

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-40589
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☐ FEE ☒
2. Name of Operator MURCHISON OIL & GAS, INC.		6. State Oil & Gas Lease No.
3. Address of Operator 7250 DALLAS PARKWAY, STE. 1400, PLANO, TX 75024		7. Lease Name or Unit Agreement Name VANDIVER FEE
4. Well Location Unit Letter <u>E</u> : 2472 feet from the <u>NORTH</u> line and <u>265</u> feet from the <u>WEST</u> line Section <u>17</u> Township <u>18S</u> Range <u>26E</u> NMPM <u>EDDY</u> County		8. Well Number <u>001H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3404' GR		9. OGRID Number <u>15363</u>
		10. Pool name or Wildcat EMPIRE; GLORIETA-YESO

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐	PRODUCED WATER DISPOSAL ☒	OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please be advised that produced water may be periodically disposed of in the Yogi Bear SWD #1 (30-015-32216):

- Water will be trucked to the disposal facility by L&E Trucking
- Murchison Oil & Gas, Inc. is the operator of the disposal facility
- NMOCD permit number SWD-1390
- Water Analysis Report dated 6/19/15 attached

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 05 2015

RECEIVED

Spud Date: 06/26/2013

Rig Release Date: 07/19/2013

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: [Signature] TITLE: VICE PRESIDENT OPERATIONS DATE: 09/30/2015
Type or print name: GARY COOPER E-mail address: rcooper@jdmii.com PHONE: 972-931-0700
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

Units of Measurement: Standard

Water Analysis Report

Production Company: **Merchasion Oil**
 Well Name: **Vandiver 1-H**
 Sample Point: **well head**
 Sample Date: **6/1/2015**
 Sample ID: **WA-311511**

Sales Rep: **Wilson Hayes**
 Lab Tech: **Andrew Callaghan**

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	6/18/2015	Cations	mg/L	Anions	mg/L
System Temperature 1 (°F):	130	Sodium (Na):	71225.78	Chloride (Cl):	117000.00
System Pressure 1 (psig):	250	Potassium (K):	790.17	Sulfate (SO ₄):	1538.00
System Temperature 2 (°F):	70	Magnesium (Mg):	784.44	Bicarbonate (HCO ₃):	427.00
System Pressure 2 (psig):	100	Calcium (Ca):	3095.02	Carbonate (CO ₃):	
Calculated Density (g/ml):	1.1211	Strontium (Sr):	65.67	Acetic Acid (CH ₃ COO)	
pH:	6.50	Barium (Ba):	0.79	Propionic Acid (C ₂ H ₅ COO)	
Calculated TDS (mg/L):	194941.33	Iron (Fe):	6.86	Butanoic Acid (C ₃ H ₇ COO)	
CO ₂ in Gas (%):	1.54	Zinc (Zn):	0.00	Isobutyric Acid ((CH ₃) ₂ CHCOO)	
Dissolved CO ₂ (mg/L):	260.00	Lead (Pb):	0.41	Fluoride (F):	
H ₂ S in Gas (%):	0.140000	Ammonia NH ₃ :		Bromine (Br):	
H ₂ S in Water (mg/L):	34.00	Manganese (Mn):	1.27	Silica (SiO ₂):	5.92

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	100.00	1.26	62.77	0.63	0.36	2.77	3.77	0.16	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.00	116.00	1.28	63.88	0.58	0.35	2.71	3.77	0.20	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.00	133.00	1.30	64.90	0.54	0.33	2.65	3.77	0.24	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	150.00	1.31	65.86	0.49	0.32	2.59	3.77	0.28	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.00	166.00	1.33	66.78	0.44	0.30	2.54	3.77	0.32	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
103.00	183.00	1.35	67.66	0.40	0.28	2.50	3.77	0.35	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.00	200.00	1.37	68.55	0.36	0.26	2.46	3.76	0.38	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	216.00	1.39	69.44	0.31	0.24	2.42	3.76	0.42	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123.00	233.00	1.40	70.32	0.27	0.22	2.39	3.76	0.45	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	250.00	1.42	71.19	0.23	0.19	2.36	3.76	0.48	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

