

# BJ Cementing Treatment Report

Plug #1

SERVICE SUPERVISOR	Douglas Diaz	FORMATION	
CLIENT FIELD REPRESENTATIVE	Aaron Neitzer	RIG	
DISTRICT	Rifle, CO	COUNTY	GARFIELD
SERVICE	Cementing	STATE / PROVINCE	CO

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Tubing	2.44	2.88	6.40	4,040.00	4,055.00			
Casing	4.95	5.50	15.50	4,050.00	4,055.00			

## HARDWARE

Bottom Plug Used?	No	Tool Type	Cement Retainer
Bottom Plug Provided By		Tool Depth (ft)	4,050.00
Bottom Plug Size		Max Tubing Pressure - Rated (psi)	10570.00
Top Plug Used?	No	Max Tubing Pressure - Operated (psi)	8456.00
Top Plug Provided By		Max Casing Pressure - Rated (psi)	4810.00
Top Plug Size		Max Casing Pressure - Operated (psi)	3848.00
Centralizers Used	No	Pipe Movement	None
Centralizers Quantity		Job Pumped Through	No Manifold
Centralizers Type		Top Connection Thread	8 RND
Landing Collar Depth (ft)	4,050	Top Connection Size	2.87



CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud In
Circulation Prior to Job	No	YP Mud Out
Circulation Time (min)		Solids Present at End of CirculationNo
Circulation Rate (bpm)		10 sec SGS
Circulation Volume (bbls)		10 min SGS
Lost Circulation Prior to Cement Job	No	30 min SGS
Mud Density In (ppg)		Flare Prior to / during the Cement JobNo
Mud Density Out (ppg)		Gas PresentNo
PV Mud In		Gas Units
PV Mud Out		

TEMPERATURE

Ambient Temperature (°F)	24.00	Slurry Cement Temperature (°F)	53.00
Mix Water Temperature (°F)	49.00	Flow Line Temperature (°F)	

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H <sub>2</sub> O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3000			0.00				5.0000
Tail Slurry	Cement Plug	15.8000	1.1480	5.00		0.00	18	21.0000	3.7000
Displacement Final	Displacement	8.3000			0.00			0.0000	22.5000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	Cement Plug	CEMENT, CLASS G	100.0000	PCT

TREATMENT SUMMARY

TIME	FLUID	RATE (bpm)	FLUID VOL (bbls)	PIPE PRESS (psi)	ANNULUS PRESS (psi)	COMMENTS
1/20/2020 10:25:00 AM	Water	2.50	5.00	310.00		
1/20/2020 10:35:00 AM	Cement Plug	1.50	4.00	58.00		
1/20/2020 10:54:00 AM	Displacement	3.00	21.50	109.00		

MIN / MAX / AVG PRESSURE AND RATES

	MIN	MAX	AVG
Pressure (psi)	58.00	310.00	159.00
Rate (bpm)	1.50	3.00	2.33

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	0.50
Calculated Displacement Vol (bbls)	21.50	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	21.50	Amt of Spacer to Surface	5.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amt Bled Back After Job	0.00
Bump Plug Pressure (psi)	0.00	Total Volume Pumped (bbls)	30.50
Were Returned Planned at Surface	No	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity	0	Plug Catcher	No
Number of Plugs	1		

SQUEEZE

Injection Rate (bpm)		Fluid Density (ppg)	
Injection Pressure (psi)		ISIP (psi)	
Type of Squeeze		FSIP (psi)	
Operators Max SQ Pressure (psi)			

