



END OF WELL REPORT

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP
GITTLEIN 36-33HZ PAD
GITTLEIN 3C-28HZ
WELD COUNTY, COLORADO**

***Prepared By
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Rocky Mountain Region***

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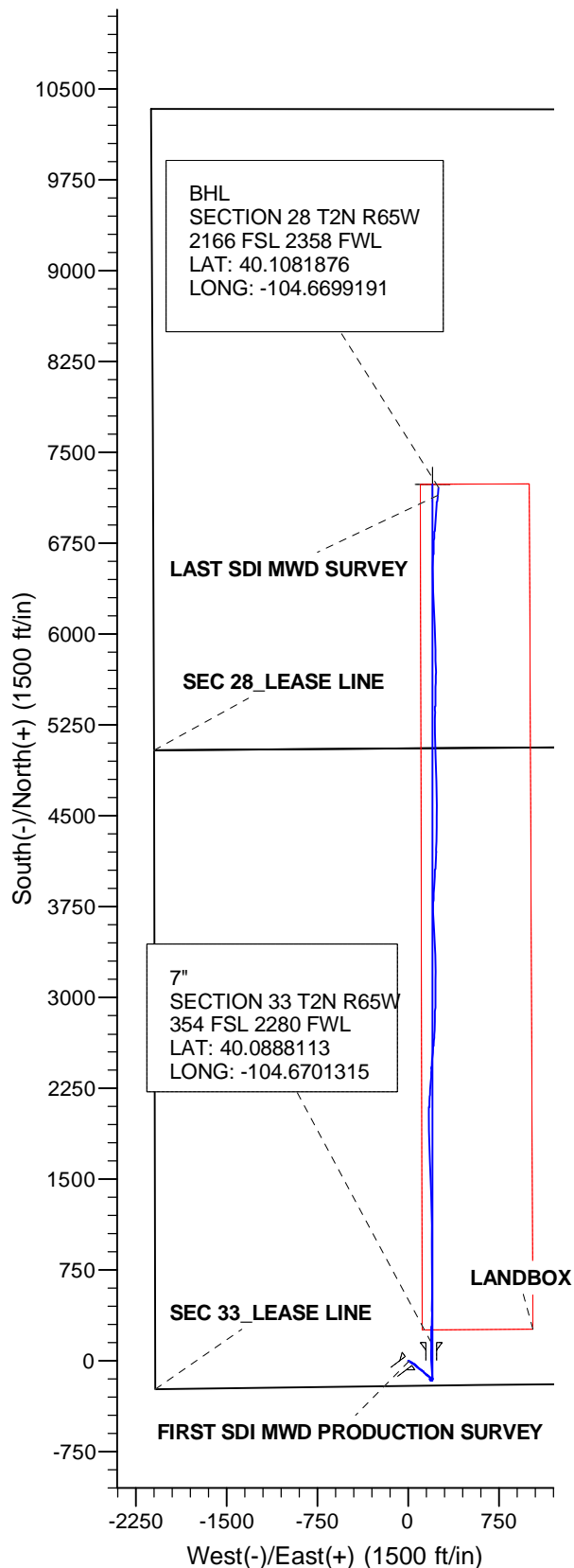
