Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 705H

Lateral No.2
WP2.1

Anticollision Report

15 March, 2023

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Reference WP2.1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 25.0usft	**Error Model:**	ISCWSA
Depth Range:	3,300.0 to 7,214.0usft	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 10,000.0usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Through Borehole Radius

Survey Tool Program **Date** 3/14/2023

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	3,300.0	WP2.1 (Pilot Hole)	3_MWD+HRGM	B001Mb: HRGM declination correction only
3,300.0	7,213.3	WP2.1 (Lateral No.2)	3_MWD+HRGM	B001Mb: HRGM declination correction only

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
San Juan Basin						
SOUTHERN UTE 005 - ST00 - ST00	4,017.4	3,303.8	747.4	-1,597.5	0.319	Collision RiskProcedures Re
SOUTHERN UTE 005 - ST00 - ST00	4,025.0	3,303.7	747.5	-1,597.6	0.319	Collision RiskProcedures Re
SOUTHERN UTE 005A - ST00 - ST00	7,200.0	2,902.2	155.2	-1,969.6	0.073	Collision RiskProcedures Re
Southern Ute 705H - Lateral No.1 - WP2.1	3,600.0	3,564.8	122.4	114.5	15.533	CC, ES
Southern Ute 705H - Lateral No.1 - WP2.1	7,200.0	7,521.8	1,124.6	966.1	7.093	SF
Southern Ute 705H - Pilot Hole - WP2.1	3,600.0	3,577.8	101.3	91.4	10.222	CC, ES, SF

Offset Design: San Juan Basin - SOUTHERN UTE 005 - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 8325-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,300.0	2,801.6	3,218.6	3,218.6	26.7	2,248.9	46.89	-1,271.7	1,871.8	1,033.4	-1,233.1	2,266.58	0.456	Collision RiskProcedures Req'd
3,325.0	2,812.5	3,229.5	3,229.5	27.1	2,256.6	61.73	-1,271.7	1,871.8	1,014.4	-1,260.2	2,274.66	0.446	Collision RiskProcedures Req'd
3,344.0	2,820.5	3,237.5	3,237.5	27.3	2,262.1	70.08	-1,271.7	1,871.8	997.6	-1,282.8	2,280.46	0.437	Collision RiskProcedures Req'd
3,350.0	2,822.9	3,239.9	3,239.9	27.4	2,263.9	70.53	-1,271.7	1,871.8	994.1	-1,288.2	2,282.27	0.436	Collision RiskProcedures Req'd
3,375.0	2,832.9	3,249.9	3,249.9	27.5	2,270.8	72.42	-1,271.7	1,871.8	979.2	-1,310.3	2,289.58	0.428	Collision RiskProcedures Req'd
3,400.0	2,842.0	3,259.0	3,259.0	27.7	2,277.2	74.29	-1,271.7	1,871.8	964.5	-1,331.8	2,296.39	0.420	Collision RiskProcedures Req'd
3,425.0	2,850.4	3,267.4	3,267.4	27.9	2,283.1	76.12	-1,271.7	1,871.8	950.0	-1,352.7	2,302.70	0.413	Collision RiskProcedures Req'd
3,450.0	2,858.0	3,275.0	3,275.0	28.1	2,288.4	77.90	-1,271.7	1,871.8	935.6	-1,372.9	2,308.50	0.405	Collision RiskProcedures Req'd
3,475.0	2,864.9	3,281.9	3,281.9	28.3	2,293.2	79.61	-1,271.7	1,871.8	921.5	-1,392.3	2,313.79	0.398	Collision RiskProcedures Req'd
3,500.0	2,870.9	3,287.9	3,287.9	28.5	2,297.4	81.26	-1,271.7	1,871.8	907.6	-1,410.9	2,318.55	0.391	Collision RiskProcedures Req'd
3,525.0	2,876.2	3,293.2	3,293.2	28.8	2,301.1	82.82	-1,271.7	1,871.8	894.1	-1,428.7	2,322.80	0.385	Collision RiskProcedures Req'd
3,550.0	2,880.6	3,297.6	3,297.6	29.0	2,304.2	84.29	-1,271.7	1,871.8	880.9	-1,445.6	2,326.52	0.379	Collision RiskProcedures Req'd
3,575.0	2,884.3	3,301.3	3,301.3	29.3	2,306.7	85.66	-1,271.7	1,871.8	868.2	-1,461.5	2,329.71	0.373	Collision RiskProcedures Req'd
3,600.0	2,887.1	3,304.1	3,304.1	29.5	2,308.7	86.92	-1,271.7	1,871.8	855.9	-1,476.5	2,332.35	0.367	Collision RiskProcedures Req'd
3,625.0	2,889.1	3,306.1	3,306.1	29.8	2,310.1	88.08	-1,271.7	1,871.8	844.1	-1,490.4	2,334.46	0.362	Collision RiskProcedures Req'd
3,650.0	2,890.3	3,307.3	3,307.3	30.1	2,310.9	89.11	-1,271.7	1,871.8	832.8	-1,503.2	2,336.01	0.357	Collision RiskProcedures Req'd
3,675.0	2,890.7	3,307.7	3,307.7	30.4	2,311.2	90.03	-1,271.7	1,871.8	822.1	-1,514.9	2,337.02	0.352	Collision RiskProcedures Req'd
3,683.0	2,890.6	3,307.6	3,307.6	30.5	2,311.2	90.29	-1,271.7	1,871.8	818.8	-1,518.4	2,337.23	0.350	Collision RiskProcedures Req'd
3,700.0	2,890.4	3,307.4	3,307.4	30.7	2,311.0	90.28	-1,271.7	1,871.8	812.0	-1,525.6	2,337.61	0.347	Collision RiskProcedures Req'd
3,725.0	2,890.2	3,307.2	3,307.2	31.0	2,310.8	90.26	-1,271.7	1,871.8	802.6	-1,535.6	2,338.20	0.343	Collision RiskProcedures Req'd
3,750.0	2,889.9	3,306.9	3,306.9	31.3	2,310.6	90.24	-1,271.7	1,871.8	793.8	-1,545.0	2,338.79	0.339	Collision RiskProcedures Req'd

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

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Offset Design: San Juan Basin - SOUTHERN UTE 005 - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 8325-3_Blind — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,775.0	2,889.6	3,306.6	3,306.6	31.7	2,310.4	90.21	-1,271.7	1,871.8	785.7	-1,553.6	2,339.38	0.336	Collision RiskProcedures Req'd
3,800.0	2,889.3	3,306.3	3,306.3	32.0	2,310.2	90.19	-1,271.7	1,871.8	778.4	-1,561.6	2,339.98	0.333	Collision RiskProcedures Req'd
3,825.0	2,889.0	3,306.0	3,306.0	32.3	2,310.0	90.17	-1,271.7	1,871.8	771.8	-1,568.8	2,340.59	0.330	Collision RiskProcedures Req'd
3,850.0	2,888.7	3,305.7	3,305.7	32.7	2,309.8	90.15	-1,271.7	1,871.8	765.9	-1,575.3	2,341.20	0.327	Collision RiskProcedures Req'd
3,875.0	2,888.4	3,305.4	3,305.4	33.0	2,309.6	90.13	-1,271.7	1,871.8	760.9	-1,580.9	2,341.80	0.325	Collision RiskProcedures Req'd
3,900.0	2,888.1	3,305.1	3,305.1	33.4	2,309.4	90.10	-1,271.7	1,871.8	756.6	-1,585.8	2,342.38	0.323	Collision RiskProcedures Req'd
3,925.0	2,887.8	3,304.8	3,304.8	33.8	2,309.2	90.08	-1,271.7	1,871.8	753.1	-1,589.8	2,342.97	0.321	Collision RiskProcedures Req'd
3,950.0	2,887.6	3,304.6	3,304.6	34.2	2,309.0	90.06	-1,271.7	1,871.8	750.5	-1,593.1	2,343.53	0.320	Collision RiskProcedures Req'd
3,975.0	2,887.3	3,304.3	3,304.3	34.6	2,308.8	90.04	-1,271.7	1,871.8	748.6	-1,595.4	2,344.06	0.319	Collision RiskProcedures Req'd
4,000.0	2,887.0	3,304.0	3,304.0	34.9	2,308.6	90.02	-1,271.7	1,871.8	747.6	-1,596.9	2,344.57	0.319	Collision RiskProcedures Req'd
4,017.4	2,886.8	3,303.8	3,303.8	35.2	2,308.5	90.00	-1,271.7	1,871.8	747.4	-1,597.5	2,344.92	0.319	Collision RiskProcedures Req'd, CC
4,025.0	2,886.7	3,303.7	3,303.7	35.4	2,308.4	89.99	-1,271.7	1,871.8	747.5	-1,597.6	2,345.07	0.319	Collision RiskProcedures Req'd, ES, SI
4,050.0	2,886.4	3,303.4	3,303.4	35.8	2,308.2	89.97	-1,271.7	1,871.8	748.2	-1,597.4	2,345.53	0.319	Collision RiskProcedures Req'd
4,075.0	2,886.1	3,303.1	3,303.1	36.2	2,308.0	89.95	-1,271.7	1,871.8	749.7	-1,596.3	2,345.95	0.320	Collision RiskProcedures Req'd
4,100.0	2,885.8	3,302.8	3,302.8	36.6	2,307.8	89.93	-1,271.7	1,871.8	752.0	-1,594.3	2,346.33	0.321	Collision RiskProcedures Req'd
4,125.0	2,885.5	3,302.5	3,302.5	37.0	2,307.6	89.91	-1,271.7	1,871.8	755.2	-1,591.5	2,346.69	0.322	Collision RiskProcedures Req'd
4,150.0	2,885.3	3,302.3	3,302.3	37.4	2,307.4	89.88	-1,271.7	1,871.8	759.1	-1,587.9	2,347.01	0.323	Collision RiskProcedures Req'd
4,175.0	2,885.0	3,302.0	3,302.0	37.9	2,307.2	89.86	-1,271.7	1,871.8	763.9	-1,583.4	2,347.28	0.325	Collision RiskProcedures Req'd
4,200.0	2,884.7	3,301.7	3,301.7	38.3	2,307.0	89.84	-1,271.7	1,871.8	769.4	-1,578.1	2,347.51	0.328	Collision RiskProcedures Req'd
4,225.0	2,884.4	3,301.4	3,301.4	38.8	2,306.8	89.82	-1,271.7	1,871.8	775.7	-1,572.0	2,347.72	0.330	Collision RiskProcedures Req'd
4,250.0	2,884.1	3,301.1	3,301.1	39.2	2,306.6	89.79	-1,271.7	1,871.8	782.8	-1,565.1	2,347.88	0.333	Collision RiskProcedures Req'd
4,275.0	2,883.8	3,300.8	3,300.8	39.7	2,306.4	89.77	-1,271.7	1,871.8	790.6	-1,557.4	2,348.00	0.337	Collision RiskProcedures Req'd
4,300.0	2,883.5	3,300.5	3,300.5	40.1	2,306.2	89.75	-1,271.7	1,871.8	799.1	-1,549.0	2,348.08	0.340	Collision RiskProcedures Req'd
4,325.0	2,883.2	3,300.2	3,300.2	40.6	2,306.0	89.73	-1,271.7	1,871.8	808.3	-1,539.9	2,348.14	0.344	Collision RiskProcedures Req'd
4,350.0	2,883.0	3,300.0	3,300.0	41.0	2,305.8	89.71	-1,271.7	1,871.8	818.1	-1,530.0	2,348.16	0.348	Collision RiskProcedures Req'd
4,375.0	2,882.7	3,299.7	3,299.7	41.5	2,305.6	89.68	-1,271.7	1,871.8	828.6	-1,519.5	2,348.14	0.353	Collision RiskProcedures Req'd
4,400.0	2,882.4	3,299.4	3,299.4	42.0	2,305.4	89.66	-1,271.7	1,871.8	839.7	-1,508.4	2,348.09	0.358	Collision RiskProcedures Req'd
4,425.0	2,882.1	3,299.1	3,299.1	42.5	2,305.2	89.64	-1,271.7	1,871.8	851.4	-1,496.6	2,348.02	0.363	Collision RiskProcedures Req'd
4,450.0	2,881.8	3,298.8	3,298.8	42.9	2,305.0	89.62	-1,271.7	1,871.8	863.6	-1,484.3	2,347.92	0.368	Collision RiskProcedures Req'd
4,475.0	2,881.5	3,298.5	3,298.5	43.4	2,304.8	89.60	-1,271.7	1,871.8	876.4	-1,471.4	2,347.79	0.373	Collision RiskProcedures Req'd
4,500.0	2,881.2	3,298.2	3,298.2	43.9	2,304.6	89.57	-1,271.7	1,871.8	889.7	-1,457.9	2,347.64	0.379	Collision RiskProcedures Req'd
4,525.0	2,880.9	3,297.9	3,297.9	44.4	2,304.4	89.55	-1,271.7	1,871.8	903.5	-1,444.0	2,347.47	0.385	Collision RiskProcedures Req'd
4,550.0	2,880.7	3,297.7	3,297.7	44.9	2,304.2	89.53	-1,271.7	1,871.8	917.8	-1,429.5	2,347.28	0.391	Collision RiskProcedures Req'd
4,575.0	2,880.4	3,297.4	3,297.4	45.4	2,304.0	89.51	-1,271.7	1,871.8	932.5	-1,414.5	2,347.07	0.397	Collision RiskProcedures Req'd
4,600.0	2,880.1	3,297.1	3,297.1	45.9	2,303.8	89.49	-1,271.7	1,871.8	947.7	-1,399.2	2,346.85	0.404	Collision RiskProcedures Req'd
4,625.0	2,879.8	3,296.8	3,296.8	46.4	2,303.6	89.46	-1,271.7	1,871.8	963.3	-1,383.4	2,346.61	0.410	Collision RiskProcedures Req'd
4,650.0	2,879.5	3,296.5	3,296.5	46.9	2,303.4	89.44	-1,271.7	1,871.8	979.2	-1,367.1	2,346.36	0.417	Collision RiskProcedures Req'd
4,675.0	2,879.2	3,296.2	3,296.2	47.4	2,303.2	89.42	-1,271.7	1,871.8	995.5	-1,350.5	2,346.10	0.424	Collision RiskProcedures Req'd
4,700.0	2,878.9	3,295.9	3,295.9	47.9	2,303.0	89.40	-1,271.7	1,871.8	1,012.2	-1,333.6	2,345.82	0.432	Collision RiskProcedures Req'd
4,725.0	2,878.6	3,295.6	3,295.6	48.4	2,302.8	89.38	-1,271.7	1,871.8	1,029.3	-1,316.3	2,345.54	0.439	Collision RiskProcedures Req'd
4,750.0	2,878.4	3,295.4	3,295.4	48.9	2,302.6	89.35	-1,271.7	1,871.8	1,046.6	-1,298.7	2,345.25	0.446	Collision RiskProcedures Req'd
4,775.0	2,878.1	3,295.1	3,295.1	49.5	2,302.4	89.33	-1,271.7	1,871.8	1,064.3	-1,280.7	2,344.96	0.454	Collision RiskProcedures Req'd
4,800.0	2,877.8	3,294.8	3,294.8	50.0	2,302.2	89.31	-1,271.7	1,871.8	1,082.2	-1,262.5	2,344.65	0.462	Collision RiskProcedures Req'd
4,825.0	2,877.5	3,294.5	3,294.5	50.5	2,302.0	89.29	-1,271.7	1,871.8	1,100.4	-1,243.9	2,344.34	0.469	Collision RiskProcedures Req'd
4,850.0	2,877.2	3,294.2	3,294.2	51.0	2,301.8	89.27	-1,271.7	1,871.8	1,118.9	-1,225.2	2,344.03	0.477	Collision RiskProcedures Req'd
4,875.0	2,876.9	3,293.9	3,293.9	51.5	2,301.6	89.24	-1,271.7	1,871.8	1,137.6	-1,206.1	2,343.71	0.485	Collision RiskProcedures Req'd
4,900.0	2,876.6	3,293.6	3,293.6	52.1	2,301.4	89.22	-1,271.7	1,871.8	1,156.6	-1,186.8	2,343.39	0.494	Collision RiskProcedures Req'd
4,925.0	2,876.3	3,293.3	3,293.3	52.6	2,301.2	89.20	-1,271.7	1,871.8	1,175.8	-1,167.3	2,343.07	0.502	Collision RiskProcedures Req'd
4,950.0	2,876.1	3,293.1	3,293.1	53.1	2,301.0	89.18	-1,271.7	1,871.8	1,195.2	-1,147.6	2,342.75	0.510	Collision RiskProcedures Req'd
4,975.0	2,875.8	3,292.8	3,292.8	53.7	2,300.8	89.16	-1,271.7	1,871.8	1,214.8	-1,127.7	2,342.42	0.519	Collision RiskProcedures Req'd
5,000.0	2,875.5	3,292.5	3,292.5	54.2	2,300.6	89.13	-1,271.7	1,871.8	1,234.6	-1,107.5	2,342.09	0.527	Collision RiskProcedures Req'd
5,025.0	2,875.2	3,292.2	3,292.2	54.7	2,300.4	89.11	-1,271.7	1,871.8	1,254.5	-1,087.2	2,341.76	0.536	Collision RiskProcedures Req'd

