

Well Plan Details

Incremental Oil and Gas

EPC

AFE

Well: Grouper 09-28

Job Grouper 09-28 v04

Rig:

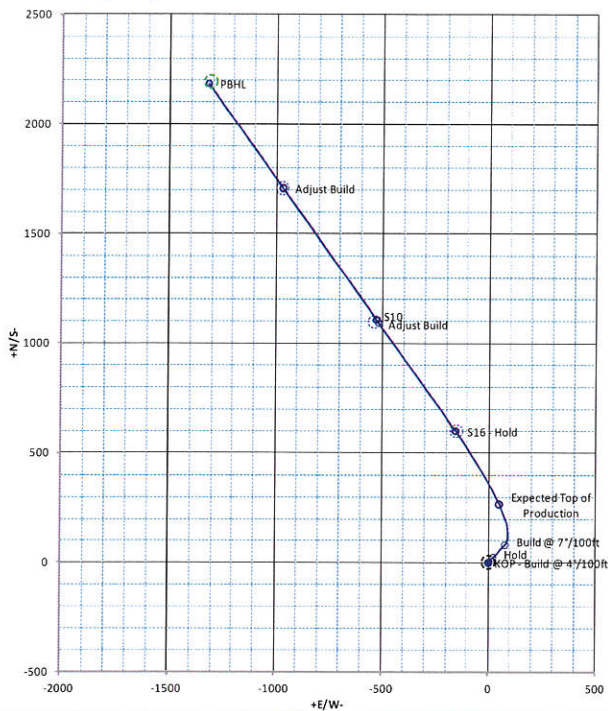
Florence Field

St. Plane - NAD83

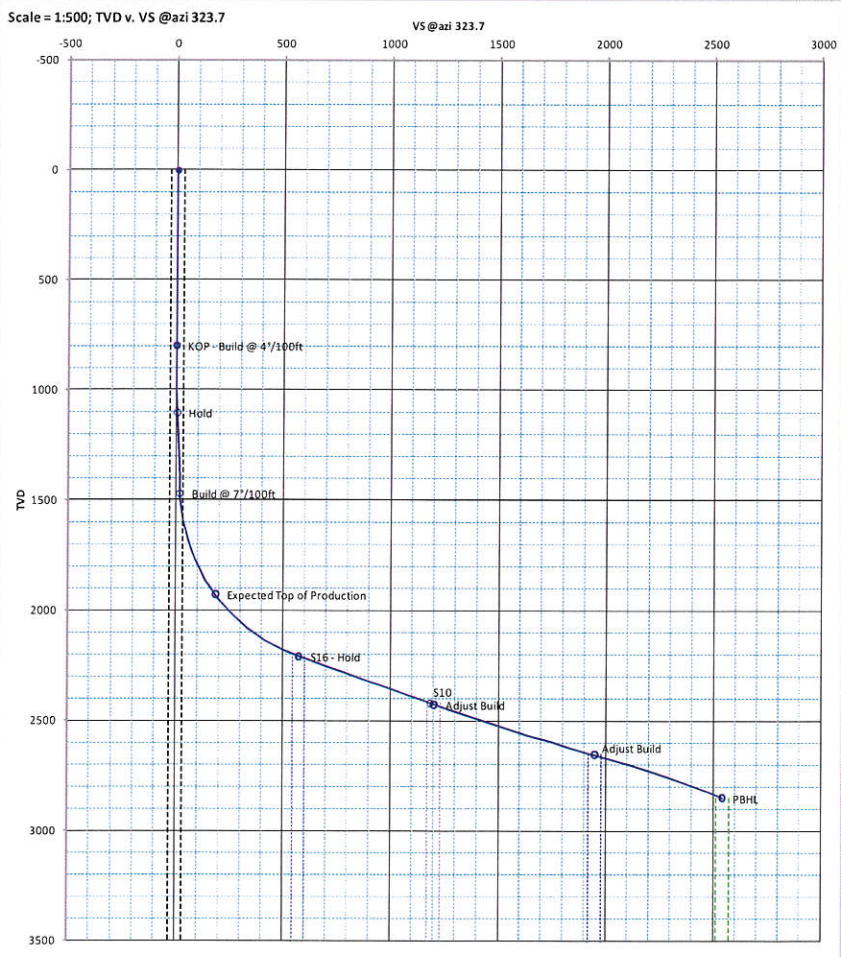
1/14/2013

Well Information										
Rig:		Well: Grouper 09-28 v05				Map Details			Magnetics	
Northing	1194231.117	Northing				System	2 - St. Plane	Decl., °		
Easting	3111816.034	Easting				Datum	1983 - NAD83	Dip, °		
Elevation	5298.000	Elevation				Zone	0502 - Colorado Central	True N		
Latitude	38.365983	Latitude				Scale. Fac	1.000018	Mag N		
Longitude	105.110030	Longitude				Converg.	0.245950	Field, nT		
Units	Feet	TVD Ref						Date		
Target Information										
Type	TVD	+N/S-	+E/W-	Latitude	Longitude	Northing	Easting	Description		
Radius:30	0.00	0.00	0.00	38.365983	105.110030	1194231.117	3111816.034	SHL		
Radius:30	2210.00	599.65	-152.90	38.367630	105.110563	1194830.103	3111660.563	S16 Intersection		
Radius:30	2420.00	1097.26	-534.83	38.368996	105.111895	1195326.071	3111276.503	S10 Intersection		