Comments

TREATMENT REPORT

JOB SUMMARY



# BJ Cementing Event Log

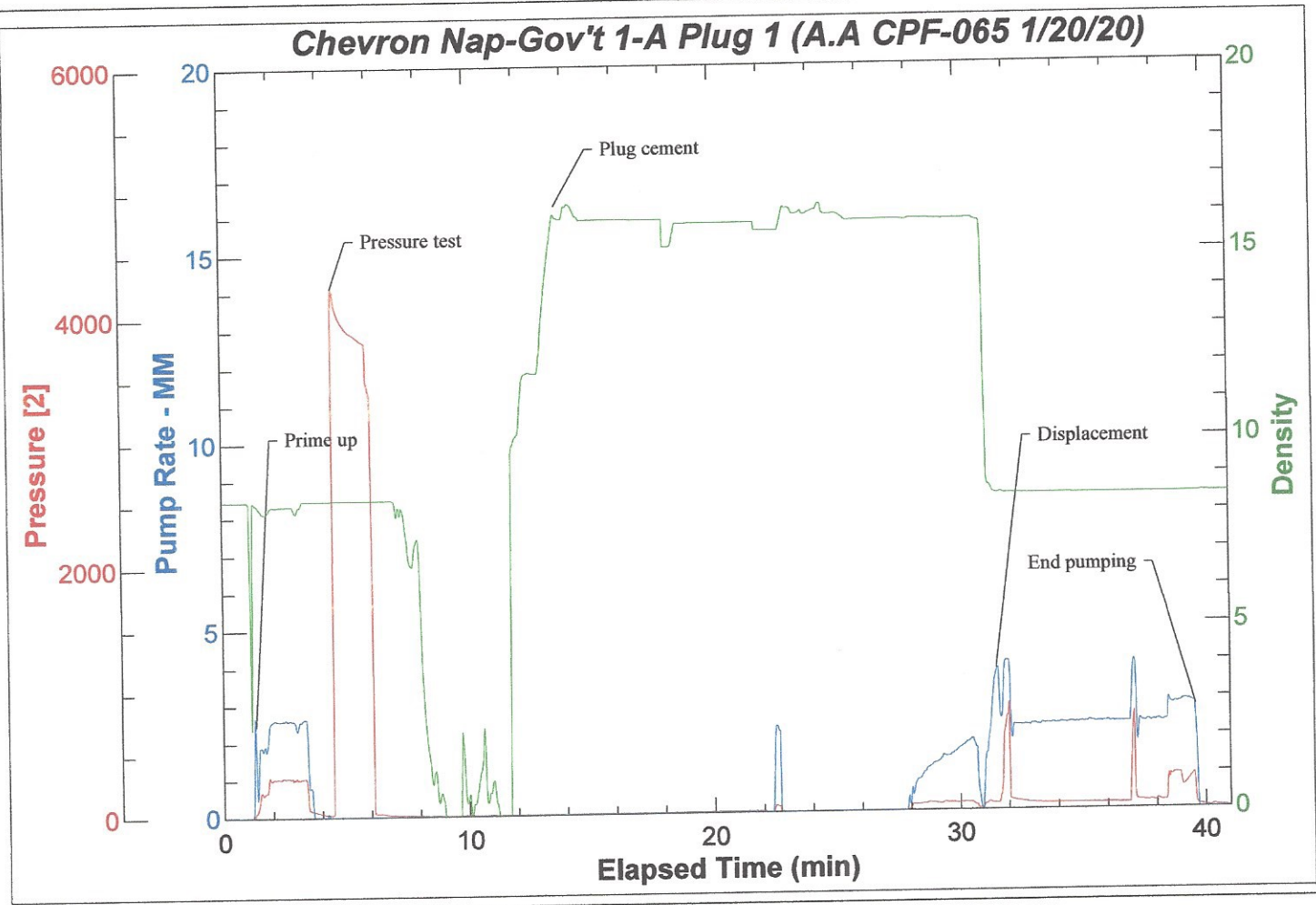
Plug & Abandon- Plug - Rifle, CO - Douglas Diaz

