

GUNNISON ENERGY CORP - EBUS

DGU Federal 1289 #18CS-2

Savannah 650

Post Job Summary
Cement Production Casing

Date Prepared: 09/11/2014

Job Date: 08/30/2014

Submitted by: Kory Hugentobler – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 338641	Ship To #: 3458734	Quote #:	Sales Order #: 0901624914
Customer: GUNNISON ENERGY CORP - EBUS		Customer Rep: Mike Barber	
Well Name: DGU FEDERAL -1289-	Well #: 18-CS2	API/UWI #: 05-051-06124-00	
Field: WEST MUDDY CREEK	City (SAP): SOMERSET	County/Parish: GUNNISON	State: COLORADO
Legal Description: SE NW-18-12S-89W-1601FNL-2569FWL			
Contractor: SAVANNA DRLG		Rig/Platform Name/Num: SAVANNA 650	
Job BOM: 7523			
Well Type: COAL DE-GAS			
Sales Person: HALAMERICA/HX17509		Srvc Supervisor: Ed Deussen	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	4201.81ft Job Depth TVD
Water Depth	Wk Ht Above Floor
Perforation Depth (MD)	From To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36	LTC	J-55	0	1033	0	0
Casing		7	6.276	26	LTC	J-55	0	4201.81		0
Open Hole Section			8.75				0	4293		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	7	1		4201.81	Top Plug	7	1	HES
Float Shoe					Bottom Plug			
Float Collar					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

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Mud Flush III (Powder)	Mud Flush III	20	bbl	8.4	2.41		4.0		
42 gal/bbl			FRESH WATER							

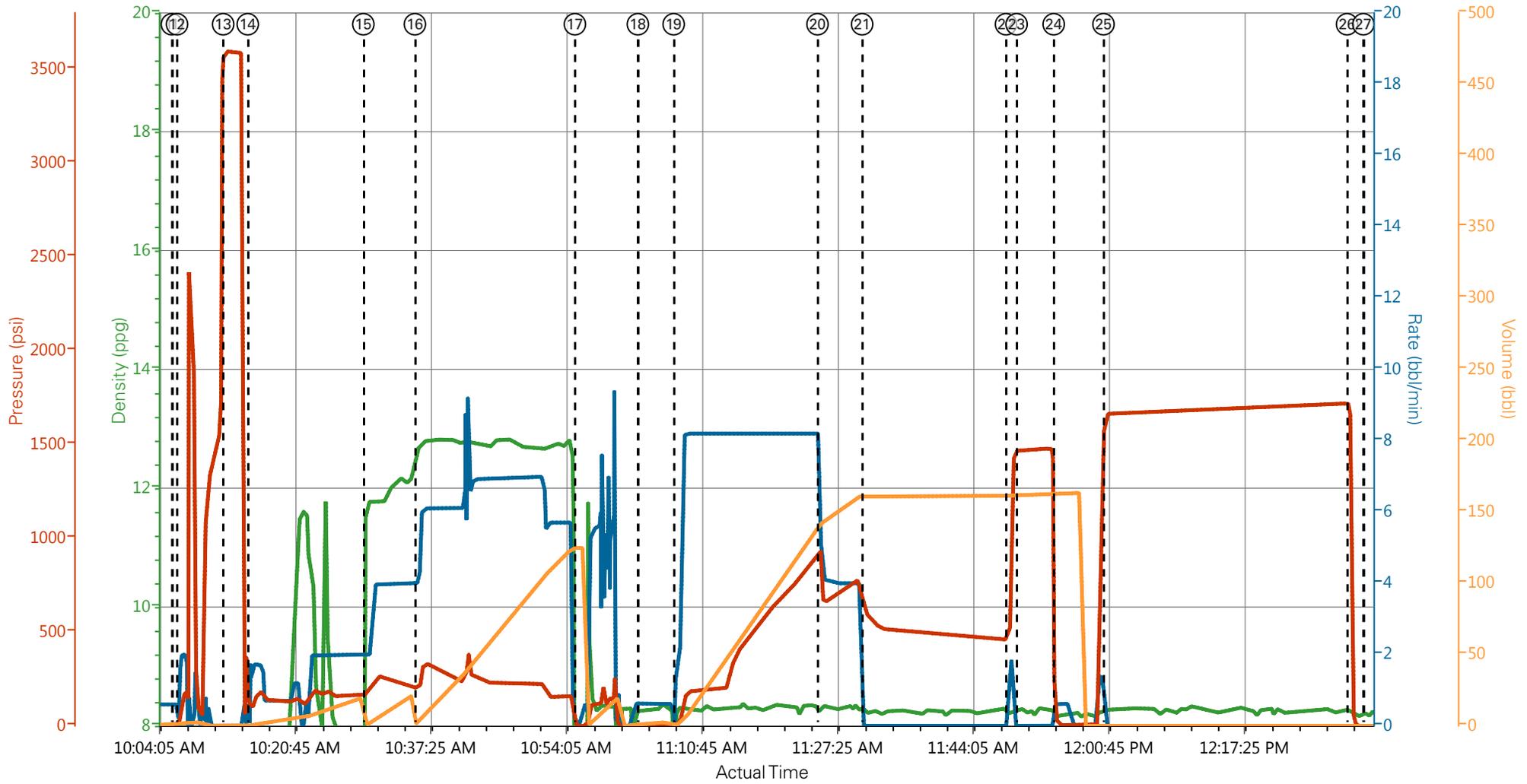
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
2	Lead Cement	VARICEM (TM) CEMENT	65	sack	12.3	2.38		4.0	13.77	
13.72 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Production Slurry	VARICEM (TM) CEMENT	320	sack	12.8	2.11		7.0	11.77	
11.74 Gal		FRESH WATER								
94 lbm		TYPE I / II CEMENT, BULK (101439798)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	2% KCL Displacement		162.0	bbl	9			8.0		
Cement Left In Pipe		Amount	47.02 ft		Reason			Shoe Joint		
Comment										

