

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☒ AMENDED REPORT
"AS DRILLED PLAT"

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35900	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 318434	⁵ Property Name SAN JUAN 32-7 UNIT	⁶ Well Number 248H
⁷ GRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY	⁹ Elevation 6418'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	7	32N	7W	3	1193	NORTH	2650	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	8	32N	7W	4	1281	NORTH	831	WEST	SAN JUAN

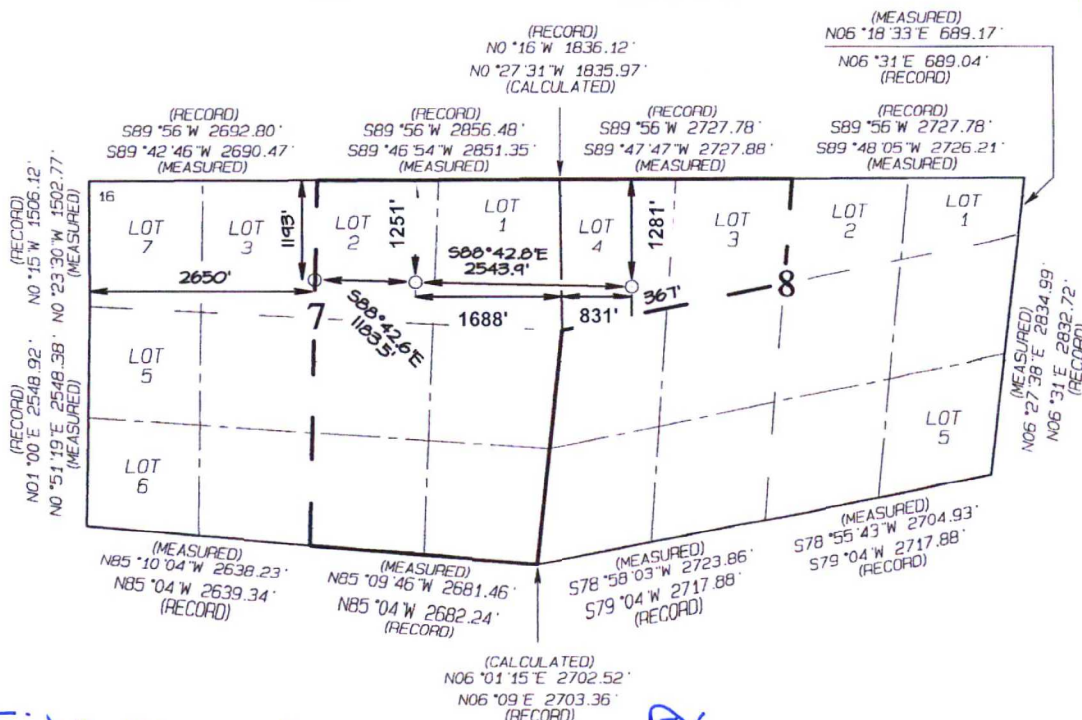
¹² Dedicated Acres 238.23	W/2 - Section 7 NW/4 - Section 8	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION
1193' FNL 2650' FWL
SEC 7, T32N, R7W
LAT: 36.996682°N
LONG: 107.608403°W
DATUM: NAD1927
LAT: 36.996686°N
LONG: 107.609014°W
DATUM: NAD1983

FIRST TAKE POINT
1251' FNL 1688' FEL
SEC 7, T32N, R7W
Lat: 36.9965229 N
Long: -107.6040572 W
Datum: NAD1927
Lat: 36.996527 N
Long: -107.604668 W
Datum: NAD1983

BOTTOM HOLE LOCATION
1281' FNL 831' FWL
SEC 8, T32N, R7W
Lat: 36.996454 N
Long: -107.595645 W
Datum: NAD1927
Lat: 36.996458 N
Long: -107.596255 W
Datum: NAD1983



NMOC
JUL 12 2019
DISTRICT
DISTRICT

¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or an undivided mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
Signature: *Amanda Walker* Date: 7/12/2019
Printed Name: Amanda Walker
E-mail Address: mwalker@hilcorp.com

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Date Revised: APRIL 9, 2019
Survey Date: SEPTEMBER 1, 2018

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

File corrected plat
to show correct acreage dedication for Sect. 7



Hilcorp Energy Corp.

San Juan, NM NAD27 (GRID NORTH)

San Juan 32-7

San Juan 32-7 Unit 248H

OH

Design: OH

Survey Report - Geographic

12 July, 2019



www.scientificdrilling.com





Scientific Drilling, Intl

Survey Report - Geographic



Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well San Juan 32-7 Unit 248H
Project:	San Juan, NM NAD27 (GRID NORTH)	TVD Reference:	GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
Site:	San Juan 32-7	MD Reference:	GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
Well:	San Juan 32-7 Unit 248H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	San Juan, NM NAD27 (GRID NORTH)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	San Juan 32-7				
Site Position:		Northing:	2,182,139.31 usft	Latitude:	36.9966820
From:	Map	Easting:	565,685.99 usft	Longitude:	-107.6084030
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.14 °

