



Find Some Oil Limited

WIRELINE LOGGING Observers Log / Time Summary

GENERAL WELL DATA

Well Name : EXAMPLE WELL-DEMO	Suite : 1	Rig : SEDCO 500
Permit : Block ABC	Date 1st Log : 29-Nov-2002	GL Elevation :
Latitude : 004° 10' 59.275" North	Date Last Log : 03-Dec-2002	Water Depth : 295.0 (ft)
Longitude : 106° 14' 59.598" East	Depth Ref. : RT	Witnesses : E. Makepeace, B. Pangarso
Easting (m) : 638,724.160 E	Depth Ref. Elev. : 65.0 (ft)	Engineers : A. Marr, H. Sagala, R. Sanchez, G. Young
Northing (m) : 462,480.263 N	Service Comp. : Logging Company E	
UTM Zone : 48		
Geo. Datum : WGS 1972		
Ellipsoid : WGS-1972		

HOLE DATA

Hole Size : 8.50 (in)	Seabed Temp : 65.0 (°F)	Max Hole Dev : 4.4 (°)
Driller's Depth : 6,480.0 (ft)	Surface Temp : 80.0 (°F)	Max Dev Depth : 4,300.0 (ft)
Logger's Depth : 6,472.0 (ft)	Max BHT : 251.0 (°F)	
Survey Type : Conventional		

Hole Problems : No Hole problems

Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
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Run Number : 1.1 HRAI-WSXD-SDL-DSN-CSNG

29 Nov 2002	11:30	12:00	0.49	0.49	Logging	Rig up sheaves.
	12:00	13:00	1.00	1.49	Logging	Rig up Quint stack.
	13:00	13:30	0.50	1.99	Logging	Load sources, run down to mud line and set compensator.
	13:30	14:50	1.33	3.32	Logging	RIH to TD - logging down at 120ft/hr (acquire data only, no processing).
	14:50	15:10	0.33	3.65	Logging	Log Repeat Section at TD.
	15:30	20:30	5.00	8.65	Logging	Log 15 ft/hr to 3800 ft, then 30ft/hr to CS
	20:30	20:55	0.42	9.07	Logging	Run back down to 1800 ft for repeat section using lower dipole frequency (trying to improve shear DT).
	20:55	21:10	0.25	9.32	Logging	Log repeat section using Dipole frequency of 1.2khz to try to reduce lost shear DT.
	21:10	21:40	0.50	9.82	Logging	GR through casing to mudline.
	21:40	22:00	0.33	10.15	Logging	Compensator off and POH
	22:00	23:00	1.00	11.15	Logging	Rig down Quint stack.

Cumulative Run Time (Hrs): 11.15

Run Number : 1.2 RDT

29 Nov 2002	23:30	00:30	0.99	0.99	Logging	Connect RDT and power up.
30 Nov 2002	00:30	01:30	1.00	1.99	Logging	Function test RDT tool.
	01:30	01:45	0.25	2.24	Logging	RIH to 300ft and set compensator
	01:45	02:00	0.25	2.49	Logging	RIH to casing shoe.
	02:00	02:30	0.50	2.99	Logging	Stabilise temperature
	02:30	02:45	0.25	3.24	Logging	RIH for correlation.
	02:45	03:15	0.50	3.74	Down Time	Unable to power tool - looks like a short circuit. POOH
	03:15	05:40	2.42	6.16	Down Time	Troubleshoot RDT tools, and change logging head.
	05:40	06:30	0.83	6.99	Down Time	RIH to casing shoe.
	06:30	06:50	0.33	7.32	Logging	Correlate to first pass.
		06:50	18:30	11.67	18.99	Logging

Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
30 Nov 2002	18:30	19:45	1.25	20.24	Logging	POOH to 4080 ft and correlate depth for first sample.
	19:45	20:30	0.75	20.99	Down Time	Pump out for 45 mins.
	20:30	22:00	1.50	22.49	Down Time	Suspect bad flushing pump - cannot overpressure sample. POOH to pick up remaining sample chambers.
	22:00	23:00	1.00	23.49	Down Time	Change Flushing Pump Section and add second MCS multi sample section. Test operation.
1 Dec 2002	23:00	01:15	2.25	25.74	Down Time	RIH to sample depth at 4123 ft.
	01:15	02:50	1.58	27.32	Down Time	Still unable to sample - thought due to equalising valve not sealing.
	02:50	03:45	0.92	28.24	Down Time	POOH to reverse multi sample modules and manually seal valve.
	03:45	04:30	0.75	28.99	Down Time	Reverse order of multi sample sections (one with good valve at top), ensure other is sealed and test.
	04:30	05:15	0.75	29.74	Down Time	RIH
	05:15	05:30	0.25	29.99	Down Time	Correlate depth.
	05:30	06:30	1.00	30.99	Logging	Sample @ 4123 ft. 45 mins pumpout.
	06:30	07:15	0.75	31.74	Down Time	Sample at 4080 ft. 45 mins pumpout. After opening chamber closed dump valve but pressure did not build up. Sample chamber contents uncertain.
	07:15	08:00	0.75	32.49	Down Time	Attempt to trouble shoot pumpout/dump valve problem.
	08:00	08:30	0.50	32.99	Down Time	POH RDT
	08:30	09:00	0.50	33.49	Down Time	RD RDT for complete service and troubleshooting.