3.1 Job Event Log

Type	Seq No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
Event	1	Call Out	8/29/2014	18:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	8/29/2014	20:00:00	USER					
Event	3	Crew Leave Yard	8/29/2014	20:15:00	USER					1 Elite, 1 660, 1 Bodyload, 1 Pickup
Event	4	Arrive at Location	8/29/2014	23:00:00	USER					O/L time 0200 8/30/14 - rig still running casing
Event	5	Assessment Of Location Safety Meeting	8/29/2014	23:30:00	USER					JSA completed
Event	6	Spot Equipment	8/30/2014	07:30:00	USER					
Event	7	Pre-Rig Up Safety Meeting	8/30/2014	07:45:00	USER					
Event	8	Rig-Up Equipment	8/30/2014	08:00:00	USER					1 hard line with standpipe to floor, manifold on ground, wash up line to catch tank, 1 water line to day tank for fresh water, 1 line to upright for KCl displacement water, bulk hoses to 660 and bodyload
Event	9	Rig-Up Completed	8/30/2014	09:00:00	USER					Cement head did not fit casing, no adapter available - decision was agreed upon to pump through swage
Event	10	Pre-Job Safety Meeting	8/30/2014	09:30:00	USER					Mud 9.7 ppg, PY 16, YP 18 - relief arrived at 9:40 - Ed Deussen and Dustin Hyde took over for Craig Kukus and Roger Laulainen
Event	11	Start Job	8/30/2014	10:05:58	COM5					TP 4201.81', SJ 47.02', 8 3/4" OH, 7" 26# J55 csg, 9 5/8" surf csg @ 1033'
Event	12	Prime Pumps	8/30/2014	10:06:36	COM5	8.33	2.0	195	2.0	Fresh Water
Event	13	Test Lines	8/30/2014	10:12:16	COM5			3596		Pressure held well @ 3596 psi
Event	14	Pump Mud Flush Spacer	8/30/2014	10:15:17	COM5	8.33	4.0	175	20.0	Mud Flush
Event	15	Pump Lead Cement	8/30/2014	10:29:30	COM5	12.3	4.0	251	27.5	65 sks, 12.3 ppg, 2.38 yield, 13.77 gal/sk
Event	16	Pump Tail Cement	8/30/2014	10:35:50	COM5	12.8	7.0	233	120.2	320 sks, 12.8 ppg, 2.11 yield, 11.77 gal/sk

