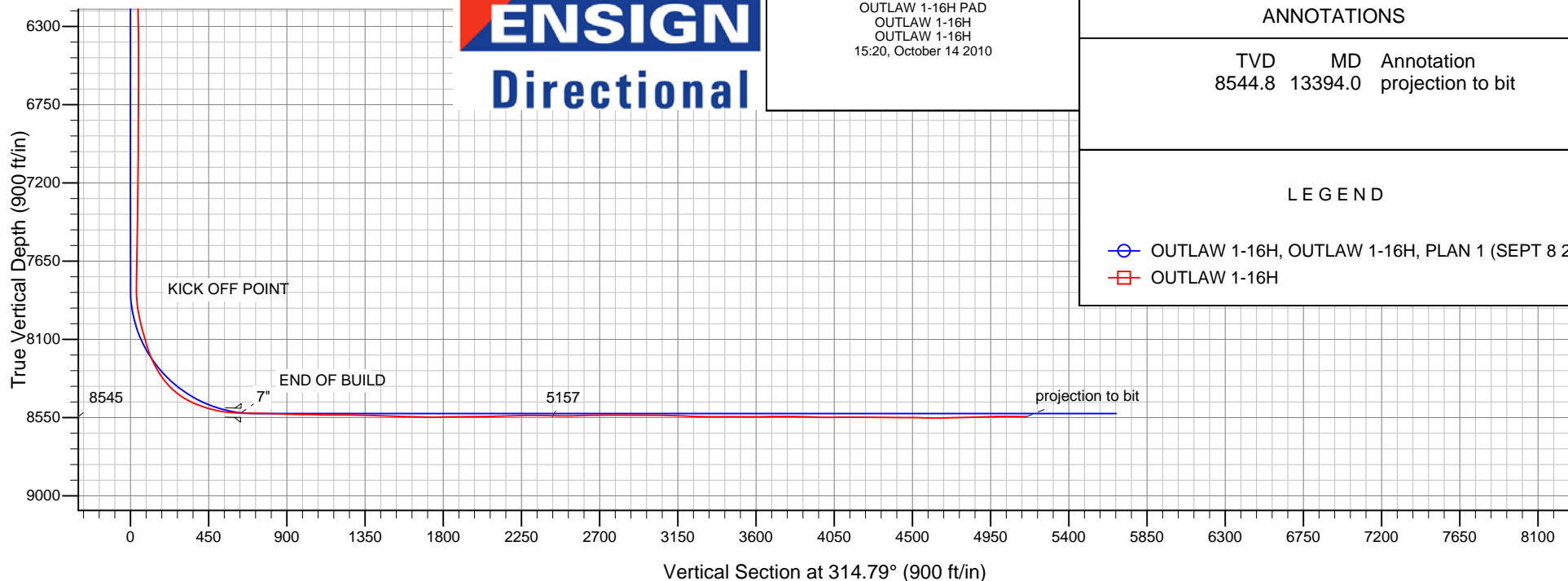
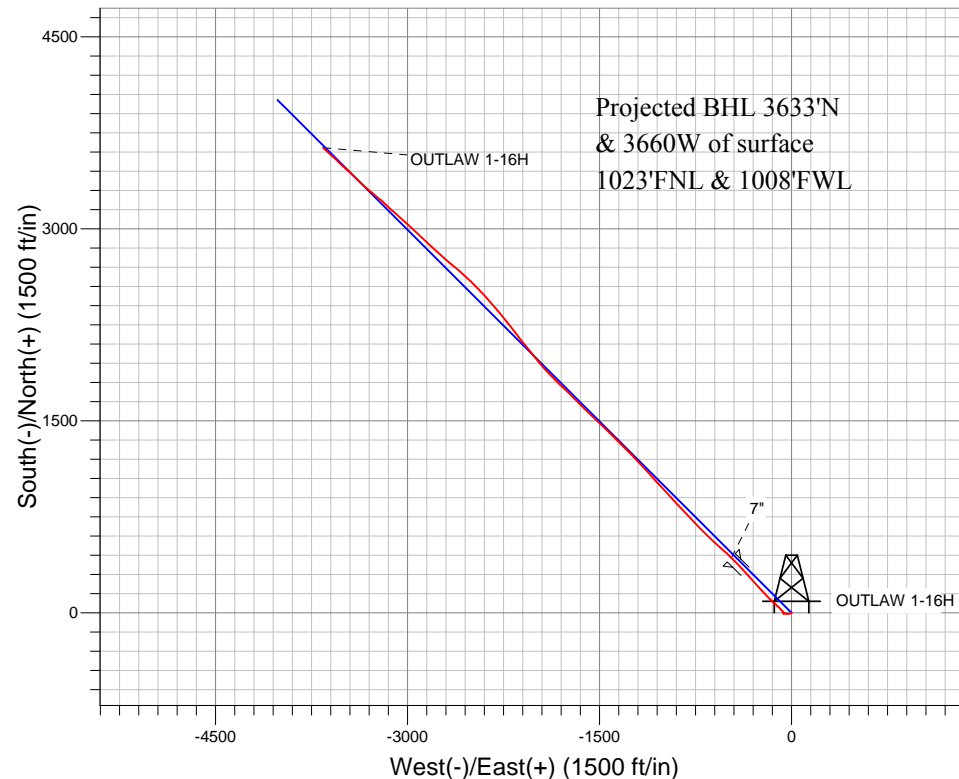


