



CRESTONE PEAK
RESOURCES

Crestone Peak Resources

DJ BASIN

S25-T1N-R66W (LOCHBUIE LAND)

**LOCHBUIE LAND 2L-25H-D166 - Slot LOCHBUIE LAND
2L-25H-D166 SHL**

OH

Design: OH

Standard Survey Report

14 December, 2018



Scientific Drilling

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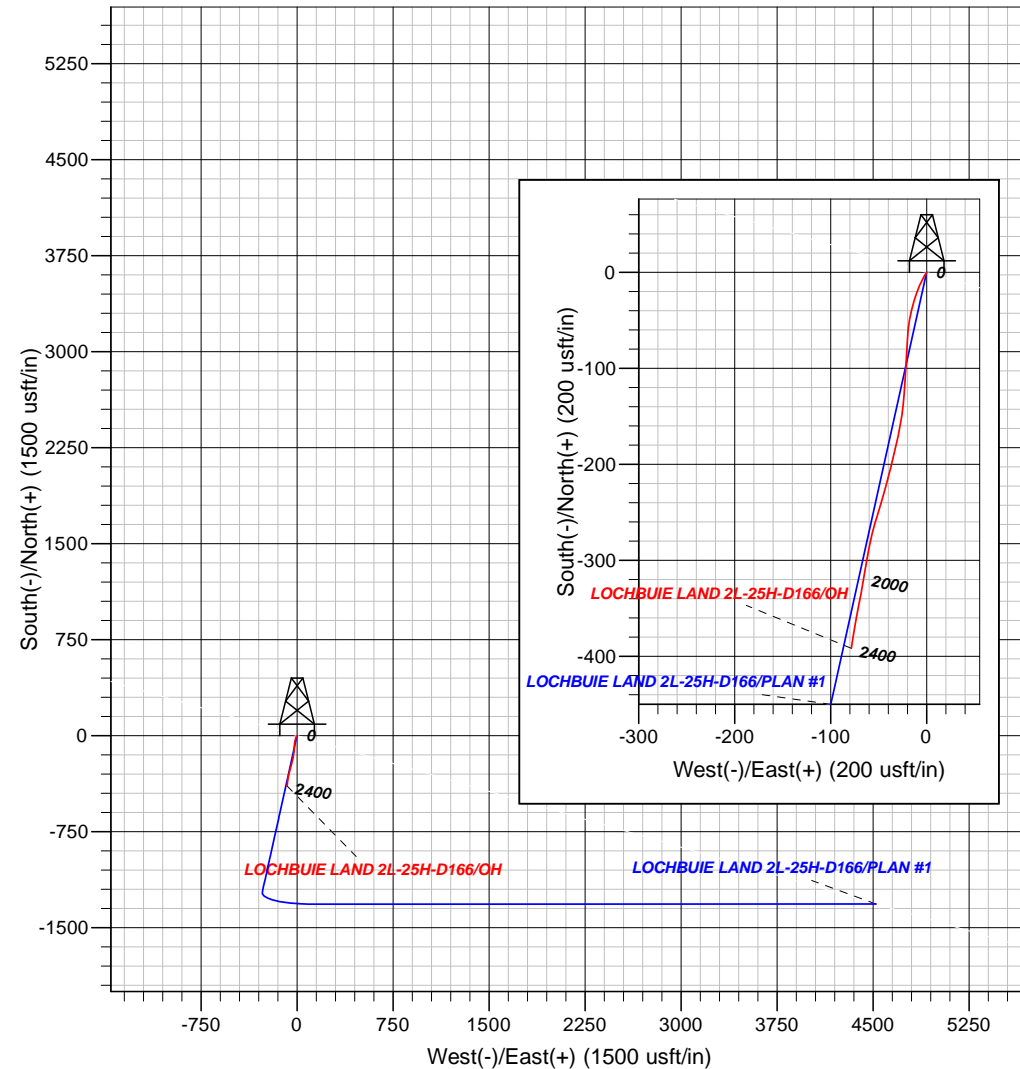
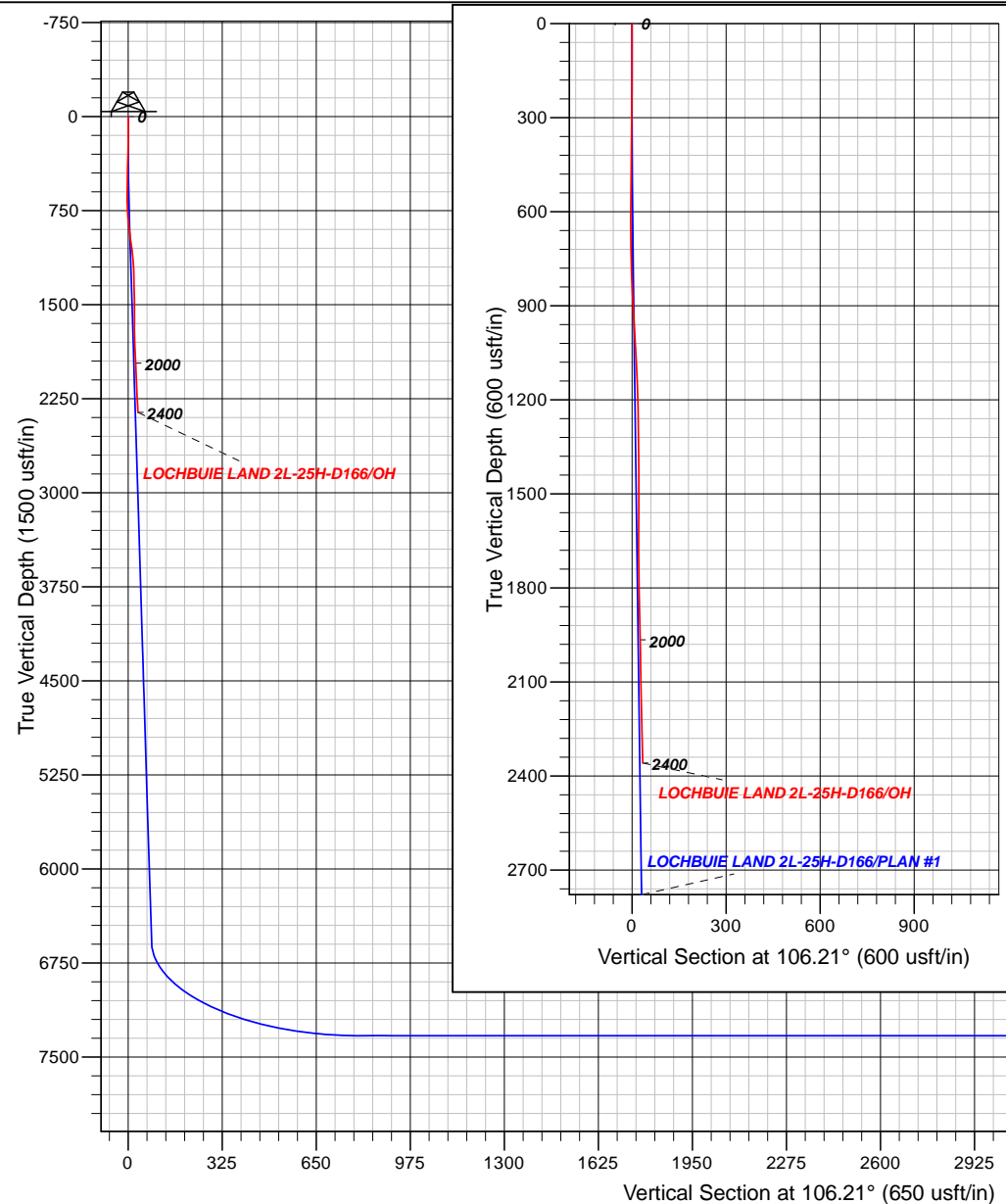


