

Schlumberger

RECEIVED
MAY 05 2006
OCCASIONAL

CemCAT

30-015-34653

TREATMENT EXECUTION REPORT

Murchison Oil & Gas

Well	:	Rio State 4
Prepared for	:	Mr. Charlie Cooper
District Phone No.	:	(505) 748-1392
Treatment No.	:	22020444978
Date	:	May 4, 2006
Prepared By	:	R Kurt Crowe

Disclaimer Notice

This information is presented in good faith, but no warranty is given and Dowell Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. Freedom from patents of Dowell Schlumberger or others is not to be inferred. Prices quoted are estimates only and are good for 30 days from date of issue. Actual charges may vary depending upon time, equipment, and ultimately to perform these services.

CONTRACT

SCHLUMBERGER TECHNOLOGICAL CORPORATION

Schlumberger

Invoice Mailing Address: MURCHISON OIL & GAS 1100 MIRA VISTA BOULEVARD PLANO, TX US		SC Number 2202044978	
		ARRIVE LOCATION	Date 2006-May-04
		Service Instructions CEMENT 360' OF 13 3/8" BUTTRUSS SURFACE CASING IN A 17 1/2" OPEN HOLE.	
Customer PO	Contract	Service Description Cementing - Cem Surface Casing	
Well Rio State	State/Province New Mexico	AFE	Rig PATTERSON #510
Well Master: 0630808858	API / UWI: 30-015-34653	County/Parish/Block Eddy	Legal Location Sec 36, T 18s, R 24e
Field Penasco Draw Morrow		Customer or Authorized Representative CHARLIE COOPER, MR.	

PLEASE READ CAREFULLY - THIS SERVICE ORDER CONTRACT MUST BE COMPLETED BEFORE SCHLUMBERGER CAN PROVIDE GOODS OR SERVICES.

THIS IS A CONTRACT FOR GOODS AND SERVICES TO BE PROVIDED PURSUANT TO THE MASTER SERVICE AGREEMENT BETWEEN CUSTOMER AND SCHLUMBERGER. IN THE ABSENCE OF A MASTE SERVICE AGREEMENT, CUSTOMER AND SCHLUMBERGER AGREE THE GOODS AND SERVICES ARE PROVIDED PURSUANT TO THIS CONTRACT, INCLUDING THE TERMS AND CONDITIONS ON THE BACK OF (OR ATTACHED TO) THIS CONTRACT, WHICH CONTAIN WARRANTY EXCLUSIONS AND INDEMNITY & HOLD HARMLESS PROVISIONS REQUIRING CUSTOMER AND SCHLUMBERGER TO BE RESPONSIBL FOR THE NEGLIGENCE, STRICT LIABILITY OR FAULT OF THE OTHER.

I authorize work to begin as set forth in this Contract and represent that I have the authority of the customer to accept and sign this Contract.

Signature of Customer or Authorized Representative:


 CHARLIE COOPER, MR.

Date: _____

Signature of Schlumberger Representative:


 Crowe, Russell

Date: 5/4/06

Client:	MURCHISON OIL & GAS
Field:	Penasco Draw Morrow
Rig:	PATTERSON #510
Well:	Rio State
Service Line:	Cementing
Job Type:	Cem Surface Casing

Service Order #:	2202044978 SQR # 1
Date:	2006-May-04
Operating Time:	2.00 hrs.
Client Rep:	CHARLIE COOPER, MR.
Schlumberger Engineer:	Crowe, Russell
Schlumberger FSM:	Garcia, Donald

Main Objective*: Cement 13 3/8 casing per co-rep.

