Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD Hobbs

HOBBS OCD
DEC 02 2016
RECEIVED

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.

5. Lease Serial No.
NMNM118723

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
SD WE 23 FEDERAL P5 002H

2. Name of Operator
CHEVRON U.S.A. INC.
Contact: DENISE PINKERTON
E-Mail: leakejd@chevron.com

9. API Well No.
30-025-42803

3a. Address
6301 DEAUVILLE BLVD
MIDLAND, TX 79706

3b. Phone No. (include area code)
Ph: 432-687-7375

10. Field and Pool, or Exploratory
BONE SPRING

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 14 T26S R32E Mer NMP 10FSL 698FWL

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.)

06/16/2016: SPUD WELL. DRILL SURFACE HOLE 112-675'. RUN 13 3/8", 54.5#, J-55 STC CSG SET @ 665'. FC @ 620'. PRESS TEST LINES TO 500/2500PSI. PMP 40 BBLS 8.4PPG FW SPACER. CMT W/845 SX CMT @ 14.8PPG. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 280PSI @ 2.2BPM. 405 SX CMT TO SURFACE. CMT IN PLACE @ 22:22 HRS.

06/17/2016: TEST BOPE TO 250L/5000H. TEST SURF CSG TO 1500 PSI FOR 30 MINS. GOOD. DRILL 10' NEW FORMATION TO 685'. DRILL 685-1221, 1365, 1978, 2244, 2797, 2955, 3355, 3767, 3849, 4138, 4306, 4545.

06/20/2016: RAN 9 5/8",40#,HCK-55 LTC INTERMEDIATE CSG SET @ 4535'. FC @ 4449'.TEST LINES TO 1000PSI/3500PSI. PMP 35T BBLS DYED FW SPACER. CMT W/1032 SX LEAD @ 11.9PPG & 462 SX TAIL @ 14.8PPG. BUMP PLUG W/500PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO

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

Electronic Submission #353762 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 10/07/2016 ()

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

Signature (Electronic Submission) — Date 10/06/2016

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.

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

Additional data for EC transaction #353762 that would not fit on the form

32. Additional remarks, continued

BUMPING PLUG 1012PSI @ 2.0BPM. 468 SX CMT RETURNED TO SURF. CMT IN PLACE @ 09:00 HRS.
06/21/2016: WOC. TEST INTERMEDIATE CSG TO 2765PSI FOR 30 MINS. DRILL 10' NEW FORMATION TO 4555.

06/22/2016: DRILL 4555-5111, 6183, 6873, 7528, 8071, 8513,8645, 8713, 8760, 8848, 8879, 9043, 9215, 9315, 9329, 9430,9709, 10130, 10524, 10950, 11347, 11701, 11923, 12012, 12189, 12366, 12554, 12866, 13080, 13386, 13696, 13783, 13891'. ***TD REACHED ON 06/28/2016.

06/28/2016: RAN 5 1/2",20#,HCP-110 TXP BTC PRODUCTION CSG SET @ 13876', LC @ 13787, RSI TOOL @ 13726, MRKR JT @ 8492'. CMT W/625 SX CL H LEAD, 963 SX CL H LEAD, & 120 SX CL H TAIL. PMP 306 BBLS DISPL, 20 BBL ACID. FINAL CIRC PRESWS 1650PSI @ 4.0BPM. BUMP PLUG 850PSI OVER FCP @ 2500PSI. RETURNS SEEN DURING JOB.

06/30/2016: TEST TO 5000PSI FOR 15 MINS.
RELEASE RIG.

Casing Summary

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Surface, Planned?-N, 665ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
665		13 3/8	12.469	8	

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	12.625	54.50	J-55	ST&C	34	36	2.85	2,730.0	1,130.0
1	Pup Joint	13 3/8	12.625	54.50	J-55	ST&C	36	41	4.35	2,730.0	1,130.0
14	Casing Joint	13 3/8	12.625	54.50	J-55	ST&C	41	620	579.25	2,730.0	1,130.0
1	Float Collar	13 3/8	12.625	54.50	J-55	ST&C	620	621	1.31	2,730.0	1,130.0
1	Casing Joint	13 3/8	12.625	54.50	J-55	ST&C	621	663	41.85	2,730.0	1,130.0
1	Float Shoe	13 3/8	12.625	54.50	J-55	ST&C	663	665	1.77	2,730.0	1,130.0

Intermediate Casing 1, Planned?-N, 4,535ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
4,535		9 5/8		30	

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	LT&C	34	36	1.60		
1	Pup Joint	9 5/8	8.835	40.00	HCK-55	LT&C	36	40	4.22		
105	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	40	4,449	4,409.56		
1	Float Collar	9 5/8	8.835	40.00	HCK-55	LT&C	4,449	4,451	1.48		
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	4,451	4,533	82.47		
1	Float Shoe	9 5/8	8.835	40.00	HCK-55	LT&C	4,533	4,535	1.62		

Production Casing, Planned?-N, 13,876ftKB

Set Depth (MD) (ftKB)	Set Tension (kips)	String Nominal OD (in)	String Min Drift (in)	Centralizers	Scratchers
13,876		5 1/2		102	