## SLAWSON EXPLORATION

Well Name: OUTLAW 1-16H  
 Surface Location: OUTLAW 1-16H PAD  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 5653.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1577189.34 3200578.50 40.915500 -104.774290  
 KB CADE 24 - 24' KB @ 5677.0ft (KB CADE 24 - 24')

## FINAL SURVEY

Projected Bottom Hole Location  
 13394' MD 8545' TVD 3633' N &  
 3660' W of SHL  
 89.1 degree Incl @ 312.3 degree AZM



**ENSIGN**  
 Directional

OUTLAW 1-16H PAD  
 OUTLAW 1-16H  
 OUTLAW 1-16H  
 15:20, October 14 2010

## ANNOTATIONS

TVD	MD	Annotation
8544.8	13394.0	projection to bit

## LEGEND

OUTLAW 1-16H, OUTLAW 1-16H, PLAN 1 (SEPT 8 2010) V0  
 OUTLAW 1-16H



## **Directional**

### **SLAWSON EXPLORATION**

**SEC.16-T11N-R66W**

**OUTLAW 1-16H PAD**

**OUTLAW 1-16H**

**OUTLAW 1-16H**

**Design: OUTLAW 1-16H**

### **Standard Survey Report**

**14 October, 2010**

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

<b>Project</b>	SEC.16-T11N-R66W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		OUTLAW 1-16H PAD			
Site Position:		Northing:	1,577,189.34ft	Latitude:	40.915500
From:	Lat/Long	Easting:	3,200,578.50ft	Longitude:	-104.774290
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.47 °

Well	OUTLAW 1-16H					
Well Position	+N/-S	0.0 ft	Northing:	1,577,189.34 ft	Latitude:	40.915500
	+E/-W	0.0 ft	Easting:	3,200,578.50 ft	Longitude:	-104.774290
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,653.0 ft

<b>Wellbore</b>	OUTLAW 1-16H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/8/2010	9.02	67.49	53,520

<b>Design</b>	OUTLAW 1-16H				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	314.79	

<b>Survey Program</b>	<b>Date</b>	9/28/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
97.0	13,394.0	Survey #1 (OUTLAW 1-16H)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
97.0	0.20	98.40	97.0	0.0	0.2	-0.1	0.21	0.21	0.00	
228.0	0.40	215.00	228.0	-0.4	0.1	-0.4	0.40	0.15	89.01	
308.0	0.40	225.00	308.0	-0.9	-0.2	-0.4	0.09	0.00	12.50	
431.0	0.70	251.40	431.0	-1.4	-1.2	-0.1	0.31	0.24	21.46	
553.0	0.50	271.20	553.0	-1.6	-2.5	0.6	0.23	-0.16	16.23	
675.0	0.40	288.10	675.0	-1.5	-3.4	1.4	0.14	-0.08	13.85	
828.0	0.30	270.10	828.0	-1.3	-4.3	2.1	0.10	-0.07	-11.76	
1,010.0	0.30	247.50	1,010.0	-1.5	-5.2	2.7	0.06	0.00	-12.42	
1,223.0	0.30	278.50	1,223.0	-1.6	-6.3	3.3	0.08	0.00	14.55	
1,496.0	0.40	249.00	1,496.0	-1.9	-7.9	4.3	0.07	0.04	-10.81	
1,811.0	0.30	238.00	1,811.0	-2.7	-9.6	4.9	0.04	-0.03	-3.49	
2,022.0	0.40	257.00	2,022.0	-3.2	-10.8	5.5	0.07	0.05	9.00	