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Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005 - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 8325-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,050.0	2,874.9	3,291.9	3,291.9	55.3	2,300.2	89.09	-1,271.7	1,871.8	1,274.7	-1,066.7	2,341.43	0.544	Collision RiskProcedures Req'd
5,075.0	2,874.6	3,291.6	3,291.6	55.8	2,300.0	89.07	-1,271.7	1,871.8	1,295.0	-1,046.1	2,341.11	0.553	Collision RiskProcedures Req'd
5,100.0	2,874.3	3,291.3	3,291.3	56.3	2,299.8	89.05	-1,271.7	1,871.8	1,315.5	-1,025.2	2,340.78	0.562	Collision RiskProcedures Req'd
5,125.0	2,874.0	3,291.0	3,291.0	56.9	2,299.6	89.02	-1,271.7	1,871.8	1,336.2	-1,004.3	2,340.45	0.571	Collision RiskProcedures Req'd
5,150.0	2,873.8	3,290.8	3,290.8	57.4	2,299.4	89.00	-1,271.7	1,871.8	1,357.0	-983.1	2,340.12	0.580	Collision RiskProcedures Req'd
5,175.0	2,873.5	3,290.5	3,290.5	58.0	2,299.2	88.98	-1,271.7	1,871.8	1,377.9	-961.9	2,339.79	0.589	Collision RiskProcedures Req'd
5,200.0	2,873.2	3,290.2	3,290.2	58.5	2,299.0	88.96	-1,271.7	1,871.8	1,399.0	-940.5	2,339.47	0.598	Collision RiskProcedures Req'd
5,225.0	2,872.9	3,289.9	3,289.9	59.1	2,298.8	88.93	-1,271.7	1,871.8	1,420.2	-919.0	2,339.14	0.607	Collision RiskProcedures Req'd
5,250.0	2,872.6	3,289.6	3,289.6	59.6	2,298.6	88.91	-1,271.7	1,871.8	1,441.5	-897.3	2,338.82	0.616	Collision RiskProcedures Req'd
5,275.0	2,872.3	3,289.3	3,289.3	60.2	2,298.4	88.89	-1,271.7	1,871.8	1,462.9	-875.6	2,338.49	0.626	Collision RiskProcedures Req'd
5,300.0	2,872.0	3,289.0	3,289.0	60.7	2,298.2	88.87	-1,271.7	1,871.8	1,484.5	-853.7	2,338.17	0.635	Collision RiskProcedures Req'd
5,325.0	2,871.7	3,288.7	3,288.7	61.3	2,298.0	88.85	-1,271.7	1,871.8	1,506.1	-831.7	2,337.85	0.644	Collision RiskProcedures Req'd
5,350.0	2,871.5	3,288.5	3,288.5	61.8	2,297.8	88.82	-1,271.7	1,871.8	1,527.9	-809.7	2,337.53	0.654	Collision RiskProcedures Req'd
5,375.0	2,871.2	3,288.2	3,288.2	62.4	2,297.6	88.80	-1,271.7	1,871.8	1,549.7	-787.5	2,337.22	0.663	Collision RiskProcedures Req'd
5,400.0	2,870.9	3,287.9	3,287.9	62.9	2,297.4	88.78	-1,271.7	1,871.8	1,571.7	-765.2	2,336.90	0.673	Collision RiskProcedures Req'd
5,425.0	2,870.6	3,287.6	3,287.6	63.5	2,297.2	88.76	-1,271.7	1,871.8	1,593.7	-742.9	2,336.59	0.682	Collision RiskProcedures Req'd
5,450.0	2,870.3	3,287.3	3,287.3	64.0	2,297.0	88.74	-1,271.7	1,871.8	1,615.8	-720.5	2,336.27	0.692	Collision RiskProcedures Req'd
5,475.0	2,870.0	3,287.0	3,287.0	64.6	2,296.8	88.71	-1,271.7	1,871.8	1,638.0	-697.9	2,335.96	0.701	Collision RiskProcedures Req'd
5,500.0	2,869.7	3,286.7	3,286.7	65.2	2,296.6	88.69	-1,271.7	1,871.8	1,660.3	-675.3	2,335.65	0.711	Collision RiskProcedures Req'd
5,525.0	2,869.4	3,286.4	3,286.4	65.7	2,296.4	88.67	-1,271.7	1,871.8	1,682.7	-652.7	2,335.35	0.721	Collision RiskProcedures Req'd
5,550.0	2,869.1	3,286.1	3,286.1	66.3	2,296.2	88.65	-1,271.7	1,871.8	1,705.1	-629.9	2,335.04	0.730	Collision RiskProcedures Req'd
5,575.0	2,868.9	3,285.9	3,285.9	66.9	2,296.0	88.63	-1,271.7	1,871.8	1,727.6	-607.1	2,334.74	0.740	Collision RiskProcedures Req'd
5,600.0	2,868.6	3,285.6	3,285.6	67.4	2,295.8	88.60	-1,271.7	1,871.8	1,750.2	-584.3	2,334.43	0.750	Collision RiskProcedures Req'd
5,625.0	2,868.3	3,285.3	3,285.3	68.0	2,295.6	88.58	-1,271.7	1,871.8	1,772.8	-561.3	2,334.13	0.760	Collision RiskProcedures Req'd
5,650.0	2,868.0	3,285.0	3,285.0	68.5	2,295.4	88.56	-1,271.7	1,871.8	1,795.5	-538.3	2,333.84	0.769	Collision RiskProcedures Req'd
5,675.0	2,867.7	3,284.7	3,284.7	69.1	2,295.2	88.54	-1,271.7	1,871.8	1,818.3	-515.3	2,333.54	0.779	Collision RiskProcedures Req'd
5,700.0	2,867.4	3,284.4	3,284.4	69.7	2,295.0	88.52	-1,271.7	1,871.8	1,841.1	-492.2	2,333.24	0.789	Collision RiskProcedures Req'd
5,725.0	2,867.1	3,284.1	3,284.1	70.2	2,294.8	88.49	-1,271.7	1,871.8	1,864.0	-469.0	2,332.95	0.799	Collision RiskProcedures Req'd
5,750.0	2,866.8	3,283.8	3,283.8	70.8	2,294.6	88.47	-1,271.7	1,871.8	1,886.9	-445.8	2,332.66	0.809	Collision RiskProcedures Req'd
5,775.0	2,866.6	3,283.6	3,283.6	71.4	2,294.4	88.45	-1,271.7	1,871.8	1,909.9	-422.5	2,332.37	0.819	Collision RiskProcedures Req'd
5,800.0	2,866.3	3,283.3	3,283.3	71.9	2,294.1	88.43	-1,271.7	1,871.8	1,932.9	-399.2	2,332.08	0.829	Collision RiskProcedures Req'd
5,825.0	2,866.0	3,283.0	3,283.0	72.5	2,293.9	88.41	-1,271.7	1,871.8	1,956.0	-375.8	2,331.79	0.839	Collision RiskProcedures Req'd
5,850.0	2,865.7	3,282.7	3,282.7	73.1	2,293.7	88.38	-1,271.7	1,871.8	1,979.1	-352.4	2,331.50	0.849	Collision RiskProcedures Req'd
5,875.0	2,865.4	3,282.4	3,282.4	73.7	2,293.5	88.36	-1,271.7	1,871.8	2,002.3	-329.0	2,331.22	0.859	Collision RiskProcedures Req'd
5,900.0	2,865.1	3,282.1	3,282.1	74.2	2,293.3	88.34	-1,271.7	1,871.8	2,025.5	-305.5	2,330.94	0.869	Collision RiskProcedures Req'd
5,925.0	2,864.8	3,281.8	3,281.8	74.8	2,293.1	88.32	-1,271.7	1,871.8	2,048.7	-281.9	2,330.65	0.879	Collision RiskProcedures Req'd
5,950.0	2,864.5	3,281.5	3,281.5	75.4	2,292.9	88.30	-1,271.7	1,871.8	2,072.0	-258.3	2,330.37	0.889	Collision RiskProcedures Req'd
5,975.0	2,864.3	3,281.3	3,281.3	75.9	2,292.7	88.27	-1,271.7	1,871.8	2,095.4	-234.7	2,330.10	0.899	Collision RiskProcedures Req'd
6,000.0	2,864.0	3,281.0	3,281.0	76.5	2,292.5	88.25	-1,271.7	1,871.8	2,118.7	-211.1	2,329.82	0.909	Collision RiskProcedures Req'd
6,025.0	2,863.7	3,280.7	3,280.7	77.1	2,292.3	88.23	-1,271.7	1,871.8	2,142.1	-187.4	2,329.54	0.920	Collision RiskProcedures Req'd
6,050.0	2,863.4	3,280.4	3,280.4	77.7	2,292.1	88.21	-1,271.7	1,871.8	2,165.6	-163.7	2,329.27	0.930	Collision RiskProcedures Req'd
6,075.0	2,863.1	3,280.1	3,280.1	78.2	2,291.9	88.19	-1,271.7	1,871.8	2,189.1	-139.9	2,328.99	0.940	Collision RiskProcedures Req'd
6,100.0	2,862.8	3,279.8	3,279.8	78.8	2,291.7	88.16	-1,271.7	1,871.8	2,212.6	-116.1	2,328.72	0.950	Collision RiskProcedures Req'd
6,125.0	2,862.5	3,279.5	3,279.5	79.4	2,291.5	88.14	-1,271.7	1,871.8	2,236.1	-92.3	2,328.45	0.960	Collision RiskProcedures Req'd
6,150.0	2,862.2	3,279.2	3,279.2	80.0	2,291.3	88.12	-1,271.7	1,871.8	2,259.7	-68.5	2,328.18	0.971	Collision RiskProcedures Req'd
6,175.0	2,862.0	3,279.0	3,279.0	80.6	2,291.1	88.10	-1,271.7	1,871.8	2,283.3	-44.6	2,327.91	0.981	Collision RiskProcedures Req'd
6,200.0	2,861.7	3,278.7	3,278.7	81.1	2,290.9	88.08	-1,271.7	1,871.8	2,306.9	-20.7	2,327.65	0.991	Collision RiskProcedures Req'd
6,225.0	2,861.4	3,278.4	3,278.4	81.7	2,290.7	88.05	-1,271.7	1,871.8	2,330.6	3.2	2,327.38	1.001	Collision RiskProcedures Req'd
6,250.0	2,861.1	3,278.1	3,278.1	82.3	2,290.5	88.03	-1,271.7	1,871.8	2,354.3	27.2	2,327.12	1.012	Collision RiskProcedures Req'd
6,275.0	2,860.8	3,277.8	3,277.8	82.9	2,290.3	88.01	-1,271.7	1,871.8	2,378.0	51.2	2,326.85	1.022	Collision RiskProcedures Req'd
6,300.0	2,860.5	3,277.5	3,277.5	83.5	2,290.1	87.99	-1,271.7	1,871.8	2,401.8	75.2	2,326.59	1.032	Collision RiskProcedures Req'd
6,325.0	2,860.2	3,277.2	3,277.2	84.0	2,289.9	87.97	-1,271.7	1,871.8	2,425.5	99.2	2,326.33	1.043	Collision RiskProcedures Req'd