Well	San Juan 32-7 Unit 248H					
Well Position	+N/-S	0.00 usft	Northing:	2,182,139.31 usft	Latitude:	36.996682
	+E/-W	0.00 usft	Easting:	565,685.99 usft	Longitude:	-107.608403
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,418.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/1/2019	8.92	63.48	49,843

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	91.287	

Survey Program	Date 7/10/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
626.00	1,857.00	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM
1,888.00	3,766.00	Survey #2 - Curve MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM
3,797.00	6,256.00	Survey #3 - Lateral MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.000	0.00	0.00	0.00	2,182,139.31	565,685.99	36.9966820	-107.6084030	
626.00	1.85	198.010	625.89	-9.61	-3.12	2,182,129.70	565,682.87	36.9966556	-107.6084138	
686.00	2.17	197.760	685.85	-11.61	-3.77	2,182,127.70	565,682.22	36.9966501	-107.6084160	
747.00	2.33	197.220	746.81	-13.90	-4.49	2,182,125.41	565,681.50	36.9966438	-107.6084185	
808.00	2.37	199.860	807.76	-16.27	-5.29	2,182,123.04	565,680.71	36.9966373	-107.6084213	
868.00	2.48	198.710	867.70	-18.66	-6.12	2,182,120.64	565,679.87	36.9966307	-107.6084241	
929.00	2.76	199.530	928.64	-21.30	-7.04	2,182,118.01	565,678.96	36.9966235	-107.6084273	
989.00	2.86	199.350	988.57	-24.07	-8.02	2,182,115.24	565,677.98	36.9966159	-107.6084307	
1,049.00	2.88	199.380	1,048.49	-26.91	-9.01	2,182,112.40	565,676.98	36.9966081	-107.6084341	
1,110.00	3.05	200.540	1,109.41	-29.87	-10.09	2,182,109.44	565,675.90	36.9966000	-107.6084378	