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,130.0	0.50	232.30	2,130.0	-3.5	-11.6	5.7	0.20	0.09	-22.87	
2,350.0	0.80	221.70	2,349.9	-5.3	-13.3	5.8	0.15	0.14	-4.82	
2,662.0	0.80	248.90	2,661.9	-7.7	-16.8	6.5	0.12	0.00	8.72	
2,943.0	0.80	289.60	2,942.9	-7.7	-20.5	9.1	0.20	0.00	14.48	
3,255.0	0.80	269.20	3,254.9	-7.0	-24.7	12.6	0.09	0.00	-6.54	
3,567.0	0.50	252.70	3,566.8	-7.5	-28.2	14.8	0.11	-0.10	-5.29	
3,848.0	1.10	264.20	3,847.8	-8.1	-32.1	17.0	0.22	0.21	4.09	
4,191.0	1.10	274.50	4,190.7	-8.2	-38.6	21.7	0.06	0.00	3.00	
4,444.0	1.30	293.60	4,443.7	-6.8	-43.7	26.2	0.18	0.08	7.55	
4,569.0	0.80	329.00	4,568.7	-5.5	-45.4	28.3	0.64	-0.40	28.32	
4,693.0	0.40	0.70	4,692.7	-4.3	-45.9	29.5	0.41	-0.32	25.56	
5,037.0	0.70	291.70	5,036.7	-2.4	-47.8	32.3	0.19	0.09	-20.06	
5,317.0	1.10	272.20	5,316.6	-1.6	-52.1	35.8	0.18	0.14	-6.96	
5,629.0	1.10	288.00	5,628.6	-0.6	-57.9	40.7	0.10	0.00	5.06	
5,754.0	0.50	267.40	5,753.5	-0.2	-59.6	42.1	0.52	-0.48	-16.48	
5,972.0	0.60	249.90	5,971.5	-0.7	-61.6	43.3	0.09	0.05	-8.03	
6,159.0	0.60	313.20	6,158.5	-0.3	-63.3	44.6	0.34	0.00	33.85	
6,378.0	0.50	307.80	6,377.5	1.0	-64.8	46.7	0.05	-0.05	-2.47	
6,627.0	0.50	109.30	6,626.5	1.3	-64.7	46.8	0.40	0.00	64.86	
6,752.0	0.50	105.40	6,751.5	1.0	-63.6	45.9	0.03	0.00	-3.12	
6,877.0	0.40	244.80	6,876.5	0.7	-63.5	45.5	0.68	-0.08	111.52	
6,940.0	0.60	216.60	6,939.5	0.3	-63.9	45.6	0.49	0.32	-44.76	
7,033.0	0.60	148.20	7,032.5	-0.5	-63.9	45.0	0.73	0.00	-73.55	
7,221.0	0.60	161.00	7,220.5	-2.2	-63.1	43.2	0.07	0.00	6.81	
7,314.0	0.70	139.80	7,313.5	-3.1	-62.6	42.2	0.28	0.11	-22.80	
7,536.0	1.00	133.20	7,535.5	-5.5	-60.3	38.9	0.14	0.14	-2.97	
7,761.0	0.80	129.00	7,760.4	-7.8	-57.6	35.4	0.09	-0.09	-1.87	
7,788.0	0.70	133.80	7,787.4	-8.1	-57.4	35.0	0.44	-0.37	17.78	
7,810.0	0.24	149.26	7,809.4	-8.2	-57.2	34.8	2.15	-2.09	70.27	
7,819.0	0.10	199.00	7,818.4	-8.2	-57.2	34.8	2.13	-1.56	552.67	
7,850.0	2.80	316.10	7,849.4	-7.7	-57.8	35.6	9.18	8.71	377.74	
7,881.0	5.30	323.10	7,880.3	-6.0	-59.2	37.7	8.21	8.06	22.58	
7,911.0	8.20	331.30	7,910.1	-3.0	-61.0	41.2	10.16	9.67	27.33	
7,945.0	9.80	329.30	7,943.7	1.6	-63.7	46.3	4.79	4.71	-5.88	
7,976.0	11.60	327.20	7,974.2	6.5	-66.7	51.9	5.94	5.81	-6.77	
8,007.0	13.20	323.10	8,004.4	11.9	-70.5	58.4	5.89	5.16	-13.23	
8,037.0	14.70	316.50	8,033.6	17.4	-75.2	65.6	7.28	5.00	-22.00	
8,069.0	16.20	312.60	8,064.4	23.4	-81.3	74.2	5.70	4.69	-12.19	
8,100.0	15.90	323.60	8,094.2	29.7	-87.0	82.7	9.84	-0.97	35.48	
8,131.0	15.30	316.70	8,124.1	36.1	-92.3	91.0	6.29	-1.94	-22.26	
8,161.0	18.50	314.60	8,152.8	42.4	-98.4	99.7	10.86	10.67	-7.00	
8,192.0	21.10	311.50	8,181.9	49.5	-106.1	110.2	9.04	8.39	-10.00	
8,223.0	23.40	310.40	8,210.6	57.2	-115.0	121.9	7.54	7.42	-3.55	
8,254.0	26.30	311.60	8,238.7	65.7	-124.8	134.9	9.49	9.35	3.87	
8,286.0	29.50	312.40	8,267.0	75.8	-135.9	149.8	10.07	10.00	2.50	
8,317.0	32.40	313.10	8,293.6	86.6	-147.6	165.8	9.43	9.35	2.26	
8,348.0	35.50	314.20	8,319.3	98.5	-160.1	183.1	10.19	10.00	3.55	
8,379.0	39.20	314.50	8,344.0	111.7	-173.6	201.9	11.95	11.94	0.97	
8,411.0	43.20	315.50	8,368.0	126.6	-188.5	222.9	12.67	12.50	3.13	
8,442.0	47.50	316.40	8,389.8	142.5	-203.8	245.0	14.02	13.87	2.90	
8,473.0	51.60	317.80	8,409.9	159.7	-219.8	268.5	13.66	13.23	4.52	
8,505.0	56.30	318.30	8,428.7	179.0	-237.1	294.4	14.74	14.69	1.56	
8,535.0	60.30	317.90	8,444.5	198.0	-254.2	319.8	13.38	13.33	-1.33	
8,567.0	63.80	317.80	8,459.5	218.9	-273.1	348.1	10.94	10.94	-0.31	

