

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 35-T3N-R66W

Brown 13C-26HZ

Plan D Rev 1

Design: Actual Field Surveys - Original Wellbore - DRAFT

Survey Report - Geographic

17 May, 2012

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Project	Weld County, CO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Sec. 35-T3N-R66W			
Site Position:		Northing:	1,307,923.461379ft	Latitude:	40.176226
From:	Lat/Long	Easting:	3,208,983.578973ft	Longitude:	-104.752098
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.48 °

Well	Brown 13C-26HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,307,923.428091 ft	Latitude:	40.176226
	+E/-W	0.00 ft	Easting:	3,208,983.579254 ft	Longitude:	-104.752098
Position Uncertainty		0.00 ft	Wellhead Elevation:	5,020.00 ft	Ground Level:	5,020.00 ft

Wellbore	Plan D Rev 1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	2012-03-22	8.72	66.83	52,885

Design	Actual Field Surveys - Original Wellbore - DRAFT				
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	0.49	

Survey Program	Date	2012-05-17			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	750.00	Anadarko Supplied Surveys (Plan D Rev 1	NS-GYRO-MS	North sensing gyrocompassing m/s	
862.00	8,076.00	Sperry MWD Surveys - Original Wellbore (MWD	MWD - Standard	

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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	07,923.428091	08,983.579254	40.176226	-104.752098
100.00	0.13	60.66	100.00	0.06	0.10	07,923.486239	08,983.680703	40.176226	-104.752097
First Gyro Survey @ 100.00ft									
200.00	0.39	37.09	200.00	0.39	0.41	07,923.816866	08,983.984592	40.176227	-104.752096
300.00	0.22	316.08	300.00	0.79	0.48	07,924.225870	08,984.053308	40.176228	-104.752096
400.00	0.05	223.21	400.00	0.90	0.32	07,924.329702	08,983.889389	40.176229	-104.752097
500.00	0.31	17.36	500.00	1.12	0.37	07,924.555866	08,983.937746	40.176229	-104.752096
600.00	0.34	352.06	600.00	1.68	0.41	07,925.107350	08,983.972955	40.176231	-104.752096
700.00	0.15	4.82	699.99	2.10	0.38	07,925.528756	08,983.939375	40.176232	-104.752096
750.00	0.54	346.30	749.99	2.39	0.33	07,925.823267	08,983.886116	40.176233	-104.752097
Tie-On to Gyro Surveys @ 750.00ft - Final Gyro Survey @ 750.00ft									
862.00	0.73	17.15	861.99	3.59	0.41	07,927.022209	08,983.960500	40.176236	-104.752096
First Sperry MWD Survey @ 862.00ft									
923.00	0.73	0.06	922.98	4.35	0.53	07,927.783017	08,984.069073	40.176238	-104.752096
1,015.00	2.62	202.65	1,014.96	3.00	-0.28	07,926.421422	08,983.271186	40.176235	-104.752099
1,107.00	4.76	200.62	1,106.76	-2.52	-2.44	07,920.889839	08,981.163550	40.176219	-104.752106
1,199.00	4.66	198.46	1,198.45	-9.64	-4.96	07,913.751563	08,978.696136	40.176200	-104.752116
1,291.00	4.52	200.40	1,290.15	-16.58	-7.41	07,906.788825	08,976.307914	40.176181	-104.752124
1,383.00	4.81	199.75	1,381.85	-23.61	-9.98	07,899.739656	08,973.800358	40.176161	-104.752133
1,475.00	4.86	196.01	1,473.52	-30.98	-12.36	07,892.343844	08,971.484479	40.176141	-104.752142
1,566.00	4.70	192.74	1,564.21	-38.32	-14.24	07,884.986775	08,969.661190	40.176121	-104.752149
1,658.00	4.41	193.23	1,655.92	-45.44	-15.88	07,877.853896	08,968.080656	40.176102	-104.752155