Scientific Drilling, Intl

Survey Report - Geographic

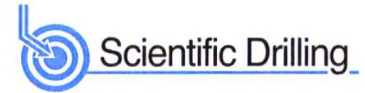


Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well San Juan 32-7 Unit 248H
Project:	San Juan, NM NAD27 (GRID NORTH)	TVD Reference:	GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
Site:	San Juan 32-7	MD Reference:	GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
Well:	San Juan 32-7 Unit 248H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,171.00	3.18	200.890	1,170.32	-32.97	-11.26	2,182,106.34	565,674.73	36.9965915	-107.6084419
1,231.00	3.32	204.600	1,230.22	-36.11	-12.58	2,182,103.20	565,673.41	36.9965829	-107.6084464
1,291.00	3.09	191.970	1,290.13	-39.27	-13.64	2,182,100.04	565,672.35	36.9965742	-107.6084500
1,354.00	2.97	182.280	1,353.04	-42.56	-14.06	2,182,096.75	565,671.94	36.9965652	-107.6084515
1,417.00	3.12	183.400	1,415.95	-45.90	-14.22	2,182,093.41	565,671.77	36.9965560	-107.6084521
1,480.00	3.23	184.910	1,478.86	-49.38	-14.48	2,182,089.93	565,671.52	36.9965464	-107.6084530
1,543.00	3.41	186.320	1,541.75	-53.01	-14.83	2,182,086.30	565,671.16	36.9965365	-107.6084543
1,605.00	3.45	187.330	1,603.64	-56.70	-15.27	2,182,082.61	565,670.72	36.9965263	-107.6084558
1,668.00	3.37	189.340	1,666.53	-60.40	-15.82	2,182,078.91	565,670.18	36.9965162	-107.6084577
1,731.00	3.59	180.850	1,729.41	-64.20	-16.15	2,182,075.11	565,669.85	36.9965057	-107.6084588
1,762.00	4.19	168.630	1,760.34	-66.28	-15.94	2,182,073.03	565,670.05	36.9965000	-107.6084581
1,794.00	5.03	160.130	1,792.24	-68.75	-15.23	2,182,070.56	565,670.76	36.9964932	-107.6084557
1,826.00	5.80	145.720	1,824.10	-71.40	-13.84	2,182,067.90	565,672.15	36.9964859	-107.6084510
1,857.00	6.51	139.040	1,854.92	-74.03	-11.81	2,182,065.28	565,674.18	36.9964787	-107.6084441
1,888.00	7.65	130.420	1,885.68	-76.69	-9.09	2,182,062.62	565,676.91	36.9964714	-107.6084348
1,920.00	8.92	125.610	1,917.35	-79.52	-5.45	2,182,059.79	565,680.55	36.9964636	-107.6084223
1,983.00	10.82	113.640	1,979.42	-84.73	3.94	2,182,054.58	565,689.94	36.9964492	-107.6083902
2,014.00	11.52	115.480	2,009.83	-87.23	9.40	2,182,052.08	565,695.40	36.9964423	-107.6083715
2,046.00	12.57	114.310	2,041.13	-90.04	15.46	2,182,049.27	565,701.45	36.9964346	-107.6083508
2,078.00	14.49	113.870	2,072.24	-93.09	22.30	2,182,046.22	565,708.29	36.9964261	-107.6083274
2,109.00	15.88	114.780	2,102.15	-96.44	29.69	2,182,042.87	565,715.69	36.9964169	-107.6083021
2,140.00	17.23	113.900	2,131.87	-100.08	37.74	2,182,039.23	565,723.73	36.9964068	-107.6082746
2,171.00	18.35	113.820	2,161.39	-103.91	46.40	2,182,035.40	565,732.40	36.9963963	-107.6082450
2,202.00	19.61	107.750	2,190.70	-107.47	55.82	2,182,031.84	565,741.82	36.9963864	-107.6082127
2,233.00	21.24	104.670	2,219.75	-110.47	66.21	2,182,028.83	565,752.20	36.9963781	-107.6081772
2,264.00	23.04	101.680	2,248.47	-113.13	77.59	2,182,026.18	565,763.58	36.9963707	-107.6081383
2,295.00	24.20	99.590	2,276.87	-115.41	89.79	2,182,023.90	565,775.78	36.9963644	-107.6080965
2,327.00	25.25	96.770	2,305.94	-117.31	103.04	2,182,022.00	565,789.03	36.9963591	-107.6080511
2,358.00	26.09	94.510	2,333.88	-118.62	116.40	2,182,020.68	565,802.39	36.9963554	-107.6080054
2,390.00	27.58	93.060	2,362.43	-119.57	130.81	2,182,019.74	565,816.80	36.9963527	-107.6079561
2,422.00	29.50	92.350	2,390.54	-120.29	146.08	2,182,019.02	565,832.08	36.9963506	-107.6079038
2,453.00	32.20	90.170	2,417.15	-120.63	161.97	2,182,018.68	565,847.96	36.9963496	-107.6078494
2,485.00	34.12	89.110	2,443.94	-120.52	179.47	2,182,018.79	565,865.47	36.9963498	-107.6077894
2,516.00	35.20	88.070	2,469.44	-120.08	197.10	2,182,019.23	565,883.09	36.9963509	-107.6077291
2,547.00	36.19	86.990	2,494.62	-119.30	215.17	2,182,020.01	565,901.16	36.9963529	-107.6076672
2,578.00	37.64	87.060	2,519.40	-118.33	233.76	2,182,020.98	565,919.75	36.9963554	-107.6076035
2,610.00	39.01	87.120	2,544.50	-117.32	253.58	2,182,021.98	565,939.57	36.9963581	-107.6075357
2,642.00	40.09	86.650	2,569.18	-116.22	273.92	2,182,023.09	565,959.92	36.9963610	-107.6074660
2,673.00	40.41	87.030	2,592.84	-115.11	293.92	2,182,024.20	565,979.92	36.9963639	-107.6073975
2,704.00	41.65	87.690	2,616.22	-114.18	314.25	2,182,025.13	566,000.24	36.9963663	-107.6073279
2,736.00	43.54	87.740	2,639.78	-113.31	335.89	2,182,026.00	566,021.88	36.9963685	-107.6072538
2,766.00	45.09	88.440	2,661.24	-112.62	356.84	2,182,026.69	566,042.83	36.9963703	-107.6071820
2,798.00	46.22	88.580	2,683.61	-112.02	379.71	2,182,027.29	566,065.71	36.9963718	-107.6071037
2,829.00	47.19	88.970	2,704.87	-111.54	402.27	2,182,027.77	566,088.26	36.9963730	-107.6070264
2,861.00	48.42	88.650	2,726.36	-111.05	425.97	2,182,028.26	566,111.97	36.9963742	-107.6069453
2,892.00	49.39	88.540	2,746.74	-110.47	449.33	2,182,028.83	566,135.32	36.9963756	-107.6068653
2,923.00	50.16	87.440	2,766.76	-109.64	472.98	2,182,029.67	566,158.97	36.9963777	-107.6067843
2,955.00	50.95	86.220	2,787.09	-108.27	497.65	2,182,031.03	566,183.65	36.9963813	-107.6066998
2,986.00	51.44	84.990	2,806.52	-106.42	521.74	2,182,032.89	566,207.73	36.9963863	-107.6066173
3,017.00	52.21	83.850	2,825.68	-104.05	545.99	2,182,035.26	566,231.99	36.9963926	-107.6065342
3,049.00	53.30	83.360	2,845.04	-101.21	571.31	2,182,038.09	566,257.30	36.9964002	-107.6064475
3,080.00	54.69	82.790	2,863.27	-98.19	596.20	2,182,041.12	566,282.19	36.9964084	-107.6063623
3,112.00	56.07	82.760	2,881.45	-94.88	622.33	2,182,044.43	566,308.32	36.9964173	-107.6062728
3,143.00	57.96	82.060	2,898.32	-91.44	648.10	2,182,047.87	566,334.09	36.9964266	-107.6061845
3,174.00	59.93	82.120	2,914.31	-87.79	674.40	2,182,051.52	566,360.39	36.9964364	-107.6060944