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,598.0	67.40	318.00	8,472.3	239.9	-292.1	376.3	11.63	11.61	0.65	
8,629.0	70.40	317.20	8,483.5	261.2	-311.6	405.1	9.97	9.68	-2.58	
8,660.0	73.50	317.10	8,493.1	282.8	-331.6	434.6	10.00	10.00	-0.32	
8,691.0	75.60	317.40	8,501.3	304.8	-351.9	464.4	6.84	6.77	0.97	
8,723.0	77.30	317.90	8,508.8	327.8	-372.8	495.5	5.53	5.31	1.56	
8,753.0	79.80	317.50	8,514.8	349.5	-392.6	524.9	8.44	8.33	-1.33	
8,784.0	84.00	317.00	8,519.1	372.0	-413.5	555.5	13.64	13.55	-1.61	
8,816.0	86.10	315.60	8,521.9	395.1	-435.5	587.4	7.88	6.56	-4.38	
8,827.0	86.80	315.40	8,522.6	402.9	-443.2	598.4	6.62	6.36	-1.82	
8,865.0	87.86	314.18	8,524.4	429.6	-470.1	636.3	4.25	2.79	-3.21	
8,916.0	89.70	312.70	8,525.4	464.7	-507.1	687.3	4.63	3.61	-2.90	
8,947.0	89.90	312.20	8,525.6	485.6	-530.0	718.3	1.74	0.65	-1.61	
8,978.0	90.10	313.00	8,525.6	506.6	-552.8	749.2	2.66	0.65	2.58	
9,009.0	87.70	312.00	8,526.2	527.5	-575.7	780.2	8.39	-7.74	-3.23	
9,041.0	87.90	312.50	8,527.4	549.0	-599.3	812.2	1.68	0.63	1.56	
9,072.0	87.80	312.80	8,528.5	570.0	-622.1	843.1	1.02	-0.32	0.97	
9,103.0	87.80	314.20	8,529.7	591.4	-644.6	874.1	4.51	0.00	4.52	
9,134.0	88.80	314.50	8,530.7	613.0	-666.8	905.1	3.37	3.23	0.97	
9,166.0	88.90	314.40	8,531.3	635.4	-689.6	937.1	0.44	0.31	-0.31	
9,197.0	89.00	315.10	8,531.9	657.2	-711.6	968.1	2.28	0.32	2.26	
9,229.0	89.50	314.90	8,532.3	679.9	-734.2	1,000.1	1.68	1.56	-0.63	
9,260.0	89.10	315.00	8,532.7	701.8	-756.2	1,031.1	1.33	-1.29	0.32	
9,291.0	88.50	316.50	8,533.3	724.0	-777.8	1,062.0	5.21	-1.94	4.84	
9,322.0	88.60	317.30	8,534.1	746.6	-799.0	1,093.0	2.60	0.32	2.58	
9,354.0	89.40	317.50	8,534.7	770.1	-820.6	1,125.0	2.58	2.50	0.63	
9,384.0	89.60	316.60	8,534.9	792.1	-841.1	1,154.9	3.07	0.67	-3.00	
9,415.0	89.80	317.60	8,535.1	814.8	-862.2	1,185.9	3.29	0.65	3.23	
9,447.0	89.90	317.40	8,535.2	838.4	-883.8	1,217.9	0.70	0.31	-0.63	