Company Name: Crestone Peak Resources
Project: DJ BASIN
Site: S25-T1N-R66W (LOCHBUIE LAND)
Well: LOCHBUIE LAND 2L-25H-D166
Wellbore: OH



WELL DETAILS: LOCHBUIE LAND 2L-25H-D166

+N/-S	+E/-W	GL 5076' & RKB 13' @ 5089.000usft (Ensign 122) 5076.000	Northings	Easting	Latitude	Longitude
0.000	0.000		1253524.19	3214538.35	40.0267672	LOCHBUIE LAND 2L-25H-D166 SHL



Design: OH (LOCHBUIE LAND 2L-25H-D166/OH)

Created By: Janie Collins Date: 11:04, December 14 2018

PROJECT DETAILS: DJ BASIN

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well LOCHBUIE LAND 2L-25H-D166 - Slot LOCHBUIE LAND 2L-25H-D166 SHL
Project:	DJ BASIN	TVD Reference:	GL 5076' & RKB 13' @ 5089.000usft (Ensign 122)
Site:	S25-T1N-R66W (LOCHBUIE LAND)	MD Reference:	GL 5076' & RKB 13' @ 5089.000usft (Ensign 122)
Well:	LOCHBUIE LAND 2L-25H-D166	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	DJ BASIN		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S25-T1N-R66W (LOCHBUIE LAND)						
Site Position:		Northing:	1,253,634.19	usft	Latitude:	40.0270692		
From:	Map	Easting:	3,214,538.35	usft	Longitude:	-104.7338980		
Position Uncertainty:	0.000	usft	Slot Radius:	13-3/16	"	Grid Convergence:	0.50	°

Well	LOCHBUIE LAND 2L-25H-D166 - Slot LOCHBUIE LAND 2L-25H-D166 SHL					
Well Position	+N/-S	0.000 usft	Northing:	1,253,524.19 usft	Latitude:	40.0267672
	+E/-W	0.000 usft	Easting:	3,214,538.35 usft	Longitude:	-104.7339014
Position Uncertainty		0.000 usft	Wellhead Elevation:	0.000 usft	Ground Level:	5,076.000 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/10/2018	8.13	66.37	52,014

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.000
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.000	0.000	0.000	106.21	

Survey Program	Date	12/14/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
172.000	2,400.000	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.000	0.00	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	
172.000	0.43	202.76	171.998	-0.595	-0.250	-0.074	0.25	0.25	0.00	
232.000	0.97	217.82	231.994	-1.204	-0.648	-0.286	0.94	0.90	25.10	
324.000	2.30	210.21	323.954	-3.415	-2.055	-1.020	1.46	1.45	-8.27	
443.000	4.59	206.06	442.731	-9.756	-5.348	-2.412	1.93	1.92	-3.49	
533.000	6.46	201.90	532.310	-17.690	-8.819	-3.530	2.12	2.08	-4.62	
623.000	9.33	197.39	621.448	-29.352	-12.889	-4.183	3.26	3.19	-5.01	
713.000	11.48	191.92	709.965	-45.079	-16.920	-3.663	2.63	2.39	-6.08	