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	34	1.20		
1	Hanger PUP	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	34	38	4.02		
205	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	38	8,493	8,454.33		
1	Maker Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,493	8,498	5.20		
125	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,498	13,710	5,211.84		
1	RSI Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,710	13,720	9.88		
1	RSI	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,720	13,726	6.66		
1	RSI Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,726	13,736	9.87		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,736	13,778	41.81		
1	LC Pup	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,778	13,788	9.88		
1	Landing Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,788	13,789	1.53		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,789	13,832	42.65		
1	Float Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,832	13,834	2.46		
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,834	13,873	38.89		
1	Float Shoe	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,873	13,876	2.72		

Report Printed: 10/5/2016

Cement Summary

Surface Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal		176.40

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.6	675.0
12 1/4	675.0	4,545.0
8 3/4	4,545.0	13,891.0

Multi-bowl, FMC on 6/16/2016 19:00

Sub-Type	Install Date
Multi-bowl	6/16/2016

Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 665ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	6/16/2016	665	-33.6	

Centralizers	Scratchers
8	

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	12.625	54.50	J-55		ST&C	2.85	34	36
1	Pup Joint	13 3/8	12.625	54.50	J-55		ST&C	4.35	36	41
14	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	579.25	41	620
1	Float Collar	13 3/8	12.625	54.50	J-55		ST&C	1.31	620	621
1	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	41.85	621	663
1	Float Shoe	13 3/8	12.625	54.50	J-55		ST&C	1.77	663	665

Intermediate Casing 1, Planned?-N, 4,535ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	6/20/2016	4,535	-34.0	

Centralizers	Scratchers
30	

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		LT&C	1.60	34	36
1	Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4.22	36	40
105	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,409.56	40	4,449
1	Float Collar	9 5/8	8.835	40.00	HCK-55		LT&C	1.48	4,449	4,451
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	82.47	4,451	4,533
1	Float Shoe	9 5/8	8.835	40.00	HCK-55		LT&C	1.62	4,533	4,535

Production Casing, Planned?-N, 13,876ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	6/28/2016	13,876	-33.1	

Centralizers	Scratchers
102	

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	1.20	33	34
1	Hanger PUP	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.02	34	38
205	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,454.33	38	8,493
1	Maker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.20	8,493	8,498
125	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,211.84	8,498	13,710
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,710	13,720
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.66	13,720	13,726
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.87	13,726	13,736
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	41.81	13,736	13,778
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,778	13,788

Report Printed: 10/5/2016

Cement Summary

Surface Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

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	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.53	13,788	13,789
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.65	13,789	13,832
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.46	13,832	13,834
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.89	13,834	13,873
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.72	13,873	13,876

Surface Casing Cement, Casing, 6/16/2016 20:00

Cementing Start Date	Cementing End Date	Wellbore
6/16/2016	6/16/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	96 bbls cmt to surface

Comment

1, 33.6-665.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
33.6	665.0	Y	96.0	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)
3	2.2	5.5	280.0	855.0

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	FW w/ Dye			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		845	C	197.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
33.6	680.0	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	Water Base Mud			94.0

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)
	8.60			

Cement Fluid Additives

Add	Type	Conc

Report Printed: 10/5/2016

Cement Summary

Intermediate Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal		176.40

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.6	675.0
12 1/4	675.0	4,545.0
8 3/4	4,545.0	13,891.0

Multi-bowl, FMC on 6/16/2016 19:00

Sub-Type	Install Date
Multi-bowl	6/16/2016

Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 665ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	6/16/2016	665	-33.6	

Centralizers	Scratchers
8	

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	12.625	54.50	J-55		ST&C	2.85	34	36
1	Pup Joint	13 3/8	12.625	54.50	J-55		ST&C	4.35	36	41
14	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	579.25	41	620
1	Float Collar	13 3/8	12.625	54.50	J-55		ST&C	1.31	620	621
1	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	41.85	621	663
1	Float Shoe	13 3/8	12.625	54.50	J-55		ST&C	1.77	663	665

Intermediate Casing 1, Planned?-N, 4,535ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	6/20/2016	4,535	-34.0	

Centralizers	Scratchers
30	

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		LT&C	1.60	34	36
1	Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4.22	36	40
105	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,409.56	40	4,449
1	Float Collar	9 5/8	8.835	40.00	HCK-55		LT&C	1.48	4,449	4,451
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	82.47	4,451	4,533
1	Float Shoe	9 5/8	8.835	40.00	HCK-55		LT&C	1.62	4,533	4,535

Production Casing, Planned?-N, 13,876ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	6/28/2016	13,876	-33.1	

Centralizers	Scratchers
102	

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	1.20	33	34
1	Hanger PUP	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.02	34	38
205	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,454.33	38	8,493
1	Maker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.20	8,493	8,498
125	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,211.84	8,498	13,710
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,710	13,720
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.66	13,720	13,726
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.87	13,726	13,736
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	41.81	13,736	13,778
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,778	13,788

Report Printed: 10/5/2016

Cement Summary

Intermediate Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

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	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.53	13,788	13,789
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.65	13,789	13,832
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.46	13,832	13,834
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.89	13,834	13,873
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.72	13,873	13,876

Intermediate Casing Cement, Casing, 6/21/2016 05:16

Cementing Start Date	Cementing End Date	Wellbore
6/21/2016	6/21/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	201 bbl /468 sx CMT to surface

Comment
Design lift pressure - 901 psi

1, 33.6-4,545.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
33.6	4,545.0	Y	201.0	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)
4.3	2	5.9	1,012.0	1,500.0

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)

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	1,032	C	443.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
33.6	3,535.0	150.0	2.41	13.65

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	462	C	109.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
3,535.0	4,545.0	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

