

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD

Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**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.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM118722
2. Name of Operator CHEVRON U.S.A. INC.		6. If Indian, Allottee or Tribe Name
3a. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-687-7375		8. Well Name and No. SD WE 24 FED P23 003H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T26S R32E Mer NMP 260FSL 1333FWL		9. API Well No. 30-025-43297
		10. Field and Pool, or Exploratory BONE SPRING
		11. County or Parish, and State LEA COUNTY, NM

12. CHECK 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	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

08/19/2016: SPUD WELL. DRILL SURFACE HOLE 153-755.

08/20/2016: RAN 13 3/8", 54.5#, J-55, STC SURFACE CSG & SET @ 745'. FC - 699'
CMT W/844 SX CLASS C TAIL CMT. YLD: 1.33. *circulated?*09/01/2016: TEST BOPE TO 250L/5000H. PRESS TEST SURF CSG TO 1500PSI FOR 30 MINS. GOOD. DRILL 10'
NEW FORMATION TO 765'. DRILL INTERMEDIATE HOLE 765-779, 814, 1143, 2566, 3305, 3485, 3988, 4600'.09/04/2016: RAN 9 5/8", 40#, HCK-55, LTC INTERMEDIATE CSG & SET @ 4590'. FC - 4503'. PRESS TEST
LINES TO 500/4500PSI. CMT W/1062 SX CL C LEAD, 447 SX CL C TAIL. TOTAL SX - 1509 SX. DISPL CMT
W/334 BBLs 9.0PPG OBM. BUMP PLUG W/500PSI OVER FINAL CIRC PRESS @ 1630PSI. FULL RETURNS THROUGHOUT
JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 1175PSI @ 3BPM. 197 BBLs CMT TO SURF. CMT IN PLACE @*IOC on production does not meet COAs?*

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #356676 verified by the BLM Well Information System For CHEVRON U.S.A. INC., sent to the Hobbs Committed to AFMSS for processing by DEBORAH MCKINNEY on 11/01/2016 ()	
Name (Printed/Typed) DENISE PINKERTON	Title PERMITTING SPECIALIST
Signature (Electronic Submission)	Date 11/01/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date NOV 8 2016
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.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

KZ

Additional data for EC transaction #356676 that would not fit on the form

32. Additional remarks, continued

1:24 HRS. PRESS TEST TO 5000PSI FOR 15 MINS. GOOD.

09/30/2016: TEST BOPE TO 250L/5000H.

10/01/2016: DRILL 10' NEW FORMATION TO 4610'. DRILL PRODUCTION HOLE FR 4610-5827, 6359, 7150, 7509, 7579, 7936, 8217, 8464, 8521, 8745, 8890, 9064, 9182, 9287, 9960, 10314, 10669, 11379, 11925, 12107, 12224, 12286, 12376, 12553, 12907, 13129, 13262, 13337, 13533, 13970, 14591, 15121, 15724, 15851, 16090, 16428, 16650, 17068, 17599, 18131, 18495, 18771, 19261' ~~TD~~ REACHED ON 10/15/2016.

10/17/2016: RAN 5 1/2", 20#,-110,TXP-BTC PRODUCTION CSG & SET @ 19,245'.

CMT W/623 SX CL H LEAD, 2121 SX CL H LEAD, & 121 SX CL H TAIL. TOTAL SX:2865 SX. YLD - 2.18. TOC @ 18,245

RELEASE RIG.

Does not meet COAs.?



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Wellbore Name Original Hole	Parent Wellbore Original Hole	Min Kick Off Depth (ft)	Vertical Section Direction (°) 359.71
Northing (Y) (ft)	Easting (X) (ft)	UTM Grid Zone	

Date 9/2/2016	Definitive? N	Description MWD	Planned? N
MD Tie In (ft)	TVD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)
		NSTie In (ft)	EW Tie In (ft)