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/20/2020 03:00	Callout					Yard call 0300, on location 0700
2	01/20/2020 04:45	Depart for Location					Leave Rifle shop for location
3	01/20/2020 07:10	Arrive on Location					Arrive on location rig running tubing
4	01/20/2020 07:10	Spot Units					Spot in all units
5	01/20/2020 08:46	Rig Up					Pre rig up safety meeting, rig in all lines and equipment
6	01/20/2020 09:41	STEACS Briefing					Pre job safety meeting with company man, rig crew and BLM rep
7	01/20/2020 10:00	Prime Up					Prime up pump
8	01/20/2020 10:25	Pump Spacer	8.3400	2.50	5.00	310.00	Pump fresh water spacer
9	01/20/2020 10:27	Pressure Test				3000.00	Pressure test, pressure held
10	01/20/2020 10:35	Pumping Cement	15.8000	1.50	4.00	58.00	Pumping plug cement
11	01/20/2020 10:54	Pump Displacement	8.3400	3.00	21.50	109.00	Pumping fresh water displacement
12	01/20/2020 11:03	End Pumping					End pumping, opened bleeds, nothing bled back
13	01/20/2020 11:03	Wash Pumps and Lines					Washed pump and lines to high wall tank while rig laid down 5 joints
14	01/20/2020 11:16	Rig					Rig reversing out, .5 BBl cement returned
15	01/20/2020 11:50	Wash Pumps and Lines					Winterize pump
16	01/20/2020 12:00	Special Condition Requirements					Waiting to set 2nd plug
17	01/20/2020 16:00	STEACS Briefing					Pre job safety meeting with rig crew and company man
18	01/20/2020 16:20	Prime Up					Prime up pump
19	01/20/2020 16:35	Pump Spacer	8.3400	4.50	5.00	610.00	Pumping fresh water spacer

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
20	01/20/2020 16:38	Pumping Cement	15.8000	3.00	4.60	135.00	Pumping plug cement
21	01/20/2020 16:51	Pump Displacement	8.3400	3.50	20.50	83.00	Pumping fresh water displacement
22	01/20/2020 16:58	Wash Pumps and Lines					Wash pump and lines to high wall tank, winterize pump and lines
23	01/20/2020 17:10	Rig					Waiting on rig to lay down tubing and reverse out, .56 bbl cement returned
24	01/20/2020 17:45	Rig Down					Pre rig down safety meeting, rig down equipment and lines
25	01/20/2020 18:00	Leave Location					Leave location for Rifle shop