1,750.00	4.38	195.34	1,747.64	-52.27	-17.62	07,871.008649	08,966.399535	40.176083	-104.752161
1,842.00	4.60	206.59	1,839.36	-58.96	-20.20	07,864.300403	08,963.875435	40.176064	-104.752170
1,934.00	5.16	208.02	1,931.03	-65.91	-23.80	07,857.319432	08,960.339502	40.176045	-104.752183
2,024.00	5.14	202.52	2,020.67	-73.21	-27.24	07,849.994001	08,956.955906	40.176025	-104.752195
2,118.00	5.04	201.97	2,114.30	-80.93	-30.40	07,842.249184	08,953.863773	40.176004	-104.752207
2,212.00	4.72	202.59	2,207.96	-88.33	-33.43	07,834.824288	08,950.896038	40.175984	-104.752217
2,307.00	4.94	200.77	2,302.62	-95.76	-36.38	07,827.366714	08,948.007017	40.175963	-104.752228
2,402.00	4.94	204.19	2,397.27	-103.32	-39.51	07,819.785223	08,944.944395	40.175943	-104.752239
2,496.00	4.85	203.27	2,490.92	-110.66	-42.74	07,812.416185	08,941.778258	40.175923	-104.752251
2,590.00	4.52	206.59	2,584.61	-117.62	-45.97	07,805.426817	08,938.609446	40.175903	-104.752262
2,685.00	4.26	206.03	2,679.33	-124.14	-49.19	07,798.882198	08,935.440715	40.175886	-104.752274
2,780.00	3.89	188.55	2,774.09	-130.50	-51.22	07,792.508168	08,933.466896	40.175868	-104.752281
2,874.00	3.57	185.04	2,867.89	-136.57	-51.95	07,786.434074	08,932.786977	40.175851	-104.752284
2,969.00	4.75	170.91	2,962.64	-143.40	-51.59	07,779.606953	08,933.206159	40.175833	-104.752282
3,063.00	4.72	168.40	3,056.32	-151.03	-50.19	07,771.987706	08,934.662954	40.175812	-104.752277
3,158.00	4.78	167.33	3,151.00	-158.72	-48.54	07,764.311690	08,936.381788	40.175791	-104.752271
3,253.00	5.28	152.50	3,245.64	-166.46	-45.65	07,756.597262	08,939.333490	40.175769	-104.752261
3,348.00	5.35	155.03	3,340.23	-174.35	-41.77	07,748.738544	08,943.287721	40.175748	-104.752247
3,443.00	4.88	153.22	3,434.85	-181.97	-38.07	07,741.147927	08,947.042003	40.175727	-104.752234
3,538.00	6.23	158.78	3,529.40	-190.39	-34.39	07,732.766649	08,950.799248	40.175704	-104.752221
3,633.00	5.86	156.48	3,623.87	-199.64	-30.59	07,723.547435	08,954.678090	40.175678	-104.752207
3,728.00	5.25	155.94	3,718.43	-208.05	-26.88	07,715.163810	08,958.456128	40.175655	-104.752194
3,823.00	4.58	162.18	3,813.08	-215.63	-23.95	07,707.609333	08,961.452587	40.175634	-104.752183
3,918.00	5.24	157.04	3,907.73	-223.24	-21.09	07,700.028520	08,964.369523	40.175613	-104.752173
4,013.00	5.66	164.66	4,002.30	-231.75	-18.16	07,691.541571	08,967.372686	40.175590	-104.752163
4,108.00	7.05	158.71	4,096.72	-241.70	-14.81	07,681.620199	08,970.812646	40.175563	-104.752151
4,204.00	6.90	161.32	4,192.00	-252.65	-10.82	07,670.702590	08,974.890710	40.175533	-104.752136
4,299.00	6.73	161.62	4,286.33	-263.34	-7.24	07,660.045149	08,978.563504	40.175503	-104.752124
4,394.00	6.42	160.82	4,380.71	-273.64	-3.74	07,649.776426	08,982.150279	40.175475	-104.752111
4,489.00	5.35	160.51	4,475.21	-282.83	-0.51	07,640.612524	08,985.450246	40.175450	-104.752100
4,583.00	7.53	156.35	4,568.61	-292.61	3.42	07,630.872233	08,989.465700	40.175423	-104.752086
4,677.00	7.12	155.66	4,661.84	-303.56	8.29	07,619.964532	08,994.429418	40.175393	-104.752068
4,772.00	7.51	159.01	4,756.07	-314.72	12.94	07,608.844057	08,999.173579	40.175362	-104.752051

