

SECTION DETAILS

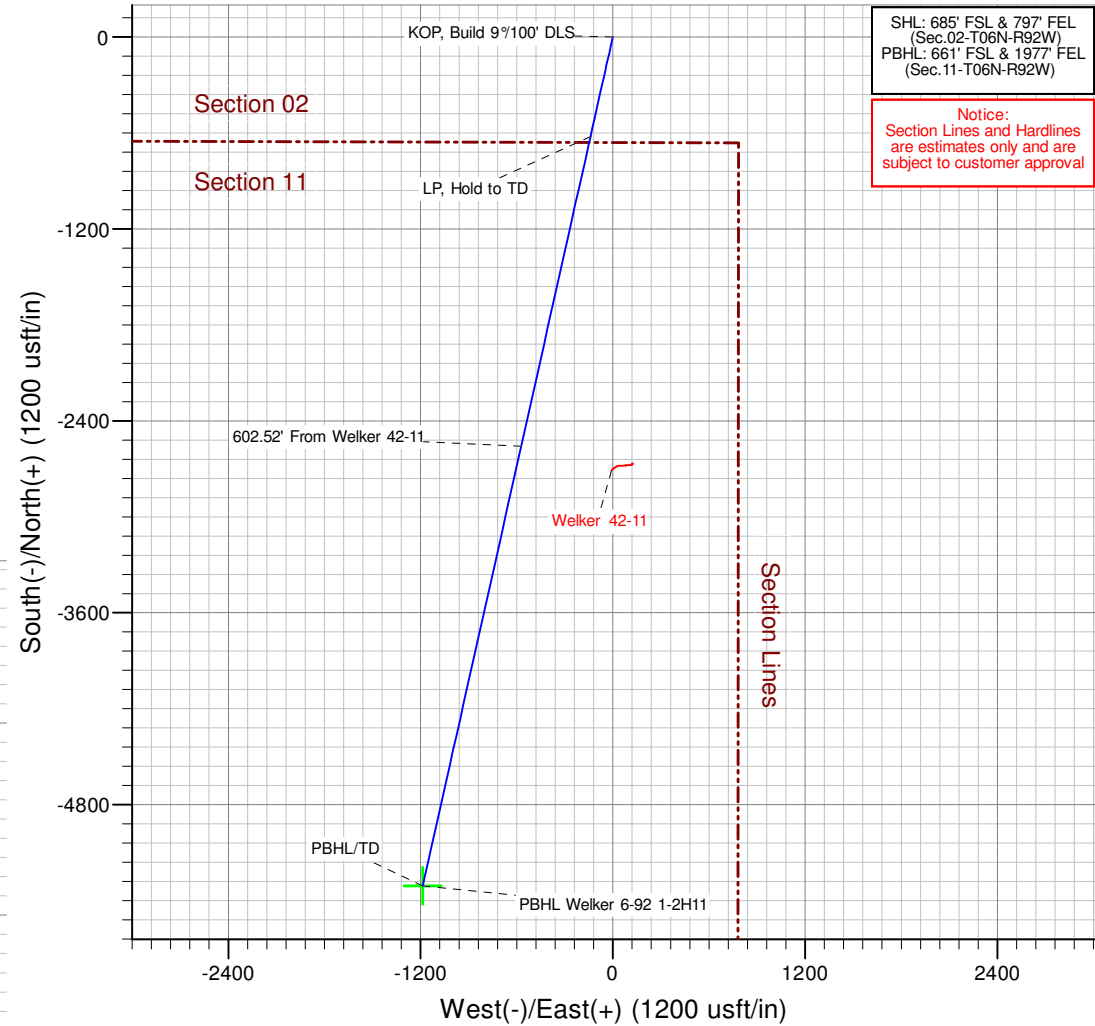
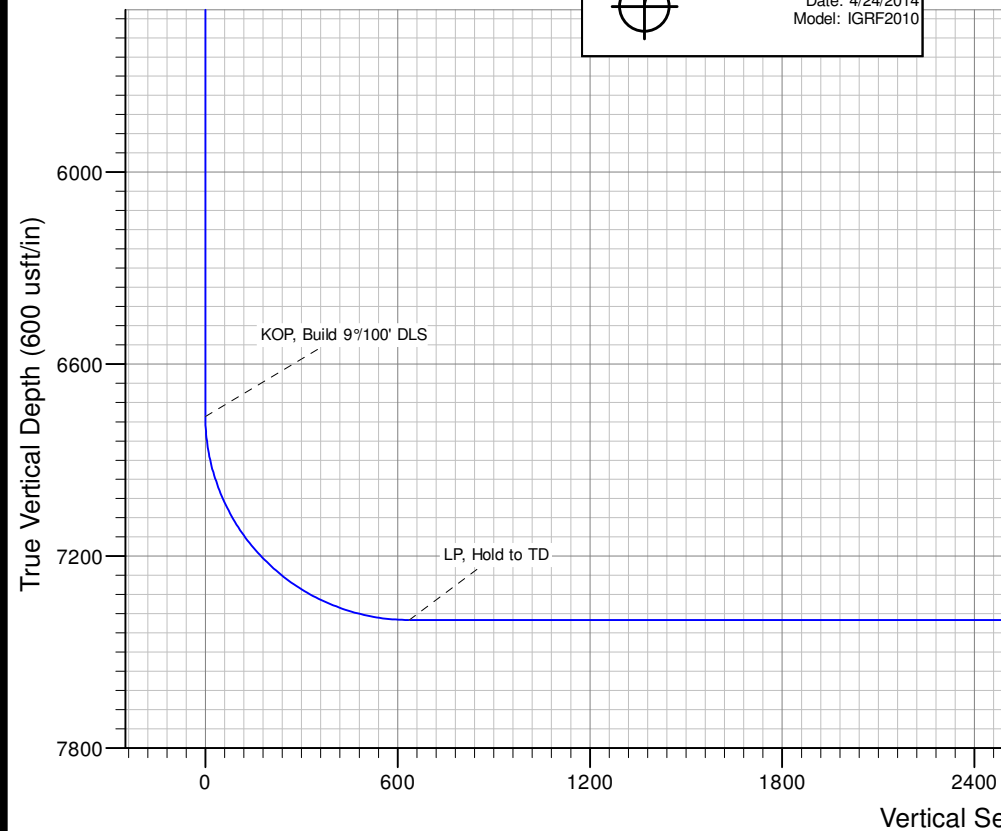
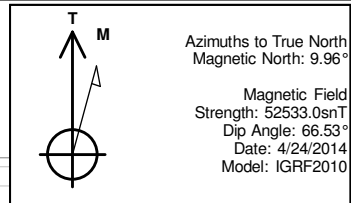
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6763.38	0.00	0.00	6763.38	0.00	0.00	0.00	0.00	0.00	KOP, Build 9°/100' DLS
3	7763.38	90.00	192.59	7400.00	-621.30	-138.82	9.00	192.59	636.62	LP, Hold to TD
4	12565.38	90.00	192.59	7400.00	-5307.75	-1185.92	0.00	0.00	5438.62	PBHL/TD

