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**KINDER MORGAN INC - EBUS**

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**Hovenweep A-5**

**Dolores County , Colorado**

**Cement Surface Casing**

**24-Sep-2013**

**Job Site Documents**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 320986	<b>Ship To #:</b> 320986	<b>Quote #:</b>	<b>Sales Order #:</b> 900758729
<b>Customer:</b> KINDER MORGAN INC - EBUS		<b>Customer Rep:</b> Willburn, Herb	
<b>Well Name:</b> Hovenweep		<b>Well #:</b> A-5	<b>API/UWI #:</b>
<b>Field:</b>	<b>City (SAP):</b> HOUSTON	<b>County/Parish:</b> Dolores	<b>State:</b> Colorado
<b>Contractor:</b> Nabors		<b>Rig/Platform Name/Num:</b> Nabors 405	
<b>Job Purpose:</b> Cement Surface Casing			
<b>Well Type:</b> Producing Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> KIDDOO, JUSTIN		<b>Srvc Supervisor:</b> WOOD, BRANDON	<b>MBU ID Emp #:</b> 412753

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BEGAY, LYDELL James	27	479804	CHEE, NEWMAN Lamar	27	515460	GARCIA, JAMES	27	552868
MADRID, NAPOLEON U.	27	547508	WOOD, BRANDON M	27	412753			

**Equipment**

HES Unit #	Distance-1 way						
10025024	112 mile	10025041	112 mile	10741115	112 mile	11324578	112 mile
11381461	112 mile						

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

**TOTAL** Total is the sum of each column separately

**Job**

**Job Times**

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
<b>Formation Depth (MD)</b>			<b>On Location</b>	24 - Sep - 2013	07:00	MST
<b>Form Type</b>		BHST	<b>Job Started</b>	24 - Sep - 2013	12:00	MST
<b>Job depth MD</b>	2873. ft	<b>Job Depth TVD</b>	2825.3 ft	<b>Job Completed</b>	24 - Sep - 2013	02:00
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	4. ft	<b>Departed Loc</b>	24 - Sep - 2013	00:00
<b>Perforation Depth (MD)</b>	From	To				

**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
12 1/4" Open Hole				12.25				.	2856.		
9 5/8" Surface	Used		9.625	8.921	36.		J-55	.	2856.		

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

Description	Qty	Qty uom	Depth	Supplier
CLR,FLT,TROPHY SEAL, 9-5/8 8RD	1	EA		
SHOE,FLT,TROPHY SEAL,9 5/8 8RD	1	EA		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	25	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
KIT,HALL WELD-A	2	EA		
SUGAR, GRANULATED, IMPERIAL	300	LB		

**Tools and Accessories**

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

**Miscellaneous Materials**

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%		
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty			
<b>Fluid Data</b>									
<b>Stage/Plug #: 1</b>									
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		10.00	bbl	8.33	.0	.0	.0	
2	CHEMICAL WASH	CHEMICAL WASH - SBM (21914)	20.00	bbl	8.4	.0	.0	.0	
3	Water Spacer		10.00	bbl	8.33	.0	.0	.0	
4	Lead Cement	HALLIBURTON LIGHT PREMIUM - SBM (12311)	800.0	sacks	12.4	1.9	9.68		9.68
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5 lbm	KOL-SEAL, BULK (100064233)							
	0.1 %	HALAD(R)-9, 50 LB (100001617)							
	9.677 Gal	FRESH WATER							
5	Tail Cement	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	300.0	sacks	15.8	1.15	4.96		4.96
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	0.1 %	HALAD(R)-9, 50 LB (100001617)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	4.962 Gal	FRESH WATER							
6	Displacement		218.40	bbl	8.33	.0	.0	.0	
7	Top Out	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	50.0	sacks	15.8	1.17	5.02		5.02
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE - HI TEST PELLETT (100005053)							
	5.019 Gal	FRESH WATER							
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>				
Displacement	218.4	Shut In: Instant		Lost Returns	NO	Cement Slurry	332	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	70	Actual Displacement	220	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	47.7 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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<b>Well Name:</b> Hovenweep		<b>Well #:</b> A-5	<b>API/UWI #:</b>
<b>Field:</b>	<b>City (SAP):</b> HOUSTON	<b>County/Parish:</b> Dolores	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 0 deg. OR N 0 deg. 0 min. 0 secs.		<b>Long:</b> E 0 deg. OR E 0 deg. 0 min. 0 secs.	
<b>Contractor:</b> Nabors		<b>Rig/Platform Name/Num:</b> Nabors 405	
<b>Job Purpose:</b> Cement Surface Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Producing Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> KIDDOO, JUSTIN		<b>Srv Supervisor:</b> WOOD, BRANDON	<b>MBU ID Emp #:</b> 412753

