

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 5208Name: Mobil Oil CorporationAddress P.O. Box 21732319 North Kansas AvenueCity/State/Zip Liberal, KS 67905-2173Purchaser: Spot MarketOperator Contact Person: Sharon CookPhone (316) 626-1142Contractor: Name: Norseman Drilling Inc.License: 3779Wellsite Geologist: L. J. Reimer

Designate Type of Completion

☒ New Well ☐ Re-Entry ☐ Workover☐ Oil ☐ SWD ☐ SLOW ☐ Temp. Abd.☒ Gas ☐ ENHR ☐ SIGH☐ Dry ☐ Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

☐ Deepening ☐ Re-perf. ☐ Conv. to Inj/SWD☐ Plug Back ☐ PBD☐ Commingled ☐ Docket No. _____☐ Dual Completion ☐ Docket No. _____☐ Other (SWD or Inj?) ☐ Docket No. _____

9-15-97 9-18-97 9-30-97
Spud Date Date Reached TD Completion Date

API NO. 15- 129-215320000

County Morton- NE - SW - SW Sec. 5 Twp. 34 Rge. 39 X E W1250 Feet from (S/N) (circle one) Line of Section1250 Feet from E/W (circle one) Line of SectionFootages Calculated from Nearest Outside Section Corner:
NE, SE, NW or (S/N) (circle one)Lease Name Armstrong #2 Unit Well # 4Field Name HugotonProducing Formation ChaseElevation: Ground 3297 KB 3306Total Depth 2900 PBD 2858Amount of Surface Pipe Set and Cemented at 555 FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ NoIf yes, show depth set NA FeetIf Alternate II completion, cement circulated from NAfeet depth to NA w/ NA sx cnt.Drilling Fluid Management Plan Alt 1 1-16-98 v.c.
(Data must be collected from the Reserve Pit)Chloride content 8,000 ppm Fluid volume 250 bblsDewatering method used EvaporationLocation of fluid disposal if hauled offsite: 10-27-97Operator Name Mobil Oil CorporationLease Name _____ License No. 5208

Quarter _____ Sec. _____ Twp. _____ S Rng. _____ E/W

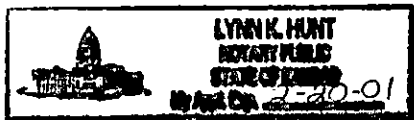
County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Sharon A. Cook Sharon A. CookTitle Regulatory Assistant Date 10-23-97Subscribed and sworn to before me this 23rd day of October, 19 97.Notary Public Lynn K. HuntDate Commission Expires February 20, 2001
7-74.kcc

K.C.C. OFFICE USE ONLY
F ☐ Letter of Confidentiality Attached
C ☐ Wireline Log Received
C ☐ Geologist Report Received
Distribution
☒ KCC ☐ SWD/Rep ☐ NGPA
☐ KGS ☐ Plug ☐ Other
(Specify)



SIDE TWO

Operator Name Mobil Oil Corporation Lease Name Armstrong #2 Unit Well # 4
 Sec. 5 Twp. 34 Rge. 39 ☐ East ☒ West
 County Morton

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken ☐ Yes ☒ No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey ☐ Yes ☒ No
 Cores Taken ☐ Yes ☒ No
 Electric Log Run ☐ Yes ☒ No
 (Submit Copy.)
 List All E.Logs Run:
 NO LOGS RUN

☐ Log Formation (Top), Depth and Datums ☐ Sample
 Name Top Datum

CASING RECORD

☒ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface Casing	12.250	8.625	24#	555	Class C Class C	225 150	50:50 C/poz 50:50 C/poz
Production Casing	7.875	5.500	14#	2900	Class C Class C	225 100	3% D79 2% B28

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
☐ Perforate				
☐ Protect Casing				
☐ Plug Back TD				
☐ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
2 SPF	2817-27	Acid: 1,000 gals 7.5% HCL	
	2764-74	Fracd: 38,000 gals WF130 in 70q foam	
	2696-2706	120,000 lbs 16/30 sand	
	2652-2660		

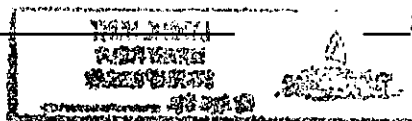
TUBING RECORD	Size	Set At	Packer At	Liner Run ☐ Yes ☒ No
Date of First, Resumed Production, SWD or Inj. 10-6-97	Producing Method ☒ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity
		360		

Disposition of Gas: METHOD OF COMPLETION

Production Interval

☐ Vented ☒ Sold ☐ Used on Lease
 (If vented, submit ACO-18.)

☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled 2652
☐ Other (Specify) 2827



ORIGINAL

Cementing Service Report

15-129-21532

Schlumberger

Dowell

Customer

MOBIL OIL CORP. V390500757A

Job Number

20018192

Well Armstrong 2-4		Location (legal) Sec. 5-34S-39W		Dowell Location Ulysses, KS		Service Date 9/8/97																																																																																																																																																																																									
Field Hugoton		Formation Name/Type Surface		Deviation 0 °		Well MD 560 ft																																																																																																																																																																																									
County Morton		State/Province Kansas		BHP 0 psi		Well TVD 560 ft																																																																																																																																																																																									
Rig Name NORSEMAN 2		Drilled For Oil & Gas		Service Via Land		Casing/Liner																																																																																																																																																																																									
Water Depth		Well Class 101		Well Type Development		Depth, ft 555																																																																																																																																																																																									
Drilling Fluid Type Bentonite		Max. Density 9.2 lb/gal		Plastic Viscosity 33 cp		Size, in 8.63																																																																																																																																																																																									
Service Line Cementing		Job Type Cem Surface Casing		Weight, lb/ft 24		Grade USS50																																																																																																																																																																																									
Max. Allowed Tubing Pressure 1000 psi		Max. Allowed Ann. Pressure 0 psi		Wellhead Connection Single cement head		Thread 8rd																																																																																																																																																																																									
Service Instructions Safely deliver & perform Surface Cement job with materials & equipment listed below. Per clients instructions. Loc Code 62843 Acc Code 4903 I.D. RDWORLEY Total Field Price \$5144.34				Tubing/Drill Pipe																																																																																																																																																																																											
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				No. of Shots 0																																																																																																																																																																																											
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				Tubing Vol. 0 bbl																																																																																																																																																																																											
				Casing Vol. 35.4 bbl																																																																																																																																																																																											
				Annular Vol. 40.8 bbl																																																																																																																																																																																											
				Open Hole Vol 0 bbl																																																																																																																																																																																											
Casing/Tubing Secured ☒ 1 Hole Volume Circulated prior to Cementing ☐				Casing Tools																																																																																																																																																																																											
Lift Pressure: 228 psi				Shoe Type: Guide																																																																																																																																																																																											
Pipe Rotated ☐ Pipe Reciprocated ☐				Shoe Depth: 555 ft																																																																																																																																																																																											
No. Centralizers: 5 Top Plugs: 1 Bottom Plugs: 0				Stage Tool Type																																																																																																																																																																																											
Cement Head Type: Single				Stage Tool Depth: 0 ft																																																																																																																																																																																											
Job Scheduled For: 9/15/97 22:00				Arrived on Location: 9/15/97 22:00																																																																																																																																																																																											
Leave Location: 9/16/97 2:00				Collar Type: Baffle																																																																																																																																																																																											
				Collar Depth: 512 ft																																																																																																																																																																																											
				Sqz Total Vol: 0 bbl																																																																																																																																																																																											
<table border="1"> <thead> <tr> <th>Time</th> <th>CumVol</th> <th>Density</th> <th>Pressure U1</th> <th>Reset Volume</th> <th>TotFlowrate</th> <th colspan="2">Message</th> </tr> <tr> <th>24 hr clock</th> <th>bbl</th> <th>ppg</th> <th>psi</th> <th>bbl</th> <th>bpm</th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>22:53</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>START ACQUISITION</td></tr> <tr><td>22:53</td><td>0</td><td>8.326</td><td>-1077E-11</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:54</td><td>0</td><td>8.326</td><td>-1077E-11</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:54</td><td>0</td><td>8.326</td><td>-1709E-6</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:55</td><td>0</td><td>8.326</td><td>-6228E-10</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:55</td><td>0</td><td>8.326</td><td>-1099E-11</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:56</td><td>0</td><td>8.326</td><td>-1077E-11</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:56</td><td>0</td><td>8.326</td><td>-1077E-11</td><td>0</td><td>0</td><td>0</td><td></td></tr> <tr><td>22:57</td><td>.1265</td><td>8.326</td><td>12.8</td><td>.1265</td><td>1.255</td><td>0</td><td></td></tr> <tr><td>22:57</td><td>.2658</td><td>8.326</td><td>1578</td><td>.2658</td><td>1481E-6</td><td>0</td><td></td></tr> <tr><td>22:58</td><td>.2659</td><td>8.326</td><td>20.81</td><td>.2659</td><td>5303E-10</td><td>0</td><td></td></tr> <tr><td>22:58</td><td>.5968</td><td>8.29</td><td>42.53</td><td>.5968</td><td>3.264</td><td>0</td><td></td></tr> <tr><td>22:59</td><td>3.197</td><td>8.272</td><td>91.34</td><td>3.197</td><td>5.627</td><td>0</td><td></td></tr> <tr><td>22:59</td><td>6.026</td><td>8.262</td><td>92.92</td><td>6.026</td><td>5.621</td><td>0</td><td></td></tr> <tr><td>23:00</td><td>8.852</td><td>8.259</td><td>96.33</td><td>8.852</td><td>5.615</td><td>0</td><td></td></tr> <tr><td>23:00</td><td>11.69</td><td>8.251</td><td>100.4</td><td>11.69</td><td>5.601</td><td>0</td><td></td></tr> <tr><td>23:01</td><td>14.5</td><td>8.257</td><td>100.9</td><td>14.5</td><td>5.596</td><td>0</td><td></td></tr> <tr><td>23:01</td><td>17.32</td><td>8.248</td><td>101.8</td><td>17.32</td><td>5.587</td><td>0</td><td></td></tr> <tr><td>23:02</td><td>20.13</td><td>8.254</td><td>104.2</td><td>20.13</td><td>5.595</td><td>0</td><td></td></tr> <tr><td>23:02</td><td>22.94</td><td>8.246</td><td>108.7</td><td>22.94</td><td>5.594</td><td>0</td><td></td></tr> <tr><td>23:03</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>[Reset Volume]=0 bbl</td></tr> </tbody> </table>								Time	CumVol	Density	Pressure U1	Reset Volume	TotFlowrate	Message		24 hr clock	bbl	ppg	psi	bbl	bpm			22:53	0	0	0	0	0	0	START ACQUISITION	22:53	0	8.326	-1077E-11	0	0	0		22:54	0	8.326	-1077E-11	0	0	0		22:54	0	8.326	-1709E-6	0	0	0		22:55	0	8.326	-6228E-10	0	0	0		22:55	0	8.326	-1099E-11	0	0	0		22:56	0	8.326	-1077E-11	0	0	0		22:56	0	8.326	-1077E-11	0	0	0		22:57	.1265	8.326	12.8	.1265	1.255	0		22:57	.2658	8.326	1578	.2658	1481E-6	0		22:58	.2659	8.326	20.81	.2659	5303E-10	0		22:58	.5968	8.29	42.53	.5968	3.264	0		22:59	3.197	8.272	91.34	3.197	5.627	0		22:59	6.026	8.262	92.92	6.026	5.621	0		23:00	8.852	8.259	96.33	8.852	5.615	0		23:00	11.69	8.251	100.4	11.69	5.601	0		23:01	14.5	8.257	100.9	14.5	5.596	0		23:01	17.32	8.248	101.8	17.32	5.587	0		23:02	20.13	8.254	104.2	20.13	5.595	0		23:02	22.94	8.246	108.7	22.94	5.594	0		23:03	0	0	0	0	0	0	[Reset Volume]=0 bbl
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ORIGINAL