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4,868.00	8.38	166.69	4,851.15	-327.38	16.80	07,596.212204	09,003.137982	40.175328	-104.752038
4,963.00	7.97	165.10	4,945.18	-340.48	20.09	07,583.139640	09,006.535442	40.175292	-104.752026
5,058.00	7.41	164.42	5,039.33	-352.75	23.43	07,570.903092	09,009.977501	40.175258	-104.752014
5,153.00	7.38	167.82	5,133.54	-364.62	26.36	07,559.063767	09,013.009984	40.175225	-104.752003
5,249.00	6.90	172.49	5,228.79	-376.36	28.41	07,547.337954	09,015.163421	40.175193	-104.751996
5,344.00	6.26	168.81	5,323.17	-387.10	30.16	07,536.614896	09,017.004847	40.175164	-104.751990
5,438.00	5.13	167.05	5,416.70	-396.22	32.10	07,527.508512	09,019.018052	40.175139	-104.751983
5,534.00	6.33	160.30	5,512.22	-405.39	34.85	07,518.366671	09,021.841087	40.175113	-104.751973
5,629.00	5.45	158.41	5,606.72	-414.51	38.27	07,509.270615	09,025.343284	40.175088	-104.751961
5,724.00	5.36	155.84	5,701.30	-422.76	41.75	07,501.057202	09,028.888627	40.175066	-104.751948
5,819.00	6.58	154.74	5,795.78	-431.73	45.89	07,492.121418	09,033.102872	40.175041	-104.751934
5,914.00	5.27	149.13	5,890.27	-440.40	50.45	07,483.492759	09,037.737084	40.175017	-104.751917
6,009.00	6.52	162.43	5,984.77	-449.28	54.31	07,474.638520	09,041.678787	40.174993	-104.751903
6,104.00	5.50	158.19	6,079.25	-458.65	57.63	07,465.298148	09,045.077281	40.174967	-104.751892
6,199.00	6.66	164.98	6,173.72	-468.20	60.75	07,455.777238	09,048.276836	40.174941	-104.751880
6,294.00	5.32	162.12	6,268.19	-477.71	63.53	07,446.288854	09,051.136821	40.174915	-104.751870
6,388.00	5.51	158.14	6,361.78	-486.05	66.55	07,437.979220	09,054.225177	40.174892	-104.751860
6,483.00	6.77	160.64	6,456.23	-495.56	70.11	07,428.493696	09,057.859768	40.174866	-104.751847
6,578.00	6.03	154.12	6,550.64	-505.34	74.14	07,418.755945	09,061.976231	40.174839	-104.751832
6,674.00	3.93	149.19	6,646.27	-512.70	78.03	07,411.426255	09,065.924423	40.174819	-104.751819
6,769.00	3.03	122.01	6,741.10	-516.83	81.82	07,407.331262	09,069.755773	40.174808	-104.751805
6,800.00	3.21	115.21	6,772.05	-517.63	83.30	07,406.539827	09,071.242451	40.174805	-104.751800
6,832.00	3.01	71.63	6,804.01	-517.75	84.91	07,406.436552	09,072.851478	40.174805	-104.751794
6,864.00	3.64	32.32	6,835.96	-516.62	86.25	07,407.571127	09,074.182524	40.174808	-104.751789
6,895.00	4.95	356.44	6,866.88	-514.46	86.70	07,409.741622	09,074.607385	40.174814	-104.751788
6,927.00	8.10	346.58	6,898.67	-510.89	86.09	07,413.307994	09,073.968189	40.174824	-104.751790
6,958.00	11.20	348.35	6,929.23	-505.81	84.97	07,418.372390	09,072.810390	40.174838	-104.751794
