



Tubing Summary

HOBBS OCD
MAR 20 2017

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,134.00	Original RKB Elevation (ft) 3,166.60	Current RKB Elevation 3,166.60, 8/15/2016	Mud Line Elevation (ft)
Current KB to Ground (ft) 32.60	Current KB to Mud Line (ft)	Current KB to Csg Flange (ft)	Current KB to Tubing Head (ft)

Land - Original Hole, 2/7/2017 3:00:00 PM			Vertical schematic (actual)
MD (ftK B)	TVD (ftK B)	Incl (°)	
1.9	1.9	0.0	1-1; Tubing Hanger; 2 7/8; 2.441; 32; 0.50
9.7	9.7	0.0	1-2; TUBING; 2 7/8; 2.441; 32; 30.35
9.9	9.9	0.1	1-3; TUBING SUB; 2 7/8; 2.441; 63; 8.20
13.3	13.3	0.1	1-4; TUBING; 2 7/8; 2.441; 71; 1,711.58
17.1	17.1	0.1	1-5; GAS LIFT VALVE #13; 4.34; 2.441; 1,783; 4.10
20.9	20.9	0.2	1-6; TUBING; 2 7/8; 2.441; 1,787; 552.06
24.7	24.7	0.2	1-7; GAS LIFT VALVE #12; 4.34; 2.441; 2,339; 4.10
28.5	28.5	0.2	1-8; TUBING; 2 7/8; 2.441; 2,343; 554.40
32.3	32.3	0.2	1-9; GAS LIFT VALVE #11; 4.34; 2.441; 2,897; 4.10
42.7	42.7	0.5	1-10; TUBING; 2 7/8; 2.441; 2,901; 556.11
5.691.9	5,376.3	4.5	1-11; GAS LIFT VALVE #10; 4.34; 2.441; 3,457; 4.10
6,789.9	6,739.9	0.7	1-12; TUBING; 2 7/8; 2.441; 3,462; 555.37
8,023.9	8,497.1	1.6	1-13; GAS LIFT VALVE #9; 4.34; 2.441; 4,017; 4.10
9,509.9	9,025.0	88.1	1-14; TUBING; 2 7/8; 2.441; 4,021; 555.58
9,825.1	9,031.3	90.7	1-15; GAS LIFT VALVE #8; 4.34; 2.441; 4,577; 4.10
10,140.9	9,025.0	90.3	1-16; TUBING; 2 7/8; 2.441; 4,581; 552.87
10,454.9	9,024.9	90.0	1-17; GAS LIFT VALVE #7; 4.34; 2.441; 5,134; 4.10
10,769.1	9,024.2	87.8	1-18; TUBING; 2 7/8; 2.441; 5,138; 550.98
11,083.9	9,020.1	91.4	1-19; GAS LIFT VALVE #6; 4.34; 2.441; 5,689; 4.10
11,398.9	9,024.4	92.4	1-20; TUBING; 2 7/8; 2.441; 5,693; 518.49
11,713.1	9,019.8	91.5	1-21; GAS LIFT VALVE #5; 4.34; 2.441; 6,211; 4.10
12,028.9	9,019.8	90.2	1-22; TUBING; 2 7/8; 2.441; 6,215; 552.68
12,344.9	9,020.1	87.0	1-23; GAS LIFT VALVE #4; 4.34; 2.441; 6,768; 4.10
12,659.1	9,025.1	88.4	1-24; TUBING; 2 7/8; 2.441; 6,772; 549.16
12,973.9	9,048.3	87.6	1-25; GAS LIFT VALVE #3; 4.34; 2.441; 7,321; 4.10
13,288.1	9,052.2	90.0	1-26; TUBING; 2.79; 2.441; 7,325; 555.45
13,602.9	9,064.3	89.0	1-27; GAS LIFT VALVE #2; 4.34; 2.441; 7,881; 4.10
13,917.2	9,065.5	92.2	1-28; TUBING; 2.79; 2.441; 7,885; 584.00
14,231.1	9,066.3	89.0	1-29; GAS LIFT VALVE #1; 4.34; 2.441; 8,469; 4.10
14,545.9	9,066.7	89.7	1-30; TUBING; 2 7/8; 2.441; 8,473; 30.85
14,860.2	9,073.9	89.2	1-31; Jet Pump BHA; 2 7/8; 8,504; 6.30
15,174.9	9,076.5	88.2	1-32; ON-OFF TOOL, 2.313 X PROFILE; 4 1/2; 2.313; 8,510; 1.50
15,489.9	9,084.1	89.7	1-33; 450 WL HORNET PACKER; 4 1/2; 2.370; 8,512; 7.75
15,804.1	9,074.8	92.3	1-34; TUBING; 2 7/8; 2.441; 8,519; 6.16
16,118.9	9,074.1	88.5	1-35; 2.313 XN Nipple; 2 7/8; 2,205; 8,526; 1.15
16,433.1	9,089.9	89.9	1-36; Tubing Sub; 2 7/8; 2.441; 8,527; 6.16
16,747.9	9,083.0	92.0	1-37; Tubing PUMP OUT Plug; 2 7/8; 2.441; 8,533; 0.44
17,062.9	9,072.2	91.0	
17,377.1	9,076.9	88.6	
17,691.9	9,081.2	89.8	
18,006.9	9,078.1	92.3	
18,321.1	9,079.7	88.3	
18,635.9	9,079.0	90.3	
18,950.2	9,078.9	91.0	

Tubing Strings									
Tubing Description		Planned Run?		Set Depth (MD) (ftKB)		Set Depth (TVD) (ftKB)			
Tubing - Production		N		8,533.4		8,504.9			
Run Date		Run Job		Pull Date		Pull Job			
2/7/2017		Complete, 12/10/2016		12:00					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
1	Tubing Hanger	2 7/8	2.441			8RD	0.50	32.0	32.5
1	TUBING	2 7/8	2.441	6.50	L-80	8RD	30.35	32.5	62.8
1	TUBING SUB	2 7/8	2.441	6.50	L-80	8RD	8.20	62.8	71.0
56	TUBING	2 7/8	2.441	6.50	L-80	8RD	1,711.58	71.0	1,782.6
1	GAS LIFT VALVE #13	4.335	2.441			8RD	4.10	1,782.6	1,786.7
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	552.06	1,786.7	2,338.8
1	GAS LIFT VALVE #12	4.335	2.441			8RD	4.10	2,338.8	2,342.9
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	554.40	2,342.9	2,897.3
1	GAS LIFT VALVE #11	4.335	2.441			8RD	4.10	2,897.3	2,901.4
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	556.11	2,901.4	3,457.5
1	GAS LIFT VALVE #10	4.335	2.441			8RD	4.10	3,457.5	3,461.6
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	555.37	3,461.6	4,016.9
1	GAS LIFT VALVE #9	4.335	2.441			8RD	4.10	4,016.9	4,021.0
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	555.58	4,021.0	4,576.6
1	GAS LIFT VALVE #8	4.335	2.441			8RD	4.10	4,576.6	4,580.7
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	552.87	4,580.7	5,133.6
1	GAS LIFT VALVE #7	4.335	2.441			8RD	4.10	5,133.6	5,137.7
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	550.98	5,137.7	5,688.7
1	GAS LIFT VALVE #6	4.335	2.441			8RD	4.10	5,688.7	5,692.8
17	TUBING	2 7/8	2.441	6.50	L-80	8RD	518.49	5,692.8	6,211.3
1	GAS LIFT VALVE #5	4.335	2.441			8RD	4.10	6,211.3	6,215.4
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	552.68	6,215.4	6,768.0
1	GAS LIFT VALVE #4	4.335	2.441			8RD	4.10	6,768.0	6,772.1
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	549.16	6,772.1	7,321.3
1	GAS LIFT VALVE #3	4.335	2.441			8TRD	4.10	7,321.3	7,325.4
18	TUBING	2.785	2.441	6.50	L-80	8RD	555.45	7,325.4	7,880.9
1	GAS LIFT VALVE #2	4.335	2.441			8RD	4.10	7,880.9	7,885.0
19	TUBING	2.785	2.441	6.50	L-80	8RD	584.00	7,885.0	8,469.0
1	GAS LIFT VALVE #1	4.335	2.441			8RD	4.10	8,469.0	8,473.1
1	TUBING	2 7/8	2.441	6.50	L-80	8RD	30.85	8,473.1	8,503.9
1	Jet Pump BHA	2 7/8				8RD	6.30	8,503.9	8,510.2
1	ON-OFF TOOL, 2.313 X PROFILE	4 1/2	2.313			8RD	1.50	8,510.2	8,511.7
1	450 WL HORNET PACKER	4 1/2	2.370			8RD	7.75	8,511.7	8,519.5



Tubing Summary

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft) 3,134.00	Original RKB Elevation (ft) 3,166.60	Current RKB Elevation 3,166.60, 8/15/2016	Mud Line Elevation (ft)	Water Depth (ft)
Current KB to Ground (ft) 32.60	Current KB to Mud Line (ft)	Current KB to Csg Flange (ft)	Current KB to Tubing Head (ft)	

Land - Original Hole, 2/7/2017 3:00:00 PM			Vertical schematic (actual)	
MD (ftK B)	TVD (ftK B)	Incl (°)		
1.9	1.9	0.0	1-1; Tubing Hanger; 2 7/8; 2.441; 32; 0.50	
8.7	8.7	0.0	1-2; TUBING; 2 7/8; 2.441; 32; 30.35	
9.5	9.5	0.1	1-3; TUBING SUB; 2 7/8; 2.441; 63; 8.20	
13.3	13.3	0.1	1-4; TUBING; 2 7/8; 2.441; 71; 1,711.58	
17.1	17.1	0.1	1-5; GAS LIFT VALVE #13; 4.34; 2.441; 1,783; 4.10	
20.9	20.9	0.2	1-6; TUBING; 2 7/8; 2.441; 1,787; 552.06	
24.7	24.7	0.2	1-7; GAS LIFT VALVE #12; 4.34; 2.441; 2,339; 4.10	
28.5	28.5	0.2	1-8; TUBING; 2 7/8; 2.441; 2,343; 554.40	
32.3	32.3	0.2	1-9; GAS LIFT VALVE #11; 4.34; 2.441; 2,897; 4.10	
62.7	62.7	0.5	1-10; TUBING; 2 7/8; 2.441; 2,901; 556.11	
8.600.9	3,574.3	4.5	1-11; GAS LIFT VALVE #10; 4.34; 2.441; 3,457; 4.10	
6.786.9	6,736.9	0.7	1-12; TUBING; 2 7/8; 2.441; 3,462; 555.37	
9.020.9	6,407.1	1.5	1-13; GAS LIFT VALVE #9; 4.34; 2.441; 4,017; 4.10	
9.026.9	6,025.0	88.1	1-14; TUBING; 2 7/8; 2.441; 4,021; 555.58	
9.032.1	6,031.3	90.7	1-15; GAS LIFT VALVE #8; 4.34; 2.441; 4,577; 4.10	
10.140.9	6,025.0	90.3	1-16; TUBING; 2 7/8; 2.441; 4,581; 552.87	
10.446.9	6,024.8	90.0	1-17; GAS LIFT VALVE #7; 4.34; 2.441; 5,134; 4.10	
10.750.1	6,034.2	87.8	1-18; TUBING; 2 7/8; 2.441; 5,138; 550.98	
11.100.9	6,030.1	91.4	1-19; GAS LIFT VALVE #6; 4.34; 2.441; 5,689; 4.10	
11.426.9	6,034.4	92.4	1-20; TUBING; 2 7/8; 2.441; 5,693; 518.49	
11.746.1	6,018.8	91.5	1-21; GAS LIFT VALVE #5; 4.34; 2.441; 6,211; 4.10	
12.060.9	6,010.8	90.2	1-22; TUBING ; 2 7/8; 2.441; 6,215; 552.68	
12.384.9	6,030.1	87.0	1-23; GAS LIFT VALVE #4; 4.34; 2.441; 6,768; 4.10	
12.700.1	6,035.1	88.4	1-24; TUBING; 2 7/8; 2.441; 6,772; 549.16	
12.970.9	6,044.3	87.6	1-25; GAS LIFT VALVE #3; 4.34; 2.441; 7,321; 4.10	
13.286.1	6,052.2	90.0	1-26; TUBING; 2.79; 2.441; 7,325; 555.45	
13.600.9	6,064.3	89.0	1-27; GAS LIFT VALVE #2; 4.34; 2.441; 7,881; 4.10	
13.917.2	6,065.5	92.2	1-28; TUBING; 2.79; 2.441; 7,885; 584.00	
14.235.1	6,050.3	89.0	1-29; GAS LIFT VALVE #1; 4.34; 2.441; 8,469; 4.10	
14.544.9	6,065.7	89.7	1-30; TUBING; 2 7/8; 2.441; 8,473; 30.85	
14.860.2	6,073.0	89.2	1-31; Jet Pump BHA; 2 7/8; 8,504; 6.30	
15.167.9	6,076.5	88.2	1-32; ON-OFF TOOL, 2.313 X PROFILE; 4 1/2; 2.313; 8,510; 1.50	
15.480.9	6,084.1	89.7	1-33; 450 WL HORNET PACKER; 4 1/2; 2.370; 8,512; 7.75	
15.786.1	6,074.6	92.3	1-34; Tubing; 2 7/8; 2.441; 8,519; 6.16	
16.100.9	6,074.1	88.5	1-35; 2.313 XN Nipple ; 2 7/8; 2.205; 8,526; 1.15	
16.426.9	6,083.9	88.0	1-36; Tubing Sub; 2 7/8; 2.441; 8,527; 6.16	
16.746.1	6,088.9	89.9	1-37; Tubing PUMP OUT Plug; 2 7/8; 2.441; 8,533; 0.44	
17.060.9	6,083.0	92.0		
17.384.9	6,073.2	91.0		
17.700.1	6,076.9	88.6		
18.026.9	6,081.2	89.8		
18.340.1	6,076.1	92.3		
18.660.9	6,076.7	88.3		
18.984.9	6,076.0	90.3		
19.307.2	6,076.9	91.0		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
1	Tubing	2 7/8	2.441	6.50	L-80	8RD	6.16	8,519.5	8,525.6
1	2.313 XN Nipple	2 7/8	2.205			8RD	1.15	8,525.6	8,526.8
1	Tubing Sub	2 7/8	2.441	6.50	L-80	8RD	6.16	8,526.8	8,532.9
1	Tubing PUMP OUT Plug	2 7/8	2.441			8RD	0.44	8,532.9	8,533.4

Rod Strings

Rod Description	Planned Run?	Set Depth (ftKB)	Set Depth (TVD) (ftKB)
Run Date	Run Job	Pull Date	Pull Job

Rod Components

Jts	Item Des	OD (in)	Grade	Model	Len (ft)	Top (ftKB)	Btm (ftKB)
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Wellbore Schematic

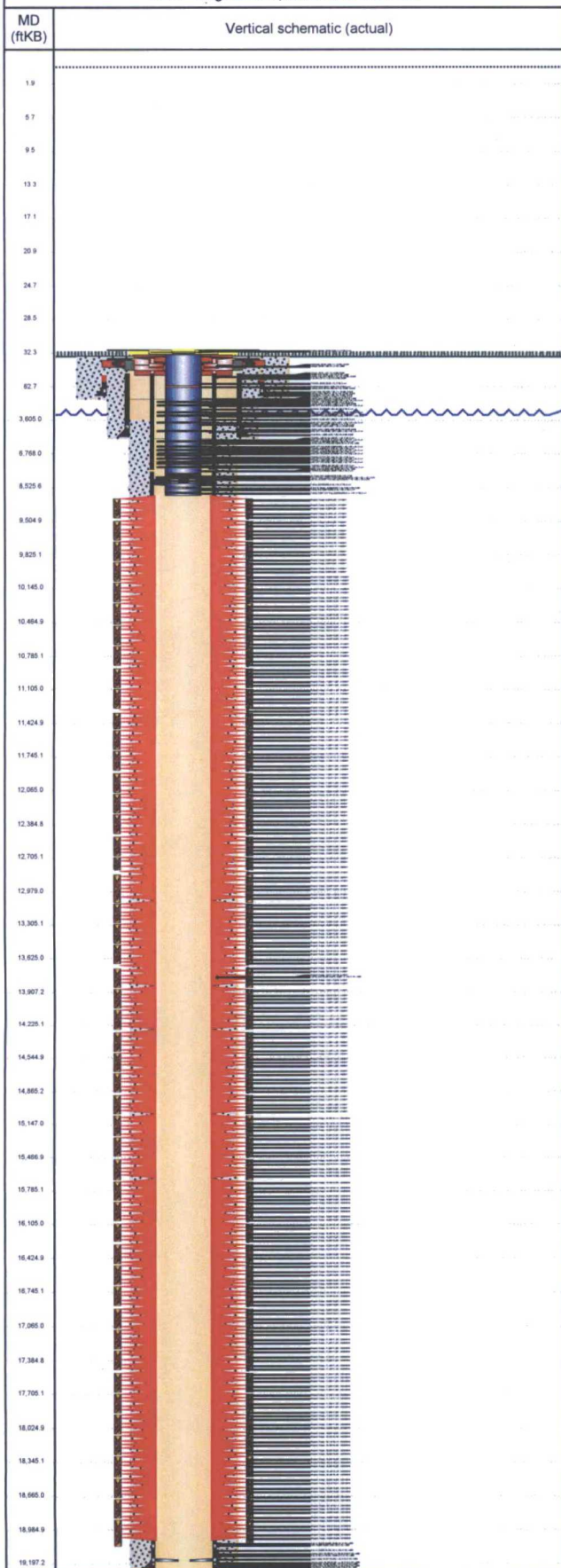
Well Name
SALADO DRAW WE 24 FED P23 002H

Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:17:38 AM



Job Details

Job Category	Start Date	Rig/Unit End Date
Completion	12/10/2016	12/17/2016
Completion	12/17/2016	1/17/2017
Completion	1/18/2017	1/23/2017
Completion	2/6/2017	2/8/2017

Casing Strings

Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Top Thread	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	J-55		749
Intermediate Casing	9 5/8	40.00	HCK-55		4,610
Production Casing	5 1/2	20.00	P-110	TXP-BTC	19,246

Tubing Strings

Tubing - Production set at 8,533.4ftKB on 2/7/2017 15:00

Tubing Description		Run Date	String Length (ft)	Set Depth (MD) (ftKB)		
Tubing - Production		2/7/2017	8,501.39	8,533.4		
Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Btm (ftKB)
Tubing Hanger	1	2 7/8			0.50	32.5
TUBING	1	2 7/8	6.50	L-80	30.35	62.8
TUBING SUB	1	2 7/8	6.50	L-80	8.20	71.0
TUBING	56	2 7/8	6.50	L-80	1,711.58	1,782.6
GAS LIFT VALVE #13	1	4.335			4.10	1,786.7
TUBING	18	2 7/8	6.50	L-80	552.06	2,338.8
GAS LIFT VALVE #12	1	4.335			4.10	2,342.9
TUBING	18	2 7/8	6.50	L-80	554.40	2,897.3
GAS LIFT VALVE #11	1	4.335			4.10	2,901.4
TUBING	18	2 7/8	6.50	L-80	556.11	3,457.5
GAS LIFT VALVE #10	1	4.335			4.10	3,461.6
TUBING	18	2 7/8	6.50	L-80	555.37	4,016.9
GAS LIFT VALVE #9	1	4.335			4.10	4,021.0
TUBING	18	2 7/8	6.50	L-80	555.58	4,576.6
GAS LIFT VALVE #8	1	4.335			4.10	4,580.7
TUBING	18	2 7/8	6.50	L-80	552.87	5,133.6
GAS LIFT VALVE #7	1	4.335			4.10	5,137.7
TUBING	18	2 7/8	6.50	L-80	550.98	5,688.7
GAS LIFT VALVE #6	1	4.335			4.10	5,692.8
TUBING	17	2 7/8	6.50	L-80	518.49	6,211.3
GAS LIFT VALVE #5	1	4.335			4.10	6,215.4
TUBING	18	2 7/8	6.50	L-80	552.68	6,768.0
GAS LIFT VALVE #4	1	4.335			4.10	6,772.1
TUBING	18	2 7/8	6.50	L-80	549.16	7,321.3
GAS LIFT VALVE #3	1	4.335			4.10	7,325.4
TUBING	18	2.785	6.50	L-80	555.45	7,880.9
GAS LIFT VALVE #2	1	4.335			4.10	7,885.0
TUBING	19	2.785	6.50	L-80	584.00	8,469.0
GAS LIFT VALVE #1	1	4.335			4.10	8,473.1
TUBING	1	2 7/8	6.50	L-80	30.85	8,503.9
Jet Pump BHA	1	2 7/8			6.30	8,510.2
ON-OFF TOOL, 2.313 X PROFILE	1	4 1/2			1.50	8,511.7
450 WL HORNET PACKER	1	4 1/2			7.75	8,519.5
Tubing	1	2 7/8	6.50	L-80	6.16	8,525.6
2.313 XN Nipple	1	2 7/8			1.15	8,526.8
Tubing Sub	1	2 7/8	6.50	L-80	6.16	8,532.9
Tubing PUMP OUT Plug	1	2 7/8			0.44	8,533.4

Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/17/2017	9,305.0	9,307.0	6.0	8	Avalon, Original Hole
1/17/2017	9,345.0	9,347.0	6.0	8	Avalon, Original Hole
1/17/2017	9,385.0	9,387.0	6.0	8	Avalon, Original Hole
1/17/2017	9,425.0	9,427.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name
SALADO DRAW WE 24 FED P23 002H

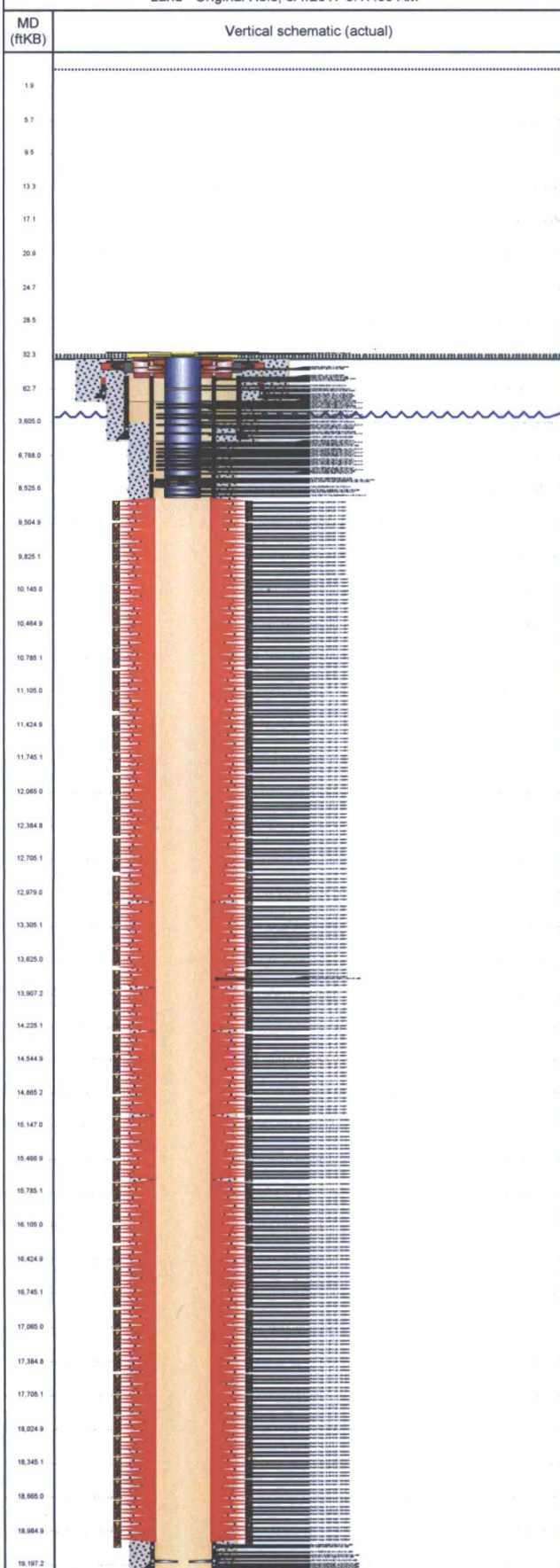
Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:17:39 AM

Perforations

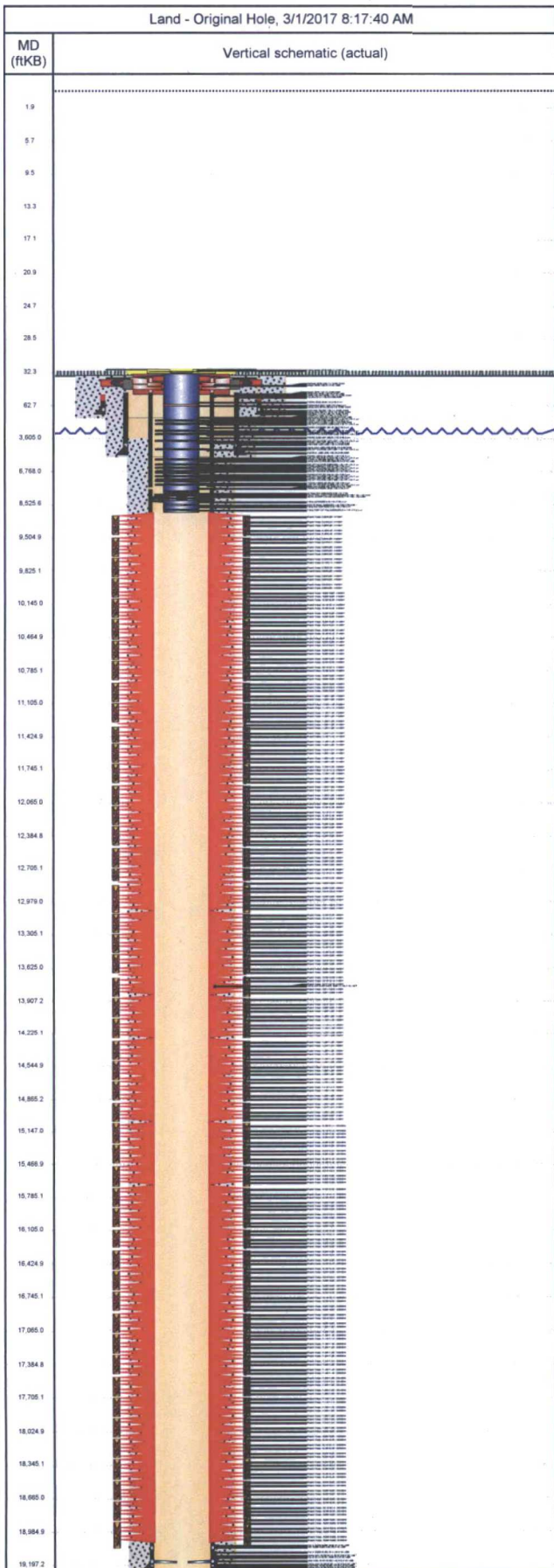


Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/17/2017	9,465.0	9,467.0	6.0	8	Avalon, Original Hole
1/16/2017	9,505.0	9,507.0	6.0	8	Avalon, Original Hole
1/16/2017	9,545.0	9,547.0	6.0	8	Avalon, Original Hole
1/16/2017	9,585.0	9,587.0	6.0	8	Avalon, Original Hole
1/16/2017	9,625.0	9,627.0	6.0	8	Avalon, Original Hole
1/16/2017	9,665.0	9,667.0	6.0	8	Avalon, Original Hole
1/16/2017	9,705.0	9,707.0	6.0	8	Avalon, Original Hole
1/16/2017	9,745.0	9,747.0	6.0	8	Avalon, Original Hole
1/16/2017	9,785.0	9,787.0	6.0	8	Avalon, Original Hole
1/16/2017	9,825.0	9,827.0	6.0	8	Avalon, Original Hole
1/16/2017	9,865.0	9,867.0	6.0	8	Avalon, Original Hole
1/15/2017	9,905.0	9,907.0	6.0	8	Avalon, Original Hole
1/15/2017	9,945.0	9,947.0	6.0	8	Avalon, Original Hole
1/15/2017	9,985.0	9,987.0	6.0	8	Avalon, Original Hole
1/15/2017	10,025.0	10,027.0	6.0	8	Avalon, Original Hole
1/15/2017	10,065.0	10,067.0	6.0	8	Avalon, Original Hole
1/15/2017	10,105.0	10,107.0	6.0	8	Avalon, Original Hole
1/15/2017	10,145.0	10,147.0	6.0	8	Avalon, Original Hole
1/15/2017	10,185.0	10,187.0	6.0	8	Avalon, Original Hole
1/15/2017	10,225.0	10,227.0	6.0	8	Avalon, Original Hole
1/15/2017	10,265.0	10,267.0	6.0	8	Avalon, Original Hole
1/14/2017	10,305.0	10,307.0	6.0	8	Avalon, Original Hole
1/14/2017	10,345.0	10,347.0	6.0	8	Avalon, Original Hole
1/14/2017	10,385.0	10,387.0	6.0	8	Avalon, Original Hole
1/14/2017	10,425.0	10,427.0	6.0	8	Avalon, Original Hole
1/14/2017	10,465.0	10,467.0	6.0	8	Avalon, Original Hole
1/14/2017	10,505.0	10,507.0	6.0	8	Avalon, Original Hole
1/14/2017	10,545.0	10,547.0	6.0	8	Avalon, Original Hole
1/14/2017	10,585.0	10,587.0	6.0	8	Avalon, Original Hole
1/14/2017	10,625.0	10,627.0	6.0	8	Avalon, Original Hole
1/14/2017	10,665.0	10,667.0	6.0	8	Avalon, Original Hole
1/13/2017	10,705.0	10,707.0	6.0	8	Avalon, Original Hole
1/13/2017	10,745.0	10,747.0	6.0	8	Avalon, Original Hole
1/13/2017	10,785.0	10,787.0	6.0	8	Avalon, Original Hole
1/13/2017	10,825.0	10,827.0	6.0	8	Avalon, Original Hole
1/13/2017	10,865.0	10,867.0	6.0	8	Avalon, Original Hole
1/12/2017	10,905.0	10,907.0	6.0	8	Avalon, Original Hole
1/12/2017	10,945.0	10,947.0	6.0	8	Avalon, Original Hole
1/12/2017	10,985.0	10,987.0	6.0	8	Avalon, Original Hole
1/12/2017	11,025.0	11,027.0	6.0	8	Avalon, Original Hole
1/12/2017	11,065.0	11,067.0	6.0	8	Avalon, Original Hole
1/12/2017	11,105.0	11,107.0	6.0	8	Avalon, Original Hole
1/12/2017	11,145.0	11,147.0	6.0	8	Avalon, Original Hole
1/12/2017	11,185.0	11,187.0	6.0	8	Avalon, Original Hole
1/12/2017	11,225.0	11,227.0	6.0	8	Avalon, Original Hole
1/12/2017	11,265.0	11,267.0	6.0	8	Avalon, Original Hole
1/11/2017	11,285.0	11,287.0	6.0	8	Avalon, Original Hole
1/11/2017	11,305.0	11,307.0	6.0	8	Avalon, Original Hole
1/11/2017	11,345.0	11,347.0	6.0	8	Avalon, Original Hole
1/11/2017	11,425.0	11,427.0	6.0	8	Avalon, Original Hole
1/11/2017	11,465.0	11,467.0	6.0	8	Avalon, Original Hole
1/11/2017	11,505.0	11,507.0	6.0	8	Avalon, Original Hole
1/11/2017	11,545.0	11,547.0	6.0	8	Avalon, Original Hole
1/11/2017	11,585.0	11,587.0	6.0	8	Avalon, Original Hole
1/11/2017	11,625.0	11,627.0	6.0	8	Avalon, Original Hole
1/11/2017	11,665.0	11,667.0	6.0	8	Avalon, Original Hole
1/10/2017	11,705.0	11,707.0	6.0	8	Avalon, Original Hole
1/10/2017	11,745.0	11,747.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/10/2017	11,785.0	11,787.0	6.0	8	Avalon, Original Hole
1/10/2017	11,825.0	11,827.0	6.0	8	Avalon, Original Hole
1/10/2017	11,865.0	11,867.0	6.0	8	Avalon, Original Hole
1/10/2017	11,905.0	11,907.0	6.0	8	Avalon, Original Hole
1/10/2017	11,945.0	11,947.0	6.0	8	Avalon, Original Hole
1/10/2017	11,985.0	11,987.0	6.0	8	Avalon, Original Hole
1/10/2017	12,025.0	12,027.0	6.0	8	Avalon, Original Hole
1/10/2017	12,065.0	12,067.0	6.0	8	Avalon, Original Hole
1/9/2017	12,105.0	12,107.0	6.0	8	Avalon, Original Hole
1/9/2017	12,145.0	12,147.0	6.0	8	Avalon, Original Hole
1/9/2017	12,185.0	12,187.0	6.0	8	Avalon, Original Hole
1/9/2017	12,225.0	12,227.0	6.0	8	Avalon, Original Hole
1/9/2017	12,265.0	12,267.0	6.0	8	Avalon, Original Hole
1/9/2017	12,305.0	12,307.0	6.0	8	Avalon, Original Hole
1/9/2017	12,345.0	12,347.0	6.0	8	Avalon, Original Hole
1/9/2017	12,385.0	12,387.0	6.0	8	Avalon, Original Hole
1/9/2017	12,425.0	12,427.0	6.0	8	Avalon, Original Hole
1/9/2017	12,465.0	12,467.0	6.0	8	Avalon, Original Hole
1/8/2017	12,505.0	12,507.0	6.0	8	Avalon, Original Hole
1/8/2017	12,545.0	12,547.0	6.0	8	Avalon, Original Hole
1/8/2017	12,585.0	12,587.0	6.0	8	Avalon, Original Hole
1/8/2017	12,625.0	12,627.0	6.0	8	Avalon, Original Hole
1/8/2017	12,665.0	12,667.0	6.0	8	Avalon, Original Hole
1/8/2017	12,705.0	12,707.0	6.0	8	Avalon, Original Hole
1/8/2017	12,745.0	12,747.0	6.0	8	Avalon, Original Hole
1/8/2017	12,785.0	12,787.0	6.0	8	Avalon, Original Hole
1/7/2017	12,903.0	12,905.0	6.0	8	Avalon, Original Hole
1/8/2017	12,925.0	12,927.0	6.0	8	Avalon, Original Hole
1/7/2017	12,940.0	12,942.0	6.0	8	Avalon, Original Hole
1/8/2017	12,965.0	12,967.0	6.0	8	Avalon, Original Hole
1/7/2017	12,977.0	12,979.0	6.0	8	Avalon, Original Hole
1/7/2017	13,014.0	13,016.0	6.0	8	Avalon, Original Hole
1/7/2017	13,051.0	13,053.0	6.0	8	Avalon, Original Hole
1/6/2017	13,105.0	13,107.0	6.0	8	Avalon, Original Hole
1/6/2017	13,145.0	13,147.0	6.0	8	Avalon, Original Hole
1/6/2017	13,185.0	13,187.0	6.0	8	Avalon, Original Hole
1/6/2017	13,225.0	13,227.0	6.0	8	Avalon, Original Hole
1/6/2017	13,265.0	13,267.0	6.0	8	Avalon, Original Hole
1/5/2017	13,305.0	13,307.0	6.0	8	Avalon, Original Hole
1/5/2017	13,345.0	13,347.0	6.0	8	Avalon, Original Hole
1/5/2017	13,385.0	13,387.0	6.0	8	Avalon, Original Hole
1/5/2017	13,425.0	13,427.0	6.0	8	Avalon, Original Hole
1/5/2017	13,465.0	13,467.0	6.0	8	Avalon, Original Hole
1/5/2017	13,505.0	13,507.0	6.0	8	Avalon, Original Hole
1/5/2017	13,545.0	13,547.0	6.0	8	Avalon, Original Hole
1/5/2017	13,585.0	13,587.0	6.0	8	Avalon, Original Hole
1/5/2017	13,625.0	13,627.0	6.0	8	Avalon, Original Hole
1/5/2017	13,665.0	13,667.0	6.0	8	Avalon, Original Hole
1/4/2017	13,703.0	13,705.0	6.0	8	Avalon, Original Hole
1/4/2017	13,740.0	13,742.0	6.0	8	Avalon, Original Hole
1/4/2017	13,777.0	13,779.0	6.0	8	Avalon, Original Hole
1/4/2017	13,814.0	13,816.0	6.0	8	Avalon, Original Hole
1/4/2017	13,851.0	13,853.0	6.0	8	Avalon, Original Hole
1/4/2017	13,905.0	13,907.0	6.0	8	Avalon, Original Hole
1/4/2017	13,945.0	13,947.0	6.0	8	Avalon, Original Hole
1/4/2017	13,985.0	13,987.0	6.0	8	Avalon, Original Hole
1/4/2017	14,025.0	14,027.0	6.0	8	Avalon, Original Hole
1/4/2017	14,065.0	14,067.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name
SALADO DRAW WE 24 FED P23 002H

