

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045-35900
1. Type of Well: Oil Well ☐ Gas Well ☒ Other		5. Indicate Type of Lease STATE ☐ FEE ☒
2. Name of Operator HILCORP ENERGY COMPANY		6. State Oil & Gas Lease No. FEE
3. Address of Operator 382 Road 3100, Aztec, NM 87410		7. Lease Name or Unit Agreement Name San Juan 32-7 Unit
4. Well Location Unit Letter: <u>F</u> <u>1193'</u> feet from the <u>North</u> line and <u>2650'</u> feet from the <u>West</u> line Section <u>07</u> Township <u>32N</u> Range <u>07W</u> NMPM County: <u>San Juan</u>		8. Well Number 248H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6418' GL		9. OGRID Number 372171
		10. Pool name or Wildcat Basin Fruitland Coal

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☒ Change of Plans

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Hilcorp Energy Company would like to change the drilling plans to remove the pilot hole as well as the sidetrack. The revised drilling plans are attached.

NMOCD

**ADHERE TO PREVIOUS NMOCD
CONDITIONS OF APPROVAL**

APR 15 2019

DISTRICT III

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: Amanda Walker

TITLE: Operations/Regulatory Technician – Sr. DATE: 4/9/2019

Type or print name Amanda Walker

E-mail address: mwalker@hilcorp.com

PHONE: (505)324-5122

For State Use Only

APPROVED BY: Bryan J. Bell

TITLE: IT&E Supervisor

DATE: 4/22/19

Conditions of Approval (if any):

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1625 N. French Drive, Hobbs, NM 88240
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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

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	1291	NORTH	832	WEST	SAN JUAN

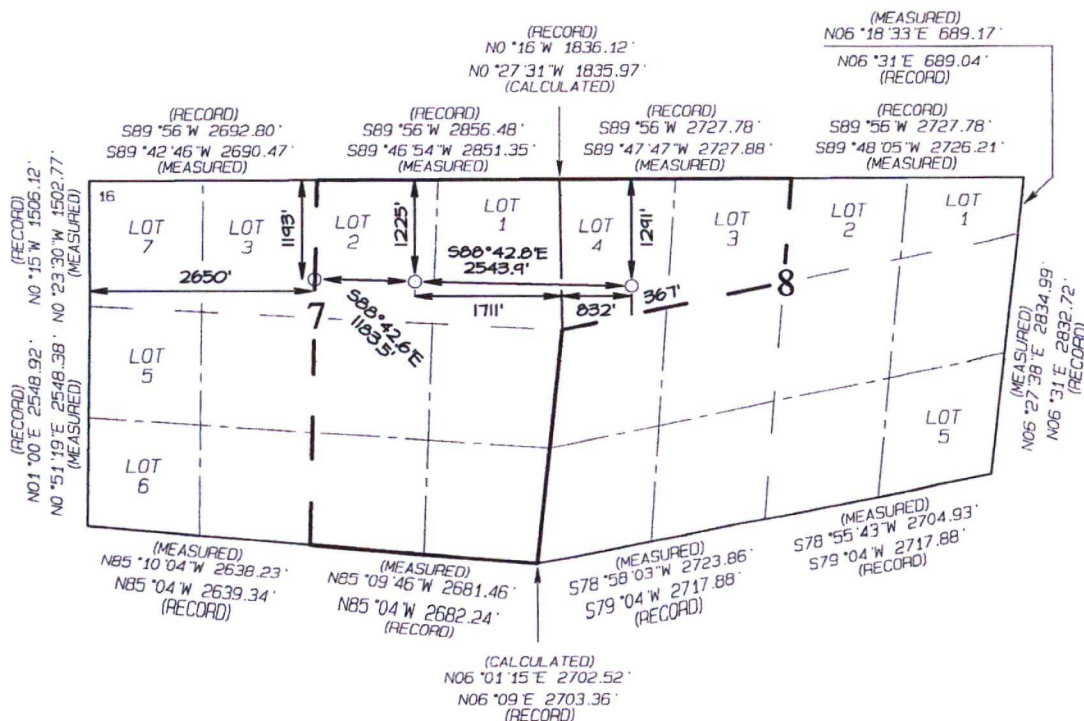
¹² Dedicated Acres 238.23	w/2 - Section 7 NW/4 - Section 8	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY 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
1225' FNL 1711' FWL
SEC 7, T32N, R7W
LAT: 36.996601°N
LONG: 107.604351°W
DATUM: NAD1927
LAT: 36.996605°N
LONG: 107.604962°W
DATUM: NAD1983

BOTTOM-HOLE LOCATION
1291' FNL 832' FWL
SEC 8, T32N, R7W
LAT: 36.996427°N
LONG: 107.595643°W
DATUM: NAD1927
LAT: 36.996431°N
LONG: 107.596254°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.

Signature: *Amanda Walker* Date: 4/9/2019
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



Hilcorp Energy Company

Technical Plan

1. Location

SAN JUAN 32-7 UNIT 248H

SHL: 1193' FNL, 2650' FEL – Sec 7, T32N, R7W

Lat 1 BHL: 1291' FNL, 832' FWL – Sec 8, T32N, R7W

GL: 6418'

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas, or oil shows are indicated below:

Formation	Depth (TVD)	Remarks
Ojo Alamo	2324'	Wet
Kirtland	2390'	Wet
Fruitland	2848'	Possible Gas/Water
Pictured Cliffs	3272'	Wet

Formation Top Selection: San Juan 32-7 41A was initially used for regional formation tops; I correlated from that well to 247A to get expected formation tops using 32-7-22-2 well as a good regional check; I had to use the 3-18 as kirtland top because neither the 41-A or the 32-7-22-2 had a kirtland top on the NMOC website

See attached directional plan for anticipated formation tops in measured depth.

3. Pressure Control Equipment

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment.

- BOPE will be nipped up on top of wellhead after surface casing is set and cemented.
- Pressure control configuration will be designed to meet the minimum 2M standards.
- All equipment will have 3M pressure ratings.
- A rotating head will be rigged up on top of annular as seen in attached diagram.