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005 - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 8325-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,350.0	2,859.9	3,276.9	3,276.9	84.6	2,289.7	87.94	-1,271.7	1,871.8	2,449.3	123.3	2,326.07	1.053	Collision RiskProcedures Req'd
6,375.0	2,859.7	3,276.7	3,276.7	85.2	2,289.5	87.92	-1,271.7	1,871.8	2,473.1	147.3	2,325.81	1.063	Collision RiskProcedures Req'd
6,400.0	2,859.4	3,276.4	3,276.4	85.8	2,289.3	87.90	-1,271.7	1,871.8	2,497.0	171.4	2,325.55	1.074	Collision RiskProcedures Req'd
6,425.0	2,859.1	3,276.1	3,276.1	86.4	2,289.1	87.88	-1,271.7	1,871.8	2,520.8	195.6	2,325.30	1.084	Collision RiskProcedures Req'd
6,450.0	2,858.8	3,275.8	3,275.8	86.9	2,288.9	87.86	-1,271.7	1,871.8	2,544.7	219.7	2,325.04	1.094	Collision RiskProcedures Req'd
6,475.0	2,858.5	3,275.5	3,275.5	87.5	2,288.7	87.83	-1,271.7	1,871.8	2,568.6	243.9	2,324.79	1.105	Collision RiskProcedures Req'd
6,500.0	2,858.2	3,275.2	3,275.2	88.1	2,288.5	87.81	-1,271.7	1,871.8	2,592.6	268.0	2,324.53	1.115	Collision RiskProcedures Req'd
6,525.0	2,857.9	3,274.9	3,274.9	88.7	2,288.3	87.79	-1,271.7	1,871.8	2,616.5	292.2	2,324.28	1.126	Collision RiskProcedures Req'd
6,550.0	2,857.6	3,274.6	3,274.6	89.3	2,288.1	87.77	-1,271.7	1,871.8	2,640.5	316.5	2,324.03	1.136	Collision RiskProcedures Req'd
6,575.0	2,857.4	3,274.4	3,274.4	89.9	2,287.9	87.75	-1,271.7	1,871.8	2,664.5	340.7	2,323.78	1.147	Collision RiskProcedures Req'd
6,600.0	2,857.1	3,274.1	3,274.1	90.4	2,287.7	87.72	-1,271.7	1,871.8	2,688.5	364.9	2,323.53	1.157	Collision RiskProcedures Req'd
6,625.0	2,856.8	3,273.8	3,273.8	91.0	2,287.5	87.70	-1,271.7	1,871.8	2,712.5	389.2	2,323.28	1.168	Collision RiskProcedures Req'd
6,650.0	2,856.5	3,273.5	3,273.5	91.6	2,287.3	87.68	-1,271.7	1,871.8	2,736.5	413.5	2,323.03	1.178	Collision RiskProcedures Req'd
6,675.0	2,856.2	3,273.2	3,273.2	92.2	2,287.1	87.66	-1,271.7	1,871.8	2,760.6	437.8	2,322.78	1.188	Collision RiskProcedures Req'd
6,700.0	2,855.9	3,272.9	3,272.9	92.8	2,286.9	87.64	-1,271.7	1,871.8	2,784.7	462.1	2,322.53	1.199	Collision RiskProcedures Req'd
6,725.0	2,855.6	3,272.6	3,272.6	93.4	2,286.7	87.61	-1,271.7	1,871.8	2,808.7	486.5	2,322.29	1.209	Collision RiskProcedures Req'd
6,750.0	2,855.3	3,272.3	3,272.3	94.0	2,286.5	87.59	-1,271.7	1,871.8	2,832.9	510.8	2,322.04	1.220	Collision RiskProcedures Req'd
6,775.0	2,855.1	3,272.1	3,272.1	94.5	2,286.3	87.57	-1,271.7	1,871.8	2,857.0	535.2	2,321.80	1.231	Collision RiskProcedures Req'd
6,800.0	2,854.8	3,271.8	3,271.8	95.1	2,286.1	87.55	-1,271.7	1,871.8	2,881.1	559.6	2,321.55	1.241	Collision RiskProcedures Req'd
6,825.0	2,854.5	3,271.5	3,271.5	95.7	2,285.9	87.53	-1,271.7	1,871.8	2,905.3	583.9	2,321.31	1.252	Collision RiskProcedures Req'd
6,850.0	2,854.2	3,271.2	3,271.2	96.3	2,285.7	87.50	-1,271.7	1,871.8	2,929.4	608.4	2,321.07	1.262	Collision RiskProcedures Req'd
6,875.0	2,853.9	3,270.9	3,270.9	96.9	2,285.5	87.48	-1,271.7	1,871.8	2,953.6	632.8	2,320.83	1.273	Collision RiskProcedures Req'd
6,900.0	2,853.6	3,270.6	3,270.6	97.5	2,285.3	87.46	-1,271.7	1,871.8	2,977.8	657.2	2,320.59	1.283	Collision RiskProcedures Req'd
6,925.0	2,853.3	3,270.3	3,270.3	98.1	2,285.1	87.44	-1,271.7	1,871.8	3,002.0	681.6	2,320.35	1.294	Collision RiskProcedures Req'd
6,950.0	2,853.0	3,270.0	3,270.0	98.7	2,284.9	87.41	-1,271.7	1,871.8	3,026.2	706.1	2,320.11	1.304	Collision RiskProcedures Req'd
6,975.0	2,852.8	3,269.8	3,269.8	99.2	2,284.7	87.39	-1,271.7	1,871.8	3,050.4	730.6	2,319.87	1.315	Collision RiskProcedures Req'd
7,000.0	2,852.5	3,269.5	3,269.5	99.8	2,284.5	87.37	-1,271.7	1,871.8	3,074.7	755.1	2,319.63	1.326	Collision RiskProcedures Req'd
7,025.0	2,852.2	3,269.2	3,269.2	100.4	2,284.3	87.35	-1,271.7	1,871.8	3,098.9	779.5	2,319.39	1.336	Collision RiskProcedures Req'd
7,050.0	2,851.9	3,268.9	3,268.9	101.0	2,284.1	87.33	-1,271.7	1,871.8	3,123.2	804.0	2,319.16	1.347	Collision RiskProcedures Req'd
7,075.0	2,851.6	3,268.6	3,268.6	101.6	2,283.9	87.30	-1,271.7	1,871.8	3,147.5	828.6	2,318.92	1.357	Collision RiskProcedures Req'd
7,100.0	2,851.3	3,268.3	3,268.3	102.2	2,283.7	87.28	-1,271.7	1,871.8	3,171.8	853.1	2,318.68	1.368	Collision RiskProcedures Req'd
7,125.0	2,851.0	3,268.0	3,268.0	102.8	2,283.5	87.26	-1,271.7	1,871.8	3,196.1	877.6	2,318.45	1.379	Collision RiskProcedures Req'd
7,150.0	2,850.7	3,267.7	3,267.7	103.4	2,283.3	87.24	-1,271.7	1,871.8	3,220.4	902.2	2,318.21	1.389	Collision RiskProcedures Req'd
7,175.0	2,850.4	3,267.4	3,267.4	104.0	2,283.1	87.22	-1,271.7	1,871.8	3,244.7	926.7	2,317.98	1.400	Collision RiskProcedures Req'd
7,200.0	2,850.2	3,267.2	3,267.2	104.6	2,282.9	87.19	-1,271.7	1,871.8	3,269.0	951.3	2,317.75	1.410	Collision RiskProcedures Req'd

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005A - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 5719-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,300.0	2,801.6	2,853.6	2,853.6	26.7	1,992.3	-45.44	-429.1	5,133.6	3,952.0	1,942.2	2,009.80	1.966	Collision RiskProcedures Req'd
3,325.0	2,812.5	2,864.5	2,864.5	27.1	1,999.9	-24.13	-429.1	5,133.6	3,930.6	1,912.8	2,017.80	1.948	Collision RiskProcedures Req'd
3,344.0	2,820.5	2,872.5	2,872.5	27.3	2,005.4	-3.08	-429.1	5,133.6	3,915.7	1,892.1	2,023.61	1.935	Collision RiskProcedures Req'd
3,350.0	2,822.9	2,874.9	2,874.9	27.4	2,007.2	-3.18	-429.1	5,133.6	3,910.2	1,884.9	2,025.36	1.931	Collision RiskProcedures Req'd
3,375.0	2,832.9	2,884.9	2,884.9	27.5	2,014.1	-3.62	-429.1	5,133.6	3,887.3	1,855.0	2,032.30	1.913	Collision RiskProcedures Req'd
3,400.0	2,842.0	2,894.0	2,894.0	27.7	2,020.5	-4.13	-429.1	5,133.6	3,864.0	1,825.3	2,038.71	1.895	Collision RiskProcedures Req'd
3,425.0	2,850.4	2,902.4	2,902.4	27.9	2,026.4	-4.75	-429.1	5,133.6	3,840.5	1,795.9	2,044.58	1.878	Collision RiskProcedures Req'd
3,450.0	2,858.0	2,910.0	2,910.0	28.1	2,031.7	-5.49	-429.1	5,133.6	3,816.7	1,766.8	2,049.92	1.862	Collision RiskProcedures Req'd
3,475.0	2,864.9	2,916.9	2,916.9	28.3	2,036.5	-6.42	-429.1	5,133.6	3,792.7	1,738.0	2,054.71	1.846	Collision RiskProcedures Req'd
3,500.0	2,870.9	2,922.9	2,922.9	28.5	2,040.7	-7.61	-429.1	5,133.6	3,768.4	1,709.5	2,058.95	1.830	Collision RiskProcedures Req'd
3,525.0	2,876.2	2,928.2	2,928.2	28.8	2,044.3	-9.19	-429.1	5,133.6	3,744.0	1,681.4	2,062.63	1.815	Collision RiskProcedures Req'd
3,550.0	2,880.6	2,932.6	2,932.6	29.0	2,047.4	-11.39	-429.1	5,133.6	3,719.4	1,653.7	2,065.76	1.801	Collision RiskProcedures Req'd
3,575.0	2,884.3	2,936.3	2,936.3	29.3	2,050.0	-14.63	-429.1	5,133.6	3,694.7	1,626.4	2,068.31	1.786	Collision RiskProcedures Req'd
3,600.0	2,887.1	2,939.1	2,939.1	29.5	2,052.0	-19.84	-429.1	5,133.6	3,669.9	1,599.6	2,070.31	1.773	Collision RiskProcedures Req'd
3,625.0	2,889.1	2,941.1	2,941.1	29.8	2,053.4	-29.34	-429.1	5,133.6	3,645.0	1,573.2	2,071.73	1.759	Collision RiskProcedures Req'd
3,650.0	2,890.3	2,942.3	2,942.3	30.1	2,054.2	-49.72	-429.1	5,133.6	3,620.0	1,547.4	2,072.59	1.747	Collision RiskProcedures Req'd
3,675.0	2,890.7	2,942.7	2,942.7	30.4	2,054.5	-91.53	-429.1	5,133.6	3,595.0	1,522.2	2,072.87	1.734	Collision RiskProcedures Req'd
3,683.0	2,890.6	2,942.6	2,942.6	30.5	2,054.4	-106.45	-429.1	5,133.6	3,587.0	1,514.2	2,072.84	1.730	Collision RiskProcedures Req'd
3,700.0	2,890.4	2,942.4	2,942.4	30.7	2,054.3	-106.37	-429.1	5,133.6	3,570.1	1,497.3	2,072.72	1.722	Collision RiskProcedures Req'd
3,725.0	2,890.2	2,942.2	2,942.2	31.0	2,054.1	-106.27	-429.1	5,133.6	3,545.1	1,472.5	2,072.53	1.711	Collision RiskProcedures Req'd
3,750.0	2,889.9	2,941.9	2,941.9	31.3	2,053.9	-106.16	-429.1	5,133.6	3,520.1	1,447.7	2,072.35	1.699	Collision RiskProcedures Req'd
3,775.0	2,889.6	2,941.6	2,941.6	31.7	2,053.7	-106.05	-429.1	5,133.6	3,495.1	1,422.9	2,072.17	1.687	Collision RiskProcedures Req'd
3,800.0	2,889.3	2,941.3	2,941.3	32.0	2,053.5	-105.94	-429.1	5,133.6	3,470.1	1,398.2	2,071.98	1.675	Collision RiskProcedures Req'd
3,825.0	2,889.0	2,941.0	2,941.0	32.3	2,053.3	-105.83	-429.1	5,133.6	3,445.2	1,373.4	2,071.80	1.663	Collision RiskProcedures Req'd
3,850.0	2,888.7	2,940.7	2,940.7	32.7	2,053.1	-105.72	-429.1	5,133.6	3,420.2	1,348.6	2,071.62	1.651	Collision RiskProcedures Req'd
3,875.0	2,888.4	2,940.4	2,940.4	33.0	2,052.9	-105.61	-429.1	5,133.6	3,395.2	1,323.8	2,071.43	1.639	Collision RiskProcedures Req'd
3,900.0	2,888.1	2,940.1	2,940.1	33.4	2,052.7	-105.50	-429.1	5,133.6	3,370.2	1,299.0	2,071.25	1.627	Collision RiskProcedures Req'd
3,925.0	2,887.8	2,939.8	2,939.8	33.8	2,052.5	-105.39	-429.1	5,133.6	3,345.2	1,274.2	2,071.07	1.615	Collision RiskProcedures Req'd
3,950.0	2,887.6	2,939.6	2,939.6	34.2	2,052.3	-105.28	-429.1	5,133.6	3,320.3	1,249.4	2,070.89	1.603	Collision RiskProcedures Req'd
3,975.0	2,887.3	2,939.3	2,939.3	34.6	2,052.1	-105.17	-429.1	5,133.6	3,295.3	1,224.6	2,070.70	1.591	Collision RiskProcedures Req'd
4,000.0	2,887.0	2,939.0	2,939.0	34.9	2,051.9	-105.06	-429.1	5,133.6	3,270.3	1,199.8	2,070.52	1.579	Collision RiskProcedures Req'd
4,025.0	2,886.7	2,938.7	2,938.7	35.4	2,051.7	-104.95	-429.1	5,133.6	3,245.3	1,175.0	2,070.34	1.568	Collision RiskProcedures Req'd
4,050.0	2,886.4	2,938.4	2,938.4	35.8	2,051.5	-104.84	-429.1	5,133.6	3,220.4	1,150.2	2,070.16	1.556	Collision RiskProcedures Req'd
4,075.0	2,886.1	2,938.1	2,938.1	36.2	2,051.3	-104.73	-429.1	5,133.6	3,195.4	1,125.4	2,069.98	1.544	Collision RiskProcedures Req'd
4,100.0	2,885.8	2,937.8	2,937.8	36.6	2,051.1	-104.62	-429.1	5,133.6	3,170.4	1,100.6	2,069.80	1.532	Collision RiskProcedures Req'd
4,125.0	2,885.5	2,937.5	2,937.5	37.0	2,050.9	-104.51	-429.1	5,133.6	3,145.4	1,075.8	2,069.62	1.520	Collision RiskProcedures Req'd
4,150.0	2,885.3	2,937.3	2,937.3	37.4	2,050.7	-104.40	-429.1	5,133.6	3,120.5	1,051.0	2,069.44	1.508	Collision RiskProcedures Req'd
4,175.0	2,885.0	2,937.0	2,937.0	37.9	2,050.5	-104.29	-429.1	5,133.6	3,095.5	1,026.2	2,069.26	1.496	Collision RiskProcedures Req'd
4,200.0	2,884.7	2,936.7	2,936.7	38.3	2,050.3	-104.18	-429.1	5,133.6	3,070.5	1,001.4	2,069.08	1.484	Collision RiskProcedures Req'd
4,225.0	2,884.4	2,936.4	2,936.4	38.8	2,050.1	-104.07	-429.1	5,133.6	3,045.6	976.7	2,068.90	1.472	Collision RiskProcedures Req'd
4,250.0	2,884.1	2,936.1	2,936.1	39.2	2,049.9	-103.96	-429.1	5,133.6	3,020.6	951.9	2,068.73	1.460	Collision RiskProcedures Req'd
4,275.0	2,883.8	2,935.8	2,935.8	39.7	2,049.7	-103.85	-429.1	5,133.6	2,995.6	927.1	2,068.55	1.448	Collision RiskProcedures Req'd
4,300.0	2,883.5	2,935.5	2,935.5	40.1	2,049.5	-103.73	-429.1	5,133.6	2,970.6	902.3	2,068.37	1.436	Collision RiskProcedures Req'd
4,325.0	2,883.2	2,935.2	2,935.2	40.6	2,049.3	-103.62	-429.1	5,133.6	2,945.7	877.5	2,068.19	1.424	Collision RiskProcedures Req'd
4,350.0	2,883.0	2,935.0	2,935.0	41.0	2,049.1	-103.51	-429.1	5,133.6	2,920.7	852.7	2,068.02	1.412	Collision RiskProcedures Req'd
4,375.0	2,882.7	2,934.7	2,934.7	41.5	2,048.9	-103.40	-429.1	5,133.6	2,895.7	827.9	2,067.84	1.400	Collision RiskProcedures Req'd
4,400.0	2,882.4	2,934.4	2,934.4	42.0	2,048.7	-103.29	-429.1	5,133.6	2,870.8	803.1	2,067.67	1.388	Collision RiskProcedures Req'd
4,425.0	2,882.1	2,934.1	2,934.1	42.5	2,048.5	-103.18	-429.1	5,133.6	2,845.8	778.3	2,067.49	1.376	Collision RiskProcedures Req'd
4,450.0	2,881.8	2,933.8	2,933.8	42.9	2,048.3	-103.06	-429.1	5,133.6	2,820.8	753.5	2,067.32	1.364	Collision RiskProcedures Req'd
4,475.0	2,881.5	2,933.5	2,933.5	43.4	2,048.1	-102.95	-429.1	5,133.6	2,795.9	728.7	2,067.14	1.353	Collision RiskProcedures Req'd
4,500.0	2,881.2	2,933.2	2,933.2	43.9	2,047.9	-102.84	-429.1	5,133.6	2,770.9	703.9	2,066.97	1.341	Collision RiskProcedures Req'd
4,525.0	2,880.9	2,932.9	2,932.9	44.4	2,047.7	-102.73	-429.1	5,133.6	2,745.9	679.1	2,066.79	1.329	Collision RiskProcedures Req'd