Radius:30	2650.00	1705.10	-970.29	38.370665	105.113414	1195932.036	3110838.430	S05 Intersection		
Radius:30	2850.00	2191.76	-1312.56	38.372001	105.114608	1196417.227	3110494.078	BHL		
Section Details: Grouper 09-28 v05										
MD	INC	AZI	TVD	NS	EW	VS323.7	BR	TR	DLS	Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00				SHL
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP - Build @ 4°/100ft
1106.10	12.24	44.14	1103.78	23.38	22.69	5.41	4.00	0.00	4.00	Hold
1482.20	12.24	44.14	1471.32	80.62	78.24	18.66	0.00	0.00	0.00	Build @ 7°/100ft
1985.00	38.04	335.46	1929.49	265.68	50.15	184.43	6.51	-4.46	7.00	Expected Top of Production
2473.90	71.00	323.70	2209.99	598.96	-155.38	574.71	6.82	-1.71	7.00	S16 - Hold
3118.98	71.00	323.70	2420.00	1090.52	-516.47	1184.64	0.00	0.00	0.00	S10
3138.90	71.00	323.70	2426.49	1105.70	-527.62	1203.48	0.00	0.00	0.00	Adjust Build
3918.90	74.90	323.70	2655.14	1706.58	-969.01	1949.05	0.50	0.00	0.50	Adjust Build
4543.90	68.65	323.70	2850.52	2184.79	-1320.29	2542.41	-1.00	0.00	1.00	PBHL

