

BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#23 LATHAM A11-E14-14HNB (392°FNL & 333°FEL, SEC.14)
Field: WELD COUNTY Well: LATHAM A11-E14-14HNB
Facility: SEC.14-T4N-R63W Wellbore: LATHAM A11-E14-14HNB PWB

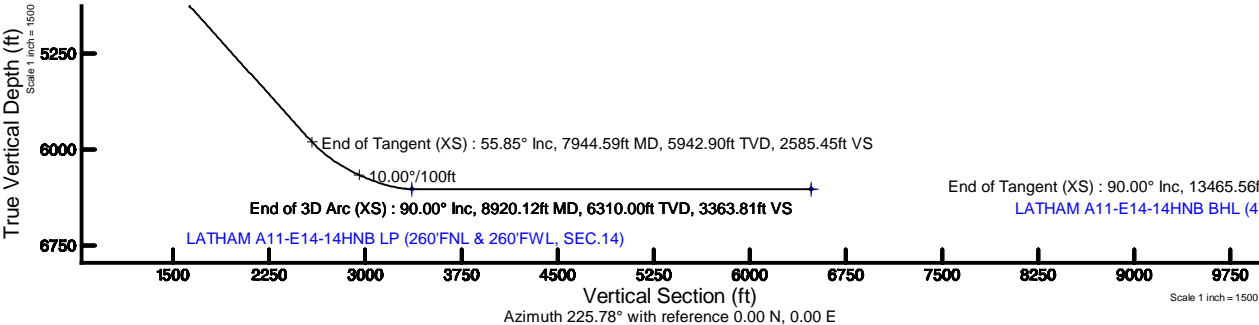
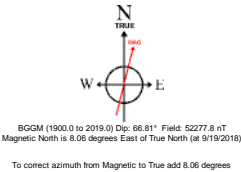
Plot reference wellpath is LATHAM A11-E14-14HNB (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4620 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#23 LATHAM A11-E14-14HNB (392°FNL & 333°FEL, SEC.14)): 0 feet	Created by: doddanna on 2018-09-21
Coordinates are in feet referenced to Slot	Database: WellArchitect:DB2

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T4N-R63W			3307689.092	1361141.238	40°19'10.121"N	104°23'47.454"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#23 LATHAM A11-E14-14HNB (392°FNL & 333°FEL, SEC.14)	-201.28	-152.52	3307539.096	1360938.086	40°19'08.132"N	104°23'49.423"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#23 LATHAM A11-E14-14HNB (392°FNL & 333°FEL, SEC.14))					4620ft	
Mean Sea Level to Ground level (At Slot: SLOT#23 LATHAM A11-E14-14HNB (392°FNL & 333°FEL, SEC.14))					0ft	
RIG (17) (RKB) to Mean Sea Level					4620ft	

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		LATHAM A11-E14-14HNB PWB
1550.00	13465.56	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM A11-E14-14HNB PWB

