

The Road to Excellence Starts with Safety

Sold To #: 300496	Ship To #: 2939179	Quote #:	Sales Order #: 9745119
Customer: APACHE CORP		Customer Rep: Johnston, Dwayne	
Well Name: Zerr		Well #: 31-41-1H	API/UWI #: 15-179-2130701
Field:	City (SAP): HOXIE	County/Parish: Sheridan	State: Kansas
Legal Description: Section 31 Township 10S Range 28W			
Contractor: Heraclas		Rig/Platform Name/Num:	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: MEREDITH, JERRY		Srvc Supervisor: RODRIGUEZ, EDGAR	
MBU ID Emp #: 442125			

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN J	9	442123	ATCHISON, DON	9		JOURNAGEN, MICHAEL	3	524224
NORTON, BRUCE	9	499926	RODRIGUEZ, EDGAR Alejandro	9	442125	SALAZAR, JERRY Edward	9	270722

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
8/18/2012	9	4						

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	18 - Aug - 2012	06:00	CST
Form Type		BHST	82 degF	On Location	18 - Aug - 2012	11:05
Job depth MD	1536.5 ft	Job Depth TVD	15440. ft	Job Started	18 - Aug - 2012	13:25
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	18 - Aug - 2012	20:41
Perforation Depth (MD)	From	To	Departed Loc	18 - Aug - 2012	22:00	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
Surface Open Hole				12.25				30.	1500.		
Conductor	Unknown		20.	19.166	90.		K-55	.	30.		
Surface Casing	Unknown		9.625	8.835	40.	8 RD (LT&C)	J-55	.	1500.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,GID,9-5/8 8RD	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	13	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	3	EA		
KIT,HALL WELD-A	2	EA		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	1	EA		
CLR,FLT,9-5/8 LG 8RD 36-40PPF,2-3/4NR	1	EA		
PLUG-CMTG-TOP-9-5/8 IN. NR TYPE 24TH	1	EA		
PLUG-CMTG-BOT-9-5/8 IN. NR TYPE 24TH	1	EA		
SUGAR - GRANULATED	100	LB		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe	9 5/8	1	HES		Packer					Top Plug	9 5/8	1	HES

Float Shoe					Bridge Plug					Bottom Plug	9 5/8	1	HES
Float Collar	9 5/8	1	HES		Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers	9 5/8	13	HES

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	Water Spacer		50.00	bbl	8.33	.0	.0	.0	
2	Lead Cement	HALLIBURTON LIGHT STANDARD - SBM (12313)	305.0	sacks	12.5	2.02	11.03		11.03
	1 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	11.031 Gal	FRESH WATER							
3	Tail Cement	CMT - STANDARD CEMENT (100003684)	135.0	sacks	15.6	1.19	5.22		5.22
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)							
	1 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.221 Gal	FRESH WATER							
4	Displacement (TBC)		110.00	bbl	.	.0	.0	.0	
5	200 SK of neat class "A"	CMT - STANDARD CEMENT (100003684)	200.0	sacks	15.6	1.18	5.23		5.23
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)							
	5.225 Gal	FRESH WATER							

Calculated Values

Pressures

Volumes

Displacement	108	Shut In: Instant		Lost Returns		Cement Slurry	181	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	0	Actual Displacement	108	Treatment	
Frac Gradient		15 Min		Spacers	50	Load and Breakdown		Total Job	344

Rates

Circulating	5	Mixing	5	Displacement	5	Avg. Job	5
Cement Left In Pipe	Amount	39.50 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