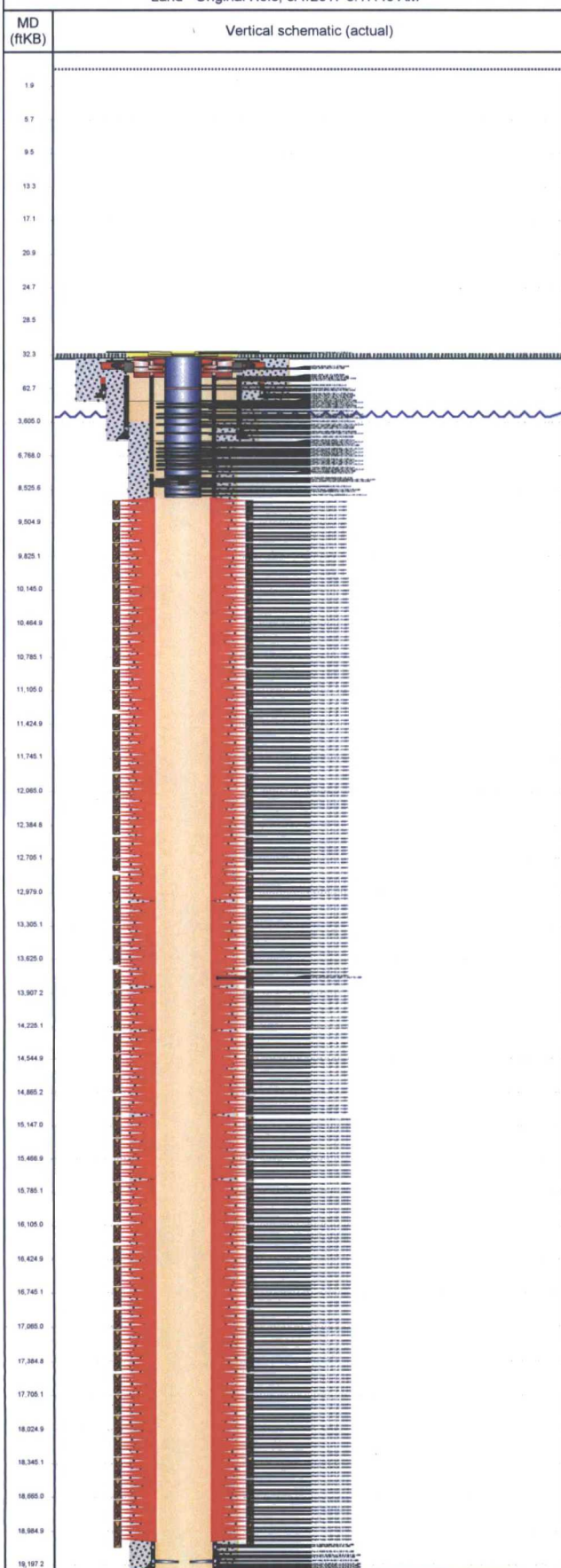
Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:17:40 AM

Perforations

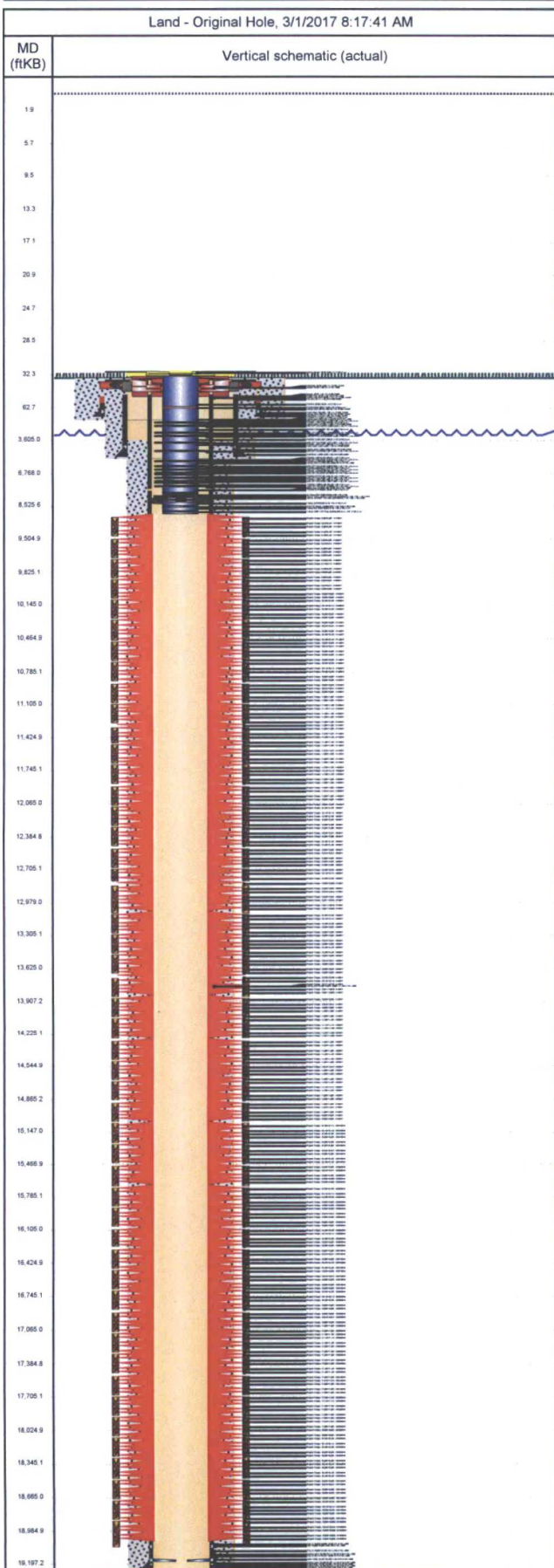


Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/3/2017	14,105.0	14,107.0	6.0	8	Avalon, Original Hole
1/3/2017	14,145.0	14,147.0	6.0	8	Avalon, Original Hole
1/3/2017	14,183.0	14,185.0	6.0	8	Avalon, Original Hole
1/3/2017	14,223.0	14,225.0	6.0	8	Avalon, Original Hole
1/3/2017	14,261.0	14,263.0	6.0	8	Avalon, Original Hole
1/3/2017	14,305.0	14,307.0	6.0	8	Avalon, Original Hole
1/3/2017	14,345.0	14,347.0	6.0	8	Avalon, Original Hole
1/3/2017	14,385.0	14,387.0	6.0	8	Avalon, Original Hole
1/3/2017	14,425.0	14,427.0	6.0	8	Avalon, Original Hole
1/3/2017	14,465.0	14,467.0	6.0	8	Avalon, Original Hole
1/2/2017	14,505.0	14,507.0	6.0	8	Avalon, Original Hole
1/2/2017	14,545.0	14,547.0	6.0	8	Avalon, Original Hole
1/2/2017	14,585.0	14,587.0	6.0	8	Avalon, Original Hole
1/2/2017	14,625.0	14,627.0	6.0	8	Avalon, Original Hole
1/2/2017	14,665.0	14,667.0	6.0	8	Avalon, Original Hole
1/2/2017	14,705.0	14,707.0	6.0	8	Avalon, Original Hole
1/2/2017	14,745.0	14,747.0	6.0	8	Avalon, Original Hole
1/2/2017	14,785.0	14,787.0	6.0	8	Avalon, Original Hole
1/2/2017	14,825.0	14,827.0	6.0	8	Avalon, Original Hole
1/2/2017	14,865.0	14,867.0	6.0	8	Avalon, Original Hole
1/1/2017	14,905.0	14,907.0	6.0	8	Avalon, Original Hole
1/1/2017	14,945.0	14,947.0	6.0	8	Avalon, Original Hole
1/1/2017	14,985.0	14,987.0	6.0	8	Avalon, Original Hole
1/1/2017	15,025.0	15,027.0	6.0	8	Avalon, Original Hole
1/1/2017	15,065.0	15,067.0	6.0	8	Avalon, Original Hole
12/31/2016	15,109.0	15,111.0	6.0	8	Avalon, Original Hole
12/31/2016	15,145.0	15,147.0	6.0	8	Avalon, Original Hole
12/31/2016	15,185.0	15,187.0	6.0	8	Avalon, Original Hole
12/31/2016	15,225.0	15,227.0	6.0	8	Avalon, Original Hole
12/31/2016	15,265.0	15,267.0	6.0	8	Avalon, Original Hole
12/31/2016	15,305.0	15,307.0	6.0	8	Avalon, Original Hole
12/31/2016	15,345.0	15,347.0	6.0	8	Avalon, Original Hole
12/31/2016	15,385.0	15,387.0	6.0	8	Avalon, Original Hole
12/31/2016	15,425.0	15,427.0	6.0	8	Avalon, Original Hole
12/31/2016	15,465.0	15,467.0	6.0	8	Avalon, Original Hole
12/30/2016	15,505.0	15,507.0	6.0	8	Avalon, Original Hole
12/30/2016	15,545.0	15,547.0	6.0	8	Avalon, Original Hole
12/30/2016	15,585.0	15,587.0	6.0	8	Avalon, Original Hole
12/30/2016	15,620.0	15,622.0	6.0	8	Avalon, Original Hole
12/30/2016	15,660.0	15,662.0	6.0	8	Avalon, Original Hole
12/29/2016	15,705.0	15,707.0	6.0	8	Avalon, Original Hole
12/29/2016	15,745.0	15,747.0	6.0	8	Avalon, Original Hole
12/29/2016	15,785.0	15,787.0	6.0	8	Avalon, Original Hole
12/29/2016	15,825.0	15,827.0	6.0	8	Avalon, Original Hole
12/29/2016	15,865.0	15,867.0	6.0	8	Avalon, Original Hole
12/29/2016	15,905.0	15,907.0	6.0	8	Avalon, Original Hole
12/29/2016	15,945.0	15,947.0	6.0	8	Avalon, Original Hole
12/29/2016	15,985.0	15,987.0	6.0	8	Avalon, Original Hole
12/29/2016	16,025.0	16,027.0	6.0	8	Avalon, Original Hole
12/29/2016	16,065.0	16,067.0	6.0	8	Avalon, Original Hole
12/28/2016	16,105.0	16,107.0	6.0	8	Avalon, Original Hole
12/28/2016	16,145.0	16,147.0	6.0	8	Avalon, Original Hole
12/28/2016	16,185.0	16,187.0	6.0	8	Avalon, Original Hole
12/28/2016	16,225.0	16,227.0	6.0	8	Avalon, Original Hole
12/28/2016	16,265.0	16,267.0	6.0	8	Avalon, Original Hole
12/27/2016	16,305.0	16,307.0	6.0	8	Avalon, Original Hole
12/27/2016	16,345.0	16,347.0	6.0	8	Avalon, Original Hole
12/27/2016	16,385.0	16,387.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/27/2016	16,425.0	16,427.0	6.0	8	Avalon, Original Hole
12/27/2016	16,465.0	16,467.0	6.0	8	Avalon, Original Hole
12/27/2016	16,505.0	16,507.0	6.0	8	Avalon, Original Hole
12/27/2016	16,545.0	16,547.0	6.0	8	Avalon, Original Hole
12/27/2016	16,585.0	16,587.0	6.0	8	Avalon, Original Hole
12/27/2016	16,625.0	16,627.0	6.0	8	Avalon, Original Hole
12/27/2016	16,665.0	16,667.0	6.0	8	Avalon, Original Hole
12/26/2016	16,705.0	16,707.0	6.0	8	Avalon, Original Hole
12/26/2016	16,745.0	16,747.0	6.0	8	Avalon, Original Hole
12/26/2016	16,785.0	16,787.0	6.0	8	Avalon, Original Hole
12/26/2016	16,825.0	16,827.0	6.0	8	Avalon, Original Hole
12/26/2016	16,865.0	16,867.0	6.0	8	Avalon, Original Hole
12/26/2016	16,905.0	16,907.0	6.0	8	Avalon, Original Hole
12/26/2016	16,945.0	16,947.0	6.0	8	Avalon, Original Hole
12/26/2016	16,985.0	16,987.0	6.0	8	Avalon, Original Hole
12/26/2016	17,025.0	17,027.0	6.0	8	Avalon, Original Hole
12/26/2016	17,065.0	17,067.0	6.0	8	Avalon, Original Hole
12/25/2016	17,105.0	17,107.0	6.0	8	Avalon, Original Hole
12/25/2016	17,145.0	17,147.0	6.0	8	Avalon, Original Hole
12/25/2016	17,185.0	17,187.0	6.0	8	Avalon, Original Hole
12/25/2016	17,225.0	17,227.0	6.0	8	Avalon, Original Hole
12/25/2016	17,265.0	17,267.0	6.0	8	Avalon, Original Hole
12/25/2016	17,305.0	17,307.0	6.0	8	Avalon, Original Hole
12/25/2016	17,345.0	17,347.0	6.0	8	Avalon, Original Hole
12/25/2016	17,385.0	17,387.0	6.0	8	Avalon, Original Hole
12/25/2016	17,425.0	17,427.0	6.0	8	Avalon, Original Hole
12/25/2016	17,465.0	17,467.0	6.0	8	Avalon, Original Hole
12/24/2016	17,505.0	17,507.0	6.0	8	Avalon, Original Hole
12/24/2016	17,545.0	17,547.0	6.0	8	Avalon, Original Hole
12/24/2016	17,585.0	17,587.0	6.0	8	Avalon, Original Hole
12/24/2016	17,625.0	17,627.0	6.0	8	Avalon, Original Hole
12/24/2016	17,665.0	17,667.0	6.0	8	Avalon, Original Hole
12/23/2016	17,705.0	17,707.0	6.0	8	Avalon, Original Hole
12/23/2016	17,745.0	17,747.0	6.0	8	Avalon, Original Hole
12/23/2016	17,785.0	17,787.0	6.0	8	Avalon, Original Hole
12/23/2016	17,825.0	17,827.0	6.0	8	Avalon, Original Hole
12/23/2016	17,865.0	17,867.0	6.0	8	Avalon, Original Hole
12/23/2016	17,905.0	17,907.0	6.0	8	Avalon, Original Hole
12/23/2016	17,945.0	17,947.0	6.0	8	Avalon, Original Hole
12/23/2016	17,985.0	17,987.0	6.0	8	Avalon, Original Hole
12/23/2016	18,025.0	18,027.0	6.0	8	Avalon, Original Hole
12/23/2016	18,065.0	18,067.0	6.0	8	Avalon, Original Hole
12/22/2016	18,105.0	18,107.0	6.0	8	Avalon, Original Hole
12/22/2016	18,145.0	18,147.0	6.0	8	Avalon, Original Hole
12/22/2016	18,185.0	18,187.0	6.0	8	Avalon, Original Hole
12/22/2016	18,225.0	18,227.0	6.0	8	Avalon, Original Hole
12/22/2016	18,265.0	18,267.0	6.0	8	Avalon, Original Hole
12/22/2016	18,305.0	18,307.0	6.0	8	Avalon, Original Hole
12/22/2016	18,345.0	18,347.0	6.0	8	Avalon, Original Hole
12/22/2016	18,385.0	18,387.0	6.0	8	Avalon, Original Hole
12/22/2016	18,425.0	18,427.0	6.0	8	Avalon, Original Hole
12/22/2016	18,465.0	18,467.0	6.0	8	Avalon, Original Hole
12/21/2016	18,505.0	18,507.0	6.0	8	Avalon, Original Hole
12/21/2016	18,545.0	18,547.0	6.0	8	Avalon, Original Hole
12/21/2016	18,585.0	18,587.0	6.0	8	Avalon, Original Hole
12/21/2016	18,625.0	18,627.0	6.0	8	Avalon, Original Hole
12/21/2016	18,665.0	18,667.0	6.0	8	Avalon, Original Hole
12/21/2016	18,705.0	18,707.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

