

The Road to Excellence Starts with Safety

Sold To #: 346707	Ship To #: 2881011	Quote #:	Sales Order #: 8511633
Customer: QUICKSILVER RESOURCES INC-EBUSINESS		Customer Rep: Hord, Ryan	
Well Name: Bret Grandbouche	Well #: 24-02H	API/UWI #:	
Field:	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Contractor: DHS		Rig/Platform Name/Num: 6	
Job Purpose: Cement Multiple Stages			
Well Type: Exploratory / Wildcat		Job Type: Cement Multiple Stages	
Sales Person: SCOTT, KYLE	Srvc Supervisor: BIRCHELL, DEVIN	MBU ID Emp #: 466993	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BERECEE, TERRY Lee	22	222819	BIRCHELL, DEVIN Ray	22	466993	BROWN, CHARLI ANNE	22	490285
GOODRICH, BENJAMIN Franklin	22	481342	LAWTON, SCOTT C	22	482816	PORTER, MICHAEL James	22	491145
WHITE, KAMEREON V	22	475856						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10261036	80 mile	10872435	80 mile	10973575	80 mile	10994445	80 mile
11062234	80 mile	11108221	80 mile	11259880	80 mile	11338213	80 mile
11410664	80 mile	11410670	80 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10-2-11	3	0	10-3-11	19	10			
TOTAL			Total is the sum of each column separately					

Job				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top	Bottom		Called Out	02 - Oct - 2011	13:00	MST
Form Type	BHST			On Location	02 - Oct - 2011	21:00	MST
Job depth MD	6400. ft			Job Started	03 - Oct - 2011	06:00	MST
Water Depth	Wk Ht Above Floor			Job Completed	03 - Oct - 2011	00:00	MST
Perforation Depth (MD)	From	To		Departed Loc	03 - Oct - 2011	00:00	MST

Well Data

Description	New / Used	Max pressure PSI	Size in	ID in	Weight lb/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Intermediate Open Hole				8.75				1200.	6400.		
Multiple Stage Cementer	Unknown							3500.	3500.		
Intermediate Casing	Unknown		7.	6.276	26.		L-80	.	6400.		
Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1200.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
CMTR, TY P ES-II, 7 LG 8RD 26-32PPF, P/Q	1	EA		
PLUG SET-FREE FALL-7"-8RD	1	EA		
CLR, FLT, 7 8RD 23-29PPF, L-80, 2-3/4	1	EA		
SHOE, FLT, 7 8RD, L-80, 2-3/4 SSII	1	EA		
CLAMP - LIMIT - 7 - HINGED -	1	EA		
KIT, HALL WELD-A	1	EA		