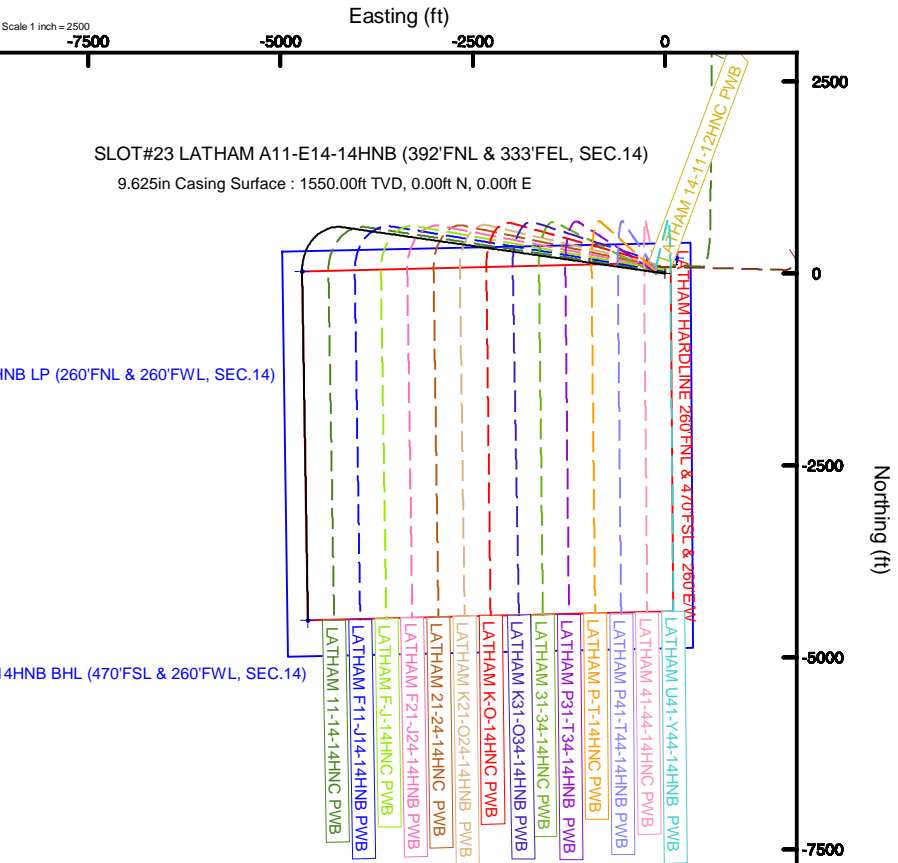


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	278.178	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	278.178	1550.00	0.00	0.00	0.00	0.00
End of Build (XS)	4342.49	55.850	278.178	3920.81	178.75	-1243.82	2.00	766.68
End of Tangent (XS)	7944.59	55.850	278.178	5942.90	602.78	-4194.50	0.00	2585.45
End of 3D Arc (XS)	8920.12	90.000	179.039	6310.00	25.92	-4719.21	10.00	3363.81
End of Tangent (XS)	13465.56	90.000	179.039	6310.00	-4518.89	-4643.01	0.00	6479.04

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
13465.56	90.000	179.039	6310.00	-4518.89	-4643.01	3302952.85	1356362.00	40°18'23.473"N	104°24'49.353"W



LATHAM A11-E14-14HNB LP (260°FNL & 260°FWL, SEC.14)

LATHAM A11-E14-14HNB BHL (470°FSL & 260°FWL, SEC.14)

End of Tangent (XS) : 90.00° Inc, 13465.56ft MD, 6310.00ft TVD, 6479.04ft VS
LATHAM A11-E14-14HNB BHL (470°FSL & 260°FWL, SEC.14)



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Bushjamh
Scale	0.999958	Report Generated	9/20/2018 at 2:59:43 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/LATHAM A11-E14-14HNB (REV-A.0) PWP PR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-201.28	-152.52	3307539.10	1360938.09	40°19'08.132"N	104°23'49.423"W
Facility Reference Pt			3307689.09	1361141.24	40°19'10.121"N	104°23'47.454"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	4620.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4620.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14))	4620.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	225.78°



