

MUD PROPERTIES-----WATER BASE

WELL NAME: KAROON GAS - UPSTREAM PERTROLEUM MEGASCOLIDES - 1

AREA: PEP 162 - EL 4537

CONTRACTOR: HUNT ENERGY RIG 2

CONTRACTOR: CONTINENTAL ENERGY, INC.																																	
D A Y	D	D	M	RHEOLOGY										FILTRATE				DRILLING FLUID PROPERTIES										FILTRATE ANALYSIS					
	A	A	E	U	F.	P.V.	Y.P.	GEL	API	HPHT	C			S							SG	ASG											
	T	P	D				10	FLUID	FLUID	A			CORR	A	M					Ca++													
	E	T					SEC /	LOSS	LOSS	K	SOLIDS	OIL	WATER	N	B			ALKALINITY	Cl-	Mg++	BRINE	SOLIDS											
		H	W	V			10			E				D	T	pH	Pm	Pf / Mf															
No	2004	m	ppg	s	MIN																				mg/l		mg/l						
1	17-Nov	18	8.8	45	14	23	10 / 21	N/T	N/T	N/T	3.5	1E-06	96.5	0.5	20.0	8.2	0.10	0.15 / 1.2	500	40	1.0007	2.60											
Arr. on location from Melb. @ 1700hrs, Nov 15. Operation rigging up and rig repairs / improvements. Attend Pre-Spud Meeting. Drill rat+mouse holes, bypassing de-sander/de-silter tanks (MT). Well spud at 1330 hrs. Drill to 51m, DS 1/8°. Drill to 61m @ midnight. Prepare 180bbbs spud mud in active and pill tanks. Lost 15bbbs downhole while drilling one jt. DC to 51m. Add 4sx KWIK																																	
2	18-Nov	271	9.4	53	16	24	8 / 29	11.5	N/T	2 / -	8.0	0	92.0	0.1 / 0.25	25.0	9.1	0.15	0.1 / 1.2	650	40	1.0007	2.60											
Drill to 173m, DS @ 161m - 1.4°; drill to 285m @ 2400 hrs. Decision to lengthen SFC mud system and include solids control tanks and run S/C equipment.(excessive sand content). Reduced Sand content in suction tank from 2.5% to 0.25% in 4 hours. Downhole losses abated after midnight. Water and bentonite added to maintain SFC																																	
3	19-Nov	482	9.6	65	19	31	9 / 30	10.5	N/T	2 / -	9.5	0	90.5	0.25 / 0.5	28.0	8.8	0.30	0.10 / 0.3	550	30	1.0006	2.60											
Drill to 361m, DS @ 349 - 3/4°, drill to 399m, Circulate hole clean, make wiper trip to DC (189m). Hole tight to 342m, remaing tight in parts when POOH; clear when RIH. Tagg fill at 382m, clean out hole to bottom, drill ahead to 486m at 2400 hrs. Maintain surface volume, use Barite weighted pill for wiper trip.																																	
4	20-Nov	508	9.5	58	20	30	7 / 22	11.4	N/T	3 / --	9.0	0	91.0	0.5	22.0	9.0	0.25	0.1 / 0.25	450	40	1.0005	2.56											
Drill to 508m; CO + DS @ 501m - 1/2°. Wipertrip to collars, hole tight in spots – problem area at 342m. Ran back to bottom, Ream + Wash 342 to 351m, then little resistance to 1.5m off bottom (fill). CO and POH for CSG. Run 42 joints of 36#, J-55, 9 5/8"CSG (BTC) without problems to 2m below setting depth of 504m. Install cementing head, circulated casing, Pressure-test cementing lines. Pump 20bbl water spacer. Cement casing with 97bbbs 12.5ppg lead-slurry and 30bbbs 15.6ppg tail-in. Drop plug and displace with mud - last 5bbls of displacement with water.																																	