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No
1	HSE		
1a	Free of lost time injury and full compliance with SLB and location specific HSE practice.	5	☐ Yes ☐ No
1b	Free of environmental spill or non-compliant discharge.	5	☐ Yes ☐ No
		Sub-total	

2	Design / Preparation		
2a	Program including job simulation (CemCADE) and pumping schedule / tool hydraulic calculations and fishing diagrams on location.	3	☐ Yes ☐ No
2b	Equipment maintenance schedule completed / Green Tagged.	2	☐ Yes ☐ No
2c	All materials and equipment required for job / contingency checked and on location.	2	☐ Yes ☐ No
2d	Safety / pre-job meeting conducted with all involved present.	2	☐ Yes ☐ No
		Sub-total	

3	Execution		
3a	Lost time < 30mins.	3	☐ Yes ☐ No
3b	Equipment pressure tested successfully.	3	☐ Yes ☐ No
3c	All key parameters monitored and recorded accurately (Pressure, Rate, Density).	2	☐ Yes ☐ No
3d	Plugs / darts released and tested successfully.	2	☐ Yes ☐ No
3e	Density variation met expectations.	2	☐ Yes ☐ No
3f	Personnel performed as per expectations.	2	☐ Yes ☐ No
3g	Equipment performed as per expectations	2	☐ Yes ☐ No
		Sub-total	

4	Evaluation		
4a	Main job objective achieved with no consequential non productive time.	10	☐ Yes ☐ No
		Sub-total	

Total 0%

Comments: (Please include a brief explanation for a "NO" response and summarise any innovations attempted on this well.)

Client:	Schlumberger:
Client Signature:	Schlumberger Signature:
	

Murchison Oil & Gas
Rio State 4
Surface 13 3/8
2202044978
05-04-2006

Lift – 150psi
Diff – 110psi

Test Lines to 1000psi
20bbl Gelled water
29bbl RFC @ 14.2 w/ CemNET
 ABT 7164 back bottle
105bbl Lead @ 12.6 w/ CemNET
 ABT 16989 back bottle 35bbl
 ABT 16989 front bottle 70bbl
47bbl Tail @ 14.8
 ABT 7164 front bottle
Drop plug on the fly
49.8bbl Displacement
 Slow rate @42
Bump plug 500psi over
Check float

CEMENTING SERVICE REPORT

Schlumberger

Bryan Printers & Stationers, Inc. Form No. 4443-PM

WELL NAME AND NO. Red State #41		LOCATION (LEGAL) Sec 36, T6S, R24E		RIG NAME Patterson 510	
FIELD/POOL Penasco Draw Murrow		FORMATION Surface		WELL DATA	
COUNTY/PARISH Eddy		STATE New Mexico		API NO. 30-015	
NAME Murchison Oil & Gas 34653		AND		MUD DENSITY 17.2	
ADDRESS		ZIP CODE		MUD VISC. 360	
SPECIAL INSTRUCTIONS Cement 13 3/8 casing per co-rep				MUD DENSITY 17.2	
				MUD VISC. 360	

IS CASING/TUBING SECURED? ☒ YES ☐ NO		LIFT PRESSURE 120 PSI		CASING WEIGHT + SURFACE AREA 3.14 X R²	
PRESSURE LIMIT 500 PSI		BUMP PLUG TO H-SW (12) VPSI		ROTATE — RPM	
RECIPROCATATE — FT		No. of Centralizers		ANNUAL VOLUME — Bbls	

TIME 0001 to 2400	PRESSURE TBG OR D.P.	VOLUME PUMPED BBL	JOB SCHEDULED FOR TIME: 1800 DATE: 5/4/06	ARRIVE ON LOCATION TIME: 1800 DATE: 5/4/06	LEFT LOCATION TIME: 1800 DATE: 5/5/06
	CASING	INCREMENT	CUM	INJECT RATE	FLUID TYPE
					FLUID DENSITY
SERVICE LOG DETAIL					
PRE-JOB SAFETY MEETING					
Test Lines					
Start Gell					
End Gell					
Start RFC w Cem NET					
End RFC					
Start Lead w Cem NET					
End Lead					
Start Tail					
End Tail					
Drop Run on the Fly					
Start Displacement					
Slow Rate					
Bump Plug					
Bleed off Pressure					
Float Holding					

REMARKS

SYSTEM CODE	NO. OF SACKS	YIELD CU. FT/SK	COMPOSITION OF CEMENTING SYSTEMS	SLURRY MIXED BBLs	DENSITY
7.39 1.20	100	1.62	RFC (10.2-A) FS #HED 24 + 1/8" HED 130	29	14.2
10.78 3.90	300	1.91	35/65 Plc + 6/10 D20 + 3/5.1 + 1/8" HED 130 + 5" HED 24	105	12.6
6.32 5.46	200	1.33	C + 2/5.1 + 1/8" HED 130	47	14.7