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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	278.178	0.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
17.00	0.000	278.178	17.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	Tie On
117.00†	0.000	278.178	117.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
217.00†	0.000	278.178	217.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
317.00†	0.000	278.178	317.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
417.00†	0.000	278.178	417.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
517.00†	0.000	278.178	517.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
617.00†	0.000	278.178	617.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
717.00†	0.000	278.178	717.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
817.00†	0.000	278.178	817.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
917.00†	0.000	278.178	917.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1017.00†	0.000	278.178	1017.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1117.00†	0.000	278.178	1117.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1217.00†	0.000	278.178	1217.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1317.00†	0.000	278.178	1317.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1417.00†	0.000	278.178	1417.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1517.00†	0.000	278.178	1517.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	
1550.00	0.000	278.178	1550.00	0.00	0.00	0.00	40°19'08.132"N	104°23'49.423"W	0.00	End of Tangent
1617.00†	1.340	278.178	1616.99	0.48	0.11	-0.78	40°19'08.133"N	104°23'49.433"W	2.00	
1717.00†	3.340	278.178	1716.91	2.97	0.69	-4.82	40°19'08.139"N	104°23'49.485"W	2.00	
1817.00†	5.340	278.178	1816.61	7.59	1.77	-12.31	40°19'08.149"N	104°23'49.582"W	2.00	
1917.00†	7.340	278.178	1916.00	14.32	3.34	-23.24	40°19'08.165"N	104°23'49.723"W	2.00	
2017.00†	9.340	278.178	2014.93	23.17	5.40	-37.59	40°19'08.185"N	104°23'49.908"W	2.00	
2117.00†	11.340	278.178	2113.31	34.12	7.96	-55.36	40°19'08.211"N	104°23'50.138"W	2.00	
2217.00†	13.340	278.178	2210.99	47.16	11.00	-76.51	40°19'08.241"N	104°23'50.411"W	2.00	
2317.00†	15.340	278.178	2307.87	62.27	14.52	-101.03	40°19'08.275"N	104°23'50.727"W	2.00	
2417.00†	17.340	278.178	2403.83	79.44	18.52	-128.87	40°19'08.315"N	104°23'51.087"W	2.00	
2517.00†	19.340	278.178	2498.74	98.63	23.00	-160.02	40°19'08.359"N	104°23'51.489"W	2.00	
2617.00†	21.340	278.178	2592.50	119.84	27.94	-194.42	40°19'08.408"N	104°23'51.933"W	2.00	
2717.00†	23.340	278.178	2684.99	143.03	33.35	-232.04	40°19'08.462"N	104°23'52.419"W	2.00	



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2817.00†	25.340	278.178	2776.10	168.17	39.21	-272.84	40°19'08.519"N	104°23'52.945"W	2.00	
2917.00†	27.340	278.178	2865.71	195.24	45.52	-316.75	40°19'08.582"N	104°23'53.512"W	2.00	
3017.00†	29.340	278.178	2953.72	224.20	52.27	-363.74	40°19'08.649"N	104°23'54.119"W	2.00	
3117.00†	31.340	278.178	3040.02	255.02	59.46	-413.73	40°19'08.720"N	104°23'54.764"W	2.00	
3217.00†	33.340	278.178	3124.51	287.66	67.07	-466.68	40°19'08.795"N	104°23'55.448"W	2.00	
3317.00†	35.340	278.178	3207.07	322.07	75.09	-522.52	40°19'08.874"N	104°23'56.169"W	2.00	
3417.00†	37.340	278.178	3287.62	358.23	83.52	-581.17	40°19'08.957"N	104°23'56.926"W	2.00	
3517.00†	39.340	278.178	3366.05	396.07	92.34	-642.57	40°19'09.044"N	104°23'57.718"W	2.00	
3617.00†	41.340	278.178	3442.27	435.56	101.55	-706.64	40°19'09.135"N	104°23'58.546"W	2.00	
3717.00†	43.340	278.178	3516.18	476.66	111.13	-773.30	40°19'09.230"N	104°23'59.406"W	2.00	
3817.00†	45.340	278.178	3587.70	519.30	121.07	-842.48	40°19'09.328"N	104°24'00.299"W	2.00	
3917.00†	47.340	278.178	3656.73	563.43	131.36	-914.08	40°19'09.430"N	104°24'01.224"W	2.00	
4017.00†	49.340	278.178	3723.20	609.01	141.99	-988.03	40°19'09.535"N	104°24'02.178"W	2.00	
4117.00†	51.340	278.178	3787.02	655.98	152.94	-1064.23	40°19'09.643"N	104°24'03.162"W	2.00	
4217.00†	53.340	278.178	3848.11	704.28	164.20	-1142.59	40°19'09.754"N	104°24'04.174"W	2.00	
4317.00†	55.340	278.178	3906.41	753.85	175.75	-1223.00	40°19'09.868"N	104°24'05.212"W	2.00	
4342.49	55.850	278.178	3920.81	766.68	178.75	-1243.82	40°19'09.898"N	104°24'05.481"W	2.00	End of Build (XS)
4417.00†	55.850	278.178	3962.64	804.30	187.52	-1304.86	40°19'09.985"N	104°24'06.269"W	0.00	
4517.00†	55.850	278.178	4018.77	854.79	199.29	-1386.77	40°19'10.101"N	104°24'07.326"W	0.00	
4617.00†	55.850	278.178	4074.91	905.28	211.06	-1468.69	40°19'10.217"N	104°24'08.384"W	0.00	
4717.00†	55.850	278.178	4131.05	955.78	222.83	-1550.60	40°19'10.334"N	104°24'09.441"W	0.00	
4817.00†	55.850	278.178	4187.18	1006.27	234.60	-1632.52	40°19'10.450"N	104°24'10.499"W	0.00	
4917.00†	55.850	278.178	4243.32	1056.76	246.38	-1714.43	40°19'10.566"N	104°24'11.556"W	0.00	
5017.00†	55.850	278.178	4299.46	1107.25	258.15	-1796.35	40°19'10.682"N	104°24'12.614"W	0.00	
5117.00†	55.850	278.178	4355.59	1157.74	269.92	-1878.26	40°19'10.799"N	104°24'13.671"W	0.00	
5217.00†	55.850	278.178	4411.73	1208.23	281.69	-1960.18	40°19'10.915"N	104°24'14.729"W	0.00	
5317.00†	55.850	278.178	4467.87	1258.73	293.46	-2042.09	40°19'11.031"N	104°24'15.787"W	0.00	
5417.00†	55.850	278.178	4524.00	1309.22	305.24	-2124.01	40°19'11.147"N	104°24'16.844"W	0.00	
5517.00†	55.850	278.178	4580.14	1359.71	317.01	-2205.92	40°19'11.264"N	104°24'17.902"W	0.00	
5617.00†	55.850	278.178	4636.27	1410.20	328.78	-2287.84	40°19'11.380"N	104°24'18.959"W	0.00	