5	21-Nov	508	9.5	36	10	7	1 / 3	15.0	N/T	2 / --	8.4	0	91.6	0.1	20.0	9.0	0.25	0.10 / 0.20	300	30	1.0003	2.60											
After WOC back out landing jt, start installation, function and pressure testing of BOP's. Changed shaker screens to 84-mesh. Cleaned out in-active tanks. No other																																	
6	22-Nov	550	9.2	42	14	16	5 / 16	11.5	N/T	2 / --	6.5	0	93.5	-- / 0.75	15.0	11.2	1.45	0.5 / 1.0	700	160	1.0008	2.60											
WOC, back out landing jt., install braden-head; install, function- + pressure test BOP's. Make up new BHA: 8½ " REED TCII mill-tooth bit, 3x13 jets. RIH to 478m and tag TOC. Displace to water, drill out shoe track. After connection at 503m, string plugged. POH + locate old, hard chunks of CMT small gravel size up to 1.5" Ø in string. Clean out blockage, RIH + drill to 511m, circulate hole clean, run Formation Leak-Off test with 8.8ppg fluid in the hole. No Leak-off with recorded with 17ppg equiv. MW. Resume drilling and displace to previously used Bentonite system. Drill to 558m @ 2400 hrs. Drill out CMT with muddy water, final weight for leak-off test 8.8ppg. Displace to Bentonite which had been treated with Sodium																																	
7	23-Nov	747	9.7	38	14	11	2 / 8	11.5		2 / --	10.3	0	89.7	0.5 / 0.25	20.0	10.5	0.90	0.18 / 0.6	800	60	1.0009	2.59											
Drilled to 643m, repair swivel wash-pipe. Drill to 671m, DS @ 660m - 1 1/8° . Drill to 747m, CO; Mix and pump heavy pill, POOH for BHA change. Make up Bentonite pre-mix in pill tank to maintain SFC volume. No further mud treatment at this time. Mix Barite-based heavy pill.																																	
8	24-Nov	841	9.8	43	17	17	6 / 8	7.5	N/T	2 / --	11.0	0	89.0	0.15 / 0.15	27.5	8.2	0.85	0 / 0.55	750	180	1.0009	2.60											
Make up new BHA w/- same bit and stabilisers added. RIH to 640m, bit took weight, put on kelly, ream and wash to botttom. Resume drilling - drill to 850m at 2400 hrs. Add Citric Acid to lower pH and PAC-R to maintain Funnel Vis @ ~43sec/qt. Add water @ 6bbs/hour for 10hours to maintain SFC volume; on occasion minimal run-off @ shakers 1-2 bbls/hr,																																	
9	25-Nov	917	9.9	42	15	14	5 / 7	8.0	N/T	1 / -	11.7	0	88.3	0.15 / 0.25	25.0	8.0	0.64	0.0 / 0.42	700	200	1.0008	2.60											
Drill to 890m, CO, run DS @ 879m - 3°. Pump heavy pill, POH for bit change. First 5 stds. pull tight, hole clear after that. Make up NB4, 8 1/2" VAREL, CHO4EMS, 3x12. RIH to 502m, slip+cut 35ft drill line. Cont RIH. Hole tight at 794m, work through w/- out circulating. At 878m put on Kelly, ream+wash 12m to bottom. Resume drilling, reach 926m at 2400hrs.																																	
10	26-Nov	1,006	9.9	43	13	19	6 / 5	9.0	N/T	2 / -	11.7	0	88.3	0.10 / 0.25	27.5	8.1	0.45	0.0 / 0.60	500	200	1.0006	2.61											