BREAKDOWN FLUID TYPE	VOLUME	DENSITY	PRESSURE
☐ HESITATION SQ.	☐ RUNNING SQ.	☐ YES ☐ NO	MAX. 520 MIN. 0
CIRCULATION LOST	DISPLACEMENT VOL.	Cement Circulated To Surf.	☒ YES ☐ NO
Washed Thru Perfs ☐ YES ☐ NO	MEASURED DISPLACEMENT ☐ ☐ WIRELINE	TYPE OF WELL	☐ OIL ☐ STORAGE ☐ BRINE WATER ☐ GAS ☐ INJECTION ☐ WILDCAT
PERFORATIONS	CUSTOMER REPRESENTATIVE	DS	SUPERVISOR
TO	Charlie Cooper		R Kent Crane

CEMENTING SERVICE REPORT SUPPLEMENT LOG

Bryan Printers & Stationers, Inc. Form No. 4440-PM

DATE

5/5/06

CUSTOMER WELL NAME AND NUMBER

CUSTOMER WELL N
KIO State

LOCATION / LEGAL

LOCATION (LEGAL)
Sec 36, 185, R24p

DS LOCATION

DS LOCATION
Africa, WMA

TREATMENT NUMBER

22020409
PAGES

PAGE

7 of 10

PAGES

[illegible]