WELL DETAILS: Welker 6-92 1-2H11

+N/-S	+E/-W	Northing	GL 6504.00 Easting	KB @ 6526.00usft Latitude	Longitude
0.00	0.00	1430415.54	2393688.57	40° 29' 39.95 N	107° 40' 48.85 W

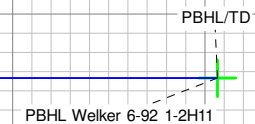
WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL Welker 6-92 1-2H11	7400.00	-5307.75	-1185.92	Point



SHL: 685' FSL & 797' FEL
 (Sec.02-T06N-R92W)
 PBHL: 661' FSL & 1977' FEL
 (Sec.11-T06N-R92W)

Notice:
 Section Lines and Hardlines
 are estimates only and are
 subject to customer approval





A Schlumberger Company

Southwestern Energy Production Company

**Moffat Co., CO
Sec.02-T06N-R92W
Welker 6-92 1-2H11**

Original Hole

Plan: Rev 1

Standard Planning Report

26 August, 2014



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Project	Moffat Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec.02-T06N-R92W			
Site Position:		Northing:	1,430,415.55 usft	Latitude:	40° 29' 39.95 N
From:	Lat/Long	Easting:	2,393,688.58 usft	Longitude:	107° 40' 48.85 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.41 °

Well	Welker 6-92 1-2H11					
Well Position	+N/-S	0.00 usft	Northing:	1,430,415.55 usft	Latitude:	40° 29' 39.95 N
	+E/-W	0.00 usft	Easting:	2,393,688.58 usft	Longitude:	107° 40' 48.85 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	6,526.00 usft	Ground Level:	6,504.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/24/2014	9.96	66.53	52,533