Survey Data													
MD (ft)	Incl (°)	Azm (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Magn MS		0.00	0.00	0.00	N
68	0.20	276.30	68.00	0.01	-0.12	0.01	0.29	Magn MS		0.29	0.12	406.32	N
162	0.30	328.30	162.00	0.24	-0.41	0.24	0.25	Magn MS		0.11	0.48	55.32	N
229	0.40	339.30	229.00	0.61	-0.59	0.61	0.18	Magn MS		0.15	0.84	16.42	N
296	0.10	77.30	296.00	0.84	-0.61	0.84	0.64	Magn MS		-0.45	1.04	-	N
												391.04	
432	0.50	231.30	432.00	0.50	-0.96	0.50	0.43	Magn MS		0.29	1.08	113.24	N
527	0.80	195.30	526.99	-0.40	-1.46	-0.40	0.52	Magn MS		0.32	1.51	-37.89	N
618	1.30	197.30	617.97	-2.00	-1.93	-1.99	0.55	Magn MS		0.55	2.78	2.20	N
709	1.30	200.30	708.95	-3.96	-2.60	-3.94	0.07	Magn MS		0.00	4.73	3.30	N
717	1.20	191.30	716.95	-4.12	-2.64	-4.11	2.75	Magn MS		-1.25	4.90	-	N
												112.50	
891	3.40	179.28	890.80	-11.07	-2.94	-11.05	1.29	Magn MS	Baker Hughes	1.26	11.45	-6.91	N
1,074	4.13	128.09	1,073.45	-20.56	2.32	-20.58	1.81	Magn MS	Baker Hughes	0.40	20.69	-27.97	N
1,256	5.91	99.23	1,254.77	-26.11	16.73	-26.20	1.67	Magn MS	Baker Hughes	0.98	31.01	-15.86	N
1,436	7.98	105.97	1,433.45	-31.04	37.89	-31.23	1.23	Magn MS	Baker Hughes	1.15	48.98	3.74	N
1,613	8.21	106.26	1,608.68	-37.95	61.84	-38.27	0.13	Magn MS	Baker Hughes	0.13	72.56	0.16	N
1,789	8.44	106.66	1,782.83	-45.18	86.27	-45.61	0.13	Magn MS	Baker Hughes	0.13	97.39	0.23	N
1,966	8.88	108.52	1,957.81	-53.24	111.67	-53.80	0.29	Magn MS	Baker Hughes	0.25	123.71	1.05	N
2,143	7.39	104.74	2,133.03	-60.48	135.64	-61.16	0.89	Magn MS	Baker Hughes	-0.84	148.51	-2.14	N
2,320	7.57	106.00	2,308.52	-66.59	157.85	-67.38	0.14	Magn MS	Baker Hughes	0.10	171.32	0.71	N
2,497	7.78	106.83	2,483.93	-73.07	180.58	-73.98	0.12	Magn MS	Baker Hughes	0.12	194.81	-0.10	N
2,674	8.85	113.84	2,659.08	-81.84	204.57	-82.87	0.89	Magn MS	Baker Hughes	0.60	220.33	4.53	N
2,851	8.98	110.53	2,833.94	-92.19	229.96	-93.35	0.30	Magn MS	Baker Hughes	0.07	247.75	-1.87	N
3,028	8.77	114.37	3,008.82	-102.60	255.18	-103.89	0.36	Magn MS	Baker Hughes	-0.12	275.04	2.17	N
3,206	9.08	118.06	3,184.67	-114.81	279.94	-116.22	0.37	Magn MS	Baker Hughes	0.17	302.57	2.07	N
3,384	6.56	131.18	3,361.01	-128.11	299.99	-129.63	1.73	Magn MS	Baker Hughes	-1.42	326.20	7.37	N
3,561	4.54	140.78	3,537.18	-140.20	312.03	-141.77	1.25	Magn MS	Baker Hughes	-1.14	342.08	5.42	N
3,738	2.19	160.11	3,713.86	-148.80	317.61	-150.41	1.46	Magn MS	Baker Hughes	-1.33	350.74	10.92	N
3,915	3.31	98.40	3,890.69	-152.73	323.82	-154.37	1.68	Magn MS	Baker Hughes	0.63	358.03	-34.86	N
4,092	2.55	92.75	4,067.46	-153.67	332.81	-155.35	0.46	Magn MS	Baker Hughes	-0.43	366.57	-3.19	N
4,269	4.04	87.53	4,244.16	-153.59	342.97	-155.32	0.86	Magn MS	Baker Hughes	0.84	375.79	-2.95	N
4,446	2.59	107.52	4,420.87	-154.52	353.02	-156.31	1.04	Magn MS	Baker Hughes	-0.82	385.35	11.29	N
4,531	0.61	209.60	4,505.84	-155.49	354.62	-157.29	3.27	Magn MS	Baker Hughes	-2.33	387.22	120.09	N
4,617	1.01	250.15	4,591.83	-156.15	353.68	-157.94	0.79	Magn MS	Baker Hughes	0.47	386.62	47.15	N
4,794	0.75	265.86	4,768.81	-156.76	351.06	-158.54	0.20	Magn MS	Baker Hughes	-0.15	384.47	8.88	N
4,972	0.85	256.17	4,946.79	-157.16	348.62	-158.93	0.09	Magn MS	Baker Hughes	0.06	382.41	-5.44	N
5,148	0.68	261.65	5,122.78	-157.63	346.32	-159.38	0.11	Magn MS	Baker Hughes	-0.10	380.50	3.11	N
5,325	0.62	259.39	5,299.76	-157.96	344.34	-159.70	0.04	Magn MS	Baker Hughes	-0.03	378.84	-1.28	N
5,502	0.47	272.57	5,476.76	-158.10	342.67	-159.83	0.11	Magn MS	Baker Hughes	-0.08	377.38	7.45	N
5,680	0.40	273.77	5,654.75	-158.03	341.32	-159.75	0.04	Magn MS	Baker Hughes	-0.04	376.13	0.67	N
5,858	0.50	258.97	5,832.75	-158.13	339.94	-159.85	0.09	Magn MS	Baker Hughes	0.06	374.92	-8.31	N
6,035	0.22	216.99	6,009.74	-158.55	338.98	-160.27	0.21	Magn MS	Baker Hughes	-0.16	374.22	-23.72	N
6,211	0.28	234.24	6,185.74	-159.07	338.42	-160.78	0.05	Magn MS	Baker Hughes	0.03	373.94	9.80	N
6,388	0.28	206.49	6,362.74	-159.71	337.88	-161.42	0.08	Magn MS	Baker Hughes	0.00	373.73	-15.68	N
6,565	0.64	214.59	6,539.73	-160.91	337.13	-162.62	0.21	Magn MS	Baker Hughes	0.20	373.56	4.58	N
6,741	0.65	210.23	6,715.72	-162.59	336.06	-164.29	0.03	Magn MS	Baker Hughes	0.01	373.33	-2.48	N
6,919	0.73	196.03	6,893.71	-164.55	335.24	-166.24	0.11	Magn MS	Baker Hughes	0.04	373.45	-7.98	N
7,096	0.83	193.06	7,070.69	-166.88	334.64	-168.57	0.06	Magn MS	Baker Hughes	0.06	373.94	-1.68	N