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005A - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 5719-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,550.0	2,880.7	2,932.7	2,932.7	44.9	2,047.5	-102.62	-429.1	5,133.6	2,721.0	654.3	2,066.62	1.317	Collision RiskProcedures Req'd
4,575.0	2,880.4	2,932.4	2,932.4	45.4	2,047.3	-102.50	-429.1	5,133.6	2,696.0	629.5	2,066.45	1.305	Collision RiskProcedures Req'd
4,600.0	2,880.1	2,932.1	2,932.1	45.9	2,047.1	-102.39	-429.1	5,133.6	2,671.0	604.8	2,066.28	1.293	Collision RiskProcedures Req'd
4,625.0	2,879.8	2,931.8	2,931.8	46.4	2,046.9	-102.28	-429.1	5,133.6	2,646.1	580.0	2,066.10	1.281	Collision RiskProcedures Req'd
4,650.0	2,879.5	2,931.5	2,931.5	46.9	2,046.7	-102.17	-429.1	5,133.6	2,621.1	555.2	2,065.93	1.269	Collision RiskProcedures Req'd
4,675.0	2,879.2	2,931.2	2,931.2	47.4	2,046.5	-102.05	-429.1	5,133.6	2,596.1	530.4	2,065.76	1.257	Collision RiskProcedures Req'd
4,700.0	2,878.9	2,930.9	2,930.9	47.9	2,046.3	-101.94	-429.1	5,133.6	2,571.2	505.6	2,065.59	1.245	Collision RiskProcedures Req'd
4,725.0	2,878.6	2,930.6	2,930.6	48.4	2,046.1	-101.83	-429.1	5,133.6	2,546.2	480.8	2,065.42	1.233	Collision RiskProcedures Req'd
4,750.0	2,878.4	2,930.4	2,930.4	48.9	2,045.9	-101.71	-429.1	5,133.6	2,521.3	456.0	2,065.26	1.221	Collision RiskProcedures Req'd
4,775.0	2,878.1	2,930.1	2,930.1	49.5	2,045.7	-101.60	-429.1	5,133.6	2,496.3	431.2	2,065.09	1.209	Collision RiskProcedures Req'd
4,800.0	2,877.8	2,929.8	2,929.8	50.0	2,045.5	-101.49	-429.1	5,133.6	2,471.3	406.4	2,064.92	1.197	Collision RiskProcedures Req'd
4,825.0	2,877.5	2,929.5	2,929.5	50.5	2,045.3	-101.37	-429.1	5,133.6	2,446.4	381.6	2,064.75	1.185	Collision RiskProcedures Req'd
4,850.0	2,877.2	2,929.2	2,929.2	51.0	2,045.1	-101.26	-429.1	5,133.6	2,421.4	356.8	2,064.59	1.173	Collision RiskProcedures Req'd
4,875.0	2,876.9	2,928.9	2,928.9	51.5	2,044.9	-101.15	-429.1	5,133.6	2,396.5	332.0	2,064.42	1.161	Collision RiskProcedures Req'd
4,900.0	2,876.6	2,928.6	2,928.6	52.1	2,044.7	-101.03	-429.1	5,133.6	2,371.5	307.3	2,064.26	1.149	Collision RiskProcedures Req'd
4,925.0	2,876.3	2,928.3	2,928.3	52.6	2,044.5	-100.92	-429.1	5,133.6	2,346.6	282.5	2,064.10	1.137	Collision RiskProcedures Req'd
4,950.0	2,876.1	2,928.1	2,928.1	53.1	2,044.3	-100.81	-429.1	5,133.6	2,321.6	257.7	2,063.93	1.125	Collision RiskProcedures Req'd
4,975.0	2,875.8	2,927.8	2,927.8	53.7	2,044.1	-100.69	-429.1	5,133.6	2,296.7	232.9	2,063.77	1.113	Collision RiskProcedures Req'd
5,000.0	2,875.5	2,927.5	2,927.5	54.2	2,043.9	-100.58	-429.1	5,133.6	2,271.7	208.1	2,063.61	1.101	Collision RiskProcedures Req'd
5,025.0	2,875.2	2,927.2	2,927.2	54.7	2,043.7	-100.46	-429.1	5,133.6	2,246.8	183.3	2,063.45	1.089	Collision RiskProcedures Req'd
5,050.0	2,874.9	2,926.9	2,926.9	55.3	2,043.5	-100.35	-429.1	5,133.6	2,221.8	158.5	2,063.29	1.077	Collision RiskProcedures Req'd
5,075.0	2,874.6	2,926.6	2,926.6	55.8	2,043.3	-100.24	-429.1	5,133.6	2,196.9	133.7	2,063.13	1.065	Collision RiskProcedures Req'd
5,100.0	2,874.3	2,926.3	2,926.3	56.3	2,043.1	-100.12	-429.1	5,133.6	2,171.9	108.9	2,062.98	1.053	Collision RiskProcedures Req'd
5,125.0	2,874.0	2,926.0	2,926.0	56.9	2,042.9	-100.01	-429.1	5,133.6	2,147.0	84.1	2,062.82	1.041	Collision RiskProcedures Req'd
5,150.0	2,873.8	2,925.8	2,925.8	57.4	2,042.7	-99.89	-429.1	5,133.6	2,122.0	59.3	2,062.67	1.029	Collision RiskProcedures Req'd
5,175.0	2,873.5	2,925.5	2,925.5	58.0	2,042.5	-99.78	-429.1	5,133.6	2,097.1	34.6	2,062.51	1.017	Collision RiskProcedures Req'd
5,200.0	2,873.2	2,925.2	2,925.2	58.5	2,042.3	-99.66	-429.1	5,133.6	2,072.1	9.8	2,062.36	1.005	Collision RiskProcedures Req'd
5,225.0	2,872.9	2,924.9	2,924.9	59.1	2,042.1	-99.55	-429.1	5,133.6	2,047.2	-15.0	2,062.21	0.993	Collision RiskProcedures Req'd
5,250.0	2,872.6	2,924.6	2,924.6	59.6	2,041.9	-99.43	-429.1	5,133.6	2,022.3	-39.8	2,062.06	0.981	Collision RiskProcedures Req'd
5,275.0	2,872.3	2,924.3	2,924.3	60.2	2,041.7	-99.32	-429.1	5,133.6	1,997.3	-64.6	2,061.91	0.969	Collision RiskProcedures Req'd
5,300.0	2,872.0	2,924.0	2,924.0	60.7	2,041.4	-99.20	-429.1	5,133.6	1,972.4	-89.4	2,061.77	0.957	Collision RiskProcedures Req'd
5,325.0	2,871.7	2,923.7	2,923.7	61.3	2,041.2	-99.09	-429.1	5,133.6	1,947.4	-114.2	2,061.62	0.945	Collision RiskProcedures Req'd
5,350.0	2,871.5	2,923.5	2,923.5	61.8	2,041.0	-98.97	-429.1	5,133.6	1,922.5	-139.0	2,061.48	0.933	Collision RiskProcedures Req'd
5,375.0	2,871.2	2,923.2	2,923.2	62.4	2,040.8	-98.86	-429.1	5,133.6	1,897.6	-163.8	2,061.34	0.921	Collision RiskProcedures Req'd
5,400.0	2,870.9	2,922.9	2,922.9	62.9	2,040.6	-98.74	-429.1	5,133.6	1,872.6	-188.5	2,061.20	0.909	Collision RiskProcedures Req'd
5,425.0	2,870.6	2,922.6	2,922.6	63.5	2,040.4	-98.63	-429.1	5,133.6	1,847.7	-213.3	2,061.06	0.896	Collision RiskProcedures Req'd
5,450.0	2,870.3	2,922.3	2,922.3	64.0	2,040.2	-98.51	-429.1	5,133.6	1,822.8	-238.1	2,060.92	0.884	Collision RiskProcedures Req'd
5,475.0	2,870.0	2,922.0	2,922.0	64.6	2,040.0	-98.40	-429.1	5,133.6	1,797.9	-262.9	2,060.79	0.872	Collision RiskProcedures Req'd
5,500.0	2,869.7	2,921.7	2,921.7	65.2	2,039.8	-98.28	-429.1	5,133.6	1,772.9	-287.7	2,060.65	0.860	Collision RiskProcedures Req'd
5,525.0	2,869.4	2,921.4	2,921.4	65.7	2,039.6	-98.17	-429.1	5,133.6	1,748.0	-312.5	2,060.52	0.848	Collision RiskProcedures Req'd
5,550.0	2,869.1	2,921.1	2,921.1	66.3	2,039.4	-98.05	-429.1	5,133.6	1,723.1	-337.3	2,060.40	0.836	Collision RiskProcedures Req'd
5,575.0	2,868.9	2,920.9	2,920.9	66.9	2,039.2	-97.94	-429.1	5,133.6	1,698.2	-362.1	2,060.27	0.824	Collision RiskProcedures Req'd
5,600.0	2,868.6	2,920.6	2,920.6	67.4	2,039.0	-97.82	-429.1	5,133.6	1,673.3	-386.9	2,060.15	0.812	Collision RiskProcedures Req'd
5,625.0	2,868.3	2,920.3	2,920.3	68.0	2,038.8	-97.70	-429.1	5,133.6	1,648.4	-411.7	2,060.03	0.800	Collision RiskProcedures Req'd
5,650.0	2,868.0	2,920.0	2,920.0	68.5	2,038.6	-97.59	-429.1	5,133.6	1,623.5	-436.4	2,059.91	0.788	Collision RiskProcedures Req'd
5,675.0	2,867.7	2,919.7	2,919.7	69.1	2,038.4	-97.47	-429.1	5,133.6	1,598.6	-461.2	2,059.80	0.776	Collision RiskProcedures Req'd
5,700.0	2,867.4	2,919.4	2,919.4	69.7	2,038.2	-97.36	-429.1	5,133.6	1,573.7	-486.0	2,059.68	0.764	Collision RiskProcedures Req'd
5,725.0	2,867.1	2,919.1	2,919.1	70.2	2,038.0	-97.24	-429.1	5,133.6	1,548.8	-510.8	2,059.58	0.752	Collision RiskProcedures Req'd
5,750.0	2,866.8	2,918.8	2,918.8	70.8	2,037.8	-97.12	-429.1	5,133.6	1,523.9	-535.6	2,059.47	0.740	Collision RiskProcedures Req'd
5,775.0	2,866.6	2,918.6	2,918.6	71.4	2,037.6	-97.01	-429.1	5,133.6	1,499.0	-560.4	2,059.37	0.728	Collision RiskProcedures Req'd
5,800.0	2,866.3	2,918.3	2,918.3	71.9	2,037.4	-96.89	-429.1	5,133.6	1,474.1	-585.2	2,059.27	0.716	Collision RiskProcedures Req'd
5,825.0	2,866.0	2,918.0	2,918.0	72.5	2,037.2	-96.78	-429.1	5,133.6	1,449.2	-610.0	2,059.18	0.704	Collision RiskProcedures Req'd

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005A - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 5719-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,850.0	2,865.7	2,917.7	2,917.7	73.1	2,037.0	-96.66	-429.1	5,133.6	1,424.3	-634.8	2,059.09	0.692	Collision RiskProcedures Req'd
5,875.0	2,865.4	2,917.4	2,917.4	73.7	2,036.8	-96.54	-429.1	5,133.6	1,399.5	-659.6	2,059.01	0.680	Collision RiskProcedures Req'd
5,900.0	2,865.1	2,917.1	2,917.1	74.2	2,036.6	-96.43	-429.1	5,133.6	1,374.6	-684.4	2,058.93	0.668	Collision RiskProcedures Req'd
5,925.0	2,864.8	2,916.8	2,916.8	74.8	2,036.4	-96.31	-429.1	5,133.6	1,349.7	-709.1	2,058.86	0.656	Collision RiskProcedures Req'd
5,950.0	2,864.5	2,916.5	2,916.5	75.4	2,036.2	-96.19	-429.1	5,133.6	1,324.9	-733.9	2,058.79	0.644	Collision RiskProcedures Req'd
5,975.0	2,864.3	2,916.3	2,916.3	75.9	2,036.0	-96.08	-429.1	5,133.6	1,300.0	-758.7	2,058.73	0.631	Collision RiskProcedures Req'd
6,000.0	2,864.0	2,916.0	2,916.0	76.5	2,035.8	-95.96	-429.1	5,133.6	1,275.1	-783.5	2,058.67	0.619	Collision RiskProcedures Req'd
6,025.0	2,863.7	2,915.7	2,915.7	77.1	2,035.6	-95.84	-429.1	5,133.6	1,250.3	-808.3	2,058.62	0.607	Collision RiskProcedures Req'd
6,050.0	2,863.4	2,915.4	2,915.4	77.7	2,035.4	-95.73	-429.1	5,133.6	1,225.5	-833.1	2,058.58	0.595	Collision RiskProcedures Req'd
6,075.0	2,863.1	2,915.1	2,915.1	78.2	2,035.2	-95.61	-429.1	5,133.6	1,200.6	-857.9	2,058.55	0.583	Collision RiskProcedures Req'd
6,100.0	2,862.8	2,914.8	2,914.8	78.8	2,035.0	-95.49	-429.1	5,133.6	1,175.8	-882.7	2,058.52	0.571	Collision RiskProcedures Req'd
6,125.0	2,862.5	2,914.5	2,914.5	79.4	2,034.8	-95.38	-429.1	5,133.6	1,151.0	-907.5	2,058.51	0.559	Collision RiskProcedures Req'd
6,150.0	2,862.2	2,914.2	2,914.2	80.0	2,034.6	-95.26	-429.1	5,133.6	1,126.2	-932.3	2,058.50	0.547	Collision RiskProcedures Req'd
6,175.0	2,862.0	2,914.0	2,914.0	80.6	2,034.4	-95.14	-429.1	5,133.6	1,101.4	-957.1	2,058.50	0.535	Collision RiskProcedures Req'd
6,200.0	2,861.7	2,913.7	2,913.7	81.1	2,034.2	-95.02	-429.1	5,133.6	1,076.6	-981.9	2,058.52	0.523	Collision RiskProcedures Req'd
6,225.0	2,861.4	2,913.4	2,913.4	81.7	2,034.0	-94.91	-429.1	5,133.6	1,051.8	-1,006.7	2,058.54	0.511	Collision RiskProcedures Req'd
6,250.0	2,861.1	2,913.1	2,913.1	82.3	2,033.8	-94.79	-429.1	5,133.6	1,027.0	-1,031.5	2,058.58	0.499	Collision RiskProcedures Req'd
6,275.0	2,860.8	2,912.8	2,912.8	82.9	2,033.6	-94.67	-429.1	5,133.6	1,002.3	-1,056.4	2,058.63	0.487	Collision RiskProcedures Req'd
6,300.0	2,860.5	2,912.5	2,912.5	83.5	2,033.4	-94.56	-429.1	5,133.6	977.5	-1,081.2	2,058.70	0.475	Collision RiskProcedures Req'd
6,325.0	2,860.2	2,912.2	2,912.2	84.0	2,033.2	-94.44	-429.1	5,133.6	952.8	-1,106.0	2,058.79	0.463	Collision RiskProcedures Req'd
6,350.0	2,859.9	2,911.9	2,911.9	84.6	2,033.0	-94.32	-429.1	5,133.6	928.1	-1,130.8	2,058.89	0.451	Collision RiskProcedures Req'd
6,375.0	2,859.7	2,911.7	2,911.7	85.2	2,032.8	-94.20	-429.1	5,133.6	903.4	-1,155.6	2,059.01	0.439	Collision RiskProcedures Req'd
6,400.0	2,859.4	2,911.4	2,911.4	85.8	2,032.6	-94.09	-429.1	5,133.6	878.7	-1,180.5	2,059.15	0.427	Collision RiskProcedures Req'd
6,425.0	2,859.1	2,911.1	2,911.1	86.4	2,032.4	-93.97	-429.1	5,133.6	854.0	-1,205.3	2,059.32	0.415	Collision RiskProcedures Req'd
6,450.0	2,858.8	2,910.8	2,910.8	86.9	2,032.2	-93.85	-429.1	5,133.6	829.4	-1,230.2	2,059.51	0.403	Collision RiskProcedures Req'd
6,475.0	2,858.5	2,910.5	2,910.5	87.5	2,032.0	-93.73	-429.1	5,133.6	804.7	-1,255.0	2,059.73	0.391	Collision RiskProcedures Req'd
6,500.0	2,858.2	2,910.2	2,910.2	88.1	2,031.8	-93.62	-429.1	5,133.6	780.1	-1,279.9	2,059.98	0.379	Collision RiskProcedures Req'd
6,525.0	2,857.9	2,909.9	2,909.9	88.7	2,031.6	-93.50	-429.1	5,133.6	755.5	-1,304.7	2,060.26	0.367	Collision RiskProcedures Req'd
6,550.0	2,857.6	2,909.6	2,909.6	89.3	2,031.4	-93.38	-429.1	5,133.6	731.0	-1,329.6	2,060.58	0.355	Collision RiskProcedures Req'd
6,575.0	2,857.4	2,909.4	2,909.4	89.9	2,031.2	-93.26	-429.1	5,133.6	706.5	-1,354.5	2,060.94	0.343	Collision RiskProcedures Req'd
6,600.0	2,857.1	2,909.1	2,909.1	90.4	2,031.0	-93.15	-429.1	5,133.6	682.0	-1,379.4	2,061.34	0.331	Collision RiskProcedures Req'd
6,625.0	2,856.8	2,908.8	2,908.8	91.0	2,030.8	-93.03	-429.1	5,133.6	657.5	-1,404.3	2,061.80	0.319	Collision RiskProcedures Req'd
6,650.0	2,856.5	2,908.5	2,908.5	91.6	2,030.6	-92.91	-429.1	5,133.6	633.1	-1,429.2	2,062.31	0.307	Collision RiskProcedures Req'd
6,675.0	2,856.2	2,908.2	2,908.2	92.2	2,030.4	-92.79	-429.1	5,133.6	608.8	-1,454.1	2,062.89	0.295	Collision RiskProcedures Req'd
6,700.0	2,855.9	2,907.9	2,907.9	92.8	2,030.2	-92.68	-429.1	5,133.6	584.5	-1,479.1	2,063.53	0.283	Collision RiskProcedures Req'd
6,725.0	2,855.6	2,907.6	2,907.6	93.4	2,030.0	-92.56	-429.1	5,133.6	560.2	-1,504.0	2,064.26	0.271	Collision RiskProcedures Req'd
6,750.0	2,855.3	2,907.3	2,907.3	94.0	2,029.8	-92.44	-429.1	5,133.6	536.0	-1,529.0	2,065.08	0.260	Collision RiskProcedures Req'd
6,775.0	2,855.1	2,907.1	2,907.1	94.5	2,029.6	-92.32	-429.1	5,133.6	512.0	-1,554.0	2,066.00	0.248	Collision RiskProcedures Req'd
6,800.0	2,854.8	2,906.8	2,906.8	95.1	2,029.4	-92.21	-429.1	5,133.6	488.0	-1,579.1	2,067.03	0.236	Collision RiskProcedures Req'd
6,825.0	2,854.5	2,906.5	2,906.5	95.7	2,029.2	-92.09	-429.1	5,133.6	464.1	-1,604.2	2,068.21	0.224	Collision RiskProcedures Req'd
6,850.0	2,854.2	2,906.2	2,906.2	96.3	2,029.0	-91.97	-429.1	5,133.6	440.3	-1,629.3	2,069.53	0.213	Collision RiskProcedures Req'd
6,875.0	2,853.9	2,905.9	2,905.9	96.9	2,028.8	-91.85	-429.1	5,133.6	416.7	-1,654.4	2,071.04	0.201	Collision RiskProcedures Req'd
6,900.0	2,853.6	2,905.6	2,905.6	97.5	2,028.6	-91.73	-429.1	5,133.6	393.2	-1,679.6	2,072.75	0.190	Collision RiskProcedures Req'd
6,925.0	2,853.3	2,905.3	2,905.3	98.1	2,028.4	-91.62	-429.1	5,133.6	369.9	-1,704.8	2,074.70	0.178	Collision RiskProcedures Req'd
6,950.0	2,853.0	2,905.0	2,905.0	98.7	2,028.2	-91.50	-429.1	5,133.6	346.9	-1,730.0	2,076.93	0.167	Collision RiskProcedures Req'd
6,975.0	2,852.8	2,904.8	2,904.8	99.2	2,028.0	-91.38	-429.1	5,133.6	324.2	-1,755.3	2,079.49	0.156	Collision RiskProcedures Req'd
7,000.0	2,852.5	2,904.5	2,904.5	99.8	2,027.8	-91.26	-429.1	5,133.6	301.8	-1,780.6	2,082.43	0.145	Collision RiskProcedures Req'd
7,025.0	2,852.2	2,904.2	2,904.2	100.4	2,027.6	-91.14	-429.1	5,133.6	279.9	-1,805.9	2,085.82	0.134	Collision RiskProcedures Req'd
7,050.0	2,851.9	2,903.9	2,903.9	101.0	2,027.4	-91.03	-429.1	5,133.6	258.5	-1,831.2	2,089.72	0.124	Collision RiskProcedures Req'd
7,075.0	2,851.6	2,903.6	2,903.6	101.6	2,027.2	-90.91	-429.1	5,133.6	237.9	-1,856.3	2,094.22	0.114	Collision RiskProcedures Req'd
7,100.0	2,851.3	2,903.3	2,903.3	102.2	2,027.0	-90.79	-429.1	5,133.6	218.2	-1,881.2	2,099.35	0.104	Collision RiskProcedures Req'd
7,125.0	2,851.0	2,903.0	2,903.0	102.8	2,026.8	-90.67	-429.1	5,133.6	199.6	-1,905.6	2,105.15	0.095	Collision RiskProcedures Req'd

