron sulfide	0.00768	0.00845	0.00833	0.00806	0.00774	0.00735	0.00686

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