7,272	0.90	208.77	7,248.67	-169.33	333.69	-171.02	0.14	Magn MS	Baker Hughes	0.04	374.20	8.93	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ft)	Incl (°)	Azm (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
7.450	1.11	191.10	7,424.65	-172.25	332.68	-173.93	0.21	Magn MS	Baker Hughes	0.12	374.63	-9.93	N
7.627	0.93	205.11	7,601.62	-175.23	331.74	-176.91	0.17	Magn MS	Baker Hughes	-0.10	375.18	7.92	N
7.804	0.83	199.33	7,778.60	-177.75	330.71	-179.42	0.08	Magn MS	Baker Hughes	-0.06	375.45	-3.27	N
7.981	1.04	189.69	7,955.57	-180.54	330.02	-182.21	0.15	Magn MS	Baker Hughes	0.12	376.17	-5.45	N
8.158	0.65	191.09	8,132.55	-183.11	329.55	-184.77	0.22	Magn MS	Baker Hughes	-0.22	377.01	0.79	N
8.334	0.78	202.47	8,308.54	-185.19	328.90	-186.86	0.11	Magn MS	Baker Hughes	0.07	377.46	6.47	N
8.408	0.97	216.95	8,380.53	-186.13	328.35	-187.79	0.40	Magn MS	Baker Hughes	0.26	377.44	20.11	N
8.568	5.73	355.60	8,542.29	-179.16	326.90	-180.81	4.01	Magn MS	Baker Hughes	2.94	372.78	85.59	N
8.612	12.02	349.39	8,585.74	-172.46	325.89	-174.11	14.44	Magn MS	Baker Hughes	14.30	368.71	-14.11	N
8.656	16.68	353.56	8,628.36	-161.67	324.34	-163.31	10.84	Magn MS	Baker Hughes	10.59	362.40	9.48	N
8.701	20.23	356.95	8,671.04	-147.48	323.20	-149.12	8.24	Magn MS	Baker Hughes	7.89	355.26	7.53	N
8.745	24.77	2.87	8,711.68	-130.67	323.25	-132.30	11.52	Magn MS	Baker Hughes	10.32	348.67	-	N
												804.73	
8.789	30.25	3.52	8,750.69	-110.39	324.40	-112.03	12.47	Magn MS	Baker Hughes	12.45	342.66	1.48	N
8.833	35.05	1.91	8,787.73	-86.68	325.50	-88.33	11.09	Magn MS	Baker Hughes	10.91	336.84	-3.66	N
8.878	39.61	2.75	8,823.60	-59.42	326.62	-61.08	10.20	Magn MS	Baker Hughes	10.13	331.98	1.87	N
8.922	43.84	3.29	8,856.33	-30.19	328.17	-31.85	9.65	Magn MS	Baker Hughes	9.61	329.55	1.23	N
8.966	48.55	2.03	8,886.78	1.52	329.63	-0.15	10.90	Magn MS	Baker Hughes	10.70	329.63	-2.86	N
9.011	53.17	359.95	8,915.18	36.41	330.21	34.74	10.87	Magn MS	Baker Hughes	10.27	332.21	795.38	N
9.055	58.21	357.73	8,939.98	72.73	329.45	71.06	12.19	Magn MS	Baker Hughes	11.45	337.38	-5.05	N
9.099	64.35	0.49	8,961.11	111.29	328.88	109.62	15.00	Magn MS	Baker Hughes	13.95	347.20	-	N
												811.91	
9.146	70.33	3.87	8,979.22	154.60	330.56	152.92	14.35	Magn MS	Baker Hughes	12.72	364.92	7.19	N
9.190	73.50	4.78	8,992.88	196.30	333.71	194.61	7.47	Magn MS	Baker Hughes	7.20	387.17	2.07	N
9.231	76.62	4.94	9,003.44	235.77	337.07	234.06	7.62	Magn MS	Baker Hughes	7.61	411.34	0.39	N
9.285	82.33	3.23	9,013.30	288.70	340.84	286.97	11.02	Magn MS	Baker Hughes	10.57	446.68	-3.17	N
9.374	85.89	2.53	9,022.44	377.10	345.29	375.35	4.08	Magn MS	Baker Hughes	4.00	511.30	-0.79	N
9.462	89.26	1.31	9,026.16	464.96	348.23	463.19	4.07	Magn MS	Baker Hughes	3.83	580.91	-1.39	N
9.550	88.89	0.24	9,027.58	552.94	349.42	551.16	1.29	Magn MS	Baker Hughes	-0.42	654.09	-1.22	N
9.639	90.68	0.63	9,027.91	641.93	350.10	640.15	2.06	Magn MS	Baker Hughes	2.01	731.20	0.44	N
9.728	90.74	0.45	9,026.81	730.92	350.94	729.14	0.21	Magn MS	Baker Hughes	0.07	810.80	-0.20	N
9.816	91.02	1.16	9,025.46	818.90	352.17	817.11	0.87	Magn MS	Baker Hughes	0.32	891.42	0.81	N
9.906	92.07	359.62	9,023.03	908.86	352.79	907.07	2.07	Magn MS	Baker Hughes	1.17	974.93	398.29	N
9.994	88.55	358.08	9,022.56	996.83	351.02	995.04	4.37	Magn MS	Baker Hughes	-4.00	1,056.83	-1.75	N
10.083	87.41	356.85	9,025.69	1,085.68	347.09	1,083.91	1.88	Magn MS	Baker Hughes	-1.28	1,139.81	-1.38	N
10.171	90.37	359.64	9,027.40	1,173.61	344.39	1,171.85	4.62	Magn MS	Baker Hughes	3.36	1,223.09	3.17	N
10.259	90.00	358.19	9,027.11	1,261.59	342.73	1,259.84	1.70	Magn MS	Baker Hughes	-0.42	1,307.31	-1.65	N
10.348	89.29	357.29	9,027.67	1,350.52	339.22	1,348.78	1.29	Magn MS	Baker Hughes	-0.80	1,392.47	-1.01	N
10.437	89.69	359.51	9,028.46	1,439.47	336.73	1,437.75	2.53	Magn MS	Baker Hughes	0.45	1,478.33	2.49	N
10.526	89.94	359.94	9,028.75	1,528.47	336.31	1,526.75	0.56	Magn MS	Baker Hughes	0.28	1,565.03	0.48	N
10.614	89.26	359.03	9,029.36	1,616.46	335.52	1,614.74	1.29	Magn MS	Baker Hughes	-0.77	1,650.92	-1.03	N
10.703	89.35	1.32	9,030.44	1,705.45	335.79	1,703.73	2.57	Magn MS	Baker Hughes	0.10	1,738.19	-	N
10.792	89.85	358.56	9,031.06	1,794.44	335.69	1,792.72	3.15	Magn MS	Baker Hughes	0.56	1,825.57	401.39	N
10.880	90.00	359.01	9,031.18	1,882.42	333.83	1,880.70	0.54	Magn MS	Baker Hughes	0.17	1,911.79	0.51	N
10.968	90.56	358.95	9,030.75	1,970.40	332.26	1,968.70	0.64	Magn MS	Baker Hughes	0.64	1,998.22	-0.07	N
11.057	90.86	359.65	9,029.84	2,059.39	331.17	2,057.69	0.86	Magn MS	Baker Hughes	0.34	2,085.85	0.79	N



