

**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

Well Name and Num: Helios 6 Fed #2H
Location: Sec. 6, T19S, R31E
Operator: Devon
Drilling Contractor: McVay Drilling Company

30-015-38483

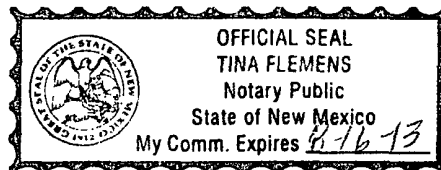
The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.17	135	2.40	7956	87.90	10467
0.29	375	19.00	8115	88.10	10847
0.49	649	21.00	8147	90.20	11034
1.09	1152	22.50	8242	90.40	11411
0.89	1642	31.20	8370	90.40	11601
1.33	2108	39.30	8497	91.30	11872
0.99	2552	40.90	8560	90.30	12072
0.48	3050	41.40	8592	89.80	12353
0.54	3540	43.70	8719	90.60	12632
0.80	4004	53.50	8846	90.20	12912
1.52	4503	63.00	8909	90.40	13006
0.37	4956	79.90	9132		
0.69	5431	83.90	9198		
0.87	5930	89.70	9261		
1.63	6382	90.70	9325		
0.77	6858	90.60	9610		
0.79	7323	90.60	10086		

By: Hector Cram

Subscribed and sworn to before me this 2nd day of September, 2011

Tina Flemens
Notary Public, Lea County, New Mexico



30-015-38483

Helios 6 Fed Com 2H_Final MWD Survey-Report_08-29-11.txt
 Devon Energy Production Co, LP
 Helios 6 Fed Com #2H - Lateral #1

Eddy Co., New Mexico (Nad 83)
 Helios 6 Fed Com #2H

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
7828.00	0.080	120.630	7826.79	93.87 N	10.76 E	94.33
0.00						
7956.00	2.400	100.700	7954.75	93.33 N	13.47 E	93.94
1.82						
7988.00	5.800	99.900	7986.66	92.92 N	15.72 E	93.67
10.63						
8020.00	10.900	95.400	8018.31	92.36 N	20.33 E	93.37
16.06						
8052.00	14.800	91.900	8049.50	91.94 N	27.43 E	93.36
12.42						
8083.00	16.500	89.100	8079.35	91.88 N	35.79 E	93.78
6.00						
8115.00	19.000	90.000	8109.83	91.95 N	45.54 E	94.40
7.86						
8147.00	21.000	91.600	8139.90	91.79 N	56.48 E	94.87
6.48						
8179.00	21.200	92.200	8169.75	91.41 N	68.00 E	95.15
0.92						
8211.00	21.300	91.500	8199.58	91.03 N	79.59 E	95.44
0.85						
8242.00	22.500	89.700	8228.34	90.92 N	91.15 E	95.98
4.44						
8272.00	24.700	85.700	8255.83	91.42 N	103.14 E	97.17
9.07						
8306.00	27.300	79.300	8286.39	93.40 N	117.89 E	99.99
11.24						
8338.00	29.200	71.100	8314.59	97.29 N	132.50 E	104.71
13.49						
8370.00	31.200	63.700	8342.26	103.49 N	147.32 E	111.75
13.19						
8401.00	33.900	55.900	8368.40	111.90 N	161.68 E	120.97
16.08						
8433.00	36.400	48.000	8394.57	123.27 N	176.14 E	133.14
16.21						
8465.00	37.800	41.900	8420.10	136.93 N	189.75 E	147.56
12.30						
8497.00	39.300	35.800	8445.14	152.45 N	202.23 E	163.77
12.77						
8529.00	40.200	30.800	8469.75	169.55 N	213.45 E	181.48
10.38						
8560.00	40.900	26.500	8493.31	187.22 N	223.10 E	199.68
9.29						
8592.00	41.400	21.800	8517.41	206.43 N	231.71 E	219.35
9.79						
8623.00	41.900	17.200	8540.58	225.84 N	238.58 E	239.12
9.99						
8655.00	42.200	12.700	8564.34	246.54 N	244.10 E	260.10
9.46						
8687.00	42.300	7.500	8588.04	267.70 N	247.87 E	281.45
10.93						

