

District I
1525 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

NMOCD

AS DRILLED PLAT

JUL 25 2019

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35882	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 318435	*Property Name SAN JUAN 32-8 UNIT	*Well Number 254H
*GRID No. 372171	*Operator Name HILCORP ENERGY COMPANY	*Elevation 6962'

DISTRICT III

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	23	32N	8W		1893	NORTH	1684	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
B	22	32N	8W		1063	NORTH	1523	EAST	SAN JUAN

¹² Dedicated Acres 640.00	E/2 - Section 22 W/2 - Section 23	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

BOTTOM HOLE LOCATION

1063' FNL 1523' FEL
SEC 22, T32N, R8W
LAT: 36.9735179 N
LONG: 107.6583534 W
DATUM: NAD1927

LAT: 36.973522 N
LONG: 107.658967 W
DATUM: NAD1983

FIRST TAKE POINT

1574' FNL 533' FWL
SEC 23, T32N, R8W
LAT: 36.9722493 N
LONG: 107.6519373 W
DATUM: NAD1927

LAT: 36.972253 N
LONG: 107.652550 W
DATUM: NAD1983

SURFACE LOCATION

1893' FNL 1684' FWL
SEC 23, T32N, R8W
LAT: 36.971169 N
LONG: 107.647435 W
DATUM: NAD1927

LAT: 36.971173 N
LONG: 107.648047 W
DATUM: NAD1983

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 unleased 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 or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Priscilla Shorty 4/9/19
Signature Date

Printed Name
Priscilla Shorty
pshorty@hilcorp.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

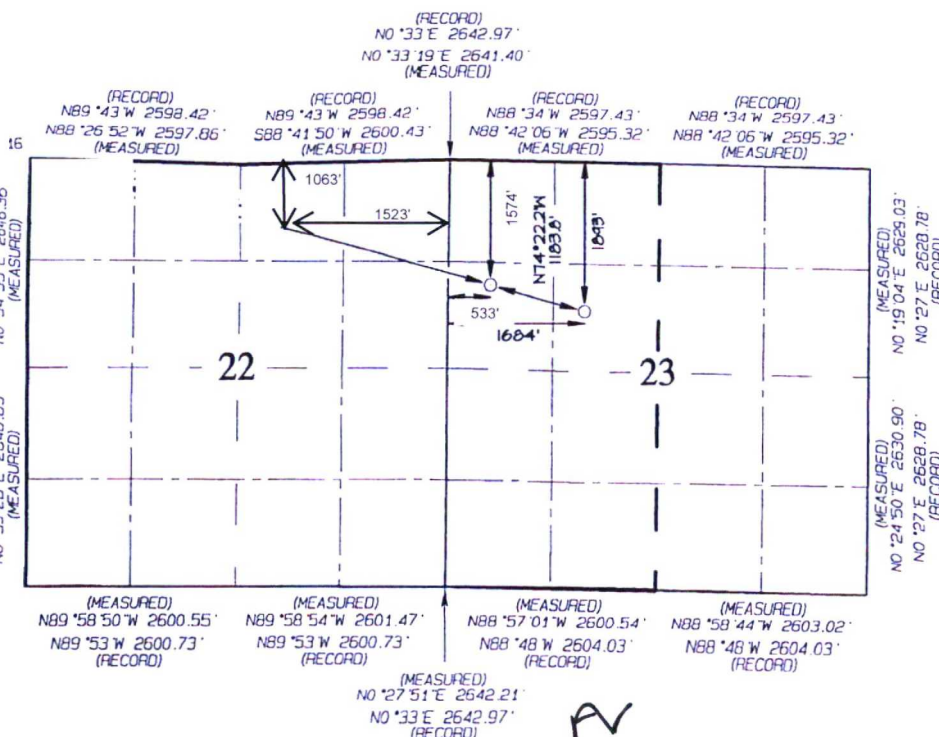
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: APRIL 8, 2019
Date of Survey: JUNE 14, 2018

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



Well Name: SAN JUAN 32-8 UNIT #254H

Operator HILCORP ENERGY COMPANY	Legal WellName SAN JUAN 32-8 UNIT #254H	API / UWI 3004535882	County SAN JUAN	State/Province NEW MEXICO
Surface Legal Location F-23-32N-8W	North/South Distance (ft) 1,893.00	N/S Ref FNL	East/West Distance (ft) 1,684.0	EW Ref FWL