Displacement

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Displacement	Displacement			337.0

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)
	8.90			

Cement Fluid Additives

Add	Type	Conc

Report Printed: 10/5/2016

Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Original Hole

Wellbore Name	Directional Type	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Horizontal		176.40

Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	33.6	675.0
12 1/4	675.0	4,545.0
8 3/4	4,545.0	13,891.0

Multi-bowl, FMC on 6/16/2016 19:00

Sub-Type	Install Date
Multi-bowl	6/16/2016

Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 665ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Surface	Original Hole	6/16/2016	665	-33.6	

Centralizers	Scratchers
8	

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	12.625	54.50	J-55		ST&C	2.85	34	36
1	Pup Joint	13 3/8	12.625	54.50	J-55		ST&C	4.35	36	41
14	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	579.25	41	620
1	Float Collar	13 3/8	12.625	54.50	J-55		ST&C	1.31	620	621
1	Casing Joint	13 3/8	12.625	54.50	J-55		ST&C	41.85	621	663
1	Float Shoe	13 3/8	12.625	54.50	J-55		ST&C	1.77	663	665

Intermediate Casing 1, Planned?-N, 4,535ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Intermediate Casing 1	Original Hole	6/20/2016	4,535	-34.0	

Centralizers	Scratchers
30	

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		LT&C	1.60	34	36
1	Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4.22	36	40
105	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,409.56	40	4,449
1	Float Collar	9 5/8	8.835	40.00	HCK-55		LT&C	1.48	4,449	4,451
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	82.47	4,451	4,533
1	Float Shoe	9 5/8	8.835	40.00	HCK-55		LT&C	1.62	4,533	4,535

Production Casing, Planned?-N, 13,876ftKB

Casing Description	Wellbore	Run Date	Set Depth (MD) (ftKB)	Stick Up (ftKB)	Set Tension (kips)
Production Casing	Original Hole	6/28/2016	13,876	-33.1	

Centralizers	Scratchers
102	

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	1.20	33	34
1	Hanger PUP	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.02	34	38
205	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	8,454.33	38	8,493
1	Maker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5.20	8,493	8,498
125	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,211.84	8,498	13,710
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,710	13,720
1	RSI	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.66	13,720	13,726
1	RSI Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.87	13,726	13,736
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	41.81	13,736	13,778
1	LC Pup	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.88	13,778	13,788

Report Printed: 10/5/2016

Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

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	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.53	13,788	13,789
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.65	13,789	13,832
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.46	13,832	13,834
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	38.89	13,834	13,873
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.72	13,873	13,876

Production Casing Cement, Casing, 6/29/2016 14:30

Cementing Start Date	Cementing End Date	Wellbore
6/29/2016	6/29/2016	Original Hole

Evaluation Method	Cement Evaluation Results
Lift Pressure	FCP of 1,650 psi. Expected lift pressure of 1,049 psi.

Comment

Test surface lines to 6,500 psi. Pump: 30 bbl of 10.0 ppg mudpush 303 bbl (625 sxs) of 11.5 ppg lead 1 cement slurry 274 bbl (963 sxs) of 12.5 ppg lead 2 cement slurry 47 bbl (120 sxs) of 15.0 ppg tail cement slurry 306 bbl of Displacement (8.3 FW) Held 850 psi over for 5 min. Bled back 2.25 bbls; floats held. FCP 1,650 psi @ 4.0 bpm. Full returns throughout job.

1, 3,550.0-13,891.0ftKB

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
3,550.0	13,891.0	N	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)
6.8	4	6.8	1,650.0	2,150.0

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				30.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
2,904.0	3,550.0	0.0		

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		625	H	303.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
3,550.0	4,550.0	50.0	2.72	15.89

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
0.00	11.50			50.0

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Lead		963	H	274.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
4,550.0	8,350.0	35.0	1.60	8.62

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
0.00	12.50			50.0

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Tail		120	H	47.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
8,350.0	13,891.0	0.0	2.18	9.55

Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
0.00	15.00			50.0

Report Printed: 10/5/2016

Cement Summary

Production Casing Cement

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl)
Displacement				306.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
		0.0		
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: 10/5/2016

Phoenix Technology Services
SURVEY DATA CERTIFICATION

PHOENIX TECHNOLOGY SERVICES

PHOENIX JOB NUMBER	60135	OPERATOR	Chevron
WELL NAME	SD WE 23 Fed P5 2H	COUNTY & STATE	Lea County, NM
API WELL NUMBER	30-025-42803	PROPOSED DIRECTION	176.39

TIE-IN DATA

MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
656.00 ft	655.98 ft	0.4°	265.0°	3.21 S	3.32 W	Teledrift

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
18-Jun-16	768 ft	0.4°	246.2°

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
23-Jun-16	8,455 ft	1.1	203.4

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
23-Jun-16	8,513 ft	1.1	203.4

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

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

23-Jun-2016

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.59
DECLINATION OR GRID	GRID

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

Lea County, NM (NAD27 NME)
SD WE 23 Fed
P5 2H

OH / Job 60135

Survey: Phoenix MWD Surveys

Standard Survey Report

27 June, 2016

PHOENIX
TECHNOLOGY SERVICES

Phoenix Technology Services

Survey Report

Company:	Chevron	**Local Co-ordinate Reference:**	Well P5 2H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	RKB @ 3189.00usft (Pace X30)
Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3189.00usft (Pace X30)
Well:	P5 2H	**North Reference:**	Grid
Wellbore:	OH / Job 60135	**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	P5 2H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	377,312.00 usft	**Latitude:**	32° 2' 7.84277 N
	+E/-W	0.00 usft	**Easting:**	711,292.00 usft	**Longitude:**	103° 39' 5.32334 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,156.00 usft