9,477.0	90.60	317.20	8,535.0	860.5	-904.1	1,247.9	2.43	2.33	-0.67	
9,508.0	89.10	317.30	8,535.1	883.2	-925.2	1,278.8	4.85	-4.84	0.32	
9,538.0	88.20	317.50	8,535.8	905.3	-945.5	1,308.8	3.07	-3.00	0.67	
9,569.0	88.30	317.80	8,536.8	928.2	-966.3	1,339.7	1.02	0.32	0.97	
9,600.0	88.30	317.30	8,537.7	951.1	-987.3	1,370.7	1.61	0.00	-1.61	
9,632.0	88.00	316.90	8,538.7	974.5	-1,009.0	1,402.6	1.56	-0.94	-1.25	
9,663.0	88.00	318.10	8,539.8	997.3	-1,030.0	1,433.6	3.87	0.00	3.87	
9,694.0	88.00	317.30	8,540.9	1,020.2	-1,050.8	1,464.5	2.58	0.00	-2.58	
9,725.0	88.70	317.20	8,541.8	1,043.0	-1,071.8	1,495.5	2.28	2.26	-0.32	
9,757.0	88.10	317.30	8,542.7	1,066.5	-1,093.6	1,527.4	1.90	-1.88	0.31	
9,788.0	88.00	317.30	8,543.7	1,089.3	-1,114.6	1,558.4	0.32	-0.32	0.00	
9,819.0	88.60	318.00	8,544.6	1,112.2	-1,135.4	1,589.3	2.97	1.94	2.26	
9,850.0	88.70	317.80	8,545.4	1,135.1	-1,156.2	1,620.3	0.72	0.32	-0.65	
9,881.0	88.70	316.30	8,546.1	1,157.8	-1,177.3	1,651.3	4.84	0.00	-4.84	
9,913.0	88.80	317.60	8,546.8	1,181.2	-1,199.2	1,683.2	4.07	0.31	4.06	
9,944.0	89.40	316.50	8,547.3	1,203.9	-1,220.3	1,714.2	4.04	1.94	-3.55	
9,976.0	89.50	315.50	8,547.6	1,226.9	-1,242.5	1,746.2	3.14	0.31	-3.13	
10,007.0	90.90	316.40	8,547.5	1,249.2	-1,264.1	1,777.2	5.37	4.52	2.90	
10,038.0	91.30	315.20	8,546.9	1,271.4	-1,285.7	1,808.2	4.08	1.29	-3.87	
10,070.0	91.30	315.30	8,546.1	1,294.1	-1,308.2	1,840.2	0.31	0.00	0.31	
10,101.0	91.20	314.80	8,545.5	1,316.1	-1,330.1	1,871.2	1.64	-0.32	-1.61	
10,132.0	90.90	314.50	8,544.9	1,337.9	-1,352.2	1,902.1	1.37	-0.97	-0.97	
10,164.0	90.20	314.50	8,544.6	1,360.3	-1,375.0	1,934.1	2.19	-2.19	0.00	
10,195.0	91.10	315.10	8,544.2	1,382.1	-1,397.0	1,965.1	3.49	2.90	1.94	
10,226.0	90.40	314.20	8,543.8	1,403.9	-1,419.0	1,996.1	3.68	-2.26	-2.90	
10,258.0	89.60	312.90	8,543.8	1,426.0	-1,442.2	2,028.1	4.77	-2.50	-4.06	