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well LOCHBUIE LAND 2L-25H-D166 - Slot LOCHBUIE LAND 2L-25H-D166 SHL
Project:	DJ BASIN	TVD Reference:	GL 5076' & RKB 13' @ 5089.000usft (Ensign 122)
Site:	S25-T1N-R66W (LOCHBUIE LAND)	MD Reference:	GL 5076' & RKB 13' @ 5089.000usft (Ensign 122)
Well:	LOCHBUIE LAND 2L-25H-D166	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
803.000	12.13	184.38	798.066	-63.272	-19.492	-1.054	1.86	0.72	-8.38	
893.000	12.92	183.12	885.924	-82.747	-20.762	3.163	0.93	0.88	-1.40	
983.000	14.27	183.08	973.400	-103.871	-21.905	7.962	1.50	1.50	-0.04	
1,072.000	15.20	183.65	1,059.473	-126.468	-23.237	12.991	1.06	1.04	0.64	
1,159.000	14.57	188.79	1,143.556	-148.666	-25.636	16.885	1.68	-0.72	5.91	
1,241.000	14.75	191.59	1,222.888	-169.085	-29.309	19.057	0.89	0.22	3.41	
1,324.000	13.04	193.83	1,303.457	-188.529	-33.671	20.297	2.16	-2.06	2.70	
1,408.000	12.38	194.21	1,385.398	-206.460	-38.147	21.005	0.79	-0.79	0.45	
1,490.000	11.96	194.82	1,465.555	-223.195	-42.478	21.518	0.54	-0.51	0.74	
1,573.000	11.52	196.63	1,546.819	-239.450	-47.049	21.666	0.69	-0.53	2.18	
1,655.000	11.61	197.95	1,627.154	-255.146	-51.936	21.355	0.34	0.11	1.61	
1,737.000	10.83	194.40	1,707.587	-270.457	-56.394	21.348	1.27	-0.95	-4.33	
1,821.000	10.53	190.46	1,790.133	-285.649	-59.750	22.366	0.94	-0.36	-4.69	
1,903.000	10.50	189.38	1,870.756	-300.389	-62.329	24.006	0.24	-0.04	-1.32	
1,986.000	10.33	190.43	1,952.389	-315.170	-64.908	25.654	0.31	-0.20	1.27	
2,070.000	10.85	190.45	2,034.958	-330.352	-67.706	27.206	0.62	0.62	0.02	
2,160.000	10.26	190.82	2,123.434	-346.555	-70.747	28.809	0.66	-0.66	0.41	
2,250.000	10.89	190.37	2,211.905	-362.790	-73.782	30.427	0.71	0.70	-0.50	
2,337.000	11.26	188.49	2,297.285	-379.275	-76.515	32.405	0.59	0.43	-2.16	
2,400.000	11.26	188.49	2,359.073	-391.442	-78.331	34.057	0.00	0.00	0.00	

Checked By: _____ Approved By: _____ Date: _____

Crestone Peak Resources

Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

Job Number: OP.015148	Region: Crestone - Lochbuie	Lease/Block: API No.:	Company Rep. #1: Satch Bowe
Customer: Crestone Peak Resources	Field: Crestone - Lochbuie	Start Date: Wednesday, December 12, 2018	Company Rep. #2:
Well Name: LOCHBUIE LAND 2L-25H-D166	Project: DJ BASIN	End Date: Thursday, December 13, 2018	Geologist:
Rig Name:	Structure: S25-T1N-R66W (LOCHBUIE LAND)		Directional Supervisor: Charles Paladino

Drilling Summary				Pump Details							
Start Depth: 110.00ft	End Depth: 2,400.00ft	Below Rotary Hours: 22.90hrs	Circulating Hours: 17.30hrs	#	Model	Liner Size (in)	Liner Rating (%)	Volume Efficiency (%)	Vol. per Stroke (gal(US))	Maximum Pressure (psi)	Maximum Flow (gpm(US))
Total Depth Drilled: 2,290.00ft	Total Drilled Hours: 12.15hrs	Ave. Total ROP: 188.48ft/hr	Percent Drilling: 53.06%	1	Gardner-Denver PZ-9-1000	5 1/2	100.00	95.00	2.63	3570	421
Total Rotating: 1,685.00ft	Rotating Hours: 8.73hrs	Ave. Rotating ROP: 192.94ft/hr	Percent Rotating: 73.58%	2	Gardner-Denver PZ-9-1000	5 1/2	100.00	95.00	2.63	3570	421
Total Sliding: 605.00ft	Sliding Hours: 3.42hrs	Ave. Sliding ROP: 177.07ft/hr	Percent Sliding: 26.42%	3							

Bit Record - BHA #1						
Bit Number: 1	Description: 13 1/2" Varel		Manufacturer: Varel	Model: RS619DX	Type: PDC Bit	Serial Number: 4010702
IADC#:	Bit Diameter: 13 1/2in	TFA: 1.035in²	Jets: 6 x 15		Condition:	
Bit Hours: 12.15Hrs.	Bit Footage: 2,290.00ft	Grade: 1-2	Reason for pulling out of hole: TD			

Motor Properties - BHA #1													
Description: 8" Motor (Lobe 7/8 - 4.0 stage)		Motor Type: 8" Motor		Manufacturer: SDI		Model: Titan II		Serial Number: 8175		Lobe/Stage: 7:8/4.0			
Mud Type:		Stabilizer Type:				Rubber Type:				Fit Type:			
Pad OD: 8 5/8in		NB Stabilizer: 0		Bit to Bend: 4.89ft		Bend Angle: 2.25°		Pressure Drop: 0psi		Rev. Rate: 0.16Rev/gal(US)		Rotor Jet: 032's	
Motor Footage: 2,290.00ft		Below Rotary Hours: 22.90hrs		Circulating Hours: 17.30hrs		Rotating Footage: 1,685.00ft		Rotating Hours: 8.73hrs		Sliding Footage: 605.00ft		Sliding Hours: 3.42hrs	
Proposed Build Rate: 7.00°/100ft		Actual Build Rate: 0.00°/100ft		Date/Time In: 12/12/2018 2:00 PM		Date/Time Out: 12/13/2018 11:30 PM		Number of Stalls: 0		Stall Duration: 0.00mins		Extended Motor: No	
Motor Failed: No		Condition: New											

