(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

HOBBS OCD

DEC 0 2 2016

RECEIVED

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. NMNM118723
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No. SD WE 23 FED P7 3H
2. Name of Operator CHEVRON USA INC Contact: DENISE PINKERTON E-Mail: leakejd@chevron.com	9. API Well No. 30-025-43088-00-X1
3a. Address 1616 W. BENDER BLVD HOBBS, NM 88240 3b. Phone No. (include area code) Ph: 432-687-7375	10. Field and Pool, or Exploratory JENNINGS
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 14 T26S R32E SESE 215FSL 673FEL	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 recomplete 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 recompletion 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.)

04/17/2016: SPUD WELL. DRILL SURFACE HOLE FR 112-380, 702, 832.

04/18/2016: RUN 13 3/8",54.5#,J-55,STC CSG SET @ 822'. FC @ 782'. PRESS TEST 3O 3000PSI. PUMP 40 BBLS SPACER @ 8.3PPG. MIX & PMP 960 SX CMT @ 14.8PPG. DISPL CMT W/120 BBLS 8.3PPG FW. BUMP PLUG W/529 PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 341 PSI @ 2.1BPM. 97 BBLS CMT TO SURF. CMT IN PLACE @ 10:30.

05/16/2016: TEST BOPE TO 250PSI/5000PSI. PRESS TEST SURF CSG TO 1500 PSI FOR 30 MINS. GOOD. DRILL 10' NEW FORMATION TO 842'. DRILL INTERMEDIATE HOLE 842-1056,1982, 2772, 3325, 4047, 4578'.

05/18/2016: RUN 9 5/8",40#,HCK-55 LTC CSG & SET @ 4568'. FC @ 4482. PRESS TEST LINES TO 1000PSI LOW/2500PSI HIGH. PMP 35 BBLS DYED FW SPACER. MIX & PUMP 1025 SX LEAD @ 11.9PPG, & 450 SX TAIL @

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

Electronic Submission #353459 verified by the BLM Well Information System
For CHEVRON USA INC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 10/04/2016 (17PP0005SE)

Name *(Printed/Typed)* DENISE PINKERTON — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 10/04/2016

ACCEPTED FOR RECORD
NOV 4 2016
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

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

Additional data for EC transaction #353459 that would not fit on the form

32. Additional remarks, continued

14.8PPG. BUMP PLUG W/510PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 1300PSI @ 3.3BPM. 497 SX CMT RETURNED TO SURF.CMT IN PLACE @ 01:15 HRS. WOC. PRESS TEST INTERMEDIATE CSG TO 2800PSI FOR 30 MINS. DRILL 10' NEW FORMATION TO 4588'.

05/19/2016: DRILL 4588-5018, 5897, 6910, 7850, 8510, 8540, 8781, 9027, 9330, 9456, 9662, 10164, 10535, 10978, 11421, 11840, 11895, 12331, 12840, 13637, 14043. (***TD REACHED ON 05/25/2016)

05/26/2016: RAN 5 1/2",20#,HCP-110 TXP BTC PRODUCTION CSG SET @ 14,027'. LC @ 13940, RSI TOOL @ 13880, MRKR JT @ 8522. PRESS TEST 500PSI/6500PSI. CMT W/630 SX CL H LEAD 1, 980 SX CL H LEAD 2, & 120 SX CL H TAIL.BUMP PLUG @ 2115PSI. FULL RETURNS THROUGHOUT JOB. CMT IN PLACE @ 16:47.

RELEASE RIG.

Phoenix Technology Services
SURVEY DATA CERTIFICATION

PHOENIX TECHNOLOGY SERVICES

PHOENIX JOB NUMBER	60047	OPERATOR	Chevron
WELL NAME	SD WE 23 Fed P7 3H	COUNTY & STATE	Lea County, NM

API WELL NUMBER	30-025-43088	PROPOSED DIRECTION	183.13

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
807.00 ft	806.97 ft	0.7°	268.0°	1.91 N	2.16 E	Teledrift

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
16-May	948 ft	1.1°	281.6°

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
21-May-16	8,483 ft	1	189.7

TO THE BEST OF MY KNOWLEDGE I CERTIFY THIS SURVEY DATA TO BE TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
21-May-16	8,540 ft	1	189.7

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.60
DECLINATION OR GRID	GRID

05/21/16

TODAY'S DATE

MWD SUPERVISOR 1	Robert Brewer	DIRECTIONAL DRILLER 1	Casey Tubbe
MWD SUPERVISOR 2	Lance Mosby	DIRECTIONAL DRILLER 2	Monte Gordon

12329 Cutten Rd., Houston, Texas 77066 (713)337-0600 (Voice), (713)337-0599 (Fax)

Chevron

Chevron

Lea County, NM (NAD27 NME)
SD WE 23 Fed
P7 3H

OH / Job 60047

Survey: Phoenix MWD Surveys

Standard Survey Report

23 May, 2016

PHOENIX
TECHNOLOGY SERVICES

Phoenix Technology Services

Survey Report

Company:	Chevron	**Local Co-ordinate Reference:**	Well P7 3H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	RKB @ 3198.00usft (Pace X30)
Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3198.00usft (Pace X30)
Well:	P7 3H	**North Reference:**	Grid
Wellbore:	OH / Job 60047	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Pace X30)	**Database:**	Compass 5000 GCR

Project Lea County, NM (NAD27 NME)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site SD WE 23 Fed

Site Position:		**Northing:**	377,312.00 usft	**Latitude:**	32° 2' 7.84590 N
From:	Map	**Easting:**	711,242.00 usft	**Longitude:**	103° 39' 5.90418 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.36 °