6,990.00	14.42	348.61	6,960.43	-498.86	83.56	07,425.311452	09,071.337070	40.174857	-104.751799
7,022.00	17.05	348.22	6,991.22	-490.36	81.81	07,433.796038	09,069.520590	40.174880	-104.751805
7,053.00	19.13	348.40	7,020.69	-480.93	79.86	07,443.204674	09,067.491829	40.174906	-104.751812
7,085.00	20.71	349.03	7,050.77	-470.24	77.73	07,453.877682	09,065.270624	40.174935	-104.751820
7,117.00	22.96	349.27	7,080.48	-458.55	75.49	07,465.546495	09,062.933169	40.174968	-104.751828
7,148.00	25.98	349.52	7,108.69	-445.93	73.13	07,478.145799	09,060.465622	40.175002	-104.751836
7,179.00	27.29	353.19	7,136.40	-432.20	71.05	07,491.861894	09,058.271998	40.175040	-104.751844
7,210.00	29.63	354.90	7,163.65	-417.51	69.53	07,506.539527	09,056.624074	40.175080	-104.751849
7,242.00	33.36	354.52	7,190.93	-400.86	67.99	07,523.168294	09,054.939870	40.175126	-104.751854
7,274.00	37.69	355.67	7,216.97	-382.34	66.41	07,541.675009	09,053.204223	40.175177	-104.751860
7,305.00	39.98	358.48	7,241.12	-362.93	65.43	07,561.074384	09,052.060740	40.175230	-104.751864
7,338.00	42.19	0.85	7,265.99	-341.25	65.31	07,582.753622	09,051.761039	40.175290	-104.751864
7,369.00	44.76	1.30	7,288.49	-319.93	65.71	07,604.078839	09,051.983277	40.175348	-104.751863
7,401.00	48.13	358.73	7,310.54	-296.74	65.70	07,627.260656	09,051.779276	40.175412	-104.751863
7,433.00	51.73	358.96	7,331.13	-272.27	65.21	07,651.733865	09,051.080628	40.175479	-104.751864
7,464.00	55.28	3.61	7,349.57	-247.37	65.79	07,676.635552	09,051.452292	40.175547	-104.751862
7,496.00	57.50	5.57	7,367.29	-220.81	67.93	07,703.212214	09,053.366365	40.175620	-104.751855
7,528.00	60.77	5.74	7,383.70	-193.48	70.64	07,730.563552	09,055.842636	40.175695	-104.751845
7,560.00	64.43	5.48	7,398.42	-165.21	73.41	07,758.854041	09,058.379739	40.175773	-104.751835
7,591.00	67.75	5.15	7,410.99	-136.99	76.04	07,787.087903	09,060.765310	40.175850	-104.751826
7,623.00	70.25	5.43	7,422.45	-107.25	78.79	07,816.853698	09,063.268962	40.175932	-104.751816
7,655.00	70.67	5.11	7,433.16	-77.22	81.56	07,846.904201	09,065.785268	40.176014	-104.751806
7,686.00	72.88	4.91	7,442.85	-47.89	84.13	07,876.254202	09,068.108626	40.176095	-104.751797
7,718.00	74.35	5.22	7,451.88	-17.31	86.84	07,906.854304	09,070.561160	40.176179	-104.751787
7,750.00	78.10	7.35	7,459.50	13.58	90.25	07,937.765450	09,073.706616	40.176264	-104.751775
7,796.00	82.23	9.72	7,467.35	58.39	96.98	07,982.626798	09,080.058712	40.176387	-104.751751
7,824.00	83.97	10.00	7,470.72	85.77	101.74	08,010.050144	09,084.588289	40.176462	-104.751734