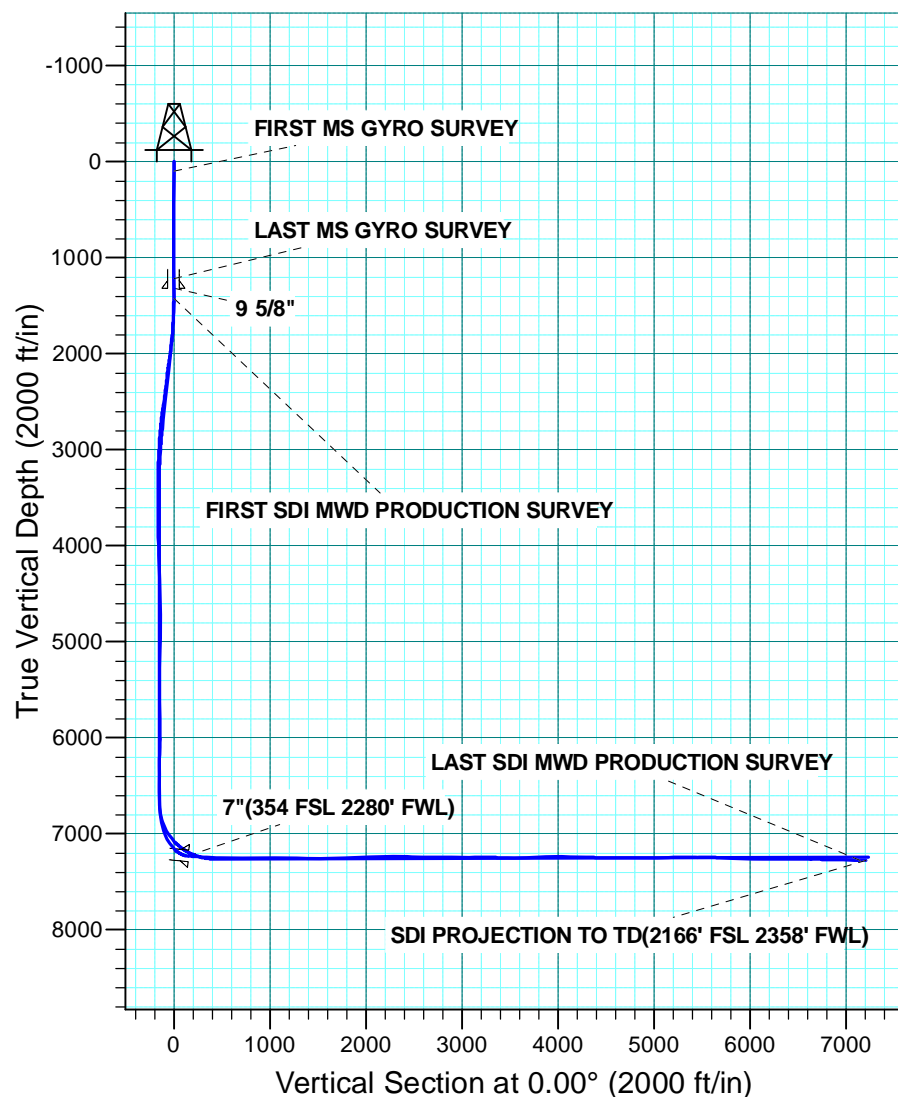
- 1. Directional Plot and Surveys**
- 2. Daily Drilling Reports**
- 3. BHA Summary Reports and Slide Sheets**
- 4. Graphical Job History**
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WELL DETAILS: GITTLEIN 3C-28HZ