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 005A - ST00 - ST00 — **Offset Site Error:** 5.0 usft

Survey Program: 5719-3_Blind — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	2,850.7	2,902.7	2,902.7	103.4	2,026.6	-90.55	-429.1	5,133.6	182.6	-1,928.9	2,111.53	0.086	Collision RiskProcedures Req'd
7,175.0	2,850.4	2,902.4	2,902.4	104.0	2,026.4	-90.44	-429.1	5,133.6	167.6	-1,950.7	2,118.24	0.079	Collision RiskProcedures Req'd
7,200.0	2,850.2	2,902.2	2,902.2	104.6	2,026.2	-90.32	-429.1	5,133.6	155.2	-1,969.6	2,124.74	0.073	Collision RiskProcedures Req'd, CC, E

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Lateral No.1 - WP2.1 — **Offset Site Error:** 5.0 usft

Survey Program: 0-3_MWD+HRGM, 3350-3_MWD+HRGM — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,302.7	2,802.8	3,302.7	2,802.8	0.0	0.0	86.21	-502.8	1,184.6	0.0	-2.3	2.29	0.014	Collision RiskProcedures Req'd
3,325.0	2,812.5	3,324.8	2,812.4	0.4	0.5	91.30	-510.6	1,202.9	2.6	-0.4	3.01	0.856	Collision RiskProcedures Req'd
3,344.0	2,820.5	3,344.0	2,820.5	0.6	0.8	-170.49	-517.4	1,218.9	0.1	-2.7	2.78	0.030	Collision RiskProcedures Req'd
3,344.4	2,820.6	3,344.4	2,820.7	0.6	0.9	126.01	-517.5	1,219.3	0.2	-3.4	3.56	0.049	Collision RiskProcedures Req'd
3,350.0	2,822.9	3,349.6	2,822.9	0.7	1.0	98.48	-519.4	1,223.6	2.1	-1.7	3.79	0.562	Collision RiskProcedures Req'd
3,375.0	2,832.9	3,373.0	2,832.6	0.8	1.3	97.57	-527.0	1,243.4	10.3	6.0	4.27	2.417	
3,400.0	2,842.0	3,393.3	2,840.9	1.0	1.5	98.46	-535.0	1,260.2	20.4	15.7	4.68	4.360	
3,425.0	2,850.4	3,415.0	2,849.3	1.2	1.7	98.73	-545.6	1,277.2	32.8	27.8	5.02	6.538	
3,450.0	2,858.0	3,436.5	2,856.8	1.4	1.8	98.27	-556.3	1,294.3	45.3	40.0	5.36	8.456	
3,475.0	2,864.9	3,458.0	2,863.6	1.6	2.0	97.56	-567.1	1,311.6	58.0	52.2	5.74	10.108	
3,500.0	2,870.9	3,479.5	2,869.7	1.9	2.2	96.72	-578.0	1,329.0	70.7	64.6	6.13	11.547	
3,525.0	2,876.2	3,500.9	2,874.9	2.1	2.4	95.81	-589.0	1,346.6	83.6	77.0	6.54	12.785	
3,550.0	2,880.6	3,522.2	2,879.5	2.4	2.6	94.87	-600.1	1,364.2	96.5	89.5	6.97	13.846	
3,575.0	2,884.3	3,543.5	2,883.2	2.7	2.8	93.90	-611.3	1,382.0	109.4	102.0	7.42	14.753	
3,600.0	2,887.1	3,564.8	2,886.2	3.0	3.0	92.91	-622.5	1,399.9	122.4	114.5	7.88	15.533	CC, ES
3,625.0	2,889.1	3,586.1	2,888.4	3.3	3.2	91.92	-633.7	1,417.8	135.4	127.0	8.37	16.185	
3,650.0	2,890.3	3,607.4	2,889.9	3.6	3.4	90.92	-645.0	1,435.8	148.4	139.6	8.86	16.754	
3,675.0	2,890.7	3,628.7	2,890.6	3.9	3.7	89.92	-656.3	1,453.8	161.5	152.1	9.38	17.221	
3,683.0	2,890.6	3,635.5	2,890.7	4.0	3.8	89.60	-660.0	1,459.5	165.7	156.1	9.54	17.359	
3,700.0	2,890.4	3,650.0	2,890.6	4.3	3.9	89.66	-667.7	1,471.8	174.5	164.6	9.91	17.615	
3,725.0	2,890.2	3,671.3	2,890.5	4.6	4.2	89.72	-679.1	1,489.9	187.5	177.1	10.46	17.920	
3,750.0	2,889.9	3,692.7	2,890.4	5.0	4.4	89.77	-690.4	1,507.9	200.5	189.5	11.02	18.193	
3,775.0	2,889.6	3,714.0	2,890.3	5.3	4.7	89.81	-701.8	1,526.0	213.6	202.0	11.60	18.416	
3,800.0	2,889.3	3,735.3	2,890.1	5.7	5.0	89.85	-713.2	1,544.1	226.6	214.4	12.18	18.606	
3,825.0	2,889.0	3,756.7	2,890.0	6.1	5.2	89.89	-724.5	1,562.1	239.6	226.8	12.78	18.743	
3,850.0	2,888.7	3,778.0	2,889.9	6.4	5.5	89.92	-735.9	1,580.2	252.6	239.2	13.39	18.866	
3,875.0	2,888.4	3,799.4	2,889.8	6.8	5.8	89.95	-747.2	1,598.2	265.7	251.7	14.00	18.978	
3,900.0	2,888.1	3,820.7	2,889.7	7.2	6.1	89.97	-758.6	1,616.3	278.7	264.1	14.63	19.051	
3,925.0	2,887.8	3,842.0	2,889.6	7.6	6.4	90.00	-770.0	1,634.4	291.7	276.4	15.28	19.089	
3,950.0	2,887.6	3,863.4	2,889.5	8.0	6.7	90.02	-781.3	1,652.4	304.7	288.8	15.93	19.124	
3,975.0	2,887.3	3,884.7	2,889.4	8.5	7.0	90.04	-792.7	1,670.5	317.8	301.2	16.59	19.156	
4,000.0	2,887.0	3,906.1	2,889.2	8.9	7.3	90.06	-804.1	1,688.5	330.8	313.5	17.25	19.178	
4,025.0	2,886.7	3,927.4	2,889.1	9.3	7.6	90.07	-815.4	1,706.6	343.8	325.9	17.94	19.163	
4,050.0	2,886.4	3,948.7	2,889.0	9.7	7.9	90.09	-826.8	1,724.7	356.8	338.2	18.63	19.149	
4,075.0	2,886.1	3,970.1	2,888.9	10.2	8.3	90.10	-838.2	1,742.7	369.8	350.5	19.33	19.136	
4,100.0	2,885.8	3,991.4	2,888.8	10.6	8.6	90.12	-849.5	1,760.8	382.9	362.9	20.02	19.124	
4,125.0	2,885.5	4,012.8	2,888.7	11.1	8.9	90.13	-860.9	1,778.9	395.9	375.2	20.74	19.087	
4,150.0	2,885.3	4,034.1	2,888.6	11.5	9.3	90.14	-872.3	1,796.9	408.9	387.4	21.47	19.046	
4,175.0	2,885.0	4,055.4	2,888.5	12.0	9.6	90.15	-883.6	1,815.0	421.9	399.7	22.20	19.008	
4,200.0	2,884.7	4,076.8	2,888.3	12.4	9.9	90.16	-895.0	1,833.0	435.0	412.0	22.93	18.972	
4,225.0	2,884.4	4,098.1	2,888.2	12.9	10.3	90.17	-906.4	1,851.1	448.0	424.3	23.67	18.927	
4,250.0	2,884.1	4,119.5	2,888.1	13.4	10.6	90.18	-917.7	1,869.2	461.0	436.6	24.43	18.874	
4,275.0	2,883.8	4,140.8	2,888.0	13.8	11.0	90.19	-929.1	1,887.2	474.0	448.8	25.18	18.822	
4,300.0	2,883.5	4,162.1	2,887.9	14.3	11.3	90.20	-940.4	1,905.3	487.1	461.1	25.94	18.774	
4,325.0	2,883.2	4,183.5	2,887.8	14.8	11.7	90.21	-951.8	1,923.4	500.1	473.4	26.71	18.720	
4,350.0	2,883.0	4,204.8	2,887.7	15.3	12.1	90.21	-963.2	1,941.4	513.1	485.6	27.49	18.667	
4,375.0	2,882.7	4,226.2	2,887.6	15.8	12.4	90.22	-974.5	1,959.5	526.1	497.9	28.27	18.609	
4,400.0	2,882.4	4,247.5	2,887.4	16.3	12.8	90.23	-985.9	1,977.5	539.2	510.1	29.06	18.555	
4,425.0	2,882.1	4,268.8	2,887.3	16.8	13.2	90.23	-997.3	1,995.6	552.2	522.3	29.85	18.497	
4,450.0	2,881.8	4,290.2	2,887.2	17.3	13.5	90.24	-1,008.6	2,013.7	565.2	534.6	30.65	18.442	
4,475.0	2,881.5	4,311.5	2,887.1	17.8	13.9	90.25	-1,020.0	2,031.7	578.2	546.8	31.45	18.386	
4,500.0	2,881.2	4,332.9	2,887.0	18.2	14.3	90.25	-1,031.4	2,049.8	591.2	559.0	32.26	18.329	

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

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Lateral No.1 - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM, 3350-3_MWD+HRGM

Rule Assigned:

Offset Well Error: 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,525.0	2,880.9	4,354.2	2,886.9	18.8	14.7	90.26	-1,042.7	2,067.8	604.3	571.2	33.07	18.270	
4,550.0	2,880.7	4,375.5	2,886.8	19.3	15.1	90.26	-1,054.1	2,085.9	617.3	583.4	33.89	18.214	
4,575.0	2,880.4	4,396.9	2,886.7	19.8	15.4	90.27	-1,065.5	2,104.0	630.3	595.6	34.71	18.161	
4,600.0	2,880.1	4,418.2	2,886.5	20.3	15.8	90.27	-1,076.8	2,122.0	643.3	607.8	35.53	18.105	
4,625.0	2,879.8	4,439.6	2,886.4	20.8	16.2	90.28	-1,088.2	2,140.1	656.4	620.0	36.37	18.047	
4,650.0	2,879.5	4,460.9	2,886.3	21.3	16.6	90.28	-1,099.6	2,158.2	669.4	632.2	37.20	17.992	
4,675.0	2,879.2	4,482.2	2,886.2	21.8	17.0	90.29	-1,110.9	2,176.2	682.4	644.4	38.04	17.939	
4,700.0	2,878.9	4,503.6	2,886.1	22.4	17.4	90.29	-1,122.3	2,194.3	695.4	656.6	38.88	17.888	
4,725.0	2,878.6	4,524.9	2,886.0	22.9	17.8	90.29	-1,133.6	2,212.3	708.5	668.7	39.73	17.832	
4,750.0	2,878.4	4,546.3	2,885.9	23.4	18.2	90.30	-1,145.0	2,230.4	721.5	680.9	40.58	17.779	
4,775.0	2,878.1	4,567.6	2,885.8	23.9	18.6	90.30	-1,156.4	2,248.5	734.5	693.1	41.43	17.728	
4,800.0	2,877.8	4,588.9	2,885.6	24.5	19.0	90.30	-1,167.7	2,266.5	747.5	705.2	42.28	17.679	
4,825.0	2,877.5	4,610.3	2,885.5	25.0	19.4	90.31	-1,179.1	2,284.6	760.6	717.4	43.15	17.627	
4,850.0	2,877.2	4,631.6	2,885.4	25.5	19.8	90.31	-1,190.5	2,302.6	773.6	729.6	44.01	17.576	
4,875.0	2,876.9	4,653.0	2,885.3	26.1	20.2	90.31	-1,201.8	2,320.7	786.6	741.7	44.88	17.527	
4,900.0	2,876.6	4,674.3	2,885.2	26.6	20.6	90.32	-1,213.2	2,338.8	799.6	753.9	45.74	17.480	
4,925.0	2,876.3	4,695.6	2,885.1	27.1	21.1	90.32	-1,224.6	2,356.8	812.6	766.0	46.62	17.432	
4,950.0	2,876.1	4,717.0	2,885.0	27.7	21.5	90.32	-1,235.9	2,374.9	825.7	778.2	47.49	17.385	
4,975.0	2,875.8	4,738.3	2,884.9	28.2	21.9	90.33	-1,247.3	2,393.0	838.7	790.3	48.37	17.338	
5,000.0	2,875.5	4,759.7	2,884.8	28.8	22.3	90.33	-1,258.7	2,411.0	851.7	802.5	49.25	17.293	
5,025.0	2,875.2	4,781.0	2,884.6	29.3	22.7	90.33	-1,270.0	2,429.1	864.7	814.6	50.14	17.248	
5,050.0	2,874.9	4,802.3	2,884.5	29.9	23.1	90.33	-1,281.4	2,447.1	877.8	826.7	51.02	17.204	
5,075.0	2,874.6	4,823.7	2,884.4	30.4	23.6	90.34	-1,292.8	2,465.2	890.8	838.9	51.91	17.160	
5,100.0	2,874.3	4,845.0	2,884.3	30.9	24.0	90.34	-1,304.1	2,483.3	903.8	851.0	52.80	17.117	
5,125.0	2,874.0	4,866.4	2,884.2	31.5	24.4	90.34	-1,315.5	2,501.3	916.8	863.1	53.70	17.075	
5,150.0	2,873.8	4,887.7	2,884.1	32.1	24.8	90.34	-1,326.8	2,519.4	929.9	875.3	54.59	17.033	
5,175.0	2,873.5	4,909.0	2,884.0	32.6	25.3	90.35	-1,338.2	2,537.4	942.9	887.4	55.49	16.993	
5,200.0	2,873.2	4,930.4	2,883.9	33.2	25.7	90.35	-1,349.6	2,555.5	955.9	899.5	56.39	16.952	
5,225.0	2,872.9	4,951.7	2,883.7	33.7	26.1	90.35	-1,360.9	2,573.6	968.9	911.6	57.29	16.912	
5,250.0	2,872.6	4,973.1	2,883.6	34.3	26.6	90.35	-1,372.3	2,591.6	981.9	923.8	58.20	16.873	
5,275.0	2,872.3	4,994.4	2,883.5	34.8	27.0	90.35	-1,383.7	2,609.7	995.0	935.9	59.10	16.835	
5,300.0	2,872.0	5,015.7	2,883.4	35.4	27.4	90.36	-1,395.0	2,627.8	1,008.0	948.0	60.01	16.798	
5,325.0	2,871.7	5,037.1	2,883.3	35.9	27.9	90.36	-1,406.4	2,645.8	1,021.0	960.1	60.92	16.760	
5,350.0	2,871.5	5,058.4	2,883.2	36.5	28.3	90.36	-1,417.8	2,663.9	1,034.0	972.2	61.83	16.723	
5,375.0	2,871.2	5,079.8	2,883.1	37.1	28.7	90.36	-1,429.1	2,681.9	1,047.1	984.3	62.75	16.687	
5,400.0	2,870.9	5,101.1	2,883.0	37.6	29.2	90.36	-1,440.5	2,700.0	1,060.1	996.4	63.66	16.653	
5,425.0	2,870.6	5,132.2	2,882.8	38.2	29.8	90.36	-1,457.0	2,726.3	1,073.1	1,008.1	64.95	16.522	
5,450.0	2,870.3	5,195.9	2,882.4	38.7	31.1	90.37	-1,489.4	2,781.2	1,085.5	1,018.1	67.42	16.100	
5,475.0	2,870.0	5,262.4	2,882.1	39.3	32.5	90.38	-1,520.9	2,839.8	1,097.0	1,027.1	69.91	15.691	
5,500.0	2,869.7	5,276.4	2,882.0	39.9	32.8	90.38	-1,526.7	2,852.5	1,107.5	1,036.9	70.61	15.686	
5,525.0	2,869.4	5,403.7	2,881.3	40.4	35.5	90.40	-1,579.7	2,968.2	1,117.3	1,042.4	74.85	14.927	
5,550.0	2,869.1	5,478.3	2,880.9	41.0	37.1	90.41	-1,606.3	3,037.9	1,125.9	1,048.6	77.26	14.573	
5,575.0	2,868.9	5,555.2	2,880.5	41.6	38.7	90.42	-1,630.3	3,111.0	1,133.3	1,053.8	79.58	14.242	
5,600.0	2,868.6	5,575.6	2,880.4	42.1	39.1	90.43	-1,635.5	3,130.7	1,139.6	1,059.0	80.56	14.145	
5,625.0	2,868.3	5,715.3	2,879.6	42.7	42.1	90.46	-1,669.1	3,266.2	1,144.8	1,061.0	83.86	13.651	
5,650.0	2,868.0	5,797.7	2,879.2	43.3	43.8	90.47	-1,683.2	3,347.4	1,148.7	1,063.0	85.77	13.393	
5,675.0	2,867.7	5,881.3	2,878.7	43.8	45.5	90.50	-1,693.2	3,430.4	1,151.4	1,063.9	87.49	13.161	
5,700.0	2,867.4	5,965.6	2,878.3	44.4	47.2	90.52	-1,699.0	3,514.4	1,152.8	1,063.8	88.99	12.955	
5,725.0	2,867.1	6,050.1	2,877.8	45.0	48.9	90.55	-1,700.5	3,598.9	1,152.9	1,062.6	90.26	12.773	
5,750.0	2,866.8	6,072.1	2,877.7	45.6	49.4	90.55	-1,700.4	3,620.9	1,152.4	1,061.0	91.39	12.610	
5,775.0	2,866.6	6,097.1	2,877.6	46.1	49.8	90.56	-1,700.3	3,645.9	1,151.9	1,059.4	92.52	12.451	
5,800.0	2,866.3	6,122.1	2,877.5	46.7	50.3	90.57	-1,700.1	3,670.9	1,151.5	1,057.8	93.65	12.296	

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Lateral No.1 - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM, 3350-3_MWD+HRGM

Rule Assigned:

Offset Well Error: 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,825.0	2,866.0	6,147.1	2,877.3	47.3	50.8	90.58	-1,700.0	3,695.9	1,151.0	1,056.2	94.78	12.143	
5,850.0	2,865.7	6,172.1	2,877.2	47.8	51.4	90.59	-1,699.9	3,720.9	1,150.5	1,054.6	95.92	11.995	
5,875.0	2,865.4	6,197.1	2,877.1	48.4	51.9	90.59	-1,699.7	3,745.9	1,150.0	1,053.0	97.05	11.850	
5,900.0	2,865.1	6,222.1	2,876.9	49.0	52.4	90.60	-1,699.6	3,770.9	1,149.5	1,051.4	98.19	11.708	
5,925.0	2,864.8	6,247.0	2,876.8	49.6	52.9	90.61	-1,699.4	3,795.9	1,149.1	1,049.7	99.33	11.568	
5,950.0	2,864.5	6,272.0	2,876.7	50.1	53.4	90.62	-1,699.3	3,820.9	1,148.6	1,048.1	100.47	11.433	
5,975.0	2,864.3	6,297.0	2,876.5	50.7	53.9	90.63	-1,699.2	3,845.9	1,148.1	1,046.5	101.61	11.300	
6,000.0	2,864.0	6,322.0	2,876.4	51.3	54.4	90.63	-1,699.0	3,870.9	1,147.6	1,044.9	102.75	11.169	
6,025.0	2,863.7	6,347.0	2,876.3	51.9	54.9	90.64	-1,698.9	3,895.8	1,147.1	1,043.3	103.89	11.042	
6,050.0	2,863.4	6,372.0	2,876.1	52.5	55.4	90.65	-1,698.7	3,920.8	1,146.7	1,041.6	105.04	10.917	
6,075.0	2,863.1	6,397.0	2,876.0	53.0	56.0	90.66	-1,698.6	3,945.8	1,146.2	1,040.0	106.18	10.795	
6,100.0	2,862.8	6,422.0	2,875.9	53.6	56.5	90.67	-1,698.5	3,970.8	1,145.7	1,038.4	107.33	10.675	
6,125.0	2,862.5	6,447.0	2,875.8	54.2	57.0	90.67	-1,698.3	3,995.8	1,145.2	1,036.7	108.47	10.558	
6,150.0	2,862.2	6,472.0	2,875.6	54.8	57.5	90.68	-1,698.2	4,020.8	1,144.7	1,035.1	109.62	10.443	
6,175.0	2,862.0	6,497.0	2,875.5	55.4	58.0	90.69	-1,698.0	4,045.8	1,144.3	1,033.5	110.77	10.330	
6,200.0	2,861.7	6,522.0	2,875.4	55.9	58.6	90.70	-1,697.9	4,070.8	1,143.8	1,031.9	111.92	10.219	
6,225.0	2,861.4	6,547.0	2,875.2	56.5	59.1	90.71	-1,697.8	4,095.8	1,143.3	1,030.2	113.07	10.111	
6,250.0	2,861.1	6,572.0	2,875.1	57.1	59.6	90.72	-1,697.6	4,120.8	1,142.8	1,028.6	114.23	10.005	
6,275.0	2,860.8	6,597.0	2,875.0	57.7	60.1	90.72	-1,697.5	4,145.8	1,142.3	1,027.0	115.38	9.901	
6,300.0	2,860.5	6,622.0	2,874.8	58.3	60.7	90.73	-1,697.3	4,170.8	1,141.9	1,025.3	116.53	9.799	
6,325.0	2,860.2	6,647.0	2,874.7	58.8	61.2	90.74	-1,697.2	4,195.8	1,141.4	1,023.7	117.69	9.698	
6,350.0	2,859.9	6,672.0	2,874.6	59.4	61.7	90.75	-1,697.1	4,220.8	1,140.9	1,022.1	118.84	9.600	
6,375.0	2,859.7	6,697.0	2,874.4	60.0	62.3	90.76	-1,696.9	4,245.8	1,140.4	1,020.4	120.00	9.503	
6,400.0	2,859.4	6,721.9	2,874.3	60.6	62.8	90.76	-1,696.8	4,270.8	1,139.9	1,018.8	121.16	9.409	
6,425.0	2,859.1	6,746.9	2,874.2	61.2	63.3	90.77	-1,696.6	4,295.8	1,139.5	1,017.1	122.32	9.316	
6,450.0	2,858.8	6,771.9	2,874.1	61.8	63.9	90.78	-1,696.5	4,320.7	1,139.0	1,015.5	123.48	9.224	
6,475.0	2,858.5	6,796.9	2,873.9	62.3	64.4	90.79	-1,696.4	4,345.7	1,138.5	1,013.9	124.64	9.135	
6,500.0	2,858.2	6,821.9	2,873.8	62.9	65.0	90.80	-1,696.2	4,370.7	1,138.0	1,012.2	125.80	9.047	
6,525.0	2,857.9	6,846.9	2,873.7	63.5	65.5	90.81	-1,696.1	4,395.7	1,137.5	1,010.6	126.96	8.960	
6,550.0	2,857.6	6,871.9	2,873.5	64.1	66.0	90.81	-1,695.9	4,420.7	1,137.1	1,008.9	128.12	8.875	
6,575.0	2,857.4	6,896.9	2,873.4	64.7	66.6	90.82	-1,695.8	4,445.7	1,136.6	1,007.3	129.28	8.791	
6,600.0	2,857.1	6,921.9	2,873.3	65.3	67.1	90.83	-1,695.7	4,470.7	1,136.1	1,005.7	130.45	8.709	
6,625.0	2,856.8	6,946.9	2,873.1	65.9	67.7	90.84	-1,695.5	4,495.7	1,135.6	1,004.0	131.61	8.629	
6,650.0	2,856.5	6,971.9	2,873.0	66.5	68.2	90.85	-1,695.4	4,520.7	1,135.2	1,002.4	132.78	8.549	
6,675.0	2,856.2	6,996.9	2,872.9	67.0	68.8	90.85	-1,695.2	4,545.7	1,134.7	1,000.7	133.94	8.471	
6,700.0	2,855.9	7,021.9	2,872.7	67.6	69.3	90.86	-1,695.1	4,570.7	1,134.2	999.1	135.11	8.395	
6,725.0	2,855.6	7,046.9	2,872.6	68.2	69.9	90.87	-1,695.0	4,595.7	1,133.7	997.4	136.28	8.319	
6,750.0	2,855.3	7,071.9	2,872.5	68.8	70.4	90.88	-1,694.8	4,620.7	1,133.2	995.8	137.44	8.245	
6,775.0	2,855.1	7,096.9	2,872.4	69.4	71.0	90.89	-1,694.7	4,645.7	1,132.8	994.1	138.61	8.172	
6,800.0	2,854.8	7,121.9	2,872.2	70.0	71.5	90.90	-1,694.5	4,670.7	1,132.3	992.5	139.78	8.100	
6,825.0	2,854.5	7,146.9	2,872.1	70.6	72.1	90.90	-1,694.4	4,695.7	1,131.8	990.8	140.95	8.030	
6,850.0	2,854.2	7,171.9	2,872.0	71.2	72.6	90.91	-1,694.3	4,720.7	1,131.3	989.2	142.12	7.960	
6,875.0	2,853.9	7,196.9	2,871.8	71.7	73.2	90.92	-1,694.1	4,745.6	1,130.8	987.5	143.29	7.892	
6,900.0	2,853.6	7,221.8	2,871.7	72.3	73.7	90.93	-1,694.0	4,770.6	1,130.4	985.9	144.46	7.825	
6,925.0	2,853.3	7,246.8	2,871.6	72.9	74.3	90.94	-1,693.9	4,795.6	1,129.9	984.2	145.64	7.758	
6,950.0	2,853.0	7,271.8	2,871.4	73.5	74.8	90.95	-1,693.7	4,820.6	1,129.4	982.6	146.81	7.693	
6,975.0	2,852.8	7,296.8	2,871.3	74.1	75.4	90.95	-1,693.6	4,845.6	1,128.9	980.9	147.98	7.629	
7,000.0	2,852.5	7,321.8	2,871.2	74.7	75.9	90.96	-1,693.4	4,870.6	1,128.4	979.3	149.15	7.566	
7,025.0	2,852.2	7,346.8	2,871.0	75.3	76.5	90.97	-1,693.3	4,895.6	1,128.0	977.6	150.33	7.503	
7,050.0	2,851.9	7,371.8	2,870.9	75.9	77.1	90.98	-1,693.2	4,920.6	1,127.5	976.0	151.50	7.442	
7,075.0	2,851.6	7,396.8	2,870.8	76.5	77.6	90.99	-1,693.0	4,945.6	1,127.0	974.3	152.68	7.382	
7,100.0	2,851.3	7,421.8	2,870.6	77.1	78.2	91.00	-1,692.9	4,970.6	1,126.5	972.7	153.85	7.322	

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Lateral No.1 - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM, 3350-3_MWD+HRGM

Rule Assigned:

Offset Well Error: 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,125.0	2,851.0	7,446.8	2,870.5	77.7	78.7	91.00	-1,692.7	4,995.6	1,126.0	971.0	155.03	7.263	
7,150.0	2,850.7	7,471.8	2,870.4	78.2	79.3	91.01	-1,692.6	5,020.6	1,125.6	969.4	156.20	7.206	
7,175.0	2,850.4	7,496.8	2,870.3	78.8	79.9	91.02	-1,692.5	5,045.6	1,125.1	967.7	157.38	7.149	
7,200.0	2,850.2	7,521.8	2,870.1	79.4	80.4	91.03	-1,692.3	5,070.6	1,124.6	966.1	158.56	7.093	SF

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Pilot Hole - WP2.1 — **Offset Site Error:** 5.0 usft

Survey Program: 0-3_MWD+HRGM — **Rule Assigned:** — **Offset Well Error:** 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,302.7	2,802.8	3,302.7	2,802.8	0.0	0.0	86.21	-502.8	1,184.6	0.0	-2.3	2.29	0.014	Collision RiskProcedures Req'd
3,325.0	2,812.5	3,324.8	2,812.4	0.4	0.5	91.30	-510.6	1,202.9	2.6	-0.4	3.01	0.856	Collision RiskProcedures Req'd
3,344.0	2,820.5	3,344.0	2,820.5	0.6	0.8	-170.49	-517.4	1,218.9	0.1	-2.7	2.78	0.030	Collision RiskProcedures Req'd
3,344.4	2,820.6	3,344.4	2,820.7	0.6	0.9	126.01	-517.5	1,219.3	0.2	-3.4	3.56	0.049	Collision RiskProcedures Req'd
3,350.0	2,822.9	3,349.6	2,822.9	0.7	1.0	98.48	-519.4	1,223.6	2.1	-1.7	3.79	0.562	Collision RiskProcedures Req'd
3,375.0	2,832.9	3,372.9	2,832.8	0.8	1.4	98.58	-527.6	1,243.1	11.1	6.7	4.42	2.507	
3,400.0	2,842.0	3,396.2	2,842.6	1.0	1.9	100.40	-535.9	1,262.5	20.1	15.1	5.05	3.991	
3,425.0	2,850.4	3,419.5	2,852.4	1.2	2.3	102.31	-544.1	1,281.9	29.3	23.7	5.69	5.160	
3,450.0	2,858.0	3,442.6	2,862.2	1.4	2.8	104.21	-552.3	1,301.1	38.7	32.4	6.32	6.133	
3,475.0	2,864.9	3,465.6	2,871.9	1.6	3.2	106.06	-560.4	1,320.3	48.4	41.4	6.95	6.958	
3,500.0	2,870.9	3,488.4	2,881.6	1.9	3.7	107.86	-568.5	1,339.4	58.3	50.7	7.57	7.701	
3,525.0	2,876.2	3,511.1	2,891.1	2.1	4.1	109.58	-576.6	1,358.3	68.5	60.3	8.18	8.371	
3,550.0	2,880.6	3,533.6	2,900.6	2.4	4.6	111.23	-584.5	1,377.0	79.1	70.3	8.77	9.011	
3,575.0	2,884.3	3,555.8	2,910.0	2.7	5.0	112.80	-592.4	1,395.6	90.0	80.6	9.36	9.617	
3,600.0	2,887.1	3,577.8	2,919.3	3.0	5.4	114.27	-600.2	1,414.0	101.3	91.4	9.91	10.222	CC, ES, SF
3,625.0	2,889.1	3,599.5	2,928.5	3.3	5.9	115.65	-607.9	1,432.1	113.0	102.6	10.45	10.817	
3,650.0	2,890.3	3,621.0	2,937.6	3.6	6.3	116.94	-615.5	1,450.0	125.2	114.2	10.96	11.423	
3,675.0	2,890.7	3,642.1	2,946.5	3.9	6.7	118.14	-623.0	1,467.6	137.8	126.4	11.45	12.034	
3,683.0	2,890.6	3,648.8	2,949.3	4.0	6.9	118.50	-625.3	1,473.2	142.0	130.4	11.60	12.234	
3,700.0	2,890.4	3,663.0	2,955.3	4.3	7.1	119.87	-630.4	1,485.0	150.8	138.9	11.92	12.649	
3,725.0	2,890.2	3,678.8	2,962.0	4.6	7.4	121.22	-635.9	1,498.2	164.0	151.8	12.27	13.364	
3,750.0	2,889.9	3,678.8	2,962.0	5.0	7.4	121.22	-635.9	1,498.2	179.1	167.0	12.13	14.763	
3,775.0	2,889.6	3,678.8	2,962.0	5.3	7.4	121.22	-635.9	1,498.2	196.2	184.3	11.91	16.478	
3,800.0	2,889.3	3,678.8	2,962.0	5.7	7.4	121.22	-635.9	1,498.2	214.8	203.2	11.65	18.447	
3,825.0	2,889.0	3,678.8	2,962.0	6.1	7.4	121.22	-635.9	1,498.2	234.7	223.3	11.39	20.596	
3,850.0	2,888.7	3,678.8	2,962.0	6.4	7.4	121.22	-635.9	1,498.2	255.4	244.3	11.15	22.911	
3,875.0	2,888.4	3,678.8	2,962.0	6.8	7.4	121.22	-635.9	1,498.2	276.9	265.9	10.92	25.361	
3,900.0	2,888.1	3,678.8	2,962.0	7.2	7.4	121.22	-635.9	1,498.2	298.9	288.1	10.70	27.923	
3,925.0	2,887.8	3,678.8	2,962.0	7.6	7.4	121.22	-635.9	1,498.2	321.3	310.8	10.51	30.556	
3,950.0	2,887.6	3,678.8	2,962.0	8.0	7.4	121.22	-635.9	1,498.2	344.1	333.7	10.34	33.266	
3,975.0	2,887.3	3,678.8	2,962.0	8.5	7.4	121.22	-635.9	1,498.2	367.2	357.0	10.19	36.043	
4,000.0	2,887.0	3,678.8	2,962.0	8.9	7.4	121.22	-635.9	1,498.2	390.5	380.4	10.04	38.876	
4,025.0	2,886.7	3,678.8	2,962.0	9.3	7.4	121.22	-635.9	1,498.2	414.0	404.1	9.92	41.736	
4,050.0	2,886.4	3,678.8	2,962.0	9.7	7.4	121.22	-635.9	1,498.2	437.7	427.9	9.81	44.635	
4,075.0	2,886.1	3,678.8	2,962.0	10.2	7.4	121.22	-635.9	1,498.2	461.5	451.8	9.70	47.571	
4,100.0	2,885.8	3,678.8	2,962.0	10.6	7.4	121.22	-635.9	1,498.2	485.4	475.8	9.61	50.536	
4,125.0	2,885.5	3,678.8	2,962.0	11.1	7.4	121.22	-635.9	1,498.2	509.5	499.9	9.52	53.508	
4,150.0	2,885.3	3,678.8	2,962.0	11.5	7.4	121.22	-635.9	1,498.2	533.6	524.1	9.44	56.503	
4,175.0	2,885.0	3,678.8	2,962.0	12.0	7.4	121.22	-635.9	1,498.2	557.8	548.4	9.37	59.518	
4,200.0	2,884.7	3,678.8	2,962.0	12.4	7.4	121.22	-635.9	1,498.2	582.1	572.8	9.31	62.550	
4,225.0	2,884.4	3,678.8	2,962.0	12.9	7.4	121.22	-635.9	1,498.2	606.4	597.1	9.25	65.579	
4,250.0	2,884.1	3,678.8	2,962.0	13.4	7.4	121.22	-635.9	1,498.2	630.8	621.6	9.19	68.622	
4,275.0	2,883.8	3,678.8	2,962.0	13.8	7.4	121.22	-635.9	1,498.2	655.2	646.1	9.14	71.676	
4,300.0	2,883.5	3,678.8	2,962.0	14.3	7.4	121.22	-635.9	1,498.2	679.7	670.6	9.09	74.740	
4,325.0	2,883.2	3,678.8	2,962.0	14.8	7.4	121.22	-635.9	1,498.2	704.2	695.1	9.05	77.797	
4,350.0	2,883.0	3,678.8	2,962.0	15.3	7.4	121.22	-635.9	1,498.2	728.7	719.7	9.01	80.862	
4,375.0	2,882.7	3,678.8	2,962.0	15.8	7.4	121.22	-635.9	1,498.2	753.3	744.3	8.97	83.933	
4,400.0	2,882.4	3,678.8	2,962.0	16.3	7.4	121.22	-635.9	1,498.2	777.9	768.9	8.94	87.011	
4,425.0	2,882.1	3,678.8	2,962.0	16.8	7.4	121.22	-635.9	1,498.2	802.5	793.6	8.91	90.079	
4,450.0	2,881.8	3,678.8	2,962.0	17.3	7.4	121.22	-635.9	1,498.2	827.2	818.3	8.88	93.151	
4,475.0	2,881.5	3,678.8	2,962.0	17.8	7.4	121.22	-635.9	1,498.2	851.8	843.0	8.85	96.228	
4,500.0	2,881.2	3,678.8	2,962.0	18.2	7.4	121.22	-635.9	1,498.2	876.5	867.7	8.83	99.307	

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

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Pilot Hole - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM

Offset Well Error: 1.0 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,525.0	2,880.9	3,678.8	2,962.0	18.8	7.4	121.22	-635.9	1,498.2	901.2	892.4	8.80	102.377	
4,550.0	2,880.7	3,678.8	2,962.0	19.3	7.4	121.22	-635.9	1,498.2	925.9	917.1	8.78	105.449	
4,575.0	2,880.4	3,678.8	2,962.0	19.8	7.4	121.22	-635.9	1,498.2	950.7	941.9	8.76	108.522	
4,600.0	2,880.1	3,678.8	2,962.0	20.3	7.4	121.22	-635.9	1,498.2	975.4	966.7	8.74	111.598	
4,625.0	2,879.8	3,678.8	2,962.0	20.8	7.4	121.22	-635.9	1,498.2	1,000.2	991.4	8.72	114.663	
4,650.0	2,879.5	3,678.8	2,962.0	21.3	7.4	121.22	-635.9	1,498.2	1,024.9	1,016.2	8.71	117.728	
4,675.0	2,879.2	3,678.8	2,962.0	21.8	7.4	121.22	-635.9	1,498.2	1,049.7	1,041.0	8.69	120.795	
4,700.0	2,878.9	3,678.8	2,962.0	22.4	7.4	121.22	-635.9	1,498.2	1,074.5	1,065.8	8.68	123.861	
4,725.0	2,878.6	3,678.8	2,962.0	22.9	7.4	121.22	-635.9	1,498.2	1,099.3	1,090.7	8.66	126.918	
4,750.0	2,878.4	3,678.8	2,962.0	23.4	7.4	121.22	-635.9	1,498.2	1,124.1	1,115.5	8.65	129.974	
4,775.0	2,878.1	3,678.8	2,962.0	23.9	7.4	121.22	-635.9	1,498.2	1,148.9	1,140.3	8.64	133.030	
4,800.0	2,877.8	3,678.8	2,962.0	24.5	7.4	121.22	-635.9	1,498.2	1,173.8	1,165.1	8.63	136.086	
4,825.0	2,877.5	3,678.8	2,962.0	25.0	7.4	121.22	-635.9	1,498.2	1,198.6	1,190.0	8.61	139.132	
4,850.0	2,877.2	3,678.8	2,962.0	25.5	7.4	121.22	-635.9	1,498.2	1,223.4	1,214.8	8.61	142.176	
4,875.0	2,876.9	3,678.8	2,962.0	26.1	7.4	121.22	-635.9	1,498.2	1,248.3	1,239.7	8.60	145.220	
4,900.0	2,876.6	3,678.8	2,962.0	26.6	7.4	121.22	-635.9	1,498.2	1,273.1	1,264.6	8.59	148.263	
4,925.0	2,876.3	3,678.8	2,962.0	27.1	7.4	121.22	-635.9	1,498.2	1,298.0	1,289.4	8.58	151.296	
4,950.0	2,876.1	3,678.8	2,962.0	27.7	7.4	121.22	-635.9	1,498.2	1,322.9	1,314.3	8.57	154.327	
4,975.0	2,875.8	3,678.8	2,962.0	28.2	7.4	121.22	-635.9	1,498.2	1,347.7	1,339.2	8.56	157.357	
5,000.0	2,875.5	3,678.8	2,962.0	28.8	7.4	121.22	-635.9	1,498.2	1,372.6	1,364.1	8.56	160.386	
5,025.0	2,875.2	3,678.8	2,962.0	29.3	7.4	121.22	-635.9	1,498.2	1,397.5	1,388.9	8.55	163.405	
5,050.0	2,874.9	3,678.8	2,962.0	29.9	7.4	121.22	-635.9	1,498.2	1,422.4	1,413.8	8.55	166.422	
5,075.0	2,874.6	3,678.8	2,962.0	30.4	7.4	121.22	-635.9	1,498.2	1,447.3	1,438.7	8.54	169.437	
5,100.0	2,874.3	3,678.8	2,962.0	30.9	7.4	121.22	-635.9	1,498.2	1,472.1	1,463.6	8.54	172.450	
5,125.0	2,874.0	3,678.8	2,962.0	31.5	7.4	121.22	-635.9	1,498.2	1,497.0	1,488.5	8.53	175.454	
5,150.0	2,873.8	3,678.8	2,962.0	32.1	7.4	121.22	-635.9	1,498.2	1,521.9	1,513.4	8.53	178.456	
5,175.0	2,873.5	3,678.8	2,962.0	32.6	7.4	121.22	-635.9	1,498.2	1,546.8	1,538.3	8.52	181.455	
5,200.0	2,873.2	3,678.8	2,962.0	33.2	7.4	121.22	-635.9	1,498.2	1,571.7	1,563.2	8.52	184.453	
5,225.0	2,872.9	3,678.8	2,962.0	33.7	7.4	121.22	-635.9	1,498.2	1,596.7	1,588.1	8.52	187.441	
5,250.0	2,872.6	3,678.8	2,962.0	34.3	7.4	121.22	-635.9	1,498.2	1,621.6	1,613.0	8.52	190.427	
5,275.0	2,872.3	3,678.8	2,962.0	34.8	7.4	121.22	-635.9	1,498.2	1,646.5	1,638.0	8.51	193.410	
5,300.0	2,872.0	3,678.8	2,962.0	35.4	7.4	121.22	-635.9	1,498.2	1,671.4	1,662.9	8.51	196.390	
5,325.0	2,871.7	3,678.8	2,962.0	35.9	7.4	121.22	-635.9	1,498.2	1,696.3	1,687.8	8.51	199.362	
5,350.0	2,871.5	3,678.8	2,962.0	36.5	7.4	121.22	-635.9	1,498.2	1,721.2	1,712.7	8.51	202.331	
5,375.0	2,871.2	3,678.8	2,962.0	37.1	7.4	121.22	-635.9	1,498.2	1,746.1	1,737.6	8.51	205.297	
5,400.0	2,870.9	3,678.8	2,962.0	37.6	7.4	121.22	-635.9	1,498.2	1,771.1	1,762.6	8.50	208.260	
5,425.0	2,870.6	3,678.8	2,962.0	38.2	7.4	121.22	-635.9	1,498.2	1,796.0	1,787.5	8.50	211.214	
5,450.0	2,870.3	3,678.8	2,962.0	38.7	7.4	121.22	-635.9	1,498.2	1,820.9	1,812.4	8.50	214.166	
5,475.0	2,870.0	3,678.8	2,962.0	39.3	7.4	121.22	-635.9	1,498.2	1,845.9	1,837.4	8.50	217.114	
5,500.0	2,869.7	3,678.8	2,962.0	39.9	7.4	121.22	-635.9	1,498.2	1,870.8	1,862.3	8.50	220.059	
5,525.0	2,869.4	3,678.8	2,962.0	40.4	7.4	121.22	-635.9	1,498.2	1,895.7	1,887.2	8.50	222.995	
5,550.0	2,869.1	3,678.8	2,962.0	41.0	7.4	121.22	-635.9	1,498.2	1,920.7	1,912.2	8.50	225.929	
5,575.0	2,868.9	3,678.8	2,962.0	41.6	7.4	121.22	-635.9	1,498.2	1,945.6	1,937.1	8.50	228.859	
5,600.0	2,868.6	3,678.8	2,962.0	42.1	7.4	121.22	-635.9	1,498.2	1,970.5	1,962.0	8.50	231.785	
5,625.0	2,868.3	3,678.8	2,962.0	42.7	7.4	121.22	-635.9	1,498.2	1,995.5	1,987.0	8.50	234.703	
5,650.0	2,868.0	3,678.8	2,962.0	43.3	7.4	121.22	-635.9	1,498.2	2,020.4	2,011.9	8.50	237.617	
5,675.0	2,867.7	3,678.8	2,962.0	43.8	7.4	121.22	-635.9	1,498.2	2,045.4	2,036.9	8.50	240.528	
5,700.0	2,867.4	3,678.8	2,962.0	44.4	7.4	121.22	-635.9	1,498.2	2,070.3	2,061.8	8.50	243.435	
5,725.0	2,867.1	3,678.8	2,962.0	45.0	7.4	121.22	-635.9	1,498.2	2,095.3	2,086.7	8.51	246.334	
5,750.0	2,866.8	3,678.8	2,962.0	45.6	7.4	121.22	-635.9	1,498.2	2,120.2	2,111.7	8.51	249.229	
5,775.0	2,866.6	3,678.8	2,962.0	46.1	7.4	121.22	-635.9	1,498.2	2,145.2	2,136.6	8.51	252.120	
5,800.0	2,866.3	3,678.8	2,962.0	46.7	7.4	121.22	-635.9	1,498.2	2,170.1	2,161.6	8.51	255.007	

