

Location:	COLORADO	Slot:	SLOT#17 LATHAM K21-024-14HNB (302'FNL & 332'FEL, SEC.14)
Field:	WELD COUNTY	Well:	LATHAM K21-024-14HNB
Facility:	SEC.14-T4N-R63W	Wellbore:	LATHAM K21-024-14HNB PWB

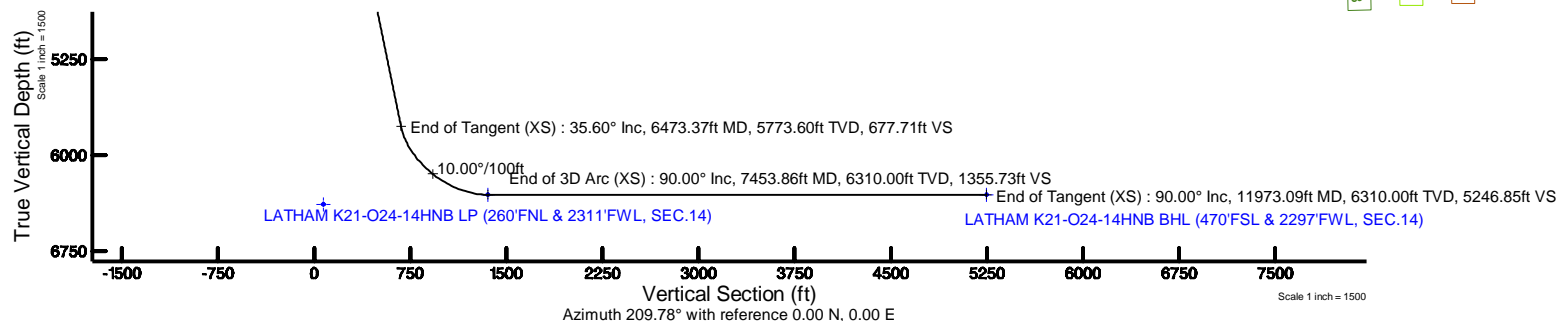
Plot reference wellpath is LATHAM K21-O24-14#NB (REV-A.0) PW/P	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4620 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#17 LATHAM K21-O24-14#NB (302°FNL, 6332°FEL, SEC.14)): 0 feet	Created by: doddanna on 2018-09-21
Coordinates are in feet referenced to Slot	Database: WellArchitectDB2

Facility Name	Grid East (US R)	Grid North (US R)	Latitude	Longitude
SEC 14-T4N-R33W	3307686.092	1301141.238	40°19'10.121"N	104°23'47.454"W
<div> <div>Spot</div> <div>Local N (R)</div> <div>Local E (R)</div> </div> <div> <div>SLOT#17 LATHAM K21-Q24-14HNB (302°FNL, 332°FEL, SEC 14)</div> <div>-111.32</div> <div>-152.44</div> </div>	Grid East (US R)	Grid North (US R)	Latitude	Longitude
	3307538.055	1361028.039	40°19'09.021"N	104°23'49.422"W
RIG 17 (RKB) to Ground level (At Slot: SLOT#17 LATHAM K21-Q24-14HNB (302°FNL, 332°FEL, SEC 14))				4620R
Mean Sea Level to Ground level (At Slot: SLOT#17 LATHAM K21-Q24-14HNB (302°FNL, 332°FEL, SEC 14))				0R
RIG 17 (RKB) to Mean Sea Level				4620R

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		LATHAM K21-O24-14HNB PWB
1550.00	11973.09	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K21-O24-14HNB PWB