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	55.850	278.178	4692.41	1460.69	340.55	-2369.76	40°19'11.496"N	104°24'20.017"W	0.00	
5817.00†	55.850	278.178	4748.55	1511.18	352.32	-2451.67	40°19'11.612"N	104°24'21.074"W	0.00	
5917.00†	55.850	278.178	4804.68	1561.68	364.10	-2533.59	40°19'11.729"N	104°24'22.132"W	0.00	
6017.00†	55.850	278.178	4860.82	1612.17	375.87	-2615.50	40°19'11.845"N	104°24'23.189"W	0.00	
6117.00†	55.850	278.178	4916.96	1662.66	387.64	-2697.42	40°19'11.961"N	104°24'24.247"W	0.00	
6217.00†	55.850	278.178	4973.09	1713.15	399.41	-2779.33	40°19'12.077"N	104°24'25.304"W	0.00	
6317.00†	55.850	278.178	5029.23	1763.64	411.18	-2861.25	40°19'12.194"N	104°24'26.362"W	0.00	
6417.00†	55.850	278.178	5085.37	1814.14	422.95	-2943.16	40°19'12.310"N	104°24'27.420"W	0.00	
6517.00†	55.850	278.178	5141.50	1864.63	434.73	-3025.08	40°19'12.426"N	104°24'28.477"W	0.00	
6617.00†	55.850	278.178	5197.64	1915.12	446.50	-3106.99	40°19'12.542"N	104°24'29.535"W	0.00	
6717.00†	55.850	278.178	5253.78	1965.61	458.27	-3188.91	40°19'12.658"N	104°24'30.592"W	0.00	
6817.00†	55.850	278.178	5309.91	2016.10	470.04	-3270.82	40°19'12.775"N	104°24'31.650"W	0.00	
6917.00†	55.850	278.178	5366.05	2066.59	481.81	-3352.74	40°19'12.891"N	104°24'32.707"W	0.00	
7017.00†	55.850	278.178	5422.18	2117.09	493.59	-3434.66	40°19'13.007"N	104°24'33.765"W	0.00	
7117.00†	55.850	278.178	5478.32	2167.58	505.36	-3516.57	40°19'13.123"N	104°24'34.822"W	0.00	
7217.00†	55.850	278.178	5534.46	2218.07	517.13	-3598.49	40°19'13.240"N	104°24'35.880"W	0.00	
7317.00†	55.850	278.178	5590.59	2268.56	528.90	-3680.40	40°19'13.356"N	104°24'36.938"W	0.00	
7417.00†	55.850	278.178	5646.73	2319.05	540.67	-3762.32	40°19'13.472"N	104°24'37.995"W	0.00	
7517.00†	55.850	278.178	5702.87	2369.55	552.44	-3844.23	40°19'13.588"N	104°24'39.053"W	0.00	
7617.00†	55.850	278.178	5759.00	2420.04	564.22	-3926.15	40°19'13.704"N	104°24'40.110"W	0.00	
7717.00†	55.850	278.178	5815.14	2470.53	575.99	-4008.06	40°19'13.821"N	104°24'41.168"W	0.00	
7817.00†	55.850	278.178	5871.28	2521.02	587.76	-4089.98	40°19'13.937"N	104°24'42.225"W	0.00	
7917.00†	55.850	278.178	5927.41	2571.51	599.53	-4171.89	40°19'14.053"N	104°24'43.283"W	0.00	
7944.59	55.850	278.178	5942.90	2585.45	602.78	-4194.50	40°19'14.085"N	104°24'43.575"W	0.00	End of Tangent (XS)
8017.00†	55.510	269.418	5983.78	2625.37	606.74	-4254.07	40°19'14.124"N	104°24'44.344"W	10.00	
8117.00†	56.069	257.337	6040.15	2690.71	597.21	-4335.96	40°19'14.030"N	104°24'45.401"W	10.00	
8217.00†	57.780	245.572	6094.85	2766.05	570.55	-4415.15	40°19'13.766"N	104°24'46.424"W	10.00	
8317.00†	60.532	234.368	6146.24	2849.10	527.59	-4489.24	40°19'13.342"N	104°24'47.380"W	10.00	
8417.00†	64.166	223.844	6192.75	2937.35	469.63	-4555.96	40°19'12.769"N	104°24'48.241"W	10.00	
8517.00†	68.509	214.004	6232.95	3028.10	398.42	-4613.30	40°19'12.065"N	104°24'48.981"W	10.00	