GL 4911 & KB 25 @ 4936.00ft (HP 311)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1276131.26	3231994.40	40.0883939	-104.6708160

7" Casing is set
105' outside of the
Landbox.





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

GITTLEIN 36-33HZ PAD

GITTLEIN 3C-28HZ

OH

Design: OH

Standard Survey Report

14 October, 2013

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3C-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3C-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	GITTLEIN 36-33HZ PAD, SESW SEC 33 T2N R65W		
Site Position:		Northing:	1,276,114.66 usft
From:	Lat/Long	Easting:	3,231,969.38 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	40.0883490
		Longitude:	-104.6709060
		Grid Convergence:	0.54 °

Well	GITTLEIN 3C-28HZ, 207 FSL 2087 FWL		
Well Position	+N/-S	0.00 ft	Northing: 1,276,131.26 usft
	+E/-W	0.00 ft	Easting: 3,231,994.40 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40.0883940
		Longitude:	-104.6708160
		Ground Level:	4,911.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	9/26/2013	8.51	66.73	52,663

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		0.00

Survey Program	Date	10/14/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	1,220.00	Survey #1 MS GYRO SURVEY (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
1,421.00	14,456.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI_MWD+CRUST_1.0	SDI MWD + Crustal anomaly, Version 1.0	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.35	176.59	100.00	-0.30	0.02	-0.30	0.35	0.35	0.00	
FIRST MS GYRO SURVEY										
200.00	0.46	148.39	200.00	-0.95	0.25	-0.95	0.22	0.11	-28.20	
300.00	0.74	162.75	299.99	-1.91	0.65	-1.91	0.32	0.28	14.36	
400.00	0.34	181.01	399.99	-2.82	0.83	-2.82	0.43	-0.40	18.26	
500.00	0.50	154.34	499.98	-3.51	1.02	-3.51	0.25	0.16	-26.67	
600.00	0.37	183.31	599.98	-4.23	1.19	-4.23	0.25	-0.13	28.97	
700.00	0.37	123.86	699.98	-4.73	1.44	-4.73	0.37	0.00	-59.45	
800.00	0.20	70.19	799.98	-4.85	1.87	-4.85	0.30	-0.17	-53.67	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3C-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3C-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.00	0.29	23.76	899.98	-4.56	2.14	-4.56	0.21	0.09	-46.43
1,000.00	0.58	40.24	999.97	-3.94	2.57	-3.94	0.31	0.29	16.48
1,100.00	0.39	36.23	1,099.97	-3.28	3.09	-3.28	0.19	-0.19	-4.01
1,200.00	0.59	43.53	1,199.97	-2.63	3.65	-2.63	0.21	0.20	7.30
1,220.00	0.72	51.37	1,219.96	-2.48	3.82	-2.48	0.79	0.65	39.20
LAST MS GYRO SURVEY									