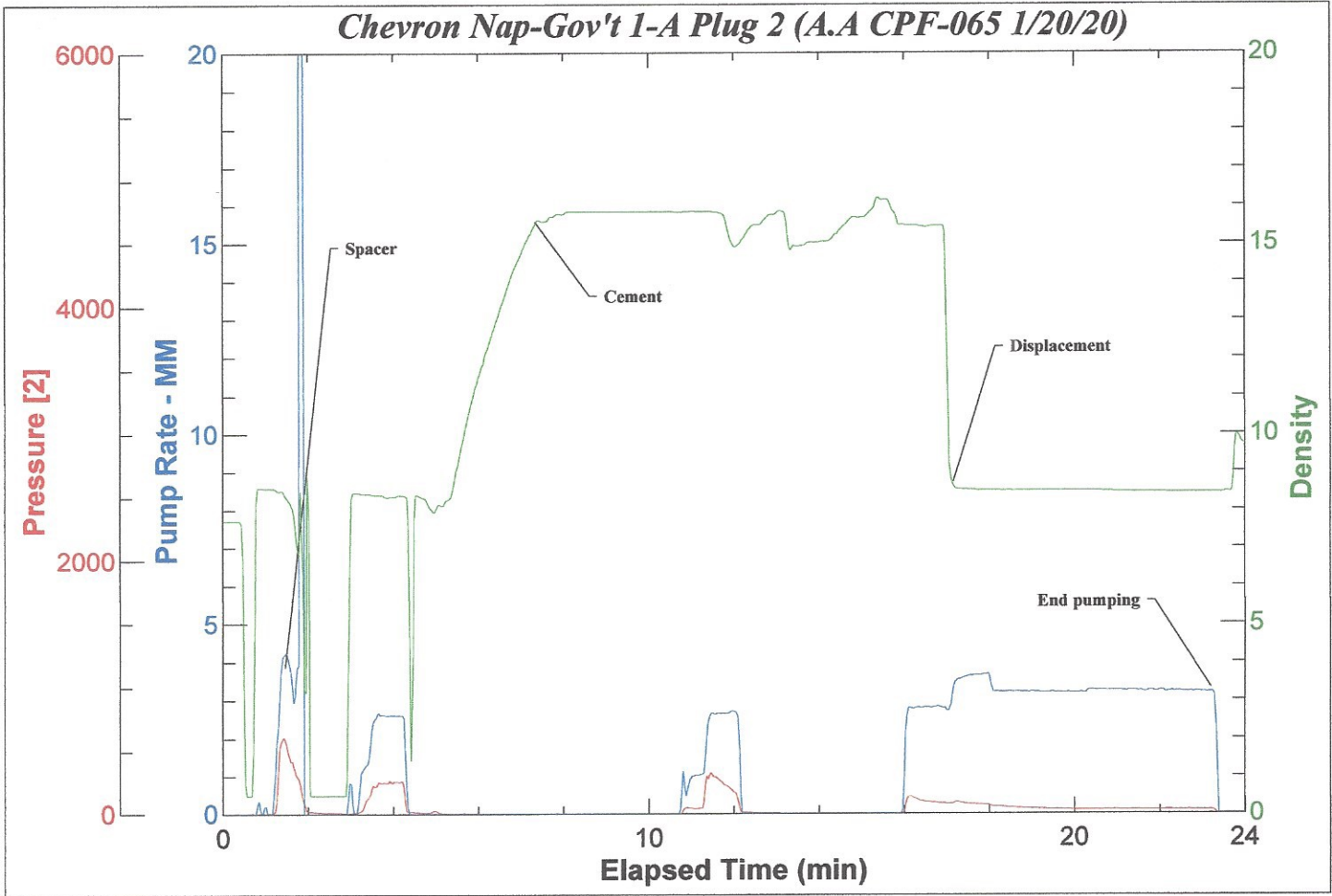
JobMaster Program Version 4.02C1  
Job Number: 20735  
Customer: Chevron  
Well Name: NAP-GOVT 1-A



Job Start: Monday, January 20, 2020



JobMaster Program Version 4.02C1  
Job Number: 20735  
Customer: Chevron  
Well Name: NAP-GOVT 1-A





# BJ Cementing Treatment Report

Plug #2

SERVICE SUPERVISOR	Douglas Diaz	FORMATION	
CLIENT FIELD REPRESENTATIVE	Aaron Neitzer	RIG	
DISTRICT	Rifle, CO	COUNTY	GARFIELD
SERVICE	Cementing	STATE / PROVINCE	CO

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Casing	4.95	5.50	15.50	3,883.00	3,905.00			
Tubing	2.44	2.88	6.40	3,873.00	3,905.00			

## HARDWARE

Bottom Plug Used?	No	Tool Type	
Bottom Plug Provided By		Tool Depth (ft)	3,883.00
Bottom Plug Size		Max Tubing Pressure - Rated (psi)	10570.00
Top Plug Used?	No	Max Tubing Pressure - Operated (psi)	8456.00
Top Plug Provided By		Max Casing Pressure - Rated (psi)	4810.00
Top Plug Size		Max Casing Pressure - Operated (psi)	3848.00
Centralizers Used	No	Pipe Movement	None
Centralizers Quantity		Job Pumped Through	Manifold
Centralizers Type		Top Connection Thread	8 RND
Landing Collar Depth (ft)	3,873	Top Connection Size	2.87

Client: Chevron USA Inc.