Scale = 1:500; +N/S- v. +E/W-



Scale = 1:500; TVD v. VS @azi 323.7



Survey/Planning Report									
Operator	Incremental Oil and Gas			North			Date	14-Jan-13	
Dir. Co.	EPC			Easting			System	2 - St. Plane	
Well Name	Grouper 09-28			Elevation			Datum	1983 - NAD83	
Location	Florence Field			Latitude			Zone	0502 - Colorado Central	
Rig				Longitude			Scale Fac.	1.000018	
Job	Grouper 09-28 v04			Units	Feet		Converg.	0.245950	
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@323.7°	BR	TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0: SHL									
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
800: KOP - Build @ 4°/100ft									
900.00	4.00	44.14	899.92	2.50	2.43	0.58	4.00	44.14	4.00
1000.00	8.00	44.14	999.35	10.00	9.71	2.32	4.00	0.00	4.00
1100.00	12.00	44.14	1097.81	22.46	21.80	5.20	4.00	0.00	4.00
1106.10	12.24	44.14	1103.78	23.38	22.69	5.41	4.00	0.00	4.00
1106.1: Hold									
1200.00	12.24	44.14	1195.54	37.67	36.56	8.72	0.00	0.00	0.00
1300.00	12.24	44.14	1293.26	52.89	51.33	12.24	0.00	0.00	0.00
1400.00	12.24	44.14	1390.99	68.11	66.10	15.76	0.00	0.00	0.00
1482.20	12.24	44.14	1471.32	80.62	78.24	18.66	0.00	0.00	0.00
1482.2: Build @ 7°/100ft									
1500.00	12.42	38.36	1488.71	83.48	80.74	19.48	0.97	-32.47	7.00
1600.00	15.33	11.44	1585.88	104.89	90.05	31.23	2.91	-26.92	7.00
1700.00	20.31	355.15	1681.11	135.18	91.21	54.95	4.98	-16.29	7.00
1800.00	26.20	345.48	1772.98	173.90	84.20	90.30	5.89	-9.67	7.00
1900.00	32.51	339.26	1860.12	220.45	69.13	136.74	6.31	-6.23	7.00
1985.00	38.04	335.46	1929.49	265.68	50.15	184.43	6.51	-4.46	7.00
1985: Expected Top of Production									
2000.00	39.03	334.89	1941.23	274.16	46.23	193.58	6.52	-4.36	7.00
2100.00	45.68	331.62	2015.09	334.21	15.83	259.98	6.65	-3.28	7.00
2200.00	52.40	329.01	2080.62	399.72	-21.62	334.95	6.72	-2.60	7.00
2300.00	59.16	326.85	2136.83	469.71	-65.54	417.36	6.77	-2.17	7.00
2400.00	65.96	324.96	2182.89	543.14	-115.30	505.99	6.80	-1.88	7.00
2473.90	71.00	323.70	2209.99	598.96	-155.38	574.71	6.82	-1.71	7.00
2473.9: S16 - Hold									
2500.00	71.00	323.70	2218.48	618.85	-169.99	599.39	0.00	0.00	0.00
2600.00	71.00	323.70	2251.04	695.05	-225.97	693.94	0.00	0.00	0.00
2700.00	71.00	323.70	2283.60	771.25	-281.95	788.49	0.00	0.00	0.00
2800.00	71.00	323.70	2316.15	847.46	-337.92	883.04	0.00	0.00	0.00
2900.00	71.00	323.70	2348.71	923.66	-393.90	977.59	0.00	0.00	0.00
3000.00	71.00	323.70	2381.27	999.86	-449.87	1072.15	0.00	0.00	0.00
3100.00	71.00	323.70	2413.82	1076.06	-505.85	1166.70	0.00	0.00	0.00
3118.98	71.00	323.70	2420.00	1090.52	-516.47	1184.64	0.00	0.00	0.00
3118.98: S10									
3138.90	71.00	323.70	2426.49	1105.70	-527.62	1203.48	0.00	0.00	0.00
3138.9: Adjust Build									
3200.00	71.31	323.70	2446.23	1152.31	-561.86	1261.30	0.50	0.00	0.50
3300.00	71.81	323.70	2477.87	1228.76	-618.02	1356.17	0.50	0.00	0.50
3400.00	72.31	323.70	2508.67	1305.43	-674.34	1451.30	0.50	0.00	0.50
3500.00	72.81	323.70	2538.65	1382.32	-730.82	1546.70	0.50	0.00	0.50
3600.00	73.31	323.70	2567.80	1459.41	-787.45	1642.36	0.50	0.00	0.50

Survey/Planning Report									
Operator	Incremental Oil and Gas			North			Date	14-Jan-13	
Dir. Co.	EPC			Easting			System	2 - St. Plane	
Well Name	Grouper 09-28			Elevation			Datum	1983 - NAD83	
Location	Florence Field			Latitude			Zone	0502 - Colorado Central	
Rig				Longitude			Scale Fac.	1.000018	
Job	Grouper 09-28 v04			Units	Feet		Converg.	0.245950	
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@323.7°	BR	TR	DLS
3700.00	73.81	323.70	2596.11	1536.71	-844.23	1738.27	0.50	0.00	0.50
3800.00	74.31	323.70	2623.58	1614.20	-901.15	1834.42	0.50	0.00	0.50
3900.00	74.81	323.70	2650.21	1691.88	-958.21	1930.81	0.50	0.00	0.50
3918.90	74.90	323.70	2655.14	1706.58	-969.01	1949.05	0.50	0.00	0.50
3918.9: Adjust Build									
4000.00	74.09	323.70	2676.82	1769.57	-1015.28	2027.20	-1.00	0.00	1.00
4100.00	73.09	323.70	2705.08	1846.87	-1072.07	2123.13	-1.00	0.00	1.00
4200.00	72.09	323.70	2735.00	1923.77	-1128.55	2218.54	-1.00	0.00	1.00
4300.00	71.09	323.70	2766.58	2000.24	-1184.72	2313.42	-1.00	0.00	1.00
4400.00	70.09	323.70	2799.82	2076.25	-1240.56	2407.74	-1.00	0.00	1.00
4500.00	69.09	323.70	2834.69	2151.78	-1296.04	2501.46	-1.00	0.00	1.00
4543.90	68.65	323.70	2850.52	2184.79	-1320.29	2542.41	-1.00	0.00	1.00
4543.9: PBHL									