	Helios	6	Fed	Com	2H_Final	MWD	Survey-Report_08-29-11.txt	
8719.00	43.700	5.100	8611.44	289.39 N	250.26 E	303.24		
6.73								
8751.00	45.500	3.300	8634.23	311.80 N	251.90 E	325.70		
6.87								
8782.00	47.400	1.000	8655.59	334.25 N	252.74 E	348.16		
8.15								
8814.00	50.500	359.800	8676.60	358.38 N	252.90 E	372.26		
10.09								
8846.00	53.500	357.900	8696.30	383.58 N	252.39 E	397.39		
10.48								
8878.00	57.900	356.400	8714.33	409.98 N	251.06 E	423.67		
14.28								
8909.00	63.000	355.900	8729.61	436.87 N	249.25 E	450.42		
16.51								
8941.00	66.900	356.100	8743.16	465.79 N	247.23 E	479.17		
12.20								
8973.00	69.200	356.900	8755.12	495.41 N	245.42 E	508.64		
7.55								
9005.00	70.500	357.000	8766.14	525.41 N	243.82 E	538.50		
4.07								
9036.00	71.700	356.800	8776.18	554.69 N	242.23 E	567.64		
3.92								
9068.00	74.500	357.400	8785.49	585.27 N	240.69 E	598.08		
8.93								
9100.00	77.800	357.900	8793.14	616.31 N	239.41 E	629.00		
10.42								
9132.00	79.900	357.600	8799.33	647.68 N	238.18 E	660.24		
6.63								
9166.00	81.500	357.300	8804.83	681.20 N	236.69 E	693.62		
4.79								
9198.00	83.900	357.500	8808.89	712.90 N	235.25 E	725.19		
7.53								
9230.00	86.400	357.500	8811.60	744.76 N	233.86 E	756.92		
7.81								
9261.00	89.700	356.900	8812.65	775.70 N	232.34 E	787.72		
10.82								
9293.00	90.200	357.600	8812.68	807.66 N	230.81 E	819.54		
2.69								
9324.00	90.700	356.800	8812.44	838.62 N	229.29 E	850.37		
3.04								
9388.00	90.700	357.500	8811.66	902.54 N	226.11 E	913.99		
1.09								
9419.00	90.900	357.500	8811.22	933.50 N	224.76 E	944.83		
0.65								
9451.00	90.500	358.300	8810.83	965.48 N	223.59 E	976.69		
2.79								
9515.00	90.200	358.800	8810.44	1029.46 N	221.97 E	1040.47		
0.91								
9610.00	90.600	358.700	8809.78	1124.43 N	219.90 E	1135.17		
0.43								
9705.00	90.700	359.800	8808.70	1219.42 N	218.65 E	1229.93		
1.16								
9800.00	90.200	0.800	8807.95	1314.41 N	219.15 E	1324.80		
1.18								
9895.00	89.500	0.600	8808.20	1409.40 N	220.31 E	1419.70		
0.77								
9991.00	90.500	0.800	8808.20	1505.39 N	221.48 E	1515.60		
1.06								
10086.00	90.600	0.800	8807.29	1600.38 N	222.81 E	1610.51		
0.11								
10181.00	90.500	0.600	8806.38	1695.37 N	223.97 E	1705.41		
0.24								
10277.00	90.200	0.100	8805.79	1791.37 N	224.56 E	1801.28		

Helios 6 Fed Com 2H_Final MWD Survey-Report_08-29-11.txt

0.61						
10372.00	88.900	0.300	8806.54	1886.36 N	224.89 E	1896.14
1.38						
10467.00	87.900	0.000	8809.19	1981.32 N	225.14 E	1990.96
1.10						
10562.00	88.600	359.800	8812.09	2076.28 N	224.97 E	2085.75
0.77						
10657.00	90.000	359.500	8813.25	2171.26 N	224.39 E	2180.55
1.51						
10752.00	89.100	359.500	8814.00	2266.26 N	223.56 E	2275.34
0.95						
10847.00	88.100	358.600	8816.32	2361.21 N	221.99 E	2370.05
1.42						
10941.00	89.400	358.600	8818.37	2455.16 N	219.69 E	2463.71
1.38						
11035.00	90.200	358.300	8818.70	2549.12 N	217.15 E	2557.37
0.91						
11130.00	89.400	358.400	8819.03	2644.08 N	214.41 E	2652.02
0.85						
11222.00	90.200	358.400	8819.35	2736.05 N	211.84 E	2743.69
0.87						
11317.00	91.000	358.300	8818.36	2831.00 N	209.11 E	2838.33
0.85						
11412.00	90.400	358.300	8817.20	2925.95 N	206.29 E	2932.96
0.63						
11506.00	90.600	357.700	8816.38	3019.89 N	203.01 E	3026.56
0.67						
11601.00	90.400	357.400	8815.55	3114.80 N	198.95 E	3121.08
0.38						
11696.00	92.000	356.900	8813.56	3209.66 N	194.23 E	3215.51
1.76						
11790.00	91.900	356.700	8810.36	3303.46 N	188.98 E	3308.86
0.24						
11885.00	91.300	357.800	8807.71	3398.31 N	184.43 E	3403.29
1.32						
11977.00	91.300	358.300	8805.62	3490.23 N	181.30 E	3494.89
0.54						
12072.00	90.300	358.900	8804.29	3585.19 N	178.98 E	3589.56
1.23						
12166.00	90.100	358.500	8803.96	3679.17 N	176.84 E	3683.26
0.48						
12260.00	88.900	358.200	8804.78	3773.12 N	174.14 E	3776.91
1.32						
12353.00	89.800	358.400	8805.84	3866.08 N	171.38 E	3869.55
0.99						
12445.00	90.300	358.400	8805.76	3958.04 N	168.81 E	3961.21
0.54						
12539.00	89.400	359.500	8806.00	4052.02 N	167.09 E	4054.94
1.51						
12632.00	90.600	359.000	8806.00	4145.01 N	165.87 E	4147.71
1.40						
12726.00	90.200	358.800	8805.35	4238.99 N	164.07 E	4241.43
0.48						
12818.00	89.500	358.700	8805.59	4330.97 N	162.06 E	4333.15
0.77						
12912.00	90.200	358.200	8805.84	4424.93 N	159.52 E	4426.81
0.92						
13006.00	90.400	358.200	8805.34	4518.88 N	156.56 E	4520.44
0.21						
13026.00	90.600	357.400	8805.17	4538.87 N	155.80 E	4540.35
4.12						
13080.00	90.600	357.400	8804.60	4592.81 N	153.35 E	4594.06
0.00						

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to Site.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from slot and calculated along an Azimuth of 3.280° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.231°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 13080.00ft., the Bottom Hole Displacement is 4595.37ft., in the Direction of 3.280° (Grid).