Event	17	Shutdown	8/30/2014	10:55:30	COM5					Wash up to catch tank
Event	18	Drop Top Plug	8/30/2014	11:03:14	COM5					
Event	19	Pump Displacement	8/30/2014	11:07:38	COM5	8.33	8.0	936	161.5	Rig-supplied KCl water
Event	20	Slow Rate	8/30/2014	11:25:19	COM5	8.33	4.0	682	15.0	
Event	21	Shutdown	8/30/2014	11:30:48	COM5			711		Pumped 3 bbls over calculated
Event	22	Pump Displacement	8/30/2014	11:48:29	USER	8.33	1.0	789	0.5	Company rep instructed to pump one more bbl into casing
Event	23	Bump Plug	8/30/2014	11:49:47	COM5			789	162.0	Plug Bumped - 162 bbls displacement pumped
Event	24	Check Floats	8/30/2014	11:54:21	USER			1473		Floats held - 1 bbl flowback
Event	25	Pressure Up Well	8/30/2014	12:00:28	COM5			1664		Casing test - hold 1500 psi for 30 minutes
Event	26	Release Pressure	8/30/2014	12:30:24	COM5					Had good returns throughout job - 15 bbls cement to surface
Event	27	End Job	8/30/2014	12:32:25	USER					3 add hours
Event	28	Post-Job Safety Meeting	8/30/2014	12:50:00	USER					
Event	29	Rig-Down Equipment	8/30/2014	13:00:00	USER					
Event	30	End Job	8/30/2014	13:12:18	COM5					
Event	31	Rig-Down Completed	8/30/2014	14:00:00	USER					
Event	32	Pre-Convoy Safety Meeting	8/30/2014	14:15:00	USER					
Event	33	Crew Leave Location	8/30/2014	14:30:00	USER					Thank you for using Halliburton

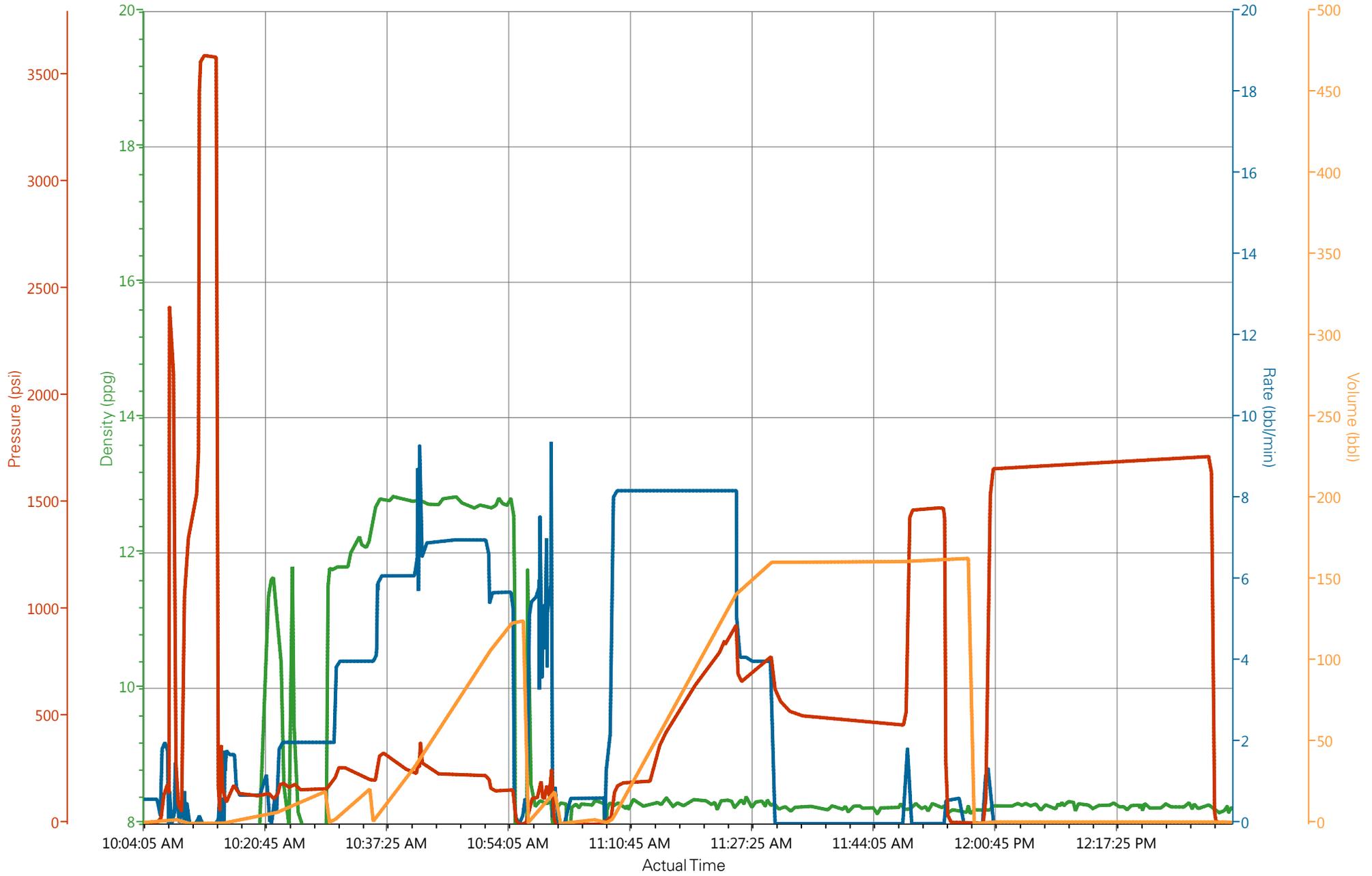
GUNNISON - DGU FED 1289 - 18 CS2 - 7" Production