Wellbore	OH / Job 60135				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	6/15/2016	6.95	59.75	48,027

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	176.39	

Survey Program **Date** 6/27/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
175.00	656.00	Teledrift MWD Surveys (OH / Job 60135)	MWD	MWD - Standard
768.00	8,513.00	Phoenix MWD Surveys (OH / Job 60135)	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)
656.00	0.40	265.00	655.98	-3.21	-3.32	2.99	0.00	0.00	0.00
Tie In									
768.00	0.40	246.20	767.97	-3.40	-4.07	3.14	0.12	0.00	-16.79
First Phoenix MWD Survey									
945.00	0.60	238.90	944.97	-4.13	-5.43	3.78	0.12	0.11	-4.12
1,123.00	2.10	111.40	1,122.93	-5.80	-3.19	5.59	1.41	0.84	-71.63
1,301.00	5.70	102.00	1,300.49	-8.83	8.50	9.35	2.05	2.02	-5.28
1,478.00	7.10	99.80	1,476.38	-12.52	27.88	14.25	0.80	0.79	-1.24
1,655.00	7.20	99.50	1,652.01	-16.21	49.60	19.30	0.06	0.06	-0.17

Company:	Chevron	**Local Co-ordinate Reference:**	Well P5 2H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	RKB @ 3189.00usft (Pace X30)
Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3189.00usft (Pace X30)
Well:	P5 2H	**North Reference:**	Grid
Wellbore:	OH / Job 60135	**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)
1,832.00	7.40	100.60	1,827.57	-20.14	71.74	24.62	0.14	0.11	0.62
2,010.00	6.50	110.00	2,004.27	-25.69	92.48	31.47	0.81	-0.51	5.28
2,187.00	6.20	113.70	2,180.18	-32.96	110.64	39.87	0.29	-0.17	2.09
2,365.00	6.40	112.70	2,357.11	-40.66	128.60	48.68	0.13	0.11	-0.56
2,542.00	6.60	113.80	2,532.97	-48.57	147.00	57.73	0.13	0.11	0.62
2,720.00	5.60	120.10	2,709.96	-57.05	163.88	67.26	0.68	-0.56	3.54
2,898.00	4.20	93.10	2,887.33	-61.76	177.90	72.85	1.49	-0.79	-15.17
3,076.00	4.10	91.40	3,064.86	-62.27	190.77	74.16	0.09	-0.06	-0.96
3,253.00	5.80	91.10	3,241.20	-62.59	206.04	75.45	0.96	0.96	-0.17
3,431.00	6.50	87.60	3,418.17	-62.34	225.10	76.40	0.45	0.39	-1.97
3,608.00	6.80	96.70	3,593.99	-63.15	245.52	78.49	0.62	0.17	5.14
3,786.00	6.60	98.70	3,770.77	-65.92	266.10	82.56	0.17	-0.11	1.12
3,963.00	6.70	102.40	3,946.58	-69.68	286.23	87.58	0.25	0.06	2.09
4,140.00	5.00	115.80	4,122.66	-75.26	303.27	94.21	1.23	-0.96	7.57
4,317.00	4.20	140.50	4,299.11	-83.61	314.33	103.25	1.20	-0.45	13.95
4,488.00	1.50	166.70	4,469.89	-90.63	318.83	110.53	1.71	-1.58	15.32
4,686.00	1.90	235.10	4,667.82	-95.03	316.74	114.79	0.98	0.20	34.55
4,864.00	2.50	278.20	4,845.70	-96.16	310.47	115.53	0.96	0.34	24.21
5,041.00	2.70	279.80	5,022.51	-94.90	302.54	113.77	0.12	0.11	0.90
5,219.00	1.50	315.80	5,200.40	-92.52	296.79	111.03	0.97	-0.67	20.22
5,396.00	1.30	313.20	5,377.34	-89.48	293.71	107.81	0.12	-0.11	-1.47
5,574.00	1.30	294.30	5,555.30	-87.27	290.40	105.39	0.24	0.00	-10.62
5,751.00	1.50	323.80	5,732.25	-84.57	287.20	102.50	0.42	0.11	16.67
5,928.00	1.60	327.80	5,909.18	-80.61	284.51	98.38	0.08	0.06	2.26
6,105.00	1.90	332.50	6,086.10	-75.92	281.84	93.52	0.19	0.17	2.66
6,282.00	1.20	39.00	6,263.05	-71.88	281.65	89.48	1.02	-0.40	37.57
6,460.00	1.00	35.90	6,441.01	-69.17	283.74	86.91	0.12	-0.11	-1.74
6,638.00	0.70	40.90	6,619.00	-67.09	285.36	84.93	0.17	-0.17	2.81
6,815.00	0.30	56.30	6,795.99	-66.01	286.45	83.93	0.24	-0.23	8.70
6,992.00	0.50	50.30	6,972.98	-65.26	287.43	83.24	0.12	0.11	-3.39
7,170.00	0.70	31.30	7,150.97	-63.84	288.60	81.89	0.16	0.11	-10.67
7,347.00	1.60	194.90	7,327.96	-65.30	288.52	83.35	1.29	0.51	92.43
7,524.00	1.90	169.70	7,504.88	-70.58	288.41	88.61	0.46	0.17	-14.24
7,702.00	1.90	178.20	7,682.78	-76.43	289.03	94.49	0.16	0.00	4.78
7,880.00	0.40	172.10	7,860.74	-80.00	289.21	98.06	0.84	-0.84	-3.43
8,057.00	0.70	174.30	8,037.73	-81.68	289.40	99.75	0.17	0.17	1.24
8,234.00	0.90	163.70	8,214.71	-84.09	289.90	102.19	0.14	0.11	-5.99
8,411.00	0.90	198.20	8,391.69	-86.75	289.86	104.84	0.30	0.00	19.49
8,455.00	1.10	203.40	8,435.68	-87.46	289.58	105.53	0.50	0.45	11.82
Final Phoenix MWD Survey									
8,513.00	1.10	203.40	8,493.67	-88.49	289.14	106.53	0.00	0.00	0.00
Projection to TD									