A Gyrodata Directional Survey

for

DEVON ENERGY

Lease: HELIOS 6 FED COM Well: 2H, 4.5 INCH DRILLPIPE
Location: MCVAY #10, EDDY COUNTY, NEW MEXICO

Job Number: MD0811GVCW365

Run Date: 17 Aug 2011

Surveyor: Che Garcia

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Hand Held GPS

Survey Latitude: 32.683056 deg. N Longitude: 103.906889 deg. W

Azimuth Correction:

Gyro: -0:23000 deg to Grid North

Depth Reference: Rotary Table

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

30-015-38483

A Gyrodata Directional Survey

DEVON ENERGY

Lease: HELIOS 6 FED COM Well: 2H, 4.5 INCH DRILLPIPE

Location: MCVAY #10, EDDY COUNTY, NEW MEXICO

Job Number: MD0811GVCW365

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0	0.0	0.00 N 0.00 E
0 - 7828 FT RATE VERTICAL CONTINUOUS SURVEY TO RUN INSIDE 4.5 INCH DRILLPIPE								
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO MC VAY #10 R.K.B 20FT								
100.00	0.10	321.49	N 38 31 W	0.10	100.00	0.1	321.5	0.07 N 0.05 W
200.00	0.04	110.15	S 69 51 E	0.13	200.00	0.1	328.1	0.12 N 0.07 W
300.00	0.07	320.65	N 39 21 W	0.10	300.00	0.2	331.9	0.16 N 0.08 W
400.00	0.19	305.08	N 54 55 W	0.12	400.00	0.4	319.3	0.29 N 0.25 W
500.00	0.21	297.96	N 62 2 W	0.04	500.00	0.7	310.8	0.47 N 0.55 W
600.00	0.61	288.71	N 71 17 W	0.40	600.00	1.4	301.0	0.73 N 1.22 W
700.00	0.87	304.56	N 55 26 W	0.33	699.99	2.7	299.6	1.33 N 2.34 W
800.00	1.68	326.36	N 33 38 W	0.93	799.96	4.8	308.3	2.98 N 3.78 W
900.00	1.69	326.43	N 33 34 W	0.01	899.92	7.7	315.1	5.43 N 5.41 W
1000.00	1.55	328.20	N 31 48 W	0.15	999.88	10.4	318.4	7.81 N 6.94 W
1100.00	1.39	335.77	N 24 14 W	0.25	1099.85	12.9	321.0	10.06 N 8.15 W
1200.00	1.28	345.33	N 14 40 W	0.25	1199.82	15.2	323.9	12.25 N 8.93 W
1300.00	1.14	352.25	N 7 45 W	0.20	1299.80	17.1	326.9	14.32 N 9.34 W
1400.00	1.00	0.36	N 0 22 E	0.21	1399.78	18.7	329.7	16.18 N 9.47 W
1500.00	0.94	13.79	N 13 47 E	0.23	1499.77	20.1	332.5	17.84 N 9.27 W
1600.00	0.95	17.67	N 17 40 E	0.07	1599.75	21.3	335.6	19.43 N 8.82 W
1700.00	1.00	18.31	N 18 19 E	0.05	1699.74	22.6	338.5	21.05 N 8.30 W
1800.00	1.02	18.77	N 18 46 E	0.02	1799.72	24.0	341.2	22.73 N 7.74 W
1900.00	1.20	24.83	N 24 50 E	0.21	1899.70	25.5	344.0	24.52 N 7.01 W

A Gyrodata Directional Survey

DEVON ENERGY

Lease: HELIOS 6 FED COM Well: 2H, 4.5 INCH DRILLPIPE

Location: MCVAY #10, EDDY COUNTY, NEW MEXICO

Job Number: MD0811GVCW365

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2000.00	1.44	41.11	N 41 7 E	0.44	1999.68	27.0 347.7	26.41 N 5.75 W
2100.00	1.41	38.36	N 38 22 E	0.08	2099.65	28.6 351.6	28.32 N 4.16 W
2200.00	1.28	34.38	N 34 23 E	0.16	2199.62	30.3 354.8	30.20 N 2.77 W
2300.00	1.03	27.13	N 27 8 E	0.28	2299.60	32.0 356.9	31.92 N 1.73 W
2400.00	1.05	22.07	N 22 4 E	0.09	2399.58	33.6 358.3	33.57 N 0.98 W
2500.00	1.07	12.98	N 12 59 E	0.17	2499.57	35.3 359.3	35.32 N 0.42 W
2600.00	1.16	2.21	N 2 13 E	0.23	2599.55	37.2 359.7	37.23 N 0.18 W
2700.00	1.24	355.84	N 4 10 W	0.16	2699.52	39.3 359.7	39.32 N 0.22 W
2800.00	1.22	355.72	N 4 17 W	0.02	2799.50	41.5 359.5	41.46 N 0.37 W
2900.00	1.09	356.54	N 3 28 W	0.13	2899.48	43.5 359.3	43.47 N 0.51 W
3000.00	0.86	349.22	N 10 47 W	0.26	2999.47	45.2 359.1	45.15 N 0.71 W
3100.00	0.88	347.78	N 12 13 W	0.03	3099.46	46.6 358.8	46.63 N 1.01 W
3200.00	0.89	357.09	N 2 55 W	0.14	3199.44	48.2 358.6	48.15 N 1.21 W
3300.00	0.86	353.51	N 6 29 W	0.06	3299.43	49.7 358.5	49.67 N 1.33 W
3400.00	0.81	341.10	N 4 6 E	0.16	3399.42	51.1 358.5	51.11 N 1.37 W
3500.00	0.83	354.76	N 5 14 W	0.14	3499.41	52.6 358.5	52.53 N 1.38 W
3600.00	0.89	352.54	N 7 28 W	0.07	3599.40	54.0 358.4	54.02 N 1.55 W
3700.00	0.88	358.25	N 1 45 W	0.09	3699.39	55.6 358.3	55.56 N 1.67 W
3800.00	0.80	354.57	N 5 26 W	0.10	3799.38	57.0 358.2	57.02 N 1.76 W
3900.00	0.81	333.70	N 26 18 W	0.29	3899.37	58.4 357.9	58.34 N 2.14 W
4000.00	0.76	333.34	N 26 40 W	0.04	3999.36	59.6 357.4	59.56 N 2.75 W

