

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 13-T3N-R66W

Maverick 2C-13HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

Sperry Drilling Services

Proposal Report

26 September, 2012

Well Coordinates: 1,323,534.55 N, 3,216,872.04 E (40° 13' 08.01" N, 104° 43' 24.16" W)

Ground Level: 5,059.00 ft

Local Coordinate Origin:	Centered on Well Maverick 2C-13HZ
Viewing Datum:	RKB=17 @ 5076.00ft (Drilling Rig)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

Project: Weld County, CO (NAD 83)
 Site: Sec. 13-T3N-R66W
 Well: Maverick 2C-13HZ
 Wellbore: Plan A Rev 0
 Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.



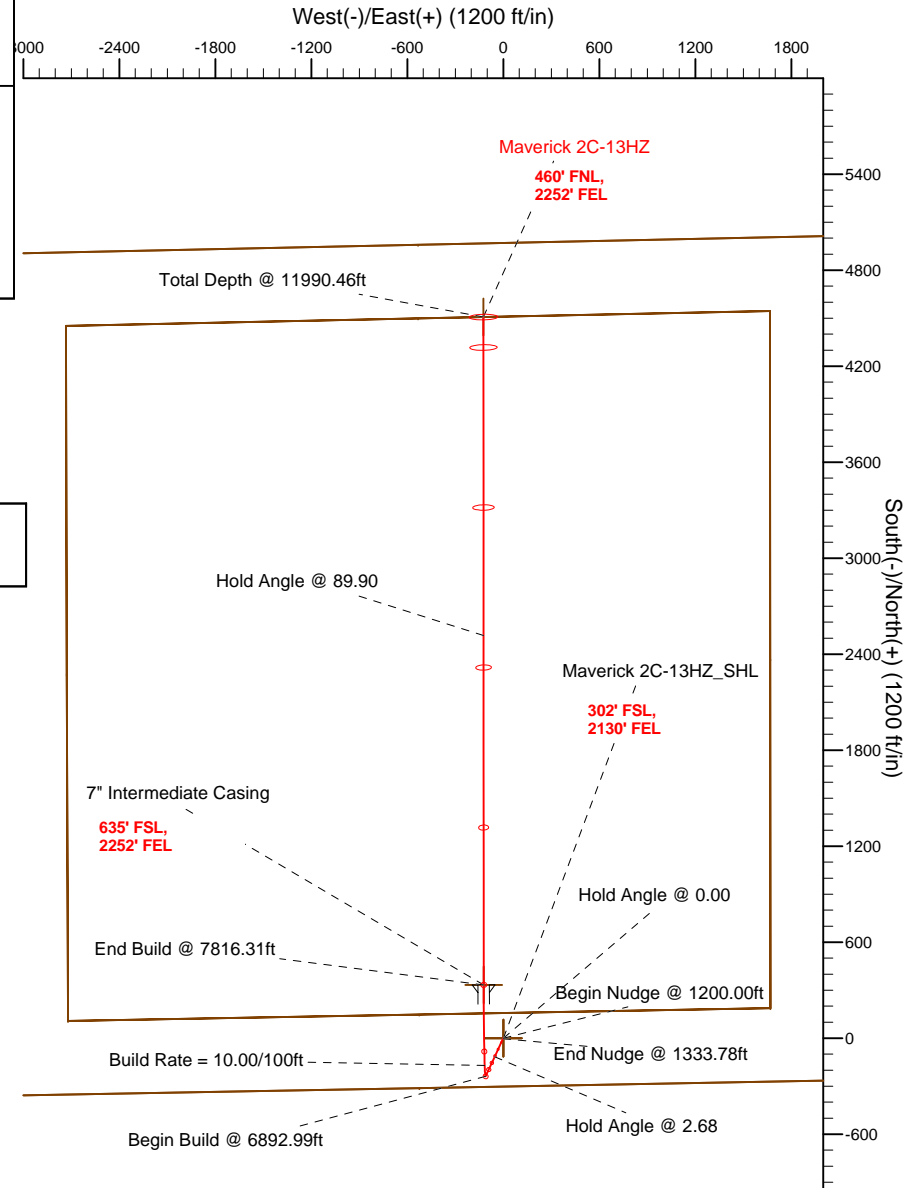
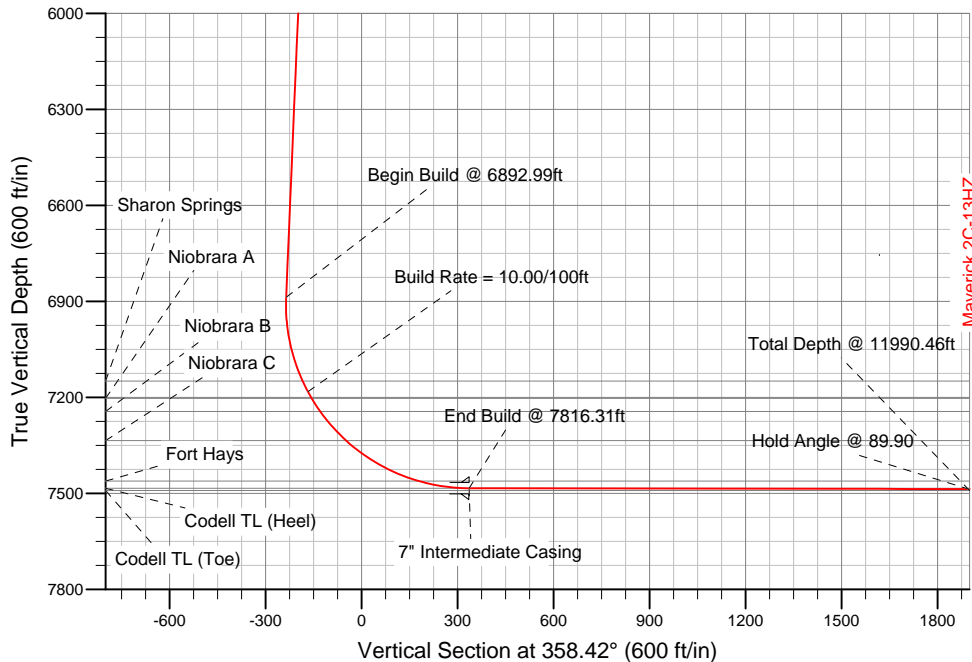
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	
3	1333.79	2.68	204.77	1333.74	-2.84	-1.31	2.00	204.77	-2.80	