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8617.00†	73.393	204.767	6265.64	3118.61	316.13	-4659.51	40°19'11.252"N	104°24'49.578"W	10.00	
8717.00†	78.663	196.005	6289.82	3206.11	225.27	-4693.18	40°19'10.354"N	104°24'50.012"W	10.00	
8817.00†	84.182	187.568	6304.76	3287.96	128.59	-4713.30	40°19'09.398"N	104°24'50.272"W	10.00	
8917.00†	89.823	179.297	6310.00	3361.66	29.04	-4719.26	40°19'08.414"N	104°24'50.348"W	10.00	
8920.12	90.000	179.039	6310.00†	3363.81	25.92	-4719.21	40°19'08.384"N	104°24'50.348"W	10.00	End of 3D Arc (XS)
9017.00†	90.000	179.039	6310.00	3430.20	-70.95	-4717.59	40°19'07.426"N	104°24'50.326"W	0.00	
9117.00†	90.000	179.039	6310.00	3498.74	-170.94	-4715.91	40°19'06.438"N	104°24'50.304"W	0.00	
9217.00†	90.000	179.039	6310.00	3567.27	-270.92	-4714.23	40°19'05.450"N	104°24'50.283"W	0.00	
9317.00†	90.000	179.039	6310.00	3635.81	-370.91	-4712.56	40°19'04.462"N	104°24'50.261"W	0.00	
9417.00†	90.000	179.039	6310.00	3704.34	-470.89	-4710.88	40°19'03.474"N	104°24'50.239"W	0.00	
9517.00†	90.000	179.039	6310.00	3772.88	-570.88	-4709.20	40°19'02.486"N	104°24'50.217"W	0.00	
9617.00†	90.000	179.039	6310.00	3841.42	-670.87	-4707.53	40°19'01.498"N	104°24'50.195"W	0.00	
9717.00†	90.000	179.039	6310.00	3909.95	-770.85	-4705.85	40°19'00.510"N	104°24'50.173"W	0.00	
9817.00†	90.000	179.039	6310.00	3978.49	-870.84	-4704.17	40°18'59.522"N	104°24'50.151"W	0.00	
9917.00†	90.000	179.039	6310.00	4047.02	-970.82	-4702.50	40°18'58.534"N	104°24'50.129"W	0.00	
10017.00†	90.000	179.039	6310.00	4115.56	-1070.81	-4700.82	40°18'57.546"N	104°24'50.107"W	0.00	
10117.00†	90.000	179.039	6310.00	4184.09	-1170.80	-4699.15	40°18'56.558"N	104°24'50.086"W	0.00	
10217.00†	90.000	179.039	6310.00	4252.63	-1270.78	-4697.47	40°18'55.570"N	104°24'50.064"W	0.00	
10317.00†	90.000	179.039	6310.00	4321.16	-1370.77	-4695.79	40°18'54.582"N	104°24'50.042"W	0.00	
10417.00†	90.000	179.039	6310.00	4389.70	-1470.75	-4694.12	40°18'53.594"N	104°24'50.020"W	0.00	
10517.00†	90.000	179.039	6310.00	4458.23	-1570.74	-4692.44	40°18'52.606"N	104°24'49.998"W	0.00	
10617.00†	90.000	179.039	6310.00	4526.77	-1670.73	-4690.76	40°18'51.618"N	104°24'49.976"W	0.00	
10717.00†	90.000	179.039	6310.00	4595.30	-1770.71	-4689.09	40°18'50.630"N	104°24'49.954"W	0.00	
10817.00†	90.000	179.039	6310.00	4663.84	-1870.70	-4687.41	40°18'49.642"N	104°24'49.932"W	0.00	
10917.00†	90.000	179.039	6310.00	4732.37	-1970.68	-4685.73	40°18'48.654"N	104°24'49.911"W	0.00	
11017.00†	90.000	179.039	6310.00	4800.91	-2070.67	-4684.06	40°18'47.666"N	104°24'49.889"W	0.00	