A Gyrodata Directional Survey

DEVON ENERGY

Lease: HELIOS 6 FED COM Well: 2H, 4.5 INCH DRILLPIPE

Location: MCVAY #10, EDDY COUNTY, NEW MEXICO

Job Number: MD0811GVCW365

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4100.00	0.80	335.59	N 24 25 W	0.05	4099.35	60.9 356.9	60.80 N 3.34 W
4200.00	1.17	333.97	N 26 2 W	0.37	4199.33	62.5 356.3	62.35 N 4.08 W
4300.00	1.67	342.31	N 17 41 W	0.54	4299.30	64.8 355.6	64.66 N 4.97 W
4400.00	1.51	342.75	N 17 15 W	0.16	4399.27	67.6 355.1	67.30 N 5.80 W
4500.00	1.25	338.93	N 21 4 W	0.27	4499.24	69.9 354.6	69.58 N 6.58 W
4600.00	0.78	323.90	N 36 6 W	0.54	4599.22	71.5 354.1	71.15 N 7.38 W
4700.00	0.38	299.09	N 60 55 W	0.47	4699.22	72.3 353.6	71.86 N 8.07 W
4800.00	0.45	245.99	S 65 59 W	0.37	4799.21	72.4 353.1	71.86 N 8.71 W
4900.00	0.46	243.24	S 63 14 W	0.02	4899.21	72.4 352.5	71.52 N 9.43 W
5000.00	0.50	247.50	S 67 30 W	0.05	4999.21	71.9 351.9	71.18 N 10.18 W
5100.00	0.07	272.89	N 87 7 W	0.44	5099.20	71.8 351.5	71.02 N 10.64 W
5200.00	0.58	59.62	N 59 37 E	0.63	5199.20	72.0 351.8	71.27 N 10.26 W
5300.00	0.57	58.11	N 58 7 E	0.02	5299.20	72.4 352.5	71.79 N 9.40 W
5400.00	0.45	32.34	N 32 20 E	0.26	5399.19	72.9 353.1	72.39 N 8.76 W
5500.00	0.28	50.99	N 50 59 E	0.21	5499.19	73.4 353.5	72.88 N 8.36 W
5600.00	0.27	60.62	N 60 37 E	0.05	5599.19	73.6 353.8	73.15 N 7.96 W
5700.00	0.18	59.29	N 59 17 E	0.10	5699.19	73.7 354.1	73.35 N 7.62 W
5800.00	0.36	56.55	N 56 33 E	0.18	5799.19	74.0 354.4	73.60 N 7.23 W
5900.00	0.81	70.39	N 70 23 E	0.47	5899.18	74.3 355.1	74.01 N 6.30 W
6000.00	0.98	72.47	N 72 28 E	0.17	5999.17	74.7 356.3	74.51 N 4.82 W
6100.00	1.32	68.45	N 68 27 E	0.36	6099.15	75.2 357.8	75.19 N 2.94 W
6200.00	1.55	78.34	N 78 20 E	0.34	6199.12	75.9 359.6	75.88 N 0.54 W

A Gyrodata Directional Survey

DEVON ENERGY

Lease: HELIOS 6 FED COM Well: 2H, 4.5 INCH DRILLPIPE

Location: MCVAY #10, EDDY COUNTY, NEW MEXICO

Job Number: MD0811GVCW365

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6300.00	1.79	79.48	N 79 29 E	0.24	6299.08	76.5 1.7	76.44 N 2.33 E
6400.00	1.46	66.47	N 66 28 E	0.50	6399.04	77.4 3.7	77.24 N 5.03 E
6500.00	1.34	53.02	N 53 1 E	0.35	6499.01	78.8 5.2	78.45 N 7.13 E
6600.00	1.00	35.62	N 35 37 E	0.49	6598.99	80.3 6.1	79.86 N 8.57 E
6700.00	1.05	17.40	N 17 24 E	0.33	6698.97	82.0 6.6	81.43 N 9.35 E
6800.00	1.24	348.38	N 11 37 W	0.60	6798.95	83.9 6.4	83.37 N 9.41 E
6900.00	1.43	314.15	N 45 51 W	0.80	6898.93	85.7 5.6	85.30 N 8.30 E
7000.00	1.88	313.34	N 46 40 W	0.45	6998.88	87.5 4.1	87.29 N 6.21 E
7100.00	0.92	2.85	N 2 51 E	1.46	7098.86	89.4 3.2	89.21 N 5.06 E
7200.00	1.30	57.41	N 57 25 E	1.07	7198.84	90.8 3.8	90.62 N 6.06 E
7300.00	1.10	50.15	N 50 9 E	0.25	7298.82	92.2 4.8	91.85 N 7.75 E
7400.00	1.05	44.63	N 44 38 E	0.11	7398.80	93.6 5.6	93.11 N 9.13 E
7500.00	0.63	47.45	N 47 27 E	0.42	7498.79	94.7 6.2	94.14 N 10.18 E
7600.00	0.13	228.43	S 48 26 W	0.76	7598.79	95.0 6.3	94.43 N 10.50 E
7700.00	0.21	150.57	S 29 26 E	0.23	7698.79	94.8 6.4	94.19 N 10.50 E
7800.00	0.25	147.57	S 32 26 E	0.03	7798.79	94.5 6.5	93.85 N 10.71 E
7828.00	0.08	120.63	S 59 22 E	0.64	7826.79	94.4 6.5	93.79 N 10.76 E

Final Station Closure: Distance: 94.40 ft Az: 6.55 deg.