4	6892.99	2.68	204.77	6886.88	-238.48	-110.05	0.00	0.00	-235.36	
5	7816.31	89.90	359.97	7484.00	333.00	-122.00	10.00	155.18	336.23	Maverick 2C-13HZ_Casing Point
6	11990.46	89.90	359.97	7491.00	4507.14	-123.97	0.00	0.00	4508.85	Maverick 2C-13HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Maverick 2C-13HZ_Section Line	0.00	0.00	0.00	40.218893	-104.723379	Polygon
Maverick 2C-13HZ_Setback Line	0.00	0.00	0.00	40.218893	-104.723379	Polygon
Maverick 2C-13HZ_SHL	0.00	0.00	0.00	40.218893	-104.723379	Point
Maverick 2C-13HZ_Casing Point	7484.00	333.00	-122.00	40.219807	-104.723816	Point
Maverick 2C-13HZ_BHL	7491.00	4507.14	-123.97	40.231265	-104.723823	Point

Target Line:
7483.13' TVDkb @ 0° VS Drilling 89.90°



WELL DETAILS: Maverick 2C-13HZ

Ground Level: 5059.00 RKB=17 @ 5076.00ft (Drilling Rig)

Plan: Plan A Rev 0 Permit (Maverick 2C-13HZ/Plan A Rev 0)