Directional Survey

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Survey Data													
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11,145	89.32	359.83	9,029.51	2,147.39	330.78	2,145.68	1.76	Magn MS	Baker Hughes	-1.75	2,172.71	0.20	N
11,234	88.89	359.68	9,030.90	2,236.37	330.39	2,234.67	0.51	Magn MS	Baker Hughes	-0.48	2,260.65	-0.17	N
11,324	87.60	358.78	9,033.65	2,326.32	329.19	2,324.62	1.75	Magn MS	Baker Hughes	-1.43	2,349.50	-1.00	N
11,415	89.85	0.45	9,035.68	2,417.29	328.58	2,415.59	3.08	Magn MS	Baker Hughes	2.47	2,439.52	393.77	N
11,506	92.16	1.82	9,034.08	2,508.25	330.38	2,506.54	2.95	Magn MS	Baker Hughes	2.54	2,529.91	1.51	N
11,598	87.38	1.05	9,034.45	2,600.19	332.68	2,598.47	5.26	Magn MS	Baker Hughes	-5.20	2,621.39	-0.84	N
11,688	86.46	0.64	9,039.29	2,690.05	334.01	2,688.32	1.12	Magn MS	Baker Hughes	-1.02	2,710.70	-0.46	N
11,779	88.86	359.25	9,043.00	2,780.96	333.92	2,779.24	3.05	Magn MS	Baker Hughes	2.64	2,800.94	394.08	N
11,870	92.10	358.96	9,042.24	2,871.94	332.50	2,870.22	3.57	Magn MS	Baker Hughes	3.56	2,891.12	-0.32	N
11,961	91.72	357.98	9,039.21	2,962.85	330.07	2,961.14	1.15	Magn MS	Baker Hughes	-0.42	2,981.18	-1.08	N
12,053	91.93	358.67	9,036.28	3,054.77	327.38	3,053.07	0.78	Magn MS	Baker Hughes	0.23	3,072.26	0.75	N
12,144	93.33	358.94	9,032.10	3,145.65	325.48	3,143.96	1.57	Magn MS	Baker Hughes	1.54	3,162.44	0.30	N
12,233	90.15	357.09	9,029.40	3,234.54	322.40	3,232.87	4.13	Magn MS	Baker Hughes	-3.57	3,250.57	-2.08	N
12,321	89.54	0.40	9,029.64	3,322.50	320.48	3,320.84	3.82	Magn MS	Baker Hughes	-0.69	3,337.92	405.33	N
12,410	90.46	2.02	9,029.64	3,411.48	322.35	3,409.81	2.09	Magn MS	Baker Hughes	1.03	3,426.68	1.82	N
12,498	88.70	0.82	9,030.28	3,499.45	324.54	3,497.76	2.42	Magn MS	Baker Hughes	-2.00	3,514.46	-1.36	N
12,587	91.35	2.33	9,030.24	3,588.40	326.98	3,586.70	3.43	Magn MS	Baker Hughes	2.98	3,603.27	1.70	N
12,675	88.89	0.17	9,030.06	3,676.37	328.90	3,674.66	3.72	Magn MS	Baker Hughes	-2.80	3,691.05	-2.45	N
12,764	87.99	358.29	9,032.48	3,765.32	327.71	3,763.62	2.34	Magn MS	Baker Hughes	-1.01	3,779.56	402.38	N
12,852	87.01	357.97	9,036.32	3,853.19	324.84	3,851.50	1.17	Magn MS	Baker Hughes	-1.11	3,866.86	-0.36	N
12,941	87.63	358.37	9,040.48	3,942.05	322.00	3,940.37	0.83	Magn MS	Baker Hughes	0.70	3,955.18	0.45	N
13,030	86.71	358.20	9,044.88	4,030.90	319.34	4,029.23	1.05	Magn MS	Baker Hughes	-1.03	4,043.53	-0.19	N
13,119	88.83	358.36	9,048.34	4,119.79	316.67	4,118.13	2.39	Magn MS	Baker Hughes	2.38	4,131.94	0.18	N
13,207	87.26	358.75	9,051.34	4,207.70	314.45	4,206.06	1.84	Magn MS	Baker Hughes	-1.78	4,219.44	0.44	N
13,295	93.55	359.26	9,050.72	4,295.64	312.92	4,294.01	7.17	Magn MS	Baker Hughes	7.15	4,307.03	0.58	N
13,383	95.16	359.89	9,044.04	4,383.38	312.27	4,381.75	1.96	Magn MS	Baker Hughes	1.83	4,394.49	0.72	N
13,472	93.17	0.59	9,037.57	4,472.14	312.64	4,470.50	2.37	Magn MS	Baker Hughes	-2.24	4,483.06	403.71	N
13,561	90.86	0.50	9,034.44	4,561.08	313.49	4,559.43	2.60	Magn MS	Baker Hughes	-2.60	4,571.84	-0.10	N
13,649	86.95	0.88	9,036.12	4,649.04	314.55	4,647.39	4.46	Magn MS	Baker Hughes	-4.44	4,659.67	0.43	N
13,738	85.96	359.82	9,041.63	4,737.86	315.09	4,736.21	1.63	Magn MS	Baker Hughes	-1.11	4,748.33	403.30	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Survey Data													
MD (ft)	Incl (°)	Azm (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