Cumulative Run Time (Hrs): 44.64

Run Number : 1.3 RSCT

1 Dec 2002	09:00	09:35	0.58	0.58	Logging	RU RSCT Coring Tool
	09:35	09:55	0.33	0.91	Logging	RIH and set compensator.
	09:55	10:15	0.33	1.24	Logging	RIH with RSCT
	10:15	10:30	0.25	1.49	Logging	Correlate depth
	10:30	14:30	4.00	5.49	Logging	Coring - attempted 12 depths but generally unable to penetrate. One shale QC point cored well.
	14:30	15:30	1.00	6.49	Down Time	POOH to try a different bit.
	15:30	16:00	0.50	6.99	Down Time	Lay down RSCT to check recovery. 3 cores (1 shale).
	16:00	16:40	0.67	7.66	Down Time	Make up new bit and pick up tools.
	16:40	16:55	0.25	7.91	Down Time	RIH and compensate.
	16:55	17:30	0.58	8.49	Down Time	Correlate depth.
	17:30	19:00	1.50	9.99	Down Time	Coring. Bit performance slightly better, but cannot cut in shale and no indication of recovery. 3 cores attempted at 2 depths.
	19:00	19:55	0.92	10.91	Down Time	POOH to change bit again.
	19:55	20:30	0.58	11.49	Down Time	Lay down tool and check recovery - 3 cores.
	20:30	20:50	0.33	11.82	Down Time	Fit new (unconsolidated formation) bit and rig up tools.
	20:50	22:10	1.33	13.15	Down Time	Compensate and RIH
	22:10	22:20	0.17	13.32	Down Time	Correlate depth.
22:20	04:00	5.67	18.99	Logging	Coring. Initially much better performance. Later cores got slower as tool got hot. 10 depths attempted, good indications from 8, 2 possible.	
2 Dec 2002	04:00	04:50	0.83	19.82	Logging	POOH RSCT Tool
	04:50	05:30	0.67	20.49	Logging	Lay down RSCT tool and check core recovery. 8 cores recovered.

Cumulative Run Time (Hrs): 65.13

Run Number : 1.2a RDT

Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
2 Dec 2002	05:30	06:15	0.74	0.74	Down Time	RU RDT again.
	06:15	07:00	0.75	1.49	Down Time	Check RDT at surface.
	07:00	07:45	0.75	2.24	Down Time	RIH with RDT
	07:45	08:00	0.25	2.49	Down Time	Correlate to depth
	08:00	08:45	0.75	3.24	Down Time	Sample at 4080 ft. Pump out for 30 mins at 20cc/min - 26.6 L, sample to bottle #1 and overpressure to 2366psi.
	08:45	09:15	0.50	3.74	Logging	RIH to 5000 ft
	09:15	10:00	0.75	4.49	Down Time	Lost telemetry with RDT tool. Tried swapping modem unit and power down/power up.
	10:00	11:15	1.25	5.74	Down Time	POOH RDT
	11:15	11:45	0.50	6.24	Down Time	Rig Down RDT
Cumulative Run Time (Hrs):						71.37
Run Number : 1.4 SST-500 VSP						
2 Dec 2002	11:45	12:30	0.75	0.75	Logging	Rig up SST-500 array (bottom weight, 5 shuttles plus top hydraulic power module).
	12:30	13:00	0.50	1.25	Logging	Check tools at surface.
	13:00	13:15	0.25	1.50	Logging	Set compensators.
	13:15	14:20	1.08	2.58	Logging	RIH. Take test levels at 2504 ft and 5460 ft on way down.
	14:20	17:45	3.42	6.00	Logging	VSP at 33 ft level spacing TD - 1920 ft then checkshot with 500 ft spacing to surface.
	17:45	18:00	0.25	6.25	Logging	POOH with VSP string.
	18:00	18:30	0.50	6.75	Logging	Rig down SST-500
Cumulative Run Time (Hrs):						78.12
Run Number : 1.2c RDT						
2 Dec 2002	18:30	19:15	0.75	0.75	Down Time	Rig up RDT.
	19:15	20:15	1.00	1.75	Down Time	Function test RDT at surface.
	20:15	21:00	0.75	2.50	Down Time	RIH with RDT
	21:00	21:20	0.33	2.83	Down Time	Correlate depth
	21:20	22:20	1.00	3.83	Logging	Planned Sample at 4179 ft. Pump seems to be leaking internally on downstroke, Ok on upstroke (50% duty cycle). Able to overpressure for sampling - decide to continue. Mobility only 5md/cp - move the tool.
		22:20	23:00	0.67	4.50	Logging
	23:00	23:20	0.33	4.83	Logging	Correlate to check depth.
	23:20	00:00	0.67	5.50	Logging	Sample at 4963 ft. Pumpout 16.6 L (30 mins) and overpressure to 2700 psi.
3 Dec 2002	00:00	00:15	0.25	5.75	Logging	Pull up and correlate.
	00:15	01:00	0.75	6.50	Logging	Sample at 4219 ft. Pump out for 30 mins (34.2 L) at 25 cc/sec.
	01:00	01:55	0.92	7.42	Logging	Sample at 4048 ft. Pumpout 30 mins (40.5 L) at 30 cc/sec. Overpressure sample to 2668 psi.
	01:55	02:45	0.83	8.25	Logging	Sample at 4179 ft. This is a repeat sample (using spare chamber) at this depth due to high importance. Pumpout 45 minutes (63.2 L) and overpressure sample to 2827 psi.
	02:45	03:00	0.25	8.50	Logging	Perform bubble point analysis at 4179 ft to verify water or gas. Estimated bubble point 1499.5 psi indicates probable fluid being sampled.
	03:00	03:30	0.50	9.00	Logging	POOH with RDT

Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
	03:30	04:15	0.75	9.75	Logging	Rig down RDT
	04:15	04:30	0.25	10.00	Logging	Rig down Halliburton.

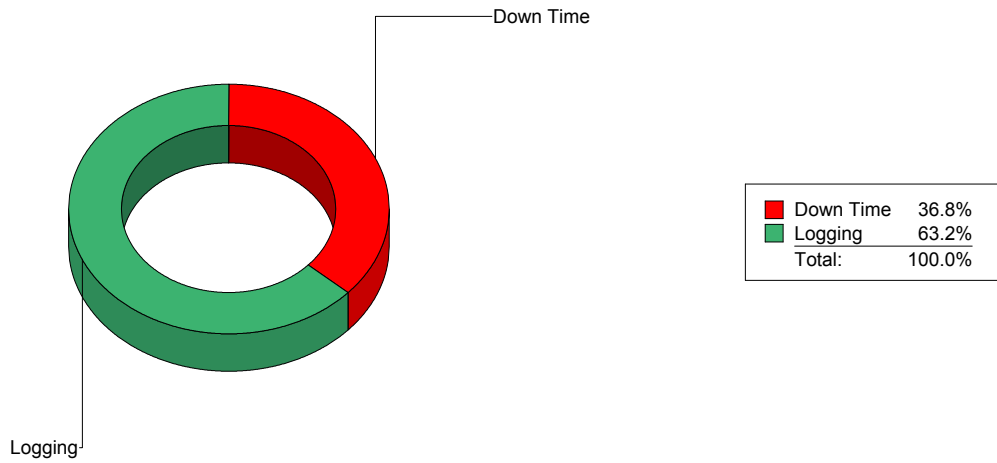
Cumulative Run Time (Hrs): 88.12

Wireline Logging Time Summary

	Down Time	Logging	Total
HRAI-WSXD-SDL-DSN-CSNG	-	11.15	11.15
RDT	16.00	17.49	33.49
RSCT	7.83	12.66	20.49
RDT	5.74	0.50	6.24
SST-500 VSP	-	6.75	6.75
RDT	2.83	7.17	10.00
Total	32.40	55.72	88.12

Units in decimal hours

Summary of Elapsed Time / Logging Run



Wireline Logging Detailed Time Breakdown

	1.1	1.2	1.3	1.2a	1.4	1.2c	Total
Logging	Rig up Sheave Wheels	0.49	-	-	-	-	0.49
	Make Up Tools	1.00	0.99	0.58	-	0.75	3.32
	Pre Log Tool Checks	-	1.00	-	-	0.50	1.50
	Set Compensators	0.50	0.25	0.33	-	0.25	1.33
	RIH	1.75	0.50	0.33	0.50	1.08	4.16
	Casing Checks	0.50	0.50	-	-	-	1.00
	Correlation Pass	-	1.58	0.25	-	-	2.41
	Log Main Pass	5.00	12.67	5.67	-	3.42	31.85
	Coring	-	-	4.00	-	-	4.00
	Log Repeat Section	0.58	-	-	-	-	0.58
	POOH	0.33	-	0.83	-	0.25	1.91
	Rig Down Tools	1.00	-	0.67	-	0.50	2.92
	Rig Down Sheaves	-	-	-	-	-	0.25
	Total	11.15	17.49	12.66	0.50	6.75	7.17
Down Time	Make Up Tools	-	1.00	1.00	0.74	-	3.49
	Pre Log Tool Checks	-	-	-	0.75	-	1.75
	RIH	-	3.83	1.58	0.75	-	6.91
	Correlation Pass	-	0.25	0.75	0.25	-	1.58
	Coring	-	-	1.50	-	-	1.50
	After Survey Tool Check	-	-	1.08	-	-	1.08
	Rig Down Tools	-	0.50	-	-	-	0.50
	POOH for failed Tool	-	3.42	1.92	1.25	-	6.59
	Re-acquire data	-	-	-	0.75	-	0.75
	Repair tools / Equipment	-	-	-	0.50	-	0.50
	Trouble Shoot Tools	-	7.00	-	0.75	-	7.75
Total	0.00	16.00	7.83	5.74	0.00	2.83	32.40
Total	11.15	33.49	20.49	6.24	6.75	10.00	88.12

Units in decimal hours