Well P7 3H

Well Position	**+N/-S**	0.00 usft	**Northing:**	377,548.00 usft	**Latitude:**	32° 2' 9.92876 N
	+E/-W	0.00 usft	**Easting:**	715,248.00 usft	**Longitude:**	103° 38' 19.34990 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,165.00 usft

Wellbore OH / Job 60047

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	4/18/2016	6.97	59.75	48,036

Design Surveys (Pace X30)

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	183.13

Survey Program **Date** 5/23/2016

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
165.00	807.00	Teledrift MWD Surveys (OH / Job 60047)	MWD	MWD - Standard
948.00	8,540.00	Phoenix MWD Surveys (OH / Job 60047)	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

Survey

Measured Depth (usft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Vertical Section (usft)**	**Dogleg Rate (°/100usft)**	**Build Rate (°/100usft)**	**Turn Rate (°/100usft)**
807.00	0.70	268.00	806.97	1.91	2.16	-2.03	0.00	0.00	0.00
Tie-In									
948.00	1.10	281.60	947.95	2.15	-0.03	-2.15	0.32	0.28	9.65
First Phoenix MWD Survey									
1,125.00	1.00	255.10	1,124.92	2.10	-3.18	-1.92	0.28	-0.06	-14.97
1,302.00	1.10	254.20	1,301.89	1.24	-6.31	-0.89	0.06	0.06	-0.51
1,480.00	1.30	250.50	1,479.85	0.10	-9.86	0.44	0.12	0.11	-2.08
1,657.00	1.70	258.10	1,656.79	-1.11	-14.32	1.89	0.25	0.23	4.29
1,834.00	5.40	242.50	1,833.43	-5.50	-24.28	6.82	2.14	2.09	-8.81

Company:	Chevron	**Local Co-ordinate Reference:**	Well P7 3H
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Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3198.00usft (Pace X30)
Well:	P7 3H	**North Reference:**	Grid
Wellbore:	OH / Job 60047	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Pace X30)	**Database:**	Compass 5000 GCR

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,013.00	6.40	243.10	2,011.47	-13.91	-40.65	16.10	0.56	0.56	0.34
2,191.00	7.50	242.10	2,188.16	-23.83	-59.76	27.06	0.62	0.62	-0.56
2,369.00	6.30	231.20	2,364.88	-35.39	-77.64	39.57	1.00	-0.67	-6.12
2,546.00	4.90	232.40	2,541.03	-46.08	-91.20	51.00	0.79	-0.79	0.68
2,723.00	5.50	257.40	2,717.32	-52.55	-105.47	58.23	1.31	0.34	14.12
2,900.00	5.90	258.20	2,893.45	-56.26	-122.65	62.87	0.23	0.23	0.45
3,078.00	5.80	243.00	3,070.53	-62.21	-139.62	69.74	0.87	-0.06	-8.54
3,256.00	5.60	236.80	3,247.65	-71.05	-154.90	79.40	0.36	-0.11	-3.48
3,433.00	5.00	248.70	3,423.90	-78.58	-169.32	87.71	0.71	-0.34	6.72
3,611.00	5.40	251.10	3,601.17	-84.11	-184.47	94.06	0.26	0.22	1.35
3,789.00	5.40	249.90	3,778.38	-89.71	-200.26	100.51	0.06	0.00	-0.67
3,966.00	5.00	246.30	3,954.65	-95.67	-215.14	107.27	0.29	-0.23	-2.03
4,143.00	5.40	246.00	4,130.92	-102.16	-229.81	114.55	0.23	0.23	-0.17
4,321.00	5.50	236.50	4,308.12	-110.27	-244.58	123.46	0.51	0.06	-5.34
4,498.00	5.40	242.80	4,484.32	-118.76	-259.06	132.73	0.34	-0.06	3.56
4,519.00	5.80	245.10	4,505.22	-119.66	-260.90	133.72	2.18	1.90	10.95
4,599.00	5.60	244.90	4,584.83	-123.02	-268.10	137.47	0.25	-0.25	-0.25
4,776.00	5.50	244.30	4,761.00	-130.36	-283.57	145.65	0.07	-0.06	-0.34
4,954.00	4.30	253.60	4,938.35	-135.94	-297.66	151.99	0.81	-0.67	5.22
5,132.00	1.80	258.50	5,116.08	-138.38	-306.80	154.93	1.41	-1.40	2.75
5,309.00	0.50	80.30	5,293.06	-138.81	-308.76	155.46	1.30	-0.73	-100.68
5,486.00	0.40	71.30	5,470.05	-138.48	-307.41	155.06	0.07	-0.06	-5.08
5,662.00	1.10	212.10	5,646.04	-139.71	-307.73	156.31	0.81	0.40	80.00
5,840.00	1.30	220.00	5,824.00	-142.71	-309.94	159.42	0.15	0.11	4.44
6,017.00	1.30	223.90	6,000.96	-145.69	-312.62	162.54	0.05	0.00	2.20
6,194.00	1.40	214.60	6,177.91	-148.92	-315.24	165.91	0.14	0.06	-5.25
6,372.00	1.30	220.40	6,355.86	-152.25	-317.78	169.37	0.10	-0.06	3.26
6,549.00	1.70	289.10	6,532.81	-152.92	-321.56	170.25	0.97	0.23	38.81
6,727.00	2.50	332.60	6,710.70	-148.61	-325.85	166.17	0.97	0.45	24.44
6,904.00	0.90	11.50	6,887.62	-143.82	-327.35	161.47	1.07	-0.90	21.98
7,082.00	0.70	349.10	7,065.60	-141.38	-327.27	159.04	0.21	-0.11	-12.58
7,260.00	1.10	63.30	7,243.59	-139.54	-325.95	157.13	0.64	0.22	41.69
7,437.00	1.00	42.90	7,420.56	-137.65	-323.38	155.10	0.22	-0.06	-11.53
7,614.00	1.10	49.20	7,597.53	-135.41	-321.05	152.73	0.09	0.06	3.56
7,792.00	1.10	76.20	7,775.50	-133.94	-318.08	151.11	0.31	0.00	16.29
7,970.00	0.70	103.40	7,953.47	-133.84	-315.35	150.86	0.31	-0.22	14.16
8,148.00	0.70	138.40	8,131.46	-134.91	-313.57	151.83	0.24	0.00	19.66
8,326.00	1.10	159.40	8,309.44	-137.32	-312.25	154.16	0.29	0.22	11.80
8,483.00	1.00	189.70	8,466.42	-140.08	-311.95	156.90	0.35	-0.06	19.30
Final Phoenix MWD Survey									
8,540.00	1.00	189.70	8,523.41	-141.06	-312.11	157.89	0.00	0.00	0.00
Projection to TD									