Company:	Chevron	**Local Co-ordinate Reference:**	Well P5 2H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	RKB @ 3189.00usft (Pace X30)
Site:	SD WE 23 Fed	**MD Reference:**	RKB @ 3189.00usft (Pace X30)
Well:	P5 2H	**North Reference:**	Grid
Wellbore:	OH / Job 60135	**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
656.00	655.99	-3.21	-3.32	Tie In
768.00	767.99	-3.40	-4.07	First Phoenix MWD Survey
8,455.00	8,435.70	-87.47	289.58	Final Phoenix MWD Survey
8,513.00	8,493.69	-88.49	289.14	Projection to TD

Checked By _____ Approved By _____ Date _____

Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

Wellbore Name	Parent Wellbore	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Original Hole	Original Hole		176.40

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

Date	Definitive?	Description	Planned?
6/16/2016	Y	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
175	0.60	202.70	175.00	-0.86	-0.35	0.82	0.34	Magn MWD		0.34	0.92	115.83	N
178	0.60	192.70	178.00	-0.88	-0.36	0.85	3.49	Magn MWD		0.00	0.95	-333.33	N
275	0.60	218.70	274.99	-1.77	-0.79	1.71	0.28	Magn MWD		0.00	1.94	26.80	N
362	0.60	211.70	361.99	-2.51	-1.32	2.42	0.08	Magn MWD		0.00	2.83	-8.05	N
365	0.70	207.70	364.99	-2.54	-1.33	2.45	3.66	Magn MWD		3.33	2.87	-133.33	N
457	0.40	250.70	456.98	-3.14	-1.90	3.02	0.53	Magn MWD		-0.33	3.67	46.74	N
542	0.40	256.70	541.98	-3.31	-2.47	3.15	0.05	Magn MWD		0.00	4.13	7.06	N
555	0.40	253.70	554.98	-3.33	-2.55	3.17	0.16	Magn MWD		0.00	4.20	-23.08	N
639	0.50	294.70	638.98	-3.26	-3.17	3.06	0.39	Magn MWD		0.12	4.55	48.81	N
656	0.40	264.70	655.98	-3.24	-3.29	3.02	1.48	Magn MWD		-0.59	4.62	-176.47	N
768	0.40	246.20	767.97	-3.43	-4.04	3.17	0.11	Magn MWD	Phoenix Directional	0.00	5.30	-16.52	N
895	0.60	238.90	894.97	-3.95	-5.02	3.63	0.16	Magn MWD	Phoenix Directional	0.16	6.39	-5.75	N
1,123	2.10	111.40	1,122.92	-6.09	-2.15	5.95	1.10	Magn MWD	Phoenix Directional	0.66	6.46	-55.92	N
1,301	5.70	102.00	1,300.48	-9.12	9.54	9.70	2.05	Magn MWD	Phoenix Directional	2.02	13.20	-5.28	N
1,478	7.10	99.80	1,476.38	-12.81	28.92	14.60	0.80	Magn MWD	Phoenix Directional	0.79	31.63	-1.24	N
1,655	7.20	99.50	1,652.00	-16.50	50.63	19.65	0.06	Magn MWD	Phoenix Directional	0.06	53.26	-0.17	N
1,832	7.40	100.60	1,827.57	-20.43	72.78	24.96	0.14	Magn MWD	Phoenix Directional	0.11	75.59	0.62	N
2,010	6.50	110.00	2,004.26	-25.99	93.51	31.81	0.81	Magn MWD	Phoenix Directional	-0.51	97.06	5.28	N
2,187	6.20	113.70	2,180.18	-33.26	111.68	40.20	0.29	Magn MWD	Phoenix Directional	-0.17	116.53	2.09	N
2,365	6.40	112.70	2,357.10	-40.95	129.63	49.01	0.13	Magn MWD	Phoenix Directional	0.11	135.95	-0.56	N
2,542	6.60	113.80	2,532.96	-48.86	148.04	58.06	0.13	Magn MWD	Phoenix Directional	0.11	155.90	0.62	N
2,720	5.56	120.10	2,709.96	-57.31	164.86	67.55	0.69	Magn MWD	Phoenix Directional	-0.58	174.54	3.54	N
2,898	4.20	93.10	2,887.33	-61.99	178.83	73.10	1.48	Magn MWD	Phoenix Directional	-0.76	189.27	-15.17	N
3,076	4.10	91.40	3,064.87	-62.50	191.70	74.41	0.09	Magn MWD	Phoenix Directional	-0.06	201.63	-0.96	N
3,253	5.80	91.10	3,241.20	-62.82	206.97	75.70	0.96	Magn MWD	Phoenix Directional	0.96	216.30	-0.17	N
3,431	6.50	87.60	3,418.18	-62.58	226.03	76.64	0.45	Magn MWD	Phoenix Directional	0.39	234.53	-1.97	N
3,608	6.80	96.70	3,593.99	-63.38	246.45	78.73	0.62	Magn MWD	Phoenix Directional	0.17	254.47	5.14	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