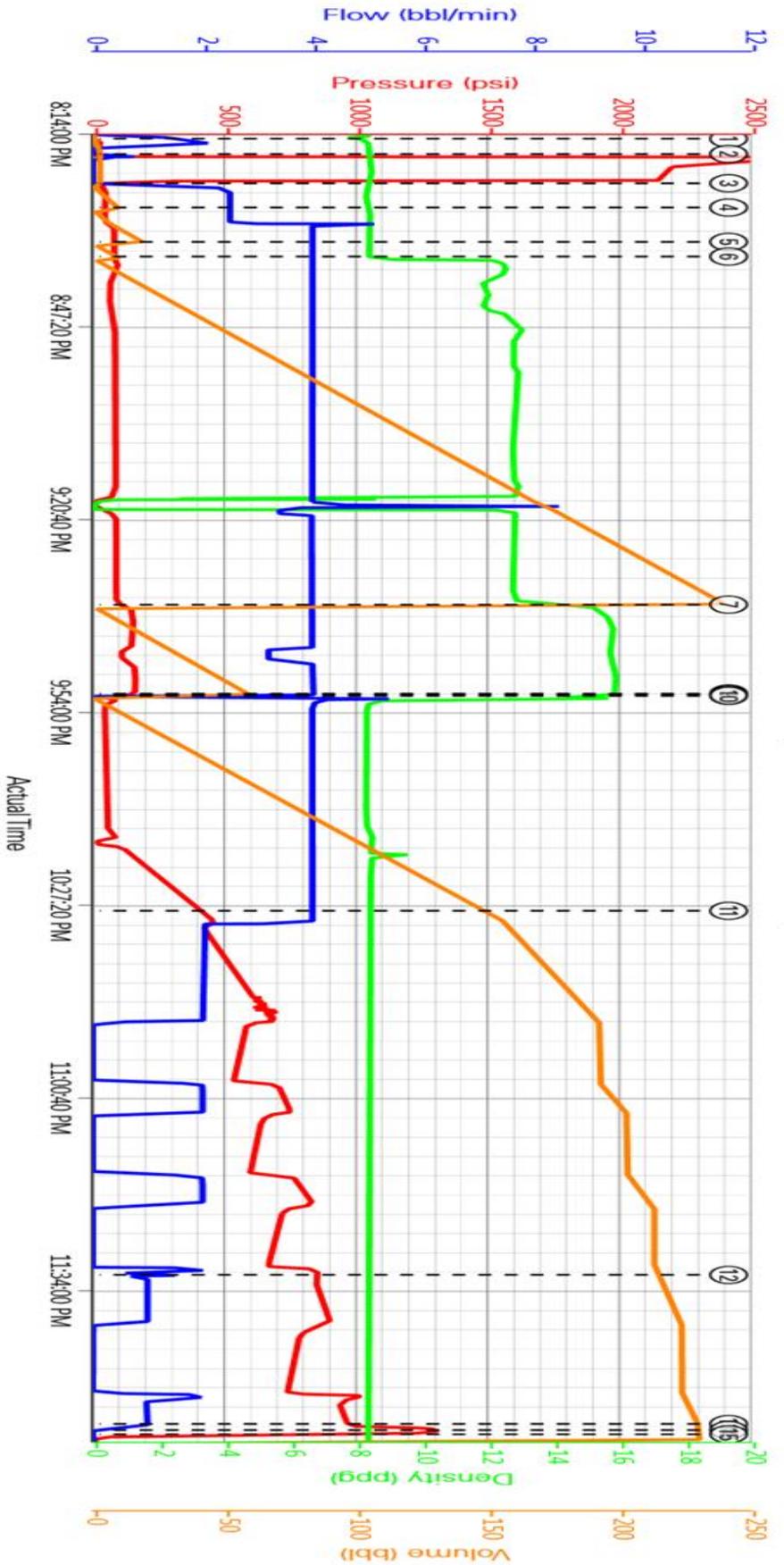
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	09/24/2013 07:00							
Depart Yard Safety Meeting	09/24/2013 08:55							SAFETY MEETING INVOLVING THE CMT CREW
Crew Leave Yard	09/24/2013 09:00							
Arrive At Loc	09/24/2013 11:45							1- F-450 11583925, 1- RED TIGER PUMP TRUCK 11324578, 2 - 660 BULK TRUCK TRAILERS 10025024, 10025041, FSB 10053558
Assessment Of Location Safety Meeting	09/24/2013 11:50							ASSESSMENT OF LOCATION INVOLVING THE CMT CREW
Pre-Rig Up Safety Meeting	09/24/2013 18:30							SAFETY MEETING INVOLVING THE ENTIRE CMT/ RIG CREW
Rig-Up Equipment	09/24/2013 18:35							
Pre-Job Safety Meeting	09/24/2013 19:45							SAFETY MEETING INVOLVING EVERYONE ON LOCATION
Start Job	09/24/2013 20:16							TP 2873 FT, FC 2825.3 FT, SJ 47.7 FT, 9 5/8 36 # K-55, 12 1/4 OH, 14 " CONDUCTOR 80'
Test Lines	09/24/2013 20:17		0.5		0.3		2160.0	PRESSURE TEST GOOD TO 2160 PSI
Pump Spacer 1	09/24/2013 20:22		2.5		10		47.0	PUMP 10 BBLS H2O SPACER