13,827	88.37	359.18	9,046.03	4,826.75	314.32	4,825.09	2.80	Magn MS	Baker Hughes	2.71	4,836.97	-0.72	N
13,915	89.38	0.31	9,047.76	4,914.72	313.92	4,913.07	1.72	Magn MS	Baker Hughes	1.15	4,924.74	407.81	N
14,004	87.72	0.66	9,050.01	5,003.69	314.68	5,002.03	1.91	Magn MS	Baker Hughes	-1.87	5,013.57	0.39	N
14,093	88.31	0.80	9,053.09	5,092.63	315.81	5,090.96	0.68	Magn MS	Baker Hughes	0.66	5,102.41	0.16	N
14,181	88.71	0.42	9,055.38	5,180.59	316.75	5,178.92	0.63	Magn MS	Baker Hughes	0.45	5,190.27	-0.43	N
14,270	89.54	0.51	9,056.74	5,269.58	317.47	5,267.91	0.94	Magn MS	Baker Hughes	0.93	5,279.13	0.10	N
14,358	87.59	359.69	9,058.94	5,357.55	317.62	5,355.87	2.40	Magn MS	Baker Hughes	-2.22	5,366.95	408.16	N
14,447	87.26	359.70	9,062.94	5,446.46	317.15	5,444.78	0.37	Magn MS	Baker Hughes	-0.37	5,455.68	0.01	N
14,536	86.98	358.59	9,067.41	5,535.33	315.82	5,533.66	1.28	Magn MS	Baker Hughes	-0.31	5,544.33	-1.25	N
14,624	89.38	0.93	9,070.21	5,623.27	315.46	5,621.61	3.81	Magn MS	Baker Hughes	2.73	5,632.12	406.43	N
14,713	89.11	0.36	9,071.38	5,712.26	316.46	5,710.59	0.71	Magn MS	Baker Hughes	-0.30	5,721.02	-0.64	N
14,801	89.41	359.86	9,072.52	5,800.25	316.63	5,798.58	0.66	Magn MS	Baker Hughes	0.34	5,808.89	408.52	N
14,889	89.26	358.88	9,073.54	5,888.24	315.66	5,886.57	1.13	Magn MS	Baker Hughes	-0.17	5,896.69	-1.11	N
14,978	89.72	358.08	9,074.33	5,977.20	313.30	5,975.54	1.04	Magn MS	Baker Hughes	0.52	5,985.41	-0.90	N
15,066	87.53	358.11	9,076.44	6,065.12	310.37	6,063.48	2.49	Magn MS	Baker Hughes	-2.49	6,073.06	0.03	N
15,155	89.07	359.70	9,079.08	6,154.06	308.68	6,152.42	2.49	Magn MS	Baker Hughes	1.73	6,161.80	1.79	N
15,243	89.54	0.09	9,080.15	6,242.06	308.51	6,240.42	0.69	Magn MS	Baker Hughes	0.53	6,249.68	408.65	N
15,332	89.85	359.57	9,080.62	6,331.05	308.25	6,329.41	0.68	Magn MS	Baker Hughes	0.35	6,338.55	403.91	N
15,420	90.15	359.46	9,080.62	6,419.05	307.51	6,417.41	0.36	Magn MS	Baker Hughes	0.34	6,428.41	-0.13	N
15,508	90.37	359.09	9,080.23	6,507.04	306.39	6,505.41	0.49	Magn MS	Baker Hughes	0.25	6,514.25	-0.42	N
15,597	90.03	359.52	9,079.91	6,596.04	305.31	6,594.41	0.62	Magn MS	Baker Hughes	-0.38	6,603.10	0.48	N
15,685	90.83	359.99	9,079.25	6,684.03	304.94	6,682.40	1.05	Magn MS	Baker Hughes	0.91	6,690.98	0.53	N
15,774	89.08	358.15	9,079.32	6,773.01	303.49	6,771.39	2.85	Magn MS	Baker Hughes	-1.97	6,779.81	-2.07	N
15,863	89.57	359.66	9,080.37	6,861.99	301.79	6,860.37	1.78	Magn MS	Baker Hughes	0.55	6,868.62	1.70	N
15,951	90.18	359.34	9,080.56	6,949.98	301.02	6,948.37	0.78	Magn MS	Baker Hughes	0.69	6,956.50	-0.36	N
16,040	90.52	357.08	9,080.02	7,038.93	298.24	7,037.33	2.57	Magn MS	Baker Hughes	0.38	7,045.25	-2.54	N
16,128	93.27	1.50	9,077.11	7,126.85	297.15	7,125.25	5.91	Magn MS	Baker Hughes	3.13	7,133.04	404.07	N
16,216	90.49	1.02	9,074.22	7,214.77	299.08	7,213.16	3.21	Magn MS	Baker Hughes	-3.16	7,220.97	-0.55	N
16,305	91.32	0.74	9,072.82	7,303.75	300.45	7,302.13	0.98	Magn MS	Baker Hughes	0.93	7,309.92	-0.31	N
16,393	91.64	0.43	9,070.54	7,391.71	301.35	7,390.09	0.51	Magn MS	Baker Hughes	0.36	7,397.85	-0.36	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Survey Data													
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unsu d data
16,482	87.81	0.34	9,070.97	7,480.69	301.95	7,479.07	4.30	Magn MS	Baker Hughes	-4.30	7,486.78	-0.10	N
16,571	87.72	0.44	9,074.44	7,569.62	302.55	7,568.00	0.15	Magn MS	Baker Hughes	-0.10	7,575.67	0.11	N