Scientific Drilling, Intl
Survey Report - Geographic



Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27 (GRID NORTH)
Site: San Juan 32-7
Well: San Juan 32-7 Unit 248H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
TVD Reference: GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
MD Reference: GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,205.00	61.08	82.870	2,929.58	-84.26	701.15	2,182,055.05	566,387.15	36.9964459	-107.6060028
3,236.00	61.83	83.910	2,944.39	-81.13	728.20	2,182,058.18	566,414.20	36.9964544	-107.6059101
3,267.00	63.48	86.220	2,958.63	-78.77	755.63	2,182,060.54	566,441.63	36.9964607	-107.6058162
3,300.00	66.07	87.080	2,972.69	-77.02	785.43	2,182,062.29	566,471.43	36.9964653	-107.6057141
3,331.00	68.59	87.640	2,984.64	-75.71	814.01	2,182,063.60	566,500.00	36.9964687	-107.6056162
3,362.00	70.81	87.370	2,995.40	-74.44	843.05	2,182,064.87	566,529.04	36.9964720	-107.6055168
3,393.00	72.46	87.910	3,005.16	-73.23	872.45	2,182,066.08	566,558.44	36.9964751	-107.6054161
3,425.00	73.84	87.440	3,014.44	-71.99	903.05	2,182,067.32	566,589.04	36.9964783	-107.6053113
3,456.00	76.55	87.440	3,022.36	-70.65	932.98	2,182,068.66	566,618.98	36.9964818	-107.6052088
3,488.00	76.92	86.930	3,029.70	-69.12	964.09	2,182,070.19	566,650.08	36.9964858	-107.6051023
3,519.00	77.02	86.910	3,036.69	-67.50	994.25	2,182,071.81	566,680.24	36.9964901	-107.6049990
3,542.00	77.17	86.900	3,041.83	-66.29	1,016.64	2,182,073.02	566,702.63	36.9964933	-107.6049223
3,578.00	78.19	85.970	3,049.51	-64.10	1,051.74	2,182,075.21	566,737.73	36.9964990	-107.6048021
3,609.00	80.04	86.250	3,055.36	-62.03	1,082.11	2,182,077.27	566,768.10	36.9965045	-107.6046981
3,641.00	82.66	87.670	3,060.17	-60.36	1,113.70	2,182,078.95	566,799.69	36.9965089	-107.6045899
3,672.00	84.38	88.160	3,063.67	-59.24	1,144.48	2,182,080.07	566,830.47	36.9965118	-107.6044845
3,703.00	86.37	88.400	3,066.17	-58.31	1,175.36	2,182,081.00	566,861.35	36.9965141	-107.6043787
3,734.00	88.35	88.190	3,067.60	-57.39	1,206.31	2,182,081.92	566,892.31	36.9965164	-107.6042727
3,766.00	89.46	87.770	3,068.21	-56.26	1,238.29	2,182,083.05	566,924.28	36.9965193	-107.6041632
3,797.00	90.81	87.150	3,068.14	-54.89	1,269.26	2,182,084.42	566,955.25	36.9965229	-107.6040572
3,829.00	91.14	86.970	3,067.59	-53.25	1,301.21	2,182,086.06	566,987.20	36.9965272	-107.6039477
3,860.00	91.38	86.550	3,066.91	-51.49	1,332.15	2,182,087.81	567,018.14	36.9965318	-107.6038418
3,923.00	91.64	87.130	3,065.25	-48.02	1,395.03	2,182,091.29	567,081.03	36.9965409	-107.6036264
3,986.00	91.31	87.530	3,063.63	-45.09	1,457.94	2,182,094.22	567,143.94	36.9965486	-107.6034110
4,048.00	91.01	87.070	3,062.38	-42.17	1,519.86	2,182,097.14	567,205.85	36.9965562	-107.6031989
4,111.00	89.46	88.350	3,062.12	-39.65	1,582.81	2,182,099.66	567,268.80	36.9965627	-107.6029833
4,174.00	88.92	90.450	3,063.01	-38.99	1,645.79	2,182,100.32	567,331.79	36.9965641	-107.6027677
4,236.00	89.06	91.190	3,064.10	-39.88	1,707.78	2,182,099.43	567,393.77	36.9965612	-107.6025554
4,298.00	89.26	91.690	3,065.01	-41.44	1,769.75	2,182,097.87	567,455.74	36.9965565	-107.6023432
4,361.00	89.93	92.970	3,065.46	-44.00	1,832.70	2,182,095.31	567,518.69	36.9965491	-107.6021277
4,424.00	90.20	92.620	3,065.38	-47.07	1,895.62	2,182,092.24	567,581.61	36.9965402	-107.6019122
4,487.00	90.50	92.060	3,065.00	-49.64	1,958.57	2,182,089.67	567,644.56	36.9965327	-107.6016967
4,550.00	90.94	92.250	3,064.21	-52.01	2,021.52	2,182,087.30	567,707.51	36.9965258	-107.6014812
4,613.00	91.24	92.520	3,063.01	-54.63	2,084.45	2,182,084.68	567,770.44	36.9965182	-107.6012657
4,676.00	89.87	93.350	3,062.40	-57.86	2,147.36	2,182,081.45	567,833.36	36.9965089	-107.6010503
4,739.00	90.40	94.160	3,062.25	-61.98	2,210.23	2,182,077.32	567,896.22	36.9964971	-107.6008351
4,801.00	90.74	94.040	3,061.63	-66.42	2,272.07	2,182,072.89	567,958.06	36.9964845	-107.6006233
4,864.00	90.47	92.020	3,060.97	-69.75	2,334.97	2,182,069.56	568,020.96	36.9964750	-107.6004080
4,927.00	90.03	90.880	3,060.69	-71.34	2,397.95	2,182,067.97	568,083.94	36.9964702	-107.6001923
4,990.00	88.82	90.110	3,061.33	-71.88	2,460.94	2,182,067.42	568,146.93	36.9964683	-107.5999766
5,053.00	88.83	89.670	3,062.62	-71.76	2,523.93	2,182,067.54	568,209.92	36.9964682	-107.5997609
5,116.00	88.12	88.950	3,064.29	-71.01	2,586.90	2,182,068.30	568,272.89	36.9964698	-107.5995453
5,179.00	88.72	88.690	3,066.03	-69.71	2,649.86	2,182,069.60	568,335.86	36.9964730	-107.5993297
5,241.00	89.76	88.420	3,066.85	-68.15	2,711.84	2,182,071.16	568,397.83	36.9964768	-107.5991175
5,304.00	89.76	88.150	3,067.12	-66.26	2,774.81	2,182,073.05	568,460.80	36.9964816	-107.5989018
5,367.00	89.76	87.230	3,067.38	-63.72	2,837.76	2,182,075.59	568,523.75	36.9964881	-107.5986862
5,430.00	87.92	86.890	3,068.66	-60.49	2,900.66	2,182,078.82	568,586.65	36.9964966	-107.5984708
5,493.00	87.01	88.550	3,071.44	-57.99	2,963.54	2,182,081.32	568,649.54	36.9965030	-107.5982555
5,556.00	86.67	89.500	3,074.92	-56.92	3,026.44	2,182,082.39	568,712.43	36.9965056	-107.5980401
5,619.00	87.48	89.530	3,078.13	-56.38	3,089.35	2,182,082.93	568,775.34	36.9965066	-107.5978246
5,682.00	88.22	90.950	3,080.49	-56.65	3,152.31	2,182,082.66	568,838.30	36.9965054	-107.5976091
5,744.00	88.22	92.270	3,082.42	-58.39	3,214.25	2,182,080.92	568,900.24	36.9965002	-107.5973970
5,807.00	89.50	91.490	3,083.67	-60.45	3,277.20	2,182,078.85	568,963.19	36.9964941	-107.5971814
5,870.00	90.30	91.090	3,083.78	-61.87	3,340.18	2,182,077.44	569,026.18	36.9964898	-107.5969658
5,933.00	90.97	91.190	3,083.09	-63.13	3,403.17	2,182,076.18	569,089.16	36.9964859	-107.5967501