Geographic Report									
Operator	Incremental Oil and Gas			Northing			Date	14-Jan-13	
Dir. Co.	EPC			Easting			System	2 - St. Plane	
Well Name	Grouper 09-28			Elevation			Datum	1983 - NAD83	
Location	Florence Field			Latitude			Zone	0502 - Colorado Central	
Rig				Longitude			Scale Fac.	1.000018	
Job	Grouper 09-28 v04			Units	Feet		Converg.	0.245950	
MD	INC	AZI	TVD	+N/S-	+E/W-	Northing	Easting	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1194231.117	3111816.034	38.365983	105.110030
0: SHL									
100.00	0.00	0.00	100.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
200.00	0.00	0.00	200.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
300.00	0.00	0.00	300.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
400.00	0.00	0.00	400.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
500.00	0.00	0.00	500.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
600.00	0.00	0.00	600.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
700.00	0.00	0.00	700.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
800.00	0.00	0.00	800.00	0.00	0.00	1194231.118	3111816.034	38.365983	105.110030
800: KOP - Build @ 4"/100ft									
900.00	4.00	44.14	899.92	2.50	2.43	1194233.633	3111818.453	38.365990	105.110022
1000.00	8.00	44.14	999.35	10.00	9.71	1194241.164	3111825.700	38.366010	105.109996
1100.00	12.00	44.14	1097.81	22.46	21.80	1194253.675	3111837.737	38.366045	105.109954
1106.10	12.24	44.14	1103.78	23.38	22.69	1194254.598	3111838.626	38.366047	105.109951
1106.1: Hold									
1200.00	12.24	44.14	1195.54	37.67	36.56	1194268.948	3111852.433	38.366086	105.109902
1300.00	12.24	44.14	1293.26	52.89	51.33	1194284.231	3111867.138	38.366128	105.109851
1400.00	12.24	44.14	1390.99	68.11	66.10	1194299.514	3111881.843	38.366170	105.109799
1482.20	12.24	44.14	1471.32	80.62	78.24	1194312.076	3111893.930	38.366204	105.109757
1482.2: Build @ 7"/100ft									
1500.00	12.42	38.36	1488.71	83.48	80.74	1194314.942	3111896.420	38.366212	105.109748
1600.00	15.33	11.44	1585.88	104.89	90.05	1194336.398	3111905.635	38.366271	105.109716
1700.00	20.31	355.15	1681.11	135.18	91.21	1194366.692	3111906.664	38.366354	105.109712
1800.00	26.20	345.48	1772.98	173.90	84.20	1194405.373	3111899.491	38.366460	105.109736
1900.00	32.51	339.26	1860.12	220.45	69.13	1194451.864	3111884.222	38.366588	105.109789
1985.00	38.04	335.46	1929.49	265.68	50.15	1194497.007	3111865.045	38.366712	105.109855
1985: Expected Top of Production									
2000.00	39.03	334.89	1941.23	274.16	46.23	1194505.471	3111861.085	38.366736	105.109869
2100.00	45.68	331.62	2015.09	334.21	15.83	1194565.397	3111830.426	38.366901	105.109975
2200.00	52.40	329.01	2080.62	399.72	-21.62	1194630.746	3111792.702	38.367081	105.110105
2300.00	59.16	326.85	2136.83	469.71	-65.54	1194700.545	3111748.474	38.367273	105.110259
2400.00	65.96	324.96	2182.89	543.14	-115.30	1194773.753	3111698.403	38.367474	105.110432
2473.90	71.00	323.70	2209.99	598.96	-155.38	1194829.406	3111658.080	38.367628	105.110572
2473.9: S16 - Hold									
2500.00	71.00	323.70	2218.48	618.85	-169.99	1194849.231	3111643.385	38.367682	105.110623
2600.00	71.00	323.70	2251.04	695.05	-225.97	1194925.193	3111587.083	38.367891	105.110818
2700.00	71.00	323.70	2283.60	771.25	-281.95	1195001.154	3111530.780	38.368101	105.111013
2800.00	71.00	323.70	2316.15	847.46	-337.92	1195077.115	3111474.478	38.368310	105.111209
2900.00	71.00	323.70	2348.71	923.66	-393.90	1195153.076	3111418.175	38.368519	105.111404
3000.00	71.00	323.70	2381.27	999.86	-449.87	1195229.037	3111361.873	38.368728	105.111599
3100.00	71.00	323.70	2413.82	1076.06	-505.85	1195304.998	3111305.570	38.368938	105.111794
3118.98	71.00	323.70	2420.00	1090.52	-516.47	1195319.412	3111294.887	38.368977	105.111831
3118.98: S10									
3138.90	71.00	323.70	2426.49	1105.70	-527.62	1195334.547	3111283.668	38.369019	105.111870
3138.9: Adjust Build									
3200.00	71.31	323.70	2446.23	1152.31	-561.86	1195381.002	3111249.236	38.369147	105.111990
3300.00	71.81	323.70	2477.87	1228.76	-618.02	1195457.212	3111192.749	38.369357	105.112185
3400.00	72.31	323.70	2508.67	1305.43	-674.34	1195533.642	3111136.099	38.369567	105.112382
3500.00	72.81	323.70	2538.65	1382.32	-730.82	1195610.285	3111079.291	38.369779	105.112579
3600.00	73.31	323.70	2567.80	1459.41	-787.45	1195687.135	3111022.330	38.369990	105.112776
3700.00	73.81	323.70	2596.11	1536.71	-844.23	1195764.187	3110965.219	38.370202	105.112974
3800.00	74.31	323.70	2623.58	1614.20	-901.15	1195841.434	3110907.963	38.370415	105.113173
3900.00	74.81	323.70	2650.21	1691.88	-958.21	1195918.871	3110850.567	38.370629	105.113372
3918.90	74.90	323.70	2655.14	1706.58	-969.01	1195933.527	3110839.704	38.370669	105.113410