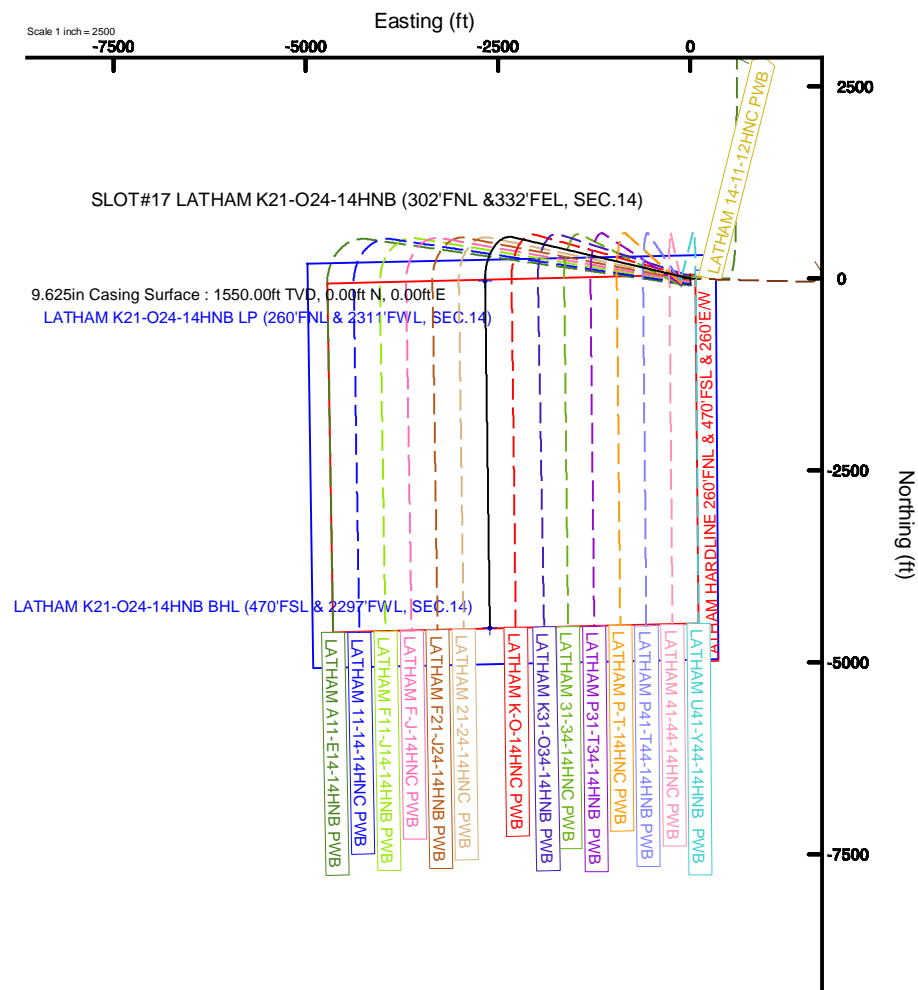


BGGM (1900.0 to 2019.0) Dip: 66.81° Field: 52277.8 nT
Magnetic North is 8.06 degrees East of True North (at 9/19/2018)
To correct azimuth from Magnetic to True add 8.06 degrees



Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	283.130	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	283.130	1550.00	0.00	0.00	0.00	0.00
End of Build (XS)	3329.90	35.598	283.130	3217.58	121.61	-521.37	2.00	153.40
End of Tangent (XS)	6473.37	35.598	283.130	5773.60	537.27	-2303.33	0.00	677.71
End of 3D Arc (XS)	7453.86	90.000	179.211	6310.00	-35.12	-2668.21	10.00	1355.73
End of Tangent (XS)	11973.09	90.000	179.211	6310.00	-4553.92	-2606.01	0.00	5246.85

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
11973.09	90.00	179.211	6310.00	-4553.92	-2606.01	3304989.00	1356442.26	40°18'24.019"N	104°24'23.059"W





Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB 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 2:58:23 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/LATHAM K21-O24-14HNB (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	-111.32	-152.44	3307538.06	1361028.04	40°19'09.021"N	104°23'49.422"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#17 LATHAM K21-O24-14HNB (302'FNL &332'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	209.78°