Cementing Service Report

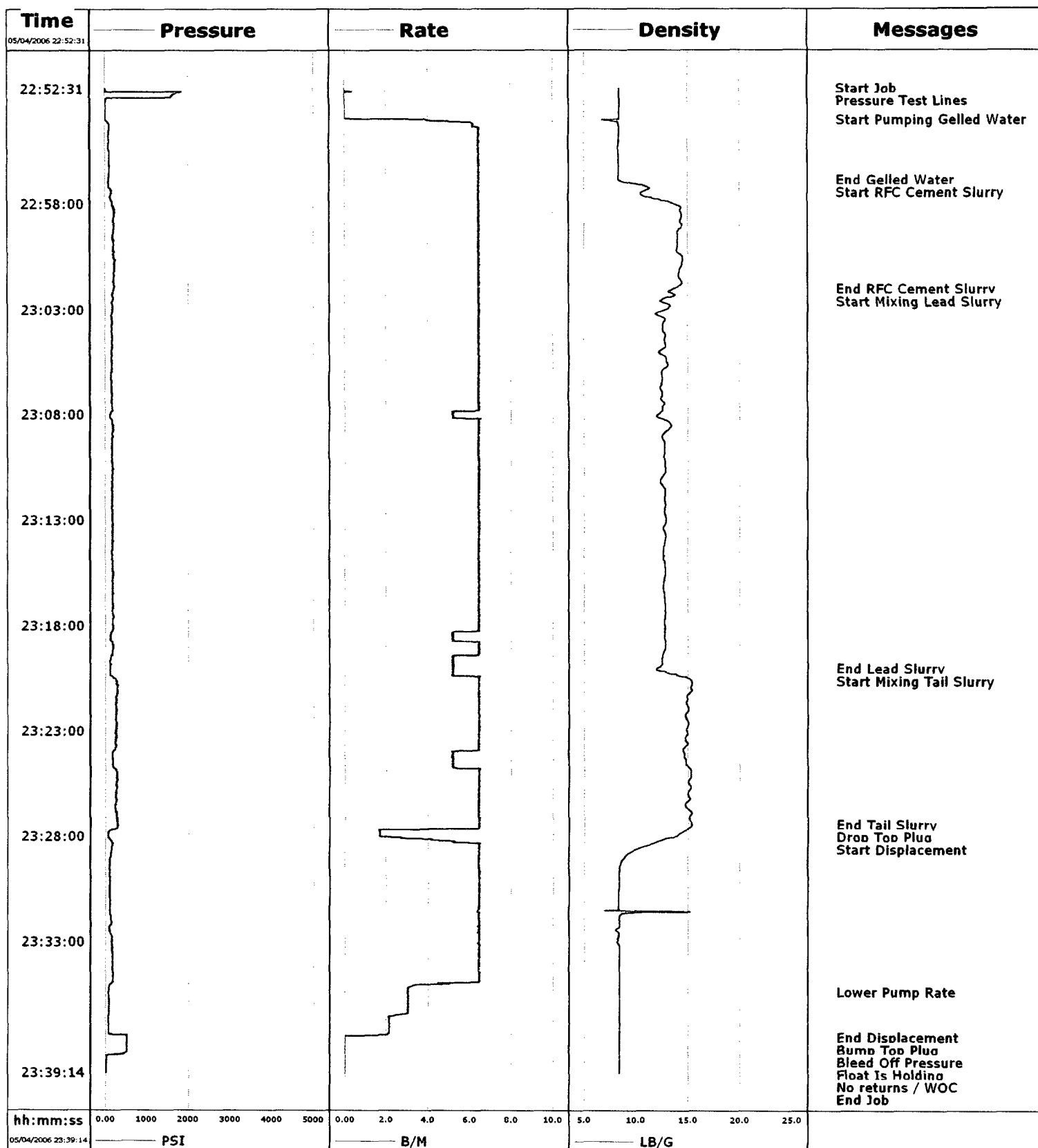
Customer MURCHISON OIL & GAS										Job Number 2202044978	
Well Rio State			Location (legal) Sec 36, T 18s, R 24e			Schlumberger Location Artesia, NM			Job Start 2006-May-04		
Field Penasco Draw Morrow		Formation Name/Type Surface		Deviation °		Bit Size 17.5 in		Well MD 360 ft		Well TVD 360 ft	
County Eddy		State/Province New Mexico		BHP psi		BHST 90 °F		BHCT 80 °F		Pore Press. Gradient psi/ft	
Well Master: 0630808858		API / UWI: 30-015-34653		Casing/Liner							
Rig Name PATTERSON #510		Drilled For		Service Via		Depth, ft 366.47		Size, in 13.38		Weight, lb/ft 54.5	
Offshore Zone		Well Class		Well Type		Grade K55		Thread BUTT			
Drilling Fluid Type		Max. Density lb/gal		Plastic Vt cp		Depth, ft		Size, in		Weight, lb/ft	
Service Line Cementing		Job Type Cem Surface Casing				Grade		Thread			
Max. Allowed Tubing Pressure 500 psi		Max. Allowed Ann. Pressure psi		WellHead Connection 13 3/8" CMT. HEAD		Top, ft		Bottom, ft		spf	
Service Instructions CEMENT 360' OF 13 3/8" BUTTRUSS SURFACE CASING IN A 17 1/2" OPEN HOLE.						No. of Shots		Total Interval ft		Diameter in	
						Treat Down Casing		Displacement 49.8 bbl		Packer Type Packer Depth	
						Tubing Vol. bbl		Casing Vol. 567 bbl		Annular Vol. bbl	
										OpenHole Vol 45 bbl	
Casing/Tubing Secured ☒		1 Hole Volume Circulated prior to Cementing ☒				Casing Tools		Squeeze Job			
Lift Pressure: 110 psi		Pipe Rotated ☐		Pipe Reciprocated ☐		Shoe Type: Guide		Squeeze Type			
No. Centralizers: 5		Top Plugs: 1		Bottom Plugs:		Shoe Depth: 366.47 ft		Tool Type:			
Cement Head Type: Single						Stage Tool Type:		Tool Depth: ft			
Job Scheduled For: 5/4/2006 18:00		Arrived on Location: 2006-May-04 18:00		Leave Location: 2006-May-05 10:00		Stage Tool Depth: ft		Tail Pipe Size: in			
						Collar Type: Float		Tail Pipe Depth: ft			
						Collar Depth: 322.37 ft		Sqz Total Vol: bbl			
Date	Time	Treating Pressure 24 hr clock psi	Density lb/gal	Rate bbl/min	0	0	0	0	Message		
2006-May-04	22:52				0	0	0	0	Start Job		
2006-May-04	22:52	9	8.44	0.0	0	0	0	0			
2006-May-04	22:52	1744	8.44	0.0	0	0	0	0			
2006-May-04	22:52								Pressure Test Lines		
2006-May-04	22:53	5	8.41	0.0	0	0	0	0			
2006-May-04	22:54								Start Pumping Gelled Water		
2006-May-04	22:54	23	7.31	4.0	0	0	0	0			
2006-May-04	22:54	96	8.42	6.5	0	0	0	0			
2006-May-04	22:55	105	8.35	6.5	0	0	0	0			
2006-May-04	22:56	96	8.33	6.5	0	0	0	0			
2006-May-04	22:56	96	8.39	6.5	0	0	0	0			
2006-May-04	22:56								End Gelled Water		
2006-May-04	22:56	87	8.58	6.4	0	0	0	0			
2006-May-04	22:56								Start RFC Cement Slurry		
2006-May-04	22:57	169	13.30	6.4	0	0	0	0			
2006-May-04	22:59	215	14.45	6.5	0	0	0	0			
2006-May-04	23:00	197	13.98	6.4	0	0	0	0			
2006-May-04	23:01	233	14.17	6.5	0	0	0	0			
2006-May-04	23:02	211	13.51	6.4	0	0	0	0			
2006-May-04	23:02								End RFC Cement Slurry		
2006-May-04	23:02	197	13.28	6.4	0	0	0	0			
2006-May-04	23:02								Start Mixing Lead Slurry		

