

The Road to Excellence Starts with Safety

Sold To #: 300496	Ship To #: 2845475	Quote #:	Sales Order #: 8081353
Customer: APACHE CORP		Customer Rep: Stanley, Josh	
Well Name: Hager	Well #: 1-12	API/UWI #:	
Field:	City (SAP): PLAINS	County/Parish: Meade	State: Kansas
Legal Description: Section 13 Township 34S Range 27W			
Contractor: Duke Drilling		Rig/Platform Name/Num: 6	
Job Purpose: Cement Production Casing			
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: MEREDITH, JERRY		Srvc Supervisor: CARRILLO, EDUARDO	MBU ID Emp #: 371263

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN J	13	442123	CARRILLO, EDUARDO Carrillo	13	371263	PORTILLO, CESAR	13	457847
SMITH, BOBBY Wayne	13	106036	TORRES, CLEMENTE	13	344233			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10244148	45 mile	10286731	45 mile	10714253C	45 mile	10744298C	45 mile
10825713	45 mile	10988832	45 mile	10994449	45 mile	11133699	45 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
4-3-2011	4	1.5	4-4-2011	2.5				
TOTAL			Total is the sum of each column separately					

Job

Job Times


Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone	
Formation Depth (MD)			On Location	03 - Apr - 2011	16:00	CST	
Form Type		BHST	142 degF	On Location	03 - Apr - 2011	18:30	CST
Job depth MD	6266. ft	Job Depth TVD	6266. ft	Job Started	04 - Apr - 2011	06:40	CST
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	04 - Apr - 2011	08:00	CST
Perforation Depth (MD)	From	To	Departed Loc	04 - Apr - 2011	09:45	CST	

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
7-7/8" Production Open Hole				7.875				1600.	6260.		
5-1/2" 17 ppf Production Casing	New		5.5	4.892	17.	8 RD (LT&C)	J-55	.	6260.		
8-5/8" Surface Casing	New		8.625	8.097	24.	8 RD (ST&C)	J-55	.	1600.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG ASSY, 5 1/2 OMEGA/HWE, 4.38 MIN/5.09	1	EA		
SHOE, FLOAT, 5 1/2 8RD, 2 3/4 SUPER SEAL	2	EA		
CLR, FLT, 5-1/2 8RD, 14-23PPF, 2-3/4	2	EA		
CTRZR ASSY, 5 1/2 CSG X 7 7/8 HOLE, HINGED	12	EA		
CLAMP - LIMIT - 5-1/2 - HINGED -	2	EA		
KIT, HALL WELD-A	2	EA		

Tools and Accessories														
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	
Guide Shoe	6266				Packer					Top Plug	5 1/2	H	1	
Float Shoe					Bridge Plug					Bottom Plug				
Float Collar					Retainer					SSR plug set				
Insert Float										Plug Container	5 1/2	H	1	
Stage Tool										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	Fresh Water				20.00	bbl	8.33	.0	.0	.0				
2	Superflush				20.00	bbl	9.5	.0	.0	.0				
		68 lbm/bbl HALLIBURTON SUPER FLUSH (100003639)												
3	Fresh Water				20.00	bbl	8.33	.0	.0	.0				
4	Lead Cement	MIDCON-2 CEMENT PREMIUM - SBM (15077)			90.0	sacks	11.4	2.89	17.85		17.85			
		0.1 % WG-17, 50 LB SK (100003623)												
		17.852 Gal FRESH WATER												
5	Tail Cement	HALLIBURTON LIGHT PREMIUM - SBM (12311)			150.0	sacks	12.7	1.94	9.3		9.3			
		10 lbm GILSONITE, BULK (100003700)												
		0.6 % HALAD(R)-322, 50 LB (100003646)												
		9.303 Gal FRESH WATER												
6	2% KCL Displacement				144.00	bbl	8.45	.0	.0	.0				
		167 lbm/Mgal POTASSIUM CHLORIDE - KCL, 50 LB BAG (100001585)												
		1 gal/Mgal CLAYFIX 3, 5 GAL PAIL (101810105)												
		1 gal/Mgal LOSURF-300M, 5 GAL PAIL (101439821)												
Calculated Values				Pressures				Volumes						
Displacement	144	Shut In: Instant		Lost Returns		0	Cement Slurry		98	Pad				
Top Of Cement	3142	5 Min		Cement Returns		0	Actual Displacement		144	Treatment				
Frac Gradient		15 Min		Spacers		60	Load and Breakdown			Total Job 302				
Rates														
Circulating	4	Mixing		6	Displacement		6	Avg. Job		6				
Cement Left in Pipe	Amount	45 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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Field:	City (SAP): PLAINS	County/Parish: Meade	State: Kansas
Legal Description: Section 13 Township 34S Range 27W			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: Duke Drilling		Rig/Platform Name/Num: 6	
Job Purpose: Cement Production Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: MEREDITH, JERRY		Srvc Supervisor: CARRILLO, EDUARDO	MBU ID Emp #: 371263