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (126 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	283.130	0.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
17.00	0.000	283.130	17.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	Tie On
117.00†	0.000	283.130	117.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
217.00†	0.000	283.130	217.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
317.00†	0.000	283.130	317.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
417.00†	0.000	283.130	417.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
517.00†	0.000	283.130	517.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
617.00†	0.000	283.130	617.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
717.00†	0.000	283.130	717.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
817.00†	0.000	283.130	817.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
917.00†	0.000	283.130	917.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1017.00†	0.000	283.130	1017.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1117.00†	0.000	283.130	1117.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1217.00†	0.000	283.130	1217.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1317.00†	0.000	283.130	1317.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1417.00†	0.000	283.130	1417.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1517.00†	0.000	283.130	1517.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	
1550.00	0.000	283.130	1550.00	0.00	0.00	0.00	40°19'09.021"N	104°23'49.422"W	0.00	End of Tangent
1617.00†	1.340	283.130	1616.99	0.22	0.18	-0.76	40°19'09.023"N	104°23'49.432"W	2.00	
1717.00†	3.340	283.130	1716.91	1.39	1.11	-4.74	40°19'09.032"N	104°23'49.483"W	2.00	
1817.00†	5.340	283.130	1816.61	3.56	2.82	-12.11	40°19'09.049"N	104°23'49.578"W	2.00	
1917.00†	7.340	283.130	1916.00	6.73	5.33	-22.86	40°19'09.074"N	104°23'49.717"W	2.00	
2017.00†	9.340	283.130	2014.93	10.88	8.63	-36.99	40°19'09.106"N	104°23'49.899"W	2.00	
2117.00†	11.340	283.130	2113.31	16.03	12.70	-54.47	40°19'09.147"N	104°23'50.125"W	2.00	
2217.00†	13.340	283.130	2210.99	22.15	17.56	-75.28	40°19'09.195"N	104°23'50.394"W	2.00	
2317.00†	15.340	283.130	2307.87	29.25	23.18	-99.40	40°19'09.250"N	104°23'50.705"W	2.00	
2417.00†	17.340	283.130	2403.83	37.31	29.58	-126.79	40°19'09.313"N	104°23'51.059"W	2.00	
2517.00†	19.340	283.130	2498.74	46.32	36.72	-157.43	40°19'09.384"N	104°23'51.454"W	2.00	
2617.00†	21.340	283.130	2592.50	56.28	44.62	-191.28	40°19'09.462"N	104°23'51.891"W	2.00	
2717.00†	23.340	283.130	2684.99	67.17	53.25	-228.30	40°19'09.547"N	104°23'52.369"W	2.00	



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (126 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	283.130	2776.10	78.98	62.61	-268.43	40°19'09.640"N	104°23'52.887"W	2.00	
2917.00†	27.340	283.130	2865.71	91.69	72.69	-311.64	40°19'09.739"N	104°23'53.445"W	2.00	
3017.00†	29.340	283.130	2953.72	105.29	83.48	-357.87	40°19'09.846"N	104°23'54.042"W	2.00	
3117.00†	31.340	283.130	3040.02	119.77	94.95	-407.06	40°19'09.959"N	104°23'54.677"W	2.00	
3217.00†	33.340	283.130	3124.51	135.10	107.10	-459.15	40°19'10.079"N	104°23'55.350"W	2.00	
3317.00†	35.340	283.130	3207.07	151.26	119.91	-514.08	40°19'10.206"N	104°23'56.059"W	2.00	
3329.90	35.598	283.130	3217.58	153.40	121.61	-521.37	40°19'10.223"N	104°23'56.153"W	2.00	End of Build (XS)
3417.00†	35.598	283.130	3288.40	167.93	133.13	-570.75	40°19'10.337"N	104°23'56.790"W	0.00	
3517.00†	35.598	283.130	3369.71	184.61	146.35	-627.44	40°19'10.467"N	104°23'57.522"W	0.00	
3617.00†	35.598	283.130	3451.03	201.29	159.58	-684.12	40°19'10.598"N	104°23'58.254"W	0.00	
3717.00†	35.598	283.130	3532.34	217.97	172.80	-740.81	40°19'10.728"N	104°23'58.986"W	0.00	
3817.00†	35.598	283.130	3613.65	234.65	186.02	-797.50	40°19'10.859"N	104°23'59.718"W	0.00	
3917.00†	35.598	283.130	3694.96	251.33	199.25	-854.19	40°19'10.990"N	104°24'00.450"W	0.00	
4017.00†	35.598	283.130	3776.27	268.00	212.47	-910.87	40°19'11.120"N	104°24'01.181"W	0.00	
4117.00†	35.598	283.130	3857.59	284.68	225.69	-967.56	40°19'11.251"N	104°24'01.913"W	0.00	
4217.00†	35.598	283.130	3938.90	301.36	238.91	-1024.25	40°19'11.382"N	104°24'02.645"W	0.00	
4317.00†	35.598	283.130	4020.21	318.04	252.14	-1080.94	40°19'11.512"N	104°24'03.377"W	0.00	
4417.00†	35.598	283.130	4101.52	334.72	265.36	-1137.62	40°19'11.643"N	104°24'04.109"W	0.00	
4517.00†	35.598	283.130	4182.83	351.40	278.58	-1194.31	40°19'11.774"N	104°24'04.841"W	0.00	
4617.00†	35.598	283.130	4264.15	368.08	291.81	-1251.00	40°19'11.904"N	104°24'05.573"W	0.00	
4717.00†	35.598	283.130	4345.46	384.76	305.03	-1307.69	40°19'12.035"N	104°24'06.304"W	0.00	
4817.00†	35.598	283.130	4426.77	401.44	318.25	-1364.38	40°19'12.166"N	104°24'07.036"W	0.00	
4917.00†	35.598	283.130	4508.08	418.12	331.47	-1421.06	40°19'12.296"N	104°24'07.768"W	0.00	
5017.00†	35.598	283.130	4589.40	434.80	344.70	-1477.75	40°19'12.427"N	104°24'08.500"W	0.00	
5117.00†	35.598	283.130	4670.71	451.48	357.92	-1534.44	40°19'12.557"N	104°24'09.232"W	0.00	
5217.00†	35.598	283.130	4752.02	468.15	371.14	-1591.13	40°19'12.688"N	104°24'09.964"W	0.00	
5317.00†	35.598	283.130	4833.33	484.83	384.37	-1647.81	40°19'12.819"N	104°24'10.696"W	0.00	
5417.00†	35.598	283.130	4914.64	501.51	397.59	-1704.50	40°19'12.949"N	104°24'11.427"W	0.00	
5517.00†	35.598	283.130	4995.96	518.19	410.81	-1761.19	40°19'13.080"N	104°24'12.159"W	0.00	
5617.00†	35.598	283.130	5077.27	534.87	424.03	-1817.88	40°19'13.211"N	104°24'12.891"W	0.00	