Tools and Accessories													
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe	7	1	HES	6396	Bridge Plug					Bottom Plug			
Float Collar	7	1	HES	6358	Retainer					SSR plug set	7	1	HES
Insert Float										Plug Container	7	1	HES
Stage Tool	7	1	HES	2809						Centralizers			
Miscellaneous Materials													
Gelling Agt			Conc		Surfactant			Conc		Acid Type		Qty	Conc
Treatment Fld			Conc		Inhibitor			Conc		Sand Type		Size	Qty
Fluid Data													
Stage/Plug #: 1													
Fluid #	Stage Type	Fluid Name				Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid gal/sk	Rate bbl/min	Total Mix Fluid gal/sk	
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)				20.00	bbl	10.	5.91	40.03	5.0		
	40.003 gal/bbl	FRESH WATER											
	0.13 gal/bbl	SEM-7, 55 GAL DRUM (100001626)											
	0.13 gal/bbl	D-AIR 3000L, 5 GAL PAIL (101007444)											
	62.5 lbm/bbl	BARITE, BULK (100003681)											
	0.13 gal/bbl	MUSOL(R) A, BULK (100003696)											
2	EconoCem (1st Lead)	ECONOCHEM (TM) SYSTEM (452992)				205.0	sacks	12.2	2.22	12.14	5.0	12.14	
	0.4 %	HALAD(R)-344, 50 LB (100003670)											
	0.125 lbm	POLY-E-FLAKE (101216940)											
	0.9 %	HR-5, 50 LB SK (100005050)											
	3 lbm	GILSONITE, 50 LB BAG (100001618)											
	12.14 Gal	FRESH WATER											
3	EconoCem (2nd Lead)	ECONOCHEM (TM) SYSTEM (452992)				60.0	sacks	12.2	2.22	12.23	5.0	12.23	
	5 %	CAL-SEAL 60, 50 LB BAG (101217146)											
	10 lbm	SILICALITE - COMPACTED, 50 LB SK (100012223)											
	0.4 %	HALAD(R)-344, 50 LB (100003670)											
	1 %	ECONOLITE (100001580)											
	0.125 lbm	POLY-E-FLAKE (101216940)											
	12.23 Gal	FRESH WATER											
4	EXTENDACEM (1st Tail)	EXTENDACEM (TM) SYSTEM (452981)				80.0	sacks	14.2	1.29	5.34	5.0	5.34	
	0.2 %	HALAD(R)-344, 50 LB (100003670)											
	0.4 %	HR-5, 50 LB SK (100005050)											
	0.125 lbm	POLY-E-FLAKE (101216940)											
	3 lbm	GILSONITE, 50 LB BAG (100001618)											
	5.344 Gal	FRESH WATER											

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lb/gal	Yield ft ³ /sk	Mix Fluid gal/sk	Rate bbl/min	Total Mix Fluid gal/sk
5	Displacement		243.00	bbl	8.4			5.0	
Stage/Plug #: 2									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lb/gal	Yield ft ³ /sk	Mix Fluid gal/sk	Rate bbl/min	Total Mix Fluid gal/sk
1	Water Spacer		20	bbl	8.33	.0	.0	.0	
2	EconoCem (2nd Lead)	ECONOCEM (TM) SYSTEM (452992)	185	sacks	12.2	2.22	12.23		12.23
	0.4 %	HALAD(R)-344, 50 LB (100003670)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	12.228 Gal	FRESH WATER							
3	EXTENDACEM (2nd Tail)	EXTENDACEM (TM) SYSTEM (452981)	75	sacks	14.2	1.29	5.65		5.65
	0.2 %	HALAD(R)-344, 50 LB (100003670)							
	0.4 %	HR-5, 50 LB SK (100005050)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.647 Gal	FRESH WATER							
4	Displacement			bbl	8.4			.0	
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	40 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					