DEVON ENERGY

Gyrodata, Inc.

WELL NUMBER : HELIOS 6 FED COM 2H

4.5 INCH DRILLPIPE SURVEY

DATE RUN : 170811

JOB NUMBER : MD0811GVCW365

MD	INC	AZ	TVD	LOCAL N	LOCAL E	V/S	DOG/ 100FT
100	0.1	321.49	100	0.07	-0.05	0.1	0.1
200	0.04	110.15	200	0.12	-0.07	0.1	0.13
300	0.07	320.65	300	0.16	-0.08	0.2	0.1
400	0.19	305.08	400	0.29	-0.25	0.3	0.12
500	0.21	297.96	500	0.47	-0.55	0.5	0.04
600	0.61	288.71	600	0.73	-1.22	0.7	0.4
700	0.87	304.56	699.99	1.33	-2.34	1.3	0.33
800	1.68	326.36	799.96	2.98	-3.78	3	0.93
900	1.69	326.43	899.92	5.43	-5.41	5.4	0.01
1000	1.55	328.2	999.88	7.81	-6.94	7.8	0.15
1100	1.39	335.77	1099.85	10.06	-8.15	10.1	0.25
1200	1.28	345.33	1199.82	12.25	-8.93	12.2	0.25
1300	1.14	352.25	1299.8	14.32	-9.34	14.3	0.2
1400	1	0.36	1399.78	16.18	-9.47	16.2	0.21
1500	0.94	13.79	1499.77	17.84	-9.27	17.8	0.23
1600	0.95	17.67	1599.75	19.43	-8.82	19.4	0.07
1700	1	18.31	1699.74	21.05	-8.3	21.1	0.05
1800	1.02	18.77	1799.72	22.73	-7.74	22.7	0.02
1900	1.2	24.83	1899.7	24.52	-7.01	24.5	0.21
2000	1.44	41.11	1999.68	26.41	-5.75	26.4	0.44
2100	1.41	38.36	2099.65	28.32	-4.16	28.3	0.08
2200	1.28	34.38	2199.62	30.2	-2.77	30.2	0.16
2300	1.03	27.13	2299.6	31.92	-1.73	31.9	0.28
2400	1.05	22.07	2399.58	33.57	-0.98	33.6	0.09
2500	1.07	12.98	2499.57	35.32	-0.42	35.3	0.17
2600	1.16	2.21	2599.55	37.23	-0.18	37.2	0.23
2700	1.24	355.84	2699.52	39.32	-0.22	39.3	0.16
2800	1.22	355.72	2799.5	41.46	-0.37	41.5	0.02
2900	1.09	356.54	2899.48	43.47	-0.51	43.5	0.13
3000	0.86	349.22	2999.47	45.15	-0.71	45.1	0.26
3100	0.88	347.78	3099.46	46.63	-1.01	46.6	0.03
3200	0.89	357.09	3199.44	48.15	-1.21	48.2	0.14
3300	0.86	353.51	3299.43	49.67	-1.33	49.7	0.06
3400	0.81	4.1	3399.42	51.11	-1.37	51.1	0.16
3500	0.83	354.76	3499.41	52.53	-1.38	52.5	0.14
3600	0.89	352.54	3599.4	54.02	-1.55	54	0.07
3700	0.88	358.25	3699.39	55.56	-1.67	55.6	0.09
3800	0.8	354.57	3799.38	57.02	-1.76	57	0.1
3900	0.81	333.7	3899.37	58.34	-2.14	58.3	0.29
4000	0.76	333.34	3999.36	59.56	-2.75	59.6	0.04

4100	0.8	335.59	4099.35	60.8	-3.34	60.8	0.05
4200	1.17	333.97	4199.33	62.35	-4.08	62.4	0.37
4300	1.67	342.31	4299.3	64.66	-4.97	64.7	0.54
4400	1.51	342.75	4399.27	67.3	-5.8	67.3	0.16
4500	1.25	338.93	4499.24	69.58	-6.58	69.6	0.27
4600	0.78	323.9	4599.22	71.15	-7.38	71.2	0.54
4700	0.38	299.09	4699.22	71.86	-8.07	71.9	0.47
4800	0.45	245.99	4799.21	71.86	-8.71	71.9	0.37
4900	0.46	243.24	4899.21	71.52	-9.43	71.5	0.02
5000	0.5	247.5	4999.21	71.18	-10.18	71.2	0.05
5100	0.07	272.89	5099.2	71.02	-10.64	71	0.44
5200	0.58	59.62	5199.2	71.27	-10.26	71.3	0.63
5300	0.57	58.11	5299.2	71.79	-9.4	71.8	0.02
5400	0.45	32.34	5399.19	72.39	-8.76	72.4	0.26
5500	0.28	50.99	5499.19	72.88	-8.36	72.9	0.21
5600	0.27	60.62	5599.19	73.15	-7.96	73.2	0.05
5700	0.18	59.29	5699.19	73.35	-7.62	73.3	0.1
5800	0.36	56.55	5799.19	73.6	-7.23	73.6	0.18
5900	0.81	70.39	5899.18	74.01	-6.3	74	0.47
6000	0.98	72.47	5999.17	74.51	-4.82	74.5	0.17
6100	1.32	68.45	6099.15	75.19	-2.94	75.2	0.36
6200	1.55	78.34	6199.12	75.88	-0.54	75.9	0.34
6300	1.79	79.48	6299.08	76.44	2.33	76.4	0.24
6400	1.46	66.47	6399.04	77.24	5.03	77.2	0.5
6500	1.34	53.02	6499.01	78.45	7.13	78.4	0.35
6600	1	35.62	6598.99	79.86	8.57	79.9	0.49
6700	1.05	17.4	6698.97	81.43	9.35	81.4	0.33
6800	1.24	348.38	6798.95	83.37	9.41	83.4	0.6
6900	1.43	314.15	6898.93	85.3	8.3	85.3	0.8
7000	1.88	313.34	6998.88	87.29	6.21	87.3	0.45
7100	0.92	2.85	7098.86	89.21	5.06	89.2	1.46
7200	1.3	57.41	7198.84	90.62	6.06	90.6	1.07
7300	1.1	50.15	7298.82	91.85	7.75	91.8	0.25
7400	1.05	44.63	7398.8	93.11	9.13	93.1	0.11
7500	0.63	47.45	7498.79	94.14	10.18	94.1	0.42
7600	0.13	228.43	7598.79	94.43	10.5	94.4	0.76
7700	0.21	150.57	7698.79	94.19	10.5	94.2	0.23
7800	0.25	147.57	7798.79	93.85	10.71	93.8	0.03
7828	0.08	120.63	7826.79	93.79	10.76	93.8	0.64