Drillstring Components - BHA #1										
Item #	Description	Vendor	Serial No.	Outside Diameter (in)	Inside Diameter (in)	Linear Weight (lbs/ft)	Component Weight (lbf)	Top Connection	Length (ft)	Total Length (ft)
1	13 1/2" Varel	Varel	4010702	13 1/2	0	0.00	0	6 5/8 Reg	1.65	1.65
2	8" Motor (Lobe 7/8 - 4.0 stage)	SDI	8175	7 7/8	0	133.00	3813	6 5/8 Reg	28.67	30.32
3	6 5/8 R Pin x 4 1/2 XH Box	SDI	1-526	6	3 1/4	133.00	366	4 1/2 XH	2.75	33.07
4	6.5" NMDC	SDI	67-159	6 1/8	3 1/4	86.00	2644	4 1/2 XH	30.74	63.81
5	6.5" NMPC	SDI	125-134	6	3 1/4	86.00	839	4 1/2 XH	9.75	73.56
6	6.5" HOS	SDI	8-1042	6 1/8	3 1/4	86.00	260	4 1/2 XH	3.02	76.58
7	6.5" GAP	SDI	69-855	6 3/16	3 1/4	86.00	359	4 1/2 XH	4.17	80.75
8	6.5" NMDC	SDI	122-1153	6 1/8	3 1/4	86.00	2643	4 1/2 XH	30.73	111.48
9	4 1/2XH P x 4 1/2IF	SDI	66-603	6 1/4	2 7/8	86.00	347	4 1/2 IF	4.04	115.52

Drillstring Discussion										
8" SDI FBH Mtr @ 2.25 w/ 13 1/2" Varel RS619DX										
Max Flow Rate 1000 GPM, Max Differential 900, PSI Optimum 100-500 psi, Stall 1350										
Rotary 30-50 RPM / .16 RPG										
Previous Run's D&C hrs: 0										
This Run D&C hrs: 0										
Total D&C hrs: 0										

Activity Breakdown										
Date	Start Time	End Time	Hours	Start Depth (ft)	End Depth (ft)	Course Length (ft)	Rate of Penetr'n (ft/hr)	Activity	Comment	
12 Dec 2018	14:00	23:00	9.00	110.00	110.00			Rig Up & Tear Down		
12 Dec 2018	23:00	00:00	1.00	110.00	110.00			Change BHA	P/U BHA	
13 Dec 2018	00:00	00:36	0.60	110.00	110.00			Other	Install MWD / Setup Gyro	
13 Dec 2018	00:36	02:04	1.47	110.00	205.00	95.00	64.77	Rotating		
13 Dec 2018	02:04	02:11	0.12	205.00	205.00			Other		
13 Dec 2018	02:11	02:25	0.23	205.00	231.00	26.00	111.43	Sliding	Sail Angle = 0.00°	
13 Dec 2018	02:25	02:30	0.08	231.00	235.00	4.00	48.00	Rotating		
13 Dec 2018	02:30	02:37	0.12	235.00	235.00			Survey & Connection		