Company:	Chevron	**Local Co-ordinate Reference:**	Well P7 3H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	RKB @ 3198.00usft (Pace X30)
Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3198.00usft (Pace X30)
Well:	P7 3H	**North Reference:**	Grid
Wellbore:	OH / Job 60047	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Pace X30)	**Database:**	Compass 5000 GCR

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
807.00	806.97	1.91	2.16	Tie-in
948.00	947.95	2.15	-0.03	First Phoenix MWD Survey
8,483.00	8,466.42	-140.08	-311.95	Final Phoenix MWD Survey
8,540.00	8,523.41	-141.06	-312.11	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Wellbore Name	Parent Wellbore	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Original Hole	8,540.0	183.10

Northing (Y) (ft)	Easting (X) (ft)	UTM Grid Zone

Date	Definitive?	Description	Planned?
5/16/2016	N	MWD	N

MD Tie In (ftKB)	TVDTie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (ft)	EWTie In (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)	Unused data
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Magn MWD	Rig	0.00	0.00	0.00	N
165	0.70	62.00	165.00	0.47	0.89	-0.52	0.42	Magn MWD	Rig	0.42	1.01	37.58	N
256	0.90	56.00	255.99	1.13	1.97	-1.24	0.24	Magn MWD	Rig	0.22	2.28	-6.59	N
343	0.50	47.00	342.98	1.77	2.82	-1.92	0.48	Magn MWD	Rig	-0.46	3.33	-10.34	N
532	0.20	142.00	531.98	2.08	3.62	-2.27	0.29	Magn MWD	Rig	-0.16	4.18	50.26	N
625	0.10	143.00	624.98	1.88	3.77	-2.09	0.11	Magn MWD	Rig	-0.11	4.22	1.08	N
717	0.70	276.00	716.98	1.88	3.26	-2.05	0.84	Magn MWD	Rig	0.65	3.76	144.57	N
807	0.70	268.00	806.97	1.92	2.17	-2.03	0.11	Magn MWD	Phoenix Directional	0.00	2.89	-8.89	N
948	1.10	281.60	947.95	2.16	-0.02	-2.16	0.32	Magn MWD	Phoenix Directional	0.28	2.16	9.65	N
1,125	1.00	255.10	1,124.92	2.10	-3.18	-1.93	0.28	Magn MWD	Phoenix Directional	-0.06	3.81	-14.97	N
1,302	1.10	254.20	1,301.89	1.24	-6.31	-0.90	0.06	Magn MWD	Phoenix Directional	0.06	6.43	-0.51	N
1,480	1.30	250.50	1,479.85	0.11	-9.85	0.43	0.12	Magn MWD	Phoenix Directional	0.11	9.85	-2.08	N
1,657	1.70	258.10	1,656.79	-1.11	-14.31	1.88	0.25	Magn MWD	Phoenix Directional	0.23	14.36	4.29	N
1,834	5.40	242.50	1,833.43	-5.50	-24.27	6.80	2.14	Magn MWD	Phoenix Directional	2.09	24.89	-8.81	N
2,013	6.40	243.10	2,011.47	-13.90	-40.64	16.08	0.56	Magn MWD	Phoenix Directional	0.56	42.95	0.34	N
2,191	7.50	242.10	2,188.16	-23.82	-59.76	27.02	0.62	Magn MWD	Phoenix Directional	0.62	64.33	-0.56	N
2,369	6.30	231.20	2,364.88	-35.38	-77.64	39.53	1.00	Magn MWD	Phoenix Directional	-0.67	85.32	-6.12	N
2,546	4.90	232.40	2,541.03	-46.08	-91.20	50.94	0.79	Magn MWD	Phoenix Directional	-0.79	102.17	0.68	N
2,723	5.50	257.40	2,717.32	-52.54	-105.46	58.17	1.31	Magn MWD	Phoenix Directional	0.34	117.83	14.12	N
2,900	5.90	258.20	2,893.45	-56.25	-122.65	62.80	0.23	Magn MWD	Phoenix Directional	0.23	134.93	0.45	N
3,078	5.80	243.00	3,070.53	-62.21	-139.62	69.67	0.87	Magn MWD	Phoenix Directional	-0.06	152.85	-8.54	N
3,256	5.60	236.80	3,247.65	-71.05	-154.90	79.32	0.36	Magn MWD	Phoenix Directional	-0.11	170.41	-3.48	N
3,433	5.00	248.70	3,423.90	-78.58	-169.31	87.62	0.71	Magn MWD	Phoenix Directional	-0.34	186.66	6.72	N
3,611	5.40	251.10	3,601.17	-84.11	-184.46	93.96	0.26	Magn MWD	Phoenix Directional	0.22	202.73	1.35	N
3,789	5.40	249.90	3,778.38	-89.70	-200.25	100.40	0.06	Magn MWD	Phoenix Directional	0.00	219.42	-0.67	N
3,966	5.00	246.30	3,954.65	-95.66	-215.14	107.16	0.29	Magn MWD	Phoenix Directional	-0.23	235.45	-2.03	N
4,143	5.40	246.00	4,130.92	-102.15	-229.81	114.43	0.23	Magn MWD	Phoenix Directional	0.23	251.49	-0.17	N