4. Casing & Cement Program

A) The proposed casing program is outlined below:

Proposed Casing				
Casing	Hole Size	Casing Size	Weight/Grade	Depth
Surface	12-1/4"	9-5/8"	32.3# H-40	0' - 500' (MD)
Intermediate	8-3/4"	7"	23# L-80	0' - 3,652.36' (MD)
Prod Liner (predrilled)	6-1/4"	4-1/2"	11.6# J-55/L-80	3,652.36' - 6,197.44' (MD)
Prod Liner (predrilled)	6-1/4"	4-1/2"	11.6# J-55/L-80	3,368' - 5,609' (MD)



The intermediate hole section will be drilled to target depth, then fully cased and cemented with 7" casing.

First Take Point is:

Lat1 – 3,652.36' MD / 3,063' TVD.

If the 6-1/4" hole is not drilled to total MD, the production liner setting depth and length will be adjusted accordingly.

The 7" casing shoe will be set inside the setback boundary line.

B) The proposed cement program is shown below:

Cement Program						
Interval	Depth (MD)	Sacks	Slurry	Excess	Volume	Planned Cement Top
Surface	500'	265	Lead Cmt: 2% Calcium Chloride, pellet 0.1250 lbm/sk Poly-E-Flake 1.18 ft ³ / sk - 5.24 gal/sk 15.8 ppg	100%	313 ft ³	Surface
Intermediate	3,652.36	390	Lead Cmt: Varicem Cement 0.3% Super CBL 0.3 % FE-2 5 lbm/sk Kol-Seal 0.125 lbm/sk Poly-E-Flake 2.11 ft ³ / sk – 11.25 gal/sk 12.9 ppg	50%	823 ft ³	Surface
Production		N/A	N/A – Open hole with pre-drilled liner	N/A	N/A	N/A

Actual cement volumes will be determined and may be adjusted onsite based on well conditions.

For the intermediate hole, a 2-stage cement job may be performed if hole conditions indicate during operations. Stage tool will be placed appropriately as conditions indicate.



C) The proposed centralizer program is shown below:

Centralizer Program	
Interval	Centralizers
Surface	1 per joint on bottom 3 joints
Intermediate	10' above shoe joint with collar clamp On top of 2nd, 4th, 6th, 8th, 10th joints 1 every 4th joint to Ojo Alamo 1 every joint through Ojo Alamo 1 Turbolizer will be placed mid-way into Ojo Alamo 1 every 4th joint from top of Ojo Alamo to surface shoe 1 inside surface casing
Production	N/A

To allow adequate time for cement to achieve a minimum of 500 psi compressive strength, a minimum of 8 hours wait on cement time for each hole section will be observed. The wellhead will not be installed, casing will not be tested, and the prior casing shoe will not be drilled out until adequate wait on cement time is achieved.

5. Drilling Fluids

A) The proposed drilling fluid program is outlined below:

Mud Program			
Interval	Mud Type	Weight (ppg)	Fluid Loss (cc)
Surface	Air / Water Gel System	Air 8.3 - 9.2	NC
Intermediate	LSND / Gel System	8.4 - 9.5	6 - 16
Production	LSND Brine (if needed)*	8.5 - 10	4 - 14

In the production hole, Brine will be utilized only if a weighting agent is needed to raise MW (for either well control or wellbore stability purposes).

LCM may be added to the mud system if hole conditions indicate.

B) Closed loop equipment will be utilized for solids control. Cuttings from surface, intermediate, and production hole will be hauled to an approved disposal site.



Hilcorp Energy Company

San Juan 32-7 Unit 248H

6. Abnormal Pressures & Hazards

- No over-pressured intervals expected.
- Estimated Reservoir Pressure = 1500 psi.
- Maximum anticipated surface pressure = 1,300 psi
- There is some offset Fruitland Coal, Mesa Verde, and Picture Cliffs production within the area which could result in these respective formations being under pressured.
- No hydrogen sulfide gas is expected based on nearby well production.

7. Testing, Logging, Coring

Testing, Logging, Coring Procedure		
Evaluation Method	Start Depth	End depth
Mud Logs	Fruitland Coal Top	TD
MWD Directional Surveys	KOP	TD
LWD GR	7" window	TD
Triple Combo	8-3/4" hole section	
Temp Survey	If needed on intermediate casing	

8. Directional Plan

The planned wellbore directional plan and plot is attached.

The planned directional plan is built off geological targets from offset wells. The production hole will be landed and drilled within target formation horizontally utilizing LWD equipment to help steer the wellbore. On site adjustments will be made to the directional plan as formation and hole indicates.



Hilcorp Energy Company

Hilcorp Energy Company

San Juan County, NM (NAD27)