Created By: Fred Hartmann Date: 09/26/2012
 Reviewed: _____ Date: _____

Plan Report for Maverick 2C-13HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maverick 2C-13HZ_SHL - Maverick 2C-13HZ_Section Line - Maverick 2C-13HZ_Setback Line										
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
Hold Angle @ 0.00										
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
787.00	0.00	0.00	787.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills										
800.00	0.00	0.00	800.00	0.00	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	0.00
1,000.00	0.00	0.00	1,000.00	0.00	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	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 1200.00ft										
1,300.00	2.00	204.77	1,299.98	-1.58	-0.73	-1.56	2.00	2.00	0.00	204.77
1,333.78	2.68	204.77	1,333.73	-2.84	-1.31	-2.80	2.00	2.00	0.00	0.00
End Nudge @ 1333.78ft										
1,333.79	2.68	204.77	1,333.74	-2.84	-1.31	-2.80	2.00	2.00	0.00	0.00
1,400.00	2.68	204.77	1,399.88	-5.64	-2.60	-5.57	0.00	0.00	0.00	0.00
1,500.00	2.68	204.77	1,499.77	-9.88	-4.56	-9.75	0.00	0.00	0.00	0.00
1,600.00	2.68	204.77	1,599.66	-14.12	-6.52	-13.94	0.00	0.00	0.00	0.00
1,700.00	2.68	204.77	1,699.55	-18.36	-8.47	-18.12	0.00	0.00	0.00	0.00
1,800.00	2.68	204.77	1,799.44	-22.60	-10.43	-22.30	0.00	0.00	0.00	0.00
1,900.00	2.68	204.77	1,899.33	-26.84	-12.38	-26.49	0.00	0.00	0.00	0.00
2,000.00	2.68	204.77	1,999.23	-31.08	-14.34	-30.67	0.00	0.00	0.00	0.00
2,100.00	2.68	204.77	2,099.12	-35.31	-16.30	-34.85	0.00	0.00	0.00	0.00
2,200.00	2.68	204.77	2,199.01	-39.55	-18.25	-39.04	0.00	0.00	0.00	0.00
2,300.00	2.68	204.77	2,298.90	-43.79	-20.21	-43.22	0.00	0.00	0.00	0.00
2,400.00	2.68	204.77	2,398.79	-48.03	-22.16	-47.40	0.00	0.00	0.00	0.00
2,500.00	2.68	204.77	2,498.68	-52.27	-24.12	-51.59	0.00	0.00	0.00	0.00
2,600.00	2.68	204.77	2,598.57	-56.51	-26.08	-55.77	0.00	0.00	0.00	0.00
2,700.00	2.68	204.77	2,698.46	-60.75	-28.03	-59.95	0.00	0.00	0.00	0.00
2,800.00	2.68	204.77	2,798.35	-64.99	-29.99	-64.14	0.00	0.00	0.00	0.00
2,900.00	2.68	204.77	2,898.24	-69.22	-31.94	-68.32	0.00	0.00	0.00	0.00
3,000.00	2.68	204.77	2,998.13	-73.46	-33.90	-72.50	0.00	0.00	0.00	0.00
3,100.00	2.68	204.77	3,098.03	-77.70	-35.86	-76.69	0.00	0.00	0.00	0.00
3,200.00	2.68	204.77	3,197.92	-81.94	-37.81	-80.87	0.00	0.00	0.00	0.00
3,300.00	2.68	204.77	3,297.81	-86.18	-39.77	-85.05	0.00	0.00	0.00	0.00
3,400.00	2.68	204.77	3,397.70	-90.42	-41.72	-89.24	0.00	0.00	0.00	0.00
3,500.00	2.68	204.77	3,497.59	-94.66	-43.68	-93.42	0.00	0.00	0.00	0.00
3,600.00	2.68	204.77	3,597.48	-98.90	-45.64	-97.60	0.00	0.00	0.00	0.00
3,700.00	2.68	204.77	3,697.37	-103.13	-47.59	-101.79	0.00	0.00	0.00	0.00
3,800.00	2.68	204.77	3,797.26	-107.37	-49.55	-105.97	0.00	0.00	0.00	0.00
3,900.00	2.68	204.77	3,897.15	-111.61	-51.50	-110.15	0.00	0.00	0.00	0.00
4,000.00	2.68	204.77	3,997.04	-115.85	-53.46	-114.34	0.00	0.00	0.00	0.00
Hold Angle @ 2.68										
4,031.99	2.68	204.77	4,029.00	-117.21	-54.08	-115.67	0.00	0.00	0.00	0.00
Parkman										
4,100.00	2.68	204.77	4,096.94	-120.09	-55.42	-118.52	0.00	0.00	0.00	0.00
4,200.00	2.68	204.77	4,196.83	-124.33	-57.37	-122.70	0.00	0.00	0.00	0.00
4,300.00	2.68	204.77	4,296.72	-128.57	-59.33	-126.89	0.00	0.00	0.00	0.00
4,400.00	2.68	204.77	4,396.61	-132.81	-61.28	-131.07	0.00	0.00	0.00	0.00
4,500.00	2.68	204.77	4,496.50	-137.04	-63.24	-135.25	0.00	0.00	0.00	0.00