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (126 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	35.598	283.130	5158.58	551.55	437.26	-1874.56	40°19'13.341"N	104°24'13.623"W	0.00	
5817.00†	35.598	283.130	5239.89	568.23	450.48	-1931.25	40°19'13.472"N	104°24'14.355"W	0.00	
5917.00†	35.598	283.130	5321.20	584.91	463.70	-1987.94	40°19'13.602"N	104°24'15.087"W	0.00	
6017.00†	35.598	283.130	5402.52	601.59	476.92	-2044.63	40°19'13.733"N	104°24'15.819"W	0.00	
6117.00†	35.598	283.130	5483.83	618.27	490.15	-2101.31	40°19'13.864"N	104°24'16.550"W	0.00	
6217.00†	35.598	283.130	5565.14	634.95	503.37	-2158.00	40°19'13.994"N	104°24'17.282"W	0.00	
6317.00†	35.598	283.130	5646.45	651.62	516.59	-2214.69	40°19'14.125"N	104°24'18.014"W	0.00	
6417.00†	35.598	283.130	5727.77	668.30	529.82	-2271.38	40°19'14.255"N	104°24'18.746"W	0.00	
6473.37	35.598	283.130	5773.60	677.71	537.27	-2303.33	40°19'14.329"N	104°24'19.159"W	0.00	End of Tangent (XS)
6517.00†	34.964	275.652	5809.23	686.46	541.39	-2328.15	40°19'14.370"N	104°24'19.479"W	10.00	
6617.00†	35.291	258.237	5891.23	717.41	538.31	-2385.09	40°19'14.339"N	104°24'20.214"W	10.00	
6717.00†	37.987	242.057	5971.65	762.70	517.95	-2440.70	40°19'14.138"N	104°24'20.932"W	10.00	
6817.00†	42.599	228.297	6048.06	820.96	480.92	-2493.28	40°19'13.772"N	104°24'21.611"W	10.00	
6917.00†	48.569	217.037	6118.13	890.41	428.35	-2541.25	40°19'13.253"N	104°24'22.230"W	10.00	
7017.00†	55.444	207.803	6179.73	968.95	361.83	-2583.15	40°19'12.595"N	104°24'22.771"W	10.00	
7117.00†	62.905	200.036	6231.00	1054.19	283.39	-2617.69	40°19'11.820"N	104°24'23.217"W	10.00	
7217.00†	70.738	193.265	6270.36	1143.54	195.41	-2643.84	40°19'10.951"N	104°24'23.554"W	10.00	
7317.00†	78.796	187.122	6296.64	1234.29	100.55	-2660.79	40°19'10.013"N	104°24'23.773"W	10.00	
7417.00†	86.974	181.317	6309.03	1323.67	1.72	-2668.04	40°19'09.037"N	104°24'23.866"W	10.00	
7453.86	90.000	179.211	6310.00 [†]	1355.73	-35.12	-2668.21	40°19'08.673"N	104°24'23.868"W	10.00	End of 3D Arc (XS)
7517.00†	90.000	179.211	6310.00	1410.10	-98.26	-2667.34	40°19'08.049"N	104°24'23.857"W	0.00	
7617.00†	90.000	179.211	6310.00	1496.20	-198.25	-2665.96	40°19'07.061"N	104°24'23.839"W	0.00	
7717.00†	90.000	179.211	6310.00	1582.30	-298.24	-2664.59	40°19'06.072"N	104°24'23.821"W	0.00	
7817.00†	90.000	179.211	6310.00	1668.40	-398.23	-2663.21	40°19'05.084"N	104°24'23.803"W	0.00	
7917.00†	90.000	179.211	6310.00	1754.50	-498.22	-2661.84	40°19'04.096"N	104°24'23.785"W	0.00	
8017.00†	90.000	179.211	6310.00	1840.60	-598.21	-2660.46	40°19'03.108"N	104°24'23.768"W	0.00	
8117.00†	90.000	179.211	6310.00	1926.71	-698.20	-2659.08	40°19'02.120"N	104°24'23.750"W	0.00	
8217.00†	90.000	179.211	6310.00	2012.81	-798.19	-2657.71	40°19'01.132"N	104°24'23.732"W	0.00	
8317.00†	90.000	179.211	6310.00	2098.91	-898.18	-2656.33	40°19'00.144"N	104°24'23.714"W	0.00	
8417.00†	90.000	179.211	6310.00	2185.01	-998.17	-2654.95	40°18'59.156"N	104°24'23.696"W	0.00	