Date 7/1/2019	Description DIRECTIONAL SURVEY
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Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/23/2019	0.00	0.00	0.00	0.00	IncAzi-MWD	Koltek Energy Services
6/23/2019	527.98	528.00	0.77	188.16	IncAzi-MWD	Koltek Energy Services
6/23/2019	603.98	604.00	0.88	188.16	IncAzi-MWD	Koltek Energy Services
6/23/2019	663.97	664.00	0.92	183.24	IncAzi-MWD	Koltek Energy Services
6/23/2019	725.96	726.00	0.92	187.37	IncAzi-MWD	Koltek Energy Services
6/23/2019	786.95	787.00	1.41	188.16	IncAzi-MWD	Koltek Energy Services
6/23/2019	847.94	848.00	0.18	301.10	IncAzi-MWD	Koltek Energy Services
6/23/2019	909.94	910.00	0.75	327.82	IncAzi-MWD	Koltek Energy Services
6/23/2019	970.94	971.00	0.62	355.77	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,033.93	1,034.00	0.40	327.03	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,095.93	1,096.00	0.70	320.08	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,158.93	1,159.00	0.66	347.95	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,221.92	1,222.00	0.88	339.51	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,283.91	1,284.00	0.88	355.24	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,346.91	1,347.00	0.83	354.54	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,409.90	1,410.00	0.75	343.46	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,472.89	1,473.00	1.10	0.25	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,535.89	1,536.00	0.26	92.18	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,598.89	1,599.00	0.26	197.65	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,660.89	1,661.00	0.57	156.87	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,723.88	1,724.00	0.40	99.04	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,786.88	1,787.00	0.62	93.33	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,849.88	1,850.00	0.22	136.66	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,912.88	1,913.00	0.22	148.70	IncAzi-MWD	Koltek Energy Services
6/23/2019	1,975.88	1,976.00	0.18	137.19	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,038.88	2,039.00	0.44	44.20	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,100.88	2,101.00	0.35	86.47	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,163.88	2,164.00	0.40	81.02	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,195.88	2,196.00	0.13	43.84	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,226.87	2,227.00	1.10	303.39	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,257.85	2,258.00	2.99	290.20	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,289.79	2,290.00	4.39	288.80	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,320.65	2,321.00	6.42	290.29	IncAzi-MWD	Koltek Energy Services

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 1st 2019


Notary Public in and for San Juan County, New Mexico

My Commission expires

09/01/2021


Well Name: SAN JUAN 32-8 UNIT #254H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/23/2019	2,352.41	2,353.00	7.47	286.51	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,383.09	2,384.00	9.01	287.13	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,414.65	2,416.00	9.98	285.98	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,445.15	2,447.00	10.63	282.73	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,475.58	2,478.00	11.46	279.66	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,506.87	2,510.00	12.61	276.49	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,537.06	2,541.00	13.67	276.05	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,567.10	2,572.00	14.94	276.40	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,597.95	2,604.00	15.86	278.16	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,627.68	2,635.00	17.05	278.60	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,657.30	2,666.00	17.23	277.63	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,687.78	2,698.00	18.28	280.36	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,717.12	2,729.00	19.42	279.39	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,747.21	2,761.00	20.35	280.62	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,776.17	2,792.00	21.45	284.05	IncAzi-MWD	Koltek Energy Services
6/23/2019	2,804.89	2,823.00	22.72	284.58	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,834.31	2,855.00	23.69	285.90	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,862.58	2,886.00	24.74	284.93	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,890.56	2,917.00	26.24	285.42	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,918.20	2,948.00	27.60	287.13	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,945.49	2,979.00	29.05	288.36	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,971.58	3,009.00	30.06	287.57	IncAzi-MWD	Koltek Energy Services
6/24/2019	2,997.36	3,039.00	31.51	287.57	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,023.54	3,070.00	33.22	288.71	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,049.26	3,101.00	34.63	288.80	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,073.78	3,131.00	35.73	288.36	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,098.79	3,162.00	36.74	288.71	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,122.60	3,192.00	38.14	288.71	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,146.73	3,223.00	39.64	289.76	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,170.37	3,254.00	41.00	290.03	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,192.82	3,284.00	42.10	289.94	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,215.60	3,315.00	43.29	288.09	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,237.88	3,346.00	44.82	287.30	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,258.85	3,376.00	46.49	286.60	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,279.87	3,407.00	48.12	287.30	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,300.34	3,438.00	49.22	286.42	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,319.67	3,468.00	50.58	287.04	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,339.10	3,499.00	51.77	286.77	IncAzi-MWD	Koltek Energy Services

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.

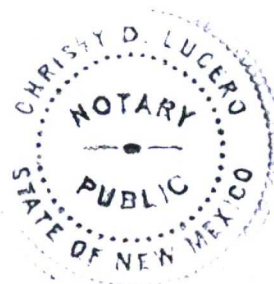


Subscribed and sworn to me this

July 18, 2019


Notary Public in and for San Juan County, New Mexico

My Commission expires

09/01/2021




Well Name: SAN JUAN 32-8 UNIT #254H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/24/2019	3,357.48	3,529.00	52.69	285.81	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,376.41	3,561.00	54.76	286.60	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,394.09	3,592.00	55.68	286.07	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,411.70	3,624.00	57.57	287.21	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,428.05	3,655.00	58.75	286.77	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,443.95	3,686.00	59.55	286.25	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,469.83	3,718.00	60.91	286.42	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,474.63	3,749.00	62.09	286.86	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,489.48	3,781.00	62.58	285.63	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,503.45	3,812.00	63.85	286.25	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,517.24	3,844.00	65.13	286.25	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,530.24	3,875.00	65.26	285.19	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,543.20	3,907.00	66.97	285.02	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,546.68	3,916.00	67.48	284.86	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,554.89	3,938.00	68.73	284.49	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,565.90	3,969.00	69.65	285.90	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,576.65	4,001.00	71.10	285.46	IncAzi-MWD	Koltek Energy Services
6/24/2019	3,588.33	4,032.00	72.51	285.72	IncAzi-MWD	Koltek Energy Services
6/25/2019	3,595.51	4,064.00	74.14	286.69	IncAzi-MWD	Koltek Energy Services
6/25/2019	3,603.83	4,095.00	74.70	286.60	IncAzi-MWD	Koltek Energy Services
6/25/2019	3,611.76	4,126.00	75.67	286.16	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,618.99	4,158.00	78.22	287.13	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,624.97	4,189.00	79.54	288.18	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,630.45	4,221.00	80.73	288.18	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,635.10	4,252.00	82.00	289.32	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,639.08	4,284.00	83.72	290.20	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,642.21	4,315.00	84.68	289.50	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,644.64	4,346.00	86.35	289.94	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,646.60	4,378.00	86.62	288.44	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,648.04	4,409.00	88.07	288.09	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,648.32	4,472.00	91.41	288.27	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,647.38	4,535.00	90.31	285.63	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,647.11	4,598.00	90.18	285.02	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,646.22	4,660.00	91.45	285.81	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,643.81	4,723.00	92.94	285.37	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,640.65	4,786.00	92.81	283.35	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,637.73	4,849.00	92.50	283.61	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,635.20	4,912.00	92.11	283.52	IncAzi-MWD	Koltek Energy Services