.T32N - R07W SEC 07

San Juan 32-7 Unit 248H

Original Hole

Plan: Rev 0

Standard Planning Report - Geographic

01 April, 2019



Hilcorp Energy Company

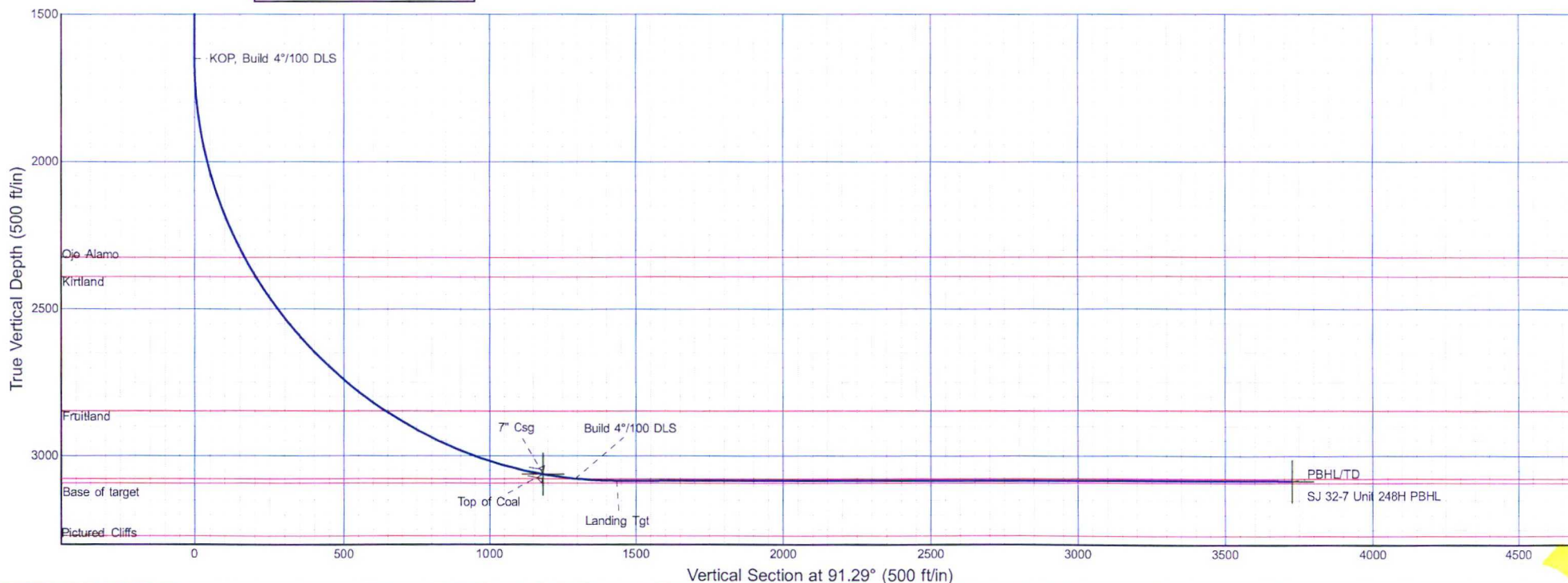
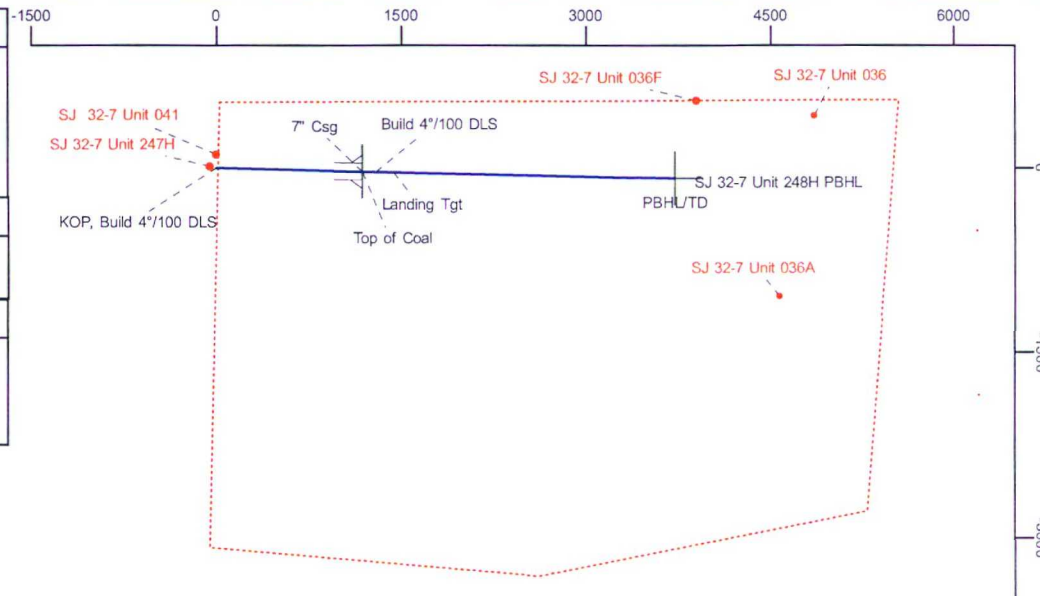
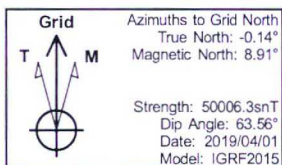
Hilcorp Energy Company

Well: San Juan 32-7 Unit 248H	Field: San Juan County, NM (NAD27)	Site: T32N - R07W SEC 07	Rig: TBD	Plan: Rev 0
Borehole: Original Hole VSec: 91.29deg	Plan Date: 04-01-2019 Grid Conv: 0.13	Datum: US State Plane 1927 Zone: New Mexico West 3003	KB: 6433ft GL: 6418.00ft	Latitude: 36.996682 Northing: 2182139.31
				Longitude: -107.608403 Easting: 565685.99
				Model: IGRF2015 DIP: 63.56°
				Date: 01-Apr-19 FS: 50006
				DEC: 9.05° North Ref: Grid

Critical Points										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1652.36	0.00	0.00	1652.36	0.00	0.00	0.00	0.00	0.00	KOP, Build 4"/100 DLS
3	3652.36	80.00	91.29	3063.00	-26.58	1183.37	4.00	91.29	1183.66	Top of Coal
4	3762.70	84.36	91.29	3078.00	-29.04	1292.62	3.95	0.04	1292.95	Build 4"/100 DLS
5	3904.94	90.00	91.29	3085.00	-32.24	1434.60	3.97	0.00	1434.96	Landing Tgt
6	6197.44	90.00	91.28	3085.00	-83.71	3726.52	0.00	-90.00	3727.46	PBHL/TD

Target Details								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
SJ 32-7 Unit 248H ICP	3063.00	-26.58	1183.36	2182112.73	566869.35	36.996601	-107.604351	
SJ 32-7 Unit 248H PBHL	3085.00	-83.71	3726.52	2182055.60	569412.50	36.996427	-107.595643	