16,660	87.50	359.72	9,078.15	7,658.55	302.68	7,656.92	0.85	Magn MS	Baker Hughes	-0.25	7,664.52	403.69	N
16,749	89.48	0.17	9,080.50	7,747.51	302.59	7,745.88	2.28	Magn MS	Baker Hughes	2.22	7,753.42	-403.99	N
16,838	90.55	359.48	9,080.48	7,836.51	302.30	7,834.88	1.44	Magn MS	Baker Hughes	1.20	7,842.34	403.70	N
16,926	90.62	359.38	9,079.58	7,924.50	301.41	7,922.87	0.12	Magn MS	Baker Hughes	0.08	7,930.23	-0.09	N
17,015	91.17	359.05	9,078.19	8,013.48	300.19	8,011.86	0.72	Magn MS	Baker Hughes	0.62	8,019.10	-0.37	N
17,104	91.29	358.21	9,076.28	8,102.43	298.07	8,100.82	0.95	Magn MS	Baker Hughes	0.13	8,107.91	-0.94	N
17,192	91.63	358.18	9,074.03	8,190.36	295.30	8,188.76	0.39	Magn MS	Baker Hughes	0.39	8,195.68	-0.03	N
17,281	90.89	358.05	9,072.08	8,279.29	292.37	8,277.70	0.84	Magn MS	Baker Hughes	-0.83	8,284.45	-0.15	N
17,369	90.77	1.51	9,070.80	8,367.27	292.03	8,365.68	3.93	Magn MS	Baker Hughes	-0.14	8,372.36	-405.16	N
17,458	91.57	1.76	9,068.98	8,456.21	294.57	8,454.61	0.94	Magn MS	Baker Hughes	0.90	8,461.34	0.28	N
17,546	92.04	2.67	9,066.21	8,544.10	297.97	8,542.48	1.18	Magn MS	Baker Hughes	0.53	8,549.29	1.03	N
17,635	89.94	1.34	9,064.68	8,633.03	301.08	8,631.39	2.79	Magn MS	Baker Hughes	-2.36	8,638.27	-1.49	N
17,723	87.75	359.25	9,066.45	8,721.00	301.54	8,719.36	3.44	Magn MS	Baker Hughes	-2.49	8,726.21	406.72	N
17,812	87.69	358.61	9,069.99	8,809.91	299.88	8,808.28	0.72	Magn MS	Baker Hughes	-0.07	8,815.01	-0.72	N
17,901	88.18	358.06	9,073.20	8,898.81	297.29	8,897.19	0.83	Magn MS	Baker Hughes	0.55	8,903.78	-0.62	N
17,989	90.34	359.35	9,074.33	8,986.78	295.30	8,985.17	2.86	Magn MS	Baker Hughes	2.45	8,991.63	1.47	N
18,078	91.57	358.96	9,072.85	9,075.75	293.99	9,074.15	1.45	Magn MS	Baker Hughes	1.38	9,080.51	-0.44	N
18,166	92.24	358.85	9,069.92	9,163.69	292.31	9,162.09	0.77	Magn MS	Baker Hughes	0.76	9,168.35	-0.12	N
18,255	90.80	357.71	9,067.56	9,252.61	289.64	9,251.03	2.06	Magn MS	Baker Hughes	-1.62	9,257.14	-1.28	N
18,343	91.88	0.09	9,065.51	9,340.56	287.95	9,338.99	2.97	Magn MS	Baker Hughes	1.23	9,345.00	-406.39	N
18,432	93.21	359.47	9,061.55	9,429.47	287.61	9,427.90	1.65	Magn MS	Baker Hughes	1.49	9,433.86	403.80	N
18,520	91.45	359.46	9,057.98	9,517.39	286.79	9,515.82	2.00	Magn MS	Baker Hughes	-2.00	9,521.71	-0.01	N
18,609	88.80	359.45	9,057.78	9,606.38	285.94	9,604.81	2.98	Magn MS	Baker Hughes	-2.98	9,610.64	-0.01	N
18,698	88.46	359.35	9,059.91	9,695.35	285.01	9,693.78	0.40	Magn MS	Baker Hughes	-0.38	9,699.54	-0.11	N
18,786	88.80	0.06	9,062.01	9,783.32	284.56	9,781.76	0.89	Magn MS	Baker Hughes	0.39	9,787.46	-408.28	N
18,875	89.42	359.97	9,063.40	9,872.31	284.58	9,870.75	0.70	Magn MS	Baker Hughes	0.70	9,876.41	404.39	N
18,963	89.45	359.69	9,064.26	9,960.31	284.32	9,958.74	0.32	Magn MS	Baker Hughes	0.03	9,964.36	-0.32	N
19,052	89.88	359.51	9,064.78	10,049.30	283.70	10,047.74	0.52	Magn MS	Baker Hughes	0.48	10,053.31	-0.20	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation			Mud Line Elevation (ft) Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
19,140	89.57	357.42	9,065.21	10,137.27	281.34	10,135.71	2.40	Magn MS	Baker Hughes	-0.35	10,141 17	-2.37	N
19,207	90.99	357.28	9,064.88	10,204.19	278.24	10,202.85	2.13	Magn MS	Baker Hughes	2.12	10,207 .98	-0.21	N
19,261	90.99	357.28	9,063.95	10,258.12	275.68	10,256.60	0.00	Extrap.	Baker Hughes	0.00	10,261 .83	0.00	N



