

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 abandon a well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. 6066438
2. Name of Operator KAISER FRANCIS OIL COMPANY Contact: CHARLOTTE VAN VALKENBURG E-Mail: Charlottv@kfoc.net		6. If Indian, Allottee or Tribe Name
3a. Address TULSA, OK 74121-1468	3b. Phone No. (include area code) Ph: 918-491-4314	7. If Unit or CA/Agreement, Name and/or No. 891001066X / nmnm48292X
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 1 T23S R33E SWNW 2140FNL 325FWL 32.335052 N Lat, 103.533562 W Lon		8. Well Name and No. BELL LAKE UNIT NORTH 201H
		9. API Well No. 30-025-44690-00-S1
		10. Field and Pool or Exploratory Area OJO CHISO; BONE SPRING SW
		11. County or Parish, State LEA COUNTY, NM

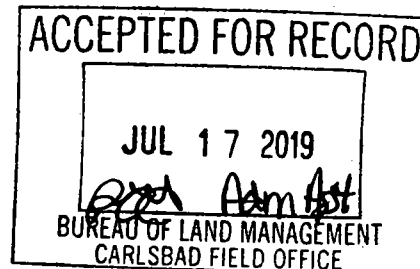
12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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.

1. Formation Bone Spring
 2. Amount of water produced 1571 BWPD
 3. See attached water analysis
 4. Storage method Multiple 1000 bbl coated steel tanks
 5. Method of removal from lease pipelined
 6. Operator and disposal facility
- Oilfield Water Logistics
Madra SWD / McCloy SWD
14 24S 34E 15-24S 32E
Lea Co., NM Lea Co., NM



14. I hereby certify that the foregoing is true and correct. Electronic Submission #473507 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 07/16/2019 (19PP2551SE)	
Name (Printed/Typed) CHARLOTTE VAN VALKENBURG	Title MGR., REGULATORY COMPLIANCE
Signature (Electronic Submission)	Date 07/16/2019

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 ****

XZ NMOC D 8-26-19

FOR RECORD ONLY



DownHole SAT®
SURFACE WATER CHEMISTRY INPUT

Kaiser Francis

NBLU 201

Sep

Account Manager: Steve Tigert

Report Date: 05-10-2019

Sampled: 05-03-2019

Sample #: 4685

at 1243

CATIONS

Calcium (as Ca)	5810
Magnesium (as Mg)	568.70
Barium (as Ba)	1.20
Strontium (as Sr)	380.62
Sodium (as Na)	44028
Iron (as Fe)	22.69
Manganese (as Mn)	1.12

ANIONS

Chloride (as Cl)	80000
Sulfate (as SO ₄)	913.40
Dissolved CO ₂ (as CO ₂)	220.00
Bicarbonate (as HCO ₃)	109.00
H ₂ S (as H ₂ S)	0.00

PARAMETERS

Calculated T.D.S.	128899
Molar Conductivity	185725
Resistivity	5.38
Sp.Gr.(g/mL)	1.10
Pressure(psia)	50.00
pCO ₂ (atm)	0.0139
pH ₂ S(atm)	0.00
Temperature (°F)	70.00
pH	6.60

COMMENTS

Analyst: Steven Kennedy

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



DownHole SAT®
SURFACE WATER
DEPOSITION POTENTIAL INDICATORS

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SATURATION LEVEL

Calcite (CaCO_3)	0.809
Aragonite (CaCO_3)	0.708
Witherite (BaCO_3)	< 0.001
Strontianite (SrCO_3)	0.0884
Magnesite (MgCO_3)	0.0781
Anhydrite (CaSO_4)	0.410
Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)	0.602
Barite (BaSO_4)	4.86
Celestite (SrSO_4)	0.996
Siderite (FeCO_3)	2.63
Halite (NaCl)	0.0557
Iron sulfide (FeS)	0.00

MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO_3)	-0.00435
Aragonite (CaCO_3)	-0.00758
Witherite (BaCO_3)	-25.14
Strontianite (SrCO_3)	-0.280
Magnesite (MgCO_3)	-0.183
Anhydrite (CaSO_4)	-236.55
Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)	-125.74
Barite (BaSO_4)	0.564
Celestite (SrSO_4)	-0.470
Siderite (FeCO_3)	0.0132
Halite (NaCl)	-133437
Iron sulfide (FeS)	-0.143

SIMPLE INDICES

Langelier	0.288
Ryznar	6.02
Puckorius	5.33
Larson-Skold Index	1374
Stiff Davis Index	-0.314
Oddo-Tomson	-0.837