Plan Report for Maverick 2C-13HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
4,561.57	2.68	204.77	4,558.00	-139.65	-64.44	-137.83	0.00	0.00	0.00	0.00
Sussex										
4,600.00	2.68	204.77	4,596.39	-141.28	-65.20	-139.44	0.00	0.00	0.00	0.00
4,700.00	2.68	204.77	4,696.28	-145.52	-67.15	-143.62	0.00	0.00	0.00	0.00
4,800.00	2.68	204.77	4,796.17	-149.76	-69.11	-147.80	0.00	0.00	0.00	0.00
4,900.00	2.68	204.77	4,896.06	-154.00	-71.06	-151.99	0.00	0.00	0.00	0.00
5,000.00	2.68	204.77	4,995.95	-158.24	-73.02	-156.17	0.00	0.00	0.00	0.00
5,100.00	2.68	204.77	5,095.85	-162.48	-74.97	-160.35	0.00	0.00	0.00	0.00
5,200.00	2.68	204.77	5,195.74	-166.72	-76.93	-164.54	0.00	0.00	0.00	0.00
5,300.00	2.68	204.77	5,295.63	-170.95	-78.89	-168.72	0.00	0.00	0.00	0.00
5,400.00	2.68	204.77	5,395.52	-175.19	-80.84	-172.90	0.00	0.00	0.00	0.00
5,500.00	2.68	204.77	5,495.41	-179.43	-82.80	-177.09	0.00	0.00	0.00	0.00
5,600.00	2.68	204.77	5,595.30	-183.67	-84.75	-181.27	0.00	0.00	0.00	0.00
5,700.00	2.68	204.77	5,695.19	-187.91	-86.71	-185.45	0.00	0.00	0.00	0.00
5,800.00	2.68	204.77	5,795.08	-192.15	-88.67	-189.64	0.00	0.00	0.00	0.00
5,900.00	2.68	204.77	5,894.97	-196.39	-90.62	-193.82	0.00	0.00	0.00	0.00
6,000.00	2.68	204.77	5,994.86	-200.63	-92.58	-198.00	0.00	0.00	0.00	0.00
6,100.00	2.68	204.77	6,094.76	-204.86	-94.53	-202.19	0.00	0.00	0.00	0.00
6,200.00	2.68	204.77	6,194.65	-209.10	-96.49	-206.37	0.00	0.00	0.00	0.00
6,300.00	2.68	204.77	6,294.54	-213.34	-98.45	-210.55	0.00	0.00	0.00	0.00
6,400.00	2.68	204.77	6,394.43	-217.58	-100.40	-214.74	0.00	0.00	0.00	0.00
6,500.00	2.68	204.77	6,494.32	-221.82	-102.36	-218.92	0.00	0.00	0.00	0.00
6,600.00	2.68	204.77	6,594.21	-226.06	-104.31	-223.10	0.00	0.00	0.00	0.00
6,700.00	2.68	204.77	6,694.10	-230.30	-106.27	-227.29	0.00	0.00	0.00	0.00
6,800.00	2.68	204.77	6,793.99	-234.54	-108.23	-231.47	0.00	0.00	0.00	0.00
6,892.99	2.68	204.77	6,886.88	-238.48	-110.05	-235.36	0.00	0.00	0.00	0.00
Begin Build @ 6892.99ft										
6,900.00	2.06	212.99	6,893.88	-238.73	-110.18	-235.61	10.01	-8.78	117.23	155.18