MUD PROPERTIES-----WATER BASE

WELL NAME: KAROON GAS - UPSTREAM PERTROLEUM MEGASCOLIDES - 1

AREA: PEP 162 - EL 4537

CONTRACTOR: HUNT ENERGY RIG 2

DAY	D	D	M	DRILLING FLUID PROPERTIES																		
	A	E	U	RHEOLOGY							FILTRATE				FILTRATE ANALYSIS							
	T	P	D	F.	P.V.	Y.P.	GEL	API	HPHT	C				S							SG	ASG
	E	T					10	FLUID	FLUID	A				CORR	A	M	ALKALINITY			Ca++		
		H	W	V			SEC /	LOSS	LOSS	K	SOLIDS	OIL	WATER	N	B				Cl-	Mg++	BRINE	SOLIDS
			T	I			10			E				D	T	pH	Pm	Pf / Mf				
No	2004	m	ppg	S			MIN												mg/l	mg/l		
Drill to 1006m, CO sample. circulated out. Decision to change to wire-line retrievable coring. Pull back to 1001m, run DS. 2 1/4°. Rig up HALLIBURTON to make dummy run with core barrel – OD: 2.5” (64mm). RIH (w/line) to 892m from SFC, unable to pass. POOH w/- wire line, mix + pump a barite based heavy pill; POOH with drill string. Unable to find obstruction. Laid out Nr 4 bit – graded as green - no appreciable or visible wear. Fluid treatment consisted of water addition to maintain SFC volume and addition of XC Polymer to maintain viscosity and increase low-end rheology. A 25kg sack of Bicarb was also added to the system in an attempt to reduce the Ca++ content – in the absence of Soda Ash on location. Citric Acid used to treat																						
11	27-Nov	1,008	9.9	52	19	27	7 / 15	10.0	N/T	2 / --	11.0	0	89.0	0.25 / 0.25	30.0	8.0	0.40	0.0 / 0.52	550	120	1.0006	2.71
Make up Core bbl + RIH. Attempt to install inner bbl, unable to pass 882m. POOH, find second DC from bottom with undersized ID. Change out DC, RIH to 1002m. Fill drill string, break circulation and circulate for 20 minutes. Rig up wire-line, install inner core barrel. Wash to bottom at 1006m and commence coring. Coring at 1008.9m at midnight. Add TORQ-FREE																						
12	28-Nov	1,048	9.6	40	12	12	4 / 8	11.0	N/T	2 / --	9.5	0	90.5	0.10 / 0.20	22.5	8.0	0.30	0.0 / 0.35	500	160	1.0006	2.60
While coring ROP slowed to zero @ 1009m, flush bit with 2 x 5bbls water, ROP improves. Cut core 1 to 1014.1m, recover 99.8%. For the purpose of core recovery, the start of coring was revised to 1005m. Cut core 2 to 1023.2m, recover 97.5%; cut core 3 to 1032.8m, recover 91.3%; cut core 4 to 1041.7m, recover 103.7%; cut core 5 to 1047.1m, recover 100%; flush bit with 5 x 5bbls drill water pills, while cutting core 5 to 1050.4m at 2400 hrs. Adding water to system, to control density, adding LIQUI-SPERSE (0.2 ppb) to reduce viscosity. Running de-silter																						
13	29-Nov	1,090	9.6	45	15	14	4 / 10	10.0	N/T	1 / --	9.5	0	90.5	0.10 / 0.25	20.0	8.0	0.25	0.0 / .65	500	100	1.0006	2.60
Continued coring, core 6 to 1056.0m – recovered 100%; core 7 to 1061.0m – recovered 91.3%; core 8 to 1070.4m – recovered 97.2%; core 9 to 1079.7m – recovered 102.8%; core 10 to 1089.1m – recovered 98.8%; Cutting core 11 at 1096m @ 2400 hrs. Fluid treatment in effect dilution, as 5bbls water pills used to flush core head and small water addition compensate for																						
14	30-Nov	1,113	9.7	43	14	13	3 / 10	10.0	N/T	1 / --	9.9	0	90.1	TRC / 0.1	22.5	8.0	0.36	0.0 / 0.68	450	100	1.0005	2.66
Cut core 11 to 1098.7m, recover 100.6%, cut core 12 to 1108.0m, recover 88.2%. Pump heavy pill, Make wiper trip to 918mm, hole conditions good, run back to bottom, install 2" drilling plug IN CORE HEAD, drill conventionally 2m to 1110m. Pump heavy pill, POOH with bit Nr 5 (Ttl 47 hrs run). Lay out core barrel. Make up new BHA with RR VAREL bit Nr 4. RIH, filling string @																						
15	1-Dec	1,204	9.6	45	13	15	4 / 12	12.0	N/T	1 / --	9.4	0	90.6	0.15 / 0.25	20.0	8.2	0.50	0.0 / 0.55	450	120	1.0005	2.61
Drill to 1134m, hole packs off @ 1122m while making connection. Work and free string. Continue drilling to 1210m, CO and run DS @ 1198m - 3°. Resume drilling, bit at 1211.1m @ 2400 hrs. Maintain same fluid treatment regime, observe increased filtrate. Recommend addition of 0.25 to 0.5 ppb LIQUI-SPERSE, if no more coals will be drilled through. Dump Sand Trap and Settling																						
16	2-Dec	1,296	9.6	41	13	12	4 / 9	11.0	N/T	1 / --	9.4	0	90.6	0.15 / 0.26	22.5	7.5	0.28	0.0 / 0.50	450	200	1.0005	2.61
Drill to 1257.3m, CO, pump heavy Barite-based pill, make check trip to 1058m. Hole condition good, run back to bottom - resume drilling. At 1260.9m stop to repair leaking swivel. Resume drilling, reach 1297m @ 2400 hrs More reactive clays required the addition of LIQUI SPERSE, eventually also increased water addition. Aeration of fluid needed addition of defoamer. Been																						
17	3-Dec	1,372	9.5	40	10	10	3 / 8	15.0	N/T	3 / --	8.7	0	91.3	0.20 / 0.30	25.0	8.2	0.45	0.0 / 0.9	500	100	1.0006	2.60
Drill to 1371.8m, CO, run Carbide Lag check, run Deviation survey, POOH for bit change. Drilled formation becoming more reactive and dispersive. Increasing water addition, also adding dispersant and de-foamer. Substantial water addition to reduce fluid density, with only limited results. Citric acid used for treatment of sludge from sump, prior to disposal.																						
18	4-Dec	1,403	9.6	37	9	6	2 / 8	N/C	N/T	3 / --	9.5	0	90.5	0.20 / 0.40	22.5	8.2	0.25	0.0 / 0.40	360	160	1.0004	2.60