Well			Field		Service Date		Customer		Job Number
Rio State #			Penasco Draw Morrow		06124-May-04		MURCHISON OIL & GAS		2202044978
Date	Time	Treating Pressure	Density	Rate	0	0	0	0	Message
	24 hr clock	psi	lb/gal	bbt/min	0	0	0	0	
2006-May-04	23:02	179	13.71	6.4	0	0	0	0	
2006-May-04	23:03	160	12.54	6.5	0	0	0	0	
2006-May-04	23:04	179	12.77	6.5	0	0	0	0	
2006-May-04	23:05	156	12.98	6.4	0	0	0	0	
2006-May-04	23:06	156	12.43	6.4	0	0	0	0	
2006-May-04	23:07	174	12.53	6.4	0	0	0	0	
2006-May-04	23:08	183	12.95	6.5	0	0	0	0	
2006-May-04	23:09	183	12.77	6.4	0	0	0	0	
2006-May-04	23:10	160	12.53	6.4	0	0	0	0	
2006-May-04	23:12	183	12.78	6.4	0	0	0	0	
2006-May-04	23:13	174	12.85	6.5	0	0	0	0	
2006-May-04	23:14	188	12.70	6.5	0	0	0	0	
2006-May-04	23:15	169	12.81	6.5	0	0	0	0	
2006-May-04	23:16	179	12.68	6.5	0	0	0	0	
2006-May-04	23:17	179	12.81	6.5	0	0	0	0	
2006-May-04	23:18	119	12.74	5.2	0	0	0	0	
2006-May-04	23:19	128	12.52	5.2	0	0	0	0	
2006-May-04	23:20								End Lead Slurry
2006-May-04	23:20	119	12.03	5.2	0	0	0	0	
2006-May-04	23:20	114	11.94	5.2	0	0	0	0	
2006-May-04	23:20								Start Mixing Tail Slurry
2006-May-04	23:20	284	15.39	6.4	0	0	0	0	
2006-May-04	23:21	261	14.93	6.4	0	0	0	0	
2006-May-04	23:22	261	14.87	6.5	0	0	0	0	
2006-May-04	23:23	201	14.59	5.2	0	0	0	0	
2006-May-04	23:25	288	15.26	6.4	0	0	0	0	
2006-May-04	23:26	256	15.12	6.5	0	0	0	0	
2006-May-04	23:27	279	15.14	6.4	0	0	0	0	
2006-May-04	23:27	293	15.33	6.5	0	0	0	0	
2006-May-04	23:27								End Tail Slurry
2006-May-04	23:27								Start Displacement
2006-May-04	23:27	288	15.33	6.5	0	0	0	0	
2006-May-04	23:27								Drop Top Plug
2006-May-04	23:28	142	11.85	5.2	0	0	0	0	
2006-May-04	23:29	110	8.50	6.5	0	0	0	0	
2006-May-04	23:30	105	8.35	6.4	0	0	0	0	
2006-May-04	23:31	105	7.00	6.4	0	0	0	0	
2006-May-04	23:32	114	8.38	6.5	0	0	0	0	
2006-May-04	23:33	174	8.41	6.4	0	0	0	0	
2006-May-04	23:34	188	8.42	6.5	0	0	0	0	
2006-May-04	23:35	78	8.42	3.0	0	0	0	0	
2006-May-04	23:35								Lower Pump Rate
2006-May-04	23:35	78	8.42	3.0	0	0	0	0	
2006-May-04	23:36	64	8.42	2.1	0	0	0	0	
2006-May-04	23:37								End Displacement
2006-May-04	23:37	513	8.42	0.0	0	0	0	0	
2006-May-04	23:37	513	8.42	0.0	0	0	0	0	
2006-May-04	23:37								Bump Top Plug
2006-May-04	23:38	517	8.42	0.0	0	0	0	0	
2006-May-04	23:38								Bleed Off Pressure
2006-May-04	23:38	517	8.42	0.0	0	0	0	0	
2006-May-04	23:39	14	8.42	0.0	0	0	0	0	
2006-May-04	23:39								Float Is Holding
2006-May-04	23:39	14	8.42	0.0	0	0	0	0	