Crestone Peak Resources

Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

Activity Breakdown									
Date	Start Time	End Time	Hours	Start Depth (ft)	End Depth (ft)	Course Length (ft)	Rate of Penetr'n (ft/hr)	Activity	Comment
13 Dec 2018	02:37	02:50	0.22	235.00	265.00	30.00	138.46	Rotating	
13 Dec 2018	02:50	02:53	0.05	265.00	265.00			Connection (drilling)	
13 Dec 2018	02:53	03:03	0.17	265.00	295.00	30.00	180.00	Rotating	
13 Dec 2018	03:03	03:07	0.07	295.00	295.00			Survey & Connection	
13 Dec 2018	03:07	03:23	0.27	295.00	326.00	31.00	116.25	Sliding	
13 Dec 2018	03:23	03:27	0.07	326.00	326.00			Connection (drilling)	
13 Dec 2018	03:27	03:39	0.20	326.00	356.00	30.00	150.00	Rotating	
13 Dec 2018	03:39	03:42	0.05	356.00	356.00			Connection (drilling)	
13 Dec 2018	03:42	03:53	0.18	356.00	381.00	25.00	136.36	Sliding	
13 Dec 2018	03:53	03:57	0.07	381.00	386.00	5.00	75.00	Rotating	
13 Dec 2018	03:57	04:02	0.08	386.00	386.00			Survey & Connection	
13 Dec 2018	04:02	04:12	0.17	386.00	416.00	30.00	180.00	Rotating	
13 Dec 2018	04:12	04:16	0.07	416.00	416.00			Connection (drilling)	
13 Dec 2018	04:16	04:30	0.23	416.00	452.00	36.00	154.29	Sliding	
13 Dec 2018	04:30	04:43	0.22	452.00	461.00	9.00	41.54	Rotating	
13 Dec 2018	04:43	04:47	0.07	461.00	461.00			Connection (drilling)	
13 Dec 2018	04:47	04:55	0.13	461.00	488.00	27.00	202.50	Sliding	
13 Dec 2018	04:55	05:00	0.08	488.00	506.00	18.00	216.00	Rotating	
13 Dec 2018	05:00	05:08	0.13	506.00	506.00			Survey & Connection	
13 Dec 2018	05:08	05:23	0.25	506.00	541.00	35.00	140.00	Sliding	
13 Dec 2018	05:23	05:31	0.13	541.00	551.00	10.00	75.00	Rotating	
13 Dec 2018	05:31	05:35	0.07	551.00	551.00			Connection (drilling)	
13 Dec 2018	05:35	05:48	0.22	551.00	596.00	45.00	207.69	Sliding	
13 Dec 2018	05:48	05:54	0.10	596.00	596.00			Survey & Connection	
13 Dec 2018	05:54	06:06	0.20	596.00	641.00	45.00	225.00	Sliding	
13 Dec 2018	06:06	06:11	0.08	641.00	641.00			Connection (drilling)	
13 Dec 2018	06:11	06:22	0.18	641.00	671.00	30.00	163.64	Sliding	
13 Dec 2018	06:22	06:30	0.13	671.00	686.00	15.00	112.50	Rotating	
13 Dec 2018	06:30	06:35	0.08	686.00	686.00			Survey & Connection	
13 Dec 2018	06:35	06:40	0.08	686.00	716.00	30.00	360.00	Sliding	
13 Dec 2018	06:40	06:46	0.10	716.00	731.00	15.00	150.00	Rotating	
13 Dec 2018	06:46	06:50	0.07	731.00	731.00			Connection (drilling)	
13 Dec 2018	06:50	06:55	0.08	731.00	761.00	30.00	360.00	Sliding	
13 Dec 2018	06:55	07:05	0.17	761.00	776.00	15.00	90.00	Rotating	
13 Dec 2018	07:05	07:10	0.08	776.00	776.00			Survey & Connection	
13 Dec 2018	07:10	07:15	0.08	776.00	806.00	30.00	360.00	Sliding	
13 Dec 2018	07:15	07:20	0.08	806.00	821.00	15.00	180.00	Rotating	
13 Dec 2018	07:20	07:26	0.10	821.00	821.00			Connection (drilling)	
13 Dec 2018	07:26	07:35	0.15	821.00	866.00	45.00	300.00	Rotating	
13 Dec 2018	07:35	07:40	0.08	866.00	866.00			Survey & Connection	
13 Dec 2018	07:40	07:50	0.17	866.00	911.00	45.00	270.00	Sliding	
13 Dec 2018	07:50	07:55	0.08	911.00	911.00			Connection (drilling)	
13 Dec 2018	07:55	08:00	0.08	911.00	956.00	45.00	540.00	Rotating	
13 Dec 2018	08:00	08:05	0.08	956.00	956.00			Survey & Connection	
13 Dec 2018	08:05	08:10	0.08	956.00	976.00	20.00	240.00	Sliding	
13 Dec 2018	08:10	08:15	0.08	976.00	1,001.00	25.00	300.00	Rotating	
13 Dec 2018	08:15	08:20	0.08	1,001.00	1,001.00			Connection (drilling)	
13 Dec 2018	08:20	08:30	0.17	1,001.00	1,046.00	45.00	270.00	Rotating	
13 Dec 2018	08:30	08:35	0.08	1,046.00	1,046.00			Survey & Connection	
13 Dec 2018	08:35	08:40	0.08	1,046.00	1,090.00	44.00	528.00	Rotating	
13 Dec 2018	08:40	08:50	0.17	1,090.00	1,090.00			Connection (drilling)	
13 Dec 2018	08:50	09:00	0.17	1,090.00	1,110.00	20.00	120.00	Sliding	
13 Dec 2018	09:00	09:05	0.08	1,110.00	1,135.00	25.00	300.00	Rotating	
13 Dec 2018	09:05	09:10	0.08	1,135.00	1,135.00			Survey & Connection	
13 Dec 2018	09:10	09:15	0.08	1,135.00	1,150.00	15.00	180.00	Sliding	
13 Dec 2018	09:15	09:18	0.05	1,150.00	1,180.00	30.00	600.00	Rotating	
13 Dec 2018	09:18	09:23	0.08	1,180.00	1,180.00			Connection (drilling)	
13 Dec 2018	09:23	09:33	0.17	1,180.00	1,222.00	42.00	252.00	Rotating	
13 Dec 2018	09:33	09:38	0.08	1,222.00	1,222.00			Survey & Connection	
13 Dec 2018	09:38	09:44	0.10	1,222.00	1,242.00	20.00	200.00	Sliding	