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (126 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	179.211	6310.00	2271.11	-1098.16	-2653.58	40°18'58.168"N	104°24'23.678"W	0.00	
8617.00†	90.000	179.211	6310.00	2357.21	-1198.15	-2652.20	40°18'57.180"N	104°24'23.660"W	0.00	
8717.00†	90.000	179.211	6310.00	2443.31	-1298.14	-2650.82	40°18'56.192"N	104°24'23.642"W	0.00	
8817.00†	90.000	179.211	6310.00	2529.42	-1398.13	-2649.45	40°18'55.204"N	104°24'23.624"W	0.00	
8917.00†	90.000	179.211	6310.00	2615.52	-1498.12	-2648.07	40°18'54.215"N	104°24'23.606"W	0.00	
9017.00†	90.000	179.211	6310.00	2701.62	-1598.11	-2646.70	40°18'53.227"N	104°24'23.588"W	0.00	
9117.00†	90.000	179.211	6310.00	2787.72	-1698.11	-2645.32	40°18'52.239"N	104°24'23.571"W	0.00	
9217.00†	90.000	179.211	6310.00	2873.82	-1798.10	-2643.94	40°18'51.251"N	104°24'23.553"W	0.00	
9317.00†	90.000	179.211	6310.00	2959.92	-1898.09	-2642.57	40°18'50.263"N	104°24'23.535"W	0.00	
9417.00†	90.000	179.211	6310.00	3046.03	-1998.08	-2641.19	40°18'49.275"N	104°24'23.517"W	0.00	
9517.00†	90.000	179.211	6310.00	3132.13	-2098.07	-2639.81	40°18'48.287"N	104°24'23.499"W	0.00	
9617.00†	90.000	179.211	6310.00	3218.23	-2198.06	-2638.44	40°18'47.299"N	104°24'23.481"W	0.00	
9717.00†	90.000	179.211	6310.00	3304.33	-2298.05	-2637.06	40°18'46.311"N	104°24'23.463"W	0.00	
9817.00†	90.000	179.211	6310.00	3390.43	-2398.04	-2635.69	40°18'45.323"N	104°24'23.445"W	0.00	
9917.00†	90.000	179.211	6310.00	3476.53	-2498.03	-2634.31	40°18'44.335"N	104°24'23.427"W	0.00	
10017.00†	90.000	179.211	6310.00	3562.63	-2598.02	-2632.93	40°18'43.347"N	104°24'23.409"W	0.00	
10117.00†	90.000	179.211	6310.00	3648.74	-2698.01	-2631.56	40°18'42.358"N	104°24'23.392"W	0.00	
10217.00†	90.000	179.211	6310.00	3734.84	-2798.00	-2630.18	40°18'41.370"N	104°24'23.374"W	0.00	
10317.00†	90.000	179.211	6310.00	3820.94	-2897.99	-2628.80	40°18'40.382"N	104°24'23.356"W	0.00	
10417.00†	90.000	179.211	6310.00	3907.04	-2997.98	-2627.43	40°18'39.394"N	104°24'23.338"W	0.00	
10517.00†	90.000	179.211	6310.00	3993.14	-3097.97	-2626.05	40°18'38.406"N	104°24'23.320"W	0.00	
10617.00†	90.000	179.211	6310.00	4079.24	-3197.96	-2624.67	40°18'37.418"N	104°24'23.302"W	0.00	
10717.00†	90.000	179.211	6310.00	4165.35	-3297.95	-2623.30	40°18'36.430"N	104°24'23.284"W	0.00	
10817.00†	90.000	179.211	6310.00	4251.45	-3397.94	-2621.92	40°18'35.442"N	104°24'23.266"W	0.00	
10917.00†	90.000	179.211	6310.00	4337.55	-3497.93	-2620.55	40°18'34.454"N	104°24'23.248"W	0.00	
11017.00†	90.000	179.211	6310.00	4423.65	-3597.93	-2619.17	40°18'33.466"N	104°24'23.230"W	0.00	
11117.00†	90.000	179.211	6310.00	4509.75	-3697.92	-2617.79	40°18'32.478"N	104°24'23.213"W	0.00	
11217.00†	90.000	179.211	6310.00	4595.85	-3797.91	-2616.42	40°18'31.490"N	104°24'23.195"W	0.00	
11317.00†	90.000	179.211	6310.00	4681.95	-3897.90	-2615.04	40°18'30.501"N	104°24'23.177"W	0.00	
11417.00†	90.000	179.211	6310.00	4768.06	-3997.89	-2613.66	40°18'29.513"N	104°24'23.159"W	0.00	