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer 2	09/24/2013 20:27		4		20		79.0	PUMP 20 BBLS CHEMWASH SPACER
Pump Spacer 1	09/24/2013 20:33		4		10		81.0	PUMP 10 BBLS H2O SPACER
Pump Lead Cement	09/24/2013 20:35		4		270.7		83.0	800 SKS, 1.9 YLD, 9.68 GAL H2O/SK, 270.7 BBLS @ 12.4 #, 184.4 BBLS H2O REQ
Pump Tail Cement	09/24/2013 21:35		4		61.4		162.0	300 SKS, 1.15 YLD, 4.96 GAL H2O/SK, 61.4 BBLS @ 15.8 #, 35.4 BBLS H2O REQ
Shutdown	09/24/2013 21:51							SHUT DOWN TO DROP TOP PLUG
Drop Top Plug	09/24/2013 21:51							TATTLE TAIL INDICATED PLUG LEFT THE PLUG CONTAINER
Pump Displacement	09/24/2013 21:51		4		218.4		52.0	CALCULATED 218.4 BBLS DISPLACEMENT, ACTUALLY PUMPED 220 BBLS ON TANKS MARK TO MARK TO BUMP PLUG
Cement Returns to Surface	09/24/2013 22:28				70		420.0	CALCULATED SHOULD CIRCULATE 166 BBLS CEMENT RETURNS TO SURFACE, ACTUALLY CIRCULATED 70 BBLS BACK
Slow Rate	09/24/2013 23:31		1					SLOW RATE 1 BPM TO LAND THE PLUG
Bump Plug	09/24/2013 23:57		1				976.0	CALCULATED 771.8 PSI DIFFERENTIAL WHEN PLUG LANDS, PLUG BUMPED @ 976 PSI
Check Floats	09/24/2013 23:58						1315. 0	PRESSURED UP TO 1315 PSI, RELEASED PRESSURE FLOATS HELD, FLOWED BACK 1.5 BBLS
Start Job	09/25/2013 13:30							TAGGED CEMENT 90 FT DOWN, RAN IN 100 FT 1" TBG TO TOP OUT
Pump Cement	09/25/2013 13:50		1.5		8			PUMPED 8 BBLS CEMENT TO TOP OUT CSG

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	09/25/2013 14:05							SHUTDOWN GOOD CEMENT TO SURFACE
End Job	09/25/2013 14:10							GOOD CIRCULATION THROUGHOUT THE ENTIRE CMT JOB, NO PIPE MOVEMENT,
Pre-Rig Down Safety Meeting	09/25/2013 14:11							SAFETY MEETING INVOLVING THE CMT/RIG CREW
Rig-Down Equipment	09/25/2013 14:15							
Safety Meeting - Departing Location	09/25/2013 14:55							SAFETY MEETING INVOLVING THE CMT CREW
Depart Location for Service Center or Other Site	09/25/2013 15:00							THANK YOU FOR USING HALLIBURTON, BRANDON WOOD AND CREW

# Cementing Job Log

KINDER MORGAN, HOVENWEEP # A-5, SURFACE



- ① Start Job    ③ Pump Spacer 1    ⑤ Pump Spacer 1    ⑦ Pump Tail Cement    ⑨ Drop Plug    ⑪ Cement Returns to Surface    ⑬ Bump Plug    ⑮ End Job
- ② Test Lines    ④ Pump Spacer 2    ⑥ Pump Lead Cement    ⑧ Shutdown    ⑩ Pump Displacement    ⑫ Slow Rate    ⑭ Check Floats

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Edit



Customer: KINDER MORGAN INC  
 Representative: BRANDON WOOD

Job Date: 9/24/2013 12:43:08 PM  
 Sales Order #: 900758729

Well: HOVENWEEP # A-5  
 COMPANY MAN: HERB WILBERN