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,289.0	90.20	313.10	8,543.9	1,447.1	-1,464.9	2,059.1	2.04	1.94	0.65
10,320.0	91.30	313.60	8,543.5	1,468.4	-1,487.4	2,090.1	3.90	3.55	1.61
10,352.0	91.60	314.00	8,542.7	1,490.5	-1,510.5	2,122.1	1.56	0.94	1.25
10,383.0	91.80	314.40	8,541.7	1,512.1	-1,532.7	2,153.1	1.44	0.65	1.29
10,414.0	92.10	314.00	8,540.7	1,533.7	-1,554.9	2,184.1	1.61	0.97	-1.29
10,443.0	92.30	314.30	8,539.6	1,553.9	-1,575.7	2,213.0	1.24	0.69	1.03
10,474.0	92.00	314.20	8,538.4	1,575.5	-1,597.9	2,244.0	1.02	-0.97	-0.32
10,505.0	90.20	313.90	8,537.8	1,597.1	-1,620.2	2,275.0	5.89	-5.81	-0.97
10,536.0	89.80	315.60	8,537.8	1,618.9	-1,642.2	2,306.0	5.63	-1.29	5.48
10,567.0	89.10	314.70	8,538.1	1,640.9	-1,664.1	2,337.0	3.68	-2.26	-2.90
10,598.0	88.80	314.30	8,538.7	1,662.6	-1,686.2	2,368.0	1.61	-0.97	-1.29
10,629.0	89.50	315.60	8,539.1	1,684.5	-1,708.1	2,399.0	4.76	2.26	4.19
10,660.0	89.90	314.90	8,539.3	1,706.5	-1,729.9	2,430.0	2.60	1.29	-2.26
10,692.0	88.80	312.90	8,539.7	1,728.7	-1,753.0	2,462.0	7.13	-3.44	-6.25
10,723.0	89.80	314.20	8,540.1	1,750.0	-1,775.5	2,493.0	5.29	3.23	4.19
10,754.0	91.00	313.90	8,539.8	1,771.6	-1,797.7	2,524.0	3.99	3.87	-0.97
10,786.0	91.50	314.70	8,539.1	1,793.9	-1,820.6	2,555.9	2.95	1.56	2.50
10,817.0	91.20	314.50	8,538.4	1,815.7	-1,842.7	2,586.9	1.16	-0.97	-0.65
10,848.0	91.50	315.10	8,537.7	1,837.5	-1,864.7	2,617.9	2.16	0.97	1.94
10,880.0	91.10	315.60	8,536.9	1,860.3	-1,887.2	2,649.9	2.00	-1.25	1.56
10,911.0	90.90	317.20	8,536.4	1,882.7	-1,908.6	2,680.9	5.20	-0.65	5.16
10,942.0	90.60	318.00	8,536.0	1,905.6	-1,929.5	2,711.9	2.76	-0.97	2.58
10,973.0	90.20	319.00	8,535.8	1,928.9	-1,950.0	2,742.8	3.47	-1.29	3.23
11,005.0	90.00	320.70	8,535.7	1,953.3	-1,970.6	2,774.7	5.35	-0.63	5.31
11,036.0	90.00	321.00	8,535.7	1,977.4	-1,990.2	2,805.5	0.97	0.00	0.97
11,067.0	89.50	321.30	8,535.9	2,001.5	-2,009.6	2,836.3	1.88	-1.61	0.97
11,099.0	89.90	320.60	8,536.0	2,026.3	-2,029.8	2,868.1	2.52	1.25	-2.19