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 1st, 2019

Notary Public in and for San Juan County, New Mexico

My Commission expires 09/01/2021



Well Name: SAN JUAN 32-8 UNIT #254H

Survey Data						
Date	TVD (ftKB)	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/27/2019	3,631.94	4,975.00	93.82	282.20	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,627.98	5,038.00	93.38	280.80	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,626.65	5,100.00	89.08	279.22	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,628.80	5,163.00	87.01	274.82	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,632.21	5,226.00	86.79	275.00	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,634.46	5,289.00	89.12	281.24	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,635.51	5,351.00	88.95	282.91	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,637.36	5,414.00	87.67	282.38	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,639.01	5,477.00	89.34	286.25	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,640.82	5,540.00	87.36	285.46	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,643.38	5,603.00	87.98	287.13	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,644.61	5,643.00	88.51	287.46	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,645.15	5,666.00	88.81	287.65	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,645.15	5,728.00	91.19	288.27	IncAzi-MWD	Koltek Energy Services
6/27/2019	3,644.37	5,791.00	90.22	285.10	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,644.59	5,854.00	89.38	282.12	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,643.88	5,916.00	91.93	284.75	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,641.78	5,979.00	91.89	285.10	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,640.02	6,042.00	91.32	283.52	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,638.98	6,105.00	90.57	283.70	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,639.15	6,167.00	89.12	282.82	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,640.16	6,230.00	89.03	284.31	IncAzi-MWD	Koltek Energy Services
6/28/2019	3,642.08	6,343.00	89.03	284.31	IncAzi-MWD	Koltek Energy Services

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.



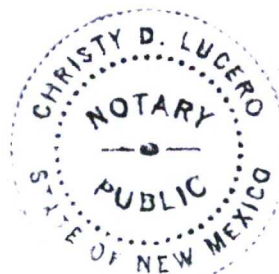
Subscribed and sworn to me this

July 1st 2019



Notary Public in and for San Juan County, New Mexico

My Commission expires

09/01/2021




Survey Certification

07/01/2019

Koltek Job #: KES060113-1
Survey Job Type: Measurement While Drilling (MWD)
Operator: Hilcorp Energy Company
Well Name: SAN JUAN 32-8 UNIT 254H
County, State: SAN JUAN COUNTY, NM
API #: 30-045-35882
Rig Name: Aztec 777
Reference Elevation: 6962 Ft GL 17 Ft KB 6979 Ft RKB
Surface Location: SEC 23 SENW UNIT F 32N 08W
Surface Location(Lat /Long): 36.9711690° N -107.6474350° W
Datum / Projection: US SPCS NAD 27 NM West Zone
North Reference: Grid North
Survey Dates: From To
 06/22/2019 06/28/2019
Survey Depths: 604 Ft 6230 Ft
Projection to BHL: 6230 Ft 6343 Ft
MWD Operator: MIKE LEACH
MWD Operator: PETE ALDRICH, LOUIE ISAIS
Directional Driller: GREG JOHNSON
Directional Driller: JOHN CURTIS

"The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by Koltek Energy Services. I am authorized and qualified to review the data, calculations and this report, and the report represents a true and correct Directional Survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using the minimum curvature method."

Sincerely,

Kevin Wong Electronically Signed

Kevin Wong
Well Planner
Koltek Energy Services
7340 Grey Cloud Rd
Casper, WY 82604





Hilcorp Energy Company

Hilcorp Energy Company

San Juan County, NM (NAD27)