Report Printed: 10/4/2016

Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

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)	Unused data
4,321	5.50	236.50	4,308.12	-110.26	-244.57	123.33	0.51	Magn MWD	Phoenix Directional	0.06	268.28	-5.34	N
4,498	5.40	242.80	4,484.32	-118.75	-259.05	132.59	0.34	Magn MWD	Phoenix Directional	-0.06	284.98	3.56	N
4,519	5.80	245.10	4,505.22	-119.65	-260.90	133.58	2.18	Magn MWD	Phoenix Directional	1.90	287.02	10.95	N
4,599	5.60	244.90	4,584.83	-123.01	-268.10	137.33	0.25	Magn MWD	Phoenix Directional	-0.25	294.97	-0.25	N
4,776	5.50	244.30	4,761.00	-130.35	-283.56	145.49	0.07	Magn MWD	Phoenix Directional	-0.06	312.09	-0.34	N
4,954	4.30	253.60	4,938.35	-135.93	-297.65	151.83	0.81	Magn MWD	Phoenix Directional	-0.67	327.22	5.22	N
5,132	1.80	258.50	5,116.08	-138.38	-306.79	154.76	1.41	Magn MWD	Phoenix Directional	-1.40	336.55	2.75	N
5,309	0.50	80.30	5,293.06	-138.80	-308.76	155.29	1.30	Magn MWD	Phoenix Directional	-0.73	338.52	-100.68	N
5,486	0.40	71.30	5,470.05	-138.47	-307.41	154.89	0.07	Magn MWD	Phoenix Directional	-0.06	337.16	-5.08	N
5,662	1.10	212.10	5,646.04	-139.71	-307.72	156.14	0.81	Magn MWD	Phoenix Directional	0.40	337.95	80.00	N
5,840	1.30	220.00	5,824.00	-142.70	-309.93	159.25	0.15	Magn MWD	Phoenix Directional	0.11	341.20	4.44	N
6,017	1.30	223.90	6,000.96	-145.69	-312.61	162.38	0.05	Magn MWD	Phoenix Directional	0.00	344.89	2.20	N
6,194	1.40	214.60	6,177.91	-148.91	-315.23	165.74	0.14	Magn MWD	Phoenix Directional	0.06	348.64	-5.25	N
6,372	1.30	220.40	6,355.86	-152.24	-317.78	169.20	0.10	Magn MWD	Phoenix Directional	-0.06	352.36	3.26	N
6,549	1.70	289.10	6,532.81	-152.91	-321.56	170.07	0.97	Magn MWD	Phoenix Directional	0.23	356.06	38.81	N
6,727	2.50	332.60	6,710.70	-148.60	-325.84	166.00	0.97	Magn MWD	Phoenix Directional	0.45	358.13	24.44	N
6,904	0.90	11.50	6,887.62	-143.81	-327.34	161.30	1.07	Magn MWD	Phoenix Directional	-0.90	357.54	-181.41	N
7,082	0.70	349.10	7,065.60	-141.37	-327.27	158.86	0.21	Magn MWD	Phoenix Directional	-0.11	356.50	189.66	N
7,260	1.10	63.30	7,243.59	-139.54	-325.95	156.96	0.64	Magn MWD	Phoenix Directional	0.22	354.56	-160.56	N
7,437	1.00	42.90	7,420.56	-137.64	-323.38	154.93	0.22	Magn MWD	Phoenix Directional	-0.06	351.45	-11.53	N
7,614	1.10	49.20	7,597.53	-135.40	-321.04	152.56	0.09	Magn MWD	Phoenix Directional	0.06	348.42	3.56	N
7,792	1.10	78.20	7,775.50	-133.93	-318.07	150.94	0.31	Magn MWD	Phoenix Directional	0.00	345.12	16.29	N
7,970	0.70	103.40	7,953.47	-133.84	-315.34	150.69	0.31	Magn MWD	Phoenix Directional	-0.22	342.57	14.16	N
8,148	0.70	138.40	8,131.46	-134.90	-313.56	151.66	0.24	Magn MWD	Phoenix Directional	0.00	341.35	19.66	N
8,326	1.10	159.40	8,309.44	-137.31	-312.24	154.00	0.29	Magn MWD	Phoenix Directional	0.22	341.10	11.80	N
8,483	1.00	189.70	8,466.41	-140.07	-311.94	156.74	0.35	Magn MWD	Phoenix Directional	-0.06	341.95	19.30	N
8,557	2.67	182.59	8,540.37	-142.43	-312.13	159.10	2.27	Magn MWD	Baker Hughes	2.26	343.09	-9.61	N
8,602	10.86	182.22	8,585.02	-147.72	-312.34	164.40	18.20	Magn MWD	Baker Hughes	18.20	345.51	-0.82	N
8,646	17.56	181.17	8,627.65	-158.52	-312.64	175.19	15.24	Magn MWD	Baker Hughes	15.23	350.53	-2.39	N
8,735	29.26	178.57	8,709.19	-193.81	-312.37	210.41	13.19	Magn MWD	Baker Hughes	13.15	367.61	-2.92	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

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3,165.00	3,197.60	3,197.60, 3/28/2016		