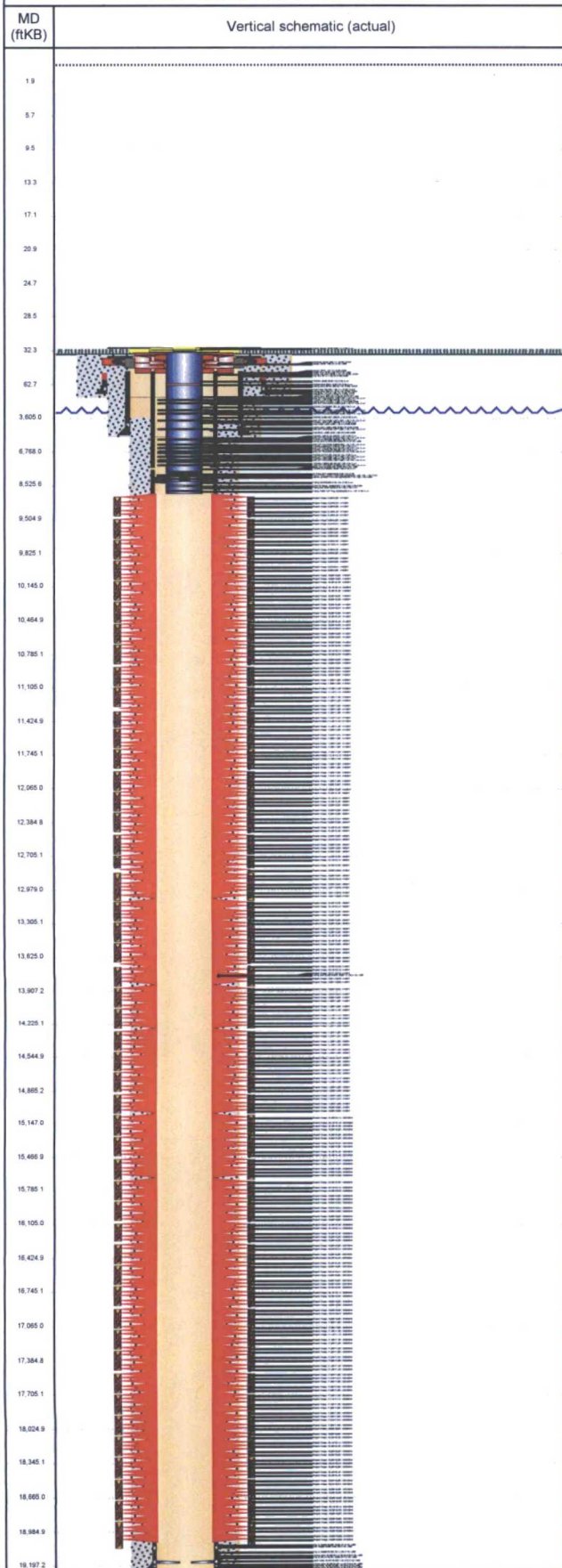
Well Name
SALADO DRAW WE 24 FED P23 002H

Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:17:42 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/21/2016	18,745.0	18,747.0	6.0	8	Avalon, Original Hole
12/21/2016	18,785.0	18,787.0	6.0	8	Avalon, Original Hole
12/21/2016	18,825.0	18,827.0	6.0	8	Avalon, Original Hole
12/21/2016	18,865.0	18,867.0	6.0	8	Avalon, Original Hole
12/16/2016	18,905.0	18,906.3	6.0	8	Avalon, Original Hole
12/16/2016	18,945.0	18,946.3	6.0	8	Avalon, Original Hole
12/16/2016	18,985.0	18,986.3	6.0	8	Avalon, Original Hole
12/16/2016	19,025.0	19,026.3	6.0	8	Avalon, Original Hole
12/16/2016	19,065.0	19,066.3	6.0	8	Avalon, Original Hole

Other Strings

Run Date	Pull Date	Set Depth (ftKB)	Com

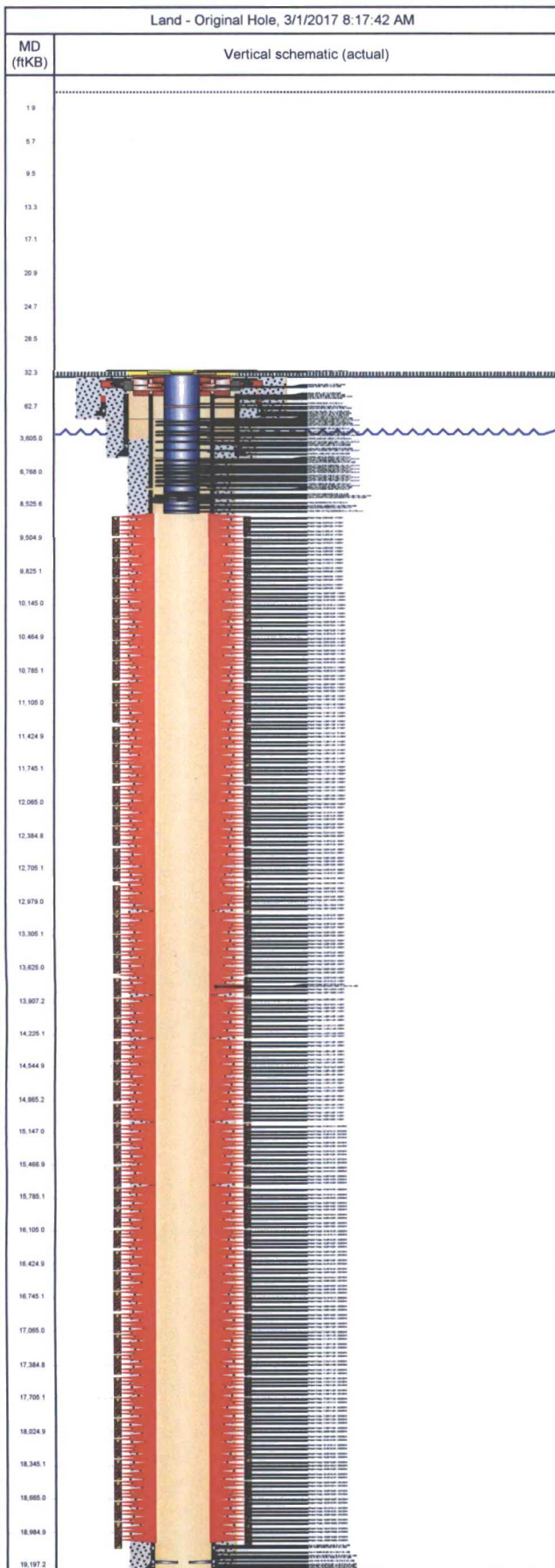
Other In Hole

Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Packer (retrievable)	8,513.0	8,521.0	1/27/2017		Production PKR
Tailpipe	8,521.0	8,535.0	1/27/2017		
Composite Frac Plug (drop ball)	9,485.0	9,487.0	1/17/2017	1/20/2017	Stage 49
Composite Frac Plug (drop ball)	9,685.0	9,687.0	1/16/2017	1/20/2017	Stage 48
Composite Frac Plug (drop ball)	9,885.0	9,887.0	1/16/2017	1/20/2017	Stage 47
Composite Frac Plug (drop ball)	10,085.0	10,087.0	1/15/2017	1/20/2017	Stage 46
Composite Frac Plug (drop ball)	10,285.0	10,287.0	1/15/2017	1/20/2017	Stage 45
Composite Frac Plug (drop ball)	10,485.0	10,487.0	1/14/2017	1/20/2017	Stage 44
Composite Frac Plug (drop ball)	10,685.0	10,687.0	1/14/2017	1/20/2017	Stage 43
Composite Frac Plug (drop ball)	10,885.0	10,887.0	1/13/2017	1/20/2017	Stage 42
Composite Frac Plug (drop ball)	11,085.0	11,087.0	1/12/2017	1/20/2017	Stage 41
Composite Frac Plug (drop ball)	11,285.0	11,287.0	1/12/2017	1/20/2017	Stage 40
Composite Frac Plug (drop ball)	11,485.0	11,487.0	1/11/2017	1/20/2017	Stage 39
Composite Frac Plug (drop ball)	11,685.0	11,687.0	1/11/2017	1/20/2017	Stage 38
Composite Frac Plug (drop ball)	11,885.0	11,887.0	1/10/2017	1/20/2017	Stage 37
Composite Frac Plug (drop ball)	12,085.0	12,087.0	1/10/2017	1/20/2017	Stage 36
Composite Frac Plug (drop ball)	12,285.0	12,287.0	1/9/2017	1/20/2017	Stage 35
Composite Frac Plug (drop ball)	12,485.0	12,487.0	1/9/2017	1/20/2017	Stage 34
Composite Frac Plug (drop ball)	12,685.0	12,687.0	1/8/2017	1/20/2017	Stage 33
Composite Frac Plug (drop ball)	12,885.0	12,887.0	1/8/2017	1/20/2017	Stage 32
Composite Frac Plug (drop ball)	13,085.0	13,087.0	1/7/2017	1/20/2017	Stage 31
Composite Frac Plug (drop ball)	13,285.0	13,287.0	1/6/2017	1/21/2017	Stage 30
Composite Frac Plug (drop ball)	13,485.0	13,487.0	1/5/2017	1/21/2017	Stage 29
Composite Frac Plug (drop ball)	13,685.0	13,687.0	1/5/2017	1/21/2017	Stage 28



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Other In Hole					
Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	13,885.0	13,887.0	1/4/2017	1/21/2017	Stage 27
Composite Frac Plug (drop ball)	14,085.0	14,087.0	1/4/2017	1/21/2017	Stage 26
Composite Frac Plug (drop ball)	14,285.0	14,287.0	1/3/2017	1/21/2017	Stage 25
Composite Frac Plug (drop ball)	14,485.0	14,487.0	1/3/2017	1/21/2017	Stage 24
Composite Frac Plug (drop ball)	14,685.0	14,687.0	1/2/2017	1/21/2017	Stage 23
Composite Frac Plug (drop ball)	14,885.0	14,887.0	1/2/2017	1/21/2017	Stage 22
Composite Frac Plug (drop ball)	15,085.0	15,087.0	1/1/2017	1/21/2017	Stage 21
Composite Frac Plug (drop ball)	15,285.0	15,287.0	12/31/2016	1/21/2017	Stage 20
Composite Frac Plug (drop ball)	15,485.0	15,487.0	12/31/2016	1/21/2017	Stage 19
Composite Frac Plug (drop ball)	15,685.0	15,687.0	12/30/2016	1/21/2017	Stage 18
Composite Frac Plug (drop ball)	15,885.0	15,887.0	12/29/2016	1/21/2017	Stage 17
Composite Frac Plug (drop ball)	16,085.0	16,087.0	12/29/2016	1/21/2017	Stage 16
Composite Frac Plug (drop ball)	16,285.0	16,287.0	12/28/2016	1/21/2017	Stage 15
Composite Frac Plug (drop ball)	16,485.0	16,487.0	12/27/2016	1/21/2017	Stage 14
Composite Frac Plug (drop ball)	16,685.0	16,687.0	12/27/2016	1/21/2017	Stage 13
Composite Frac Plug (drop ball)	16,885.0	16,887.0	12/26/2016	1/21/2017	Stage 12
Composite Frac Plug (drop ball)	17,085.0	17,087.0	12/26/2016	1/22/2017	Stage 11
Composite Frac Plug (drop ball)	17,285.0	17,287.0	12/25/2016	1/22/2017	Stage 10
Composite Frac Plug (drop ball)	17,485.0	17,487.0	12/25/2016	1/22/2017	Stage 9
Composite Frac Plug (drop ball)	17,685.0	17,687.0	12/24/2016	1/22/2017	Stage 8
Composite Frac Plug (drop ball)	17,885.0	17,887.0	12/23/2016	1/22/2017	Stage 7
Composite Frac Plug (drop ball)	18,085.0	18,087.0	12/23/2016	1/22/2017	Stage 6
Composite Frac Plug (drop ball)	18,285.0	18,287.0	12/22/2016	1/22/2017	Stage 5
Composite Frac Plug (drop ball)	18,485.0	18,487.0	12/22/2016	1/22/2017	Stage 4
Composite Frac Plug (drop ball)	18,685.0	18,687.0	12/21/2016	1/22/2017	Stage 3
Composite Frac Plug (drop ball)	18,885.0	18,887.0	12/21/2016	1/22/2017	Stage 2



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Wellbore Name Original Hole	Parent Wellbore Original Hole	Min Kick Off Depth (ftKB) 8,515.0	Vertical Section Direction (°) 359.71
Northing (Y) (ft)	Easting (X) (ft)	UTM Grid Zone	

Date 8/20/2016	Definitive? N	Description MWD		Planned? N	
MD Tie In (ftKB) 0.00	TVD Tie In (ftKB) 0.00	Inclination Tie In (°) 0.00	Azimuth Tie In (°) 0.00	NS Tie In (ft) 0.00	EW Tie In (ft) 0.00