7" Intermediate Casing

Halliburton Company

Survey Report - Geographic

Company: Anadarko Petroleum Corp.
Project: Weld County, CO (NAD 83)
Site: Sec. 35-T3N-R66W
Well: Brown 13C-26HZ
Wellbore: Plan D Rev 1
Design: Actual Field Surveys - Original Wellbore - DRAFT

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TVD Reference: RKB-22' @ 5042.00ft (Nabors M40)
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North Reference: True
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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
7,856.37	85.98	10.33	7,473.55	117.51	107.43	08,041.833210	09,090.011925	40.176549	-104.751713
7,883.66	86.17	10.46	7,475.42	144.29	112.34	08,068.651674	09,094.698170	40.176622	-104.751696
7,933.00	84.50	8.55	7,479.43	192.78	120.47	08,117.213648	09,102.409521	40.176755	-104.751667
7,982.12	84.06	7.27	7,484.33	241.19	127.19	08,165.675827	09,108.726884	40.176888	-104.751643
8,028.00	83.19	4.01	7,489.42	286.56	131.67	08,211.078843	09,112.825437	40.177013	-104.751627
8,076.00	83.19	4.01	7,495.12	334.11	135.01	08,258.647920	09,115.757184	40.177143	-104.751615
Final Sperry MWD Survey @ 8076.00ft									

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Targets									
Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	
Brown Pad_Sec 35 Li		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	
- actual wellpath hits target center									
- Polygon									
Point 1				0.00	4,637.34	-466.23	1,312,556.47	3,208,478.28	
Point 2				0.00	1,995.83	-465.88	1,309,915.17	3,208,500.90	
Point 3				0.00	-644.69	-467.48	1,307,274.85	3,208,521.57	
Point 4				0.00	-611.95	2,154.80	1,307,329.70	3,211,143.37	
Point 5				0.00	-581.27	4,774.79	1,307,382.47	3,213,762.90	
Point 6				0.00	2,041.61	4,789.24	1,310,005.27	3,213,755.23	
Point 7				0.00	4,659.16	4,797.87	1,312,622.69	3,213,741.78	
Point 8				0.00	4,648.16	2,166.33	1,312,589.50	3,211,110.54	
Brown 13C-35HZ_WF		0.00	0.00	7,471.80	1,350.00	188.00	309,274.908500	209,160.179046	
- actual wellpath misses target center by 1017.54ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)									
- Point									
Brown 13C-35HZ_WF		0.00	0.00	6,477.74	-488.48	60.65	307,435.497641	209,048.344251	
- actual wellpath misses target center by 13.92ft at 6503.25ft MD (6476.34 TVD, -497.78 N, 70.91 E)									
- Point									
Brown 13C-35HZ_BH		0.00	0.00	7,463.00	5,099.33	43.46	313,022.727345	208,984.028301	
- actual wellpath misses target center by 4766.21ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)									
- Polygon									
Brown 13C-35HZ_SH		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	
- actual wellpath hits target center									
- Point									
Brown 13C-35HZ_WF		0.00	0.00	7,466.10	3,750.00	218.00	311,674.974603	209,169.935702	
- actual wellpath misses target center by 3417.02ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)									
- Point									
Brown Pad_Sec 35 46		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	
- actual wellpath hits target center									
- Polygon									
Point 1				0.00	4,179.21	-6.14	1,312,102.26	3,208,942.19	
Point 2				0.00	1,999.66	-5.86	1,309,922.88	3,208,960.86	
Point 3				0.00	-178.89	-7.18	1,307,744.49	3,208,977.91	
Point 4				0.00	-151.97	2,149.06	1,307,789.59	3,211,133.75	
Point 5				0.00	-125.29	4,318.60	1,307,834.57	3,213,302.90	
Point 6				0.00	2,035.92	4,327.49	1,309,995.69	3,213,293.56	
Point 7				0.00	4,197.21	4,336.02	1,312,156.88	3,213,283.86	
Point 8				0.00	2,035.94	4,327.49	1,309,995.71	3,213,293.56	
Point 9				0.00	-125.28	4,318.60	1,307,834.58	3,213,302.90	
Point 10				0.00	-151.95	2,149.06	1,307,789.61	3,211,133.75	
Point 11				0.00	-178.88	-7.18	1,307,744.50	3,208,977.91	
Point 12				0.00	1,999.68	-5.86	1,309,922.90	3,208,960.85	
Point 13				0.00	4,179.22	-6.14	1,312,102.27	3,208,942.19	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,824.00	7,470.72	7" Intermediate Casing	7	8-3/4	