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	04/03/2011 16:00							Dispach Called Cement Crew Out For Apach CORP Job Hager 1-12 5 1/2 Production
Pre-Convoy Safety Meeting	04/03/2011 17:30							Discuss Route to take and Hazards on the road
Assessment Of Location Safety Meeting	04/03/2011 18:30							Rigg Triping Out Drill Pipe.
Pre-Rig Up Safety Meeting	04/03/2011 18:45							Discussed all Red Zones Proper Lifting To Have Spoters at all Times Where to Run Water and Iron Lines Went Over JSA.
Rig-Up Completed	04/03/2011 19:45							
Other	04/03/2011 19:50							Got Numbers From Customer RepJosh Stanley // TD=6260//TP=6266//SJ= 45.73//Disp=144 BBLS// CAP = 1.06 BBL IN SJ. Have Customer Rep Sing Work Order Contract.
Wait on Customer or Customer Sub-Contractor Equip	04/03/2011 20:00							Wait on Rig Crew To Finish Triping Pipe Out.
Other	04/03/2011 21:10							Casing Crew Rigging Up. To Pull Calers Out.
Other	04/03/2011 21:30							Bob and Fabian at Location With Stand By Truck.
Other	04/04/2011 00:00							Casing Going In Hole

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Other	04/04/2011 05:30							Rigg Circulating Casing
Pre-Job Safety Meeting	04/04/2011 06:00							Went Over Job Steps With all Discussed Valumes and Pressuers and Rates On How Fast To Pump With Customer Rep Had All Sing Saftey Sheet.
Start Job	04/04/2011 06:40							Ready for Halliburton
Test Lines	04/04/2011 06:41						4000.0	Tested @ 4000 PSI. Heald Good Released PSI On Truck.
Pump Spacer 1	04/04/2011 06:46		5	20	20		100.0	Pump 20 BBLs H2O Fresh Water
Pump Spacer 2	04/04/2011 06:49		6	20	40		680.0	Pumped 20 BBLs Super Flush
Pump Spacer 1	04/04/2011 06:53		6	20	60		650.0	Pumped 20 BBLs H2O Fresh Water
Pump Lead Cement	04/04/2011 06:57		6	46	106		675.0	Pumped 90 SKS @ 11.4 PPG // = 46 BBLs CMT // = 90 X 2.89 = 260 CU/FT
Pump Tail Cement	04/04/2011 07:04		6	52	158		350.0	Pumped 150 SKS @ 12.7 PPG// = 52 BBLs CMT // = 150 X 1.94 = 291 CU/FT
Shutdown	04/04/2011 07:12							
Drop Top Plug	04/04/2011 07:12							HWE
Pump Displacement	04/04/2011 07:20		6	144	302		200.0	Pumped 144 BBLs 2% KCL Water Disp
Displ Reached Cmnt	04/04/2011 07:37		6	100			305.0	Displasment Reach Cemt @ 100 bbls Diaplacment Pumped at 6 bpm
Slow Rate	04/04/2011 07:43		2	134	302		650.0	
Bump Plug	04/04/2011 07:49		2	144	302		780.0	Bumped Plug @ 780 PSI Took to 1300 PSI 144 bbls Disp
Check Floats	04/04/2011 07:55							Floats held 1bbl Back
End Job	04/04/2011 08:00							

# HALLIBURTON

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pre-Rig Down Safety Meeting	04/04/2011 08:05							Discuss Pinchpoint and Tripping Hazards
Rig-Down Completed	04/04/2011 09:10							
Other	04/04/2011 09:15							THANK YOU FOR CHOOSING HALLIBURTON
Crew Leave Location	04/04/2011 09:45							

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SUMMIT Version: 7.20.130

Monday, April 04, 2011 09:36:00