Casing Summary

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Surface, Planned? -N, 745ftKB

Set Depth (MD) (ftKB) 745		Set Tension (kips)		String Nominal OD (in) 13 3/8		String Min Drift (in)		Centralizers 7		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Wellhead	13 3/8	12.615	54.50	J-55	ST&C	35	38	2.90		
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	ST&C	38	42	4.13		
16	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	42	699	656.23		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	699	700	1.38		
1	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	700	743	42.91		1,130.0
1	Float Shoe	13 3/8	12.615	54.50	J-55	ST&C	743	745	2.06		

Intermediate Casing 1, Planned? -N, 4,590ftKB

Set Depth (MD) (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
4,590				9 5/8		8.688		31			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Hanger	9 5/8	8.835	40.00	HCK-55		35	37	1.61	3,950.0	4,230.0
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55		37	41	4.18	3,950.0	4,230.0
10 8	Casing Joint	9 5/8	8.835	40.00	HCK-55		41	4,503	4,462.29	3,950.0	4,230.0
1	Float Collar	9 5/8	8.835				4,503	4,505	1.49		
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		4,505	4,588	83.45	3,950.0	4,230.0
1	Float Shoe	9 5/8	8.835	40.00			4,588	4,590	1.62	3,950.0	4,230.0

Production Casing, Planned? -N, 19,245ftKB

Set Depth (MD) (ftKB) 19,245		Set Tension (kips)		String Nominal OD (in) 5 1/2		String Min Drift (in)		Centralizers 158		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Hanger	5 1/2	4.800	20.00	P-110	TXP-BTC	35	36	1.26		
1	Hanger Pup	5 1/2	4.800	20.00	P-110	TXP-BTC	36	40	4.24		
19 2	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	40	8,486	8,445.43		
1	Marker Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,486	8,496	9.94		
24 0	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,496	19,079	10,583.68		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,079	19,089	9.87		
1	RSI	5 1/2	4.800	20.00	P-110	TXP-BTC	19,089	19,096	6.66		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,096	19,106	9.85		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,106	19,150	44.38		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,150	19,160	9.88		
1	Land Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	19,160	19,161	1.41		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,161	19,201	39.94		
1	Float Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	19,201	19,203	1.28		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,203	19,242	39.77		
1	Float Shoe	5 1/2	4.800	20.00	P-110	TXP-BTC	19,242	19,245	2.70		



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (*) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl	Install Date 8/20/2016				
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 745ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Suck Up (ftKB) -35.4	Set Tension (kips)					
Centralizers 7			Scratchers							
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1		Wellbore Original Hole		Run Date 9/4/2016		Set Depth (MD) (ftKB) 4,590		Suck Up (ftKB) -35.4		Set Tension (kips)	
Centralizers 31						Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37	
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41	
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503	
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505	
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588	
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590	

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 10/17/2016	Set Depth (MD) (ftKB) 19,245	Suck Up (ftKB) -34.7	Set Tension (kips)					
Centralizers 158			Scratchers							
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Surface Casing Cement, Casing, 8/20/2016 09:30

Cementing Start Date 8/20/2016	Cementing End Date 8/20/2016	Wellbore Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 85 bbls of cement to surface.	
Comment		

1, 32.6-745.0ftKB

Top Depth (ftKB) 32.6	Bottom Depth (ftKB) 745.0	Full Return? N	Vol Cement Ret (bbl) 85.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 4.8	Final Pump Rate (bbl/min) 2.3	Avg Pump Rate (bbl/min) 4.8		Final Pump Pressure (psi) 260.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? N	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	

Preflush

Fluid Type Preflush	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 40.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.40	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (sacks) 844	Class C	Volume Pumped (bbl) 200.0
Estimated Top (ftKB) 35.4	Estimated Bottom Depth (ftKB) 750.0	Percent Excess Pumped (%) 125.0	Yield (ft ³ /sack) 1.33	Fluid Mix Ratio (gal/sack) 6.36
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 4.13	1st Compressive Strength (psi) 93.0

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type Displacement	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 108.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 10.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl	Install Date 8/20/2016			
Des	Make	Model	WP (psi)	Service SN