Casing Details				Formation Top Details		
TVD	MD	Name	Size	TVDPath	MDPath	Formation
3063.00	3652.36	7" Csg	7.000	2324.00	2351.42	Ojo Alamo
				2390.00	2427.25	Kirtland
				2848.00	3067.01	Fruitland
				3078.00	3762.70	Top of Coal





Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well San Juan 32-7 Unit 248H
Company:	Hilcorp Energy Company	TVD Reference:	KB 15 Ft @ 6433.00ft (TBD)
Project:	San Juan County, NM (NAD27)	MD Reference:	KB 15 Ft @ 6433.00ft (TBD)
Site:	.T32N - R07W SEC 07	North Reference:	Grid
Well:	San Juan 32-7 Unit 248H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 0		

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	.T32N - R07W SEC 07			
Site Position:		Northing:	2,180,199.75 usft	Latitude: 36.991360
From:	Lat/Long	Easting:	564,826.98 usft	Longitude: -107.611360
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.13 °

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

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2019/04/01	9.05	63.56	50,006

Design	Rev 0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	91.29

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,652.36	0.00	0.00	1,652.36	0.00	0.00	0.00	0.00	0.00	0.00	
3,652.36	80.00	91.29	3,063.00	-26.58	1,183.37	4.00	4.00	0.00	91.29	SJ 32-7 Unit 248H PE
3,762.70	84.36	91.29	3,078.00	-29.04	1,292.62	3.95	3.95	0.00	0.04	
3,904.94	90.00	91.29	3,085.00	-32.24	1,434.60	3.97	3.97	0.00	0.00	
6,197.44	90.00	91.28	3,085.00	-83.71	3,726.52	0.00	0.00	0.00	-90.00	SJ 32-7 Unit 248H PE



Planning Report - Geographic

Database: EDM 5000.1 Single User Db
 Company: Hilcorp Energy Company
 Project: San Juan County, NM (NAD27)
 Site: T32N - R07W SEC 07
 Well: San Juan 32-7 Unit 248H
 Wellbore: Original Hole
 Design: Rev 0

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
 TVD Reference: KB 15 Ft @ 6433.00ft (TBD)
 MD Reference: KB 15 Ft @ 6433.00ft (TBD)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned 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	2,182,139.31	565,685.99	36.996682	-107.608403
100.00	0.00	0.00	100.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
200.00	0.00	0.00	200.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
300.00	0.00	0.00	300.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
400.00	0.00	0.00	400.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
500.00	0.00	0.00	500.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
600.00	0.00	0.00	600.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
700.00	0.00	0.00	700.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
800.00	0.00	0.00	800.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
900.00	0.00	0.00	900.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,000.00	0.00	0.00	1,000.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,100.00	0.00	0.00	1,100.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,200.00	0.00	0.00	1,200.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,300.00	0.00	0.00	1,300.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,400.00	0.00	0.00	1,400.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,500.00	0.00	0.00	1,500.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,600.00	0.00	0.00	1,600.00	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
1,652.36	0.00	0.00	1,652.36	0.00	0.00	2,182,139.31	565,685.99	36.996682	-107.608403
KOP, Build 4"/100 DLS									
1,700.00	1.91	91.29	1,699.99	-0.02	0.79	2,182,139.29	565,686.78	36.996682	-107.608401
1,800.00	5.91	91.29	1,799.74	-0.17	7.60	2,182,139.13	565,693.59	36.996682	-107.608377
1,900.00	9.91	91.29	1,898.77	-0.48	21.35	2,182,138.83	565,707.34	36.996681	-107.608330
2,000.00	13.91	91.29	1,996.60	-0.94	41.97	2,182,138.36	565,727.96	36.996679	-107.608260
2,100.00	17.91	91.29	2,092.75	-1.56	69.36	2,182,137.75	565,755.35	36.996677	-107.608166
2,200.00	21.91	91.29	2,186.76	-2.32	103.39	2,182,136.98	565,789.38	36.996675	-107.608049
2,300.00	25.91	91.29	2,278.16	-3.23	143.90	2,182,136.07	565,829.89	36.996672	-107.607911
2,351.42	27.96	91.29	2,324.00	-3.76	167.18	2,182,135.55	565,853.17	36.996671	-107.607831
Ojo Alamo									
2,400.00	29.91	91.29	2,366.51	-4.28	190.68	2,182,135.02	565,876.67	36.996669	-107.607750
2,427.25	31.00	91.29	2,390.00	-4.59	204.48	2,182,134.71	565,890.47	36.996668	-107.607703
Kirtland									
2,500.00	33.91	91.29	2,451.39	-5.47	243.51	2,182,133.84	565,929.49	36.996665	-107.607569
2,600.00	37.91	91.29	2,532.37	-6.79	302.12	2,182,132.52	565,988.11	36.996661	-107.607369
2,700.00	41.91	91.29	2,609.06	-8.23	366.25	2,182,131.08	566,052.23	36.996657	-107.607149
2,800.00	45.91	91.29	2,681.10	-9.78	435.56	2,182,129.52	566,121.55	36.996652	-107.606912
2,900.00	49.91	91.29	2,748.12	-11.45	509.73	2,182,127.86	566,195.72	36.996647	-107.606658
3,000.00	53.91	91.29	2,809.80	-13.22	588.40	2,182,126.09	566,274.38	36.996642	-107.606389
3,067.01	56.59	91.29	2,848.00	-14.45	643.43	2,182,124.85	566,329.42	36.996638	-107.606200
Fruitland									
3,100.00	57.91	91.29	2,865.85	-15.08	671.17	2,182,124.23	566,357.16	36.996636	-107.606105
3,200.00	61.91	91.29	2,915.98	-17.02	757.65	2,182,122.29	566,443.64	36.996630	-107.605809
3,300.00	65.91	91.29	2,959.96	-19.04	847.42	2,182,120.27	566,533.40	36.996624	-107.605502
3,400.00	69.91	91.29	2,997.56	-21.12	940.03	2,182,118.19	566,626.02	36.996618	-107.605184
3,500.00	73.91	91.29	3,028.62	-23.25	1,035.04	2,182,116.06	566,721.03	36.996611	-107.604859
3,600.00	77.91	91.29	3,052.96	-25.43	1,131.99	2,182,113.88	566,817.97	36.996605	-107.604527
3,652.36	80.00	91.29	3,063.00	-26.58	1,183.36	2,182,112.72	566,869.35	36.996601	-107.604351
7" Csg - SJ 32-7 Unit 248H ICP									
3,700.00	81.88	91.29	3,070.50	-27.64	1,230.39	2,182,111.67	566,916.38	36.996598	-107.604190
3,762.65	84.36	91.29	3,078.00	-29.04	1,292.57	2,182,110.27	566,978.56	36.996594	-107.603977
Top of Coal									
3,762.70	84.36	91.29	3,078.00	-29.04	1,292.62	2,182,110.27	566,978.61	36.996594	-107.603977
Build 4"/100 DLS									
3,800.00	85.84	91.29	3,081.19	-29.88	1,329.77	2,182,109.43	567,015.76	36.996591	-107.603850
3,900.00	89.80	91.29	3,084.99	-32.12	1,429.66	2,182,107.18	567,115.64	36.996584	-107.603508