1,317.00	0.58	53.41	1,316.96	-1.81	4.69	-1.81	0.14	-0.14	2.11
9 5/8"									
1,421.00	0.44	57.00	1,420.96	-1.27	5.45	-1.27	0.14	-0.14	3.45
FIRST SDI MWD PRODUCTION SURVEY									
1,513.00	3.33	105.97	1,512.90	-1.82	8.32	-1.82	3.33	3.14	53.23
1,604.00	4.86	111.48	1,603.66	-3.95	14.45	-3.95	1.73	1.68	6.05
1,696.00	7.41	121.92	1,695.13	-8.52	23.11	-8.52	3.01	2.77	11.35
1,787.00	9.67	126.26	1,785.12	-16.14	34.26	-16.14	2.58	2.48	4.77
1,879.00	9.54	121.29	1,875.83	-24.67	47.00	-24.67	0.91	-0.14	-5.40
1,971.00	9.88	132.43	1,966.52	-33.96	59.34	-33.96	2.07	0.37	12.11
2,063.00	13.16	135.66	2,056.66	-46.78	72.49	-46.78	3.63	3.57	3.51
2,154.00	13.30	126.99	2,145.25	-60.49	88.09	-60.49	2.18	0.15	-9.53
2,246.00	11.52	119.36	2,235.10	-71.36	104.56	-71.36	2.63	-1.93	-8.29
2,338.00	9.96	128.83	2,325.49	-80.85	118.76	-80.85	2.55	-1.70	10.29
2,430.00	11.39	138.88	2,415.91	-92.69	130.94	-92.69	2.55	1.55	10.92
2,522.00	12.93	131.98	2,505.85	-106.42	144.56	-106.42	2.30	1.67	-7.50
2,613.00	12.58	126.66	2,594.60	-119.14	160.08	-119.14	1.35	-0.38	-5.85
2,705.00	10.69	127.34	2,684.71	-130.30	174.91	-130.30	2.06	-2.05	0.74
2,800.00	7.65	132.79	2,778.49	-139.94	186.55	-139.94	3.32	-3.20	5.74
2,894.00	5.79	127.28	2,871.84	-147.07	194.92	-147.07	2.09	-1.98	-5.86
2,989.00	4.23	152.13	2,966.48	-153.07	200.37	-153.07	2.78	-1.64	26.16
3,083.00	3.24	168.19	3,060.28	-158.73	202.53	-158.73	1.52	-1.05	17.09
3,177.00	1.58	215.43	3,154.20	-162.39	202.33	-162.39	2.61	-1.77	50.26
3,272.00	1.15	257.45	3,249.18	-163.66	200.64	-163.66	1.11	-0.45	44.23
3,366.00	0.99	256.21	3,343.16	-164.06	198.93	-164.06	0.17	-0.17	-1.32
3,460.00	1.14	246.18	3,437.15	-164.63	197.28	-164.63	0.25	0.16	-10.67
3,554.00	1.02	274.70	3,531.13	-164.94	195.59	-164.94	0.58	-0.13	30.34
3,649.00	1.46	265.96	3,626.11	-164.96	193.54	-164.96	0.50	0.46	-9.20
3,743.00	1.14	272.36	3,720.08	-165.01	191.42	-165.01	0.37	-0.34	6.81
3,838.00	2.06	283.09	3,815.05	-164.58	188.81	-164.58	1.01	0.97	11.29
3,932.00	1.48	315.76	3,909.00	-163.33	186.32	-163.33	1.21	-0.62	34.76
4,027.00	1.86	333.31	4,003.96	-161.07	184.77	-161.07	0.67	0.40	18.47
4,121.00	2.17	306.90	4,097.91	-158.64	182.66	-158.64	1.03	0.33	-28.10
4,215.00	1.94	337.40	4,191.85	-156.10	180.62	-156.10	1.17	-0.24	32.45
4,404.00	1.98	344.25	4,380.74	-150.01	178.51	-150.01	0.13	0.02	3.62
4,498.00	2.16	48.24	4,474.69	-147.26	179.39	-147.26	2.34	0.19	68.07
4,593.00	2.33	58.25	4,569.62	-145.05	182.37	-145.05	0.45	0.18	10.54
4,687.00	3.05	61.64	4,663.51	-142.86	186.19	-142.86	0.78	0.77	3.61