7,000.00	8.35	352.30	6,993.58	-233.03	-112.14	-229.86	10.00	6.29	139.31	146.97
7,100.00	18.31	356.58	7,090.76	-210.10	-114.05	-206.89	10.00	9.96	4.28	7.76
7,162.59	24.56	357.52	7,149.00	-187.27	-115.21	-184.03	10.00	9.99	1.50	3.58
Sharon Springs										
7,200.00	28.29	357.89	7,182.49	-170.64	-115.87	-167.39	10.00	9.99	0.99	2.70
Build Rate = 10.00/100ft										
7,223.56	30.65	358.08	7,203.00	-159.06	-116.28	-155.80	10.00	9.99	0.81	2.37
Niobrara A										
7,272.51	35.54	358.40	7,244.00	-132.35	-117.09	-129.08	10.00	9.99	0.66	2.20
Niobrara B										
7,300.00	38.29	358.55	7,265.98	-115.85	-117.53	-112.58	10.00	9.99	0.54	1.93
7,394.50	47.73	358.95	7,335.00	-51.48	-118.91	-48.19	10.00	10.00	0.43	1.81
Niobrara C										
7,400.00	48.28	358.97	7,338.68	-47.39	-118.98	-44.10	10.00	10.00	0.35	1.52
7,500.00	58.28	359.28	7,398.39	32.66	-120.19	35.95	10.00	10.00	0.31	1.50
7,600.00	68.28	359.53	7,443.30	121.86	-121.11	125.14	10.00	10.00	0.25	1.32
7,657.97	74.07	359.65	7,462.00	176.70	-121.50	179.97	10.00	10.00	0.22	1.21
Fort Hays										
7,700.00	78.27	359.74	7,472.04	217.50	-121.71	220.77	10.00	10.00	0.21	1.17
7,800.00	88.27	359.94	7,483.74	316.69	-121.99	319.92	10.00	10.00	0.20	1.15
7,816.31	89.90	359.97	7,484.00	333.00	-122.00	336.23	10.00	10.00	0.20	1.12
End Build @ 7816.31ft - Codell TL (Heel) - 7" Intermediate Casing - Maverick 2C-13HZ_Casing Point										
7,900.00	89.90	359.97	7,484.14	416.69	-122.04	419.88	0.00	0.00	0.00	1.12
8,000.00	89.90	359.97	7,484.31	516.69	-122.09	519.85	0.00	0.00	0.00	0.00
8,100.00	89.90	359.97	7,484.48	616.69	-122.13	619.81	0.00	0.00	0.00	0.00
8,200.00	89.90	359.97	7,484.64	716.69	-122.18	719.77	0.00	0.00	0.00	0.00
8,300.00	89.90	359.97	7,484.81	816.69	-122.23	819.74	0.00	0.00	0.00	0.00
8,400.00	89.90	359.97	7,484.98	916.69	-122.28	919.70	0.00	0.00	0.00	0.00
8,500.00	89.90	359.97	7,485.15	1,016.69	-122.32	1,019.66	0.00	0.00	0.00	0.00
8,600.00	89.90	359.97	7,485.31	1,116.69	-122.37	1,119.63	0.00	0.00	0.00	0.00
8,700.00	89.90	359.97	7,485.48	1,216.69	-122.42	1,219.59	0.00	0.00	0.00	0.00