Database: EDM 5000.1 Single User Db
 Company: Hilcorp Energy Company
 Project: San Juan County, NM (NAD27)
 Site: T32N - R07W SEC 07
 Well: San Juan 32-7 Unit 248H
 Wellbore: Original Hole
 Design: Rev 0

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
 TVD Reference: KB 15 Ft @ 6433.00ft (TBD)
 MD Reference: KB 15 Ft @ 6433.00ft (TBD)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,904.94	90.00	91.29	3,085.00	-32.24	1,434.60	2,182,107.07	567,120.58	36.996584	-107.603491
Landing Tgt									
4,000.00	90.00	91.29	3,085.00	-34.38	1,529.63	2,182,104.93	567,215.62	36.996578	-107.603166
4,100.00	90.00	91.29	3,085.00	-36.63	1,629.61	2,182,102.68	567,315.59	36.996571	-107.602823
4,200.00	90.00	91.29	3,085.00	-38.88	1,729.58	2,182,100.43	567,415.57	36.996564	-107.602481
4,300.00	90.00	91.29	3,085.00	-41.13	1,829.56	2,182,098.18	567,515.54	36.996557	-107.602139
4,400.00	90.00	91.29	3,085.00	-43.37	1,929.53	2,182,095.93	567,615.52	36.996550	-107.601796
4,500.00	90.00	91.29	3,085.00	-45.62	2,029.51	2,182,093.68	567,715.49	36.996543	-107.601454
4,600.00	90.00	91.29	3,085.00	-47.87	2,129.48	2,182,091.44	567,815.46	36.996537	-107.601112
4,700.00	90.00	91.29	3,085.00	-50.12	2,229.45	2,182,089.19	567,915.44	36.996530	-107.600769
4,800.00	90.00	91.29	3,085.00	-52.36	2,329.43	2,182,086.94	568,015.41	36.996523	-107.600427
4,900.00	90.00	91.29	3,085.00	-54.61	2,429.40	2,182,084.69	568,115.39	36.996516	-107.600085
5,000.00	90.00	91.29	3,085.00	-56.86	2,529.38	2,182,082.45	568,215.36	36.996509	-107.599742
5,100.00	90.00	91.29	3,085.00	-59.10	2,629.35	2,182,080.20	568,315.34	36.996502	-107.599400
5,200.00	90.00	91.29	3,085.00	-61.35	2,729.33	2,182,077.96	568,415.31	36.996496	-107.599058
5,300.00	90.00	91.29	3,085.00	-63.59	2,829.30	2,182,075.71	568,515.29	36.996489	-107.598715
5,400.00	90.00	91.29	3,085.00	-65.83	2,929.28	2,182,073.47	568,615.26	36.996482	-107.598373
5,500.00	90.00	91.29	3,085.00	-68.08	3,029.25	2,182,071.23	568,715.24	36.996475	-107.598031
5,600.00	90.00	91.28	3,085.00	-70.32	3,129.23	2,182,068.99	568,815.21	36.996468	-107.597688
5,700.00	90.00	91.28	3,085.00	-72.56	3,229.20	2,182,066.74	568,915.18	36.996461	-107.597346
5,800.00	90.00	91.28	3,085.00	-74.80	3,329.18	2,182,064.50	569,015.16	36.996454	-107.597004
5,900.00	90.00	91.28	3,085.00	-77.04	3,429.15	2,182,062.26	569,115.13	36.996448	-107.596661
6,000.00	90.00	91.28	3,085.00	-79.28	3,529.13	2,182,060.02	569,215.11	36.996441	-107.596319
6,100.00	90.00	91.28	3,085.00	-81.52	3,629.10	2,182,057.78	569,315.08	36.996434	-107.595977
6,197.44	90.00	91.28	3,085.00	-83.71	3,726.52	2,182,055.60	569,412.50	36.996427	-107.595643
PBHL/TD - SJ 32-7 Unit 248H PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SJ 32-7 Unit 248H ICP - plan hits target center - Point	0.00	0.00	3,063.00	-26.58	1,183.36	2,182,112.72	566,869.35	36.996601	-107.604351
SJ 32-7 Unit 248H PBHL - plan hits target center - Point	0.00	0.00	3,085.00	-83.71	3,726.52	2,182,055.60	569,412.50	36.996427	-107.595643

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,652.36	3,063.00	7" Csg	7.000	8.750



Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: Hilcorp Energy Company
Project: San Juan County, NM (NAD27)
Site: .T32N - R07W SEC 07
Well: San Juan 32-7 Unit 248H
Wellbore: Original Hole
Design: Rev 0