Well			Field			Service Date		Customer	Job Number
Armstrong #2-4			Hugoton			9/8/97		MOBIL OIL CORP V39050075	20018192
Time	CumVol	Density	Pressure U1	Reset Volume	TotFlowrate			Message	
24 hr clock	bbl	ppg	psi	bbl	bpm				
23:03	25.77	12.74	165.9	2807	5.585	0	0		
23:03	0	0	0	0	0	0	0	Start Mixing Lead Slurry	
23:03	28.57	12.46	147.1	3.088	5.585	0	0		
23:04	31.38	11.78	138.6	5.893	5.587	0	0		
23:04	34.06	12.16	71.89	8.572	4.072	0	0		
23:05	36.4	13.32	156	10.91	5.563	0	0		
23:05	39.21	13.27	137.9	13.73	5.553	0	0		
23:06	42.01	13.05	147.4	16.52	5.562	0	0		
23:06	44.8	12.72	137.4	19.31	5.56	0	0		
23:07	47.59	12.51	137.7	22.1	5.546	0	0		
23:07	50.37	13.42	151.7	24.89	5.539	0	0		
23:08	53.17	12.83	137.1	27.69	5.54	0	0		
23:08	55.95	12.8	140.7	30.47	5.536	0	0		
23:09	58.74	12.82	138	33.25	5.537	0	0		
23:09	61.52	12.71	137.4	36.03	5.536	0	0		
23:10	64.32	12.82	141.3	38.83	5.539	0	0		
23:10	67.1	12.8	141.6	41.62	5.537	0	0		
23:11	69.89	12.85	141	44.4	5.533	0	0		
23:11	72.67	12.87	139.7	47.18	5.537	0	0		
23:12	75.45	13.06	146.7	49.97	5.534	0	0		
23:12	78.25	12.75	141.5	52.76	5.54	0	0		
23:13	81.04	12.75	139.8	55.55	5.536	0	0		
23:13	83.83	12.79	142	58.34	5.55	0	0		
23:14	86.62	12.74	140.5	61.13	5.558	0	0		
23:14	89.41	13.02	143.6	63.93	5.545	0	0		
23:15	92.22	12.58	138.8	66.73	5.553	0	0		
23:16	95.01	12.72	139.6	69.53	5.559	0	0		
23:16	97.81	12.93	145.7	72.32	5.55	0	0		
23:17	100.4	12.55	79.79	74.87	3.897	0	0		
23:17	0	0	0	0	0	0	0	[Reset Volume]=0 bbl	
23:17	0	0	0	0	0	0	0	Start Mixing Tail Slurry	
23:17	102.3	14.72	92.46	1.591	3.778	0	0		
23:18	104.2	15.07	96.22	3.499	3.775	0	0		
23:18	106.4	14.31	169.4	5.768	5.496	0	0		
23:19	109.2	14.42	171.2	8.538	5.508	0	0		
23:19	112	14.29	165.1	11.31	5.505	0	0		
23:20	114.7	14.84	175	14.07	5.481	0	0		
23:20	117.5	15.36	202.5	16.83	5.482	0	0		
23:21	120.3	14.73	174.1	19.6	5.488	0	0		
23:21	123	14.7	174.6	22.35	5.484	0	0		
23:22	125.8	14.72	172.3	25.11	5.487	0	0		
23:22	128.5	14.72	174.8	27.87	5.482	0	0		
23:23	131.3	14.23	173.1	30.64	5.501	0	0		
23:23	131.7	13.86	9.242	31.05	3076E-6	0	0		
23:24	131.9	13.57	28.31	31.19	1.822	0	0		
23:24	133.4	9.758	53.38	32.68	3.988	0	0		
23:25	135.4	8.751	63.32	34.73	4.081	0	0		
23:25	137.5	8.317	66.77	36.78	4.062	0	0		
23:26	139.5	8.178	76.73	38.82	4.06	0	0		
23:26	141.6	8.178	88.09	40.88	4.116	0	0		
23:27	0	0	0	0	0	0	0	[Reset Volume]=12 bbl	
23:27	143.8	8.198	122.1	12.16	4.901	0	0		
23:27	146.3	8.27	144.5	14.68	5.018	0	0		