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)	Unused data
8,824	37.66	178.56	8,783.37	-242.82	-311.14	259.29	9.44	Magn MWD	Baker Hughes	9.44	394.67	-0.01	N
8,913	46.79	180.17	8,849.21	-302.56	-310.55	318.91	10.33	Magn MWD	Baker Hughes	10.26	433.57	1.81	N
9,002	56.18	181.04	8,904.57	-372.11	-311.32	388.40	10.58	Magn MWD	Baker Hughes	10.55	485.17	0.98	N
9,090	64.87	181.32	8,947.83	-448.63	-312.90	464.90	9.88	Magn MWD	Baker Hughes	9.88	546.97	0.32	N
9,180	72.18	182.30	8,980.75	-532.28	-315.57	548.57	8.19	Magn MWD	Baker Hughes	8.12	618.80	1.09	N
9,268	78.53	181.90	9,002.99	-617.32	-318.68	633.66	7.23	Magn MWD	Baker Hughes	7.22	694.73	-0.45	N
9,357	85.99	181.95	9,014.97	-705.40	-321.64	721.76	8.38	Magn MWD	Baker Hughes	8.38	775.27	0.06	N
9,446	87.97	180.24	9,019.66	-794.25	-323.34	810.58	2.94	Magn MWD	Baker Hughes	2.22	857.55	-1.92	N
9,534	88.00	178.52	9,022.75	-882.19	-322.39	898.33	1.95	Magn MWD	Baker Hughes	0.03	939.25	-1.95	N
9,623	88.83	177.98	9,025.21	-971.11	-319.67	986.98	1.11	Magn MWD	Baker Hughes	0.93	1,022.38	-0.61	N
9,712	88.83	176.34	9,027.03	-1,059.98	-315.26	1,075.48	1.84	Magn MWD	Baker Hughes	0.00	1,105.87	-1.84	N
9,801	90.00	178.06	9,027.94	-1,148.87	-310.91	1,164.00	2.34	Magn MWD	Baker Hughes	1.31	1,190.20	1.93	N
9,889	89.91	177.67	9,028.01	-1,236.81	-307.63	1,251.63	0.45	Magn MWD	Baker Hughes	-0.10	1,274.49	-0.44	N
9,978	89.75	176.92	9,028.27	-1,325.71	-303.43	1,340.18	0.86	Magn MWD	Baker Hughes	-0.18	1,359.99	-0.84	N
10,067	89.91	180.21	9,028.54	-1,414.67	-301.21	1,428.88	3.70	Magn MWD	Baker Hughes	0.18	1,446.38	3.70	N
10,156	90.43	179.44	9,028.27	-1,503.66	-300.93	1,517.74	1.04	Magn MWD	Baker Hughes	0.58	1,533.48	-0.87	N
10,244	90.25	177.34	9,027.75	-1,591.62	-298.46	1,605.43	2.40	Magn MWD	Baker Hughes	-0.20	1,619.37	-2.39	N
10,333	90.52	176.86	9,027.15	-1,680.51	-293.96	1,693.94	0.62	Magn MWD	Baker Hughes	0.30	1,706.02	-0.54	N
10,422	90.62	175.92	9,026.27	-1,769.32	-288.36	1,782.33	1.06	Magn MWD	Baker Hughes	0.11	1,792.67	-1.06	N
10,510	90.55	179.88	9,025.37	-1,857.24	-285.13	1,869.95	4.50	Magn MWD	Baker Hughes	-0.08	1,879.00	4.50	N
10,599	90.65	184.61	9,024.44	-1,946.15	-288.62	1,958.91	5.32	Magn MWD	Baker Hughes	0.11	1,967.43	5.31	N
10,688	90.74	184.06	9,023.36	-2,034.88	-295.34	2,047.88	0.63	Magn MWD	Baker Hughes	0.10	2,056.21	-0.62	N
10,776	90.37	182.50	9,022.51	-2,122.73	-300.38	2,135.87	1.82	Magn MWD	Baker Hughes	-0.42	2,143.88	-1.77	N
10,865	90.59	180.86	9,021.76	-2,211.69	-302.99	2,224.84	1.86	Magn MWD	Baker Hughes	0.25	2,232.35	-1.84	N
10,953	90.71	182.23	9,020.76	-2,299.65	-305.36	2,312.80	1.56	Magn MWD	Baker Hughes	0.14	2,319.83	1.56	N
11,042	90.65	182.29	9,019.71	-2,388.57	-308.87	2,401.78	0.10	Magn MWD	Baker Hughes	-0.07	2,408.46	0.07	N
11,131	90.28	181.22	9,018.98	-2,477.53	-311.59	2,490.75	1.27	Magn MWD	Baker Hughes	-0.42	2,497.04	-1.20	N
11,219	90.25	179.58	9,018.58	-2,565.52	-312.21	2,578.65	1.86	Magn MWD	Baker Hughes	-0.03	2,584.45	-1.86	N
11,308	89.05	179.39	9,019.12	-2,654.51	-311.41	2,667.47	1.37	Magn MWD	Baker Hughes	-1.35	2,672.72	-0.21	N
11,396	88.74	179.11	9,020.82	-2,742.49	-310.26	2,755.25	0.47	Magn MWD	Baker Hughes	-0.35	2,759.98	-0.32	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

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3,165.00	3,197.60	3,197.60, 3/28/2016		