Crestone Peak Resources

Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

Activity Breakdown									
Date	Start Time	End Time	Hours	Start Depth (ft)	End Depth (ft)	Course Length (ft)	Rate of Penetr'n (ft/hr)	Activity	Comment
13 Dec 2018	09:44	09:50	0.10	1,242.00	1,263.00	21.00	210.00	Rotating	
13 Dec 2018	09:50	09:55	0.10	1,263.00	1,263.00			Connection (drilling)	
13 Dec 2018	09:55	10:10	0.23	1,263.00	1,304.00	41.00	175.71	Rotating	
13 Dec 2018	10:10	10:16	0.10	1,304.00	1,304.00			Survey & Connection	Centrifugal Pump
13 Dec 2018	10:16	10:20	0.07	1,304.00	1,304.00			Rig Repair	
13 Dec 2018	10:20	10:25	0.08	1,304.00	1,324.00	20.00	240.00	Sliding	
13 Dec 2018	10:25	10:30	0.08	1,324.00	1,346.00	22.00	264.00	Rotating	
13 Dec 2018	10:30	10:45	0.25	1,346.00	1,346.00			Rig Repair	Centrifugal Pump
13 Dec 2018	10:45	10:50	0.08	1,346.00	1,346.00			Connection (drilling)	
13 Dec 2018	10:50	11:00	0.17	1,346.00	1,387.00	41.00	246.00	Rotating	
13 Dec 2018	11:00	11:05	0.08	1,387.00	1,387.00			Survey & Connection	
13 Dec 2018	11:05	11:15	0.17	1,387.00	1,429.00	42.00	252.00	Rotating	
13 Dec 2018	11:15	11:20	0.08	1,429.00	1,429.00			Connection (drilling)	
13 Dec 2018	11:20	11:25	0.08	1,429.00	1,471.00	42.00	504.00	Rotating	
13 Dec 2018	11:25	11:30	0.08	1,471.00	1,471.00			Survey & Connection	
13 Dec 2018	11:30	11:45	0.25	1,471.00	1,512.00	41.00	164.00	Rotating	
13 Dec 2018	11:45	11:50	0.08	1,512.00	1,512.00			Connection (drilling)	
13 Dec 2018	11:50	11:55	0.08	1,512.00	1,553.00	41.00	492.00	Rotating	
13 Dec 2018	11:55	12:00	0.08	1,553.00	1,553.00			Survey & Connection	
13 Dec 2018	12:00	12:05	0.08	1,553.00	1,558.00	5.00	60.00	Sliding	
13 Dec 2018	12:05	12:15	0.17	1,558.00	1,594.00	36.00	216.00	Rotating	
13 Dec 2018	12:15	12:20	0.08	1,594.00	1,594.00			Connection (drilling)	
13 Dec 2018	12:20	12:30	0.17	1,594.00	1,636.00	42.00	252.00	Rotating	
13 Dec 2018	12:30	12:35	0.08	1,636.00	1,636.00			Survey & Connection	
13 Dec 2018	12:35	12:45	0.17	1,636.00	1,677.00	41.00	246.00	Rotating	
13 Dec 2018	12:45	12:50	0.08	1,677.00	1,677.00			Connection (drilling)	
13 Dec 2018	12:50	13:00	0.17	1,677.00	1,718.00	41.00	246.00	Rotating	
13 Dec 2018	13:00	13:05	0.08	1,718.00	1,718.00			Survey & Connection	
13 Dec 2018	13:05	13:10	0.08	1,718.00	1,738.00	20.00	240.00	Sliding	
13 Dec 2018	13:10	13:20	0.17	1,738.00	1,759.00	21.00	126.00	Rotating	
13 Dec 2018	13:20	13:25	0.08	1,759.00	1,759.00			Connection (drilling)	
13 Dec 2018	13:25	13:30	0.08	1,759.00	1,800.00	41.00	492.00	Rotating	
13 Dec 2018	13:30	13:35	0.08	1,800.00	1,800.00			Survey & Connection	
13 Dec 2018	13:35	13:45	0.17	1,800.00	1,815.00	15.00	90.00	Sliding	
13 Dec 2018	13:45	13:50	0.08	1,815.00	1,842.00	27.00	324.00	Rotating	
13 Dec 2018	13:50	13:55	0.08	1,842.00	1,842.00			Connection (drilling)	
13 Dec 2018	13:55	14:05	0.17	1,842.00	1,884.00	42.00	252.00	Rotating	
13 Dec 2018	14:05	14:10	0.08	1,884.00	1,884.00			Survey & Connection	
13 Dec 2018	14:10	14:15	0.08	1,884.00	1,894.00	10.00	120.00	Sliding	
13 Dec 2018	14:15	14:20	0.08	1,894.00	1,925.00	31.00	372.00	Rotating	
13 Dec 2018	14:20	14:25	0.08	1,925.00	1,925.00			Connection (drilling)	
13 Dec 2018	14:25	14:35	0.17	1,925.00	1,966.00	41.00	246.00	Rotating	
13 Dec 2018	14:35	14:40	0.08	1,966.00	1,966.00			Survey & Connection	
13 Dec 2018	14:40	14:45	0.08	1,966.00	1,981.00	15.00	180.00	Sliding	
13 Dec 2018	14:45	14:55	0.17	1,981.00	2,007.00	26.00	156.00	Rotating	
13 Dec 2018	14:55	15:00	0.08	2,007.00	2,007.00			Connection (drilling)	
13 Dec 2018	15:00	15:10	0.17	2,007.00	2,049.00	42.00	252.00	Rotating	
13 Dec 2018	15:10	15:15	0.08	2,049.00	2,049.00			Survey & Connection	
13 Dec 2018	15:15	15:25	0.17	2,049.00	2,092.00	43.00	258.00	Rotating	
13 Dec 2018	15:25	15:30	0.08	2,092.00	2,092.00			Connection (drilling)	
13 Dec 2018	15:30	15:35	0.08	2,092.00	2,102.00	10.00	120.00	Sliding	
13 Dec 2018	15:35	15:50	0.25	2,102.00	2,133.00	31.00	124.00	Rotating	
13 Dec 2018	15:50	16:00	0.17	2,133.00	2,133.00			Rig Repair	
13 Dec 2018	16:00	16:05	0.08	2,133.00	2,133.00			Survey & Connection	
13 Dec 2018	16:05	16:15	0.17	2,133.00	2,178.00	45.00	270.00	Rotating	
13 Dec 2018	16:15	16:20	0.08	2,178.00	2,178.00			Connection (drilling)	
13 Dec 2018	16:20	16:30	0.17	2,178.00	2,223.00	45.00	270.00	Rotating	
13 Dec 2018	16:30	16:35	0.08	2,223.00	2,223.00			Survey & Connection	
13 Dec 2018	16:35	16:50	0.25	2,223.00	2,268.00	45.00	180.00	Rotating	
13 Dec 2018	16:50	16:55	0.08	2,268.00	2,268.00			Connection (drilling)	

Crestone Peak Resources

Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

Activity Breakdown

Date	Start Time	End Time	Hours	Start Depth (ft)	End Depth (ft)	Course Length (ft)	Rate of Penetr'n (ft/hr)	Activity	Comment
13 Dec 2018	16:55	17:10	0.25	2,268.00	2,313.00	45.00	180.00	Rotating	
13 Dec 2018	17:10	17:15	0.08	2,313.00	2,313.00			Survey & Connection	
13 Dec 2018	17:15	17:25	0.17	2,313.00	2,348.00	35.00	210.00	Rotating	
13 Dec 2018	17:25	17:30	0.08	2,348.00	2,348.00			Connection (drilling)	
13 Dec 2018	17:30	17:45	0.25	2,348.00	2,400.00	52.00	208.00	Rotating	
13 Dec 2018	17:45	17:50	0.10	2,400.00	2,400.00			Deviation Survey	
13 Dec 2018	17:50	18:40	0.82	2,400.00	2,400.00			Circulate and/or Condition Mud	
13 Dec 2018	18:40	23:00	4.33	2,400.00	2,400.00			Backreaming	
13 Dec 2018	23:00	23:30	0.50	2,400.00	2,400.00			Change BHA	