ORIGINAL

Well		Field		Service Date		Customer		Job Number	
Armstrong #2-4		Hugoton		9/8/97		MOBIL OIL CORP V39050075		20018192	
Time	CumVol	Density	Pressure U1	Reset Volume	TotFlowrate	Message			
24 hr clock	bbl	ppg	psi	bbl	bpm				
23:28	148.8	8.289	163.2	17.21	5.012	0	0		
23:28	151.3	8.288	176.4	19.73	5.013	0	0		
23:29	153.8	8.273	192.2	22.25	5.002	0	0		
23:29	156.3	8.213	186.6	24.73	4.368	0	0		
23:30	158.3	8.215	203.4	26.66	3.777	0	0		
23:30	160.2	8.222	201.5	28.56	3.38	0	0		
23:31	161.4	8.332	194.1	29.78	2.136	0	0		
23:31	162.4	8.333	198	30.84	2.106	0	0		
23:32	163.5	8.325	203.8	31.9	2.095	0	0		
23:32	164.5	8.244	208.6	32.95	2.09	0	0		
23:33	165.4	7.99	680.7	33.81	.2283	0	0		
23:33	165.4	8.318	718.7	33.83	8171E-8	0	0		
23:34	165.4	8.318	720.1	33.83	2925E-11	0	0		
23:34	165.4	8.319	713.1	33.83	1047E-14	0	0		
23:35	165.4	8.32	396.3	33.83	375E-17	0	0		
23:35	165.4	8.318	394.5	33.83	1343E-21	0	0		
23:36	165.4	8.326	567.4	33.85	2077E-5	0	0		
23:36	165.5	8.325	724	33.87	1604E-6	0	0		
23:37	165.5	8.325	724.8	33.87	5742E-10	0	0		
23:37	165.5	8.322	10.34	33.87	2056E-13	0	0		
23:38	165.5	8.32	4.589	33.87	1468E-7	0	0		
Post Job Summary									
Average Pump Rates, bpm					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2	
5	0	0	5.6		108	0	0	0	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density		
220	220	150	0	0		0 bbl	0 lb/gal		
Avg. N2 Percent		Designed Slurry Volume		Displacement	☒ Cement Circulated to Surface? Volume 3 bbl				
0 %		0 bbl		32.8 bbl	☐ Washed Thru Perfs To 0 ft 10 sks				
Customer or Authorized Representative				Dowell Supervisor			☐ Circulation Lost ☒ Job Completed		
Russell Worley				David Brawley					