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)	Unused data
11,485	89.51	176.69	9,022.18	-2,831.41	-307.00	2,843.87	2.85	Magn MWD	Baker Hughes	0.87	2,848.01	-2.72	N
11,574	90.09	175.34	9,022.49	-2,920.19	-300.81	2,932.19	1.65	Magn MWD	Baker Hughes	0.65	2,935.65	-1.52	N
11,662	89.88	176.18	9,022.51	-3,007.95	-294.31	3,019.47	0.98	Magn MWD	Baker Hughes	-0.24	3,022.32	0.95	N
11,751	89.88	174.51	9,022.70	-3,096.66	-287.08	3,107.65	1.88	Magn MWD	Baker Hughes	0.00	3,109.93	-1.88	N
11,840	90.25	177.76	9,022.59	-3,185.44	-281.08	3,195.98	3.68	Magn MWD	Baker Hughes	0.42	3,197.82	3.65	N
11,928	90.28	179.12	9,022.19	-3,273.41	-278.69	3,283.69	1.55	Magn MWD	Baker Hughes	0.03	3,285.25	1.55	N
12,017	90.52	180.64	9,021.57	-3,362.40	-278.50	3,372.54	1.73	Magn MWD	Baker Hughes	0.27	3,373.91	1.71	N
12,105	90.25	180.00	9,020.98	-3,450.40	-278.99	3,460.43	0.79	Magn MWD	Baker Hughes	-0.31	3,461.66	-0.73	N
12,194	90.43	181.09	9,020.45	-3,539.39	-279.84	3,549.34	1.24	Magn MWD	Baker Hughes	0.20	3,550.43	1.22	N
12,284	90.40	185.43	9,019.79	-3,629.22	-284.96	3,639.32	4.82	Magn MWD	Baker Hughes	-0.03	3,640.39	4.82	N
12,372	89.54	185.91	9,019.84	-3,716.79	-293.65	3,727.23	1.12	Magn MWD	Baker Hughes	-0.98	3,728.37	0.55	N
12,461	89.45	184.36	9,020.63	-3,805.42	-301.62	3,816.17	1.74	Magn MWD	Baker Hughes	-0.10	3,817.36	-1.74	N
12,549	89.45	182.20	9,021.47	-3,893.27	-306.65	3,904.16	2.45	Magn MWD	Baker Hughes	0.00	3,905.33	-2.45	N
12,638	90.18	179.50	9,021.76	-3,982.25	-307.97	3,993.08	3.14	Magn MWD	Baker Hughes	0.82	3,994.14	-3.03	N
12,726	90.37	178.87	9,021.34	-4,070.24	-306.72	4,080.87	0.75	Magn MWD	Baker Hughes	0.22	4,081.78	-0.72	N
12,815	90.22	179.24	9,020.88	-4,159.23	-305.25	4,169.65	0.45	Magn MWD	Baker Hughes	-0.17	4,170.41	0.42	N
12,904	90.40	177.54	9,020.40	-4,248.19	-302.75	4,258.34	1.92	Magn MWD	Baker Hughes	0.20	4,258.96	-1.91	N
12,992	90.37	178.85	9,019.80	-4,336.14	-299.98	4,346.02	1.49	Magn MWD	Baker Hughes	-0.03	4,346.51	1.49	N
13,081	90.40	179.93	9,019.21	-4,425.13	-299.03	4,434.83	1.21	Magn MWD	Baker Hughes	0.03	4,435.22	1.21	N
13,169	90.06	180.37	9,018.85	-4,513.13	-299.26	4,522.71	0.63	Magn MWD	Baker Hughes	-0.39	4,523.04	0.50	N
13,258	90.37	179.80	9,018.52	-4,602.13	-299.39	4,611.59	0.73	Magn MWD	Baker Hughes	0.35	4,611.86	-0.64	N
13,347	90.31	180.27	9,017.99	-4,691.13	-299.45	4,700.46	0.53	Magn MWD	Baker Hughes	-0.07	4,700.68	0.53	N
13,435	90.40	180.40	9,017.45	-4,779.13	-299.96	4,788.35	0.18	Magn MWD	Baker Hughes	0.10	4,788.53	0.15	N
13,524	89.94	180.76	9,017.18	-4,868.12	-300.86	4,877.27	0.66	Magn MWD	Baker Hughes	-0.52	4,877.41	0.40	N
13,612	89.94	180.09	9,017.27	-4,956.12	-301.52	4,965.17	0.76	Magn MWD	Baker Hughes	0.00	4,965.28	-0.76	N
13,701	89.91	177.39	9,017.39	-5,045.09	-299.56	5,053.90	3.03	Magn MWD	Baker Hughes	-0.03	5,053.97	-3.03	N
13,790	89.85	174.81	9,017.58	-5,133.87	-293.51	5,142.23	2.90	Magn MWD	Baker Hughes	-0.07	5,142.26	-2.90	N
13,878	90.28	175.55	9,017.48	-5,221.56	-286.11	5,229.39	0.97	Magn MWD	Baker Hughes	0.49	5,229.39	0.84	N
13,967	90.12	180.87	9,017.17	-5,310.49	-283.33	5,318.04	5.98	Magn MWD	Baker Hughes	-0.18	5,318.04	5.98	N
14,018	90.15	181.98	9,017.05	-5,361.47	-284.60	5,369.01	2.18	Magn MWD	Baker Hughes	0.06	5,369.02	2.18	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
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Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

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)	Unused date
14,043	90.15	181.98	9,016.98	-5,386.45	-285.47	5,394.01	0.00	Magn MWD	Baker Hughes	0.00	5,394.01	0.00	N

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Casing Summary

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

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3,165.00	3,197.60	3,197.60, 3/28/2016		

Conductor, Planned?-N, 113ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
113		20	18.187		

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	Casing Joint	20	18.375	169.00	K-55		33	113	80.00	3,380.0	2,500.0

Surface, Planned?-N, 822ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
822		13 3/8		9	

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	UH-2 Wellhead	13 3/8	12.615	54.50	J-55	ST&C	34	37	2.88		1,130.0
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	ST&C	37	41	4.01		1,130.0
18	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	41	782	741.62		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	782	784	1.50		
1	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	784	820	36.45		1,130.0
1	Casing Shoe	13 3/8	12.615	54.50	J-55	ST&C	820	822	1.80		