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Targets

Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
- Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Brown Pad_Sec 35 Li		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Polygon										
Point 1				0.00	4,637.34	-466.23	1,312,556.47	3,208,478.28		
Point 2				0.00	1,995.83	-465.88	1,309,915.17	3,208,500.90		
Point 3				0.00	-644.69	-467.48	1,307,274.85	3,208,521.57		
Point 4				0.00	-611.95	2,154.80	1,307,329.70	3,211,143.37		
Point 5				0.00	-581.27	4,774.79	1,307,382.47	3,213,762.90		
Point 6				0.00	2,041.61	4,789.24	1,310,005.27	3,213,755.23		
Point 7				0.00	4,659.16	4,797.87	1,312,622.69	3,213,741.78		
Point 8				0.00	4,648.16	2,166.33	1,312,589.50	3,211,110.54		
Brown 13C-35HZ_WF		0.00	0.00	7,471.80	1,350.00	188.00	309,274.908500	209,160.179046	40.179932	-104.751425
- actual wellpath misses target center by 1017.54ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Point										
Brown 13C-35HZ_WF		0.00	0.00	6,477.74	-488.48	60.65	307,435.497641	209,048.344251	40.174885	-104.751881
- actual wellpath misses target center by 13.92ft at 6503.25ft MD (6476.34 TVD, -497.78 N, 70.91 E)										
- Point										
Brown 13C-35HZ_BH		0.00	0.00	7,463.00	5,099.33	43.46	313,022.727345	208,984.028301	40.190224	-104.751942
- actual wellpath misses target center by 4766.21ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Polygon										
Brown 13C-35HZ_SH		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Point										
Brown 13C-35HZ_WF		0.00	0.00	7,466.10	3,750.00	218.00	311,674.974603	209,169.935702	40.186520	-104.751318
- actual wellpath misses target center by 3417.02ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Point										
Brown Pad_Sec 35 46		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Polygon										
Point 1				0.00	4,179.21	-6.14	1,312,102.26	3,208,942.19		
Point 2				0.00	1,999.66	-5.86	1,309,922.88	3,208,960.86		
Point 3				0.00	-178.89	-7.18	1,307,744.49	3,208,977.91		
Point 4				0.00	-151.97	2,149.06	1,307,789.59	3,211,133.75		
Point 5				0.00	-125.29	4,318.60	1,307,834.57	3,213,302.90		
Point 6				0.00	2,035.92	4,327.49	1,309,995.69	3,213,293.56		
Point 7				0.00	4,197.21	4,336.02	1,312,156.88	3,213,283.86		
Point 8				0.00	2,035.94	4,327.49	1,309,995.71	3,213,293.56		
Point 9				0.00	-125.28	4,318.60	1,307,834.58	3,213,302.90		
Point 10				0.00	-151.95	2,149.06	1,307,789.61	3,211,133.75		
Point 11				0.00	-178.88	-7.18	1,307,744.50	3,208,977.91		
Point 12				0.00	1,999.68	-5.86	1,309,922.90	3,208,960.85		
Point 13				0.00	4,179.22	-6.14	1,312,102.27	3,208,942.19		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,824.00	7,470.72	7" Intermediate Casing	7	8-3/4