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Magn MS		0.00	0.00	0.00	N
125	0.90	55.30	124.99	0.56	0.81	0.55	0.72	Magn MS		0.72	0.98	44.24	N
170	1.20	44.30	169.99	1.10	1.43	1.09	0.80	Magn MS		0.67	1.80	-24.44	N
245	1.40	60.30	244.97	2.11	2.77	2.10	0.55	Magn MS		0.27	3.49	21.33	N
345	1.30	46.30	344.94	3.50	4.65	3.48	0.34	Magn MS		-0.10	5.82	-14.00	N
439	1.10	48.30	438.92	4.84	6.10	4.81	0.22	Magn MS		-0.21	7.78	2.13	N
623	1.40	78.30	622.88	6.47	9.62	6.42	0.39	Magn MS		0.16	11.59	16.30	N
712	1.30	87.30	711.85	6.74	11.69	6.68	0.26	Magn MS		-0.11	13.49	10.11	N
800	0.90	108.72	799.84	6.56	13.34	6.50	0.64	Magn MWD	Baker Hughes	-0.45	14.87	24.34	N
982	3.16	251.69	981.76	4.53	9.93	4.48	2.15	Magn MWD	Baker Hughes	1.24	10.92	78.55	N
1,164	6.39	241.65	1,163.11	-1.86	-3.75	-1.84	1.83	Magn MWD	Baker Hughes	1.77	4.18	-5.52	N
1,346	8.44	243.14	1,343.57	-12.70	-24.58	-12.58	1.13	Magn MWD	Baker Hughes	1.13	27.67	0.82	N
1,524	9.38	248.21	1,519.43	-23.99	-49.70	-23.74	0.69	Magn MWD	Baker Hughes	0.53	55.19	2.85	N
1,700	9.44	242.45	1,693.06	-35.99	-75.82	-35.61	0.54	Magn MWD	Baker Hughes	0.03	83.93	-3.27	N
1,877	9.18	240.26	1,867.73	-49.71	-100.95	-49.20	0.25	Magn MWD	Baker Hughes	-0.15	112.52	-1.24	N
2,054	9.26	241.37	2,042.44	-63.54	-125.70	-62.90	0.11	Magn MWD	Baker Hughes	0.05	140.85	0.63	N
2,230	9.38	238.04	2,216.12	-77.91	-150.30	-77.15	0.31	Magn MWD	Baker Hughes	0.07	169.30	-1.89	N
2,408	9.17	249.40	2,391.81	-90.58	-175.89	-89.69	1.03	Magn MWD	Baker Hughes	-0.12	197.84	6.38	N
2,585	9.17	247.47	2,566.55	-100.95	-202.12	-99.92	0.17	Magn MWD	Baker Hughes	0.00	225.92	-1.09	N
2,762	8.78	248.90	2,741.38	-111.22	-227.75	-110.06	0.25	Magn MWD	Baker Hughes	-0.22	253.45	0.81	N
2,939	7.75	251.27	2,916.54	-119.91	-251.65	-118.64	0.61	Magn MWD	Baker Hughes	-0.58	278.76	1.34	N
3,116	7.42	248.25	3,091.99	-127.98	-273.57	-126.59	0.29	Magn MWD	Baker Hughes	-0.19	302.03	-1.71	N
3,294	5.95	235.13	3,268.79	-137.51	-291.82	-136.04	1.19	Magn MWD	Baker Hughes	-0.63	322.60	-7.37	N
3,472	5.97	216.63	3,445.84	-150.22	-304.91	-148.67	1.07	Magn MWD	Baker Hughes	0.01	339.91	-10.39	N
3,648	4.09	189.38	3,621.18	-163.76	-311.40	-162.18	1.70	Magn MWD	Baker Hughes	-1.07	351.83	-15.48	N
3,826	0.36	70.65	3,799.04	-169.84	-311.90	-168.26	2.40	Magn MWD	Baker Hughes	-2.10	355.15	-66.70	N
4,003	1.52	139.43	3,976.01	-171.44	-309.85	-169.87	0.81	Magn MWD	Baker Hughes	0.66	354.12	38.86	N
4,180	1.88	141.59	4,152.83	-175.50	-306.52	-173.94	0.21	Magn MWD	Baker Hughes	0.26	353.21	1.22	N
4,357	2.95	136.38	4,329.77	-181.07	-301.58	-179.54	0.62	Magn MWD	Baker Hughes	0.60	351.76	-2.94	N
4,551	2.99	136.10	4,523.55	-187.84	-295.09	-186.35	0.19	Magn MWD	Baker Hughes	-0.19	349.81	-0.14	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
4.706	2.31	140.64	4,678.41	-192.78	-290.68	-191.31	0.22	Magn MWD	Baker Hughes	-0.18	348.80	2.93	N
4.795	0.48	260.63	4,767.38	-194.23	-289.91	-192.76	2.90	Magn MWD	Baker Hughes	-2.06	348.96	134.71	N
4.883	0.28	268.20	4,855.38	-194.31	-290.49	-192.84	0.23	Magn MWD	Baker Hughes	-0.23	349.49	3.03	N
4.972	1.39	344.29	4,944.37	-193.30	-291.00	-191.83	1.54	Magn MWD	Baker Hughes	1.25	349.35	91.11	N
5.149	1.70	352.08	5,121.31	-188.63	-291.94	-187.15	0.21	Magn MWD	Baker Hughes	0.18	347.58	4.40	N
5.326	1.55	338.90	5,298.24	-183.80	-293.17	-182.31	0.23	Magn MWD	Baker Hughes	-0.08	346.02	-7.45	N
5.503	1.52	333.98	5,475.17	-179.46	-295.06	-177.96	0.08	Magn MWD	Baker Hughes	-0.02	345.35	-2.78	N
5.681	1.50	320.68	5,653.11	-175.53	-297.57	-174.03	0.20	Magn MWD	Baker Hughes	-0.01	345.48	-7.47	N
5.858	1.60	332.34	5,830.05	-171.55	-300.18	-170.03	0.19	Magn MWD	Baker Hughes	0.06	345.75	6.59	N
6.035	1.79	338.99	6,006.97	-166.88	-302.54	-165.35	0.11	Magn MWD	Baker Hughes	0.11	345.52	0.93	N
6.212	0.38	239.26	6,183.94	-164.69	-304.26	-163.15	1.05	Magn MWD	Baker Hughes	-0.80	345.97	-53.52	N
6.389	0.89	256.86	6,360.93	-165.31	-306.10	-163.76	0.30	Magn MWD	Baker Hughes	0.29	347.89	9.83	N
6.565	0.46	267.83	6,536.92	-165.65	-308.14	-164.09	0.25	Magn MWD	Baker Hughes	-0.24	349.84	6.35	N
6.742	0.70	274.46	6,713.91	-165.60	-309.93	-164.03	0.14	Magn MWD	Baker Hughes	0.14	351.39	3.75	N
6.919	0.83	258.89	6,890.89	-165.81	-312.25	-164.23	0.15	Magn MWD	Baker Hughes	0.07	353.54	-10.04	N
7.096	0.86	278.82	7,067.87	-165.90	-314.81	-164.30	0.18	Magn MWD	Baker Hughes	0.02	355.85	12.50	N
7.273	1.08	289.33	7,244.85	-165.72	-317.79	-164.10	0.15	Magn MWD	Baker Hughes	0.12	358.40	-5.36	N
7.451	1.04	263.01	7,422.82	-165.93	-321.07	-164.30	0.07	Magn MWD	Baker Hughes	-0.02	361.42	-3.55	N
7.628	0.87	245.82	7,599.79	-166.68	-323.89	-165.04	0.19	Magn MWD	Baker Hughes	-0.10	364.26	-9.82	N
7.805	1.09	235.73	7,776.77	-168.18	-326.51	-166.53	0.16	Magn MWD	Baker Hughes	0.12	367.28	-5.59	N
7.982	1.35	240.62	7,953.73	-170.16	-329.71	-168.48	0.16	Magn MWD	Baker Hughes	0.15	371.03	2.76	N
8.158	1.45	238.80	8,129.67	-172.34	-333.42	-170.65	0.07	Magn MWD	Baker Hughes	0.06	375.32	-1.32	N
8.312	1.68	216.56	8,283.62	-175.18	-336.42	-173.47	0.41	Magn MWD	Baker Hughes	0.15	379.30	-14.12	N
8.489	1.45	213.81	8,460.55	-179.12	-339.21	-177.41	0.14	Magn MWD	Baker Hughes	-0.13	383.60	-1.55	N
8.533	1.58	317.88	8,504.54	-179.14	-339.93	-177.41	5.43	Magn MWD	Baker Hughes	0.30	384.24	236.52	N
8.577	8.64	352.56	8,548.42	-176.16	-340.66	-174.44	12.31	Magn MWD	Baker Hughes	11.50	383.52	78.82	N
8.621	13.39	357.24	8,591.72	-168.54	-341.24	-166.81	15.44	Magn MWD	Baker Hughes	15.34	380.59	10.64	N
8.665	19.09	356.84	8,634.91	-155.98	-341.90	-154.25	12.67	Magn MWD	Baker Hughes	12.67	375.80	-0.89	N
8.710	25.44	358.53	8,675.61	-139.33	-342.54	-137.60	14.50	Magn MWD	Baker Hughes	14.43	369.79	3.84	N
8.754	31.08	359.70	8,714.35	-118.51	-342.84	-116.77	12.88	Magn MWD	Baker Hughes	12.82	362.74	2.66	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P29 002H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mod Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
8.798	34.28	359.39	8,751.38	-94.76	-343.04	-93.02	7.29	Magn MWD	Baker Hughes	7.27	355.89	-0.84	N
8.842	37.70	359.07	8,786.98	-68.91	-343.41	-67.17	7.78	Magn MWD	Baker Hughes	7.77	350.25	-0.59	N
8.887	42.79	358.64	8,821.31	-39.85	-343.99	-38.11	11.33	Magn MWD	Baker Hughes	11.31	346.29	-0.96	N
8.931	47.99	359.37	8,852.20	-8.54	-344.53	-6.80	11.88	Magn MWD	Baker Hughes	11.82	344.63	1.66	N
8.975	51.38	359.78	8,880.67	25.00	-344.79	26.75	7.73	Magn MWD	Baker Hughes	7.70	345.69	0.82	N
9.020	54.68	359.84	8,907.73	60.95	-344.92	62.70	7.34	Magn MWD	Baker Hughes	7.33	350.27	0.24	N
9.064	58.86	0.81	8,931.84	97.74	-344.71	99.49	9.65	Magn MWD	Baker Hughes	9.48	358.30	-	N
9.108	63.82	1.19	8,952.94	136.33	-344.03	138.07	11.32	Magn MWD	Baker Hughes	11.30	370.06	0.86	N
9.152	68.46	0.76	8,970.73	176.56	-343.35	178.29	10.58	Magn MWD	Baker Hughes	10.55	386.08	-0.98	N
9.196	72.13	0.49	8,985.56	217.97	-342.90	219.70	8.36	Magn MWD	Baker Hughes	8.34	406.31	-0.61	N
9.241	75.81	0.02	8,997.99	261.21	-342.71	262.94	8.24	Magn MWD	Baker Hughes	8.18	430.90	-1.04	N
9.285	80.20	359.40	9,007.13	304.24	-342.93	305.97	10.07	Magn MWD	Baker Hughes	9.98	458.43	816.77	N
9.373	86.16	359.76	9,018.34	391.49	-343.56	393.23	5.65	Magn MWD	Baker Hughes	5.64	520.87	0.41	N
9.461	88.03	359.89	9,023.56	479.33	-344.22	481.06	3.29	Magn MWD	Baker Hughes	3.26	590.12	-0.42	N
9.550	88.18	358.70	9,026.51	568.26	-345.70	570.01	0.79	Magn MWD	Baker Hughes	0.17	665.15	-0.78	N
9.638	89.14	0.27	9,028.56	656.23	-346.49	657.98	2.09	Magn MWD	Baker Hughes	1.09	742.09	-	N
9.727	88.27	359.86	9,030.58	745.21	-346.39	746.95	1.08	Magn MWD	Baker Hughes	-0.98	821.78	404.03	N
9.816	90.62	0.13	9,031.44	834.20	-346.40	835.94	2.66	Magn MWD	Baker Hughes	2.64	903.26	-	N
9.905	90.98	0.07	9,030.20	923.19	-346.24	924.93	0.41	Magn MWD	Baker Hughes	0.40	985.98	-0.07	N
9.994	91.48	0.60	9,028.28	1,012.17	-345.72	1,013.90	0.82	Magn MWD	Baker Hughes	0.56	1,069. 58	0.60	N
10.082	91.73	0.89	9,025.82	1,100.12	-344.58	1,101.85	0.43	Magn MWD	Baker Hughes	0.28	1,152. 83	0.33	N
10.170	89.78	0.11	9,024.66	1,188.11	-343.81	1,189.83	2.39	Magn MWD	Baker Hughes	-2.22	1,236. 85	-0.89	N
10.259	89.81	359.32	9,024.90	1,277.11	-344.25	1,278.83	0.90	Magn MWD	Baker Hughes	0.15	1,322. 69	403.61	N
10.347	90.06	0.41	9,024.92	1,365.10	-344.46	1,366.83	1.25	Magn MWD	Baker Hughes	0.17	1,407. 89	-	N
10.436	90.18	0.44	9,024.74	1,454.10	-343.80	1,455.82	0.14	Magn MWD	Baker Hughes	0.13	1,494. 19	0.03	N
10.525	89.51	359.86	9,024.98	1,543.10	-343.57	1,544.82	1.00	Magn MWD	Baker Hughes	-0.75	1,580. 89	403.83	N
10.613	87.81	358.96	9,027.04	1,631.07	-344.49	1,632.79	2.18	Magn MWD	Baker Hughes	-1.93	1,667. 05	-1.01	N
10.702	87.44	358.48	9,030.72	1,719.97	-346.47	1,721.70	0.68	Magn MWD	Baker Hughes	-0.42	1,754. 52	-0.54	N
10.791	87.82	359.41	9,034.41	1,808.88	-348.11	1,810.62	1.13	Magn MWD	Baker Hughes	0.43	1,842. 07	1.04	N
10.880	86.89	358.76	9,038.51	1,897.77	-349.53	1,899.51	1.27	Magn MWD	Baker Hughes	-1.04	1,929. 69	-0.73	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ft)	Incl (°)	Azm (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
10.968	89.54	358.70	9,041.25	1,985.70	-351.48	1,987.45	3.01	Magn MWD	Baker Hughes	3.01	2,016. 56	-0.07	N
11.056	91.69	0.60	9,040.31	2,073.68	-352.02	2,075.44	3.26	Magn MWD	Baker Hughes	2.44	2,103. 35	406.93	N
11.145	91.17	359.56	9,038.09	2,162.65	-351.89	2,164.40	1.31	Magn MWD	Baker Hughes	-0.58	2,191. 09	403.33	N
11.233	89.05	359.14	9,037.92	2,250.64	-352.89	2,252.40	2.46	Magn MWD	Baker Hughes	-2.41	2,278. 14	-0.48	N
11.321	91.17	1.18	9,037.75	2,338.63	-352.65	2,340.38	3.34	Magn MWD	Baker Hughes	2.41	2,365. 07	406.77	N
11.414	92.34	1.62	9,034.90	2,431.56	-350.37	2,433.30	1.34	Magn MWD	Baker Hughes	1.26	2,456. 67	0.47	N
11.505	92.80	1.26	9,030.82	2,522.44	-348.09	2,524.17	0.64	Magn MWD	Baker Hughes	0.51	2,546. 34	-0.40	N
11.597	93.66	0.79	9,025.64	2,614.27	-346.45	2,615.99	1.06	Magn MWD	Baker Hughes	0.93	2,637. 13	-0.51	N
11.688	91.82	1.99	9,021.29	2,705.14	-344.24	2,706.85	2.41	Magn MWD	Baker Hughes	-2.02	2,726. 95	1.32	N
11.779	91.26	0.92	9,018.84	2,796.07	-341.93	2,797.77	1.33	Magn MWD	Baker Hughes	-0.62	2,816. 90	-1.18	N
11.870	88.98	0.25	9,018.65	2,887.06	-341.00	2,888.75	2.61	Magn MWD	Baker Hughes	-2.51	2,907. 13	-0.74	N
11.960	89.60	0.10	9,019.77	2,977.05	-340.73	2,978.74	0.71	Magn MWD	Baker Hughes	0.69	2,996. 49	-0.17	N
12.051	90.52	359.87	9,019.67	3,068.05	-340.75	3,069.74	1.04	Magn MWD	Baker Hughes	1.01	3,086. 92	395.35	N
12.142	88.18	359.61	9,020.70	3,159.04	-341.16	3,160.73	2.59	Magn MWD	Baker Hughes	-2.57	3,177. 41	-0.29	N
12.233	86.89	358.73	9,024.62	3,249.94	-342.48	3,251.64	1.72	Magn MWD	Baker Hughes	-1.42	3,267. 94	-0.97	N
12.321	89.35	358.70	9,027.50	3,337.87	-344.45	3,339.57	2.80	Magn MWD	Baker Hughes	2.80	3,355. 59	-0.03	N
12.410	86.05	357.29	9,031.08	3,426.73	-347.56	3,428.44	4.03	Magn MWD	Baker Hughes	-3.71	3,444. 31	-1.58	N
12.499	90.15	0.02	9,034.03	3,515.63	-349.65	3,517.35	5.53	Magn MWD	Baker Hughes	4.61	3,532. 97	401.43	N
12.587	90.43	0.02	9,033.58	3,603.62	-349.62	3,605.35	0.32	Magn MWD	Baker Hughes	0.32	3,620. 54	0.00	N
12.675	88.86	0.97	9,034.13	3,691.62	-348.86	3,693.33	2.09	Magn MWD	Baker Hughes	-1.78	3,708. 06	1.08	N
12.764	87.47	0.67	9,036.98	3,780.56	-347.58	3,782.27	1.60	Magn MWD	Baker Hughes	-1.56	3,796. 50	-0.34	N
12.853	87.26	0.35	9,041.07	3,869.46	-346.79	3,871.17	0.43	Magn MWD	Baker Hughes	-0.24	3,884. 97	-0.36	N
12.941	88.03	0.59	9,044.68	3,957.38	-346.07	3,959.08	0.92	Magn MWD	Baker Hughes	0.87	3,972. 49	0.27	N
13.030	87.13	0.60	9,048.44	4,046.30	-345.15	4,047.99	1.01	Magn MWD	Baker Hughes	-1.01	4,060. 99	0.01	N
13.119	89.94	0.34	9,050.72	4,135.26	-344.42	4,136.95	3.17	Magn MWD	Baker Hughes	3.16	4,149. 58	-0.29	N
13.208	89.02	358.82	9,051.52	4,224.25	-345.07	4,225.94	2.00	Magn MWD	Baker Hughes	-1.03	4,238. 32	402.79	N
13.296	90.25	358.63	9,052.08	4,312.22	-347.03	4,313.92	1.41	Magn MWD	Baker Hughes	1.40	4,326. 18	-0.22	N
13.384	88.31	357.48	9,053.19	4,400.16	-350.01	4,401.87	2.56	Magn MWD	Baker Hughes	-2.20	4,414. 06	-1.31	N
13.473	85.90	356.07	9,057.69	4,488.90	-355.01	4,490.64	3.14	Magn MWD	Baker Hughes	-2.71	4,502. 91	-1.58	N
13.562	87.63	356.97	9,062.71	4,577.59	-360.41	4,579.35	2.19	Magn MWD	Baker Hughes	1.94	4,591. 75	1.01	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
13.650	89.51	357.92	9,064.90	4,865.47	-364.33	4,867.25	2.39	Magn MWD	Baker Hughes	2.14	4,679. 67	1.08	N
13.739	89.11	0.12	9,065.98	4,754.44	-365.85	4,756.23	2.51	Magn MWD	Baker Hughes	-0.45	4,768. 50	- 402.02	N
13.827	89.63	1.43	9,066.94	4,842.43	-364.66	4,844.21	1.60	Magn MWD	Baker Hughes	0.59	4,856. 14	1.49	N
13.916	92.44	0.63	9,065.34	4,931.39	-363.06	4,933.16	3.28	Magn MWD	Baker Hughes	3.16	4,944. 73	-0.90	N
14.005	93.11	0.11	9,061.03	5,020.28	-362.48	5,022.05	0.95	Magn MWD	Baker Hughes	0.75	5,033. 35	-0.58	N
14.094	92.00	358.97	9,057.06	5,109.19	-363.20	5,110.96	1.79	Magn MWD	Baker Hughes	-1.25	5,122. 08	403.21	N
14.182	90.00	358.60	9,055.52	5,197.15	-365.06	5,198.93	2.31	Magn MWD	Baker Hughes	-2.27	5,209. 95	-0.42	N
14.271	87.88	356.69	9,057.17	5,286.01	-369.50	5,287.81	4.04	Magn MWD	Baker Hughes	-2.38	5,298. 91	-3.27	N
14.359	87.97	357.36	9,060.36	5,373.79	-374.83	5,375.61	1.90	Magn MWD	Baker Hughes	0.10	5,386. 84	1.90	N
14.448	87.10	356.95	9,064.18	5,462.59	-379.24	5,464.44	1.08	Magn MWD	Baker Hughes	-0.98	5,475. 74	-0.46	N
14.537	89.82	0.98	9,066.58	5,551.52	-380.84	5,553.38	5.46	Magn MWD	Baker Hughes	3.06	5,564. 57	- 399.97	N
14.625	88.27	0.45	9,068.04	5,639.50	-379.75	5,641.35	1.86	Magn MWD	Baker Hughes	-1.76	5,652. 27	-0.60	N
14.714	88.71	2.52	9,070.39	5,728.43	-377.44	5,730.27	2.38	Magn MWD	Baker Hughes	0.49	5,740. 85	2.33	N
14.802	89.10	2.10	9,072.07	5,816.34	-373.89	5,818.16	0.65	Magn MWD	Baker Hughes	0.44	5,828. 35	-0.48	N
14.890	89.29	1.92	9,073.31	5,904.28	-370.81	5,906.08	0.30	Magn MWD	Baker Hughes	0.22	5,915. 91	-0.20	N
14.979	89.75	2.18	9,074.05	5,993.22	-367.62	5,995.00	0.59	Magn MWD	Baker Hughes	0.52	6,004. 48	0.29	N
15.067	89.38	1.66	9,074.72	6,081.17	-364.68	6,082.94	0.73	Magn MWD	Baker Hughes	-0.42	6,092. 09	-0.59	N
15.156	88.09	0.58	9,076.69	6,170.13	-362.94	6,171.88	1.89	Magn MWD	Baker Hughes	-1.45	6,180. 79	-1.21	N
15.244	88.49	1.81	9,079.31	6,258.07	-361.10	6,259.81	1.47	Magn MWD	Baker Hughes	0.45	6,268. 47	1.40	N
15.333	88.09	0.80	9,081.97	6,347.09	-359.08	6,348.74	1.22	Magn MWD	Baker Hughes	-0.45	6,357. 15	-1.13	N
15.421	89.48	359.88	9,083.83	6,434.98	-358.55	6,436.71	1.89	Magn MWD	Baker Hughes	1.58	6,444. 96	408.05	N
15.509	89.85	0.27	9,084.35	6,522.97	-358.44	6,524.71	0.61	Magn MWD	Baker Hughes	0.42	6,532. 82	- 408.65	N
15.598	93.17	1.93	9,082.00	6,611.92	-357.20	6,613.64	3.92	Magn MWD	Baker Hughes	3.73	6,621. 56	1.19	N
15.686	91.79	0.00	9,078.20	6,699.83	-356.18	6,701.55	2.18	Magn MWD	Baker Hughes	-1.57	6,709. 29	-1.51	N
15.775	92.56	359.70	9,074.82	6,788.76	-356.41	6,790.48	0.93	Magn MWD	Baker Hughes	0.87	6,798. 11	404.16	N
15.863	90.34	359.96	9,072.59	6,876.73	-356.67	6,878.45	2.54	Magn MWD	Baker Hughes	-2.52	6,885. 97	0.30	N
15.952	90.80	0.36	9,071.71	6,965.72	-356.43	6,967.44	0.68	Magn MWD	Baker Hughes	0.52	6,974. 34	- 404.06	N
16.041	88.37	357.47	9,072.35	7,054.69	-358.12	7,056.41	4.23	Magn MWD	Baker Hughes	-2.73	7,063. 77	401.26	N
16.129	88.58	356.84	9,074.69	7,142.55	-362.49	7,144.29	0.75	Magn MWD	Baker Hughes	0.24	7,151. 74	-0.72	N
16.217	88.55	356.14	9,076.99	7,230.36	-367.87	7,232.13	0.66	Magn MWD	Baker Hughes	-0.03	7,239. 71	-0.66	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)
			Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
16.306	88.03	358.71	9,079.55	7,319.14	-373.42	7,320.94	0.87	Magn MWD	Baker Hughes	-0.58	7,328. 66	0.64	N
16.394	87.63	358.66	9,082.96	7,407.00	-376.98	7,408.81	2.27	Magn MWD	Baker Hughes	-0.57	7,416. 59	2.20	N
16.482	88.86	0.13	9,085.73	7,494.95	-377.92	7,496.76	2.26	Magn MWD	Baker Hughes	1.51	7,504. 47	407.41	N
16.572	88.55	359.15	9,087.77	7,584.92	-378.48	7,586.74	1.14	Magn MWD	Baker Hughes	-0.34	7,594. 36	398.91	N
16.661	89.32	359.39	9,089.42	7,673.90	-379.62	7,675.72	0.91	Magn MWD	Baker Hughes	0.87	7,683. 28	0.27	N
16.750	89.97	0.45	9,089.97	7,762.89	-379.74	7,764.72	1.40	Magn MWD	Baker Hughes	0.73	7,772. 18	403.30	N
16.836	90.22	1.36	9,089.83	7,848.88	-378.38	7,850.70	1.10	Magn MWD	Baker Hughes	0.29	7,858. 00	1.06	N
16.926	91.79	1.74	9,088.25	7,938.83	-375.95	7,940.63	1.79	Magn MWD	Baker Hughes	1.74	7,947. 73	0.42	N
17.015	92.65	2.42	9,084.80	8,027.71	-372.72	8,029.49	1.23	Magn MWD	Baker Hughes	0.97	8,036. 35	0.76	N
17.104	91.51	1.53	9,081.57	8,116.59	-369.66	8,118.36	1.62	Magn MWD	Baker Hughes	-1.28	8,125. 01	-1.00	N
17.192	92.71	1.46	9,078.33	8,204.50	-367.36	8,206.26	1.37	Magn MWD	Baker Hughes	1.36	8,212. 72	-0.08	N
17.281	91.23	0.72	9,075.27	8,293.43	-365.67	8,295.17	1.86	Magn MWD	Baker Hughes	-1.66	8,301. 49	-0.83	N
17.369	91.29	1.04	9,073.34	8,381.40	-364.32	8,383.13	0.37	Magn MWD	Baker Hughes	0.07	8,389. 31	0.36	N
17.458	89.94	359.69	9,072.38	8,470.39	-363.75	8,472.12	2.15	Magn MWD	Baker Hughes	-1.52	8,478. 19	402.98	N
17.546	88.61	357.78	9,073.50	8,558.35	-365.69	8,560.09	2.64	Magn MWD	Baker Hughes	-1.51	8,566. 16	-2.17	N
17.635	88.98	356.76	9,075.37	8,647.23	-369.93	8,648.99	1.22	Magn MWD	Baker Hughes	0.42	8,655. 14	-1.15	N
17.723	88.52	357.98	9,077.29	8,735.11	-373.97	8,736.90	1.48	Magn MWD	Baker Hughes	-0.52	8,743. 12	1.39	N
17.812	89.11	357.56	9,079.13	8,824.03	-377.43	8,825.83	0.81	Magn MWD	Baker Hughes	0.66	8,832. 10	-0.47	N
17.900	89.48	359.35	9,080.21	8,911.99	-379.80	8,913.79	2.08	Magn MWD	Baker Hughes	0.42	8,920. 07	2.03	N
17.900	89.48	359.35	9,080.21	8,911.99	-379.80	8,913.79	2.08	Magn MWD	Baker Hughes	0.00	8,920. 07	0.00	N
17.989	89.32	359.64	9,081.14	9,000.98	-380.67	9,002.79	0.28	Magn MWD	Baker Hughes	-0.18	9,009. 02	0.21	N
17.989	89.32	359.64	9,081.14	9,000.98	-380.67	9,002.79	0.28	Magn MWD	Baker Hughes	0.00	9,009. 02	0.00	N
18.078	90.43	359.93	9,081.34	9,089.97	-381.08	9,091.79	1.32	Magn MWD	Baker Hughes	1.25	9,097. 96	0.44	N
18.078	90.43	359.93	9,081.34	9,089.97	-381.08	9,091.79	1.32	Magn MWD	Baker Hughes	0.00	9,097. 96	0.00	N
18.166	90.93	359.48	9,080.29	9,177.97	-381.53	9,179.78	0.76	Magn MWD	Baker Hughes	0.57	9,185. 89	-0.51	N
18.166	90.93	359.48	9,080.29	9,177.97	-381.53	9,179.78	0.76	Magn MWD	Baker Hughes	0.00	9,185. 89	0.00	N
18.255	91.08	358.26	9,078.73	9,266.93	-383.29	9,268.75	1.38	Magn MWD	Baker Hughes	0.17	9,274. 88	-1.37	N
18.255	91.08	358.26	9,078.73	9,266.93	-383.29	9,268.75	1.38	Magn MWD	Baker Hughes	0.00	9,274. 88	0.00	N
18.343	92.31	358.09	9,076.13	9,354.85	-386.09	9,356.68	1.41	Magn MWD	Baker Hughes	1.40	9,362. 81	-0.19	N
18.343	92.31	358.09	9,076.13	9,354.85	-386.09	9,356.68	1.41	Magn MWD	Baker Hughes	0.00	9,362. 81	0.00	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 002H		Lease	Field Name JENNINGS	Business Unit Mid-Continent		
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation			Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
18,432	91.39	358.72	9,073.26	9,443.77	-388.56	9,445.61	1.25	Magn MWD	Baker Hughes	-1.03	9,451. 76	0.71	N
18,432	91.39	358.72	9,073.26	9,443.77	-388.56	9,445.61	1.25	Magn MWD	Baker Hughes	0.00	9,451. 76	0.00	N
18,520	88.89	359.37	9,073.04	9,531.75	-390.03	9,533.60	2.94	Magn MWD	Baker Hughes	-2.84	9,539. 72	0.74	N
18,520	88.89	359.37	9,073.04	9,531.75	-390.03	9,533.60	2.94	Magn MWD	Baker Hughes	0.00	9,539. 72	0.00	N
18,609	88.43	359.61	9,075.12	9,620.72	-390.82	9,622.57	0.58	Magn MWD	Baker Hughes	-0.52	9,628. 65	0.27	N
18,609	88.43	359.61	9,075.12	9,620.72	-390.82	9,622.57	0.58	Magn MWD	Baker Hughes	0.00	9,628. 65	0.00	N
18,697	88.30	359.00	9,077.63	9,708.68	-391.89	9,710.53	0.71	Magn MWD	Baker Hughes	-0.15	9,716. 58	-0.69	N
18,697	88.30	359.00	9,077.63	9,708.68	-391.89	9,710.53	0.71	Magn MWD	Baker Hughes	0.00	9,716. 58	0.00	N
18,786	89.48	358.95	9,079.36	9,797.64	-393.48	9,799.51	1.33	Magn MWD	Baker Hughes	1.33	9,805. 54	-0.06	N
18,786	89.48	358.95	9,079.36	9,797.64	-393.48	9,799.51	1.33	Magn MWD	Baker Hughes	0.00	9,805. 54	0.00	N
18,874	90.31	359.11	9,079.52	9,885.63	-394.97	9,887.50	0.96	Magn MWD	Baker Hughes	0.94	9,893. 52	0.18	N
18,963	90.19	357.71	9,079.13	9,974.59	-397.44	9,976.48	1.58	Magn MWD	Baker Hughes	-0.13	9,982. 51	-1.57	N
19,052	90.74	357.30	9,078.41	10,063.50	-401.31	10,065.41	0.77	Magn MWD	Baker Hughes	0.62	10,071 .50	-0.46	N
19,091	89.84	359.71	9,078.21	10,102.49	-402.33	10,104.39	6.60	Magn MWD	Baker Hughes	-2.31	10,110 .50	6.18	N
19,140	90.89	356.99	9,077.90	10,151.46	-403.74	10,153.37	5.95	Magn MWD	Baker Hughes	2.14	10,159 .49	-5.55	N
19,208	91.02	356.36	9,076.77	10,219.34	-407.68	10,221.27	0.95	Magn MWD	Baker Hughes	0.19	10,227 .46	-0.93	N
19,261	91.02	356.36	9,075.82	10,272.22	-411.05	10,274.17	0.00	Extrap.	Baker Hughes	0.00	10,280 .44	0.00	N