Plan Report for Maverick 2C-13HZ - Plan A Rev 0 Permit

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toothface Azimuth (°)
8,800.00	89.90	359.97	7,485.65	1,316.69	-122.46	1,319.55	0.00	0.00	0.00	0.00
8,900.00	89.90	359.97	7,485.82	1,416.68	-122.51	1,419.52	0.00	0.00	0.00	0.00
9,000.00	89.90	359.97	7,485.99	1,516.68	-122.56	1,519.48	0.00	0.00	0.00	0.00
9,100.00	89.90	359.97	7,486.15	1,616.68	-122.61	1,619.44	0.00	0.00	0.00	0.00
9,200.00	89.90	359.97	7,486.32	1,716.68	-122.65	1,719.41	0.00	0.00	0.00	0.00
9,300.00	89.90	359.97	7,486.49	1,816.68	-122.70	1,819.37	0.00	0.00	0.00	0.00
9,400.00	89.90	359.97	7,486.66	1,916.68	-122.75	1,919.33	0.00	0.00	0.00	0.00
9,500.00	89.90	359.97	7,486.82	2,016.68	-122.80	2,019.30	0.00	0.00	0.00	0.00
9,600.00	89.90	359.97	7,486.99	2,116.68	-122.84	2,119.26	0.00	0.00	0.00	0.00
9,700.00	89.90	359.97	7,487.16	2,216.68	-122.89	2,219.22	0.00	0.00	0.00	0.00
9,800.00	89.90	359.97	7,487.33	2,316.68	-122.94	2,319.19	0.00	0.00	0.00	0.00
9,900.00	89.90	359.97	7,487.49	2,416.68	-122.98	2,419.15	0.00	0.00	0.00	0.00
10,000.00	89.90	359.97	7,487.66	2,516.68	-123.03	2,519.11	0.00	0.00	0.00	0.00
Hold Angle @ 89.90										
10,100.00	89.90	359.97	7,487.83	2,616.68	-123.08	2,619.08	0.00	0.00	0.00	0.00
10,200.00	89.90	359.97	7,488.00	2,716.68	-123.13	2,719.04	0.00	0.00	0.00	0.00
10,300.00	89.90	359.97	7,488.17	2,816.68	-123.17	2,819.00	0.00	0.00	0.00	0.00
10,400.00	89.90	359.97	7,488.33	2,916.68	-123.22	2,918.97	0.00	0.00	0.00	0.00
10,500.00	89.90	359.97	7,488.50	3,016.68	-123.27	3,018.93	0.00	0.00	0.00	0.00
10,600.00	89.90	359.97	7,488.67	3,116.68	-123.31	3,118.89	0.00	0.00	0.00	0.00
10,700.00	89.90	359.97	7,488.84	3,216.68	-123.36	3,218.86	0.00	0.00	0.00	0.00
10,800.00	89.90	359.97	7,489.00	3,316.68	-123.41	3,318.82	0.00	0.00	0.00	0.00
10,900.00	89.90	359.97	7,489.17	3,416.68	-123.46	3,418.78	0.00	0.00	0.00	0.00
11,000.00	89.90	359.97	7,489.34	3,516.68	-123.50	3,518.75	0.00	0.00	0.00	0.00
11,100.00	89.90	359.97	7,489.51	3,616.68	-123.55	3,618.71	0.00	0.00	0.00	0.00
11,200.00	89.90	359.97	7,489.67	3,716.68	-123.60	3,718.67	0.00	0.00	0.00	0.00
11,300.00	89.90	359.97	7,489.84	3,816.68	-123.65	3,818.64	0.00	0.00	0.00	0.00
11,400.00	89.90	359.97	7,490.01	3,916.68	-123.69	3,918.60	0.00	0.00	0.00	0.00
11,500.00	89.90	359.97	7,490.18	4,016.68	-123.74	4,018.56	0.00	0.00	0.00	0.00
11,600.00	89.90	359.97	7,490.35	4,116.68	-123.79	4,118.53	0.00	0.00	0.00	0.00
11,700.00	89.90	359.97	7,490.51	4,216.68	-123.83	4,218.49	0.00	0.00	0.00	0.00
11,800.00	89.90	359.97	7,490.68	4,316.68	-123.88	4,318.45	0.00	0.00	0.00	0.00
11,900.00	89.90	359.97	7,490.85	4,416.68	-123.93	4,418.42	0.00	0.00	0.00	0.00
11,990.46	89.90	359.97	7,491.00	4,507.14	-123.97	4,508.84	0.00	0.00	0.00	0.00
Total Depth @ 11990.46ft - Codell TL (Toe) - Maverick 2C-13HZ_BHL										