RECEIVED
10/8 OCT 27 P 1:36

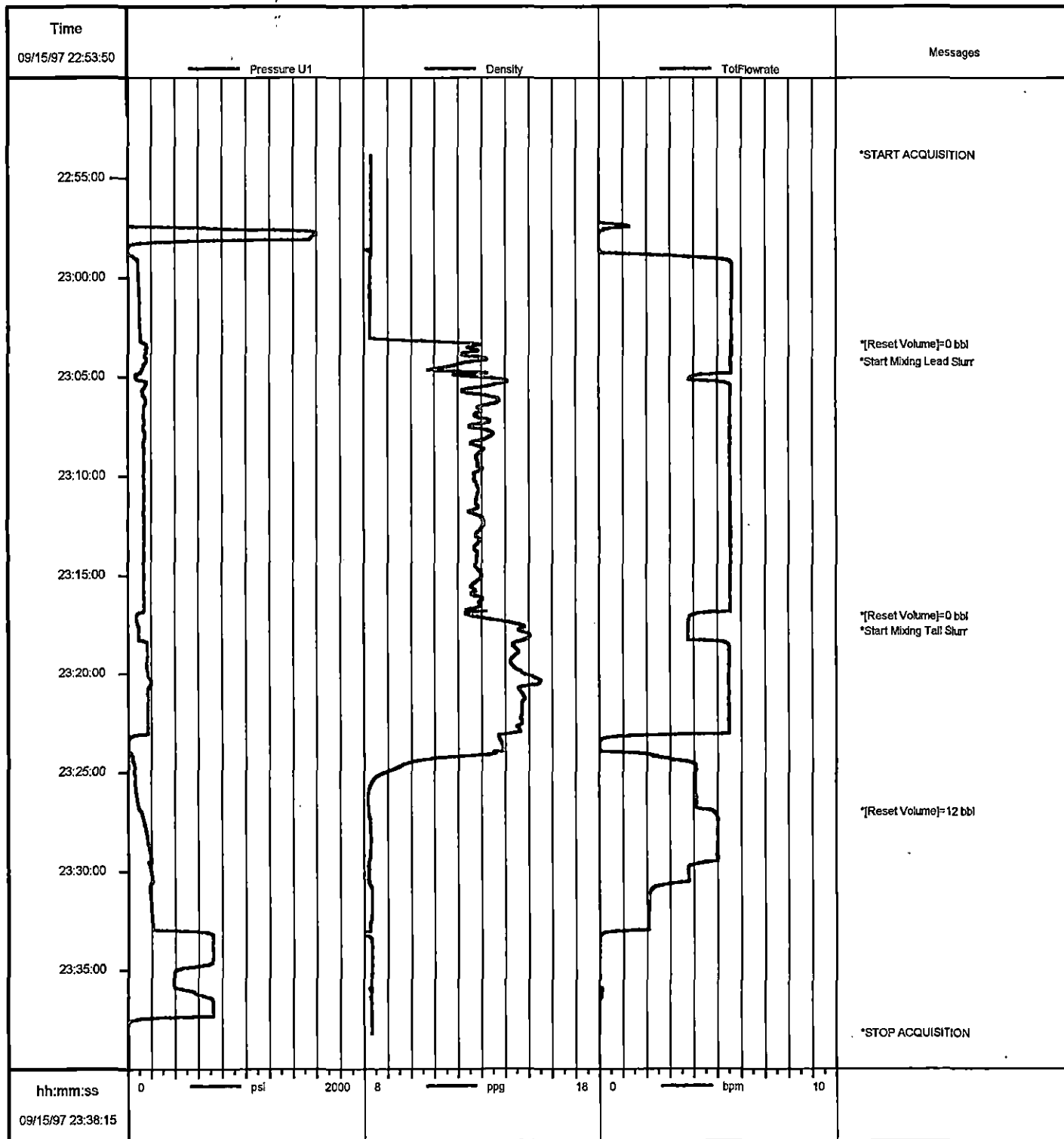
ORIGINAL

Cementing Job Report

PRISM* V2.2

Schlumberger
Dowell

Well	Armstrong #2-4	Client	Mobil E&P US Inc.
Field	Hugoton	SIR No.	20018192
Country	USA	Job Date	9/15/97 10:53:50 PM



Job: mob18192

09/15/1997 23:40

* Mark of Schlumberger

15.129.21532

Dowell

MOBIL OIL CORP V390500757A

20018195

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ORIGINAL

Well			Field			Service Date		Customer	Job Number
ARMSTRONG UNIT #2 #4			HUGOTON			9/18/97		MOBIL OIL CORP V39050075	20018195
Time	CumVol	Density	Pressure UI	Pump				Message	
24 hr clock	bbl	ppg	psi	bpm					
7:09	6.385	11.42	297.1	5.601	0	0	0		
7:09	10.33	11.52	281.2	5.597	0	0	0		
7:10	14.27	11.57	266.9	5.603	0	0	0		
7:11	18.22	11.45	251.8	5.613	0	0	0		
7:11	22.18	11.58	233.6	5.614	0	0	0		
7:12	26.13	11.45	212.8	5.633	0	0	0		
7:13	30.1	11.66	201.6	5.629	0	0	0		
7:13	34.08	11.66	183.6	5.635	0	0	0		
7:14	38.05	11.45	169.4	5.644	0	0	0		
7:15	42.02	11.68	152.2	5.64	0	0	0		
7:16	45.99	11.56	146.4	5.644	0	0	0		
7:16	49.98	11.57	146.3	5.65	0	0	0		
7:17	53.95	11.75	151.3	5.64	0	0	0		
7:18	57.93	11.24	146.3	5.65	0	0	0		
7:18	61.91	11.53	146.4	5.64	0	0	0		
7:19	65.87	11.46	146.3	5.634	0	0	0		
7:20	69.84	11.95	159	5.626	0	0	0		
7:21	73.8	11.31	146.4	5.642	0	0	0		