Well: NAP-GOV'T 1-A

Well API: 05-045-05051

Start Date: 1/20/2020

End Date: 1/20/2020

Field Ticket #:





CIRCULATION PRIOR TO JOB

Well Circulated By		YP Mud In	
Circulation Prior to Job	No	YP Mud Out	
Circulation Time (min)		Solids Present at End of Circulation	No
Circulation Rate (bpm)		10 sec SGS	
Circulation Volume (bbls)		10 min SGS	
Lost Circulation Prior to Cement Job	No	30 min SGS	
Mud Density In (ppg)		Flare Prior to / during the Cement Job	No
Mud Density Out (ppg)		Gas Present	No
PV Mud In		Gas Units	
PV Mud Out			

TEMPERATURE

Ambient Temperature (°F)	29.00	Slurry Cement Temperature (°F)	58.00
Mix Water Temperature (°F)	52.00	Flow Line Temperature (°F)	

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H <sub>2</sub> O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3000			0.00				5.0000
Tail Slurry	Cement Plug	15.8000	1.1480	5.00		0.00	25	29.0000	5.1000
Displacement Final	Displacement	8.3000			0.00			0.0000	21.6000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	Cement Plug	CEMENT, CLASS G	100.0000	PCT

TREATMENT SUMMARY

TIME	FLUID	RATE (bpm)	FLUID VOL (bbls)	PIPE PRESS (psi)	ANNULUS PRESS (psi)	COMMENTS
1/20/2020 4:35:00 PM	Water	4.50	5.00	610.00		
1/20/2020 4:38:00 PM	Cement Plug	3.00	4.60	135.00		
1/20/2020 4:51:00 PM	Displacement	3.50	20.50	83.00		

MIN / MAX / AVG PRESSURE AND RATES

	MIN	MAX	AVG
Pressure (psi)	83.00	610.00	276.00
Rate (bpm)	3.00	4.50	3.67

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	5.00
Calculated Displacement Vol (bbls)	20.50	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	20.50	Amt of Spacer to Surface	5.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amt Bled Back After Job	0.00
Bump Plug Pressure (psi)	0.00	Total Volume Pumped (bbls)	30.10
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity	0	Plug Catcher	No
Number of Plugs	1		

SQUEEZE

Injection Rate (bpm)		Fluid Density (ppg)	
Injection Pressure (psi)		ISIP (psi)	
Type of Squeeze		FSIP (psi)	
Operators Max SQ Pressure (psi)			

