

# BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)  
Field: WELD COUNTY Well: LATHAM K21-1-12XRLNB  
Facility: SEC.36-T5N-R63W Wellbore: LATHAM K21-1-12XRLNB PWB

Plot reference wellpath is LATHAM K21-1-12XRLNB PWP (REV-A.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4570 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)): 0 feet	Created by: robalew01 on 2018-10-10
Coordinates are in feet referenced to Slot	Database: WA DENVER

## Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.36-T5N-R63W				330873.906	1376726.042	40°21'43.992"N	104°23'31.452"W
Slot	Local N (ft)	Local E (ft)		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)	-4518.59	3853.42		3312643.314	1372256.141	40°20'59.338"N	104°22'41.682"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36))						4570ft	
Mean Sea Level to Ground level (At Slot: SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36))						0ft	
RIG (17) (RKB) to Mean Sea Level						4570ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NavTrak	BHI NavTrak (Axial Corr, Rotating, SAG)		LATHAM K21-1-12XRLNB PWB
1550.00	17643.42	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K21-1-12XRLNB PWB

## Hole and Casing Sections

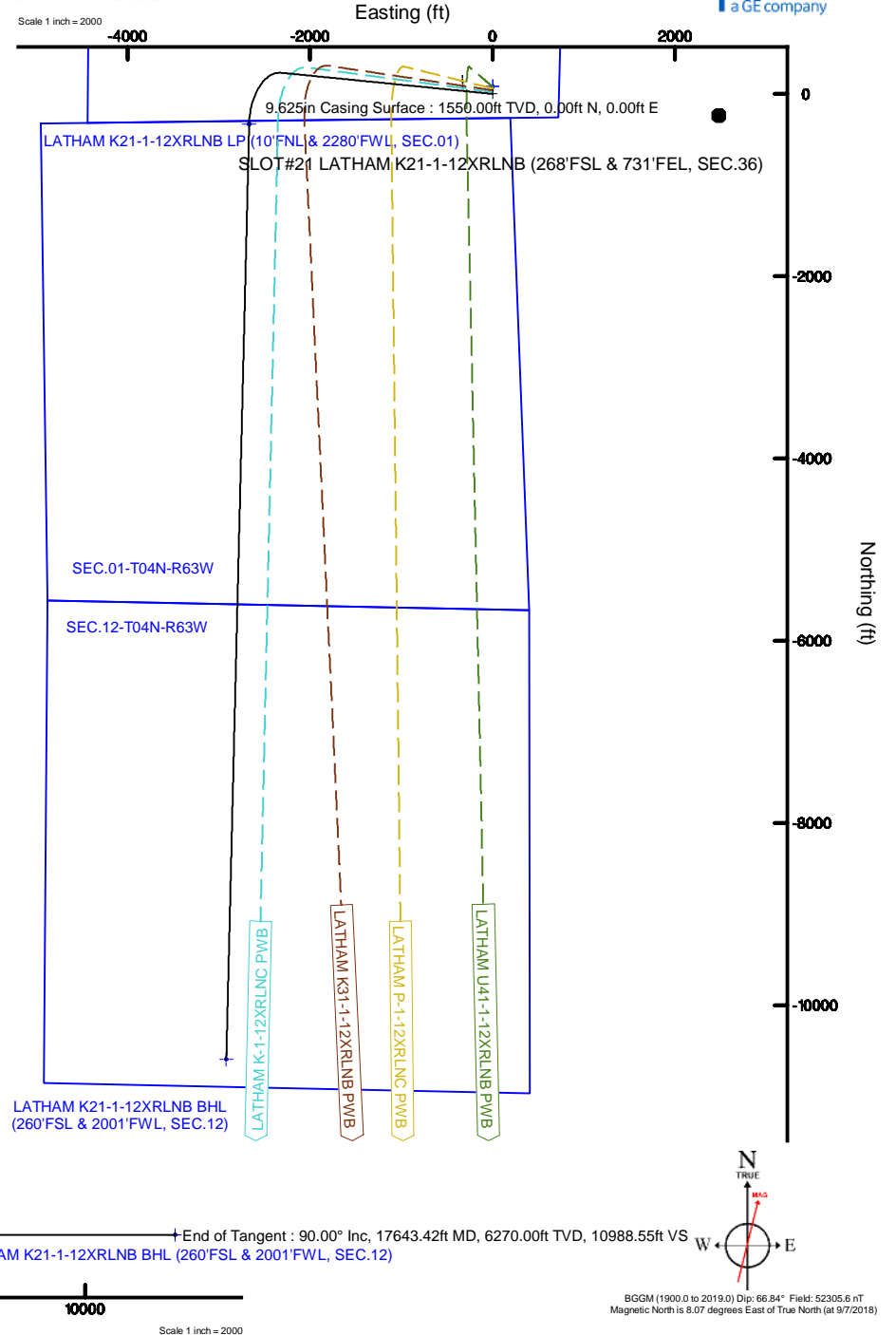
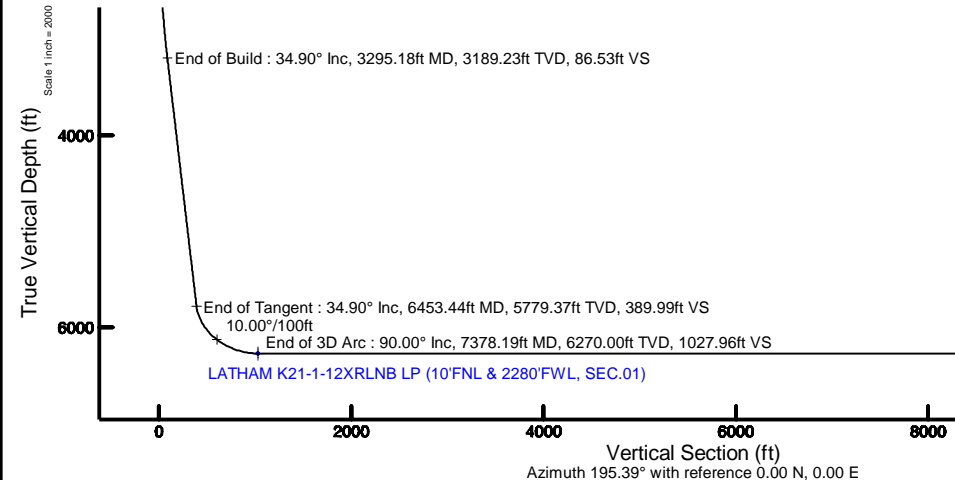
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1550.00	0.00	0.00	0.00	0.00	LATHAM K21-1-12XRLNB PWB