7:21	77.77	11.48	146.7	5.636	0	0	0		
7:22	81.74	11.56	152.5	5.645	0	0	0		
7:23	85.71	11.38	146.5	5.639	0	0	0		
7:23	89.69	11.55	151	5.628	0	0	0		
7:24	93.65	11.53	150.6	5.641	0	0	0		
7:25	97.62	11.52	146.5	5.625	0	0	0		
7:25	101.6	11.51	146.9	5.64	0	0	0		
7:26	105.6	11.36	149.6	5.668	0	0	0		
7:26	0	0	0	0	0	0	0	[CumVol]=107.5 bbl	
7:26	0	0	0	0	0	0	0	Reset Volume	
7:27	0	0	0	0	0	0	0	End Lead Slurry	
7:27	0	0	0	0	0	0	0	Start Mixing Tail Slurry	
7:27	1.324	15.2	121	3.843	0	0	0		
7:28	4.033	15.46	137.8	3.84	0	0	0		
7:28	6.757	15.12	127.9	3.849	0	0	0		
7:29	9.472	14.87	126.2	3.859	0	0	0		
7:30	12.19	14.75	123.9	3.86	0	0	0		
7:30	14.91	14.74	125.3	3.859	0	0	0		
7:31	17.63	14.6	121.4	3.858	0	0	0		
7:32	20.34	14.71	122.7	3.856	0	0	0		
7:32	23.05	14.64	99.79	3.286	0	0	0		
7:33	0	0	0	0	0	0	0	Reset Volume	
7:33	0	0	0	0	0	0	0	[CumVol]=23.24 bbl	
7:33	0	0	0	0	0	0	0	End Tail Slurry	
7:33	0	0	0	0	0	0	0	Drop Top Plug	
7:33	0	0	0	0	0	0	0	Start Displacement	
7:33	0	0	0	0	0	0	0	PAUSE ACQUISITION	
7:37	0	0	0	0	0	0	0	RESTART AFTER PAUSE	
7:37		9.369	17.93		0	0	0		
7:38	2.52	9.424	123.4	5.764	0	0	0		
7:38	6.58	9.432	120.5	5.782	0	0	0		
7:39	10.71	9.382	107	5.753	0	0	0		
7:40	14.76	9.376	105.7	5.758	0	0	0		
7:41	18.82	9.351	109.5	5.77	0	0	0		
7:41	22.88	9.322	170.7	5.714	0	0	0		