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
600.00	600.00	0.00	0.00	Hold Angle @ 0.00
1,200.00	1,200.00	0.00	0.00	Begin Nudge @ 1200.00ft
1,333.78	1,333.73	-2.84	-1.31	End Nudge @ 1333.78ft
4,000.00	3,997.04	-115.85	-53.46	Hold Angle @ 2.68
6,892.99	6,886.88	-238.48	-110.05	Begin Build @ 6892.99ft
7,200.00	7,182.49	-170.64	-115.87	Build Rate = 10.00/100ft
7,816.31	7,484.00	333.00	-122.00	End Build @ 7816.31ft
10,000.00	7,487.66	2,516.68	-123.03	Hold Angle @ 89.90
11,990.46	7,491.00	4,507.14	-123.97	Total Depth @ 11990.46ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
Target	Maverick 2C-13HZ_BHL	358.42	Slot	0.00	0.00	0.00

Plan Report for Maverick 2C-13HZ - Plan A Rev 0 Permit**Survey tool program**

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,990.46	Plan A Rev 0 Permit	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,816.31	7,484.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
787.00	787.00	Fox Hills		0.00	
4,031.99	4,029.00	Parkman		0.00	
4,561.57	4,558.00	Sussex		0.00	
7,162.59	7,149.00	Sharon Springs		0.00	
7,223.56	7,203.00	Niobrara A		0.00	
7,272.51	7,244.00	Niobrara B		0.00	
7,394.50	7,335.00	Niobrara C		0.00	
7,657.97	7,462.00	Fort Hays		0.00	
7,816.31	7,484.00	Codell TL (Heel)		0.00	
11,990.46	7,491.00	Codell TL (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Maverick 2C-13HZ_BHL	7,491.00	4,507.14	-123.97	Point
Maverick 2C-13HZ_Setback Line	0.00	0.00	0.00	Polygon
Maverick 2C-13HZ_Casing Point	7,484.00	333.00	-122.00	Point
Maverick 2C-13HZ_Section Line	0.00	0.00	0.00	Polygon
Maverick 2C-13HZ_SHL	0.00	0.00	0.00	Point

North Reference Sheet for Sec. 13-T3N-R66W - Maverick 2C-13HZ - Plan A Rev 0

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
 Vertical Depths are relative to RKB=17 @ 5076.00ft (Drilling Rig). Northing and Easting are relative to Maverick 2C-13HZ
 Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980
 Projection method is Lambert Conformal Conic (2 parallel)
 Central Meridian is -105.50°, Longitude Origin:0.000000°, Latitude Origin:40.783333°
 False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99995700

Grid Coordinates of Well: 1,323,534.55 ft N, 3,216,872.04 ft E
 Geographical Coordinates of Well: 40° 13' 08.01" N, 104° 43' 24.16" W
 Grid Convergence at Surface is: 0.50°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,990.46ft
 the Bottom Hole Displacement is 4,508.84ft in the Direction of 358.42° (True).

Magnetic Convergence at surface is: -8.20° (26 September 2012, , BGGM2012)