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (126 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	179.211	6310.00	4854.16	-4097.88	-2612.29	40°18'28.525"N	104°24'23.141"W	0.00	
11617.00†	90.000	179.211	6310.00	4940.26	-4197.87	-2610.91	40°18'27.537"N	104°24'23.123"W	0.00	
11717.00†	90.000	179.211	6310.00	5026.36	-4297.86	-2609.53	40°18'26.549"N	104°24'23.105"W	0.00	
11817.00†	90.000	179.211	6310.00	5112.46	-4397.85	-2608.16	40°18'25.561"N	104°24'23.087"W	0.00	
11917.00†	90.000	179.211	6310.00	5198.56	-4497.84	-2606.78	40°18'24.573"N	104°24'23.069"W	0.00	
11973.09	90.000	179.211	6310.00 ²	5246.85	-4553.92	-2606.01	40°18'24.019"N	104°24'23.059"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS - Ref Wellbore: LATHAM K21-O24-14HNB PWB Ref Wellpath: LATHAM K21-O24-14HNB (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

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	111.30	152.44	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM K21-O24-14HNB BHL (470'FSL & 2297'FWL, SEC.14)	11973.09	6310.00	-4553.92	-2606.01	3304989.00	1356442.26	40°18'24.019"N	104°24'23.059"W	point
1) LATHAM K21-O24-14HNB LP (260'FNL & 2311'FWL, SEC.14)	7453.86	6310.00	-35.12	-2668.21	3304870.61	1360959.74	40°19'08.673"N	104°24'23.868"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	-14.88	-120.06	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon



Planned Wellpath Report
LATHAM K21-O24-14HNB (REV-A.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

SURVEY PROGRAM - Ref Wellbore: LATHAM K21-O24-14HNB PWB Ref Wellpath: LATHAM K21-O24-14HNB (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 K21-O24-14HNB PWB
1550.00	11973.09	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K21-O24-14HNB PWB



Planned Wellpath Report

LATHAM K21-O24-14HNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#17 LATHAM K21-O24-14HNB (302'FNL &332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K21-O24-14HNB
Field	WELD COUNTY	Wellbore	LATHAM K21-O24-14HNB PWB
Facility	SEC.14-T4N-R63W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	283.130	17.00	Tie On
1550.00	0.000	283.130	1550.00	End of Tangent
3329.90	35.598	283.130	3217.58	End of Build (XS)
6473.37	35.598	283.130	5773.60	End of Tangent (XS)
7453.86	90.000	179.211	6310.00	End of 3D Arc (XS)
11973.09	90.000	179.211	6310.00	End of Tangent (XS)