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
3,786	6.60	98.70	3,770.78	-66.15	267.03	82.79	0.17	Magn MWD	Phoenix Directional	-0.11	275.10	1.12	N
3,963	6.70	102.40	3,946.58	-69.91	287.17	87.80	0.25	Magn MWD	Phoenix Directional	0.06	295.55	2.09	N
4,140	5.00	115.80	4,122.66	-75.49	304.20	94.44	1.23	Magn MWD	Phoenix Directional	-0.96	313.42	7.57	N
4,317	4.20	140.50	4,299.11	-83.85	315.26	103.48	1.20	Magn MWD	Phoenix Directional	-0.45	326.22	13.95	N
4,488	1.50	166.70	4,469.89	-90.86	319.76	110.76	1.71	Magn MWD	Phoenix Directional	-1.58	332.42	15.32	N
4,886	1.90	235.10	4,667.82	-95.26	317.67	115.02	0.98	Magn MWD	Phoenix Directional	0.20	331.64	34.55	N
4,864	2.50	278.20	4,845.70	-96.39	311.40	115.75	0.96	Magn MWD	Phoenix Directional	0.34	325.98	24.21	N
5,041	2.70	279.80	5,022.52	-95.13	303.48	114.00	0.12	Magn MWD	Phoenix Directional	0.11	318.04	0.90	N
5,219	1.50	315.80	5,200.40	-92.75	297.72	111.26	0.97	Magn MWD	Phoenix Directional	-0.67	311.83	20.22	N
5,396	1.30	313.20	5,377.35	-89.71	294.64	108.04	0.12	Magn MWD	Phoenix Directional	-0.11	308.00	-1.47	N
5,574	1.30	294.30	5,555.30	-87.50	291.33	105.62	0.24	Magn MWD	Phoenix Directional	0.00	304.19	-10.62	N
5,751	1.50	323.80	5,732.25	-84.80	288.13	102.73	0.42	Magn MWD	Phoenix Directional	0.11	300.35	16.67	N
5,928	1.60	327.80	5,909.19	-80.84	285.45	98.61	0.08	Magn MWD	Phoenix Directional	0.06	296.67	2.26	N
6,105	1.90	332.50	6,086.10	-76.15	282.77	93.75	0.19	Magn MWD	Phoenix Directional	0.17	292.85	2.66	N
6,282	1.20	39.00	6,263.05	-72.11	282.59	89.71	1.02	Magn MWD	Phoenix Directional	-0.40	291.64	-165.82	N
6,460	1.00	35.90	6,441.02	-69.40	284.67	87.14	0.12	Magn MWD	Phoenix Directional	-0.11	293.01	-1.74	N
6,638	0.70	40.90	6,619.00	-67.32	286.29	85.16	0.17	Magn MWD	Phoenix Directional	-0.17	294.10	2.81	N
6,815	0.30	56.30	6,795.99	-66.24	287.39	84.16	0.24	Magn MWD	Phoenix Directional	-0.23	294.92	8.70	N
6,992	0.50	50.30	6,972.99	-65.49	288.37	83.47	0.12	Magn MWD	Phoenix Directional	0.11	295.71	-3.39	N
7,170	0.70	31.30	7,150.98	-64.07	289.53	82.12	0.16	Magn MWD	Phoenix Directional	0.11	296.53	-10.67	N
7,347	1.60	194.90	7,327.96	-65.53	289.45	83.58	1.29	Magn MWD	Phoenix Directional	0.51	296.78	92.43	N
7,524	1.90	169.70	7,504.88	-70.81	289.34	88.84	0.46	Magn MWD	Phoenix Directional	0.17	297.88	-14.24	N
7,702	1.90	178.20	7,682.78	-76.66	289.96	94.72	0.16	Magn MWD	Phoenix Directional	0.00	299.93	4.78	N
7,880	0.40	172.10	7,860.74	-80.23	290.14	98.29	0.84	Magn MWD	Phoenix Directional	-0.84	301.03	-3.43	N
8,057	0.70	174.30	8,037.73	-81.91	290.33	99.98	0.17	Magn MWD	Phoenix Directional	0.17	301.67	1.24	N
8,234	0.90	163.70	8,214.72	-84.32	290.83	102.42	0.14	Magn MWD	Phoenix Directional	0.11	302.81	-5.99	N
8,411	0.90	198.20	8,391.70	-86.98	290.79	105.07	0.30	Magn MWD	Phoenix Directional	0.00	303.52	19.49	N
8,455	1.10	203.40	8,435.69	-87.69	290.51	105.76	0.50	Magn MWD	Baker Hughes	0.45	303.46	11.82	N
8,531	3.81	191.27	8,511.61	-90.84	289.73	108.85	3.61	Magn MWD	Baker Hughes	3.57	303.64	-15.96	N
8,620	13.84	184.40	8,599.45	-104.39	288.33	122.29	11.31	Magn MWD	Baker Hughes	11.27	306.65	-7.72	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
SALADO DRAW WE 23 FED P5 002H		JENNINGS	Mid-Continent

Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)
3,156.00	3,188.60	3,188.60, 6/2/2016		

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
8,709	26.37	181.50	8,682.86	-134.88	286.99	152.64	14.12	Magn MWD	Baker Hughes	14.08	317.11	-3.26	N
8,797	35.07	179.95	8,758.44	-179.79	286.50	197.42	9.93	Magn MWD	Baker Hughes	9.89	338.24	-1.76	N
8,886	45.58	177.87	8,826.20	-237.28	287.71	254.88	11.90	Magn MWD	Baker Hughes	11.81	372.93	-2.34	N
8,974	53.92	175.89	8,883.01	-304.28	291.43	321.98	9.63	Magn MWD	Baker Hughes	9.48	421.33	-2.25	N
9,063	62.95	175.35	8,929.55	-379.81	297.23	397.72	10.16	Magn MWD	Baker Hughes	10.15	482.29	-0.61	N
9,151	70.64	176.54	8,964.20	-460.43	302.92	478.54	8.83	Magn MWD	Baker Hughes	8.74	551.14	1.35	N
9,240	79.35	177.85	8,987.22	-546.21	307.11	564.41	9.89	Magn MWD	Baker Hughes	9.79	626.62	1.47	N
9,329	87.04	180.42	8,997.76	-634.49	308.42	652.61	9.10	Magn MWD	Baker Hughes	8.64	705.48	2.89	N
9,418	89.01	180.37	9,000.83	-723.44	307.81	741.34	2.21	Magn MWD	Baker Hughes	2.21	786.20	-0.06	N
9,506	89.08	181.07	9,002.30	-811.42	306.71	829.07	0.80	Magn MWD	Baker Hughes	0.08	867.45	0.80	N
9,595	90.40	181.60	9,002.70	-900.39	304.63	917.74	1.60	Magn MWD	Baker Hughes	1.48	950.53	0.60	N
9,684	90.31	182.05	9,002.15	-989.34	301.80	1,006.34	0.52	Magn MWD	Baker Hughes	-0.10	1,034.35	0.51	N
9,773	90.31	182.38	9,001.67	-1,078.27	298.36	1,094.88	0.37	Magn MWD	Baker Hughes	0.00	1,118.79	0.37	N
9,861	90.22	182.03	9,001.26	-1,166.21	294.97	1,182.43	0.41	Magn MWD	Baker Hughes	-0.10	1,202.93	-0.40	N
9,950	90.28	182.52	9,000.87	-1,255.14	291.44	1,270.96	0.55	Magn MWD	Baker Hughes	0.07	1,288.53	0.55	N
10,038	90.09	182.42	9,000.59	-1,343.05	287.65	1,358.46	0.24	Magn MWD	Baker Hughes	-0.22	1,373.51	-0.11	N
10,126	90.18	181.93	9,000.38	-1,430.99	284.31	1,446.02	0.57	Magn MWD	Baker Hughes	0.10	1,458.96	-0.56	N
10,214	90.25	178.96	9,000.05	-1,518.98	283.62	1,533.79	3.38	Magn MWD	Baker Hughes	0.08	1,545.23	-3.38	N
10,303	90.09	177.95	8,999.79	-1,607.94	286.02	1,622.73	1.15	Magn MWD	Baker Hughes	-0.18	1,633.18	-1.13	N
10,392	90.00	177.55	8,999.72	-1,696.87	289.52	1,711.70	0.46	Magn MWD	Baker Hughes	-0.10	1,721.39	-0.45	N
10,480	90.15	178.31	8,999.60	-1,784.82	292.70	1,799.67	0.88	Magn MWD	Baker Hughes	0.17	1,808.66	0.86	N
10,569	89.94	178.35	8,999.53	-1,873.78	295.29	1,888.62	0.24	Magn MWD	Baker Hughes	-0.24	1,896.90	0.04	N
10,657	90.00	178.59	8,999.58	-1,961.75	297.64	1,976.56	0.28	Magn MWD	Baker Hughes	0.07	1,984.20	0.27	N
10,746	89.85	178.99	8,999.69	-2,050.73	299.52	2,065.49	0.48	Magn MWD	Baker Hughes	-0.17	2,072.48	0.45	N
10,835	90.03	179.60	8,999.79	-2,139.72	300.61	2,154.37	0.71	Magn MWD	Baker Hughes	0.20	2,160.73	0.69	N
10,923	89.91	179.90	8,999.83	-2,227.72	301.00	2,242.22	0.37	Magn MWD	Baker Hughes	-0.14	2,247.96	0.34	N
11,012	90.15	179.54	8,999.79	-2,316.72	301.43	2,331.07	0.49	Magn MWD	Baker Hughes	0.27	2,336.24	-0.40	N
11,100	89.88	180.01	8,999.76	-2,404.72	301.78	2,418.92	0.62	Magn MWD	Baker Hughes	-0.31	2,423.58	0.53	N
11,189	89.91	180.22	8,999.93	-2,493.71	301.60	2,507.73	0.24	Magn MWD	Baker Hughes	0.03	2,511.89	0.24	N
11,277	90.28	178.55	8,999.78	-2,581.71	302.54	2,595.61	1.94	Magn MWD	Baker Hughes	0.42	2,599.37	-1.90	N