8.5in Open Hole	1550.00	17643.00	16093.00	1550.00	6270.00	0.00	0.00	-10594.01	-2916.53	LATHAM K21-1-12XRLNB PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	275.725	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	275.725	1550.00	0.00	0.00	0.00	0.00
End of Build	3295.18	34.904	275.725	3189.23	51.41	-512.76	2.00	86.53
End of Tangent	6453.44	34.904	275.725	5779.37	231.67	-2310.90	0.00	389.99
End of 3D Arc	7378.19	90.000	181.398	6270.00	-332.25	-2666.10	10.00	1027.96
End of Tangent	17643.42	90.000	181.398	6270.00	-10594.43	-2916.54	0.00	10988.55

## 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
17643.42	90.000	181.398	6270.00	-10594.43	-2916.54	3309861.14	1361626.13	40°19'14.644"N	104°23'19.335"W





# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)
Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Robiale01
Scale	0.999958	Report Generated	10/10/2018 at 10:40:26 AM
Convergence at slot	0.72° East	Database/Source file	WA DENVER/LATHAM_K21-1-12XRLNB_PWP_REV-A.0_.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4518.59	3853.42	3312643.31	1372256.14	40°20'59.338"N	104°22'41.682"W
Facility Reference Pt			3308733.91	1376726.04	40°21'43.992"N	104°23'31.452"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	4570.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4570.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36))	4570.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	195.39°



# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

## WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	275.725	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	275.725	17.00	0.00	0.00	0.00	0.00	Tie On
117.00†	0.000	275.725	117.00	0.00	0.00	0.00	0.00	
217.00†	0.000	275.725	217.00	0.00	0.00	0.00	0.00	
317.00†	0.000	275.725	317.00	0.00	0.00	0.00	0.00	
417.00†	0.000	275.725	417.00	0.00	0.00	0.00	0.00	
517.00†	0.000	275.725	517.00	0.00	0.00	0.00	0.00	
617.00†	0.000	275.725	617.00	0.00	0.00	0.00	0.00	
717.00†	0.000	275.725	717.00	0.00	0.00	0.00	0.00	
817.00†	0.000	275.725	817.00	0.00	0.00	0.00	0.00	
917.00†	0.000	275.725	917.00	0.00	0.00	0.00	0.00	
1017.00†	0.000	275.725	1017.00	0.00	0.00	0.00	0.00	
1117.00†	0.000	275.725	1117.00	0.00	0.00	0.00	0.00	
1217.00†	0.000	275.725	1217.00	0.00	0.00	0.00	0.00	
1317.00†	0.000	275.725	1317.00	0.00	0.00	0.00	0.00	
1417.00†	0.000	275.725	1417.00	0.00	0.00	0.00	0.00	
1517.00†	0.000	275.725	1517.00	0.00	0.00	0.00	0.00	
1550.00	0.000	275.725	1550.00	0.00	0.00	0.00	0.00	End of Tangent
1617.00†	1.340	275.725	1616.99	0.13	0.08	-0.78	2.00	
1717.00†	3.340	275.725	1716.91	0.82	0.49	-4.84	2.00	
1817.00†	5.340	275.725	1816.61	2.09	1.24	-12.37	2.00	
1917.00†	7.340	275.725	1916.00	3.94	2.34	-23.36	2.00	
2017.00†	9.340	275.725	2014.93	6.38	3.79	-37.79	2.00	
2117.00†	11.340	275.725	2113.31	9.39	5.58	-55.65	2.00	
2217.00†	13.340	275.725	2210.99	12.98	7.71	-76.91	2.00	
2317.00†	15.340	275.725	2307.87	17.14	10.18	-101.55	2.00	
2417.00†	17.340	275.725	2403.83	21.86	12.99	-129.55	2.00	
2517.00†	19.340	275.725	2498.74	27.15	16.13	-160.85	2.00	
2617.00†	21.340	275.725	2592.50	32.98	19.59	-195.44	2.00	
2717.00†	23.340	275.725	2684.99	39.36	23.38	-233.26	2.00	
2817.00†	25.340	275.725	2776.10	46.28	27.50	-274.26	2.00	
2917.00†	27.340	275.725	2865.71	53.73	31.92	-318.41	2.00	
3017.00†	29.340	275.725	2953.72	61.71	36.66	-365.64	2.00	
3117.00†	31.340	275.725	3040.02	70.19	41.70	-415.90	2.00	

WELLPATH DATA (183 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3217.00†	33.340	275.725	3124.51	79.17	47.03	-469.12	2.00	
3295.18	34.904	275.725	3189.23	86.53	51.41	-512.76	2.00	End of Build
3317.00†	34.904	275.725	3207.12	88.63	52.65	-525.18	0.00	
3417.00†	34.904	275.725	3289.13	98.24	58.36	-582.12	0.00	
3517.00†	34.904	275.725	3371.14	107.85	64.07	-639.05	0.00	
3617.00†	34.904	275.725	3453.15	117.45	69.77	-695.99	0.00	
3717.00†	34.904	275.725	3535.17	127.06	75.48	-752.92	0.00	
3817.00†	34.904	275.725	3617.18	136.67	81.19	-809.85	0.00	
3917.00†	34.904	275.725	3699.19	146.28	86.90	-866.79	0.00	
4017.00†	34.904	275.725	3781.20	155.89	92.61	-923.72	0.00	
4117.00†	34.904	275.725	3863.21	165.50	98.31	-980.66	0.00	



# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)
Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

## WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4217.00†	34.904	275.725	3945.22	175.10	104.02	-1037.59	0.00	
4317.00†	34.904	275.725	4027.24	184.71	109.73	-1094.53	0.00	
4417.00†	34.904	275.725	4109.25	194.32	115.44	-1151.46	0.00	
4517.00†	34.904	275.725	4191.26	203.93	121.14	-1208.40	0.00	
4617.00†	34.904	275.725	4273.27	213.54	126.85	-1265.33	0.00	
4717.00†	34.904	275.725	4355.28	223.14	132.56	-1322.26	0.00	
4817.00†	34.904	275.725	4437.29	232.75	138.27	-1379.20	0.00	
4917.00†	34.904	275.725	4519.30	242.36	143.98	-1436.13	0.00	
5017.00†	34.904	275.725	4601.32	251.97	149.68	-1493.07	0.00	
5117.00†	34.904	275.725	4683.33	261.58	155.39	-1550.00	0.00	
5217.00†	34.904	275.725	4765.34	271.19	161.10	-1606.94	0.00	
5317.00†	34.904	275.725	4847.35	280.79	166.81	-1663.87	0.00	
5417.00†	34.904	275.725	4929.36	290.40	172.52	-1720.80	0.00	
5517.00†	34.904	275.725	5011.37	300.01	178.22	-1777.74	0.00	
5617.00†	34.904	275.725	5093.39	309.62	183.93	-1834.67	0.00	
5717.00†	34.904	275.725	5175.40	319.23	189.64	-1891.61	0.00	
5817.00†	34.904	275.725	5257.41	328.84	195.35	-1948.54	0.00	
5917.00†	34.904	275.725	5339.42	338.44	201.05	-2005.48	0.00	
6017.00†	34.904	275.725	5421.43	348.05	206.76	-2062.41	0.00	
6117.00†	34.904	275.725	5503.44	357.66	212.47	-2119.35	0.00	
6217.00†	34.904	275.725	5585.46	367.27	218.18	-2176.28	0.00	
6317.00†	34.904	275.725	5667.47	376.88	223.89	-2233.21	0.00	
6417.00†	34.904	275.725	5749.48	386.48	229.59	-2290.15	0.00	
6453.44	34.904	275.725	5779.37	389.99	231.67	-2310.90	0.00	End of Tangent
6517.00†	35.015	264.623	5831.51	399.52	231.78	-2347.18	10.00	
6617.00†	37.164	247.998	5912.51	428.10	217.74	-2403.89	10.00	
6717.00†	41.358	233.613	5990.08	472.52	186.74	-2458.64	10.00	
6817.00†	47.040	221.778	6061.87	531.40	139.74	-2509.74	10.00	
6917.00†	53.724	212.102	6125.69	602.97	78.15	-2555.66	10.00	
7017.00†	61.061	204.021	6179.60	685.04	3.85	-2594.99	10.00	
7117.00†	68.815	197.041	6221.97	775.14	-80.91	-2626.55	10.00	
7217.00†	76.827	190.770	6251.51	870.51	-173.55	-2649.36	10.00	
7317.00†	84.981	184.901	6267.32	968.26	-271.25	-2662.75	10.00	
7378.19	90.000	181.398	6270.00 <sup>1</sup>	1027.96	-332.25	-2666.10	10.00	End of 3D Arc

WELLPATH DATA (183 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
7417.00†	90.000	181.398	6270.00	1065.63	-371.06	-2667.05	0.00		
7517.00†	90.000	181.398	6270.00	1162.66	-471.03	-2669.49	0.00		
7617.00†	90.000	181.398	6270.00	1259.69	-571.00	-2671.93	0.00		
7717.00†	90.000	181.398	6270.00	1356.72	-670.97	-2674.37	0.00		
7817.00†	90.000	181.398	6270.00	1453.75	-770.94	-2676.81	0.00		
7917.00†	90.000	181.398	6270.00	1550.79	-870.91	-2679.25	0.00		
8017.00†	90.000	181.398	6270.00	1647.82	-970.88	-2681.69	0.00		
8117.00†	90.000	181.398	6270.00	1744.85	-1070.85	-2684.13	0.00		
8217.00†	90.000	181.398	6270.00	1841.88	-1170.82	-2686.57	0.00		
8317.00†	90.000	181.398	6270.00	1938.92	-1270.79	-2689.01	0.00		
8417.00†	90.000	181.398	6270.00	2035.95	-1370.76	-2691.45	0.00		



# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)
Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
8517.00†	90.000	181.398	6270.00	2132.98	-1470.73	-2693.89	0.00		
8617.00†	90.000	181.398	6270.00	2230.01	-1570.70	-2696.33	0.00		
8717.00†	90.000	181.398	6270.00	2327.04	-1670.67	-2698.77	0.00		
8817.00†	90.000	181.398	6270.00	2424.08	-1770.64	-2701.21	0.00		
8917.00†	90.000	181.398	6270.00	2521.11	-1870.61	-2703.64	0.00		
9017.00†	90.000	181.398	6270.00	2618.14	-1970.58	-2706.08	0.00		
9117.00†	90.000	181.398	6270.00	2715.17	-2070.55	-2708.52	0.00		
9217.00†	90.000	181.398	6270.00	2812.21	-2170.52	-2710.96	0.00		
9317.00†	90.000	181.398	6270.00	2909.24	-2270.49	-2713.40	0.00		
9417.00†	90.000	181.398	6270.00	3006.27	-2370.46	-2715.84	0.00		
9517.00†	90.000	181.398	6270.00	3103.30	-2470.43	-2718.28	0.00		
9617.00†	90.000	181.398	6270.00	3200.33	-2570.40	-2720.72	0.00		
9717.00†	90.000	181.398	6270.00	3297.37	-2670.37	-2723.16	0.00		
9817.00†	90.000	181.398	6270.00	3394.40	-2770.34	-2725.60	0.00		
9917.00†	90.000	181.398	6270.00	3491.43	-2870.31	-2728.04	0.00		
10017.00†	90.000	181.398	6270.00	3588.46	-2970.28	-2730.48	0.00		
10117.00†	90.000	181.398	6270.00	3685.50	-3070.25	-2732.92	0.00		
10217.00†	90.000	181.398	6270.00	3782.53	-3170.22	-2735.36	0.00		
10317.00†	90.000	181.398	6270.00	3879.56	-3270.19	-2737.80	0.00		
10417.00†	90.000	181.398	6270.00	3976.59	-3370.16	-2740.24	0.00		
10517.00†	90.000	181.398	6270.00	4073.62	-3470.13	-2742.68	0.00		
10617.00†	90.000	181.398	6270.00	4170.66	-3570.10	-2745.12	0.00		
10717.00†	90.000	181.398	6270.00	4267.69	-3670.07	-2747.56	0.00		
10817.00†	90.000	181.398	6270.00	4364.72	-3770.04	-2750.00	0.00		
10917.00†	90.000	181.398	6270.00	4461.75	-3870.01	-2752.44	0.00		
11017.00†	90.000	181.398	6270.00	4558.79	-3969.98	-2754.88	0.00		
11117.00†	90.000	181.398	6270.00	4655.82	-4069.95	-2757.32	0.00		
11217.00†	90.000	181.398	6270.00	4752.85	-4169.92	-2759.76	0.00		
11317.00†	90.000	181.398	6270.00	4849.88	-4269.89	-2762.20	0.00		
11417.00†	90.000	181.398	6270.00	4946.91	-4369.86	-2764.64	0.00		
11517.00†	90.000	181.398	6270.00	5043.95	-4469.83	-2767.08	0.00		
11617.00†	90.000	181.398	6270.00	5140.98	-4569.81	-2769.52	0.00		
11717.00†	90.000	181.398	6270.00	5238.01	-4669.78	-2771.96	0.00		
11817.00†	90.000	181.398	6270.00	5335.04	-4769.75	-2774.40	0.00		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11917.00†	90.000	181.398	6270.00	5432.08	-4869.72	-2776.84	0.00	
12017.00†	90.000	181.398	6270.00	5529.11	-4969.69	-2779.28	0.00	
12117.00†	90.000	181.398	6270.00	5626.14	-5069.66	-2781.71	0.00	
12217.00†	90.000	181.398	6270.00	5723.17	-5169.63	-2784.15	0.00	
12317.00†	90.000	181.398	6270.00	5820.20	-5269.60	-2786.59	0.00	
12417.00†	90.000	181.398	6270.00	5917.24	-5369.57	-2789.03	0.00	
12517.00†	90.000	181.398	6270.00	6014.27	-5469.54	-2791.47	0.00	
12617.00†	90.000	181.398	6270.00	6111.30	-5569.51	-2793.91	0.00	
12717.00†	90.000	181.398	6270.00	6208.33	-5669.48	-2796.35	0.00	
12817.00†	90.000	181.398	6270.00	6305.37	-5769.45	-2798.79	0.00	
12917.00†	90.000	181.398	6270.00	6402.40	-5869.42	-2801.23	0.00	





# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)
Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
13017.00†	90.000	181.398	6270.00	6499.43	-5969.39	-2803.67	0.00		
13117.00†	90.000	181.398	6270.00	6596.46	-6069.36	-2806.11	0.00		
13217.00†	90.000	181.398	6270.00	6693.49	-6169.33	-2808.55	0.00		
13317.00†	90.000	181.398	6270.00	6790.53	-6269.30	-2810.99	0.00		
13417.00†	90.000	181.398	6270.00	6887.56	-6369.27	-2813.43	0.00		
13517.00†	90.000	181.398	6270.00	6984.59	-6469.24	-2815.87	0.00		
13617.00†	90.000	181.398	6270.00	7081.62	-6569.21	-2818.31	0.00		
13717.00†	90.000	181.398	6270.00	7178.66	-6669.18	-2820.75	0.00		
13817.00†	90.000	181.398	6270.00	7275.69	-6769.15	-2823.19	0.00		
13917.00†	90.000	181.398	6270.00	7372.72	-6869.12	-2825.63	0.00		
14017.00†	90.000	181.398	6270.00	7469.75	-6969.09	-2828.07	0.00		
14117.00†	90.000	181.398	6270.00	7566.78	-7069.06	-2830.51	0.00		
14217.00†	90.000	181.398	6270.00	7663.82	-7169.03	-2832.95	0.00		
14317.00†	90.000	181.398	6270.00	7760.85	-7269.00	-2835.39	0.00		
14417.00†	90.000	181.398	6270.00	7857.88	-7368.97	-2837.83	0.00		
14517.00†	90.000	181.398	6270.00	7954.91	-7468.94	-2840.27	0.00		
14617.00†	90.000	181.398	6270.00	8051.95	-7568.91	-2842.71	0.00		
14717.00†	90.000	181.398	6270.00	8148.98	-7668.88	-2845.15	0.00		
14817.00†	90.000	181.398	6270.00	8246.01	-7768.85	-2847.59	0.00		
14917.00†	90.000	181.398	6270.00	8343.04	-7868.82	-2850.03	0.00		
15017.00†	90.000	181.398	6270.00	8440.07	-7968.79	-2852.47	0.00		
15117.00†	90.000	181.398	6270.00	8537.11	-8068.76	-2854.91	0.00		
15217.00†	90.000	181.398	6270.00	8634.14	-8168.73	-2857.35	0.00		
15317.00†	90.000	181.398	6270.00	8731.17	-8268.70	-2859.78	0.00		
15417.00†	90.000	181.398	6270.00	8828.20	-8368.67	-2862.22	0.00		
15517.00†	90.000	181.398	6270.00	8925.24	-8468.64	-2864.66	0.00		
15617.00†	90.000	181.398	6270.00	9022.27	-8568.61	-2867.10	0.00		
15717.00†	90.000	181.398	6270.00	9119.30	-8668.58	-2869.54	0.00		
15817.00†	90.000	181.398	6270.00	9216.33	-8768.56	-2871.98	0.00		
15917.00†	90.000	181.398	6270.00	9313.36	-8868.53	-2874.42	0.00		
16017.00†	90.000	181.398	6270.00	9410.40	-8968.50	-2876.86	0.00		
16117.00†	90.000	181.398	6270.00	9507.43	-9068.47	-2879.30	0.00		
16217.00†	90.000	181.398	6270.00	9604.46	-9168.44	-2881.74	0.00		
16317.00†	90.000	181.398	6270.00	9701.49	-9268.41	-2884.18	0.00		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
16417.00†	90.000	181.398	6270.00	9798.53	-9368.38	-2886.62	0.00	
16517.00†	90.000	181.398	6270.00	9895.56	-9468.35	-2889.06	0.00	
16617.00†	90.000	181.398	6270.00	9992.59	-9568.32	-2891.50	0.00	
16717.00†	90.000	181.398	6270.00	10089.62	-9668.29	-2893.94	0.00	
16817.00†	90.000	181.398	6270.00	10186.65	-9768.26	-2896.38	0.00	
16917.00†	90.000	181.398	6270.00	10283.69	-9868.23	-2898.82	0.00	
17017.00†	90.000	181.398	6270.00	10380.72	-9968.20	-2901.26	0.00	
17117.00†	90.000	181.398	6270.00	10477.75	-10068.17	-2903.70	0.00	
17217.00†	90.000	181.398	6270.00	10574.78	-10168.14	-2906.14	0.00	
17317.00†	90.000	181.398	6270.00	10671.82	-10268.11	-2908.58	0.00	
17417.00†	90.000	181.398	6270.00	10768.85	-10368.08	-2911.02	0.00	