Chevron U.S.A. Inc.

Location: Lea County, NM
Field: Jennings, Bone Spring (Lea County, NM)
Facility: SD WE 24 Fed P23

Slot: SD WE 24 Fed P23 No. 2H
Well: SD WE 24 Federal P23 No. 002H
Wellbore: SD WE 24 Fed P23 No. 2H (PWB)



Well Profile Data

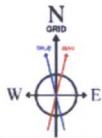
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	32.60	0.000	244.268	32.60	0.00	0.00	0.00	0.00
Start Nudge	1000.00	0.000	244.268	1000.00	0.00	0.00	0.00	0.00
EOB/SOH	1900.00	9.000	244.268	1896.30	-30.63	-63.55	1.00	-30.31
EOH/SOD	3395.02	9.000	244.268	3372.91	-132.16	-274.23	0.00	-130.79
Drop to Zero	4295.02	0.000	359.713	4269.22	-162.79	-337.77	1.00	-161.10
KOP: 100' FSL, 970' FWL	8565.57	0.000	359.713	8539.77	-162.79	-337.77	0.00	-161.10
Landing Point: 576' FSL, 970' FWL	9314.23	89.840	359.713	9017.23	313.34	-340.16	12.00	315.04
4000' from LP	13314.23	89.840	359.713	9028.40	4313.27	-360.21	0.00	4315.02
End of 3D Arc	13343.29	89.259	359.712	9028.63	4342.33	-360.36	2.00	4344.08
5000' from LP	14314.32	89.259	359.712	9041.19	5313.26	-365.23	0.00	5315.02
End of 3D Arc	14343.46	89.842	359.713	9041.42	5342.41	-365.38	2.00	5344.17
BHL: 180' FNL, 970' FWL	19259.54	89.842	359.713	9055.00	10258.40	-390.02	0.00	10260.22

Bottom Hole Location

MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
19261.00	91.020	356.360	9075.06	10272.02	-413.10	716837.92	382523.62	32°02'59.066"N	103°38'00.506"W

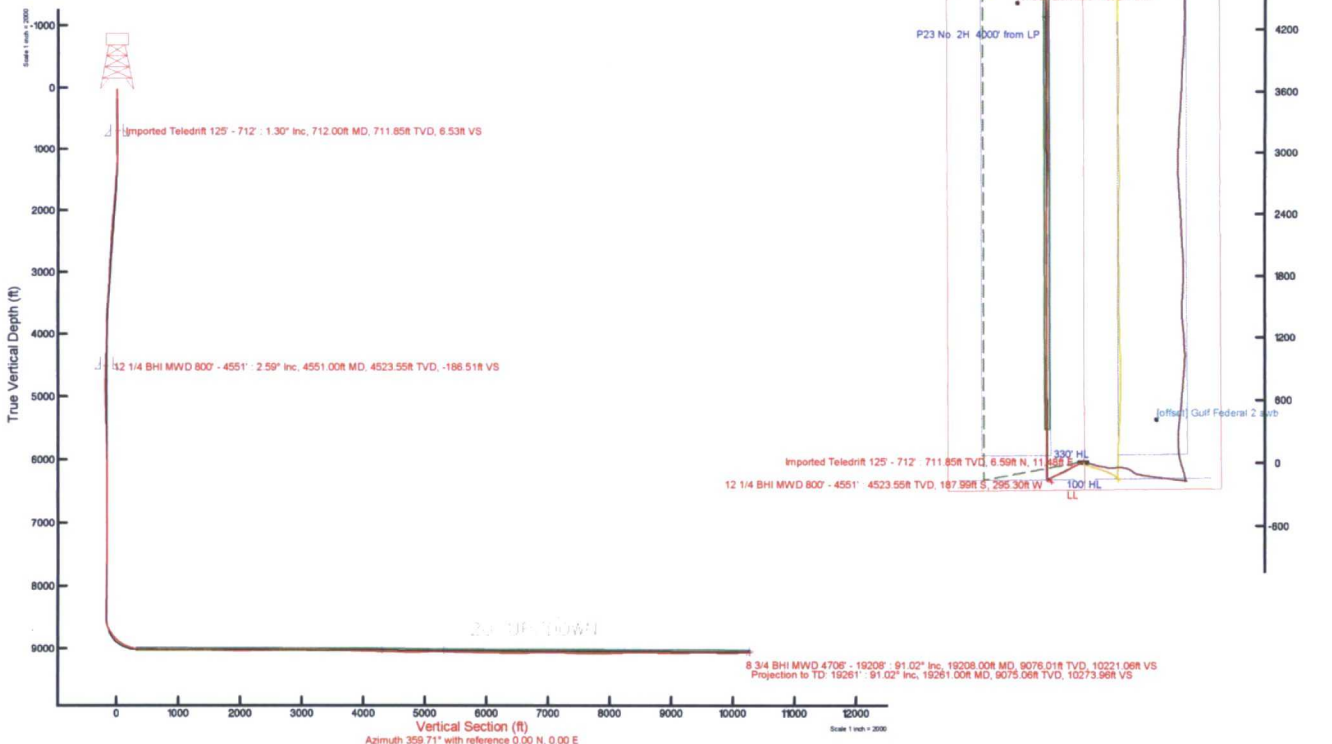
Plot reference wellpath is SD WE 24 Fed P23 No. 2H (PWP) Rev B.0	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (2011) US feet
True vertical depths are referenced to Nabors X-30 (KB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Nabors X-30 (KB)	North Reference: Grid north
Nabors X-30 (KB) to Mean Sea Level: 3166.6 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SD WE 24 Fed P23 No. 2H): -3134 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: Itrium on 2016-10-20
	Database: WA_Midland