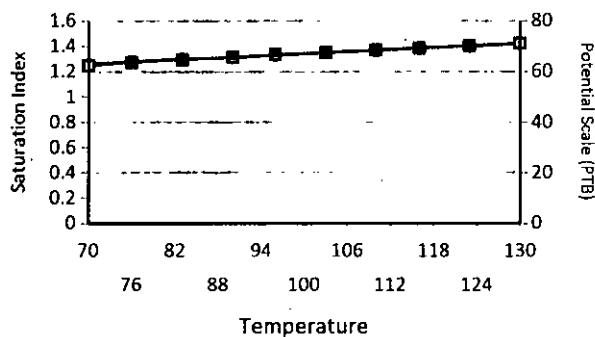
		Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.52	0.16	0.00	0.00	0.00	0.00	0.00	0.00
76.00	116.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.28	0.16	0.00	0.00	0.00	0.00	0.00	0.00
83.00	133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.06	0.16	0.00	0.00	0.00	0.00	0.00	0.00
90.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84	0.16	0.00	0.00	0.00	0.00	0.00	0.00
96.00	166.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.64	0.16	0.00	0.00	0.00	0.00	0.00	0.00
103.00	183.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.16	0.00	0.00	0.00	0.00	0.00	0.00
110.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.25	0.16	0.00	0.00	0.00	0.00	0.00	0.03
116.00	216.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.07	0.16	0.00	0.00	0.00	0.00	0.18	0.32
123.00	233.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.89	0.16	0.00	0.00	0.00	0.00	0.35	0.61
130.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.72	0.16	0.18	0.64	0.00	0.00	0.53	0.89

Water Analysis Report

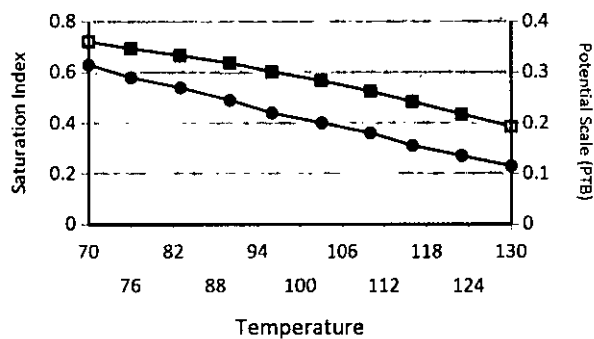
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Lead Sulfide

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Lead Sulfide Mg Silicate Fe Silicate

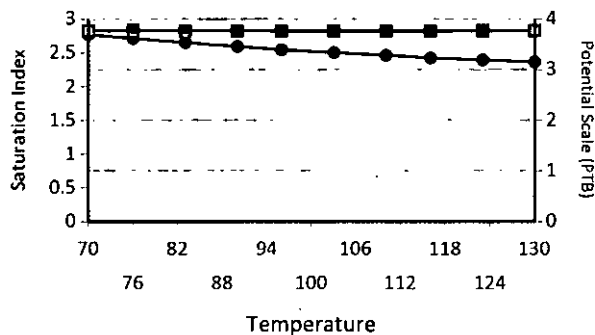
Calcium Carbonate



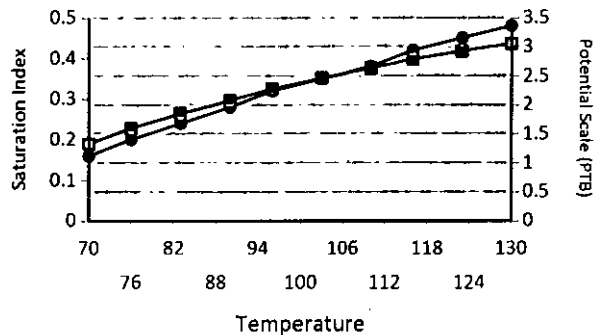
Barium Sulfate



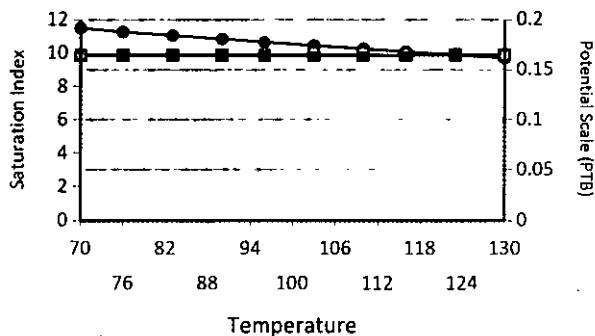
Iron Sulfide



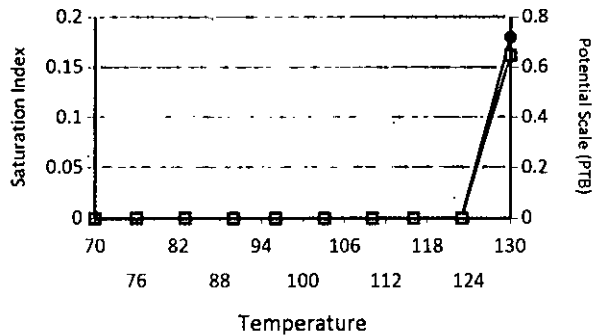
Iron Carbonate



Lead Sulfide



Mg Silicate



Water Analysis Report