11117.00†	90.000	179.039	6310.00	4869.44	-2170.66	-4682.38	40°18'46.678"N	104°24'49.867"W	0.00	
11217.00†	90.000	179.039	6310.00	4937.98	-2270.64	-4680.71	40°18'45.690"N	104°24'49.845"W	0.00	
11317.00†	90.000	179.039	6310.00	5006.51	-2370.63	-4679.03	40°18'44.702"N	104°24'49.823"W	0.00	
11417.00†	90.000	179.039	6310.00	5075.05	-2470.61	-4677.35	40°18'43.714"N	104°24'49.801"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11517.00†	90.000	179.039	6310.00	5143.58	-2570.60	-4675.68	40°18'42.726"N	104°24'49.779"W	0.00	
11617.00†	90.000	179.039	6310.00	5212.12	-2670.59	-4674.00	40°18'41.737"N	104°24'49.757"W	0.00	
11717.00†	90.000	179.039	6310.00	5280.65	-2770.57	-4672.32	40°18'40.749"N	104°24'49.735"W	0.00	
11817.00†	90.000	179.039	6310.00	5349.19	-2870.56	-4670.65	40°18'39.761"N	104°24'49.714"W	0.00	
11917.00†	90.000	179.039	6310.00	5417.72	-2970.54	-4668.97	40°18'38.773"N	104°24'49.692"W	0.00	
12017.00†	90.000	179.039	6310.00	5486.26	-3070.53	-4667.29	40°18'37.785"N	104°24'49.670"W	0.00	
12117.00†	90.000	179.039	6310.00	5554.79	-3170.51	-4665.62	40°18'36.797"N	104°24'49.648"W	0.00	
12217.00†	90.000	179.039	6310.00	5623.33	-3270.50	-4663.94	40°18'35.809"N	104°24'49.626"W	0.00	
12317.00†	90.000	179.039	6310.00	5691.87	-3370.49	-4662.26	40°18'34.821"N	104°24'49.604"W	0.00	
12417.00†	90.000	179.039	6310.00	5760.40	-3470.47	-4660.59	40°18'33.833"N	104°24'49.582"W	0.00	
12517.00†	90.000	179.039	6310.00	5828.94	-3570.46	-4658.91	40°18'32.845"N	104°24'49.560"W	0.00	
12617.00†	90.000	179.039	6310.00	5897.47	-3670.44	-4657.24	40°18'31.857"N	104°24'49.539"W	0.00	
12717.00†	90.000	179.039	6310.00	5966.01	-3770.43	-4655.56	40°18'30.869"N	104°24'49.517"W	0.00	
12817.00†	90.000	179.039	6310.00	6034.54	-3870.42	-4653.88	40°18'29.881"N	104°24'49.495"W	0.00	
12917.00†	90.000	179.039	6310.00	6103.08	-3970.40	-4652.21	40°18'28.893"N	104°24'49.473"W	0.00	
13017.00†	90.000	179.039	6310.00	6171.61	-4070.39	-4650.53	40°18'27.905"N	104°24'49.451"W	0.00	
13117.00†	90.000	179.039	6310.00	6240.15	-4170.37	-4648.85	40°18'26.917"N	104°24'49.429"W	0.00	
13217.00†	90.000	179.039	6310.00	6308.68	-4270.36	-4647.18	40°18'25.929"N	104°24'49.407"W	0.00	
13317.00†	90.000	179.039	6310.00	6377.22	-4370.35	-4645.50	40°18'24.941"N	104°24'49.385"W	0.00	
13417.00†	90.000	179.039	6310.00	6445.75	-4470.33	-4643.82	40°18'23.953"N	104°24'49.363"W	0.00	
13465.56	90.000	179.039	6310.00 ²	6479.04	-4518.89	-4643.01	40°18'23.473"N	104°24'49.353"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS - Ref Wellbore: LATHAM A11-E14-14HNB PWB Ref Wellpath: LATHAM A11-E14-14HNB (REV-A.0) PWP