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Well:	GITTLEIN 3C-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,781.00	3.14	61.57	4,757.38	-140.45	190.66	-140.45	0.10	0.10	-0.07
4,876.00	1.56	133.39	4,852.31	-140.10	193.89	-140.10	3.20	-1.66	75.60
4,970.00	2.00	117.29	4,946.26	-141.73	196.27	-141.73	0.70	0.47	-17.13
5,064.00	2.11	113.72	5,040.20	-143.18	199.31	-143.18	0.18	0.12	-3.80
5,159.00	1.77	168.83	5,135.16	-145.32	201.20	-145.32	1.92	-0.36	58.01
5,253.00	1.76	200.99	5,229.11	-148.09	200.96	-148.09	1.04	-0.01	34.21
5,347.00	1.37	219.69	5,323.08	-150.30	199.73	-150.30	0.68	-0.41	19.89
5,442.00	0.81	244.52	5,418.06	-151.47	198.40	-151.47	0.76	-0.59	26.14
5,536.00	2.08	295.81	5,512.03	-151.01	196.26	-151.01	1.80	1.35	54.56
5,630.00	2.30	290.92	5,605.97	-149.59	192.97	-149.59	0.31	0.23	-5.20
5,725.00	1.60	25.08	5,700.93	-147.71	191.75	-147.71	3.05	-0.74	99.12
5,819.00	1.45	42.10	5,794.90	-145.64	193.10	-145.64	0.51	-0.16	18.11
5,914.00	1.56	41.60	5,889.86	-143.78	194.76	-143.78	0.12	0.12	-0.53
6,008.00	1.50	90.29	5,983.83	-142.83	196.84	-142.83	1.34	-0.06	51.80
6,102.00	2.17	155.41	6,077.79	-144.46	198.82	-144.46	2.19	0.71	69.28
6,197.00	1.76	143.05	6,172.74	-147.26	200.44	-147.26	0.62	-0.43	-13.01
6,291.00	1.62	147.17	6,266.70	-149.53	202.03	-149.53	0.20	-0.15	4.38
6,386.00	0.78	153.08	6,361.68	-151.23	203.05	-151.23	0.89	-0.88	6.22
6,480.00	0.55	187.98	6,455.67	-152.25	203.28	-152.25	0.48	-0.24	37.13
6,575.00	0.39	189.24	6,550.67	-153.02	203.16	-153.02	0.17	-0.17	1.33
6,622.00	0.64	173.62	6,597.66	-153.44	203.17	-153.44	0.61	0.53	-33.23
6,669.00	0.29	174.22	6,644.66	-153.82	203.21	-153.82	0.74	-0.74	1.28
6,714.00	2.57	351.54	6,689.65	-152.93	203.07	-152.93	6.35	5.07	394.05
6,763.00	4.37	337.69	6,738.56	-150.12	202.20	-150.12	4.03	3.67	-28.27
6,857.00	10.03	357.14	6,831.79	-138.62	200.43	-138.62	6.47	6.02	20.69
6,952.00	15.74	0.22	6,924.36	-117.45	200.07	-117.45	6.05	6.01	3.24
6,997.00	18.88	357.04	6,967.32	-104.08	199.71	-104.08	7.29	6.98	-7.07
7,046.00	20.95	354.37	7,013.39	-87.44	198.44	-87.44	4.61	4.22	-5.45
7,093.00	25.15	351.10	7,056.63	-69.20	196.07	-69.20	9.34	8.94	-6.96
7,140.00	32.04	353.79	7,097.87	-46.91	193.18	-46.91	14.91	14.66	5.72
7,235.00	47.86	358.34	7,170.48	13.75	189.41	13.75	16.92	16.65	4.79
7,329.00	69.75	2.14	7,218.89	93.64	190.05	93.64	23.54	23.29	4.04
7,338.00	72.50	2.27	7,221.80	102.15	190.38	102.15	30.59	30.56	1.44
7,389.00	84.37	0.39	7,232.01	152.01	191.52	152.01	23.55	23.27	-3.69
7"(354 FSL 2280' FWL)									
7,400.00	86.93	0.00	7,232.84	162.98	191.56	162.98	23.55	23.28	-3.54
7,488.00	85.51	2.60	7,238.64	250.75	193.55	250.75	3.36	-1.61	2.95
7,617.00	87.89	1.55	7,246.07	379.44	198.21	379.44	2.02	1.84	-0.81
7,709.00	88.53	0.43	7,248.94	471.38	199.80	471.38	1.40	0.70	-1.22
7,801.00	89.33	359.71	7,250.66	563.37	199.91	563.37	1.17	0.87	-0.78
7,892.00	89.66	359.17	7,251.46	654.36	199.02	654.36	0.70	0.36	-0.59
7,982.00	90.91	0.15	7,251.01	744.35	198.48	744.35	1.76	1.39	1.09
8,073.00	89.87	359.64	7,250.40	835.35	198.32	835.35	1.27	-1.14	-0.56