BOUND IONS

Calcium	5810	5651
Barium	1.20	1.20
Carbonate	1.73	0.0317
Sulfate	913.40	353.99

TOTAL

FREE

OPERATING CONDITIONS

Temperature (°F)	70.00
Time(secs)	0.00

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	Pressure (psi)						
	14.70	257.25	499.80	742.35	984.90	1227	1470
CATIONS							
Calcium(as Ca)	5810	5810	5810	5810	5810	5810	5810
Magnesium(as Mg)	568.70	568.70	568.70	568.70	568.70	568.70	568.70
Barium(as Ba)	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Strontium(as Sr)	380.62	380.62	380.62	380.62	380.62	380.62	380.62
Sodium(as Na)	44028	44028	44028	44028	44028	44028	44028
Iron(as Fe)	22.69	22.69	22.69	22.69	22.69	22.69	22.69
Manganese (as Mn)	1.12	1.12	1.12	1.12	1.12	1.12	1.12
ANIONS							
Chloride(as Cl)	80000	80000	80000	80000	80000	80000	80000
Sulfate(as SO ₄)	913.40	913.40	913.40	913.40	913.40	913.40	913.40
Acidity	84.57	345.64	655.40	1016.59	1443.59	1959.12	2576.89
"M" Alkalinity	77.48	73.79	71.18	57.46	37.23	22.11	13.22
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)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PARAMETERS							
pH	7.04	5.66	5.32	5.11	4.94	4.80	4.68
Temperature(°F)	70.00	70.00	70.00	70.00	70.00	70.00	70.00
Pressure(psia)	14.70	257.25	499.80	742.35	984.90	1227	1470
Sp.Gr.(g/mL)	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Calculated TDS	128876.	129050.	129259.	129496.	129774.	130115.	130530.
Calc. Conductivity	185723.	185723.	185719.	185719.	185722.	185722.	185721.
Calc. Resistivity	5.38	5.38	5.38	5.38	5.38	5.38	5.38

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DEPOSITION POTENTIAL INDICATORS
VERSUS PRESSURE

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at 1243

SATURATION LEVEL	Pressure (psi)						
	14.70	257.25	499.80	742.35	984.90	1227	1470
Calcite	2.17	0.0909	0.0396	0.0190	0.00826	0.00355	0.00164
Aragonite	1.90	0.0796	0.0347	0.0166	0.00723	0.00311	0.00143
Witherite	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Strontianite	0.236	0.0101	0.00445	0.00216	< 0.001	< 0.001	< 0.001
Magnesite	0.208	0.00893	0.00398	0.00195	< 0.001	< 0.001	< 0.001
Anhydrite	0.413	0.394	0.375	0.357	0.340	0.323	0.307
Gypsum	0.606	0.580	0.555	0.531	0.508	0.485	0.463
Barite	4.89	4.66	4.44	4.22	4.01	3.81	3.62
Celestite	1.00	0.956	0.911	0.867	0.825	0.784	0.745
Siderite	7.01	0.301	0.134	0.0656	0.0291	0.0128	0.00601
Halite	0.0559	0.0549	0.0539	0.0529	0.0519	0.0510	0.0500
Iron sulfide	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIMPLE INDICES							
Langelier	0.729	-0.667	-1.01	-1.24	-1.42	-1.58	-1.71
Ryznar	5.58	6.99	7.35	7.60	7.79	7.96	8.11
Oddo-Tomson	-0.398	-1.78	-2.12	-2.33	-2.50	-2.64	-2.76
Stiff-Davis	0.125	-1.26	-1.59	-1.81	-1.97	-2.11	-2.23
Puckorius	5.31	5.37	5.42	5.59	5.89	6.25	6.61
Larson-Skold	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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at 1243

		Pressure (psi)						
TOTAL VS FREE IONS		14.70	257.25	499.80	742.35	984.90	1227	1470
Ca	Total	5810	5810	5810	5810	5810	5810	5810
	Free	5652	5649	5646	5646	5647	5647	5645
Ba	Total	1.20	1.20	1.20	1.20	1.20	1.20	1.20
	Free	1.20	1.20	1.20	1.20	1.20	1.20	1.20
CO ₃	Total	4.59	0.201	0.0912	0.0456	0.0206	0.00922	0.00443
	Free	0.0843	0.00368	0.00167	< 0.001	< 0.001	< 0.001	< 0.001
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	913.40	913.40	913.40	913.40	913.40	913.40	913.40
	Free	354.67	350.13	345.58	340.89	336.10	331.28	326.45

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite	0.0264	-0.0214	-0.0236	-0.0251	-0.0264	-0.0276	-0.0288
Aragonite	0.0231	-0.0248	-0.0271	-0.0287	-0.0302	-0.0315	-0.0329
Witherite	-25.05	-25.49	-25.90	-26.32	-26.74	-27.16	-27.59
Strontianite	-0.233	-0.311	-0.321	-0.330	-0.339	-0.349	-0.358
Magnesite	-0.157	-0.200	-0.205	-0.209	-0.213	-0.217	-0.221
Anhydrite	-234.22	-250.36	-266.98	-284.03	-301.58	-319.78	-338.68
Gypsum	-123.99	-136.04	-148.41	-161.06	-174.05	-187.49	-201.42
Barite	0.565	0.558	0.550	0.542	0.533	0.524	0.514
Celestite	0.431	-5.75	-12.04	-18.50	-25.11	-31.86	-38.72
Siderite	0.0486	-0.0057	-0.0072	-0.0080	-0.0084	-0.0088	-0.0090
Halite	-133203	-134823	-136459	-138108	-139772	-141453	-143150
Iron sulfide	-0.0545	-0.928	-1.62	-2.27	-2.89	-3.53	-4.17

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