Location Information					
Facility Name	SD WE 24 Fed P23	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot	SD WE 24 Fed P23 No. 2H	717225.000	372252.000	32°01'17.393"N	103°37'56.771"W
Local N (ft)	0.00	Local E (ft)	25.00	Grid East (US ft)	Grid North (US ft)
Nabors X-30 (KB) to Ground level (At Slot: SD WE 24 Fed P23 No. 2H)		717251.000	372252.000	32°01'17.392"N	103°37'56.481"W
Mean Sea Level to Ground level (At Slot: SD WE 24 Fed P23 No. 2H)					
Nabors X-30 (KB) to Mean Sea Level					



BGM (1900.0 to 2016.0) Dip: 59.87° Field: 47942.1 nT
Magnetic North is 7.11 degrees East of True North (at 10/20/2016)
Grid North is 0.37 degrees East of True North
To correct azimuth from True to Grid subtract 0.37 degrees
To correct azimuth from Magnetic to Grid add 6.74 degrees

Rig: Nabors X30
Location: Lea, New Mexico
API: 30-025-43296-00
8/27/2016-11/01/2016
SO#: 8111322
Projection to TD: 19261'



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Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Buiduyh
Scale	0.999963	Report Generated	04/Nov/2016 at 08:01
Convergence at slot	0.38° East	Database/Source file	WA_Midland/SD_WE_24_Federal_P23_No_002H_awp_125_-19208_Proj_19261_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	25.00	717251.00	372252.00	32°01'17.392"N	103°37'56.481"W
Facility Reference Pt			717226.00	372252.00	32°01'17.393"N	103°37'56.771"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nabors X-30 (KB) to Facility Vertical Datum	3166.60ft
Horizontal Reference Pt	Slot	Nabors X-30 (KB) to Mean Sea Level	3166.60ft
Vertical Reference Pt	Nabors X-30 (KB)	Nabors X-30 (KB) to Ground Level at Slot (SD WE 24 Fed P23 No. 2H)	32.60ft
MD Reference Pt	Nabors X-30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.71°



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	55.300	0.00	0.00	0.00	0.00	717251.00	372252.00	32°01'17.392"N	103°37'56.481"W	0.00	
32.60	0.000	55.300	32.60	0.00	0.00	0.00	717251.00	372252.00	32°01'17.392"N	103°37'56.481"W	0.00	
125.00	0.900	55.300	125.00	0.41	0.41	0.60	717251.60	372252.41	32°01'17.396"N	103°37'56.474"W	0.97	
170.00	1.200	44.300	169.99	0.95	0.95	1.22	717252.22	372252.95	32°01'17.401"N	103°37'56.466"W	0.80	
245.00	1.400	60.300	244.97	1.95	1.97	2.56	717253.56	372253.97	32°01'17.411"N	103°37'56.451"W	0.55	
345.00	1.300	46.300	344.94	3.33	3.36	4.44	717255.44	372255.36	32°01'17.425"N	103°37'56.429"W	0.34	
439.00	1.100	48.300	438.92	4.66	4.69	5.89	717256.89	372256.69	32°01'17.438"N	103°37'56.412"W	0.22	
623.00	1.400	78.300	622.88	6.28	6.32	9.41	717260.41	372258.32	32°01'17.454"N	103°37'56.371"W	0.39	
712.00	1.300	87.300	711.85	6.53	6.59	11.48	717262.48	372258.59	32°01'17.456"N	103°37'56.347"W	0.26	Imported Teledrift 125' - 712'
800.00	0.900	108.720	799.84	6.35	6.42	13.13	717264.13	372258.42	32°01'17.454"N	103°37'56.328"W	0.64	
982.00	3.160	251.690	981.76	4.33	4.38	9.72	717260.72	372256.38	32°01'17.434"N	103°37'56.367"W	2.15	
1164.00	6.390	241.650	1163.11	-1.99	-2.01	-3.96	717247.04	372250.00	32°01'17.372"N	103°37'56.527"W	1.83	
1346.00	8.440	243.140	1343.58	-12.73	-12.85	-24.79	717226.21	372239.15	32°01'17.266"N	103°37'56.770"W	1.13	
1524.00	9.380	248.210	1519.43	-23.89	-24.14	-49.91	717201.09	372227.86	32°01'17.156"N	103°37'57.062"W	0.69	
1700.00	9.440	242.450	1693.06	-35.76	-36.14	-76.03	717174.98	372215.86	32°01'17.039"N	103°37'57.366"W	0.54	
1877.00	9.180	240.260	1867.73	-49.35	-49.85	-101.16	717149.85	372202.15	32°01'16.905"N	103°37'57.659"W	0.25	
2054.00	9.260	241.370	2042.45	-63.05	-63.68	-125.92	717125.09	372188.32	32°01'16.770"N	103°37'57.948"W	0.11	
2230.00	9.380	238.040	2216.12	-77.30	-78.06	-150.51	717100.49	372173.94	32°01'16.629"N	103°37'58.235"W	0.31	
2408.00	9.170	249.400	2391.81	-89.85	-90.73	-176.10	717074.91	372161.28	32°01'16.505"N	103°37'58.533"W	1.03	
2585.00	9.170	247.470	2566.55	-100.08	-101.09	-202.33	717048.68	372150.91	32°01'16.404"N	103°37'58.838"W	0.17	
2762.00	8.780	248.900	2741.38	-110.22	-111.36	-227.96	717023.05	372140.64	32°01'16.304"N	103°37'59.137"W	0.25	
2939.00	7.750	251.270	2916.54	-118.79	-120.06	-251.86	716999.15	372131.95	32°01'16.220"N	103°37'59.415"W	0.61	
3116.00	7.420	248.250	3091.99	-126.75	-128.13	-273.78	716977.23	372123.88	32°01'16.141"N	103°37'59.670"W	0.29	
3294.00	5.950	235.130	3268.79	-136.20	-137.66	-292.03	716958.98	372114.35	32°01'16.048"N	103°37'59.883"W	1.19	
3472.00	5.970	216.630	3445.84	-148.83	-150.36	-305.12	716945.89	372101.64	32°01'15.923"N	103°38°00.036"W	1.07	
3648.00	4.090	189.380	3621.18	-162.34	-163.90	-311.61	716939.40	372088.10	32°01'15.790"N	103°38°00.112"W	1.70	
3826.00	0.360	70.650	3799.04	-168.42	-169.99	-312.11	716938.90	372082.02	32°01'15.730"N	103°38°00.119"W	2.40	
4003.00	1.520	139.430	3976.01	-170.03	-171.58	-310.06	716940.95	372080.42	32°01'15.714"N	103°38°00.095"W	0.81	
4180.00	1.880	141.590	4152.93	-174.10	-175.64	-306.73	716944.28	372076.36	32°01'15.673"N	103°38°00.056"W	0.21	
4357.00	2.950	136.380	4329.78	-179.70	-181.21	-301.79	716949.23	372070.79	32°01'15.618"N	103°37'59.999"W	0.62	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4551.00	2.590	136.100	4523.55	-186.51	-187.99	-295.30	716955.71	372064.02	32°01'15.550"N	103°37'59.925"W	0.19	12 1/4 BHI MWD 800' - 4551'
4706.00	2.310	140.640	4678.41	-191.47	-192.93	-290.89	716960.12	372059.08	32°01'15.501"N	103°37'59.874"W	0.22	
4795.00	0.480	260.530	4767.38	-192.92	-194.37	-290.12	716960.89	372057.63	32°01'15.487"N	103°37'59.865"W	2.90	
4883.00	0.280	263.200	4855.38	-193.00	-194.46	-290.70	716960.31	372057.55	32°01'15.486"N	103°37'59.872"W	0.23	
4972.00	1.390	344.290	4944.37	-191.99	-193.45	-291.21	716959.80	372058.56	32°01'15.496"N	103°37'59.877"W	1.54	
5149.00	1.700	352.080	5121.31	-187.31	-188.78	-292.15	716958.86	372063.23	32°01'15.542"N	103°37'59.888"W	0.21	
5326.00	1.550	338.900	5298.24	-182.47	-183.95	-293.38	716957.64	372068.06	32°01'15.590"N	103°37'59.902"W	0.23	
5503.00	1.520	333.980	5475.17	-178.12	-179.60	-295.27	716955.74	372072.40	32°01'15.633"N	103°37'59.924"W	0.08	
5681.00	1.500	320.680	5653.11	-174.19	-175.68	-297.78	716953.23	372076.33	32°01'15.672"N	103°37'59.952"W	0.20	
5858.00	1.600	332.340	5830.05	-170.19	-171.70	-300.39	716950.62	372080.31	32°01'15.712"N	103°37'59.983"W	0.19	
6035.00	1.790	333.990	6006.97	-165.51	-167.03	-302.75	716948.26	372084.98	32°01'15.758"N	103°38'00.010"W	0.11	
6212.00	0.380	239.260	6183.94	-163.31	-164.84	-304.47	716946.54	372087.17	32°01'15.780"N	103°38'00.029"W	1.05	
6389.00	0.890	256.660	6360.93	-163.92	-165.46	-306.31	716944.70	372086.55	32°01'15.774"N	103°38'00.051"W	0.30	
6565.00	0.460	267.830	6536.92	-164.25	-165.80	-308.35	716942.66	372086.21	32°01'15.771"N	103°38'00.074"W	0.25	
6742.00	0.700	274.460	6713.91	-164.19	-165.74	-310.14	716940.88	372086.26	32°01'15.772"N	103°38'00.095"W	0.14	
6919.00	0.830	256.690	6890.89	-164.39	-165.95	-312.46	716938.55	372086.05	32°01'15.770"N	103°38'00.122"W	0.15	
7096.00	0.860	278.820	7067.87	-164.47	-166.05	-315.02	716935.99	372085.96	32°01'15.769"N	103°38'00.152"W	0.18	
7273.00	1.080	269.330	7244.85	-164.27	-165.86	-318.00	716933.01	372086.15	32°01'15.771"N	103°38'00.187"W	0.15	
7451.00	1.040	263.010	7422.82	-164.47	-166.08	-321.28	716929.73	372085.93	32°01'15.769"N	103°38'00.225"W	0.07	
7628.00	0.870	245.620	7599.79	-165.20	-166.83	-324.10	716926.91	372085.18	32°01'15.762"N	103°38'00.258"W	0.19	
7805.00	1.090	235.730	7776.77	-166.69	-168.33	-326.72	716924.30	372083.68	32°01'15.747"N	103°38'00.288"W	0.16	
7982.00	1.350	240.620	7953.73	-168.65	-170.30	-329.93	716921.09	372081.71	32°01'15.728"N	103°38'00.325"W	0.16	
8158.00	1.450	238.300	8129.68	-170.82	-172.49	-333.63	716917.39	372079.52	32°01'15.706"N	103°38'00.369"W	0.07	
8312.00	1.680	216.560	8283.62	-173.64	-175.33	-336.63	716914.38	372076.68	32°01'15.678"N	103°38'00.404"W	0.41	
8489.00	1.450	213.810	8460.55	-177.57	-179.27	-339.42	716911.59	372072.74	32°01'15.640"N	103°38'00.436"W	0.14	
8533.00	1.580	317.880	8504.54	-177.58	-179.28	-340.14	716910.88	372072.72	32°01'15.639"N	103°38'00.445"W	5.43	
8577.00	6.640	352.560	8548.42	-174.60	-176.31	-340.87	716910.14	372075.70	32°01'15.669"N	103°38'00.453"W	12.31	
8621.00	13.390	357.240	8591.73	-166.98	-168.69	-341.45	716909.56	372083.32	32°01'15.744"N	103°38'00.459"W	15.44	
8666.00	19.090	356.840	8634.91	-154.41	-156.13	-342.11	716908.91	372095.88	32°01'15.869"N	103°38'00.466"W	12.67	
8710.00	25.440	358.530	8675.61	-137.76	-139.48	-342.75	716908.27	372112.53	32°01'16.034"N	103°38'00.472"W	14.50	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8754.00	31.080	359.700	8714.35	-116.94	-118.66	-343.05	716907.96	372133.35	32°01'16.240"N	103°38'00.474"W	12.88	
8798.00	34.280	359.330	8751.38	-93.18	-94.90	-343.25	716907.76	372157.10	32°01'16.475"N	103°38'00.475"W	7.29	
8842.00	37.700	359.070	8786.98	-67.33	-69.05	-343.62	716907.40	372182.95	32°01'16.730"N	103°38'00.477"W	7.78	
8887.00	42.790	358.640	8821.31	-38.27	-40.00	-344.20	716906.81	372212.01	32°01'17.018"N	103°38'00.481"W	11.33	
8931.00	48.020	359.570	8852.20	-6.95	-8.68	-344.68	716906.33	372243.32	32°01'17.328"N	103°38'00.485"W	11.98	
8975.00	51.380	359.730	8880.65	26.60	24.87	-344.88	716906.13	372276.87	32°01'17.660"N	103°38'00.484"W	7.64	
9020.00	54.680	359.840	8907.71	62.55	60.82	-345.02	716905.99	372312.82	32°01'18.016"N	103°38'00.483"W	7.34	
9064.00	58.850	0.810	8931.82	99.34	97.61	-344.80	716906.21	372349.61	32°01'18.380"N	103°38'00.478"W	9.65	
9108.00	63.820	1.190	8952.92	137.93	136.20	-344.13	716906.89	372388.20	32°01'18.762"N	103°38'00.467"W	11.32	
9152.00	68.460	0.760	8970.71	178.14	176.43	-343.44	716907.57	372428.42	32°01'19.160"N	103°38'00.456"W	10.58	
9196.00	72.130	0.490	8985.55	219.56	217.84	-342.99	716908.02	372469.83	32°01'19.569"N	103°38'00.448"W	8.36	
9241.00	75.810	0.020	8997.97	262.80	261.08	-342.80	716908.21	372513.07	32°01'19.997"N	103°38'00.443"W	8.24	
9285.00	80.200	359.400	9007.11	305.82	304.11	-343.02	716907.99	372556.10	32°01'20.423"N	103°38'00.442"W	10.07	
9373.00	85.160	359.760	9018.32	393.08	391.36	-343.66	716907.35	372643.35	32°01'21.287"N	103°38'00.443"W	5.65	
9461.00	88.030	359.390	9023.55	480.91	479.20	-344.31	716906.70	372731.18	32°01'22.156"N	103°38'00.444"W	3.29	
9550.00	88.180	358.700	9026.49	569.86	568.13	-345.79	716905.22	372820.11	32°01'23.036"N	103°38'00.454"W	0.79	
9638.00	89.140	0.270	9028.55	657.83	656.10	-346.59	716904.43	372908.08	32°01'23.907"N	103°38'00.457"W	2.09	
9727.00	88.270	359.860	9030.56	746.81	745.08	-346.48	716904.53	372997.05	32°01'24.787"N	103°38'00.449"W	1.08	
9816.00	90.620	0.130	9031.42	835.79	834.07	-346.49	716904.52	373086.04	32°01'25.668"N	103°38'00.442"W	2.66	
9905.00	90.980	0.070	9030.18	924.78	923.06	-346.34	716904.68	373175.02	32°01'26.548"N	103°38'00.434"W	0.41	
9994.00	91.480	0.600	9028.27	1013.76	1012.04	-345.82	716905.20	373264.00	32°01'27.429"N	103°38'00.421"W	0.82	
10082.00	91.730	0.890	9025.80	1101.71	1100.00	-344.67	716906.34	373351.95	32°01'28.299"N	103°38'00.401"W	0.43	
10170.00	89.780	0.110	9024.64	1189.69	1187.98	-343.91	716907.11	373439.93	32°01'29.170"N	103°38'00.386"W	2.39	
10259.00	89.910	359.320	9024.89	1278.69	1276.98	-344.35	716906.67	373528.93	32°01'30.050"N	103°38'00.384"W	0.90	
10347.00	90.060	0.410	9024.91	1366.68	1364.98	-344.56	716906.46	373616.92	32°01'30.921"N	103°38'00.380"W	1.25	
10436.00	90.180	0.440	9024.72	1455.68	1453.97	-343.89	716907.12	373705.92	32°01'31.802"N	103°38'00.365"W	0.14	
10525.00	89.510	359.850	9024.96	1544.67	1542.97	-343.67	716907.34	373794.91	32°01'32.682"N	103°38'00.356"W	1.00	
10613.00	87.810	358.960	9027.02	1632.64	1630.94	-344.58	716906.43	373882.88	32°01'33.553"N	103°38'00.360"W	2.18	
10702.00	87.440	358.480	9030.71	1721.55	1719.84	-346.57	716904.44	373971.77	32°01'34.433"N	103°38'00.377"W	0.68	
10791.00	87.820	359.410	9034.39	1810.47	1808.75	-348.21	716902.81	374060.68	32°01'35.313"N	103°38'00.389"W	1.13	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10880.00	86.890	358.760	9038.50	1899.37	1897.64	-349.63	716901.39	374149.57	32°01'36.192"N	103°38'00.399"W	1.27	
10968.00	89.540	358.700	9041.24	1987.30	1985.57	-351.58	716899.44	374237.49	32°01'37.063"N	103°38'00.415"W	3.01	
11056.00	91.690	0.600	9040.29	2075.29	2073.55	-352.11	716898.90	374325.47	32°01'37.933"N	103°38'00.414"W	3.26	
11145.00	91.170	359.560	9038.07	2164.26	2162.52	-351.99	716899.02	374414.44	32°01'38.814"N	103°38'00.406"W	1.31	
11233.00	89.050	359.140	9037.90	2252.25	2250.51	-352.99	716898.03	374502.42	32°01'39.684"N	103°38'00.411"W	2.46	
11321.00	91.170	1.180	9037.73	2340.24	2338.50	-352.74	716898.27	374590.41	32°01'40.555"N	103°38'00.402"W	3.34	
11414.00	92.340	1.620	9034.89	2433.15	2431.43	-350.47	716900.54	374683.33	32°01'41.475"N	103°38'00.368"W	1.34	
11505.00	92.800	1.260	9030.81	2524.02	2522.31	-348.19	716902.83	374774.21	32°01'42.374"N	103°38'00.335"W	0.64	
11597.00	93.660	0.790	9025.62	2615.85	2614.15	-346.54	716904.47	374866.04	32°01'43.282"N	103°38'00.309"W	1.06	
11688.00	91.820	1.990	9021.27	2706.70	2705.01	-344.34	716906.68	374956.90	32°01'44.181"N	103°38'00.276"W	2.41	
11779.00	91.260	0.920	9018.83	2797.62	2795.94	-342.03	716908.99	375047.84	32°01'45.081"N	103°38'00.243"W	1.33	
11870.00	88.980	0.250	9018.64	2888.61	2886.93	-341.10	716909.91	375138.82	32°01'45.981"N	103°38'00.225"W	2.61	
11960.00	89.600	0.100	9019.75	2978.60	2976.93	-340.82	716910.19	375228.81	32°01'46.872"N	103°38'00.215"W	0.71	
12051.00	90.520	359.870	9019.66	3069.59	3067.92	-340.85	716910.17	375319.81	32°01'47.772"N	103°38'00.209"W	1.04	
12142.00	88.180	359.610	9020.69	3160.58	3158.91	-341.26	716909.75	375410.79	32°01'48.673"N	103°38'00.207"W	2.59	
12233.00	86.890	358.730	9024.60	3251.49	3249.81	-342.58	716908.44	375501.69	32°01'49.572"N	103°38'00.215"W	1.72	
12321.00	89.350	358.700	9027.49	3339.42	3337.74	-344.55	716906.46	375589.61	32°01'50.443"N	103°38'00.231"W	2.80	
12410.00	86.050	357.290	9031.06	3428.30	3426.60	-347.66	716903.35	375678.46	32°01'51.322"N	103°38'00.261"W	4.03	
12499.00	90.150	0.020	9034.01	3517.20	3515.50	-349.74	716901.27	375767.36	32°01'52.202"N	103°38'00.278"W	5.53	
12587.00	90.430	0.020	9033.58	3605.20	3603.50	-349.71	716901.30	375855.36	32°01'53.073"N	103°38'00.271"W	0.32	
12675.00	88.860	0.970	9034.11	3693.19	3691.49	-348.95	716902.06	375943.34	32°01'53.944"N	103°38'00.256"W	2.09	
12764.00	87.470	0.670	9036.96	3782.12	3780.43	-347.68	716903.33	376032.28	32°01'54.824"N	103°38'00.234"W	1.60	
12853.00	87.260	0.350	9041.05	3871.02	3869.33	-346.89	716904.13	376121.18	32°01'55.703"N	103°38'00.218"W	0.43	
12941.00	88.030	0.590	9044.67	3958.94	3957.25	-346.17	716904.85	376209.10	32°01'56.573"N	103°38'00.203"W	0.92	
13030.00	87.130	0.600	9048.43	4047.85	4046.17	-345.24	716905.77	376298.01	32°01'57.453"N	103°38'00.186"W	1.01	
13119.00	89.940	0.340	9050.70	4136.80	4135.13	-344.51	716906.50	376386.97	32°01'58.333"N	103°38'00.171"W	3.17	
13208.00	89.020	358.820	9051.51	4225.79	4224.12	-345.17	716905.85	376475.95	32°01'59.214"N	103°38'00.172"W	2.00	
13296.00	90.250	358.630	9052.07	4313.78	4312.09	-347.12	716903.89	376563.93	32°02'00.085"N	103°38'00.188"W	1.41	
13384.00	88.310	357.480	9053.17	4401.73	4400.03	-350.11	716900.90	376651.86	32°02'00.955"N	103°38'00.216"W	2.56	
13473.00	85.900	356.070	9057.67	4490.49	4488.77	-355.11	716895.90	376740.59	32°02'01.833"N	103°38'00.267"W	3.14	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13562.00	87.630	356.970	9062.69	4579.21	4577.46	-360.50	716890.51	376829.28	32°02'02.711"N	103°38'00.323"W	2.19	
13650.00	89.510	357.920	9064.89	4667.10	4665.34	-364.42	716886.59	376917.16	32°02'03.581"N	103°38'00.362"W	2.39	
13739.00	89.110	0.120	9065.96	4756.09	4754.31	-365.95	716885.07	377006.13	32°02'04.462"N	103°38'00.373"W	2.51	
13827.00	89.630	1.430	9066.93	4844.06	4842.30	-364.75	716886.26	377094.11	32°02'05.332"N	103°38'00.353"W	1.60	
13916.00	92.440	0.630	9065.32	4933.02	4931.26	-363.16	716887.86	377183.07	32°02'06.213"N	103°38'00.327"W	3.28	
14005.00	93.110	0.110	9061.01	5021.90	5020.15	-362.58	716888.43	377271.96	32°02'07.092"N	103°38'00.314"W	0.95	
14094.00	92.000	358.970	9057.04	5110.81	5109.06	-363.30	716887.72	377360.86	32°02'07.972"N	103°38'00.316"W	1.79	
14182.00	90.000	358.600	9055.51	5198.78	5197.02	-365.16	716885.85	377448.82	32°02'08.843"N	103°38'00.331"W	2.31	
14271.00	87.880	355.690	9057.15	5287.66	5285.88	-369.59	716881.42	377537.67	32°02'09.722"N	103°38'00.376"W	4.04	
14359.00	87.970	357.360	9060.34	5375.47	5373.66	-374.92	716876.09	377625.45	32°02'10.591"N	103°38'00.431"W	1.90	
14448.00	87.100	356.950	9064.17	5464.29	5462.46	-379.34	716871.68	377714.25	32°02'11.470"N	103°38'00.475"W	1.08	
14537.00	89.820	0.980	9066.56	5553.23	5551.39	-380.94	716870.08	377803.17	32°02'12.350"N	103°38'00.487"W	5.46	
14625.00	88.270	0.450	9068.03	5641.20	5639.37	-379.84	716871.17	377891.15	32°02'13.221"N	103°38'00.468"W	1.86	
14714.00	88.710	2.520	9070.37	5730.12	5728.30	-377.54	716873.48	377980.08	32°02'14.101"N	103°38'00.435"W	2.38	
14802.00	89.100	2.100	9072.06	5818.01	5816.21	-373.99	716877.02	378067.99	32°02'14.970"N	103°38'00.387"W	0.65	
14890.00	89.290	1.920	9073.29	5905.93	5904.15	-370.90	716880.11	378155.92	32°02'15.840"N	103°38'00.344"W	0.30	
14979.00	89.750	2.180	9074.04	5994.86	5993.09	-367.72	716883.29	378244.86	32°02'16.720"N	103°38'00.301"W	0.59	
15067.00	89.380	1.660	9074.71	6082.79	6081.04	-364.77	716886.24	378332.80	32°02'17.590"N	103°38'00.260"W	0.73	
15156.00	88.090	0.580	9076.67	6171.74	6170.00	-363.03	716887.98	378421.76	32°02'18.471"N	103°38'00.233"W	1.89	
15244.00	88.490	1.810	9079.30	6259.67	6257.94	-361.20	716889.82	378509.69	32°02'19.341"N	103°38'00.205"W	1.47	
15333.00	88.090	0.800	9081.95	6348.59	6346.87	-359.17	716891.84	378598.63	32°02'20.221"N	103°38'00.175"W	1.22	
15421.00	89.480	359.880	9083.82	6436.56	6434.85	-358.65	716892.36	378686.60	32°02'21.091"N	103°38'00.162"W	1.89	
15509.00	89.850	0.270	9084.33	6524.56	6522.85	-358.53	716892.48	378774.59	32°02'21.962"N	103°38'00.154"W	0.61	
15598.00	93.170	1.330	9081.99	6613.50	6611.79	-357.29	716893.72	378863.54	32°02'22.842"N	103°38'00.133"W	3.92	
15686.00	91.790	0.000	9078.18	6701.40	6699.70	-356.27	716894.74	378951.44	32°02'23.712"N	103°38'00.114"W	2.18	
15775.00	92.560	359.700	9074.80	6790.34	6788.63	-356.51	716894.51	379040.37	32°02'24.592"N	103°38'00.110"W	0.93	
15863.00	90.340	359.960	9072.58	6878.30	6876.60	-356.77	716894.25	379128.33	32°02'25.462"N	103°38'00.107"W	2.54	
15952.00	90.800	0.350	9071.69	6967.29	6965.60	-356.53	716894.49	379217.32	32°02'26.343"N	103°38'00.097"W	0.68	
16041.00	88.370	357.470	9072.33	7056.27	7054.56	-358.22	716892.80	379306.29	32°02'27.224"N	103°38'00.110"W	4.23	
16129.00	88.580	356.840	9074.68	7144.15	7142.42	-362.58	716888.43	379394.14	32°02'28.093"N	103°38'00.154"W	0.75	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16217.00	88.550	356.140	9076.88	7231.98	7230.23	-367.97	716883.04	379481.95	32°02'28.963"N	103°38'00.210"W	0.80	
16306.00	88.030	356.710	9079.54	7320.79	7319.01	-373.52	716877.50	379570.73	32°02'29.841"N	103°38'00.268"W	0.87	
16394.00	87.530	358.650	9082.95	7408.67	7406.87	-377.08	716873.94	379658.58	32°02'30.711"N	103°38'00.303"W	2.27	
16482.00	88.860	0.130	9085.72	7496.62	7494.82	-378.01	716873.00	379746.53	32°02'31.581"N	103°38'00.307"W	2.26	
16572.00	88.550	359.150	9087.75	7586.59	7584.79	-378.58	716872.44	379836.50	32°02'32.472"N	103°38'00.307"W	1.14	
16661.00	89.320	359.390	9089.41	7675.58	7673.77	-379.71	716871.30	379925.47	32°02'33.352"N	103°38'00.313"W	0.91	
16750.00	89.970	0.450	9089.96	7764.57	7762.77	-379.84	716871.18	380014.46	32°02'34.233"N	103°38'00.308"W	1.40	
16836.00	90.220	1.360	9089.81	7850.55	7848.75	-378.48	716872.54	380100.45	32°02'35.084"N	103°38'00.286"W	1.10	
16926.00	91.790	1.740	9088.24	7940.49	7938.70	-376.04	716874.97	380190.40	32°02'35.974"N	103°38'00.251"W	1.79	
17015.00	92.650	2.420	9084.79	8029.34	8027.58	-372.82	716878.20	380279.27	32°02'36.853"N	103°38'00.207"W	1.23	
17104.00	91.510	1.530	9081.56	8118.21	8116.46	-369.75	716881.26	380368.15	32°02'37.732"N	103°38'00.164"W	1.62	
17192.00	92.710	1.460	9078.32	8206.11	8204.37	-367.46	716883.56	380456.05	32°02'38.602"N	103°38'00.131"W	1.37	
17281.00	91.230	0.720	9075.26	8295.03	8293.30	-365.77	716885.25	380544.98	32°02'39.482"N	103°38'00.105"W	1.86	
17369.00	91.290	1.040	9073.32	8382.99	8381.27	-364.41	716886.60	380632.94	32°02'40.352"N	103°38'00.082"W	0.37	
17458.00	89.940	359.690	9072.37	8471.97	8470.26	-363.85	716887.17	380721.93	32°02'41.233"N	103°38'00.069"W	2.15	
17546.00	88.610	357.780	9073.48	8559.95	8558.22	-365.79	716885.22	380809.89	32°02'42.104"N	103°38'00.085"W	2.64	
17635.00	88.980	356.760	9075.35	8648.85	8647.10	-370.03	716880.99	380898.77	32°02'42.983"N	103°38'00.128"W	1.22	
17723.00	88.520	357.980	9077.27	8736.75	8734.99	-374.07	716876.95	380986.65	32°02'43.853"N	103°38'00.168"W	1.48	
17812.00	89.110	357.560	9079.11	8825.68	8823.90	-377.53	716873.49	381075.56	32°02'44.733"N	103°38'00.201"W	0.81	
17900.00	89.480	359.350	9080.20	8913.65	8911.86	-379.90	716871.11	381163.51	32°02'45.604"N	103°38'00.222"W	2.08	
17989.00	89.320	359.540	9081.13	9002.64	9000.85	-380.76	716870.25	381252.50	32°02'46.485"N	103°38'00.226"W	0.28	
18078.00	90.430	359.930	9081.32	9091.64	9089.84	-381.17	716869.84	381341.49	32°02'47.365"N	103°38'00.224"W	1.32	
18166.00	90.930	359.480	9080.28	9179.63	9177.84	-381.63	716869.39	381429.48	32°02'48.236"N	103°38'00.222"W	0.76	
18255.00	91.080	358.260	9078.72	9268.61	9266.80	-383.38	716867.63	381518.44	32°02'49.117"N	103°38'00.236"W	1.38	
18343.00	92.310	358.090	9076.11	9356.54	9354.72	-386.18	716864.83	381606.36	32°02'49.987"N	103°38'00.262"W	1.41	
18432.00	91.390	358.720	9073.24	9445.47	9443.64	-388.66	716862.36	381695.27	32°02'50.867"N	103°38'00.284"W	1.25	
18520.00	88.890	359.370	9073.03	9533.45	9531.62	-390.13	716860.89	381783.25	32°02'51.737"N	103°38'00.294"W	2.94	
18609.00	88.430	359.610	9075.11	9622.43	9620.59	-390.92	716860.10	381872.22	32°02'52.618"N	103°38'00.297"W	0.58	
18697.00	88.300	359.000	9077.62	9710.39	9708.55	-391.98	716859.03	381960.17	32°02'53.488"N	103°38'00.303"W	0.71	
18786.00	89.480	358.950	9079.34	9799.36	9797.51	-393.58	716857.44	382049.13	32°02'54.369"N	103°38'00.314"W	1.33	