Surface, Planned?-N, 745ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Slick Up (ftKB) -35.4	Set Tension (kips)					
Centralizers 7			Scratchers							
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1		Wellbore Original Hole		Run Date 9/4/2016		Set Depth (MD) (ftKB) 4,590		Slick Up (ftKB) -35.4		Set Tension (kips)	
Centralizers 31						Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37	
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41	
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503	
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505	
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588	
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590	

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 10/17/2016	Set Depth (MD) (ftKB) 19,245	Slick Up (ftKB) -34.7	Set Tension (kips)					
Centralizers 158			Scratchers							
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Botm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Intermediate Casing Cement, Casing, 9/4/2016 15:12

Cementing Start Date 9/4/2016	Cementing End Date 9/4/2016	Wellbore Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 197 bbls of cement to surface	
Comment		

1, 32.6-4,590.0ftKB

Top Depth (ftKB) 32.6	Bottom Depth (ftKB) 4,590.0	Full Return? Y	Vol Cement Ret (bbl) 197.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 6.6	Final Pump Rate (bbl/min) 3	Avg Pump Rate (bbl/min) 6.6		Final Pump Pressure (psi) 1,175.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? N	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	

Spacer

Fluid Type Spacer	Fluid Description 40 bbl dyed spacer	Quantity (sacks)	Class	Volume Pumped (bbl) 40.0	
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	
Free Water (%)	Density (lb/gal) 8.33	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)	

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description 3% BWOB D020 + 5% BWOB D044 + 0.2% BWOB D046 + 10% BWOB D154	Quantity (sacks) 1,062	Class C	Volume Pumped (bbl) 456.0	
Estimated Top (ftKB) 35.4	Estimated Bottom Depth (ftKB) 3,600.0	Percent Excess Pumped (%) 150.0	Yield (ft ³ /sack) 2.41	Fluid Mix Ratio (gal/sack) 13.86	
Free Water (%)	Density (lb/gal) 11.90	Zero Gel Time (min)	Thickening Time (hr) 7.00	1st Compressive Strength (psi)	

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description 0.01 gal/sk D177 Spike	Quantity (sacks) 447	Class C	Volume Pumped (bbl) 106.0	
Estimated Top (ftKB) 3,600.0	Estimated Bottom Depth (ftKB) 4,590.0	Percent Excess Pumped (%) 85.0	Yield (ft ³ /sack) 1.33	Fluid Mix Ratio (gal/sack) 6.37	
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 3.50	1st Compressive Strength (psi)	

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type Displacement	Fluid Description Oil Based Mud	Quantity (sacks)	Class	Volume Pumped (bbl) 334.0	
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)	
Free Water (%)	Density (lb/gal) 9.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)	



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Cement Fluid Additives

Add	Type	Conc
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Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl	Install Date 8/20/2016				
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 745ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 7			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 9/4/2016	Set Depth (MD) (ftKB) 4,590	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 31			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 10/17/2016	Set Depth (MD) (ftKB) 19,245	Stick Up (ftKB) -34.7	Set Tension (kips)
Centralizers 158			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	WI (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Production Casing Cement, Casing, 10/17/2016 18:35

Cementing Start Date 10/17/2016	Cementing End Date 10/17/2016	Wellbore Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 40 bbls of spacer to surface	
Comment		

1, 3,550.0-19,245.0ftKB

Top Depth (ftKB) 3,550.0	Bottom Depth (ftKB) 19,245.0	Full Return? N	Vol Cement Ret (bbl) 0.0	Top Plug? Y	Bottom Plug? Y
Initial Pump Rate (bbl/min) 6.7	Final Pump Rate (bbl/min) 3.5	Avg Pump Rate (bbl/min) 6.7	Final Pump Pressure (psi) 1,450.0	Plug Bump Pressure (psi) 1,450.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description	Quantity (sacks) 50.0	Class H	Volume Pumped (bbl) 50.0
Estimated Top (ftKB) 3,473.0	Estimated Bottom Depth (ftKB) 3,495.0	Percent Excess Pumped (%) 50.0	Yield (ft ³ /sack) 2.72	Fluid Mix Ratio (gal/sack) 15.89
Free Water (%) 0.00	Density (lb/gal) 11.50	Zero Gel Time (min) 5.18	Thickening Time (hr) 3.45	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description	Quantity (sacks) 623	Class H	Volume Pumped (bbl) 303.0
Estimated Top (ftKB) 3,495.0	Estimated Bottom Depth (ftKB) 8,295.0	Percent Excess Pumped (%) 50.0	Yield (ft ³ /sack) 2.72	Fluid Mix Ratio (gal/sack) 15.89
Free Water (%) 0.00	Density (lb/gal) 11.50	Zero Gel Time (min) 5.18	Thickening Time (hr) 3.45	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description	Quantity (sacks) 2,121	Class H	Volume Pumped (bbl) 604.0
Estimated Top (ftKB) 8,295.0	Estimated Bottom Depth (ftKB) 18,245.0	Percent Excess Pumped (%) 35.0	Yield (ft ³ /sack) 1.62	Fluid Mix Ratio (gal/sack) 8.48
Free Water (%) 0.00	Density (lb/gal) 12.50	Zero Gel Time (min) 5.18	Thickening Time (hr) 3.45	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (sacks) 121	Class H	Volume Pumped (bbl) 47.0
Estimated Top (ftKB) 18,245.0	Estimated Bottom Depth (ftKB) 19,245.0	Percent Excess Pumped (%) 0.0	Yield (ft ³ /sack) 2.18	Fluid Mix Ratio (gal/sack) 9.56
Free Water (%) 0.00	Density (lb/gal) 15.00	Zero Gel Time (min) 3.45	Thickening Time (hr) 3.45	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Displacement

Fluid Type Displacement	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 425.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.33	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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