Well		Field			Service Date		Customer		Job Number
Rio State #		Penasco Draw Morrow			06124-May-04		MURCHISON OIL & GAS		2202044978
Date	Time	Treating Pressure	Density	Rate	0	0	0	0	Message
	24 hr clock	psi	lb/gal	bbt/min	0	0	0	0	
2006-May-04	23:39								No returns / WOC
2006-May-04	23:39	14	8.42	0.0	0	0	0	0	
2006-May-04	23:39								End Job
2006-May-04	23:39	14	8.42	0.0	0	0	0	0	
2006-May-05	6:45								Started Acquisition
2006-May-05	6:45	5	8.38	0.0	0	0	0	0	
2006-May-05	6:45	5	8.38	0.0	0	0	0	0	
2006-May-05	6:45								Start Job
2006-May-05	6:45	5	8.38	0.0	0	0	0	0	
2006-May-05	6:45	5	8.41	0.0	0	0	0	0	
2006-May-05	6:45								Start Pumping Water
2006-May-05	6:46	151	8.43	1.6	0	0	0	0	
2006-May-05	6:46	385	8.49	2.5	0	0	0	0	
2006-May-05	6:46								End Water
2006-May-05	6:46	389	8.97	2.5	0	0	0	0	
2006-May-05	6:46								Start Cement Slurry
2006-May-05	6:47	490	11.05	2.7	0	0	0	0	
2006-May-05	6:48	787	14.74	2.7	0	0	0	0	
2006-May-05	6:49	815	15.29	2.7	0	0	0	0	
2006-May-05	6:50	787	15.24	2.7	0	0	0	0	
2006-May-05	6:51	783	15.14	2.7	0	0	0	0	
2006-May-05	6:52	764	15.11	2.7	0	0	0	0	
2006-May-05	6:53	764	15.00	2.7	0	0	0	0	
2006-May-05	6:54	714	14.95	2.7	0	0	0	0	
2006-May-05	6:55	806	15.30	2.7	0	0	0	0	
2006-May-05	6:56	787	15.20	2.7	0	0	0	0	
2006-May-05	6:57	769	15.17	2.7	0	0	0	0	
2006-May-05	6:59	760	14.92	2.7	0	0	0	0	
2006-May-05	7:00	705	14.25	2.7	0	0	0	0	
2006-May-05	7:01	275	15.15	1.7	0	0	0	0	
2006-May-05	7:02	298	14.85	1.7	0	0	0	0	
2006-May-05	7:02								End Cement Slurry
2006-May-05	7:02	37	8.60	0.0	0	0	0	0	
2006-May-05	7:03								End Job
2006-May-05	7:03	14	8.57	0.0	0	0	0	0	
2006-May-05	8:43								Started Acquisition
2006-May-05	8:43								Started Recording
2006-May-05	8:43	0	8.45	0.0	0	0	0	0	
2006-May-05	8:43	-5	8.45	0.0	0	0	0	0	
2006-May-05	8:43								Start Job
2006-May-05	8:43	-5	8.45	0.0	0	0	0	0	
2006-May-05	8:43	-5	8.45	0.0	0	0	0	0	
2006-May-05	8:43	-5	8.45	0.0	0	0	0	0	
2006-May-05	8:44	5	8.43	0.0	0	0	0	0	
2006-May-05	8:45	9	8.43	0.2	0	0	0	0	
2006-May-05	8:45								Start Pumping Water
2006-May-05	8:45	5	8.41	0.1	0	0	0	0	
2006-May-05	8:46								End Water
2006-May-05	8:46	133	8.47	2.6	0	0	0	0	
2006-May-05	8:46								Start Cement Slurry
2006-May-05	8:46	133	9.17	2.6	0	0	0	0	
2006-May-05	8:46	133	11.98	2.6	0	0	0	0	
2006-May-05	8:47	325	15.06	2.7	0	0	0	0	
2006-May-05	8:48	311	15.22	2.7	0	0	0	0	