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



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LATHAM SECTION 14		-1.00	201.26	152.52	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM A11-E14-14HNB BHL (470'FSL & 260'FWL, SEC.14)	13465.56	6310.00	-4518.89	-4643.01	3302952.85	1356362.00	40°18'23.473"N	104°24'49.353"W	point
1) LATHAM A11-E14-14HNB LP (260'FNL & 260'FWL, SEC.14)	8920.12	6310.00	25.92	-4719.21	3302820.14	1360905.31	40°19'08.384"N	104°24'50.348"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	75.09	-119.99	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon

SURVEY PROGRAM - Ref Wellbore: LATHAM A11-E14-14HNB PWB Ref Wellpath: LATHAM A11-E14-14HNB (REV-A.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating+Axial Corr)		LATHAM A11-E14-14HNB PWB
1550.00	13465.56	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM A11-E14-14HNB PWB



Planned Wellpath Report

LATHAM A11-E14-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#23 LATHAM A11-E14-14HNB (392'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM A11-E14-14HNB
Field	WELD COUNTY	Wellbore	LATHAM A11-E14-14HNB PWB
Facility	SEC.14-T4N-R63W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	278.178	17.00	Tie On
1550.00	0.000	278.178	1550.00	End of Tangent
4342.49	55.850	278.178	3920.81	End of Build (XS)
7944.59	55.850	278.178	5942.90	End of Tangent (XS)
8920.12	90.000	179.039	6310.00	End of 3D Arc (XS)
13465.56	90.000	179.039	6310.00	End of Tangent (XS)