32N - 08W SEC 23

SAN JUAN 32-8 UNIT 254H

30-045-35882

Original Hole

Survey: KES MWD

Survey Report - Geographic

29 June, 2019

KOLTEK
ENERGY SERVICES



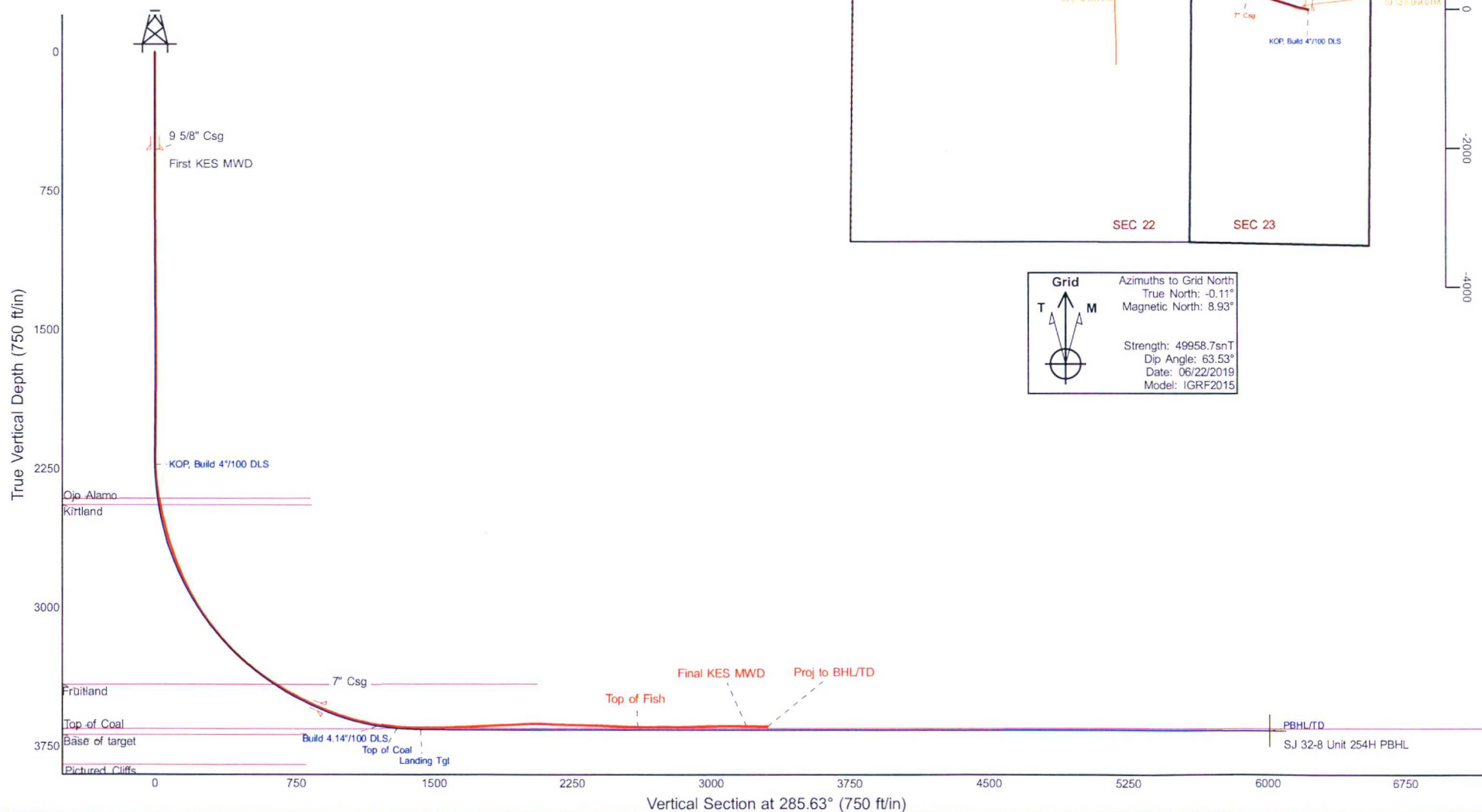
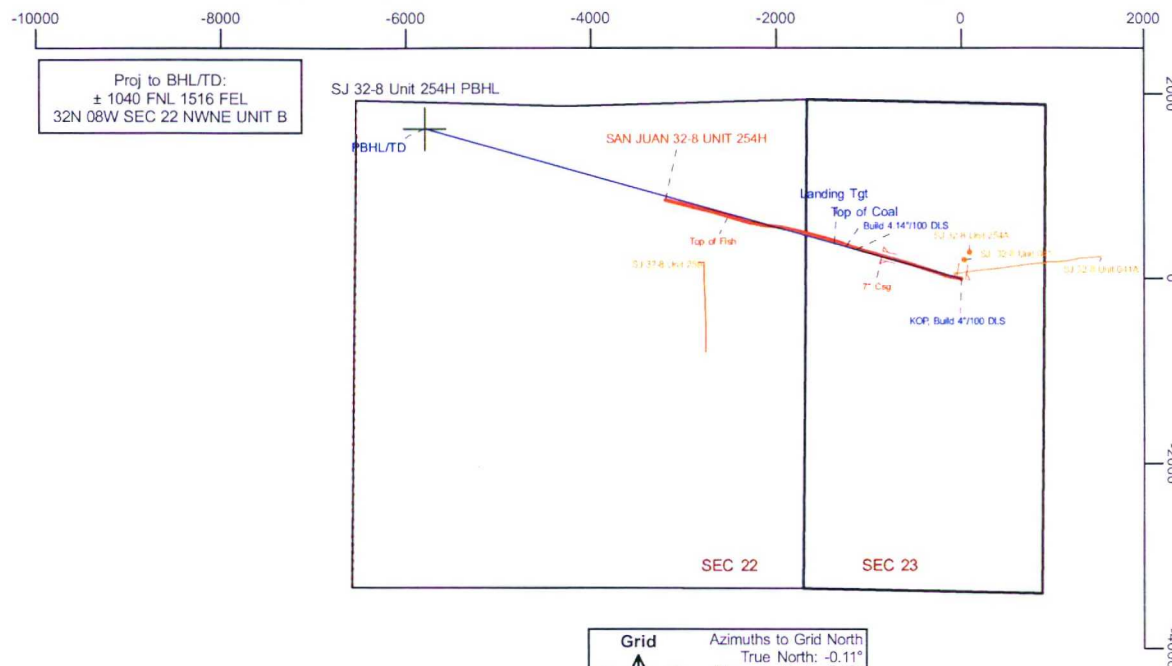
Hilcorp Energy Company