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
TVD Reference: KB 15 Ft @ 6433.00ft (TBD)
MD Reference: KB 15 Ft @ 6433.00ft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,351.42	2,324.00	Ojo Alamo			
2,427.25	2,390.00	Kirtland			
3,067.01	2,848.00	Fruitland			
3,762.65	3,078.00	Top of Coal			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,652.36	1,652.36	0.00	0.00	KOP, Build 4°/100 DLS
3,652.36	3,063.00	-26.58	1,183.37	Top of Coal
3,762.70	3,078.00	-29.04	1,292.62	Build 4°/100 DLS
3,904.94	3,085.00	-32.24	1,434.60	Landing Tgt
6,197.44	3,085.00	-83.71	3,726.52	PBHL/TD



Hilcorp Energy Company

Hilcorp Energy Company

San Juan County, NM (NAD27)

.T32N - R07W SEC 07

San Juan 32-7 Unit 248H

Original Hole

Rev 0

Anticollision Summary Report

01 April, 2019



Anticollision Summary Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well San Juan 32-7 Unit 248H
Project:	San Juan County, NM (NAD27)	TVD Reference:	KB 15 Ft @ 6433.00ft (TBD)
Reference Site:	.T32N - R07W SEC 07	MD Reference:	KB 15 Ft @ 6433.00ft (TBD)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	San Juan 32-7 Unit 248H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference	Rev 0
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference
Interpolation Method:	MD Interval 100.00ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 819.74 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Combined Covariances
Casing Method:	Added to Error Values

Survey Tool Program	Date	2019/04/01
From (ft)	To (ft)	Survey (Wellbore)
0.00	6,197.44	Rev 0 (Original Hole)
		Tool Name
		MWD
		Description
		MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
.T32N - R07W SEC 07						
San Juan 32-7 Unit 041 - Original Hole - Original Hole	800.00	744.03	109.76	97.44	8.910	CC
San Juan 32-7 Unit 041 - Original Hole - Original Hole	1,900.00	1,842.81	112.93	77.58	3.194	Warning, ES
San Juan 32-7 Unit 041 - Original Hole - Original Hole	2,000.00	1,940.65	119.10	81.15	3.138	Warning, SF
San Juan 32-7 Unit 247H - Original Hole - Original Hole	754.73	739.77	56.20	43.21	4.326	Warning, CC
San Juan 32-7 Unit 247H - Original Hole - Original Hole	1,700.00	1,685.05	57.11	20.62	1.565	Level 3, ES, SF
T32N - R07W SEC 08						
San Juan 32-7 Unit 036F - Original Hole - Original Hole	6,197.44	2,875.15	654.18	532.80	5.389	CC, ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



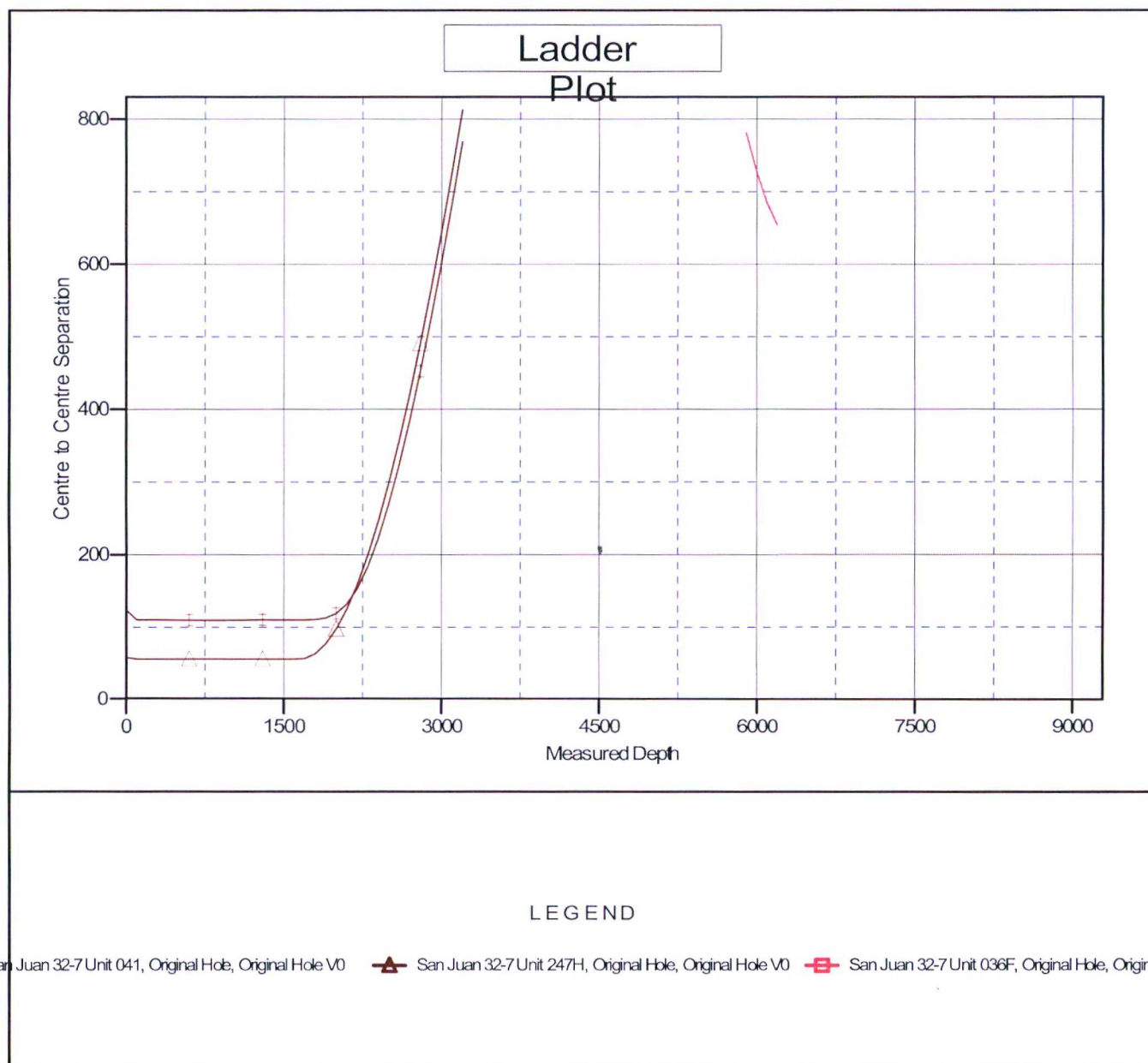
Anticollision Summary Report

Company: Hilcorp Energy Company
Project: San Juan County, NM (NAD27)
Reference Site: T32N - R07W SEC 07
Site Error: 0.00 ft
Reference Well: San Juan 32-7 Unit 248H
Well Error: 0.00 ft
Reference Wellbore: Original Hole
Reference Design: Rev 0