Intermediate Casing 1, Planned?-N, 4,568ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
4,568		9 5/8	8.688	28	

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	Casing Hanger	9 5/8	8.844	40.00	HCK-55	LT&C	36	36	0.63	3,950.0	4,230.0
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55	LT&C	36	40	4.08	3,950.0	4,230.0
106	Casing Joint	9 5/8	8.844	40.00	HCK-55	LT&C	40	4,482	4,441.35	3,950.0	4,230.0
1	Float Collar	9 5/8	8.844	40.00	HCK-55	LT&C	4,482	4,483	1.48	3,950.0	4,230.0
2	Casing Joint	9 5/8	8.844	40.00	HCK-55	LT&C	4,483	4,565	82.17	3,950.0	4,230.0
1	Float Shoe	9 5/8	8.844	40.00	HCK-55	LT&C	4,565	4,568	2.63	3,950.0	4,230.0

Production Casing, Planned?-N, 14,027ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
14,027		5 1/2		71	

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	4.781	20.00	HCP-110	TXP-BTC-S	33	35	1.19		
1	Hanger Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	35	39	4.28		
204	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	39	8,522	8,483.08		
1	Marker Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,522	8,527	5.46		
129	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,527	13,863	5,335.60		
1	RSI Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,863	13,873	9.88		
1	RSI	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,873	13,880	6.64		
1	RSI Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,880	13,889	9.83		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,889	13,930	40.67		
1	LC Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,930	13,940	9.91		
1	Landing Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,940	13,941	1.48		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,941	13,980	38.74		
1	Float Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,980	13,983	2.41		
1	Vibrator	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,983	13,985	2.23		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,985	14,024	39.46		
1	Float Shoe	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	14,024	14,027	2.67		

Report Printed: 10/4/2016

Cement Summary

Surface Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal	8,540.0	183.10

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.0	832.0
12 1/4	832.0	4,578.0
8 3/4	4,578.0	14,043.0

<typ>, <make> on <dttmstart>

Sub-Type	Install Date

Des	Make	Model	WP (psi)	Service	SN

Conductor, Planned?-N, 113ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Conductor	Original Hole	4/1/2016	113	-32.6	

Centralizers	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	Casing Joint	20	18.375	169.00	K-55			80.00	33	113

Surface, Planned?-N, 822ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	4/18/2016	822	-33.7	

Centralizers	Scratchers
9	

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	UH-2 Wellhead	13 3/8	12.615	54.50	J-55		ST&C	2.88	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.01	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	741.62	41	782
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	782	784
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	36.45	784	820
1	Casing Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	820	822

Intermediate Casing 1, Planned?-N, 4,568ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	5/18/2016	4,568	-35.7	

Centralizers	Scratchers
28	

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	Casing Hanger	9 5/8	8.844	40.00	HCK-55		LT&C	0.63	36	36
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4.08	36	40
106	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4,441.35	40	4,482
1	Float Collar	9 5/8	8.844	40.00	HCK-55		LT&C	1.48	4,482	4,483
2	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	82.17	4,483	4,565
1	Float Shoe	9 5/8	8.844	40.00	HCK-55		LT&C	2.63	4,565	4,568

Production Casing, Planned?-N, 14,027ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	5/27/2016	14,027	-33.5	

Centralizers	Scratchers
71	

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	4.781	20.00	HCP-110		TXP-BTC-S	1.19	33	35
1	Hanger Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.28	35	39
204	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,483.08	39	8,522
1	Marker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.46	8,522	8,527
129	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,335.60	8,527	13,863
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,863	13,873
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.64	13,873	13,880

Report Printed: 10/4/2016

Cement Summary

Surface Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

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	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.83	13,880	13,889
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.67	13,889	13,930
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.91	13,930	13,940
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.48	13,940	13,941
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.74	13,941	13,980
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.41	13,980	13,983
1	Vibrator	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.23	13,983	13,985
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	39.46	13,985	14,024
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.67	14,024	14,027

Surface Casing Cement, Casing, 4/18/2016 08:30

Cementing Start Date	Cementing End Date	Wellbore
4/18/2016	4/18/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	97 bbls cmt to surface

Comment

1, 32.6-832.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
32.6	832.0	Y	97.0	Y	N

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
5.6	2.2	5.6	341.0	870.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
N			N	

Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Spacer

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Spacer				40.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.33			

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Tail		960	C	227.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
32.6	832.0	125.0	1.33	6.37
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.80			

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Displacement				120.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Report Printed: 10/4/2016

Cement Summary

Intermediate Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal	8,540.0	183.10

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.0	832.0
12 1/4	832.0	4,578.0
8 3/4	4,578.0	14,043.0

<typ>, <make> on <dttmstart>

Sub Type	Install Date

Des	Make	Model	WP (psi)	Service	SN

Conductor, Planned?-N, 113ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Conductor	Original Hole	4/1/2016	113	-32.6	

Centralizers	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	Casing Joint	20	18.375	169.00	K-55			80.00	33	113

Surface, Planned?-N, 822ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	4/18/2016	822	-33.7	

Centralizers	Scratchers
9	

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	UH-2 Wellhead	13 3/8	12.615	54.50	J-55		ST&C	2.88	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.01	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	741.62	41	782
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	782	784
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	36.45	784	820
1	Casing Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	820	822

Intermediate Casing 1, Planned?-N, 4,568ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	5/18/2016	4,568	-35.7	

Centralizers	Scratchers
28	

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	Casing Hanger	9 5/8	8.844	40.00	HCK-55		LT&C	0.63	36	36
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4.08	36	40
106	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4,441.35	40	4,482
1	Float Collar	9 5/8	8.844	40.00	HCK-55		LT&C	1.48	4,482	4,483
2	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	82.17	4,483	4,565
1	Float Shoe	9 5/8	8.844	40.00	HCK-55		LT&C	2.68	4,565	4,568