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
18874.00	90.310	359.110	9079.50	9887.35	9885.50	-395.07	716855.95	382137.12	32°02'55.240"N	103°38'00.325"W	0.96	
18963.00	90.190	357.710	9079.12	9976.33	9974.46	-397.54	716853.48	382226.08	32°02'56.120"N	103°38'00.347"W	1.58	
19052.00	90.740	357.300	9078.39	10065.26	10063.37	-401.41	716849.61	382314.98	32°02'57.000"N	103°38'00.385"W	0.77	
19140.00	90.890	356.990	9077.14	10153.16	10151.26	-405.79	716845.22	382402.86	32°02'57.870"N	103°38'00.430"W	0.39	
19208.00	91.020	356.360	9076.01	10221.06	10219.13	-409.74	716841.28	382470.74	32°02'58.542"N	103°38'00.470"W	0.95	8 3/4 BHI MWD 4706' - 19208'
19261.00	91.020	356.360	9075.06	10273.96	10272.02	-413.10	716837.92	382523.62	32°02'59.066"N	103°38'00.506"W	0.00	Projection to TD: 19261'

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
P23 No. 2H 4000' from LP	9028.40	4313.27	-360.21	716890.80	376565.10	32°02'00.097"N	103°38'00.340"W	rectangle
P23 No. 2H 5000' from LP	9041.19	5313.26	-365.23	716885.78	377565.05	32°02'09.993"N	103°38'00.323"W	rectangle
SD WE 24 Fed P23 No. 2H BHL rev 2	9055.00	10258.40	-390.02	716861.00	382510.00	32°02'58.929"N	103°38'00.238"W	rectangle

WELLPATH COMPOSITION - Ref Wellbore: SD WE 24 Federal P23 No. 002H (AWB) Ref Wellpath: SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	712.00	Wolff and de Wardt (good magnetic)	Imported Teledrift 125' - 712'	SD WE 24 Federal P23 No. 002H (AWB)
712.00	4551.00	BHI NaviTrak (Axial)	12 1/4 BHI MWD 800' - 4551'	SD WE 24 Federal P23 No. 002H (AWB)
4551.00	19208.00	BHI NaviTrak (Axial)	8 3/4 BHI MWD 4706' - 19208'	SD WE 24 Federal P23 No. 002H (AWB)
19208.00	19261.00	Blind Drilling (std)	Projection to bit	SD WE 24 Federal P23 No. 002H (AWB)



Actual Wellpath Report

SD WE 24 Federal P23 No. 002H awp 125' - 19208' Proj: 19261'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 2H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 002H
Field	Jennings; Bone Springs (Lea County, NM)	Wellbore	SD WE 24 Federal P23 No. 002H (AWB)
Facility	SD WE 24 Fed P23		

COMMENTS

Wellpath general comments

Well: SD WE 24 Federal P23 No. 002H
Field: Jennings; Bone Springs
Rig: Nabors X30
Location: Lea, New Mexico
API: 30-025-43296-00
Latitude: 32° 01' 17.392" N
Longitude: 103° 37' 56.481" W
DF Elevation: 3166.6 feet
Elev. GL: 3134 feet
Proposed Direction: 359.71°
PBHL: 19261 feet
Duration: 8/27/2016-11/01/2016
FSE's: D. Hardeman, O. Lizarazo, C. Duhon
SO#: 8111322
Imported Teledrift 125' - 712'
12 1/4 BHI MWD 800' - 4551'
8 3/4 BHI MWD 4706' - 19208'
Projection to TD: 19261'