Slide Sheet

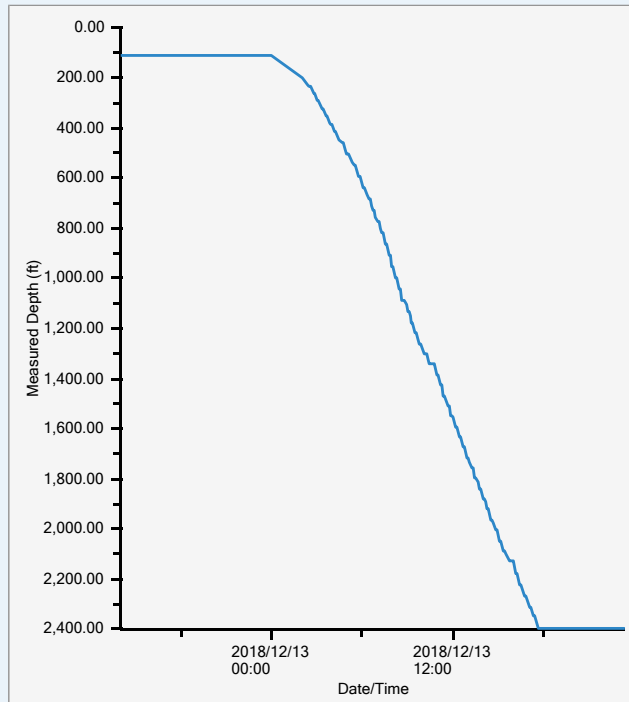
Bit Depth (ft)	Survey Depth (ft)	Incl. (°)	(True) Azimuth (°)	Vertical Depth (ft)	Dogleg Rate (°/100ft)	Calc'd Toolface (°)	Build Rate (°/100ft)	Build Seen (°/ft)	Turn Rate (°/100ft)	Slide Seen (ft)	Motor Output (°/100ft)	Motor Output (°/ft)	Slide Length (ft)	Toolface Orient (°)	Rotate Length (ft)
110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
235.00	172.00	0.43	202.76	172.00	0.25	-157.74	0.25						26.00	-168	99.00
295.00	232.00	0.97	217.82	231.99	0.94	26.45	0.90	0.07	25.10	26.00	2.18	0.02			60.00
386.00	324.00	2.30	210.21	323.95	1.46	-13.09	1.45	0.15	-8.27	29.00	4.64	0.05	56.00	180	35.00
506.00	443.00	4.59	206.06	442.73	1.93	-8.29	1.92	0.14	-3.49	54.00	4.26	0.04	63.00	180	57.00
596.00	533.00	6.46	201.90	532.31	2.12	-14.17	2.08	0.10	-4.62	63.00	3.03	0.03	80.00	-20	10.00
686.00	623.00	9.33	197.39	621.45	3.26	-14.42	3.19	0.12	-5.01	80.00	3.67	0.04	75.00	-40	15.00
776.00	713.00	11.48	191.92	709.97	2.63	-27.39	2.39	0.09	-6.08	75.00	3.15	0.03	60.00	-90	30.00
866.00	803.00	12.13	184.38	798.07	1.86	-70.87	0.72	0.04	-8.38	60.00	2.79	0.03	30.00	-40	60.00
956.00	893.00	12.92	183.12	885.92	0.93	-19.70	0.88	0.09	-1.40	30.00	2.79	0.03	45.00	-40	45.00
1,046.00	983.00	14.27	183.08	973.40	1.50	-0.42	1.50	0.12	-0.04	38.00	3.55	0.04	20.00	0	70.00
1,135.00	1,072.00	15.20	183.65	1,059.47	1.06	9.14	1.04		0.64				20.00	90	69.00
1,222.00	1,159.00	14.57	188.79	1,143.56	1.68	117.98	-0.72	-0.06	5.91	35.00	4.18	0.04	15.00	90	72.00
1,304.00	1,241.00	14.75	191.59	1,222.89	0.89	77.10	0.22	0.03	3.41	19.00	3.85	0.04	20.00	90	62.00
1,387.00	1,324.00	13.04	193.83	1,303.46	2.16	163.62	-2.06	-0.27	2.70	21.00	8.53	0.09	20.00	135	63.00
1,471.00	1,408.00	12.38	194.21	1,385.40	0.79	172.97	-0.79		0.45						84.00
1,553.00	1,490.00	11.96	194.82	1,465.55	0.54	163.27	-0.51		0.74						82.00
1,636.00	1,573.00	11.52	196.63	1,546.82	0.69	140.95	-0.53	-0.29	2.18	5.00	11.47	0.11	5.00	180	78.00
1,718.00	1,655.00	11.61	197.95	1,627.15	0.34	71.86	0.11		1.61						82.00
1,800.00	1,737.00	10.83	194.40	1,707.59	1.27	-140.20	-0.95	-0.13	-4.33	19.00	5.48	0.05	20.00	-135	62.00
1,884.00	1,821.00	10.53	190.46	1,790.13	0.94	-114.26	-0.36	-0.06	-4.69	16.00	4.93	0.05	15.00	-135	69.00
1,966.00	1,903.00	10.50	189.38	1,870.76	0.24	-99.19	-0.04	-0.01	-1.32	10.00	1.99	0.02	10.00	180	72.00
2,049.00	1,986.00	10.33	190.43	1,952.39	0.31	132.36	-0.20	-0.04	1.27	15.00	1.70	0.02	15.00	135	68.00
2,133.00	2,070.00	10.85	190.45	2,034.96	0.62	0.41	0.62		0.02				10.00	180	74.00
2,223.00	2,160.00	10.26	190.82	2,123.43	0.66	173.63	-0.66	-0.19	0.41	10.00	5.94	0.06			90.00
2,313.00	2,250.00	10.89	190.37	2,211.91	0.71	-7.69	0.70		-0.50						90.00
2,400.00	2,337.00	11.26	188.49	2,297.29	0.59	-45.23	0.43		-2.16						87.00