KOLTEK
ENERGY SERVICES

Well: SAN JUAN 32-8 UNIT 254H	Field: San Juan County, NM (NAD27)	Site: 32N - 08W SEC 23	Rig: Aztec 777	Plan: Final PvA
Borehole: Original Hole VSec: 285.63deg	Plan Date: 06-29-2019 Grid Conv: 0.11	Datum: US State Plane 1927 Zone: New Mexico West 3003	KB: 6979ft GL: 6962.00ft	Latitude: 36.9711690 Northing: 2172826.45
				Longitude: -107.6474350 Easting: 554305.66
				Model: IGRF2015 DIP: 63.53°
				Date: 22-Jun-19 FS: 49959
				DEC: 9.04° North Ref: Grid

Actual Annotations

MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
604.00	0.88	188.16	-4.59	-0.66	4.10	4.64	First KES MWD
3916.00	67.48	284.86	246.70	-858.72	304.10	916.11	7" Csg
5643.00	88.51	287.46	672.22	-2514.23	930.92	2628.85	Top of Fish
6230.00	89.03	284.31	821.18	-3081.64	1143.23	3215.74	Final KES MWD
6343.00	89.03	284.31	849.10	-3191.11	1184.86	3328.72	Proj to BHL/TD



Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well SAN JUAN 32-8 UNIT 254H
Project:	San Juan County, NM (NAD27)	TVD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Site:	32N - 08W SEC 23	MD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Well:	SAN JUAN 32-8 UNIT 254H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	KES0621191	Database:	EDM 5000.1 Single User Db

Project	San Juan County, NM (NAD27)		
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	32N - 08W SEC 23		
Site Position:		Northing:	2,172,826.44 usft
From:	Map	Easting:	554,305.66 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.9711689
		Longitude:	-107.6474350
		Grid Convergence:	0.11 °

Well	SAN JUAN 32-8 UNIT 254H, 32N 08W SEC 23 SENW Lot F 1893 FNL & 1684 FWL		
Well Position	+N/-S	0.00 ft	Northing: 2,172,826.44 usft
	+E/-W	0.00 ft	Easting: 554,305.66 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	36.9711689
		Longitude:	-107.6474350
		Ground Level:	6,962.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/22/19	9.04	63.53	49,959

Design	KES0621191				
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	215.93	

Survey Program	Date 06/29/19			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
604.00	6,343.00	KES MWD (Original Hole)	MWD	MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	2,172,826.44	554,305.66	36.9711689	-107.6474350
604.00	0.88	188.16	603.98	-4.59	-0.66	2,172,821.85	554,305.00	36.9711563	-107.6474373
First KES MWD									
664.00	0.92	183.24	663.97	-5.53	-0.75	2,172,820.92	554,304.91	36.9711538	-107.6474376
726.00	0.92	187.37	725.96	-6.52	-0.84	2,172,819.93	554,304.82	36.9711510	-107.6474380
787.00	1.41	188.16	786.95	-7.75	-1.01	2,172,818.70	554,304.65	36.9711477	-107.6474386
848.00	0.18	301.10	847.94	-8.44	-1.20	2,172,818.00	554,304.46	36.9711458	-107.6474392
910.00	0.75	327.82	909.94	-8.05	-1.50	2,172,818.40	554,304.16	36.9711468	-107.6474402
971.00	0.62	355.77	970.94	-7.38	-1.74	2,172,819.06	554,303.93	36.9711487	-107.6474410
1,034.00	0.40	327.03	1,033.93	-6.86	-1.88	2,172,819.59	554,303.78	36.9711501	-107.6474415
1,096.00	0.70	320.08	1,095.93	-6.38	-2.24	2,172,820.06	554,303.42	36.9711514	-107.6474428
1,159.00	0.66	347.95	1,158.93	-5.73	-2.57	2,172,820.71	554,303.10	36.9711532	-107.6474439