Well		Field		Service Date		Customer		Job Number	
Rio State #		Penasco Draw Morrow		06124-May-04		MURCHISON OIL & GAS		2202044978	
Date	Time	Treating Pressure	Density	Rate	0	0	0	0	Message
	24 hr clock	psi	lb/gal	bbl/min	0	0	0	0	
2006-May-05	8:50	316	15.00	2.7	0	0	0	0	
2006-May-05	8:51	325	15.37	2.7	0	0	0	0	
2006-May-05	8:52	320	15.29	2.7	0	0	0	0	
2006-May-05	8:52	298	14.56	2.7	0	0	0	0	
2006-May-05	8:52								End Cement Slurry
2006-May-05	8:53	275	8.96	2.7	0	0	0	0	
2006-May-05	8:53								End Job
2006-May-05	8:53	105	8.50	0.0	0	0	0	0	
2006-May-05	8:53	78	8.48	0.0	0	0	0	0	
2006-May-05	8:53								Circulated 3bbl To The Pit
Post Job Summary									
Average Pump Rates, bpm					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2	
6			6		184		20		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Volume		Density		
520		170	520				bbl lb/gal		
Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		☒ Cement Circulated to Surface?	Volume	3	bbl	
%	184 bbl	49.8 bbl	91 °F		☐ Washed Thru Perfs	To	ft		
Customer or Authorized Representative			Schlumberger Supervisor						
CHARLIE COOPER, MR.					Crowe, Russell		☐ CirculationLost ☒ Job Completed		

Well	Rio State 4	Client	Murchison Oil Gas
Field	Penasco Draw Morrow	SIR No.	2202044978
Engineer	R. Kurt Crowe	Job Type	Surface 13 3/8
Country	United States	Job Date	05-04-2006