Crestone Peak Resources

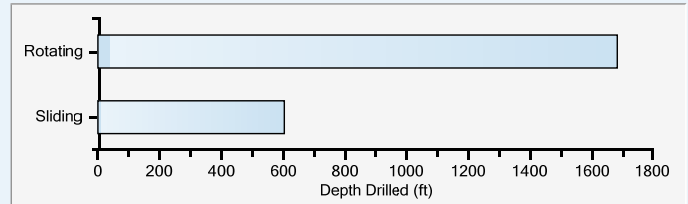
Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

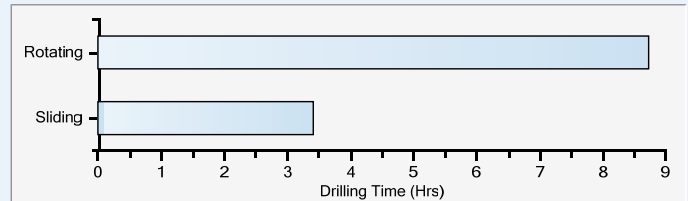
Time vs Depth



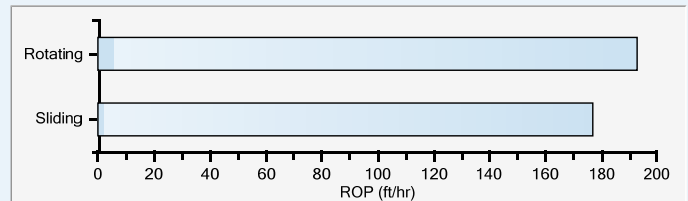
Depth Drilled



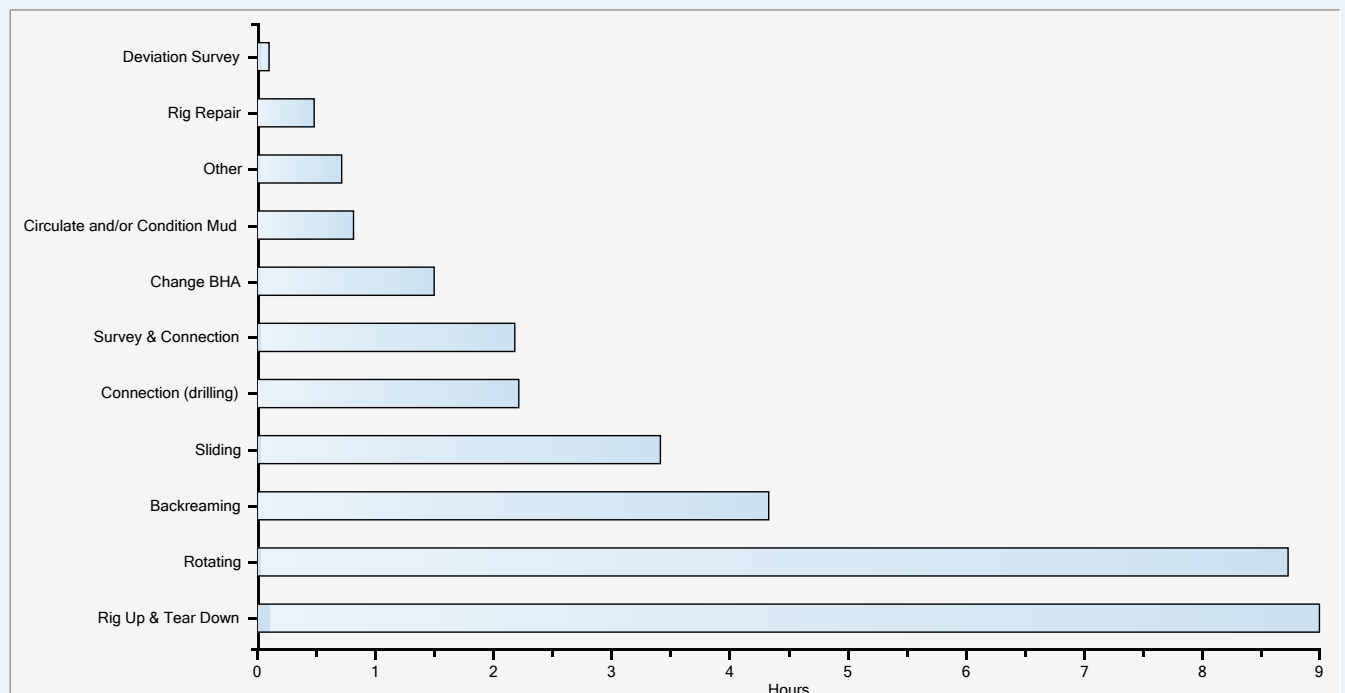
Drilling Time



Average Rate of Penetration



Activity



Crestone Peak Resources

Crestone - Lochbuie, DJ BASIN

End of Well Report for S25-T1N-R66W (LOCHBUIE LAND), LOCHBUIE LAND 2L-25H-D166

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