MUD PROPERTIES-----WATER BASE

WELL NAME: KAROON GAS - UPSTREAM PERTROLEUM MEGASCOLIDES - 1

AREA: PEP 162 - EL 4537

CONTRACTOR: HUNT ENERGY RIG 2

D A Y No	D E P T H 2004	D E P T H m	M U D W E I G H T ppg	DRILLING FLUID PROPERTIES										FILTRATE ANALYSIS										SG	ASG
				RHEOLOGY						FILTRATE															
				F.	P.V.	Y.P.	GEL	API	HPHT	C				S											
				W	V		SEC /	LOSS	LOSS	K	SOLIDS	OIL	WATER	A	M		ALKALINITY		Ca++		BRINE	SOLIDS			
				T	I		10			E				N	B			Cl-	Mg++						
							MIN							D	T	pH	Pm	Pf / Mf	mg/l	mg/l					
POOH to SFC, recover bit well worn (8-8-LT-A-F-X-CT-HR), Make up new BHA with same make+type bit, S/N 188664 and add 2 x 6.½"DC (18.74m); RIH to bottom, filling string every 20 stands. Bit took weight at 1370m, ream to 1380m and resume drilling, stop at 1390.2m, circulate Hi-Vis Pill around, carry out drawworks repairs. Resume drilling, continue to 1410m at Midnight. Add 0.4 lbs/bbl LIQUI-SPERSE to de-flocculate system. Continue w/-water additions to reduce mudweight. Mix 30bbls XTRA-SWEEP Hi-Vis Pill at 1.2 lbs/bbl. Activated de-sander,																									
19	5-Dec	1,489	9.5	33	7	3	2 / 6	N/C	N/T	3 / --	8.8	0	91.2	0.10 / 0.15	20.0	8.4	0.10	0.0 2/ 0.85	240	120	1.0003	2.60			
Drill to 1494.3m at 2400 hrs. Continue treatment of fluid for foaming, substantial water addition keeps down density. Water addition is being reduced, when Biocide addition is started in prior																									
20	6-Dec	1,542	9.8	40	11	10	4 / 13	12.0	N/T	2 / --	10.6	0	89.4	0.15 / 0.25	25.0	8.2	0.07	0.0 / 0.64	260	120	1.0003	2.60			
Drill to 1542m, CO, DS @ 1530m - 3°, POOH. Recovered bit was graded as: 8 - 8 - BT - A - F - 1 - JD - PR. Prepare for and carry out BOP tests. Start treatment for fluid-loss control, add																									
21	7-Dec	1,583	9.8	43	14	6	5 / 15	9.5	N/T	2 / --	11.0	0	89.0	0.1 / 0.2	22.5	7.8	0.12	0.0 / 0.80	550	160	1.0006	2.60			
Carried out BOP tests, RIH w/- NB8, a REED TD43, 12-13-13 jets, to 1542m, no fill, resume drilling and reach 1587m at midnight. Continue treatment ro reduce fluid loss, adding a further 1.6ppb AUS-DEX. Also try to put de-sander back on line alongside de-silter - to improve solids control, but insufficient pump pressure defeats that attempt.																									
22	8-Dec	1,642	9.8	42	12	10	6 / 19	7.0	N/T	2 / --	10.6	0	89.4	0.1 / 0.25	20.0	9.3	0.42	0.05 / 0.65	300	100	1.0003	2.60			
Drill to 1627m, CO sample, resume drilling, reach 1647m at midnight. Ongoing treatment for improved fluid-loss control. Add LIQUI-SPERSE to keep visocsity below 46sec/qt. After it arrived on location, add 8x25lt (~0.65ppb) defoamer. Effect instantaneous. Substantial improvement in pump output and stand pipe pressure.																									