— DH Density (ppg) 0
 — Comb Pump Rate (bbl/min) 0
 — PS Pump Press (psi) 0
 — Pump Stg Tot (bbl) 0

- | | | | |
|---|--|---|---|
| ① Call Out n/a;n/a;n/a;n/a
② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
③ Crew Leave Yard n/a;n/a;n/a;n/a
④ Arrive at Location n/a;n/a;n/a;n/a
⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a
⑥ Spot Equipment n/a;n/a;n/a;n/a | ⑦ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a
⑧ Rig-Up Equipment n/a;n/a;n/a;n/a
⑨ Rig-Up Completed n/a;n/a;n/a;n/a
⑩ Pre-Job Safety Meeting n/a;n/a;n/a;n/a
⑪ Start Job 7.84;0.6;4;0.1
⑫ Prime Pumps 7.78;1.9;77;0.6 | ⑬ Test Lines 7.87;0;3597;0.1
⑭ Pump Mud Flush Spacer 7.87;1.8;94;0.3
⑮ Pump Lead Cement 11.76;2;186;0.8
⑯ Pump Tail Cement 12.65;4;203;2.8
⑰ Shutdown -0.22;0;-4;124.7
⑱ Drop Top Plug 8.31;0.6;-4;0.7 | ⑲ Pump Displacement 8.31;1.8;14;0.7
⑳ Slow Rate 8.31;4.1;826;142
㉑ Shutdown 8.23;0;605;161.3
㉒ Pump Displacement 8.22;1.4;512;161.5
㉓ Bump Plug 8.32;0;1473;162
㉔ Check Floats 8.16;0.6;18;162.3 |
|---|--|---|---|

GUNNISON - DGU FED 1289 - 18 CS2 - 7" Production



— DH Density (ppg) 0
 — Comb Pump Rate (bbl/min) 0
 — PS Pump Press (psi) 0
 — Pump Stg Tot (bbl) 0

HALLIBURTON

Water Analysis Report

Company: GUNNISON
Submitted by: ED DEUSSEN
Attention: J.TROUT
Lease: DGU FED 1289
Well #: 18-CS2

Date: 8/30/2014
Date Rec.: 8/30/2014
S.O.#: 901624914
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7.5
Potassium (K)	<i>5000</i>	200 Mg / L
Calcium (Ca)	<i>500</i>	250 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	<200 Mg / L
Temp	<i>40-80</i>	63 Deg
Total Dissolved Solids		270 Mg / L

Respectfully: ED DEUSSEN

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its

Sales Order #: 0901624914	Line Item: 10	Survey Conducted Date: 8/30/2014
Customer: GUNNISON ENERGY CORP - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-051-06124-00
Well Name: DGU FEDERAL -1289-		Well Number: 0080597828
Well Type: COAL DE-GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GUNNISON

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	8/30/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB57194
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	8/30/2014
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	5
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Pumping Hours	3
Total number of hours pumping fluid on this job. Enter in decimal format.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	5
Number Of Jsas Performed	
Was this a Primary Cement Job (Yes / No)	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Customer Non-Productive Rig Time (hrs)	0

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Well Type: COAL DE-GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GUNNISON

Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
If a top plug was run, was the plug bumped? (Yes/No/N/A) If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
If applicable, was Halliburton float equipment used? (Yes/No/N/A) If applicable, was Halliburton float equipment used? (Yes/No/N/A)	N/A
If applicable, did the floats hold? (Yes/No/N/A) If applicable, did the floats hold? (Yes/No/N/A)	Yes
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	95
Pump Rate (percent) of Job Stayed At Designed Pump Rate Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	99
If applicable, were there returns throughout the job? (Yes/No/N/A) If applicable, were there returns throughout the job? (Yes/No/N/A)	YES
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0