Design Annotations

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Brown Pad_Sec 35 Li	- actual wellpath hits target center	0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- Polygon										
Point 1				0.00	4,637.34	-466.23	1,312,556.47	3,208,478.28		
Point 2				0.00	1,995.83	-465.88	1,309,915.17	3,208,500.90		
Point 3				0.00	-644.69	-467.48	1,307,274.85	3,208,521.57		
Point 4				0.00	-611.95	2,154.80	1,307,329.70	3,211,143.37		
Point 5				0.00	-581.27	4,774.79	1,307,382.47	3,213,762.90		
Point 6				0.00	2,041.61	4,789.24	1,310,005.27	3,213,755.23		
Point 7				0.00	4,659.16	4,797.87	1,312,622.69	3,213,741.78		
Point 8				0.00	4,648.16	2,166.33	1,312,589.50	3,211,110.54		
Brown 13C-35HZ_WF	- actual wellpath misses target center by 1017.54ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)	0.00	0.00	7,471.80	1,350.00	188.00	309,274.908500	209,160.179046	40.179932	-104.751425
- Point										
Brown 13C-35HZ_WF	- actual wellpath misses target center by 13.92ft at 6503.25ft MD (6476.34 TVD, -497.78 N, 70.91 E)	0.00	0.00	6,477.74	-488.48	60.65	307,435.497641	209,048.344251	40.174885	-104.751881
- Point										
Brown 13C-35HZ_BH	- actual wellpath misses target center by 4766.21ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)	0.00	0.00	7,463.00	5,099.33	43.46	313,022.727345	208,984.028301	40.190224	-104.751942
- Polygon										
Brown 13C-35HZ_SH	- actual wellpath hits target center	0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- Point										
Brown 13C-35HZ_WF	- actual wellpath misses target center by 3417.02ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)	0.00	0.00	7,466.10	3,750.00	218.00	311,674.974603	209,169.935702	40.186520	-104.751318
- Point										
Brown Pad_Sec 35 46	- actual wellpath hits target center	0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- Polygon										
Point 1				0.00	4,179.21	-6.14	1,312,102.26	3,208,942.19		
Point 2				0.00	1,999.66	-5.86	1,309,922.88	3,208,960.86		
Point 3				0.00	-178.89	-7.18	1,307,744.49	3,208,977.91		
Point 4				0.00	-151.97	2,149.06	1,307,789.59	3,211,133.75		
Point 5				0.00	-125.29	4,318.60	1,307,834.57	3,213,302.90		
Point 6				0.00	2,035.92	4,327.49	1,309,995.69	3,213,293.56		
Point 7				0.00	4,197.21	4,336.02	1,312,156.88	3,213,283.86		
Point 8				0.00	2,035.94	4,327.49	1,309,995.71	3,213,293.56		
Point 9				0.00	-125.28	4,318.60	1,307,834.58	3,213,302.90		
Point 10				0.00	-151.95	2,149.06	1,307,789.61	3,211,133.75		
Point 11				0.00	-178.88	-7.18	1,307,744.50	3,208,977.91		
Point 12				0.00	1,999.68	-5.86	1,309,922.90	3,208,960.85		
Point 13				0.00	4,179.22	-6.14	1,312,102.27	3,208,942.19		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,824.00	7,470.72	7" Intermediate Casing	7	8-3/4
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
100.00	100.00	0.06	0.10	First Gyro Survey @ 100.00ft