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well SAN JUAN 32-8 UNIT 254H
Project:	San Juan County, NM (NAD27)	TVD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Site:	32N - 08W SEC 23	MD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Well:	SAN JUAN 32-8 UNIT 254H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	KES0621191	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,222.00	0.88	339.51	1,221.92	-4.93	-2.81	2,172,821.52	554,302.85	36.9711554	-107.6474447
1,284.00	0.88	355.24	1,283.91	-4.01	-3.02	2,172,822.44	554,302.65	36.9711580	-107.6474454
1,347.00	0.83	354.54	1,346.91	-3.07	-3.10	2,172,823.38	554,302.56	36.9711605	-107.6474457
1,410.00	0.75	343.46	1,409.90	-2.22	-3.26	2,172,824.23	554,302.40	36.9711629	-107.6474462
1,473.00	1.10	0.25	1,472.89	-1.22	-3.38	2,172,825.23	554,302.29	36.9711656	-107.6474466
1,536.00	0.26	92.18	1,535.89	-0.62	-3.23	2,172,825.82	554,302.43	36.9711673	-107.6474461
1,599.00	0.26	197.65	1,598.89	-0.76	-3.13	2,172,825.68	554,302.53	36.9711669	-107.6474458
1,661.00	0.57	156.87	1,660.89	-1.18	-3.05	2,172,825.27	554,302.61	36.9711657	-107.6474455
1,724.00	0.40	99.04	1,723.88	-1.50	-2.71	2,172,824.94	554,302.95	36.9711648	-107.6474443
1,787.00	0.62	93.33	1,786.88	-1.56	-2.15	2,172,824.89	554,303.51	36.9711647	-107.6474424
1,850.00	0.22	136.66	1,849.88	-1.66	-1.73	2,172,824.78	554,303.93	36.9711644	-107.6474410
1,913.00	0.22	148.70	1,912.88	-1.86	-1.59	2,172,824.59	554,304.08	36.9711638	-107.6474405
1,976.00	0.18	137.19	1,975.88	-2.03	-1.46	2,172,824.41	554,304.21	36.9711634	-107.6474400
2,039.00	0.44	44.20	2,038.88	-1.93	-1.22	2,172,824.51	554,304.44	36.9711636	-107.6474392
2,101.00	0.35	86.47	2,100.88	-1.75	-0.86	2,172,824.70	554,304.80	36.9711641	-107.6474380
2,164.00	0.40	81.02	2,163.88	-1.70	-0.46	2,172,824.74	554,305.21	36.9711643	-107.6474366
2,196.00	0.13	43.84	2,195.88	-1.66	-0.32	2,172,824.79	554,305.34	36.9711644	-107.6474361
2,227.00	1.10	303.39	2,226.87	-1.47	-0.54	2,172,824.98	554,305.12	36.9711649	-107.6474369
2,258.00	2.99	290.20	2,257.85	-1.03	-1.55	2,172,825.42	554,304.11	36.9711661	-107.6474404
2,290.00	4.39	288.80	2,289.79	-0.34	-3.49	2,172,826.10	554,302.17	36.9711680	-107.6474470
2,321.00	6.42	290.29	2,320.65	0.64	-6.24	2,172,827.08	554,299.42	36.9711707	-107.6474564
2,353.00	7.47	286.51	2,352.41	1.85	-9.92	2,172,828.30	554,295.75	36.9711741	-107.6474690
2,384.00	9.01	287.13	2,383.09	3.14	-14.17	2,172,829.58	554,291.50	36.9711776	-107.6474835
2,416.00	9.98	285.98	2,414.65	4.64	-19.23	2,172,831.09	554,286.44	36.9711818	-107.6475008
2,447.00	10.63	282.73	2,445.15	6.01	-24.60	2,172,832.46	554,281.06	36.9711856	-107.6475192
2,478.00	11.46	279.66	2,475.58	7.16	-30.42	2,172,833.60	554,275.24	36.9711888	-107.6475391
2,510.00	12.61	276.49	2,506.87	8.09	-37.03	2,172,834.53	554,268.63	36.9711913	-107.6475617
2,541.00	13.67	276.05	2,537.06	8.85	-44.03	2,172,835.30	554,261.63	36.9711935	-107.6475857
2,572.00	14.94	276.40	2,567.10	9.69	-51.65	2,172,836.13	554,254.01	36.9711958	-107.6476118
2,604.00	15.86	278.16	2,597.95	10.77	-60.08	2,172,837.21	554,245.59	36.9711988	-107.6476406
2,635.00	17.05	278.60	2,627.68	12.05	-68.76	2,172,838.49	554,236.90	36.9712024	-107.6476703
2,666.00	17.23	277.63	2,657.30	13.34	-77.81	2,172,839.78	554,227.86	36.9712060	-107.6477013
2,698.00	18.28	280.36	2,687.78	14.87	-87.44	2,172,841.31	554,218.22	36.9712102	-107.6477343
2,729.00	19.42	279.39	2,717.12	16.58	-97.31	2,172,843.03	554,208.35	36.9712150	-107.6477680
2,761.00	20.35	280.62	2,747.21	18.48	-108.03	2,172,844.92	554,197.64	36.9712203	-107.6478047
2,792.00	21.45	284.05	2,776.17	20.85	-118.82	2,172,847.29	554,186.84	36.9712268	-107.6478417
2,823.00	22.72	284.58	2,804.89	23.73	-130.12	2,172,850.17	554,175.55	36.9712348	-107.6478803
2,855.00	23.69	285.90	2,834.31	27.05	-142.28	2,172,853.49	554,163.38	36.9712440	-107.6479219
2,886.00	24.74	284.93	2,862.58	30.42	-154.54	2,172,856.87	554,151.13	36.9712533	-107.6479638
2,917.00	26.24	285.42	2,890.56	33.92	-167.41	2,172,860.36	554,138.25	36.9712630	-107.6480079
2,948.00	27.60	287.13	2,918.20	37.85	-180.88	2,172,864.30	554,124.78	36.9712739	-107.6480540
2,979.00	29.05	288.36	2,945.49	42.34	-194.89	2,172,868.79	554,110.77	36.9712863	-107.6481019
3,009.00	30.06	287.57	2,971.58	46.90	-208.97	2,172,873.35	554,096.70	36.9712989	-107.6481501
3,039.00	31.51	287.57	2,997.36	51.54	-223.60	2,172,877.98	554,082.06	36.9713117	-107.6482001
3,070.00	33.22	288.71	3,023.54	56.71	-239.37	2,172,883.15	554,066.29	36.9713260	-107.6482541
3,101.00	34.63	288.80	3,049.26	62.27	-255.75	2,172,888.72	554,049.91	36.9713414	-107.6483101
3,131.00	35.73	288.36	3,073.78	67.78	-272.14	2,172,894.22	554,033.53	36.9713566	-107.6483662
3,162.00	36.74	288.71	3,098.79	73.60	-289.51	2,172,900.05	554,016.15	36.9713727	-107.6484256
3,192.00	38.14	288.71	3,122.61	79.45	-306.78	2,172,905.90	553,998.88	36.9713888	-107.6484847
3,223.00	39.64	289.76	3,146.73	85.87	-325.16	2,172,912.31	553,980.51	36.9714065	-107.6485475
3,254.00	41.00	290.03	3,170.37	92.69	-344.02	2,172,919.14	553,961.65	36.9714254	-107.6486121
3,284.00	42.10	289.94	3,192.82	99.49	-362.72	2,172,925.94	553,942.95	36.9714442	-107.6486760
3,315.00	43.29	288.09	3,215.60	106.34	-382.59	2,172,932.78	553,923.07	36.9714631	-107.6487440
3,346.00	44.82	287.30	3,237.88	112.89	-403.13	2,172,939.33	553,902.54	36.9714812	-107.6488143
3,376.00	46.49	286.60	3,258.85	119.14	-423.65	2,172,945.59	553,882.02	36.9714985	-107.6488845