Production Casing, Planned?-N, 14,027ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	5/27/2016	14,027	-33.5	

Centralizers	Scratchers
71	

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	4.781	20.00	HCP-110		TXP-BTC-S	1.19	33	35
1	Hanger Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.28	35	39
204	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,483.08	39	8,522
1	Marker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.46	8,522	8,527
129	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,335.60	8,527	13,863
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,863	13,873
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.64	13,873	13,880

Report Printed: 10/4/2016

Cement Summary

Intermediate Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

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	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.83	13,880	13,889
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.67	13,889	13,930
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.91	13,930	13,940
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.48	13,940	13,941
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.74	13,941	13,980
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.41	13,980	13,983
1	Vibrator	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.23	13,983	13,985
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	39.46	13,985	14,024
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.67	14,024	14,027

Intermediate Casing Cement, Casing, 5/18/2016 22:30

Cementing Start Date	Cementing End Date	Wellbore
5/18/2016	5/19/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	215 bbl /497 sx CMT to surface

Comment: Design lift pressure - 970 psi

1, 32.6-4,578.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
32.6	4,578.0	Y	215.0	Y	N

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6.5	3.3	6.5	1,300.0	1,810.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
N			N	

Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Spacer

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Spacer	Dyed Spacer			35.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
32.6	32.6			

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Lead	50:50 POZ/C	1,025	C	443.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
32.6	2,718.0	150.0	2.43	13.98

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.90			

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Tail	C-Neat	450	C	106.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
2,718.0	4,578.0	85.0	1.33	6.35

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.80			

Cement Fluid Additives

Add	Type	Conc

Cement Summary

Intermediate Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Displacement

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Displacement	Displacement			340.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Cement Fluid Additives

Add	Type	Conc

Report Printed: 10/4/2016

Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal	8,540.0	183.10

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.0	832.0
12 1/4	832.0	4,578.0
8 3/4	4,578.0	14,043.0

<typ>, <make> on <dttmstart>

Sub-Type	Install Date

Des	Make	Model	WP (psi)	Service	SN

Conductor, Planned?-N, 113ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Conductor	Original Hole	4/1/2016	113	-32.6	

Centralizers	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	Casing Joint	20	18.375	169.00	K-55			80.00	33	113

Surface, Planned?-N, 822ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	4/18/2016	822	-33.7	

Centralizers	Scratchers
9	

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	UH-2 Wellhead	13 3/8	12.615	54.50	J-55		ST&C	2.88	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.01	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	741.62	41	782
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	782	784
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	36.45	784	820
1	Casing Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	820	822

Intermediate Casing 1, Planned?-N, 4,568ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	5/18/2016	4,568	-35.7	

Centralizers	Scratchers
28	

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	Casing Hanger	9 5/8	8.844	40.00	HCK-55		LT&C	0.63	36	36
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4.08	36	40
106	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	4,441.35	40	4,482
1	Float Collar	9 5/8	8.844	40.00	HCK-55		LT&C	1.48	4,482	4,483
2	Casing Joint	9 5/8	8.844	40.00	HCK-55		LT&C	82.17	4,483	4,565
1	Float Shoe	9 5/8	8.844	40.00	HCK-55		LT&C	2.63	4,565	4,568

Production Casing, Planned?-N, 14,027ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	5/27/2016	14,027	-33.5	

Centralizers	Scratchers
71	

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	4.781	20.00	HCP-110		TXP-BTC-S	1.19	33	35
1	Hanger Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.28	35	39
204	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,483.08	39	8,522
1	Marker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.46	8,522	8,527
129	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,335.60	8,527	13,863
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,863	13,873
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.64	13,873	13,880

Report Printed: 10/4/2016

Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

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	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.83	13,880	13,889
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.67	13,889	13,930
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.91	13,930	13,940
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.48	13,940	13,941
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.74	13,941	13,980
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.41	13,980	13,983
1	Vibrator	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.23	13,983	13,985
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	39.46	13,985	14,024
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.67	14,024	14,027

Production Casing Cement, Casing, 5/27/2016 13:20

Cementing Start Date	Cementing End Date	Wellbore
5/27/2016	5/27/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Lift Pressure	

Comment: Design lift pressure - 2100 psi

1, 3,850.0-14,043.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
3,850.0	14,043.0	Y	0.0	Y	Y

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
5.5	4	5	1,919.0	2,115.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
N			N	

Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Spacer

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Spacer	MUDPUSH Express Spacer D047 - .2 gal/bbl B389 - .60 lb/bbl BW /V.Spacer D035 - 2801.3 lb/mgal			30.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
3,203.0	3,850.0			

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	10.00			

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Lead	50:50 Poz/H + .2% D046 + 6.5% D020 + 8% D154 + .2% D065 + 2lb/sk B288 + 2 lb/sk B289 +.03 GPS D017	630	H	301.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
3,850.0	8,545.0	50.0	2.69	15.77

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.50			

Cement Fluid Additives

Add	Type	Conc

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Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P7 003H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,165.00	3,197.60	3,197.60, 3/28/2016		

Lead

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Lead	TXI + 3% D020 + .2% D046 + .2% D065 + .4% D238 + .4% D013 + .06% D208 + .01 GPS D177	980	H	279.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
8,545.0	13,043.0	35.0	1.60	8.66

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.50			

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Tail	Class H + 2% D046 + .2% D065 + .4% D167 + .15% D800 + 75% D151 + .1% D208	120	H	46.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
13,043.0	14,043.0	0.0	2.18	9.55

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	15.00			

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Displacement	20 bbls Acetic Acid 289 bbls FW			309.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
				8.33

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.33			

Cement Fluid Additives

Add	Type	Conc

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