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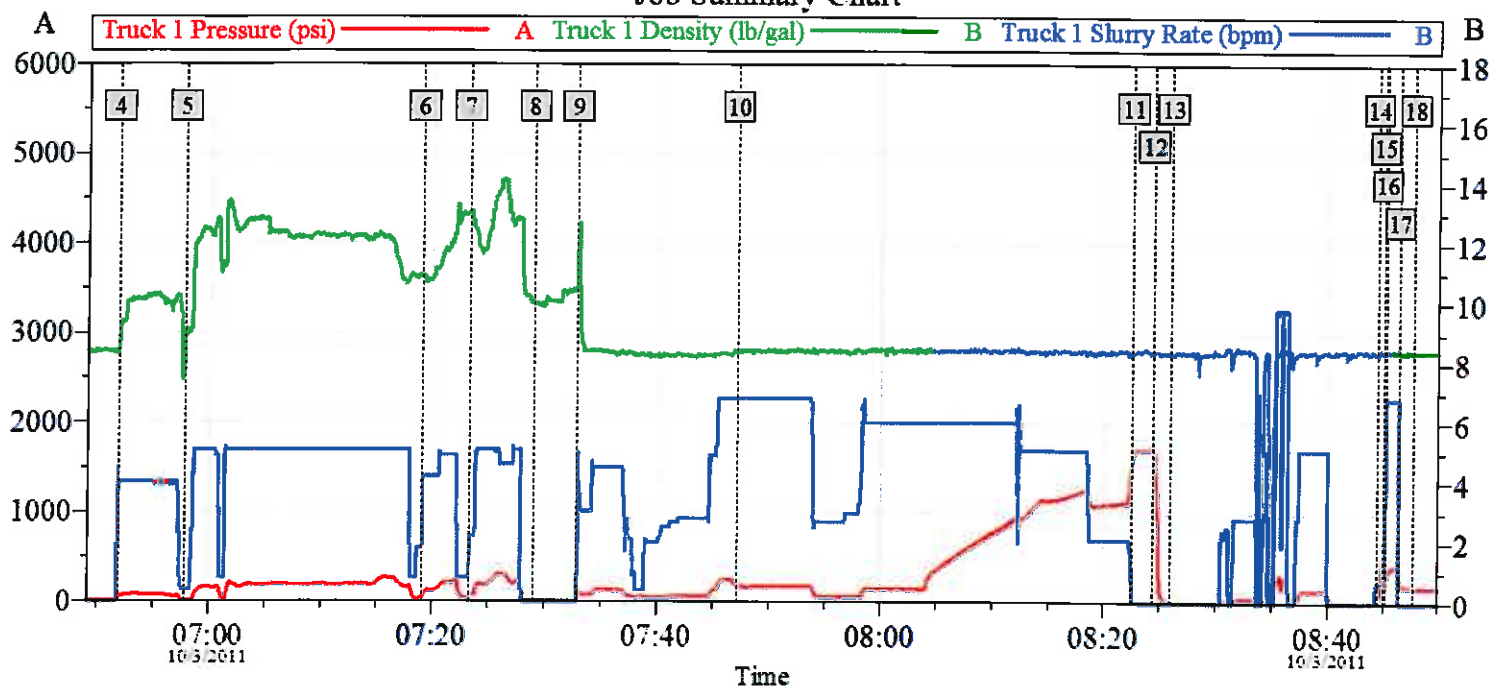
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Legal Description:			
Lat:		Long:	
Contractor: DHS	Rig/Platform Name/Num: 6		
Job Purpose: Cement Multiple Stages		Ticket Amount:	
Well Type: Exploratory / Wildcat	Job Type: Cement Multiple Stages		
Sales Person: SCOTT, KYLE	Srv Supervisor: BIRCHELL, DEVIN	MBU ID Emp #: 466993	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure PSI		Comments
				Stage	Total	Tubing	Casing	
Call Out	10/02/2011 17:00							
Pre-Convoy Safety Meeting	10/02/2011 18:00							Discussed Route and Possible Hazards to Location
Depart from Service Center or Other Site	10/02/2011 18:20							
Arrive At Loc	10/02/2011 21:00							
Pre-Rig Up Safety Meeting	10/03/2011 03:00							Discussed Hazards and Where to Spot Equipment
Rig-Up Equipment	10/03/2011 03:20							Rigged Up Equipment as far as Possible to Avoid Staying Out of Casings Danger Zone
Other	10/03/2011 05:00							Waiting on Water Truck company wants enough water for displacement in case there are issues displacing with onsite OBM.
Pre-Job Safety Meeting	10/03/2011 06:10							Discussed Job Procedures With Rig and Cement Crews
Rig-Up Completed	10/03/2011 06:30							
Other	10/03/2011 06:31							Tested mix water in upright all test good. Temp 73.9, Iron 0, Sulfates <200, Chlorides <20, pH 6.5.
Pressure Test	10/03/2011 06:40							