30-015-38483



Devon Energy Production Co, LP

Eddy Co., New Mexico (Nad 83)

Helios 6 Fed Com #2H

Helios 6 Fed Com #2H

Lateral #1

Survey: Lateral #1

Standard Survey Report

29 August, 2011



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co, LP	Local Co-ordinate Reference:	Site Helios 6 Fed Com #2H
Project:	Eddy Co ; New Mexico (Nad 83)	TVD Reference:	WELL @ 3550.00ft (Original Well Elev)
Site:	Helios 6 Fed Com #2H	MD Reference:	WELL @ 3550.00ft (Original Well Elev)
Well:	Helios 6 Fed Com #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Project:	Eddy Co ; New Mexico (Nad 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site: Helios 6 Fed Com #2H, Sec 6; T-19S; R-31E						
Site Position:		Northing:	612,494.05 usft	Latitude:	32° 40' 59.031 N	
From:	Map	Easting:	672,661.31 usft	Longitude:	103° 54' 23.396 W	
Position Uncertainty:		0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.23 °

Well	Helios 6 Fed Com #2H					
Well Position	+N/-S	0 00 ft	Northing:	612,494.05 usft	Latitude:	32° 40' 59.031 N
	+E/-W	0 00 ft	Easting:	672,661.31 usft	Longitude:	103° 54' 23.396 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	3,550.00 ft	Ground Level:	3,530 00 ft

Wellbore		Lateral #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/14/2011	7.75	60.58	48,884

Design:	Lateral #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0 00	0.00	3 28	

Survey Program		Date: 8/29/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	7,828.00	Gyro (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
7,956.00	13,080.00	Lateral #1 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,828.00	0.08	120.63	7,826.79	93.87	10.76	94.33	0.00	0.00	0.00
Tie-in to Gyro									
7,956.00	2.40	100.70	7,954.75	93.33	13.47	93.94	1.82	1.81	-15.57
First CUDD survey									
7,988.00	5.80	99.90	7,986.66	92.92	15.72	93.67	10.63	10.63	-2.50
8,020.00	10.90	95.40	8,018.31	92.36	20.33	93.37	16.06	15.94	-14.06
8,052.00	14.80	91.90	8,049.50	91.94	27.43	93.36	12.42	12.19	-10.94
8,083.00	16.50	89.10	8,079.35	91.88	35.79	93.78	6.00	5.48	-9.03
8,115.00	19.00	90.00	8,109.83	91.95	45.54	94.40	7.86	7.81	2.81