11,130.0	89.50	321.30	8,536.2	2,050.4	-2,049.3	2,898.9	2.60	-1.29	2.26
11,161.0	89.60	320.40	8,536.4	2,074.5	-2,068.9	2,929.8	2.92	0.32	-2.90
11,192.0	89.60	321.70	8,536.7	2,098.6	-2,088.4	2,960.6	4.19	0.00	4.19
11,223.0	90.10	321.80	8,536.7	2,122.9	-2,107.6	2,991.4	1.64	1.61	0.32
11,254.0	89.40	322.80	8,536.9	2,147.4	-2,126.5	3,022.1	3.94	-2.26	3.23
11,285.0	89.20	322.30	8,537.2	2,172.0	-2,145.4	3,052.8	1.74	-0.65	-1.61
11,317.0	89.10	322.00	8,537.7	2,197.3	-2,165.0	3,084.5	0.99	-0.31	-0.94
11,348.0	88.30	321.80	8,538.4	2,221.7	-2,184.1	3,115.3	2.66	-2.58	-0.65
11,379.0	87.50	322.20	8,539.6	2,246.1	-2,203.2	3,146.0	2.88	-2.58	1.29
11,410.0	87.60	321.50	8,540.9	2,270.5	-2,222.3	3,176.8	2.28	0.32	-2.26
11,441.0	87.70	322.10	8,542.2	2,294.8	-2,241.5	3,207.5	1.96	0.32	1.94
11,471.0	87.50	320.60	8,543.4	2,318.2	-2,260.2	3,237.3	5.04	-0.67	-5.00
11,502.0	88.60	321.00	8,544.5	2,342.2	-2,279.8	3,268.1	3.78	3.55	1.29
11,534.0	89.10	319.70	8,545.1	2,366.9	-2,300.2	3,299.9	4.35	1.56	-4.06
11,566.0	90.30	319.40	8,545.3	2,391.2	-2,321.0	3,331.8	3.87	3.75	-0.94
11,597.0	89.60	318.40	8,545.3	2,414.6	-2,341.4	3,362.7	3.94	-2.26	-3.23
11,628.0	89.80	318.30	8,545.5	2,437.7	-2,362.0	3,393.7	0.72	0.65	-0.32
11,660.0	89.70	317.10	8,545.6	2,461.4	-2,383.5	3,425.6	3.76	-0.31	-3.75
11,691.0	91.10	318.00	8,545.4	2,484.3	-2,404.4	3,456.6	5.37	4.52	2.90
11,723.0	89.50	315.90	8,545.2	2,507.7	-2,426.3	3,488.6	8.25	-5.00	-6.56
11,754.0	90.00	316.90	8,545.4	2,530.1	-2,447.6	3,519.6	3.61	1.61	3.23
11,785.0	89.70	316.50	8,545.4	2,552.7	-2,468.9	3,550.5	1.61	-0.97	-1.29
11,816.0	89.40	315.30	8,545.7	2,574.9	-2,490.5	3,581.5	3.99	-0.97	-3.87
11,847.0	89.70	312.40	8,545.9	2,596.4	-2,512.8	3,612.5	9.40	0.97	-9.35
11,878.0	90.60	312.60	8,545.8	2,617.3	-2,535.7	3,643.5	2.97	2.90	0.65
11,909.0	91.60	311.60	8,545.3	2,638.1	-2,558.7	3,674.5	4.56	3.23	-3.23
11,940.0	91.70	311.80	8,544.4	2,658.7	-2,581.8	3,705.4	0.72	0.32	0.65