Scientific Drilling, Intl
Survey Report - Geographic



Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27 (GRID NORTH)
Site: San Juan 32-7
Well: San Juan 32-7 Unit 248H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
TVD Reference: GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
MD Reference: GL 6418' & RKB 17' @ 6435.00usft (Aztec 777)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,996.00	90.17	92.270	3,082.46	-65.03	3,466.13	2,182,074.28	569,152.13	36.9964803	-107.5965345
6,057.00	90.57	91.410	3,082.06	-66.99	3,527.10	2,182,072.32	569,213.09	36.9964745	-107.5963257
6,120.00	91.31	91.340	3,081.03	-68.50	3,590.07	2,182,070.81	569,276.07	36.9964699	-107.5961101
6,183.00	90.10	92.730	3,080.26	-70.73	3,653.03	2,182,068.57	569,339.02	36.9964633	-107.5958946
6,189.00	90.07	92.670	3,080.25	-71.02	3,659.02	2,182,068.29	569,345.01	36.9964625	-107.5958740
6,256.00	90.07	92.670	3,080.17	-74.14	3,725.95	2,182,065.17	569,411.94	36.9964535	-107.5956449

Checked By: _____ Approved By: _____ Date: _____

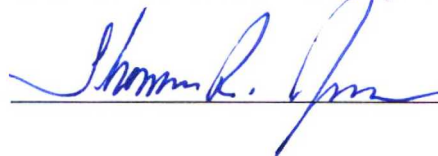
Well Name: SAN JUAN 32-7 UNIT #248H

Operator HILCORP ENERGY COMPANY	Legal WellName SAN JUAN 32-7 UNIT #248H	API / UWI 3004535900	County SAN JUAN	State/Province NEW MEXICO
Surface Legal Location F-7-32N-7W	North/South Distance (ft) 1,193.00	N/S Ref FNL	East/West Distance (ft) 2,650.0	E/W Ref FWL
Date 7/2/2019	Description DIRECTIONAL SURVEY			