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
TVD Reference: KB 15 Ft @ 6433.00ft (TBD)
MD Reference: KB 15 Ft @ 6433.00ft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB 15 Ft @ 6433.00ft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is -107.833334

Coordinates are relative to: San Juan 32-7 Unit 248H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.14°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



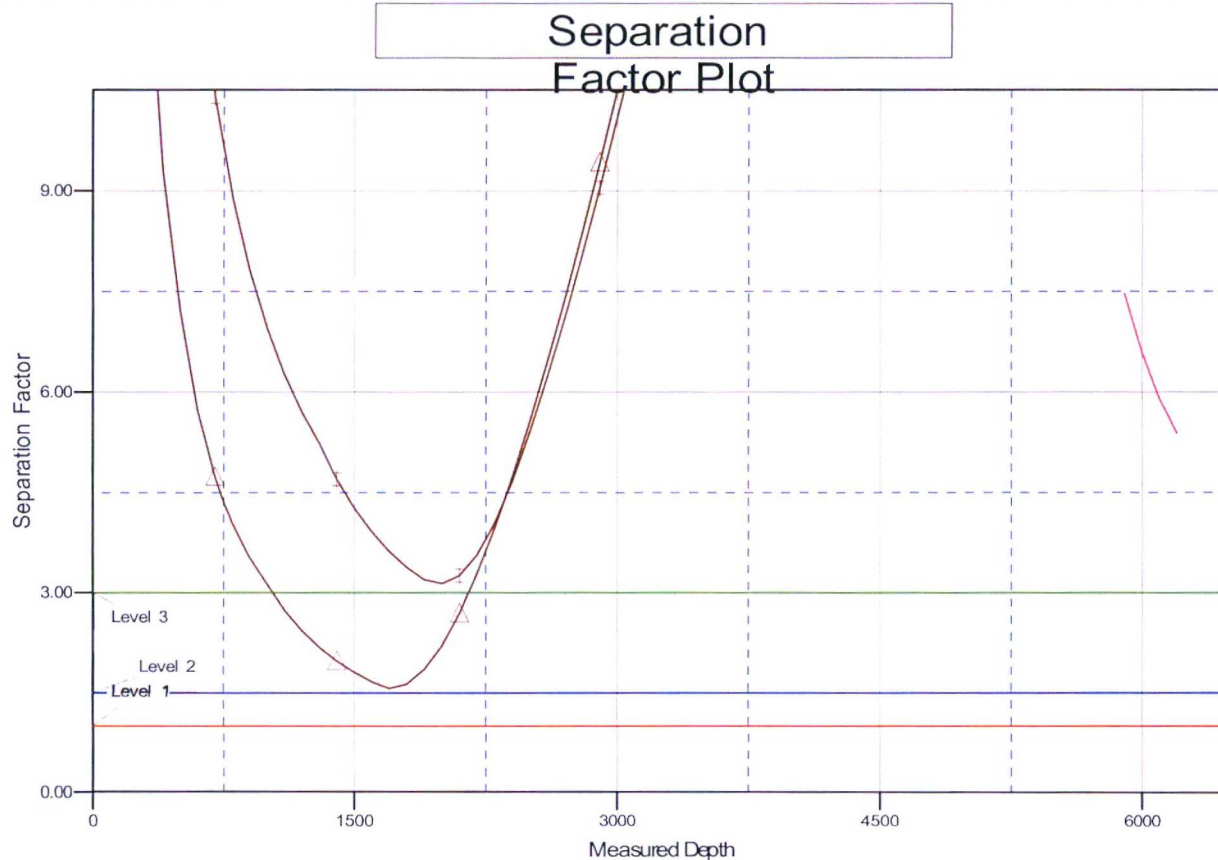
Anticollision Summary Report

Company: Hilcorp Energy Company
Project: San Juan County, NM (NAD27)
Reference Site: T32N - R07W SEC 07
Site Error: 0.00 ft
Reference Well: San Juan 32-7 Unit 248H
Well Error: 0.00 ft
Reference Wellbore: Original Hole
Reference Design: Rev 0

Local Co-ordinate Reference: Well San Juan 32-7 Unit 248H
TVD Reference: KB 15 Ft @ 6433.00ft (TBD)
MD Reference: KB 15 Ft @ 6433.00ft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB 15 Ft @ 6433.00ft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is -107.833334

Coordinates are relative to: San Juan 32-7 Unit 248H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.14°