Design	Rev 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	192.59

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,763.38	0.00	0.00	6,763.38	0.00	0.00	0.00	0.00	0.00	0.00	
7,763.38	90.00	192.59	7,400.00	-621.30	-138.82	9.00	9.00	0.00	192.59	PBHL Welker 6-92 1-;
12,565.38	90.00	192.59	7,400.00	-5,307.75	-1,185.92	0.00	0.00	0.00	0.00	PBHL Welker 6-92 1-;

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,763.38	0.00	0.00	6,763.38	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 9°/100' DLS									
6,800.00	3.30	192.59	6,799.98	-1.03	-0.23	1.05	9.00	9.00	0.00
6,900.00	12.30	192.59	6,898.95	-14.25	-3.18	14.60	9.00	9.00	0.00
7,000.00	21.30	192.59	6,994.59	-42.42	-9.48	43.47	9.00	9.00	0.00
7,100.00	30.30	192.59	7,084.53	-84.85	-18.96	86.94	9.00	9.00	0.00
7,200.00	39.30	192.59	7,166.57	-140.48	-31.39	143.95	9.00	9.00	0.00
7,300.00	48.30	192.59	7,238.67	-207.96	-46.46	213.09	9.00	9.00	0.00
7,400.00	57.30	192.59	7,299.08	-285.61	-63.81	292.65	9.00	9.00	0.00
7,500.00	66.30	192.59	7,346.29	-371.53	-83.01	380.69	9.00	9.00	0.00
7,600.00	75.30	192.59	7,379.15	-463.60	-103.58	475.03	9.00	9.00	0.00
7,700.00	84.30	192.59	7,396.85	-559.55	-125.02	573.34	9.00	9.00	0.00
7,763.38	90.00	192.59	7,400.00	-621.30	-138.82	636.62	9.00	9.00	0.00
LP, Hold to TD									
7,800.00	90.00	192.59	7,400.00	-657.04	-146.80	673.24	0.00	0.00	0.00
7,900.00	90.00	192.59	7,400.00	-754.63	-168.61	773.24	0.00	0.00	0.00
8,000.00	90.00	192.59	7,400.00	-852.23	-190.42	873.24	0.00	0.00	0.00
8,100.00	90.00	192.59	7,400.00	-949.82	-212.22	973.24	0.00	0.00	0.00
8,200.00	90.00	192.59	7,400.00	-1,047.41	-234.03	1,073.24	0.00	0.00	0.00
8,300.00	90.00	192.59	7,400.00	-1,145.01	-255.83	1,173.24	0.00	0.00	0.00
8,400.00	90.00	192.59	7,400.00	-1,242.60	-277.64	1,273.24	0.00	0.00	0.00
8,500.00	90.00	192.59	7,400.00	-1,340.19	-299.44	1,373.24	0.00	0.00	0.00
8,600.00	90.00	192.59	7,400.00	-1,437.79	-321.25	1,473.24	0.00	0.00	0.00
8,700.00	90.00	192.59	7,400.00	-1,535.38	-343.05	1,573.24	0.00	0.00	0.00
8,800.00	90.00	192.59	7,400.00	-1,632.98	-364.86	1,673.24	0.00	0.00	0.00
8,900.00	90.00	192.59	7,400.00	-1,730.57	-386.67	1,773.24	0.00	0.00	0.00
9,000.00	90.00	192.59	7,400.00	-1,828.16	-408.47	1,873.24	0.00	0.00	0.00
9,100.00	90.00	192.59	7,400.00	-1,925.76	-430.28	1,973.24	0.00	0.00	0.00
9,200.00	90.00	192.59	7,400.00	-2,023.35	-452.08	2,073.24	0.00	0.00	0.00
9,300.00	90.00	192.59	7,400.00	-2,120.94	-473.89	2,173.24	0.00	0.00	0.00
9,400.00	90.00	192.59	7,400.00	-2,218.54	-495.69	2,273.24	0.00	0.00	0.00
9,500.00	90.00	192.59	7,400.00	-2,316.13	-517.50	2,373.24	0.00	0.00	0.00
9,600.00	90.00	192.59	7,400.00	-2,413.72	-539.30	2,473.24	0.00	0.00	0.00
9,700.00	90.00	192.59	7,400.00	-2,511.32	-561.11	2,573.24	0.00	0.00	0.00
9,747.77	90.00	192.59	7,400.00	-2,557.94	-571.53	2,621.01	0.00	0.00	0.00
602.52' From Welker 42-11									
9,800.00	90.00	192.59	7,400.00	-2,608.91	-582.92	2,673.24	0.00	0.00	0.00
9,900.00	90.00	192.59	7,400.00	-2,706.51	-604.72	2,773.24	0.00	0.00	0.00
10,000.00	90.00	192.59	7,400.00	-2,804.10	-626.53	2,873.24	0.00	0.00	0.00