CUDD Drilling and Measurement Survey Report

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Project:	Eddy Co., New Mexico (Nad 83)	TVD Reference:	WELL @ 3550.00ft (Original Well Elev)
Site:	Helios 6 Fed Com #2H	MD Reference:	WELL @ 3550.00ft (Original Well Elev)
Well:	Helios 6 Fed Com #2H	North Reference:	Grid:
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,147.00	21.00	91.60	8,139.90	91.79	56.48	94.87	6.48	6.25	5.00
8,179.00	21.20	92.20	8,169.75	91.41	68.00	95.15	0.92	0.63	1.88
8,211.00	21.30	91.50	8,199.58	91.03	79.59	95.44	0.85	0.31	-2.19
8,242.00	22.50	89.70	8,228.34	90.92	91.15	95.98	4.44	3.87	-5.81
8,272.00	24.70	85.70	8,255.83	91.42	103.14	97.17	9.07	7.33	-13.33
8,306.00	27.30	79.30	8,286.39	93.40	117.89	99.99	11.24	7.65	-18.82
8,338.00	29.20	71.10	8,314.59	97.29	132.50	104.71	13.49	5.94	-25.63
8,370.00	31.20	63.70	8,342.26	103.49	147.32	111.75	13.19	6.25	-23.13
8,401.00	33.90	55.90	8,368.40	111.90	161.68	120.97	16.08	8.71	-25.16
8,433.00	36.40	48.00	8,394.57	123.27	176.14	133.14	16.21	7.81	-24.69
8,465.00	37.80	41.90	8,420.10	136.93	189.75	147.56	12.30	4.38	-19.06
8,497.00	39.30	35.80	8,445.14	152.45	202.23	163.77	12.77	4.69	-19.06
8,529.00	40.20	30.80	8,469.75	169.55	213.45	181.48	10.38	2.81	-15.63
8,560.00	40.90	26.50	8,493.31	187.22	223.10	199.68	9.29	2.26	-13.87
8,592.00	41.40	21.80	8,517.41	206.43	231.71	219.35	9.79	1.56	-14.69
8,623.00	41.90	17.20	8,540.58	225.84	238.58	239.12	9.99	1.61	-14.84
8,655.00	42.20	12.70	8,564.34	246.54	244.10	260.10	9.46	0.94	-14.06
8,687.00	42.30	7.50	8,588.04	267.70	247.87	281.45	10.93	0.31	-16.25
8,719.00	43.70	5.10	8,611.44	289.39	250.26	303.24	6.73	4.38	-7.50
8,751.00	45.50	3.30	8,634.23	311.80	251.90	325.70	6.87	5.63	-5.63
8,782.00	47.40	1.00	8,655.59	334.25	252.74	348.16	8.15	6.13	-7.42
8,814.00	50.50	359.80	8,676.60	358.38	252.90	372.26	10.09	9.69	-3.75
8,846.00	53.50	357.90	8,696.30	383.58	252.39	397.39	10.48	9.38	-5.94
8,878.00	57.90	356.40	8,714.33	409.98	251.06	423.67	14.28	13.75	-4.69
8,909.00	63.00	355.90	8,729.61	436.87	249.25	450.42	16.51	16.45	-1.61
8,941.00	66.90	356.10	8,743.16	465.79	247.23	479.17	12.20	12.19	0.63
8,973.00	69.20	356.90	8,755.12	495.41	245.42	508.64	7.55	7.19	2.50
9,005.00	70.50	357.00	8,766.14	525.41	243.82	538.50	4.07	4.06	0.31
9,036.00	71.70	356.80	8,776.18	554.69	242.23	567.64	3.92	3.87	-0.65
9,068.00	74.50	357.40	8,785.49	585.27	240.69	598.08	8.93	8.75	1.88
9,100.00	77.80	357.90	8,793.14	616.31	239.41	629.00	10.42	10.31	1.56
9,132.00	79.90	357.60	8,799.33	647.68	238.18	660.24	6.63	6.56	-0.94
9,166.00	81.50	357.30	8,804.83	681.20	236.69	693.62	4.79	4.71	-0.88
9,198.00	83.90	357.50	8,808.89	712.90	235.25	725.19	7.53	7.50	0.63
9,230.00	86.40	357.50	8,811.60	744.76	233.86	756.92	7.81	7.81	0.00
9,261.00	89.70	356.90	8,812.65	775.70	232.34	787.72	10.82	10.65	-1.94
9,293.00	90.20	357.60	8,812.68	807.66	230.81	819.54	2.69	1.56	2.19
9,324.00	90.70	356.80	8,812.44	838.62	229.29	850.37	3.04	1.61	-2.58
9,388.00	90.70	357.50	8,811.66	902.54	226.11	913.99	1.09	0.00	1.09
9,419.00	90.90	357.50	8,811.22	933.50	224.76	944.83	0.65	0.65	0.00
9,451.00	90.50	358.30	8,810.83	965.48	223.59	976.69	2.79	-1.25	2.50
9,515.00	90.20	358.80	8,810.44	1,029.46	221.97	1,040.47	0.91	-0.47	0.78
9,610.00	90.60	358.70	8,809.78	1,124.43	219.90	1,135.17	0.43	0.42	-0.11