23	9-Dec	1,718	9.8	40	7	9	4 / 15	9.5	NT	2 / --	11.0	0	89.0	0.1 / .25	22.5	8.0	0.05	0.0 / 0.45	240	160	1.0003	2.60			
Drill to 1721m, mix heavy barite-based pill, prepare to POOH for bit change. Continue treatment to maintain fluidloss and reduce foaming. Mix heavy barite pill																									
24	10-Dec	1,725	9.8	37	8	5	3 / 8	8.7	NT	2 / --	10.4	0	89.6	0.1 / 0.25	22.5	9.0	0.35	0.1 / 0.95	600	100	1.0007	2.63			
POOH bit #8, find washed-out connections in BHA, lay out 8x6½"DC. Bit graded as: 2-2-NO-3-1-NO-HR. Make up NB9, a REED TD53, IADC Code 537, S/N J65742, 12-13-13 jets, pick up replacement DC, break and check all connections. RIH, fill string every 20 stands. RIH to 1721m, break circulation, resume drilling, reach 1730m at midnight. Adding Caustic Soda to raise pH																									
25	11-Dec	1,781	9.8	44	11	10	3 / 14	7.0	NT	2 / --	11.0	0	89.0	TRC / 0.1	22.5	9.5	0.45	0.6 / 1.0	380	60	1.0004	2.60			
Drill to 1783m at 2400 hrs. Maintaining AUS-DEX, Defoamer and Caustic Soda addiitons; desilter continues to operate effectively - even if running on three cones only. Water addition just sufficient to maintain SFC volume. When Funnel viscosity drops below 36 seconds, adding ¼lb/bbl of PAC-R.																									
26	12-Dec	1,816	9.8	44	10	10	4 / 21	7.0	NT	2 / --	11.0	0	89.0	TRC / 0.15	25.0	9.2	0.20	0.10 / 0.75	250	80	1.0003	2.60			
Drill to 1815m, observe drop in pump pressure, investigate possible causes: Run Carbide lag check to check for wash-out, check out pumps, SFC connections etc., unable to establish a cause; run DS @ 1804m - 2°. Drill to 1816m, SPP still below calc. Values. Mix + pump Barite-based heavy pill, POOH. When breaking out jars, an est. 5lt hydraulic oil drains from string. Rig up to																									
27	13-Dec	1,845	9.9	42	10	8	4 / 17	7.5	NT	2 / --	11.8	0	88.2	0.1 / 0.25	22.5	9.6	0.40	0.09 / 0.76	260	60	1.0003	2.60			
While POOH the remaining BHA, find one dry connection between DC's, lay out affected DC. Make up BHA, using the same bit, no jars and XO's. RIH to bottom at 1816m, resume drilling. Reach 1850.8m at 24:00 hrs. Continue same treatment regime with Biocide, Caustic Soda and AUS-DEX. Citric Acid used for treatment of disposal fluid.																									
28	14-Dec	1,881	9.9	39	9	7	2 / 14	7.4	NT	2 / --	11.8	0	88.2	TRC / 0.2	20.0	8.6	0.30	0.05 / 0.75	330	80	1.0004	2.60			
Drill to 1886m, CO sample; drill to 1890m, CO sample - decision to cut core. Mix and pump heavy Barite-based pill, POOH. Ongoing treatment with Biocide, De-foamer, Fluid-loss control, pH																									