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Directional Survey

Well Name	Lease	Field Name	Business Unit
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Survey Data

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11,366	89.94	178.09	8,999.61	-2,670.67	305.15	2,684.56	0.64	Magn MWD	Baker Hughes	-0.38	2,688.04	-0.52	N
11,455	90.00	177.20	8,999.66	-2,759.59	308.81	2,773.54	1.00	Magn MWD	Baker Hughes	0.07	2,776.82	-1.00	N
11,543	90.00	178.40	8,999.66	-2,847.53	312.19	2,861.51	1.36	Magn MWD	Baker Hughes	0.00	2,864.59	1.36	N
11,632	90.10	181.50	8,999.58	-2,936.51	312.27	2,950.33	3.48	Magn MWD	Baker Hughes	0.11	2,953.07	3.48	N
11,721	89.90	181.30	8,999.58	-3,025.49	310.09	3,038.99	0.32	Magn MWD	Baker Hughes	-0.22	3,041.34	-0.22	N
11,809	89.90	180.90	8,999.73	-3,113.47	308.40	3,126.69	0.45	Magn MWD	Baker Hughes	0.00	3,128.71	-0.45	N
11,898	89.80	181.70	8,999.96	-3,202.45	306.38	3,215.37	0.91	Magn MWD	Baker Hughes	-0.11	3,217.07	0.90	N
11,987	89.80	182.70	9,000.28	-3,291.38	302.97	3,303.91	1.12	Magn MWD	Baker Hughes	0.00	3,305.29	1.12	N
12,075	89.76	180.75	9,000.61	-3,379.34	300.32	3,391.52	2.22	Magn MWD	Baker Hughes	-0.05	3,392.65	-2.22	N
12,164	89.85	179.17	9,000.92	-3,468.33	300.38	3,480.35	1.78	Magn MWD	Baker Hughes	0.10	3,481.31	-1.78	N
12,253	89.82	179.51	9,001.17	-3,557.33	301.40	3,569.23	0.38	Magn MWD	Baker Hughes	-0.03	3,570.07	0.38	N
12,341	89.88	176.10	9,001.40	-3,645.25	304.77	3,657.19	3.88	Magn MWD	Baker Hughes	0.07	3,657.97	-3.88	N
12,430	89.88	174.77	9,001.59	-3,733.96	311.86	3,746.18	1.49	Magn MWD	Baker Hughes	0.00	3,746.96	-1.49	N
12,519	89.82	176.85	9,001.82	-3,822.72	318.36	3,835.17	2.34	Magn MWD	Baker Hughes	-0.07	3,835.95	2.34	N
12,608	89.78	182.78	9,002.13	-3,911.68	318.65	3,923.97	6.66	Magn MWD	Baker Hughes	-0.04	3,924.64	6.66	N
12,697	89.72	154.02	9,002.53	-3,997.95	336.36	4,011.18	32.31	Magn MWD	Baker Hughes	-0.07	4,012.07	-32.31	N
12,785	90.00	182.71	9,002.75	-4,083.24	353.92	4,097.41	32.60	Magn MWD	Baker Hughes	0.32	4,098.55	32.60	N
12,874	90.18	184.16	9,002.61	-4,172.08	348.59	4,185.73	1.64	Magn MWD	Baker Hughes	0.20	4,186.62	1.63	N
12,962	90.31	182.17	9,002.23	-4,259.94	343.73	4,273.12	2.27	Magn MWD	Baker Hughes	0.15	4,273.78	-2.26	N
13,051	90.10	179.30	9,001.92	-4,348.92	342.59	4,361.85	3.23	Magn MWD	Baker Hughes	-0.24	4,362.40	-3.22	N
13,139	90.30	178.90	9,001.61	-4,436.91	343.97	4,449.75	0.51	Magn MWD	Baker Hughes	0.23	4,450.22	-0.45	N
13,228	90.30	178.70	9,001.14	-4,525.89	345.83	4,538.67	0.22	Magn MWD	Baker Hughes	0.00	4,539.08	-0.22	N
13,317	90.10	176.60	9,000.83	-4,614.81	349.48	4,627.65	2.37	Magn MWD	Baker Hughes	-0.22	4,628.02	-2.36	N
13,405	90.10	175.50	9,000.68	-4,702.60	355.54	4,715.64	1.25	Magn MWD	Baker Hughes	0.00	4,716.02	-1.25	N
13,494	90.20	177.40	9,000.44	-4,791.42	361.05	4,804.64	2.14	Magn MWD	Baker Hughes	0.11	4,805.01	2.13	N
13,582	90.20	179.40	9,000.14	-4,879.38	363.51	4,892.58	2.27	Magn MWD	Baker Hughes	0.00	4,892.91	2.27	N
13,671	90.10	176.70	8,999.90	-4,968.32	366.54	4,981.54	3.04	Magn MWD	Baker Hughes	-0.11	4,981.83	-3.03	N
13,760	90.40	176.43	8,999.52	-5,057.16	371.87	5,070.53	0.45	Magn MWD	Baker Hughes	0.34	5,070.82	-0.30	N
13,866	90.06	181.42	8,999.09	-5,163.11	373.86	5,176.40	4.72	Magn MWD	Baker Hughes	-0.32	5,176.63	4.71	N
13,891	90.06	181.42	8,999.06	-5,188.10	373.24	5,201.30	0.00	Magn MWD	Baker Hughes	0.00	5,201.51	0.00	N

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