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Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,100.00	90.00	192.59	7,400.00	-2,901.69	-648.33	2,973.24	0.00	0.00	0.00	
10,200.00	90.00	192.59	7,400.00	-2,999.29	-670.14	3,073.24	0.00	0.00	0.00	
10,300.00	90.00	192.59	7,400.00	-3,096.88	-691.94	3,173.24	0.00	0.00	0.00	
10,400.00	90.00	192.59	7,400.00	-3,194.47	-713.75	3,273.24	0.00	0.00	0.00	
10,500.00	90.00	192.59	7,400.00	-3,292.07	-735.55	3,373.24	0.00	0.00	0.00	
10,600.00	90.00	192.59	7,400.00	-3,389.66	-757.36	3,473.24	0.00	0.00	0.00	
10,700.00	90.00	192.59	7,400.00	-3,487.25	-779.17	3,573.24	0.00	0.00	0.00	
10,800.00	90.00	192.59	7,400.00	-3,584.85	-800.97	3,673.24	0.00	0.00	0.00	
10,900.00	90.00	192.59	7,400.00	-3,682.44	-822.78	3,773.24	0.00	0.00	0.00	
11,000.00	90.00	192.59	7,400.00	-3,780.04	-844.58	3,873.24	0.00	0.00	0.00	
11,100.00	90.00	192.59	7,400.00	-3,877.63	-866.39	3,973.24	0.00	0.00	0.00	
11,200.00	90.00	192.59	7,400.00	-3,975.22	-888.19	4,073.24	0.00	0.00	0.00	
11,300.00	90.00	192.59	7,400.00	-4,072.82	-910.00	4,173.24	0.00	0.00	0.00	
11,400.00	90.00	192.59	7,400.00	-4,170.41	-931.81	4,273.24	0.00	0.00	0.00	
11,500.00	90.00	192.59	7,400.00	-4,268.00	-953.61	4,373.24	0.00	0.00	0.00	
11,600.00	90.00	192.59	7,400.00	-4,365.60	-975.42	4,473.24	0.00	0.00	0.00	
11,700.00	90.00	192.59	7,400.00	-4,463.19	-997.22	4,573.24	0.00	0.00	0.00	
11,800.00	90.00	192.59	7,400.00	-4,560.78	-1,019.03	4,673.24	0.00	0.00	0.00	
11,900.00	90.00	192.59	7,400.00	-4,658.38	-1,040.83	4,773.24	0.00	0.00	0.00	
12,000.00	90.00	192.59	7,400.00	-4,755.97	-1,062.64	4,873.24	0.00	0.00	0.00	
12,100.00	90.00	192.59	7,400.00	-4,853.57	-1,084.44	4,973.24	0.00	0.00	0.00	
12,200.00	90.00	192.59	7,400.00	-4,951.16	-1,106.25	5,073.24	0.00	0.00	0.00	
12,300.00	90.00	192.59	7,400.00	-5,048.75	-1,128.06	5,173.24	0.00	0.00	0.00	
12,400.00	90.00	192.59	7,400.00	-5,146.35	-1,149.86	5,273.24	0.00	0.00	0.00	
12,408.38	90.00	192.59	7,400.00	-5,154.53	-1,151.69	5,281.62	0.00	0.00	0.00	
PBHL Welker 6-92 1-2H11 Rev.0										
12,500.00	90.00	192.59	7,400.00	-5,243.94	-1,171.67	5,373.24	0.00	0.00	0.00	
12,565.38	90.00	192.59	7,400.00	-5,307.75	-1,185.92	5,438.62	0.00	0.00	0.00	
PBHL/TD - PBHL Welker 6-92 1-2H11 - PBHL Welker 6-92 1-2H11 - 950' West										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL Welker 6-92 1-2H	0.00	0.00	7,400.00	-5,307.75	-1,185.92	1,425,138.56	2,392,372.52	40° 28' 47.50 N	107° 41' 4.20 W	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,763.38	6,763.38	0.00	0.00	KOP, Build 9°/100' DLS	
7,763.38	7,400.00	-621.30	-138.82	LP, Hold to TD	
9,747.77	7,400.00	-2,557.94	-571.53	602.52' From Welker 42-11	
12,565.38	7,400.00	-5,307.75	-1,185.92	PBHL/TD	