Survey Data

Date	TVD (ftKB)	MD (ftKB)	Incl (*)	Azm (*)	Method	Survey Company
7/3/2019	0.00	0.00	0.00	0.00	IncAzi-MWD	Scientific Drilling
7/3/2019	625.89	626.00	1.85	198.01	IncAzi-MWD	Scientific Drilling
7/3/2019	685.85	686.00	2.17	197.76	IncAzi-MWD	Scientific Drilling
7/3/2019	746.81	747.00	2.33	197.22	IncAzi-MWD	Scientific Drilling
7/3/2019	807.76	808.00	2.37	199.86	IncAzi-MWD	Scientific Drilling
7/3/2019	867.70	868.00	2.48	198.71	IncAzi-MWD	Scientific Drilling
7/3/2019	928.64	929.00	2.76	199.53	IncAzi-MWD	Scientific Drilling
7/3/2019	988.57	989.00	2.86	199.35	IncAzi-MWD	Scientific Drilling
7/3/2019	1,048.49	1,049.00	2.88	199.38	IncAzi-MWD	Scientific Drilling
7/3/2019	1,109.41	1,110.00	3.05	200.54	IncAzi-MWD	Scientific Drilling
7/3/2019	1,170.32	1,171.00	3.18	200.89	IncAzi-MWD	Scientific Drilling
7/3/2019	1,230.22	1,231.00	3.32	204.60	IncAzi-MWD	Scientific Drilling
7/3/2019	1,290.13	1,291.00	3.09	191.97	IncAzi-MWD	Scientific Drilling
7/3/2019	1,353.04	1,354.00	2.97	182.28	IncAzi-MWD	Scientific Drilling
7/3/2019	1,415.95	1,417.00	3.12	183.40	IncAzi-MWD	Scientific Drilling
7/3/2019	1,478.86	1,480.00	3.23	184.91	IncAzi-MWD	Scientific Drilling
7/3/2019	1,541.75	1,543.00	3.41	186.32	IncAzi-MWD	Scientific Drilling
7/3/2019	1,603.64	1,605.00	3.45	187.33	IncAzi-MWD	Scientific Drilling
7/3/2019	1,666.53	1,668.00	3.37	189.34	IncAzi-MWD	Scientific Drilling
7/3/2019	1,729.41	1,731.00	3.59	180.85	IncAzi-MWD	Scientific Drilling
7/3/2019	1,760.34	1,762.00	4.19	168.63	IncAzi-MWD	Scientific Drilling
7/3/2019	1,792.24	1,794.00	5.03	160.13	IncAzi-MWD	Scientific Drilling
7/3/2019	1,824.10	1,826.00	5.80	145.72	IncAzi-MWD	Scientific Drilling
7/3/2019	1,854.92	1,857.00	6.51	139.04	IncAzi-MWD	Scientific Drilling
7/3/2019	1,885.68	1,888.00	7.65	130.42	IncAzi-MWD	Scientific Drilling
7/3/2019	1,917.35	1,920.00	8.92	125.61	IncAzi-MWD	Scientific Drilling
7/4/2019	1,979.42	1,983.00	10.82	113.64	IncAzi-MWD	Scientific Drilling
7/4/2019	2,009.83	2,014.00	11.52	115.48	IncAzi-MWD	Scientific Drilling
7/4/2019	2,041.13	2,046.00	12.57	114.31	IncAzi-MWD	Scientific Drilling
7/4/2019	2,072.24	2,078.00	14.49	113.87	IncAzi-MWD	Scientific Drilling
7/4/2019	2,102.15	2,109.00	15.88	114.78	IncAzi-MWD	Scientific Drilling
7/4/2019	2,131.87	2,140.00	17.23	113.90	IncAzi-MWD	Scientific Drilling
7/4/2019	2,161.39	2,171.00	18.35	113.82	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.