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure PSI		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer	10/03/2011 06:51		4	20	20		43.0	
Pump 1st Stage Lead Slurry	10/03/2011 06:57		5	81	101		197.0	Pumped 1st Lead, density 12.2ppg Yield 2.22ft3/sk, Water 12.14gal/sk.
Pump 1st Stage Lead Slurry	10/03/2011 07:19		4	23	124		200.0	Pumped 2nd lead, density 12.2ppg Yield 2.22ft3/sk, Water 12.23gal/sk. Had issues maintaining density powdered off tub.
Pump 1st Stage Tail Slurry	10/03/2011 07:23		5	18	142		180.0	Density 14.2ppg, Yield 1.28ft3/sk, Water 5.64gal/sk.
Pump Displacement	10/03/2011 07:45			243	50			Pumped 8.1ppg OBM had issues getting sufficient rate, switched to water per company man.
Pump Displacement	10/03/2011 07:47			243	98		177.0	Pumped water.
Bump Plug	10/03/2011 08:22						1545.0	Bumped Plug 500 psi Over Lift, Lift was 1140 psi
Check Floats	10/03/2011 08:24							Floats held with 1.5BBL back.
Drop Opening Device For Multiple Stage Cementer	10/03/2011 08:25							
Pressure Up	10/03/2011 08:44							Pressured Up To Open D.V. Tool, Tool Opened With 686 PSI
Open Multiple Stage Cementer	10/03/2011 08:44						686.0	
Pump Water	10/03/2011 08:45		7	10			240.0	
Shutdown	10/03/2011 08:45							Shutdown and turned well over to rig.
Cement Returns to Surface	10/03/2011 08:47							Approximately 2BBL of cement to surface after the tool was opened.
Clean Lines	10/03/2011 10:02							
Pre-Job Safety Meeting	10/03/2011 14:30							Discussed Job Procedures With Rig and Cement Crews

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure PSI		Comments
				Stage	Total	Tubing	Casing	
Bump Plug	10/03/2011 14:43						1797.0	Plug bumped and tool closed.
Pump Water	10/03/2011 14:47		4	20	20.32		150.0	
Pump 2nd Stage Lead Slurry	10/03/2011 14:54			73	81		100.0	Pumped lead, density 12.2ppg Yield 2.22ft3/sk, Water 12.23gal/sk. Had issues maintaining density decreased rate.
Other	10/03/2011 15:20							Tested mix water sulfates were high (600), chlorides were high(<20) ph was 12. temp 72
Pump 2nd Stage Tail Slurry	10/03/2011 15:30			17	18.5		80.0	Density 14.2ppg, Yield 1.28ft3/sk, Water 5.64gal/sk.
Other	10/03/2011 15:35							Tested mix water sulfates good (<200), chlorides good (<20), ph 9, temp 73F
Pump Displacement	10/03/2011 15:38			108	106.8			
Cement Returns to Surface	10/03/2011 15:58							Cement returns to surface with 86BBL displacement away.
Check Floats	10/03/2011 16:06							Floats Held with 1BBL back. 20BBL of cement returns to surface.
Job Complete	10/03/2011 16:06							
Pre-Rig Down Safety Meeting	10/03/2011 16:16							
Rig-Down Completed	10/03/2011 17:30							
Pre-Convoy Safety Meeting	10/03/2011 17:40							
Depart Location for Service Center or Other Site	10/03/2011 18:00							

Quicksilver Bret Grandbouche 24-02H Multi Stage Intermediate Job Summary Chart



Global Event Log

4 Pump Spacer	06:51:54	5 Pump 1st Stage Lead Slurry	06:57:47	6 Lead #2	07:19:09
7 Tail	07:23:17	8 Shutdown	07:29:00	9 OBM	07:32:50
10 Pump Water	07:47:10	11 Bump Plug	08:22:27	12 Check Floats	08:24:20
13 Dropped Opening Tool	08:25:59	14 Pressure Up	08:44:24	15 Open Multiple Stage Cementer	08:44:59
16 Pump Water	08:45:10	17 Shutdown	08:46:22	18 End Job	08:47:45

Quicksilver Bret Grandbouche 20-42H Mutli Stage Intermediate

Job Summary Chart

