

Location:	COLORADO	Slot:	SLOT#18 LATHAM 21-24-14HNC (317'FNL &N 333'FEL, SEC.14)
Field:	WELD COUNTY	Well:	LATHAM 21-24-14HNC
Facility:	SEC.14-T4N-R63W	Wellbore:	LATHAM 21-24-14HNC PWB

Plot reference wellpath is LATHAM 21-24-14HNC (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: SLOTH#18 LATHAM 21-24-14HNC (317FNL &N 333FEL, SEC. 14): 0 feet	Created by: doddanna on 2018-09-21
Coordinates are in feet referenced to Slot	Database: WellArchitectIDb2

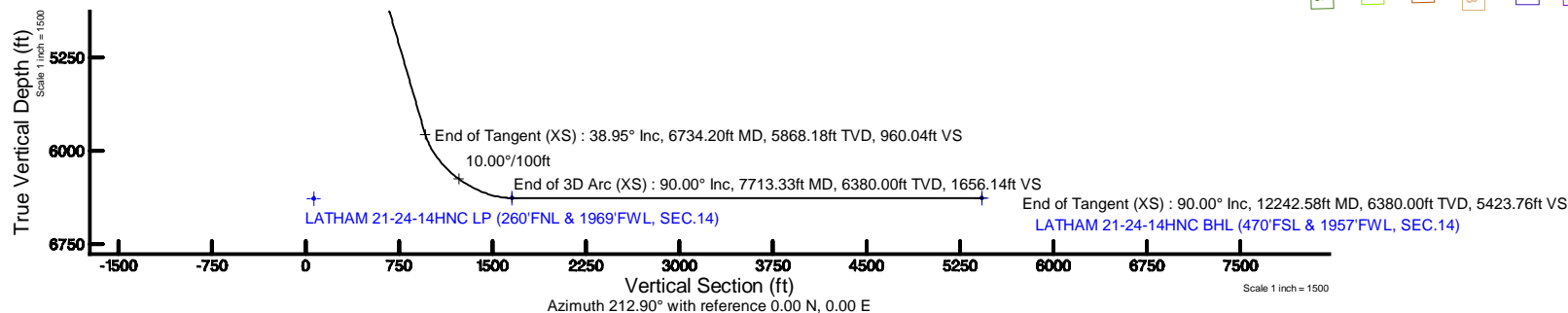
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T4N-R63W				3307689.092	1361141.238	40°19'10.121"N	104°23'47.454"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#18 LATHAM 21-24-14#NC (317FNL &N 333FEL, SEC.14)	-126.29	-152.52	3307538.163	1361013.063	40°19'08.873"N	104°23'49.423"W	
RIG (17) (RKB) to Ground level (At Slot: SLOT#18 LATHAM 21-24-14#NC (317FNL &N 333FEL, SEC.14))						4620ft	
Mean Sea Level to Ground level (At Slot: SLOT#18 LATHAM 21-24-14#NC (317FNL &N 333FEL, SEC.14))						0ft	
RIG (17) (RKB) to Mean Sea Level						4620ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		LATHAM 21-24-14HNC PWB
1550.00	12242.58	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM 21-24-14HNC 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





# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL &N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC 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 2:55:02 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/ LATHAM 21-24-14HNC (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	-126.29	-152.52	3307538.16	1361013.06	40°19'08.873"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#18 LATHAM 21-24-14HNC (317'FNL &N 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	212.90°



# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (129 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	281.838	0.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
17.00	0.000	281.838	17.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	Tie On
117.00†	0.000	281.838	117.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
217.00†	0.000	281.838	217.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
317.00†	0.000	281.838	317.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
417.00†	0.000	281.838	417.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
517.00†	0.000	281.838	517.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
617.00†	0.000	281.838	617.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
717.00†	0.000	281.838	717.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
817.00†	0.000	281.838	817.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
917.00†	0.000	281.838	917.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1017.00†	0.000	281.838	1017.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1117.00†	0.000	281.838	1117.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1217.00†	0.000	281.838	1217.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1317.00†	0.000	281.838	1317.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1417.00†	0.000	281.838	1417.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1517.00†	0.000	281.838	1517.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	
1550.00	0.000	281.838	1550.00	0.00	0.00	0.00	40°19'08.873"N	104°23'49.423"W	0.00	End of Tangent
1617.00†	1.340	281.838	1616.99	0.28	0.16	-0.77	40°19'08.875"N	104°23'49.433"W	2.00	
1717.00†	3.340	281.838	1716.91	1.75	1.00	-4.76	40°19'08.883"N	104°23'49.484"W	2.00	
1817.00†	5.340	281.838	1816.61	4.47	2.55	-12.17	40°19'08.898"N	104°23'49.580"W	2.00	
1917.00†	7.340	281.838	1916.00	8.44	4.82	-22.98	40°19'08.921"N	104°23'49.720"W	2.00	
2017.00†	9.340	281.838	2014.93	13.65	7.79	-37.17	40°19'08.950"N	104°23'49.903"W	2.00	
2117.00†	11.340	281.838	2113.31	20.10	11.47	-54.74	40°19'08.986"N	104°23'50.130"W	2.00	
2217.00†	13.340	281.838	2210.99	27.78	15.86	-75.65	40°19'09.030"N	104°23'50.400"W	2.00	
2317.00†	15.340	281.838	2307.87	36.68	20.94	-99.89	40°19'09.080"N	104°23'50.713"W	2.00	
2417.00†	17.340	281.838	2403.83	46.79	26.71	-127.43	40°19'09.137"N	104°23'51.068"W	2.00	
2517.00†	19.340	281.838	2498.74	58.10	33.16	-158.22	40°19'09.201"N	104°23'51.466"W	2.00	
2617.00†	21.340	281.838	2592.50	70.59	40.29	-192.24	40°19'09.271"N	104°23'51.905"W	2.00	
2717.00†	23.340	281.838	2684.99	84.24	48.09	-229.44	40°19'09.348"N	104°23'52.385"W	2.00	



# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (129 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	281.838	2776.10	99.06	56.55	-269.78	40°19'09.432"N	104°23'52.906"W	2.00	
2917.00†	27.340	281.838	2865.71	115.00	65.65	-313.20	40°19'09.522"N	104°23'53.466"W	2.00	
3017.00†	29.340	281.838	2953.72	132.06	75.39	-359.66	40°19'09.618"N	104°23'54.066"W	2.00	
3117.00†	31.340	281.838	3040.02	150.21	85.75	-409.09	40°19'09.720"N	104°23'54.704"W	2.00	
3217.00†	33.340	281.838	3124.51	169.43	96.72	-461.45	40°19'09.829"N	104°23'55.380"W	2.00	
3317.00†	35.340	281.838	3207.07	189.70	108.29	-516.66	40°19'09.943"N	104°23'56.093"W	2.00	
3417.00†	37.340	281.838	3287.62	211.00	120.45	-574.65	40°19'10.063"N	104°23'56.842"W	2.00	
3497.37	38.947	281.838	3350.83	228.84	130.63	-623.23	40°19'10.164"N	104°23'57.469"W	2.00	End of Build (XS)
3517.00†	38.947	281.838	3366.09	233.27	133.16	-635.31	40°19'10.189"N	104°23'57.625"W	0.00	
3617.00†	38.947	281.838	3443.86	255.86	146.06	-696.83	40°19'10.316"N	104°23'58.419"W	0.00	
3717.00†	38.947	281.838	3521.64	278.45	158.96	-758.36	40°19'10.444"N	104°23'59.213"W	0.00	
3817.00†	38.947	281.838	3599.41	301.04	171.85	-819.88	40°19'10.571"N	104°24'00.008"W	0.00	
3917.00†	38.947	281.838	3677.18	323.63	184.75	-881.40	40°19'10.698"N	104°24'00.802"W	0.00	
4017.00†	38.947	281.838	3754.95	346.22	197.64	-942.93	40°19'10.826"N	104°24'01.596"W	0.00	
4117.00†	38.947	281.838	3832.73	368.81	210.54	-1004.45	40°19'10.953"N	104°24'02.391"W	0.00	
4217.00†	38.947	281.838	3910.50	391.40	223.44	-1065.98	40°19'11.081"N	104°24'03.185"W	0.00	
4317.00†	38.947	281.838	3988.27	413.99	236.33	-1127.50	40°19'11.208"N	104°24'03.979"W	0.00	
4417.00†	38.947	281.838	4066.04	436.58	249.23	-1189.02	40°19'11.336"N	104°24'04.773"W	0.00	
4517.00†	38.947	281.838	4143.81	459.17	262.12	-1250.55	40°19'11.463"N	104°24'05.568"W	0.00	
4617.00†	38.947	281.838	4221.59	481.76	275.02	-1312.07	40°19'11.590"N	104°24'06.362"W	0.00	
4717.00†	38.947	281.838	4299.36	504.35	287.91	-1373.59	40°19'11.718"N	104°24'07.156"W	0.00	
4817.00†	38.947	281.838	4377.13	526.94	300.81	-1435.12	40°19'11.845"N	104°24'07.951"W	0.00	
4917.00†	38.947	281.838	4454.90	549.53	313.71	-1496.64	40°19'11.973"N	104°24'08.745"W	0.00	
5017.00†	38.947	281.838	4532.68	572.12	326.60	-1558.17	40°19'12.100"N	104°24'09.539"W	0.00	
5117.00†	38.947	281.838	4610.45	594.71	339.50	-1619.69	40°19'12.227"N	104°24'10.333"W	0.00	
5217.00†	38.947	281.838	4688.22	617.30	352.39	-1681.21	40°19'12.355"N	104°24'11.128"W	0.00	
5317.00†	38.947	281.838	4765.99	639.89	365.29	-1742.74	40°19'12.482"N	104°24'11.922"W	0.00	
5417.00†	38.947	281.838	4843.77	662.48	378.18	-1804.26	40°19'12.609"N	104°24'12.716"W	0.00	
5517.00†	38.947	281.838	4921.54	685.07	391.08	-1865.78	40°19'12.737"N	104°24'13.511"W	0.00	
5617.00†	38.947	281.838	4999.31	707.66	403.98	-1927.31	40°19'12.864"N	104°24'14.305"W	0.00	



# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	38.947	281.838	5077.08	730.25	416.87	-1988.83	40°19'12.992"N	104°24'15.099"W	0.00	
5817.00†	38.947	281.838	5154.85	752.84	429.77	-2050.36	40°19'13.119"N	104°24'15.893"W	0.00	
5917.00†	38.947	281.838	5232.63	775.43	442.66	-2111.88	40°19'13.246"N	104°24'16.688"W	0.00	
6017.00†	38.947	281.838	5310.40	798.02	455.56	-2173.40	40°19'13.374"N	104°24'17.482"W	0.00	
6117.00†	38.947	281.838	5388.17	820.61	468.45	-2234.93	40°19'13.501"N	104°24'18.276"W	0.00	
6217.00†	38.947	281.838	5465.94	843.20	481.35	-2296.45	40°19'13.629"N	104°24'19.071"W	0.00	
6317.00†	38.947	281.838	5543.72	865.79	494.25	-2357.97	40°19'13.756"N	104°24'19.865"W	0.00	
6417.00†	38.947	281.838	5621.49	888.38	507.14	-2419.50	40°19'13.883"N	104°24'20.659"W	0.00	
6517.00†	38.947	281.838	5699.26	910.97	520.04	-2481.02	40°19'14.011"N	104°24'21.454"W	0.00	
6617.00†	38.947	281.838	5777.03	933.56	532.93	-2542.55	40°19'14.138"N	104°24'22.248"W	0.00	
6717.00†	38.947	281.838	5854.81	956.15	545.83	-2604.07	40°19'14.265"N	104°24'23.042"W	0.00	
6734.20	38.947	281.838	5868.18	960.04	548.05	-2614.65	40°19'14.287"N	104°24'23.179"W	0.00	End of Tangent (XS)
6817.00†	38.262	268.595	5933.00	983.88	552.77	-2665.84	40°19'14.334"N	104°24'23.840"W	10.00	
6917.00†	39.432	252.729	6011.08	1025.83	542.55	-2727.28	40°19'14.233"N	104°24'24.633"W	10.00	
7017.00†	42.599	238.244	6086.69	1080.94	515.24	-2786.53	40°19'13.963"N	104°24'25.398"W	10.00	
7117.00†	47.354	225.771	6157.55	1147.55	471.67	-2841.80	40°19'13.532"N	104°24'26.111"W	10.00	
7217.00†	53.255	215.259	6221.50	1223.63	413.15	-2891.41	40°19'12.954"N	104°24'26.752"W	10.00	
7317.00†	59.944	206.340	6276.59	1306.87	341.47	-2933.85	40°19'12.246"N	104°24'27.299"W	10.00	
7417.00†	67.156	198.592	6321.16	1394.73	258.80	-2967.83	40°19'11.429"N	104°24'27.738"W	10.00	
7517.00†	74.703	191.644	6353.85	1484.56	167.66	-2992.31	40°19'10.528"N	104°24'28.054"W	10.00	
7617.00†	82.450	185.188	6373.66	1573.61	70.81	-3006.57	40°19'09.571"N	104°24'28.238"W	10.00	
7713.33	90.000	179.188	6380.00 <sup>†</sup>	1656.14	-25.12	-3010.21	40°19'08.623"N	104°24'28.285"W	10.00	End of 3D Arc (XS)
7717.00†	90.000	179.188	6380.00	1659.20	-28.79	-3010.16	40°19'08.587"N	104°24'28.284"W	0.00	
7817.00†	90.000	179.188	6380.00	1742.38	-128.78	-3008.74	40°19'07.599"N	104°24'28.265"W	0.00	
7917.00†	90.000	179.188	6380.00	1825.56	-228.77	-3007.32	40°19'06.611"N	104°24'28.247"W	0.00	
8017.00†	90.000	179.188	6380.00	1908.75	-328.76	-3005.91	40°19'05.622"N	104°24'28.229"W	0.00	
8117.00†	90.000	179.188	6380.00	1991.93	-428.75	-3004.49	40°19'04.634"N	104°24'28.210"W	0.00	
8217.00†	90.000	179.188	6380.00	2075.12	-528.74	-3003.07	40°19'03.646"N	104°24'28.192"W	0.00	
8317.00†	90.000	179.188	6380.00	2158.30	-628.73	-3001.65	40°19'02.658"N	104°24'28.173"W	0.00	
8417.00†	90.000	179.188	6380.00	2241.48	-728.72	-3000.24	40°19'01.670"N	104°24'28.155"W	0.00	



# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (129 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	179.188	6380.00	2324.67	-828.71	-2998.82	40°19'00.682"N	104°24'28.136"W	0.00	
8617.00†	90.000	179.188	6380.00	2407.85	-928.70	-2997.40	40°18'59.694"N	104°24'28.118"W	0.00	
8717.00†	90.000	179.188	6380.00	2491.04	-1028.69	-2995.98	40°18'58.706"N	104°24'28.099"W	0.00	
8817.00†	90.000	179.188	6380.00	2574.22	-1128.68	-2994.57	40°18'57.718"N	104°24'28.081"W	0.00	
8917.00†	90.000	179.188	6380.00	2657.40	-1228.67	-2993.15	40°18'56.730"N	104°24'28.062"W	0.00	
9017.00†	90.000	179.188	6380.00	2740.59	-1328.66	-2991.73	40°18'55.742"N	104°24'28.044"W	0.00	
9117.00†	90.000	179.188	6380.00	2823.77	-1428.65	-2990.31	40°18'54.754"N	104°24'28.026"W	0.00	
9217.00†	90.000	179.188	6380.00	2906.96	-1528.64	-2988.90	40°18'53.766"N	104°24'28.007"W	0.00	
9317.00†	90.000	179.188	6380.00	2990.14	-1628.63	-2987.48	40°18'52.777"N	104°24'27.989"W	0.00	
9417.00†	90.000	179.188	6380.00	3073.33	-1728.62	-2986.06	40°18'51.789"N	104°24'27.970"W	0.00	
9517.00†	90.000	179.188	6380.00	3156.51	-1828.61	-2984.64	40°18'50.801"N	104°24'27.952"W	0.00	
9617.00†	90.000	179.188	6380.00	3239.69	-1928.60	-2983.23	40°18'49.813"N	104°24'27.933"W	0.00	
9717.00†	90.000	179.188	6380.00	3322.88	-2028.59	-2981.81	40°18'48.825"N	104°24'27.915"W	0.00	
9817.00†	90.000	179.188	6380.00	3406.06	-2128.58	-2980.39	40°18'47.837"N	104°24'27.896"W	0.00	
9917.00†	90.000	179.188	6380.00	3489.25	-2228.57	-2978.97	40°18'46.849"N	104°24'27.878"W	0.00	
10017.00†	90.000	179.188	6380.00	3572.43	-2328.56	-2977.56	40°18'45.861"N	104°24'27.859"W	0.00	
10117.00†	90.000	179.188	6380.00	3655.61	-2428.55	-2976.14	40°18'44.873"N	104°24'27.841"W	0.00	
10217.00†	90.000	179.188	6380.00	3738.80	-2528.54	-2974.72	40°18'43.885"N	104°24'27.823"W	0.00	
10317.00†	90.000	179.188	6380.00	3821.98	-2628.53	-2973.30	40°18'42.897"N	104°24'27.804"W	0.00	
10417.00†	90.000	179.188	6380.00	3905.17	-2728.52	-2971.89	40°18'41.909"N	104°24'27.786"W	0.00	
10517.00†	90.000	179.188	6380.00	3988.35	-2828.51	-2970.47	40°18'40.920"N	104°24'27.767"W	0.00	
10617.00†	90.000	179.188	6380.00	4071.53	-2928.50	-2969.05	40°18'39.932"N	104°24'27.749"W	0.00	
10717.00†	90.000	179.188	6380.00	4154.72	-3028.49	-2967.63	40°18'38.944"N	104°24'27.730"W	0.00	
10817.00†	90.000	179.188	6380.00	4237.90	-3128.48	-2966.22	40°18'37.956"N	104°24'27.712"W	0.00	
10917.00†	90.000	179.188	6380.00	4321.09	-3228.47	-2964.80	40°18'36.968"N	104°24'27.693"W	0.00	
11017.00†	90.000	179.188	6380.00	4404.27	-3328.46	-2963.38	40°18'35.980"N	104°24'27.675"W	0.00	
11117.00†	90.000	179.188	6380.00	4487.45	-3428.45	-2961.96	40°18'34.992"N	104°24'27.656"W	0.00	
11217.00†	90.000	179.188	6380.00	4570.64	-3528.44	-2960.55	40°18'34.004"N	104°24'27.638"W	0.00	
11317.00†	90.000	179.188	6380.00	4653.82	-3628.43	-2959.13	40°18'33.016"N	104°24'27.620"W	0.00	
11417.00†	90.000	179.188	6380.00	4737.01	-3728.42	-2957.71	40°18'32.028"N	104°24'27.601"W	0.00	





# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (129 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	179.188	6380.00	4820.19	-3828.41	-2956.29	40°18'31.040"N	104°24'27.583"W	0.00	
11617.00†	90.000	179.188	6380.00	4903.38	-3928.40	-2954.88	40°18'30.052"N	104°24'27.564"W	0.00	
11717.00†	90.000	179.188	6380.00	4986.56	-4028.39	-2953.46	40°18'29.064"N	104°24'27.546"W	0.00	
11817.00†	90.000	179.188	6380.00	5069.74	-4128.38	-2952.04	40°18'28.075"N	104°24'27.527"W	0.00	
11917.00†	90.000	179.188	6380.00	5152.93	-4228.37	-2950.62	40°18'27.087"N	104°24'27.509"W	0.00	
12017.00†	90.000	179.188	6380.00	5236.11	-4328.36	-2949.21	40°18'26.099"N	104°24'27.490"W	0.00	
12117.00†	90.000	179.188	6380.00	5319.30	-4428.35	-2947.79	40°18'25.111"N	104°24'27.472"W	0.00	
12217.00†	90.000	179.188	6380.00	5402.48	-4528.34	-2946.37	40°18'24.123"N	104°24'27.454"W	0.00	
12242.58	90.000	179.188	6380.00 <sup>2</sup>	5423.76	-4553.92	-2946.01	40°18'23.870"N	104°24'27.449"W	0.00	End of Tangent (XS)

## HOLE & CASING SECTIONS - Ref Wellbore: LATHAM 21-24-14HNC PWB Ref Wellpath: LATHAM 21-24-14HNC (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 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL & N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC 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	126.27	152.52	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM 21-24-14HNC BHL (470'FSL & 1957'FWL, SEC.14)	12242.58	6380.00	-4553.92	-2946.01	3304649.15	1356423.06	40°18'23.870"N	104°24'27.449"W	point
1) LATHAM 21-24-14HNC LP (260'FNL & 1969'FWL, SEC.14)	7713.33	6380.00	-25.12	-3010.21	3304528.63	1360950.51	40°19'08.623"N	104°24'28.285"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	0.10	-119.99	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon

## SURVEY PROGRAM - Ref Wellbore: LATHAM 21-24-14HNC PWB Ref Wellpath: LATHAM 21-24-14HNC (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 21-24-14HNC PWB
1550.00	12242.58	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM 21-24-14HNC PWB





# Planned Wellpath Report

LATHAM 21-24-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#18 LATHAM 21-24-14HNC (317'FNL &N 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM 21-24-14HNC
Field	WELD COUNTY	Wellbore	LATHAM 21-24-14HNC PWB
Facility	SEC.14-T4N-R63W		

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	281.838	17.00	Tie On
1550.00	0.000	281.838	1550.00	End of Tangent
3497.37	38.947	281.838	3350.83	End of Build (XS)
6734.20	38.947	281.838	5868.18	End of Tangent (XS)
7713.33	90.000	179.188	6380.00	End of 3D Arc (XS)
12242.58	90.000	179.188	6380.00	End of Tangent (XS)