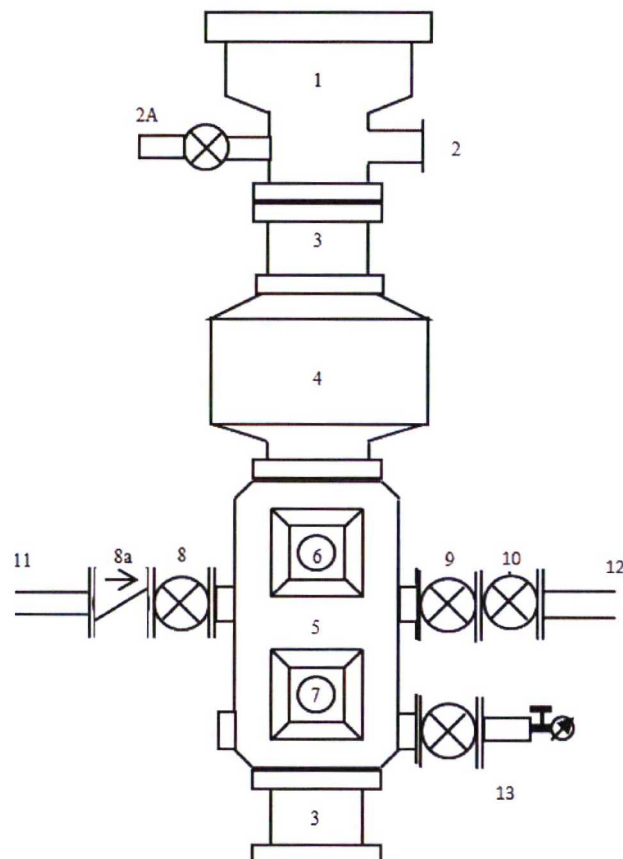


LEGEND

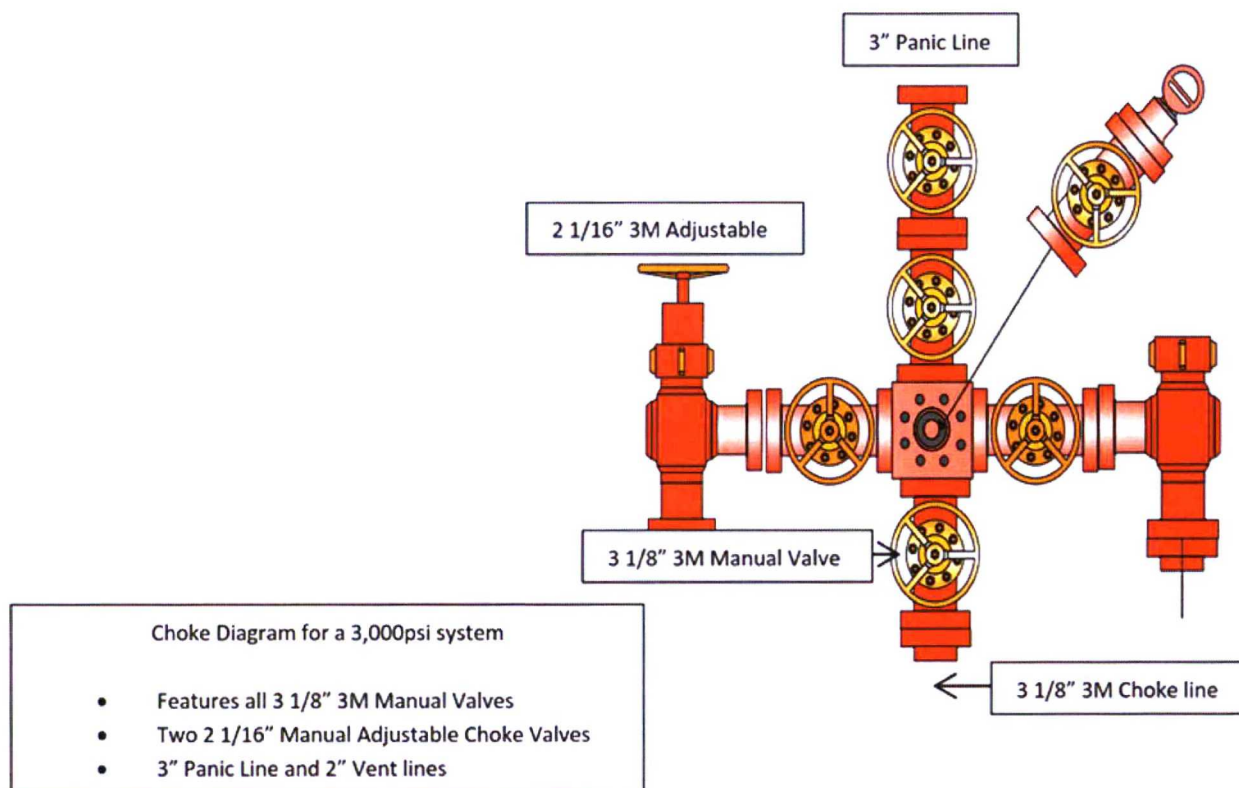
San Juan 32-7 Unit 041, Original Hole, Original Hole V0 San Juan 32-7 Unit 247H, Original Hole, Original Hole V0 San Juan 32-7 Unit 036F, Original Hole, Original Hole V0

BOPE Schematic – Aztec 777

1. Rotating Head
2. Flow line
- 2A. Fill up line and valve
3. Spacer Spools (as needed)
4. 11" 3M Annular Preventer
5. 11" 3M Double Ram Preventer
6. Blind Rams
7. Pipe Rams
8. 3M Gate Valve (2")
- 8a. Check valve
9. 3M Manual Gate Valve (3")
10. 3M Manual Gate Valve (3")
11. Kill Line Connection, 2" hard line
12. Choke Line (3" Co-Flex)
13. Secondary outlet with valve, bull plug, needle valve, and pressure gauge



Choke Manifold Schematic – Aztec 777



Directions from the Intersection of US Hwy 550 & State Hwy 173

in Aztec, NM to Hilcorp Energy Company San Juan 32-7 Unit #248H

1193' FNL & 2650' FWL, Section 7, T32N, R7W, N.M.P.M., San Juan County, NM

Latitude: 36.996686°N Longitude: 107.609014°W Datum: NAD1983

From the intersection of US Hwy 550 & State Hwy 173 in Aztec, NM, travel Easterly on State Hwy 173 for 1.0 mile to fork in roadway;

Go Left (Easterly) remaining on State Hwy 173 for 17.0 miles to T-intersection;

Go Left (North-easterly) exiting State Hwy 173 onto State Hwy 511 for 23.5 miles to 4-Way intersection @ Mile marker 31.7;

Go Left (North-westerly) exiting State Hwy #511 onto existing roadway for 0.3 miles to fork in roadway;

Go Right (Northerly) on existing roadway for 330' to existing Hilcorp San Juan 32-7 Unit #247H location, with the Hilcorp San Juan 32-7 Unit #248H wellflag staked offset #247H wellhead.