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,164.00	90.61	0.14	7,250.01	926.35	198.14	926.35	0.98	0.81	0.55
8,256.00	89.53	0.33	7,249.90	1,018.34	198.52	1,018.34	1.19	-1.17	0.21
8,348.00	89.50	358.90	7,250.68	1,110.34	197.90	1,110.34	1.55	-0.03	-1.55
8,439.00	89.09	358.79	7,251.80	1,201.31	196.07	1,201.31	0.47	-0.45	-0.12
8,531.00	88.86	358.47	7,253.45	1,293.27	193.87	1,293.27	0.43	-0.25	-0.35
8,622.00	88.89	356.92	7,255.23	1,384.18	190.21	1,384.18	1.70	0.03	-1.70
8,714.00	90.64	359.46	7,255.61	1,476.12	187.30	1,476.12	3.35	1.90	2.76
8,805.00	90.61	358.55	7,254.62	1,567.10	185.72	1,567.10	1.00	-0.03	-1.00
8,897.00	90.67	356.75	7,253.59	1,659.01	181.95	1,659.01	1.96	0.07	-1.96
8,989.00	91.91	356.96	7,251.52	1,750.85	176.91	1,750.85	1.37	1.35	0.23
9,080.00	92.57	359.36	7,247.96	1,841.72	173.99	1,841.72	2.73	0.73	2.64
9,172.00	91.53	358.09	7,244.67	1,933.64	171.94	1,933.64	1.78	-1.13	-1.38
9,264.00	91.08	1.29	7,242.57	2,025.60	171.44	2,025.60	3.51	-0.49	3.48
9,355.00	92.41	3.29	7,239.80	2,116.48	175.08	2,116.48	2.64	1.46	2.20
9,447.00	90.37	4.18	7,237.57	2,208.25	181.07	2,208.25	2.42	-2.22	0.97
9,539.00	89.43	3.85	7,237.73	2,300.02	187.51	2,300.02	1.08	-1.02	-0.36
9,631.00	89.80	2.91	7,238.35	2,391.86	192.93	2,391.86	1.10	0.40	-1.02
9,723.00	88.59	5.00	7,239.64	2,483.63	199.28	2,483.63	2.62	-1.32	2.27
9,815.00	89.12	5.58	7,241.48	2,575.22	207.76	2,575.22	0.85	0.58	0.63
9,906.00	89.27	3.39	7,242.76	2,665.92	214.87	2,665.92	2.41	0.16	-2.41
10,001.00	89.49	2.74	7,243.79	2,760.78	219.95	2,760.78	0.72	0.23	-0.68
10,096.00	89.90	1.46	7,244.29	2,855.71	223.43	2,855.71	1.41	0.43	-1.35
10,190.00	89.70	1.61	7,244.62	2,949.68	225.95	2,949.68	0.27	-0.21	0.16
10,284.00	90.10	1.10	7,244.79	3,043.65	228.17	3,043.65	0.69	0.43	-0.54
10,379.00	90.74	358.95	7,244.09	3,138.64	228.21	3,138.64	2.36	0.67	-2.26
10,473.00	89.56	359.94	7,243.84	3,232.64	227.30	3,232.64	1.64	-1.26	1.05
10,567.00	88.59	359.32	7,245.36	3,326.62	226.70	3,326.62	1.22	-1.03	-0.66
10,662.00	87.24	356.60	7,248.82	3,421.49	223.32	3,421.49	3.19	-1.42	-2.86
10,756.00	90.27	355.42	7,250.86	3,515.22	216.78	3,515.22	3.46	3.22	-1.26
10,850.00	92.49	356.97	7,248.60	3,608.98	210.54	3,608.98	2.88	2.36	1.65
10,945.00	92.58	0.35	7,244.39	3,703.85	208.33	3,703.85	3.56	0.09	3.56
11,039.00	92.71	1.83	7,240.05	3,797.73	210.11	3,797.73	1.58	0.14	1.57
11,134.00	91.47	3.49	7,236.59	3,892.56	214.52	3,892.56	2.18	-1.31	1.75
11,228.00	90.03	3.75	7,235.36	3,986.36	220.45	3,986.36	1.56	-1.53	0.28
11,322.00	88.05	2.99	7,236.93	4,080.18	225.98	4,080.18	2.26	-2.11	-0.81
11,417.00	88.09	3.18	7,240.13	4,174.99	231.09	4,174.99	0.20	0.04	0.20
11,511.00	88.45	1.31	7,242.97	4,268.87	234.77	4,268.87	2.03	0.38	-1.99
11,605.00	88.19	0.94	7,245.73	4,362.81	236.61	4,362.81	0.48	-0.28	-0.39
11,700.00	87.48	0.94	7,249.32	4,457.73	238.17	4,457.73	0.75	-0.75	0.00
11,794.00	89.60	0.26	7,251.71	4,551.68	239.15	4,551.68	2.37	2.26	-0.72
11,889.00	89.90	359.02	7,252.13	4,646.68	238.56	4,646.68	1.34	0.32	-1.31
11,983.00	90.94	358.71	7,251.44	4,740.66	236.69	4,740.66	1.15	1.11	-0.33
12,077.00	89.13	358.96	7,251.38	4,834.63	234.78	4,834.63	1.94	-1.93	0.27

