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**ANADARKO PETROLEUM CORP - EBUS**

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**Gittlein 29N-28HZ  
WATTENBERG  
Weld County , Colorado**

**Cement Surface Casing**  
**03-Sep-2013**

**Job Site Documents**

## The Road to Excellence Starts with Safety

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3098513		<b>Quote #:</b>		<b>Sales Order #:</b> 900715983	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Hersh, Larry			
<b>Well Name:</b> Gittlein			<b>Well #:</b> 29N-28HZ			<b>API/UWI #:</b> 05-123-36218	
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> HUDSON		<b>County/Parish:</b> Weld		<b>State:</b> Colorado	
<b>Lat:</b> N 40.088 deg. OR N 40 deg. 5 min. 18.38 secs.				<b>Long:</b> W 104.678 deg. OR W -105 deg. 19 min. 18.264 secs.			
<b>Job Purpose:</b> Cement Surface Casing							
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing			
<b>Sales Person:</b> PLIENESS, RYAN				<b>Srv Supervisor:</b> MCBRIDE, NATHAN		<b>MBU ID Emp #:</b> 313810	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHISLUM, DENNIS	4.3	512130	MARKOVICH, STEVEN Michael	4.3	502964	MCBRIDE, NATHAN Charles	4.3	313810

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10679720C	15 mile	11064046	15 mile	11562562	15 mile	12010170	15 mile

### Job Hours

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

<b>TOTAL</b>	Total is the sum of each column separately							
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### Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	02 - Sep - 2013	17:00	MST
Form Type		BHST	Job Started	02 - Sep - 2013	23:00	MST
Job depth MD	1316. ft	Job Depth TVD	Job Completed	03 - Sep - 2013	00:50	MST
Water Depth		Wk Ht Above Floor	Job Completed	03 - Sep - 2013	02:27	MST
Perforation Depth (MD)	From	To	Departed Loc	03 - Sep - 2013	03:15	MST

### 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
13 1/2" Open Hole Section				13.5				.	1315.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1315.		

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

Description	Qty	Qty uom	Depth	Supplier
CMT CASING EQUIPMENT BOM	1	JOB		
MILEAGE FOR CEMENTING CREW,ZI	30	MI		
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	30	MI		
KIT,HALL WELD-A	1	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	7	EA		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	1	EA		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	2	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					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	%
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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 Spacer				10.00	bbl	8.33	.0	.0	.0			
2	Mud Flush				12.00	bbl	8.4	.0	.0	.0			
3.33 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)											
42 gal/bbl		MUD FLUSH III - SBM (528788)											
3	SwiftCem B2	SWIFTCem (TM) SYSTEM (452990)			513.0	sacks	14.2	1.53	7.63		7.63		
7.63 Gal		FRESH WATER											
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	42 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>Legal Description:</b>			
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<b>Contractor:</b>		<b>Rig/Platform Name/Num:</b> Major 42	
<b>Job Purpose:</b> Cement Surface Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> PLIENESS, RYAN		<b>Srvc Supervisor:</b> MCBRIDE, NATHAN	<b>MBU ID Emp #:</b> 313810

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Service Center	09/02/2013 23:00							All equipment and materials on location Rig Running Casing
Casing on Bottom	09/02/2013 23:05							
Circulate Well	09/02/2013 23:06							
Assessment Of Location Safety Meeting	09/02/2013 23:10							Hazard Hunt and review fluid location, wash up and truck layout
Pre-Rig Up Safety Meeting	09/02/2013 23:15							
Rig-Up Equipment	09/02/2013 23:20							
Rig-Up Completed	09/02/2013 23:58							
Pre-Job Safety Meeting	09/03/2013 00:20							
Start Job	09/03/2013 00:50							
Pump Water	09/03/2013 00:51		2	2			30.0	Fill Lines
Test Lines	09/03/2013 00:53						3375.0	
Pump Spacer	09/03/2013 00:57		2	10			40.0	Fresh Water
Pump Spacer	09/03/2013 01:02		5	12			92.0	Mud Flush
Pump Spacer	09/03/2013 01:06		5	10			93.0	Fresh Water
Pump Lead Cement	09/03/2013 01:07		5	139.8			50.0	513sks @ 14.2ppg, 1.54yield, 7.66gal/sk
Drop Top Plug	09/03/2013 01:48							
Pump Displacement	09/03/2013 01:49		5	98			405.0	Fresh Water

## *Cementing Job Log*

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Spacer Returns to Surface	09/03/2013 02:05							Mud Flush to Surface 40bbls into Displacement
Cement Returns to Surface	09/03/2013 02:10							72bbls Displaced 26bbls to Surface
Bump Plug	09/03/2013 02:19						425.0	1624 Final bump Pressure
Check Floats	09/03/2013 02:25							Floats Good
End Job	09/03/2013 02:27							Thanks McBride and Crew