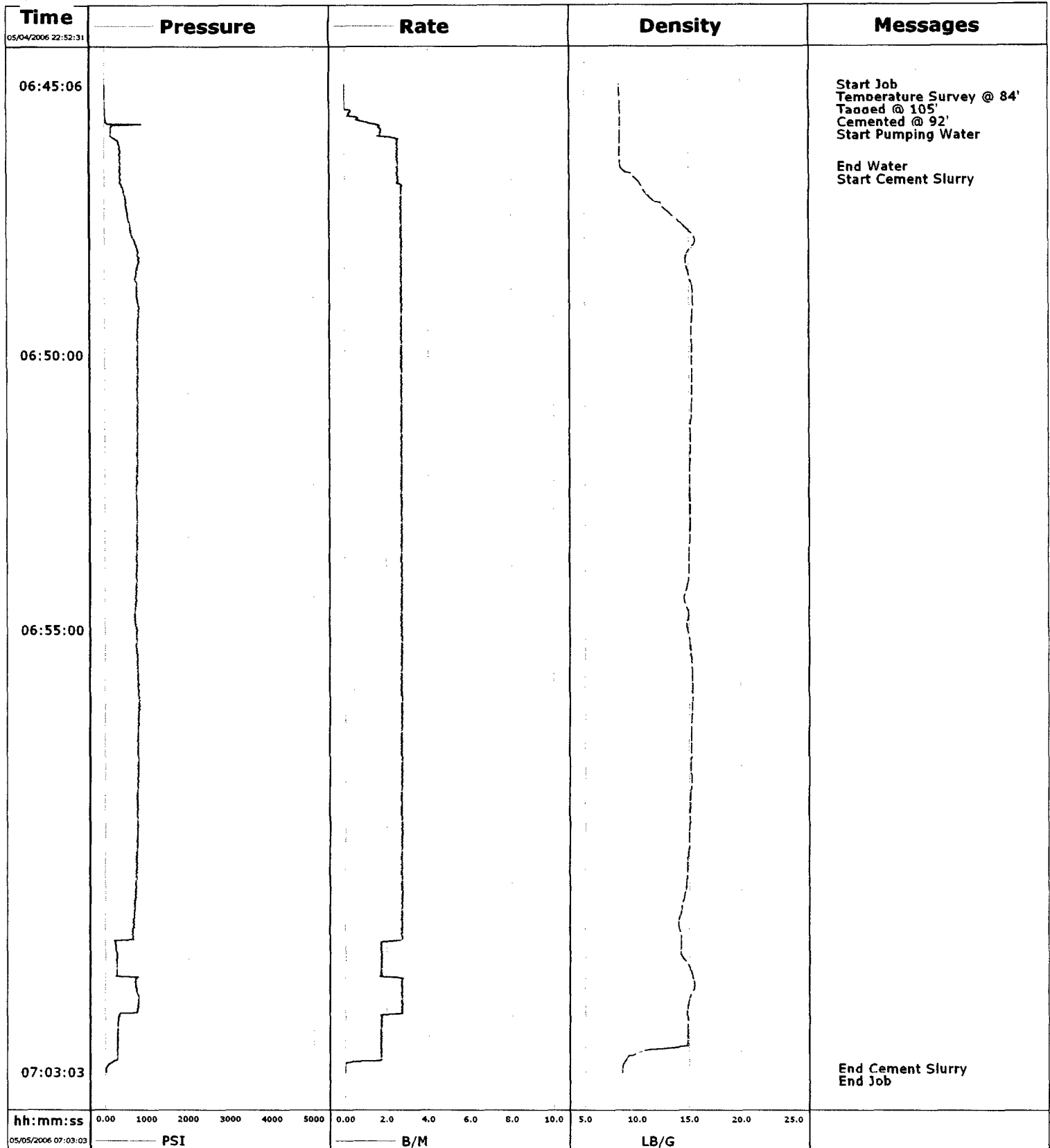
1" TOP OUT

<u>Sacks</u>	<u>H2O</u>	<u>Slurry</u>	<u>2% S1</u>	<u>3% S1</u>	<u>4% S1</u>	<u>5% S1</u>
25	4	6	50	75	100	125
50	8	12	100	150	200	250
75	12	18	150	225	300	375
100	16	24	200	300	400	500

Temperature Survey @ 84'

	<u>Tagged@</u>	<u>Cement@</u>	<u>Cement</u>	<u>S-1</u>
1st Plug	105'	92'	150sks	4% CaCl 700#
2nd Plug	35'	30	100sks	3% Cacl 250#
3rd Plug				
4th Plug				
5th Plug				
6th Plug				
7th Plug				
8th Plug				
9th Plug				
10th Plug				

Well	Rio State 4	Client	Murchison Oil Gas
Field	Penasco Draw Morrow	SIR No.	2202044978
Engineer	R. Kurt Crowe	Job Type	Surface 13 3/8
Country	United States	Job Date	05-04-2006



05/05/2006 08:58:08