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Targets

Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
- Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Brown Pad_Sec 35 Li		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Polygon										
Point 1				0.00	4,637.34	-466.23	1,312,556.47	3,208,478.28		
Point 2				0.00	1,995.83	-465.88	1,309,915.17	3,208,500.90		
Point 3				0.00	-644.69	-467.48	1,307,274.85	3,208,521.57		
Point 4				0.00	-611.95	2,154.80	1,307,329.70	3,211,143.37		
Point 5				0.00	-581.27	4,774.79	1,307,382.47	3,213,762.90		
Point 6				0.00	2,041.61	4,789.24	1,310,005.27	3,213,755.23		
Point 7				0.00	4,659.16	4,797.87	1,312,622.69	3,213,741.78		
Point 8				0.00	4,648.16	2,166.33	1,312,589.50	3,211,110.54		
Brown 13C-35HZ_WF		0.00	0.00	7,471.80	1,350.00	188.00	309,274.908500	209,160.179046	40.179932	-104.751425
- actual wellpath misses target center by 1017.54ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Point										
Brown 13C-35HZ_WF		0.00	0.00	6,477.74	-488.48	60.65	307,435.497641	209,048.344251	40.174885	-104.751881
- actual wellpath misses target center by 13.92ft at 6503.25ft MD (6476.34 TVD, -497.78 N, 70.91 E)										
- Point										
Brown 13C-35HZ_BH		0.00	0.00	7,463.00	5,099.33	43.46	313,022.727345	208,984.028301	40.190224	-104.751942
- actual wellpath misses target center by 4766.21ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Polygon										
Brown 13C-35HZ_SH		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Point										
Brown 13C-35HZ_WF		0.00	0.00	7,466.10	3,750.00	218.00	311,674.974603	209,169.935702	40.186520	-104.751318
- actual wellpath misses target center by 3417.02ft at 8076.00ft MD (7495.12 TVD, 334.11 N, 135.01 E)										
- Point										
Brown Pad_Sec 35 46		0.00	0.00	0.00	0.00	0.00	307,923.428091	208,983.579254	40.176226	-104.752098
- actual wellpath hits target center										
- Polygon										
Point 1				0.00	4,179.21	-6.14	1,312,102.26	3,208,942.19		
Point 2				0.00	1,999.66	-5.86	1,309,922.88	3,208,960.86		
Point 3				0.00	-178.89	-7.18	1,307,744.49	3,208,977.91		
Point 4				0.00	-151.97	2,149.06	1,307,789.59	3,211,133.75		
Point 5				0.00	-125.29	4,318.60	1,307,834.57	3,213,302.90		
Point 6				0.00	2,035.92	4,327.49	1,309,995.69	3,213,293.56		
Point 7				0.00	4,197.21	4,336.02	1,312,156.88	3,213,283.86		
Point 8				0.00	2,035.94	4,327.49	1,309,995.71	3,213,293.56		
Point 9				0.00	-125.28	4,318.60	1,307,834.58	3,213,302.90		
Point 10				0.00	-151.95	2,149.06	1,307,789.61	3,211,133.75		
Point 11				0.00	-178.88	-7.18	1,307,744.50	3,208,977.91		
Point 12				0.00	1,999.68	-5.86	1,309,922.90	3,208,960.85		
Point 13				0.00	4,179.22	-6.14	1,312,102.27	3,208,942.19		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,824.00	7,470.72	7" Intermediate Casing	7	8-3/4
750.00	749.99	2.39	0.33	Tie-On to Gyro Surveys @ 750.00ft
750.00	749.99	2.39	0.33	Final Gyro Survey @ 750.00ft
862.00	861.99	3.59	0.41	First Sperry MWD Survey @ 862.00ft
8,076.00	7,495.12	334.11	135.01	Final Sperry MWD Survey @ 8076.00ft

Halliburton Company
Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Brown 13C-26HZ
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Site:	Sec. 35-T3N-R66W	MD Reference:	RKB-22' @ 5042.00ft (Nabors M40)
Well:	Brown 13C-26HZ	North Reference:	True
Wellbore:	Plan D Rev 1	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys - Original Wellbore - DRAFT	Database:	EDM 2003.16 Single User Db

Checked By: _____ Approved By: _____ Date: _____