Subscribed and sworn to me this July 11, 2019

Lisabeth Jones

Notary Public in and for San Juan County, New Mexico

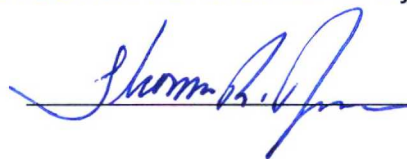
My Commission expires 1/02/2022



Well Name: SAN JUAN 32-7 UNIT #248H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
7/4/2019	2,190.70	2,202.00	19.61	107.75	IncAzi-MWD	Scientific Drilling
7/4/2019	2,219.75	2,233.00	21.24	104.67	IncAzi-MWD	Scientific Drilling
7/4/2019	2,248.47	2,264.00	23.04	101.68	IncAzi-MWD	Scientific Drilling
7/4/2019	2,276.87	2,295.00	24.20	99.59	IncAzi-MWD	Scientific Drilling
7/4/2019	2,305.94	2,327.00	25.25	96.77	IncAzi-MWD	Scientific Drilling
7/4/2019	2,333.88	2,358.00	26.09	94.51	IncAzi-MWD	Scientific Drilling
7/4/2019	2,362.43	2,390.00	27.58	93.06	IncAzi-MWD	Scientific Drilling
7/4/2019	2,390.54	2,422.00	29.50	92.35	IncAzi-MWD	Scientific Drilling
7/4/2019	2,417.15	2,453.00	32.20	90.17	IncAzi-MWD	Scientific Drilling
7/4/2019	2,443.94	2,485.00	34.12	89.11	IncAzi-MWD	Scientific Drilling
7/4/2019	2,469.44	2,516.00	35.20	88.07	IncAzi-MWD	Scientific Drilling
7/4/2019	2,494.62	2,547.00	36.19	86.99	IncAzi-MWD	Scientific Drilling
7/4/2019	2,519.40	2,578.00	37.64	87.06	IncAzi-MWD	Scientific Drilling
7/4/2019	2,544.50	2,610.00	39.01	87.12	IncAzi-MWD	Scientific Drilling
7/4/2019	2,569.18	2,642.00	40.09	86.65	IncAzi-MWD	Scientific Drilling
7/4/2019	2,592.84	2,673.00	40.41	87.03	IncAzi-MWD	Scientific Drilling
7/4/2019	2,616.22	2,704.00	41.65	87.69	IncAzi-MWD	Scientific Drilling
7/4/2019	2,639.78	2,736.00	43.54	87.74	IncAzi-MWD	Scientific Drilling
7/4/2019	2,661.24	2,766.00	45.09	88.44	IncAzi-MWD	Scientific Drilling
7/5/2019	2,683.61	2,798.00	46.22	88.58	IncAzi-MWD	Scientific Drilling
7/5/2019	2,704.87	2,829.00	47.19	88.97	IncAzi-MWD	Scientific Drilling
7/5/2019	2,726.36	2,861.00	48.42	88.65	IncAzi-MWD	Scientific Drilling
7/5/2019	2,746.74	2,892.00	49.39	88.54	IncAzi-MWD	Scientific Drilling
7/5/2019	2,766.76	2,923.00	50.16	87.44	IncAzi-MWD	Scientific Drilling
7/5/2019	2,787.09	2,955.00	50.95	86.22	IncAzi-MWD	Scientific Drilling
7/5/2019	2,806.52	2,986.00	51.44	84.99	IncAzi-MWD	Scientific Drilling
7/5/2019	2,825.68	3,017.00	52.21	83.85	IncAzi-MWD	Scientific Drilling
7/5/2019	2,845.04	3,049.00	53.30	83.36	IncAzi-MWD	Scientific Drilling
7/5/2019	2,863.27	3,080.00	54.69	82.79	IncAzi-MWD	Scientific Drilling
7/5/2019	2,881.45	3,112.00	56.07	82.76	IncAzi-MWD	Scientific Drilling
7/5/2019	2,898.32	3,143.00	57.96	82.06	IncAzi-MWD	Scientific Drilling
7/5/2019	2,914.31	3,174.00	59.93	82.12	IncAzi-MWD	Scientific Drilling
7/5/2019	2,929.58	3,205.00	61.08	82.87	IncAzi-MWD	Scientific Drilling
7/5/2019	2,944.39	3,236.00	61.83	83.91	IncAzi-MWD	Scientific Drilling
7/5/2019	2,958.63	3,267.00	63.48	86.22	IncAzi-MWD	Scientific Drilling
7/6/2019	2,972.69	3,300.00	66.07	87.08	IncAzi-MWD	Scientific Drilling
7/6/2019	2,984.64	3,331.00	68.59	87.64	IncAzi-MWD	Scientific Drilling
7/6/2019	2,995.40	3,362.00	70.81	87.37	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.