Survey Report - Geographic



Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well SAN JUAN 32-8 UNIT 254H
Project:	San Juan County, NM (NAD27)	TVD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Site:	32N - 08W SEC 23	MD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Well:	SAN JUAN 32-8 UNIT 254H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	KES0621191	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,407.00	48.12	287.30	3,279.87	125.78	-445.44	2,172,952.23	553,860.22	36.9715168	-107.6489590
3,438.00	49.22	286.42	3,300.34	132.53	-467.72	2,172,958.98	553,837.94	36.9715355	-107.6490352
3,468.00	50.58	287.04	3,319.67	139.14	-489.69	2,172,965.59	553,815.97	36.9715537	-107.6491104
3,499.00	51.77	286.77	3,339.10	146.16	-512.80	2,172,972.61	553,792.86	36.9715732	-107.6491895
3,529.00	52.69	285.81	3,357.48	152.81	-535.56	2,172,979.26	553,770.10	36.9715915	-107.6492674
3,561.00	54.76	286.60	3,376.41	160.02	-560.33	2,172,986.46	553,745.33	36.9716115	-107.6493521
3,592.00	55.68	286.07	3,394.09	167.18	-584.77	2,172,993.62	553,720.90	36.9716313	-107.6494357
3,624.00	57.57	287.21	3,411.70	174.83	-610.37	2,173,001.27	553,695.30	36.9716524	-107.6495233
3,655.00	58.75	286.77	3,428.05	182.52	-635.55	2,173,008.97	553,670.11	36.9716737	-107.6496094
3,686.00	59.55	286.25	3,443.95	190.09	-661.07	2,173,016.53	553,644.59	36.9716946	-107.6496967
3,718.00	60.91	286.42	3,459.83	197.90	-687.73	2,173,024.34	553,617.94	36.9717162	-107.6497879
3,749.00	62.09	286.86	3,474.63	205.70	-713.83	2,173,032.15	553,591.84	36.9717378	-107.6498772
3,781.00	62.58	285.63	3,489.48	213.63	-741.04	2,173,040.07	553,564.63	36.9717597	-107.6499703
3,812.00	63.85	286.25	3,503.45	221.23	-767.65	2,173,047.67	553,538.02	36.9717807	-107.6500614
3,844.00	65.13	286.25	3,517.24	229.31	-795.37	2,173,055.76	553,510.29	36.9718030	-107.6501562
3,875.00	65.26	285.19	3,530.24	236.94	-822.46	2,173,063.38	553,483.21	36.9718241	-107.6502489
3,907.00	66.97	285.02	3,543.20	244.56	-850.71	2,173,071.00	553,454.96	36.9718452	-107.6503455
3,938.00	68.73	284.49	3,554.88	251.87	-878.47	2,173,078.32	553,427.19	36.9718654	-107.6504405
3,969.00	69.65	285.90	3,565.90	259.47	-906.43	2,173,085.91	553,399.23	36.9718865	-107.6505362
4,001.00	71.10	285.46	3,576.65	267.61	-935.45	2,173,094.06	553,370.21	36.9719090	-107.6506355
4,032.00	72.51	285.72	3,586.33	275.53	-963.82	2,173,101.97	553,341.85	36.9719309	-107.6507325
4,064.00	74.14	286.69	3,595.51	284.08	-993.25	2,173,110.53	553,312.41	36.9719545	-107.6508332
4,095.00	74.70	286.60	3,603.83	292.64	-1,021.86	2,173,119.08	553,283.80	36.9719782	-107.6509311
4,126.00	75.67	286.16	3,611.76	301.09	-1,050.62	2,173,127.53	553,255.05	36.9720015	-107.6510295
4,158.00	78.22	287.13	3,618.99	310.02	-1,080.48	2,173,136.46	553,225.19	36.9720262	-107.6511317
4,189.00	79.54	288.18	3,624.97	319.24	-1,109.46	2,173,145.69	553,196.20	36.9720517	-107.6512308
4,221.00	80.73	288.18	3,630.45	329.08	-1,139.42	2,173,155.52	553,166.25	36.9720789	-107.6513333
4,252.00	82.00	289.32	3,635.10	338.93	-1,168.44	2,173,165.37	553,137.23	36.9721061	-107.6514326
4,284.00	83.72	290.20	3,639.08	349.66	-1,198.32	2,173,176.11	553,107.35	36.9721357	-107.6515348
4,315.00	84.68	289.50	3,642.21	360.14	-1,227.33	2,173,186.58	553,078.34	36.9721647	-107.6516340
4,346.00	86.35	289.94	3,644.64	370.56	-1,256.42	2,173,197.01	553,049.25	36.9721935	-107.6517335
4,378.00	86.62	288.44	3,646.60	381.06	-1,286.58	2,173,207.51	553,019.08	36.9722225	-107.6518367
4,409.00	88.07	288.09	3,648.04	390.77	-1,315.99	2,173,217.21	552,989.68	36.9722493	-107.6519373
4,472.00	91.41	288.27	3,648.32	410.42	-1,375.83	2,173,236.87	552,929.83	36.9723036	-107.6521421
4,535.00	90.31	285.63	3,647.38	428.78	-1,436.08	2,173,255.23	552,869.58	36.9723543	-107.6523482
4,598.00	90.18	285.02	3,647.11	445.43	-1,496.84	2,173,271.88	552,808.82	36.9724004	-107.6525561
4,660.00	91.45	285.81	3,646.22	461.91	-1,556.60	2,173,288.36	552,749.06	36.9724459	-107.6527606
4,723.00	92.94	285.37	3,643.81	478.83	-1,617.24	2,173,305.27	552,688.43	36.9724927	-107.6529680
4,786.00	92.81	283.35	3,640.65	494.43	-1,678.19	2,173,320.88	552,627.48	36.9725359	-107.6531766
4,849.00	92.50	283.61	3,637.73	509.10	-1,739.39	2,173,335.55	552,566.28	36.9725765	-107.6533860
4,912.00	92.11	283.52	3,635.20	523.87	-1,800.58	2,173,350.31	552,505.08	36.9726174	-107.6535953
4,975.00	93.82	282.20	3,631.94	537.87	-1,861.92	2,173,364.32	552,443.75	36.9726562	-107.6538052
5,038.00	93.38	280.80	3,627.98	550.41	-1,923.53	2,173,376.85	552,382.14	36.9726909	-107.6540160
5,100.00	89.08	279.22	3,626.65	561.18	-1,984.55	2,173,387.62	552,321.11	36.9727208	-107.6542249
5,163.00	87.01	274.82	3,628.80	568.87	-2,047.03	2,173,395.32	552,258.64	36.9727423	-107.6544387
5,226.00	86.79	275.00	3,632.21	574.26	-2,109.70	2,173,400.70	552,195.96	36.9727574	-107.6546532
5,289.00	89.12	281.24	3,634.46	583.15	-2,172.00	2,173,409.59	552,133.67	36.9727821	-107.6548664
5,351.00	88.95	282.91	3,635.51	596.11	-2,232.61	2,173,422.56	552,073.05	36.9728181	-107.6550738
5,414.00	87.67	282.38	3,637.36	609.90	-2,294.06	2,173,436.34	552,011.61	36.9728562	-107.6552841
5,477.00	89.34	286.25	3,639.01	625.47	-2,355.07	2,173,451.91	551,950.60	36.9728993	-107.6554928
5,540.00	87.36	285.46	3,640.82	642.67	-2,415.64	2,173,469.12	551,890.03	36.9729469	-107.6557001
5,603.00	87.98	287.13	3,643.38	660.33	-2,476.06	2,173,486.78	551,829.61	36.9729957	-107.6559068
5,643.00	88.51	287.46	3,644.61	672.22	-2,514.23	2,173,498.66	551,791.44	36.9730286	-107.6560374
Top of Fish									
5,666.00	88.81	287.65	3,645.15	679.16	-2,536.15	2,173,505.60	551,769.51	36.9730477	-107.6561124