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co, LP	Local Co-ordinate Reference:	Site Helios 6 Fed Com #2H
Project:	Eddy Co, New Mexico (Nad 83)	TVD Reference:	WELL @ 3550.00ft (Original Well Elev)
Site:	Helios 6 Fed Com #2H	MD Reference:	WELL @ 3550.00ft (Original Well Elev)
Well:	Helios 6 Fed Com #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000-1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,705.00	90.70	359.80	8,808.70	1,219.42	218.65	1,229.93	1.16	0.11	1.16
9,800.00	90.20	0.80	8,807.95	1,314.41	219.15	1,324.80	1.18	-0.53	1.05
9,895.00	89.50	0.60	8,808.20	1,409.40	220.31	1,419.70	0.77	-0.74	-0.21
9,991.00	90.50	0.80	8,808.20	1,505.39	221.48	1,515.60	1.06	1.04	0.21
10,086.00	90.60	0.80	8,807.29	1,600.38	222.81	1,610.51	0.11	0.11	0.00
10,181.00	90.50	0.60	8,806.38	1,695.37	223.97	1,705.41	0.24	-0.11	-0.21
10,277.00	90.20	0.10	8,805.79	1,791.37	224.56	1,801.28	0.61	-0.31	-0.52
10,372.00	88.90	0.30	8,806.54	1,886.36	224.89	1,896.14	1.38	-1.37	0.21
10,467.00	87.90	0.00	8,809.19	1,981.32	225.14	1,990.96	1.10	-1.05	-0.32
10,562.00	88.60	359.80	8,812.09	2,076.28	224.97	2,085.75	0.77	0.74	-0.21
10,657.00	90.00	359.50	8,813.25	2,171.26	224.39	2,180.55	1.51	1.47	-0.32
10,752.00	89.10	359.50	8,814.00	2,266.26	223.56	2,275.34	0.95	-0.95	0.00
10,847.00	88.10	358.60	8,816.32	2,361.21	221.99	2,370.05	1.42	-1.05	-0.95
10,941.00	89.40	358.60	8,818.37	2,455.16	219.69	2,463.71	1.38	1.38	0.00
11,035.00	90.20	358.30	8,818.70	2,549.12	217.15	2,557.37	0.91	0.85	-0.32
11,130.00	89.40	358.40	8,819.03	2,644.08	214.41	2,652.02	0.85	-0.84	0.11
11,222.00	90.20	358.40	8,819.35	2,736.05	211.84	2,743.69	0.87	0.87	0.00
11,317.00	91.00	358.30	8,818.36	2,831.00	209.11	2,838.33	0.85	0.84	-0.11
11,412.00	90.40	358.30	8,817.20	2,925.95	206.29	2,932.96	0.63	-0.63	0.00
11,506.00	90.60	357.70	8,816.38	3,019.89	203.01	3,026.56	0.67	0.21	-0.64
11,601.00	90.40	357.40	8,815.55	3,114.80	198.95	3,121.08	0.38	-0.21	-0.32
11,696.00	92.00	356.90	8,813.56	3,209.66	194.23	3,215.51	1.76	1.68	-0.53
11,790.00	91.90	356.70	8,810.36	3,303.46	188.98	3,308.86	0.24	-0.11	-0.21
11,885.00	91.30	357.80	8,807.71	3,398.31	184.43	3,403.29	1.32	-0.63	1.16
11,977.00	91.30	358.30	8,805.62	3,490.23	181.30	3,494.89	0.54	0.00	0.54
12,072.00	90.30	358.90	8,804.29	3,585.19	178.98	3,589.56	1.23	-1.05	0.63
12,166.00	90.10	358.50	8,803.96	3,679.17	176.84	3,683.26	0.48	-0.21	-0.43
12,260.00	88.90	358.20	8,804.78	3,773.12	174.14	3,776.91	1.32	-1.28	-0.32
12,353.00	89.80	358.40	8,805.84	3,866.08	171.38	3,869.55	0.99	0.97	0.22
12,445.00	90.30	358.40	8,805.76	3,958.04	168.81	3,961.21	0.54	0.54	0.00
12,539.00	89.40	359.50	8,806.00	4,052.02	167.09	4,054.94	1.51	-0.96	1.17
12,632.00	90.60	359.00	8,806.00	4,145.01	165.87	4,147.71	1.40	1.29	-0.54
12,726.00	90.20	358.80	8,805.35	4,238.99	164.07	4,241.43	0.48	-0.43	-0.21
12,818.00	89.50	358.70	8,805.59	4,330.97	162.06	4,333.15	0.77	-0.76	-0.11
12,912.00	90.20	358.20	8,805.84	4,424.93	159.52	4,426.81	0.92	0.74	-0.53
13,006.00	90.40	358.20	8,805.34	4,518.89	156.56	4,520.44	0.21	0.21	0.00
13,026.00	90.60	357.40	8,805.17	4,538.87	155.80	4,540.35	4.12	1.00	-4.00
Last CUDD survey									
13,080.00	90.60	357.40	8,804.60	4,592.81	153.35	4,594.06	0.00	0.00	0.00
Projection to Bit									



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co, LP	Local Co-ordinate Reference:	Site Helios 6 Fed Com #2H
Project:	Eddy Co., New Mexico (Nad 83)	TVD Reference:	WELL @ 3550.00ft (Original Well Elev)
Site:	Helios 6 Fed Com #2H	MD Reference:	WELL @ 3550.00ft (Original Well Elev)
Well:	Helios 6 Fed Com #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,828.00	7,826.79	93.87	10.76	Tie-in to Gyro
7,956.00	7,954.75	93.33	13.47	First CUDD survey
13,026.00	8,805.17	4,538.87	155.80	Last CUDD survey
13,080.00	8,804.60	4,592.81	153.35	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____



Project Eddy Co., New Mexico (Mad 83)
Site Helios 6 Fed Com #2H
Well Helios 6 Fed Com #2H
Wellbore Lateral #1
Design Design #4



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Diag	Tface	Vscl	Target
1	7828.00	0.68	120.63	7826.79	93.87	10.76	0.00	94.35	0.00	94.20
2	8028.00	0.08	120.63	8026.79	93.73	11.00	0.00	94.20	0.00	94.20
3	8244.35	2.71	101.87	8237.98	86.32	50.76	10.00	-18.83	86.09	86.09
4	8246.04	2.71	101.87	8239.55	85.19	51.37	0.00	87.99	0.00	87.99
5	9152.89	80.28	359.83	8814.23	658.71	274.65	10.00	-101.10	674.35	674.35
6	13127.89	80.28	359.83	8795.00	4594.65	262.97	0.00	0.00	4602.17	4602.17

ANNOTATIONS

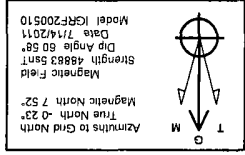
TVD	MD	Annotation
8026.79	8028.00	KOP - Build 10°/100'
8814.23	9152.89	EOC - Hold 1 90.28° @ A 359.83°

PROJECT DETAILS			
Geodetic System	US State Plane 1983	Datum	North American Datum 1983
Ellipsoid	GRS 1980	Datum	New Mexico Eastern Zone
System Datum	Mean Sea Level		

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/S	+E/W	Northng	Eastng	Latitude	Longitude	Shape
Target #1 (H6FC#2H)	8795.00	570.00	275.00	613064.05	672936.31	32° 41' 44.88 N103° 54' 20.10 W	Point	
Target #1 (H6FC#2H)a	8615.00	570.00	275.00	613064.05	672936.31	32° 41' 46.80 N103° 54' 20.15 W	Point	

WELL DETAILS - Helios 6 Fed Com #2H			
Ground Level	3530.00		
WELL @ 3550.00ft (Original Well Elev)			
+N/S	+E/W	Latitude	Longitude
0.00	0.00	612494.05	672561.31
		32° 40' 59.031 N	103° 54' 23.396 W



Plan Design #4 (Helios 6 Fed Com #2H/Lateral #1)			
Created by	Eric Minchew	Date	8 38 August 29 2011
Checked		Date	
Reviewed		Date	
Approved		Date	