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3C-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3C-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,172.00	89.76	357.98	7,252.30	4,929.59	232.25	4,929.59	1.23	0.66	-1.03
12,267.00	92.31	357.35	7,250.58	5,024.49	228.38	5,024.49	2.76	2.68	-0.66
12,361.00	92.19	358.10	7,246.89	5,118.34	224.65	5,118.34	0.81	-0.13	0.80
12,455.00	91.04	359.67	7,244.24	5,212.28	222.82	5,212.28	2.07	-1.22	1.67
12,550.00	89.59	0.87	7,243.72	5,307.28	223.27	5,307.28	1.98	-1.53	1.26
12,644.00	90.10	1.21	7,243.98	5,401.26	224.97	5,401.26	0.65	0.54	0.36
12,738.00	88.56	0.64	7,245.08	5,495.24	226.49	5,495.24	1.75	-1.64	-0.61
12,833.00	90.51	1.22	7,245.85	5,590.22	228.03	5,590.22	2.14	2.05	0.61
12,927.00	87.41	0.69	7,247.55	5,684.18	229.60	5,684.18	3.35	-3.30	-0.56
13,022.00	87.48	358.73	7,251.79	5,779.08	229.12	5,779.08	2.06	0.07	-2.06
13,116.00	87.00	358.70	7,256.31	5,872.95	227.01	5,872.95	0.51	-0.51	-0.03
13,210.00	87.19	358.44	7,261.08	5,966.80	224.67	5,966.80	0.34	0.20	-0.28
13,305.00	89.10	357.92	7,264.15	6,061.69	221.66	6,061.69	2.08	2.01	-0.55
13,399.00	89.56	357.40	7,265.25	6,155.61	217.82	6,155.61	0.74	0.49	-0.55
13,494.00	90.74	356.27	7,265.00	6,250.46	212.57	6,250.46	1.72	1.24	-1.19
13,588.00	91.20	358.02	7,263.41	6,344.33	207.89	6,344.33	1.92	0.49	1.86
13,682.00	90.13	359.94	7,262.32	6,438.30	206.22	6,438.30	2.34	-1.14	2.04
13,776.00	89.36	0.60	7,262.74	6,532.30	206.66	6,532.30	1.08	-0.82	0.70
13,871.00	88.72	2.25	7,264.33	6,627.25	209.02	6,627.25	1.86	-0.67	1.74
13,965.00	89.36	1.41	7,265.91	6,721.19	212.03	6,721.19	1.12	0.68	-0.89
14,059.00	88.99	3.80	7,267.26	6,815.07	216.30	6,815.07	2.57	-0.39	2.54
14,153.00	87.59	5.42	7,270.06	6,908.72	223.85	6,908.72	2.28	-1.49	1.72
14,247.00	88.36	4.37	7,273.39	7,002.32	231.86	7,002.32	1.38	0.82	-1.12
14,342.00	88.86	5.51	7,275.69	7,096.94	240.04	7,096.94	1.31	0.53	1.20
14,394.00	88.49	5.43	7,276.89	7,148.68	245.00	7,148.68	0.73	-0.71	-0.15
LAST SDI MWD PRODUCTION SURVEY									
14,456.00	88.49	5.43	7,278.53	7,210.38	250.86	7,210.38	0.00	0.00	0.00
SDI PROJECTION TO TD(2166' FSL 2358' FWL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_GITTLEIN 3C-28H	0.00	0.00	7,246.00	7,236.42	201.67	1,283,369.23	3,232,128.40	40.1082590	-104.6700950
- hit/miss target									
- Shape									
- actual wellpath misses target center by 64.46ft at 14456.00ft MD (7278.53 TVD, 7210.38 N, 250.86 E)									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,317.00	1,316.96	9 5/8"	9.625	12.250	
7,389.00	7,232.01	7"(354 FSL 2280' FWL)	7.000	7.500	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3C-28HZ
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Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3C-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	-0.30	0.02	FIRST MS GYRO SURVEY
1,220.00	1,219.96	-2.48	3.82	LAST MS GYRO SURVEY
1,421.00	1,420.96	-1.27	5.45	FIRST SDI MWD PRODUCTION SURVEY
14,394.00	7,276.89	7,148.68	245.00	LAST SDI MWD PRODUCTION SURVEY
14,456.00	7,278.53	7,210.38	250.86	SDI PROJECTION TO TD(2166' FSL 2358' FWL)

Checked By: _____ Approved By: _____ Date: _____