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well SAN JUAN 32-8 UNIT 254H
Project:	San Juan County, NM (NAD27)	TVD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Site:	32N - 08W SEC 23	MD Reference:	KB 17 ft @ 6979.00ft (Aztec 777)
Well:	SAN JUAN 32-8 UNIT 254H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	KES0621191	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,728.00	91.19	288.27	3,645.15	698.27	-2,595.13	2,173,524.72	551,710.54	36.9731005	-107.6563141
5,791.00	90.22	285.10	3,644.37	716.36	-2,655.46	2,173,542.80	551,650.21	36.9731505	-107.6565206
5,854.00	89.38	282.12	3,644.59	731.18	-2,716.69	2,173,557.62	551,588.98	36.9731915	-107.6567301
5,916.00	91.93	284.75	3,643.88	745.58	-2,776.98	2,173,572.02	551,528.69	36.9732314	-107.6569364
5,979.00	91.89	285.10	3,641.78	761.80	-2,837.82	2,173,588.24	551,467.85	36.9732762	-107.6571445
6,042.00	91.32	283.52	3,640.02	777.36	-2,898.84	2,173,603.80	551,406.83	36.9733193	-107.6573533
6,105.00	90.57	283.70	3,638.98	792.18	-2,960.06	2,173,618.63	551,345.61	36.9733603	-107.6575628
6,167.00	89.12	282.82	3,639.15	806.40	-3,020.40	2,173,632.85	551,285.27	36.9733997	-107.6577693
6,230.00	89.03	284.31	3,640.17	821.18	-3,081.64	2,173,647.62	551,224.03	36.9734406	-107.6579788
Final KES MWD									
6,343.00	89.03	284.31	3,642.08	849.10	-3,191.11	2,173,675.55	551,114.56	36.9735179	-107.6583534
Proj to BHL/TD - SJ 32-8 Unit 254H PBHL									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
528.00	527.98	9 5/8" Csg	9-5/8	12-1/4	
3,916.00	3,546.68	7" Csg	7	8-3/4	

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
604.00	603.98	-4.59	-0.66	First KES MWD
5,643.00	3,644.61	672.22	-2,514.23	Top of Fish
6,230.00	3,640.17	821.18	-3,081.64	Final KES MWD
6,343.00	3,642.08	849.10	-3,191.11	Proj to BHL/TD