# Planned Wellpath Report

LATHAM K21-1-12XRLNB PWP (REV-A.0)

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#21 LATHAM K21-1-12XRLNB (268'FSL & 731'FEL, SEC.36)
Area	COLORADO	Well	LATHAM K21-1-12XRLNB
Field	WELD COUNTY	Wellbore	LATHAM K21-1-12XRLNB PWB
Facility	SEC.36-T5N-R63W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
17517.00†	90.000	181.398	6270.00	10865.88	-10468.05	-2913.46	0.00		
17617.00†	90.000	181.398	6270.00	10962.91	-10568.02	-2915.90	0.00		
17643.42	90.000	181.398	6270.00 <sup>2</sup>	10988.55	-10594.43	-2916.54	0.00	End of Tangent	

HOLE & CASING SECTIONS - Ref Wellbore: LATHAM K21-1-12XRLNB PWB      Ref Wellpath: LATHAM K21-1-12XRLNB PWP (REV-A.0)									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1550.00	0.00	0.00	0.00	0.00
8.5in Open Hole	1550.00	17643.00	16093.00	1550.00	6270.00	0.00	0.00	-10594.01	-2916.53

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T04N-R63W		0.00	80.15	0.56	3312642.86	1372336.29	40°21'00.130"N	104°22'41.675"W	polygon
SEC.12-T04N-R63W		0.00	80.15	0.56	3312642.86	1372336.29	40°21'00.130"N	104°22'41.675"W	polygon
SEC.36-T5N-R63W		3.00	5404.02	-6914.60	3305661.21	1377572.03	40°21'52.729"N	104°24'11.009"W	polygon
2) LATHAM K21-1-12XRLNB BHL (260'FSL & 2001'FWL, SEC.12)	17643.42	6270.00	-10594.43	-2916.54	3309861.14	1361626.13	40°19'14.644"N	104°23'19.335"W	point
1) LATHAM K21-1-12XRLNB LP (10'FNL & 2280'FWL, SEC.01)	7378.19	6270.00	-332.25	-2666.10	3309981.74	1371890.21	40°20'56.053"N	104°23'16.116"W	point

SURVEY PROGRAM - Ref Wellbore: LATHAM K21-1-12XRLNB PWB      Ref Wellpath: LATHAM K21-1-12XRLNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Axial Corr, Rotating, SAG)		LATHAM K21-1-12XRLNB PWB

SURVEY PROGRAM - Ref Wellbore: LATHAM K21-1-12XRLNB PWB      Ref Wellpath: LATHAM K21-1-12XRLNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
1550.00	17643.42	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K21-1-12XRLNB PWB