Geographic Report									
Operator	Incremental Oil and Gas			Northing			Date	14-Jan-13	
Dir. Co.	EPC			Easting			System	2 - St. Plane	
Well Name	Grouper 09-28			Elevation			Datum	1983 - NAD83	
Location	Florence Field			Latitude			Zone	0502 - Colorado Central	
Rig				Longitude			Scale Fac.	1.000018	
Job	Grouper 09-28 v04			Units	Feet		Converg.	0.245950	
MD	INC	AZI	TVD	+N/S-	+E/W-	Northing	Easting	Latitude	Longitude
3918.9: Adjust Build									
4000.00	74.09	323.70	2676.82	1769.57	-1015.28	1195996.309	3110793.169	38.370842	105.113571
4100.00	73.09	323.70	2705.08	1846.87	-1072.07	1196073.373	3110736.049	38.371054	105.113769
4200.00	72.09	323.70	2735.00	1923.77	-1128.55	1196150.030	3110679.232	38.371265	105.113966
4300.00	71.09	323.70	2766.58	2000.24	-1184.72	1196226.255	3110622.734	38.371475	105.114162
4400.00	70.09	323.70	2799.82	2076.25	-1240.56	1196302.025	3110566.572	38.371684	105.114357
4500.00	69.09	323.70	2834.69	2151.78	-1296.04	1196377.318	3110510.765	38.371891	105.114550
4543.90	68.65	323.70	2850.52	2184.79	-1320.29	1196410.215	3110486.382	38.371982	105.114635
4543.9: PBHL									