ORIGINAL

Well ARMSTRONG UNIT #2 #4			Field HUGOTON			Service Date 9/18/97		Customer MOBIL OIL CORP V39050075		Job Number 20018195	
Time	CumVol	Density	Pressure Ut	Pump				Message			
24 hr clock	bbl	ppg	psi	bpm							
7:42	26.9	9.224	207.3	5.714	0	0	0				
7:43	30.92	9.182	223.7	5.684	0	0	0				
7:43	34.93	9.098	254.9	5.696	0	0	0				
7:44	38.95	9.056	283.4	5.704	0	0	0				
7:45	42.95	8.953	317.1	5.673	0	0	0				
7:45	46.94	8.771	371.5	5.655	0	0	0				
7:46	50.92	8.789	446.2	5.619	0	0	0				
7:47	54.86	8.71	529.1	5.575	0	0	0				
7:48	58.78	8.712	613	5.552	0	0	0				
7:48	0	0	0	0	0	0	0	Lower Pump Rate			
7:48	62.18	8.619	543.1	2.962	0	0	0				
7:49	63.82	8.588	554	2.169	0	0	0				
7:50	65.33	8.564	584.6	2.109	0	0	0				
7:50	66.79	8.637	611.9	2.049	0	0	0				
7:51	68.22	8.634	636.3	1.998	0	0	0				
7:52	69.61	8.638	663.2	1.945	0	0	0				
7:52	70.18	7.653	1308		0	0	0	bump top plug			
7:53	70.19	8.18	29.47		0	0	0				
7:54	70.19	8.149	18.29		0	0	0				
7:55	70.19	8.147	18.29		0	0	0				
7:55	70.19	8.144	18.29		0	0	0				
7:56	70.19	8.148	18.29		0	0	0				
7:57	70.21	8.147	21		0	0	0				
7:57	70.59	8.139	1091		0	0	0				
7:58	70.59	8.125	19.7		0	0	0				
7:59	70.59	8.117	18.29		0	0	0				
8:00	0	0	0	0	0	0	0				
8:00	70.59	8.089	18.29		0	0	0				
8:00	70.59	8.089	18.29		0	0	0				
8:01	70.59	8.088	18.29		0	0	0				
8:02	70.59	8.084	18.29		0	0	0				
8:02	70.59	8.08	18.29		0	0	0				
8:03	70.59	8.085	18.29		0	0	0				
8:04	70.6	8.429	18.29		0	0	0				
8:04	0	0	0	0	0	0	0	End Job			

Post Job Summary									
Average Pump Rates, bpm					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2	
4	0		5.5		130	0	0	0	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density		
1300	1300	450	1300	0		0 bbl	0 lb/gal		
Avg. N2 Percent		Designed Slurry Volume		Displacement	☐ Cement Circulated to Surface? Volume bbl ☐ Washed Thru Perfs To 0 ft				
0 %		0 bbl		69.5 bbl					
Customer or Authorized Representative				Dowell Supervisor			☐ Circulation Lost ☒ Job Completed		
Jeff Lasiter				Jeffrey Dutton					

Well WRD #4-5
Field HUGOTON
Country USA

Client MOBIL
SIR No. 20018195
Job Date 9/18/97 6:58:26 AM