MUD PROPERTIES-----WATER BASE

WELL NAME: KAROON GAS - UPSTREAM PERTROLEUM MEGASCOLIDES - 1

AREA: PEP 162 - EL 4537

CONTRACTOR: HUNT ENERGY RIG 2

DAY	D	D	M	DRILLING FLUID PROPERTIES																		
	A	A	E	U	RHEOLOGY						FILTRATE				FILTRATE ANALYSIS							
	T	P	D	F.	P.V.	Y.P.	GEL	API	HPHT	C				S							SG	ASG
	E	T					10	FLUID	FLUID	A				CORR	A	M	ALKALINITY			Ca++		
	H	W	V			SEC /	LOSS	LOSS	K	SOLIDS	OIL	WATER	N	B			Cl-	Mg++	BRINE	SOLIDS		
			T	I		10				E				D	T	pH	Pm	Pf / Mf				
No	2004	m	ppg	S			MIN												mg/l	mg/l		
29	15-Dec	1,917	9.9	42	11	8	3 / 14	6.8	NT	1	11.8	0	88.2	0.10 / 0.25	22.5	9.6	0.26	0.05 / 0.4	400	95	1.0005	2.60
Check all tools for correct ID. Make up coring BHA, w/- CB Nr 2, DBS/SEC FC 264, RIH + tag bottom @ 1889.6m. Circ. hole, make W/line dummy run, no obstructions. Use W/line to install inner core barrel. Start coring sequence Nr 2, cut 1st core to connection. at 1897.3m; core 2 to 1896.8m and core 3 to 1915.9m. Retrieve cores successfully and after last core, mix heavy barite pill and POOH. Attempt to lower Fluid loss per request of Geology Dept., minimum level reached was 6.8cc; was advised, that no further action on that request was needed. Adding Biocide																						
30	16-Dec	1,940	9.9	41	12	5	3 / 16	7.0	NT	2 / --	11.7	0	88.3	0.1 / 0.25	20.0	9.5	0.35	0.10/ 1.0	450	120	1.0005	2.61
Lay out coring equipment, slip and cut 350ft drilling line. Make up BHA, using the previously used REED TD53 bit, and one near-bit stabiliser. RIH to 1888m, pick up Kelly, ream+wash to 1916m, resume drilling. At 1920m lose pump pressure, work on mud pumps and remov debris from a valve seat. Drill to 1944m at 2400 hrs. Maintain addition of Caustic Soda and Biocide,																						
31	17-Dec	2,000	9.9	44	0	0		6.8	NT	2 / --	11.4		88.6		22.5						0.0000	2.60
Drill to 2000m, well @ TD. CO, make 5std wiper trip, hole condition good. Run DS @ 1889m - 1.1/2°. Mix and pump heavy Barite pill, POOH for E-Logs. By 0230hrs de-silter pump output decreased sufficiently for desilter NO LONGER to function properly. Shut down de-silter. Side effect: Aeration of the mud @ SFC decreases, mud pump output improves. All mudmaterial (bar listed exceptions) transported off lease by + to P STOITSE TPT, WELSHPOOL. Mud chemicals remaining on location: 56sx Citric Acid (for sump-disposal treatment); 72sx Barite (for pills); 7 cans each of Biocide and Caustic Soda - (for treatment of mud against bacterial degradation). One damaged sack Sodium Bicarbonate. Mud test kit packed up and shipped out as well.																						