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Pilot Hole - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM

Offset Well Error: 1.0 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,825.0	2,866.0	3,678.8	2,962.0	47.3	7.4	121.22	-635.9	1,498.2	2,195.1	2,186.5	8.51	257.886	
5,850.0	2,865.7	3,678.8	2,962.0	47.8	7.4	121.22	-635.9	1,498.2	2,220.0	2,211.5	8.51	260.760	
5,875.0	2,865.4	3,678.8	2,962.0	48.4	7.4	121.22	-635.9	1,498.2	2,245.0	2,236.4	8.52	263.631	
5,900.0	2,865.1	3,678.8	2,962.0	49.0	7.4	121.22	-635.9	1,498.2	2,269.9	2,261.4	8.52	266.498	
5,925.0	2,864.8	3,678.8	2,962.0	49.6	7.4	121.22	-635.9	1,498.2	2,294.9	2,286.3	8.52	269.356	
5,950.0	2,864.5	3,678.8	2,962.0	50.1	7.4	121.22	-635.9	1,498.2	2,319.8	2,311.3	8.52	272.210	
5,975.0	2,864.3	3,678.8	2,962.0	50.7	7.4	121.22	-635.9	1,498.2	2,344.8	2,336.3	8.52	275.059	
6,000.0	2,864.0	3,678.8	2,962.0	51.3	7.4	121.22	-635.9	1,498.2	2,369.7	2,361.2	8.53	277.905	
6,025.0	2,863.7	3,678.8	2,962.0	51.9	7.4	121.22	-635.9	1,498.2	2,394.7	2,386.2	8.53	280.742	
6,050.0	2,863.4	3,678.8	2,962.0	52.5	7.4	121.22	-635.9	1,498.2	2,419.7	2,411.1	8.53	283.574	
6,075.0	2,863.1	3,678.8	2,962.0	53.0	7.4	121.22	-635.9	1,498.2	2,444.6	2,436.1	8.54	286.402	
6,100.0	2,862.8	3,678.8	2,962.0	53.6	7.4	121.22	-635.9	1,498.2	2,469.6	2,461.0	8.54	289.226	
6,125.0	2,862.5	3,678.8	2,962.0	54.2	7.4	121.22	-635.9	1,498.2	2,494.5	2,486.0	8.54	292.040	
6,150.0	2,862.2	3,678.8	2,962.0	54.8	7.4	121.22	-635.9	1,498.2	2,519.5	2,511.0	8.55	294.850	
6,175.0	2,862.0	3,678.8	2,962.0	55.4	7.4	121.22	-635.9	1,498.2	2,544.5	2,535.9	8.55	297.656	
6,200.0	2,861.7	3,678.8	2,962.0	55.9	7.4	121.22	-635.9	1,498.2	2,569.4	2,560.9	8.55	300.457	
6,225.0	2,861.4	3,678.8	2,962.0	56.5	7.4	121.22	-635.9	1,498.2	2,594.4	2,585.8	8.56	303.249	
6,250.0	2,861.1	3,678.8	2,962.0	57.1	7.4	121.22	-635.9	1,498.2	2,619.4	2,610.8	8.56	306.036	
6,275.0	2,860.8	3,678.8	2,962.0	57.7	7.4	121.22	-635.9	1,498.2	2,644.3	2,635.8	8.56	308.818	
6,300.0	2,860.5	3,678.8	2,962.0	58.3	7.4	121.22	-635.9	1,498.2	2,669.3	2,660.7	8.57	311.596	
6,325.0	2,860.2	3,678.8	2,962.0	58.8	7.4	121.22	-635.9	1,498.2	2,694.3	2,685.7	8.57	314.364	
6,350.0	2,859.9	3,678.8	2,962.0	59.4	7.4	121.22	-635.9	1,498.2	2,719.2	2,710.7	8.57	317.128	
6,375.0	2,859.7	3,678.8	2,962.0	60.0	7.4	121.22	-635.9	1,498.2	2,744.2	2,735.6	8.58	319.886	
6,400.0	2,859.4	3,678.8	2,962.0	60.6	7.4	121.22	-635.9	1,498.2	2,769.2	2,760.6	8.58	322.640	
6,425.0	2,859.1	3,678.8	2,962.0	61.2	7.4	121.22	-635.9	1,498.2	2,794.1	2,785.6	8.59	325.384	
6,450.0	2,858.8	3,678.8	2,962.0	61.8	7.4	121.22	-635.9	1,498.2	2,819.1	2,810.5	8.59	328.124	
6,475.0	2,858.5	3,678.8	2,962.0	62.3	7.4	121.22	-635.9	1,498.2	2,844.1	2,835.5	8.60	330.858	
6,500.0	2,858.2	3,678.8	2,962.0	62.9	7.4	121.22	-635.9	1,498.2	2,869.0	2,860.4	8.60	333.587	
6,525.0	2,857.9	3,678.8	2,962.0	63.5	7.4	121.22	-635.9	1,498.2	2,894.0	2,885.4	8.61	336.306	
6,550.0	2,857.6	3,678.8	2,962.0	64.1	7.4	121.22	-635.9	1,498.2	2,919.0	2,910.4	8.61	339.020	
6,575.0	2,857.4	3,678.8	2,962.0	64.7	7.4	121.22	-635.9	1,498.2	2,944.0	2,935.4	8.61	341.730	
6,600.0	2,857.1	3,678.8	2,962.0	65.3	7.4	121.22	-635.9	1,498.2	2,968.9	2,960.3	8.62	344.434	
6,625.0	2,856.8	3,678.8	2,962.0	65.9	7.4	121.22	-635.9	1,498.2	2,993.9	2,985.3	8.62	347.127	
6,650.0	2,856.5	3,678.8	2,962.0	66.5	7.4	121.22	-635.9	1,498.2	3,018.9	3,010.3	8.63	349.816	
6,675.0	2,856.2	3,678.8	2,962.0	67.0	7.4	121.22	-635.9	1,498.2	3,043.9	3,035.2	8.64	352.499	
6,700.0	2,855.9	3,678.8	2,962.0	67.6	7.4	121.22	-635.9	1,498.2	3,068.8	3,060.2	8.64	355.177	
6,725.0	2,855.6	3,678.8	2,962.0	68.2	7.4	121.22	-635.9	1,498.2	3,093.8	3,085.2	8.65	357.844	
6,750.0	2,855.3	3,678.8	2,962.0	68.8	7.4	121.22	-635.9	1,498.2	3,118.8	3,110.1	8.65	360.506	
6,775.0	2,855.1	3,678.8	2,962.0	69.4	7.4	121.22	-635.9	1,498.2	3,143.8	3,135.1	8.66	363.163	
6,800.0	2,854.8	3,678.8	2,962.0	70.0	7.4	121.22	-635.9	1,498.2	3,168.7	3,160.1	8.66	365.814	
6,825.0	2,854.5	3,678.8	2,962.0	70.6	7.4	121.22	-635.9	1,498.2	3,193.7	3,185.1	8.67	368.455	
6,850.0	2,854.2	3,678.8	2,962.0	71.2	7.4	121.22	-635.9	1,498.2	3,218.7	3,210.0	8.67	371.090	
6,875.0	2,853.9	3,678.8	2,962.0	71.7	7.4	121.22	-635.9	1,498.2	3,243.7	3,235.0	8.68	373.720	
6,900.0	2,853.6	3,678.8	2,962.0	72.3	7.4	121.22	-635.9	1,498.2	3,268.7	3,260.0	8.69	376.344	
6,925.0	2,853.3	3,678.8	2,962.0	72.9	7.4	121.22	-635.9	1,498.2	3,293.6	3,284.9	8.69	378.957	
6,950.0	2,853.0	3,678.8	2,962.0	73.5	7.4	121.22	-635.9	1,498.2	3,318.6	3,309.9	8.70	381.564	
6,975.0	2,852.8	3,678.8	2,962.0	74.1	7.4	121.22	-635.9	1,498.2	3,343.6	3,334.9	8.70	384.166	
7,000.0	2,852.5	3,678.8	2,962.0	74.7	7.4	121.22	-635.9	1,498.2	3,368.6	3,359.9	8.71	386.762	
7,025.0	2,852.2	3,678.8	2,962.0	75.3	7.4	121.22	-635.9	1,498.2	3,393.5	3,384.8	8.72	389.347	
7,050.0	2,851.9	3,678.8	2,962.0	75.9	7.4	121.22	-635.9	1,498.2	3,418.5	3,409.8	8.72	391.926	
7,075.0	2,851.6	3,678.8	2,962.0	76.5	7.4	121.22	-635.9	1,498.2	3,443.5	3,434.8	8.73	394.499	
7,100.0	2,851.3	3,678.8	2,962.0	77.1	7.4	121.22	-635.9	1,498.2	3,468.5	3,459.8	8.74	397.067	

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Offset Design: San Juan Basin - Southern Ute 705H - Pilot Hole - WP2.1

Offset Site Error: 5.0 usft

Survey Program: 0-3_MWD+HRGM

Rule Assigned:

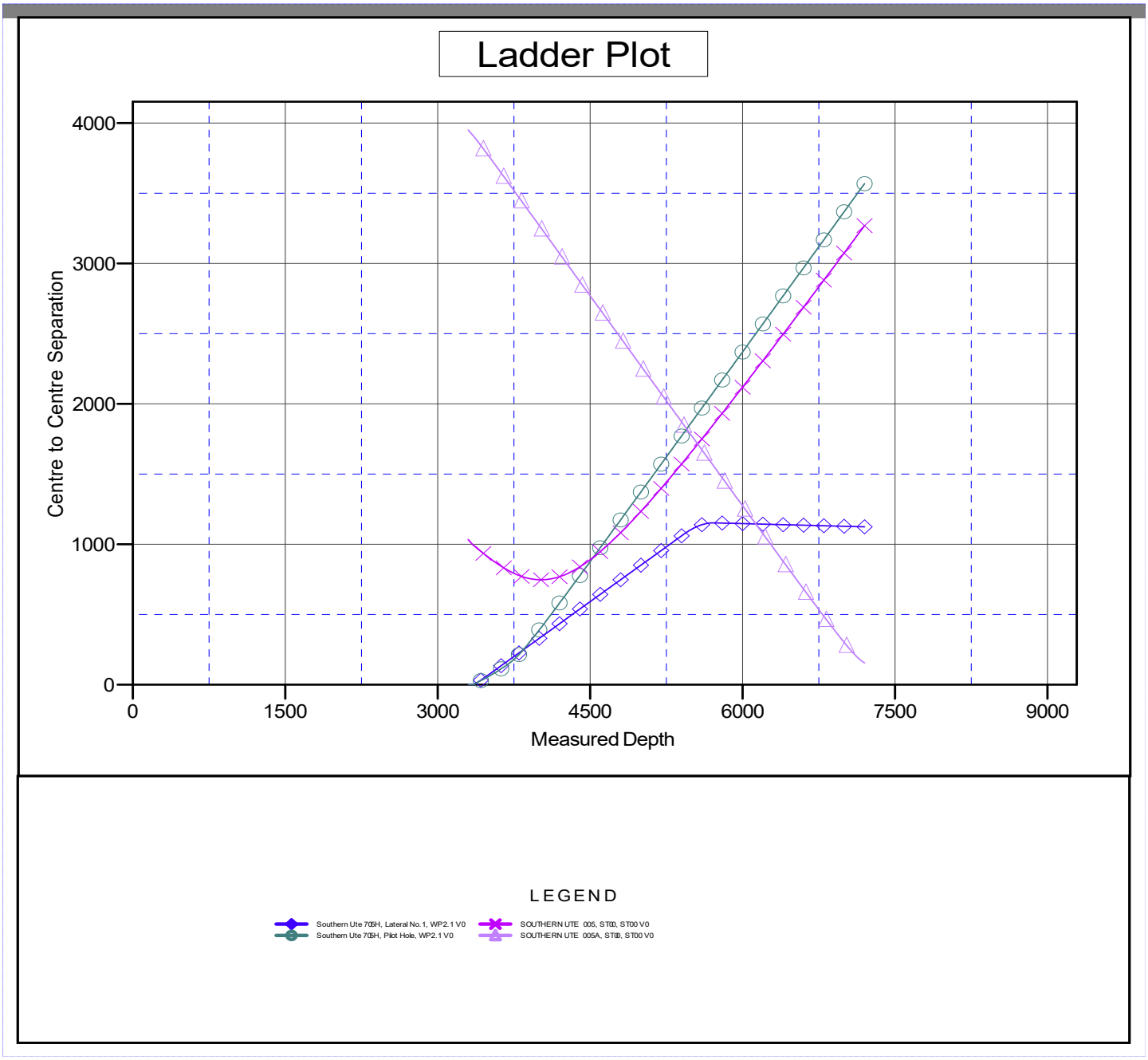
Offset Well Error: 1.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,125.0	2,851.0	3,678.8	2,962.0	77.7	7.4	121.22	-635.9	1,498.2	3,493.5	3,484.7	8.74	399.623	
7,150.0	2,850.7	3,678.8	2,962.0	78.2	7.4	121.22	-635.9	1,498.2	3,518.4	3,509.7	8.75	402.173	
7,175.0	2,850.4	3,678.8	2,962.0	78.8	7.4	121.22	-635.9	1,498.2	3,543.4	3,534.7	8.76	404.718	
7,200.0	2,850.2	3,678.8	2,962.0	79.4	7.4	121.22	-635.9	1,498.2	3,568.4	3,559.6	8.76	407.256	

Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB to MSL= 6310 @ 6310.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 107° 50' 0.000 W

Coordinates are relative to: Southern Ute 705H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.15°



Company:	Hilcorp Energy Company	**Local Co-ordinate Reference:**	Well Southern Ute 705H
Project:	Farmington, NM	**TVD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Reference Site:	San Juan Basin	**MD Reference:**	RKB to MSL= 6310 @ 6310.0usft
Site Error:	5.0 usft	**North Reference:**	Grid
Reference Well:	Southern Ute 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral No.2	**Database:**	EDM 5000.1 Single User Db
Reference Design:	WP2.1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB to MSL= 6310 @ 6310.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 107° 50' 0.000 W

Coordinates are relative to: Southern Ute 705H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.15°