Subscribed and sworn to me this July 11, 2019
Lisabeth Jones

Notary Public in and for San Juan County, New Mexico

My Commission expires 1/2/2022


Well Name: SAN JUAN 32-7 UNIT #248H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
7/6/2019	3,005.16	3,393.00	72.46	87.91	IncAzi-MWD	Scientific Drilling
7/6/2019	3,014.44	3,425.00	73.84	87.44	IncAzi-MWD	Scientific Drilling
7/6/2019	3,022.36	3,456.00	76.55	87.44	IncAzi-MWD	Scientific Drilling
7/6/2019	3,029.70	3,488.00	76.92	86.93	IncAzi-MWD	Scientific Drilling
7/6/2019	3,036.69	3,519.00	77.02	86.91	IncAzi-MWD	Scientific Drilling
7/6/2019	3,041.83	3,542.00	77.17	86.90	IncAzi-MWD	Scientific Drilling
7/6/2019	3,049.51	3,578.00	78.19	85.97	IncAzi-MWD	Scientific Drilling
7/8/2019	3,055.36	3,609.00	80.04	86.25	IncAzi-MWD	Scientific Drilling
7/8/2019	3,060.17	3,641.00	82.66	87.67	IncAzi-MWD	Scientific Drilling
7/8/2019	3,063.67	3,672.00	84.38	88.16	IncAzi-MWD	Scientific Drilling
7/8/2019	3,066.17	3,703.00	86.37	88.40	IncAzi-MWD	Scientific Drilling
7/8/2019	3,067.60	3,734.00	88.35	88.19	IncAzi-MWD	Scientific Drilling
7/8/2019	3,068.21	3,766.00	89.46	87.77	IncAzi-MWD	Scientific Drilling
7/8/2019	3,068.14	3,797.00	90.81	87.15	IncAzi-MWD	Scientific Drilling
7/8/2019	3,067.59	3,829.00	91.14	86.97	IncAzi-MWD	Scientific Drilling
7/8/2019	3,066.91	3,860.00	91.38	86.55	IncAzi-MWD	Scientific Drilling
7/8/2019	3,065.25	3,923.00	91.64	87.13	IncAzi-MWD	Scientific Drilling
7/8/2019	3,063.63	3,986.00	91.31	87.53	IncAzi-MWD	Scientific Drilling
7/8/2019	3,062.38	4,048.00	91.01	87.07	IncAzi-MWD	Scientific Drilling
7/8/2019	3,062.12	4,111.00	89.46	88.35	IncAzi-MWD	Scientific Drilling
7/8/2019	3,063.01	4,174.00	88.92	90.45	IncAzi-MWD	Scientific Drilling
7/8/2019	3,064.10	4,236.00	89.06	91.19	IncAzi-MWD	Scientific Drilling
7/8/2019	3,065.01	4,298.00	89.26	91.69	IncAzi-MWD	Scientific Drilling
7/8/2019	3,065.46	4,361.00	89.93	92.97	IncAzi-MWD	Scientific Drilling
7/8/2019	3,065.38	4,424.00	90.20	92.62	IncAzi-MWD	Scientific Drilling
7/8/2019	3,065.00	4,487.00	90.50	92.06	IncAzi-MWD	Scientific Drilling
7/8/2019	3,064.21	4,550.00	90.94	92.25	IncAzi-MWD	Scientific Drilling
7/8/2019	3,063.01	4,613.00	91.24	92.52	IncAzi-MWD	Scientific Drilling
7/8/2019	3,062.40	4,676.00	89.87	93.35	IncAzi-MWD	Scientific Drilling
7/8/2019	3,062.25	4,739.00	90.40	94.16	IncAzi-MWD	Scientific Drilling
7/8/2019	3,061.63	4,801.00	90.74	94.04	IncAzi-MWD	Scientific Drilling
7/8/2019	3,060.97	4,864.00	90.47	92.02	IncAzi-MWD	Scientific Drilling
7/8/2019	3,060.69	4,927.00	90.03	90.88	IncAzi-MWD	Scientific Drilling
7/8/2019	3,061.33	4,990.00	88.82	90.11	IncAzi-MWD	Scientific Drilling
7/8/2019	3,062.62	5,053.00	88.83	89.67	IncAzi-MWD	Scientific Drilling
7/8/2019	3,064.29	5,116.00	88.12	88.95	IncAzi-MWD	Scientific Drilling
7/8/2019	3,066.03	5,179.00	88.72	88.69	IncAzi-MWD	Scientific Drilling
7/8/2019	3,066.85	5,241.00	89.76	88.42	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.



Subscribed and sworn to me this July 11, 2019
Lisabeth Jones

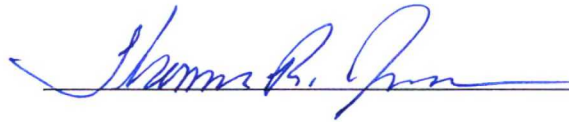
Notary Public in and for San Juan County, New Mexico

My Commission expires 1/2/2022


Well Name: SAN JUAN 32-7 UNIT #248H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (")	Azm (")	Method	Survey Company
7/8/2019	3,067.12	5,304.00	89.76	88.15	IncAzi-MWD	Scientific Drilling
7/8/2019	3,067.38	5,367.00	89.76	87.23	IncAzi-MWD	Scientific Drilling
7/8/2019	3,068.66	5,430.00	87.92	86.89	IncAzi-MWD	Scientific Drilling
7/8/2019	3,071.44	5,493.00	87.01	88.55	IncAzi-MWD	Scientific Drilling
7/8/2019	3,074.92	5,556.00	86.67	89.50	IncAzi-MWD	Scientific Drilling
7/8/2019	3,078.13	5,619.00	87.48	89.53	IncAzi-MWD	Scientific Drilling
7/8/2019	3,080.49	5,682.00	88.22	90.95	IncAzi-MWD	Scientific Drilling
7/8/2019	3,082.42	5,744.00	88.22	92.27	IncAzi-MWD	Scientific Drilling
7/8/2019	3,083.67	5,807.00	89.50	91.49	IncAzi-MWD	Scientific Drilling
7/8/2019	3,083.78	5,870.00	90.30	91.09	IncAzi-MWD	Scientific Drilling
7/8/2019	3,083.09	5,933.00	90.97	91.19	IncAzi-MWD	Scientific Drilling
7/9/2019	3,082.46	5,996.00	90.17	92.27	IncAzi-MWD	Scientific Drilling
7/9/2019	3,082.06	6,057.00	90.57	91.41	IncAzi-MWD	Scientific Drilling
7/9/2019	3,081.03	6,120.00	91.31	91.34	IncAzi-MWD	Scientific Drilling
7/9/2019	3,080.26	6,183.00	90.10	92.73	IncAzi-MWD	Scientific Drilling
7/9/2019	3,080.25	6,189.00	90.07	92.67	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.



Subscribed and sworn to me this July 11, 2019

Lisabeth Jones

Notary Public in and for San Juan County, New Mexico

My Commission expires 1/2/2022