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,971.0	91.20	311.10	8,543.6	2,679.2	-2,605.0	3,736.3	2.77	-1.61	-2.26
12,002.0	90.10	310.70	8,543.2	2,699.5	-2,628.5	3,767.3	3.78	-3.55	-1.29
12,034.0	89.00	309.30	8,543.5	2,720.1	-2,653.0	3,799.1	5.56	-3.44	-4.38
12,065.0	88.70	310.00	8,544.1	2,739.9	-2,676.8	3,830.0	2.46	-0.97	2.26
12,096.0	88.00	311.20	8,545.0	2,760.0	-2,700.4	3,860.9	4.48	-2.26	3.87
12,128.0	87.80	311.50	8,546.2	2,781.2	-2,724.4	3,892.8	1.13	-0.63	0.94
12,159.0	88.00	311.70	8,547.3	2,801.7	-2,747.5	3,923.8	0.91	0.65	0.65
12,190.0	89.40	310.90	8,548.0	2,822.2	-2,770.8	3,954.7	5.20	4.52	-2.58
12,221.0	89.80	312.40	8,548.2	2,842.8	-2,794.0	3,985.7	5.01	1.29	4.84
12,253.0	90.00	311.60	8,548.3	2,864.2	-2,817.8	4,017.6	2.58	0.63	-2.50
12,284.0	90.20	313.00	8,548.2	2,885.1	-2,840.7	4,048.6	4.56	0.65	4.52
12,315.0	90.90	313.60	8,547.9	2,906.3	-2,863.3	4,079.6	2.97	2.26	1.94
12,346.0	90.30	313.80	8,547.6	2,927.7	-2,885.7	4,110.6	2.04	-1.94	0.65
12,378.0	89.60	314.10	8,547.6	2,950.0	-2,908.7	4,142.6	2.38	-2.19	0.94
12,409.0	89.50	312.90	8,547.9	2,971.3	-2,931.2	4,173.6	3.88	-0.32	-3.87
12,441.0	90.20	314.00	8,548.0	2,993.3	-2,954.4	4,205.5	4.07	2.19	3.44
12,471.0	89.10	313.40	8,548.1	3,014.0	-2,976.1	4,235.5	4.18	-3.67	-2.00
12,502.0	89.00	311.90	8,548.7	3,035.0	-2,998.9	4,266.5	4.85	-0.32	-4.84
12,533.0	90.00	312.50	8,548.9	3,055.9	-3,021.9	4,297.5	3.76	3.23	1.94
12,565.0	89.50	312.20	8,549.1	3,077.4	-3,045.5	4,329.5	1.82	-1.56	-0.94
12,596.0	89.50	311.40	8,549.3	3,098.1	-3,068.6	4,360.4	2.58	0.00	-2.58
12,627.0	89.20	309.70	8,549.7	3,118.2	-3,092.2	4,391.3	5.57	-0.97	-5.48
12,658.0	89.50	310.70	8,550.0	3,138.2	-3,115.9	4,422.2	3.37	0.97	3.23
12,689.0	89.50	313.80	8,550.3	3,159.1	-3,138.8	4,453.2	10.00	0.00	10.00
12,721.0	89.80	315.10	8,550.5	3,181.5	-3,161.6	4,485.2	4.17	0.94	4.06
12,752.0	89.20	312.30	8,550.8	3,202.9	-3,184.1	4,516.2	9.24	-1.94	-9.03
12,783.0	89.50	310.10	8,551.1	3,223.3	-3,207.4	4,547.1	7.16	0.97	-7.10
12,815.0	89.50	309.00	8,551.4	3,243.7	-3,232.0	4,579.0	3.44	0.00	-3.44
12,846.0	88.70	308.90	8,551.9	3,263.2	-3,256.2	4,609.8	2.60	-2.58	-0.32
12,877.0	89.90	310.40	8,552.3	3,282.9	-3,280.0	4,640.7	6.20	3.87	4.84
12,908.0	90.10	310.20	8,552.3	3,303.0	-3,303.7	4,671.6	0.91	0.65	-0.65
12,939.0	90.70	312.10	8,552.1	3,323.4	-3,327.0	4,702.5	6.43	1.94	6.13
12,971.0	91.30	312.60	8,551.5	3,344.9	-3,350.6	4,734.5	2.44	1.88	1.56
13,002.0	91.60	313.30	8,550.7	3,366.1	-3,373.3	4,765.5	2.46	0.97	2.26
13,033.0	92.00	313.40	8,549.7	3,387.3	-3,395.9	4,796.4	1.33	1.29	0.32
13,064.0	92.10	313.70	8,548.6	3,408.7	-3,418.3	4,827.4	1.02	0.32	0.97
13,096.0	91.90	313.70	8,547.5	3,430.8	-3,441.4	4,859.4	0.63	-0.63	0.00
13,127.0	91.90	313.10	8,546.5	3,452.1	-3,463.9	4,890.4	1.93	0.00	-1.94
13,158.0	91.30	313.40	8,545.6	3,473.3	-3,486.5	4,921.3	2.16	-1.94	0.97
13,189.0	91.60	312.90	8,544.8	3,494.5	-3,509.1	4,952.3	1.88	0.97	-1.61
13,220.0	91.10	313.20	8,544.1	3,515.6	-3,531.8	4,983.3	1.88	-1.61	0.97
13,252.0	90.90	313.10	8,543.5	3,537.5	-3,555.1	5,015.3	0.70	-0.63	-0.31
13,283.0	90.00	312.70	8,543.3	3,558.6	-3,577.8	5,046.2	3.18	-2.90	-1.29
13,314.0	89.10	312.30	8,543.5	3,579.6	-3,600.7	5,077.2	3.18	-2.90	-1.29
13,394.0	89.10	312.30	8,544.8	3,633.4	-3,659.8	5,157.1	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,865.0	8,524.4	7"	7	8-3/4

<b>Company:</b>	SLAWSON EXPLORATION	<b>Local Co-ordinate Reference:</b>	Well OUTLAW 1-16H
<b>Project:</b>	SEC.16-T11N-R66W	<b>TVD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Site:</b>	OUTLAW 1-16H PAD	<b>MD Reference:</b>	KB @ 5677.0ft (KB CADE 24 - 24')
<b>Well:</b>	OUTLAW 1-16H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OUTLAW 1-16H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OUTLAW 1-16H	<b>Database:</b>	Landmark

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
13,394.0	8,544.8	3,633.4	-3,659.8	projection to bit

Checked By: _____	Approved By: _____	Date: _____
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