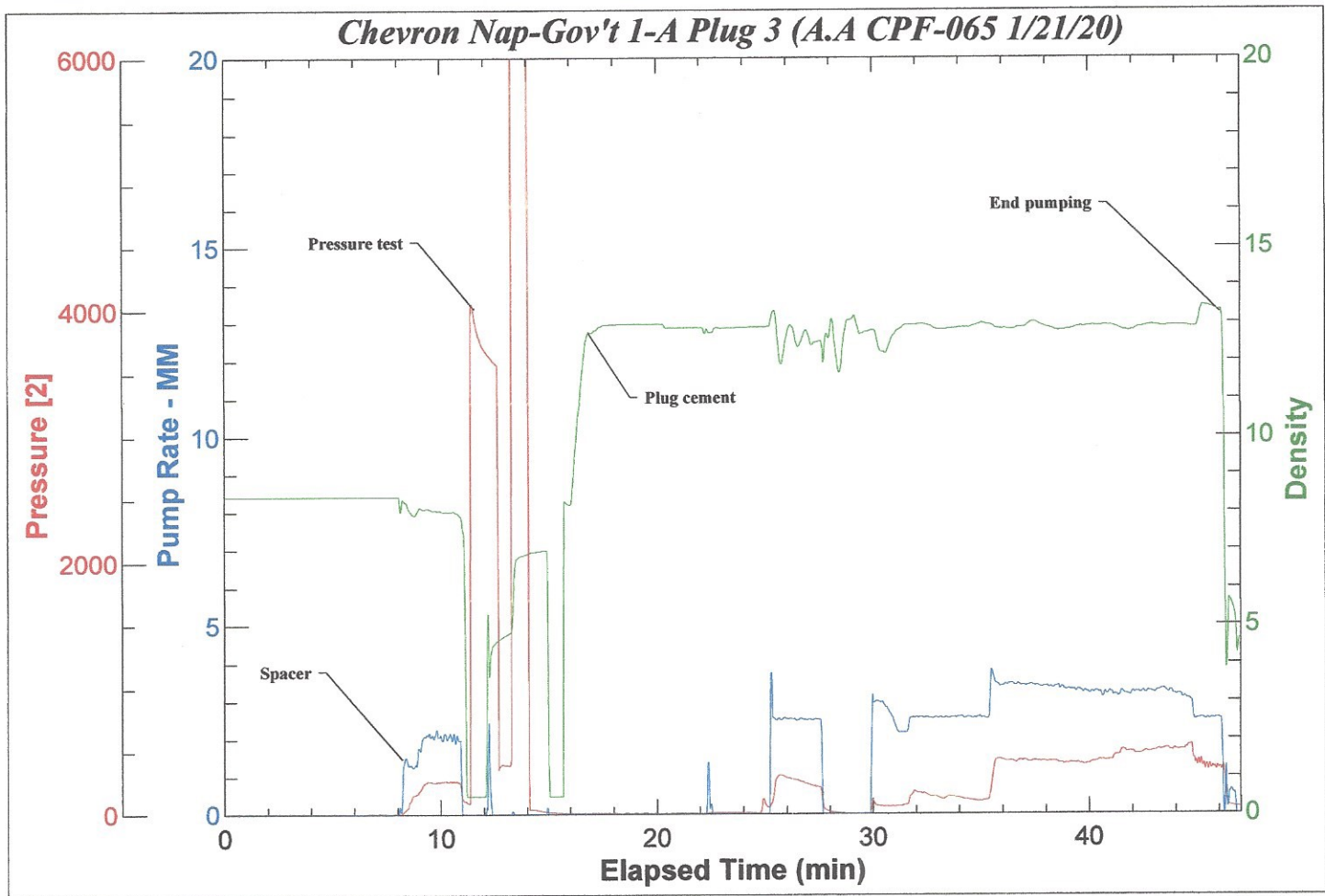
Comments

TREATMENT REPORT

JOB SUMMARY



JobMaster Program Version 4.02C1  
Job Number: 20735  
Customer: Chevron  
Well Name: Nap-Gov't 1-A





# BJ Cementing Treatment Report

Plug #3

SERVICE SUPERVISOR	Douglas Diaz	FORMATION	
CLIENT FIELD REPRESENTATIVE	Aaron Neitzer	RIG	
DISTRICT	Rifle, CO	COUNTY	GARFIELD
SERVICE	Cementing	STATE / PROVINCE	CO

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Previous Casing	8.02	8.63	28.00	167.00	167.00			
Open Hole	7.88			800.00	800.00			
Casing	4.95	5.50	15.50	800.00	800.00			
Tubing	2.44	2.88	6.40	800.00	800.00			

## HARDWARE

Bottom Plug Used?	No	Tool Type	
Bottom Plug Provided By		Tool Depth (ft)	800.00
Bottom Plug Size		Max Tubing Pressure - Rated (psi)	
Top Plug Used?	No	Max Tubing Pressure - Operated (psi)	
Top Plug Provided By		Max Casing Pressure - Rated (psi)	3390.00
Top Plug Size		Max Casing Pressure - Operated (psi)	2712.00
Centralizers Used	No	Pipe Movement	None
Centralizers Quantity		Job Pumped Through	No Manifold
Centralizers Type		Top Connection Thread	8 RND
Landing Collar Depth (ft)	800	Top Connection Size	2

Client: Chevron USA Inc.

Well: NAP-GOV'T 1-A

Well API: 05-045-05051

Start Date: 1/21/2020

End Date: 1/21/2020

Field Ticket #:



CIRCULATION PRIOR TO JOB

Well Circulated By		YP Mud In
Circulation Prior to Job	No	YP Mud Out
Circulation Time (min)		Solids Present at End of Circulation
Circulation Rate (bpm)		No
Circulation Volume (bbls)		10 sec SGS
Lost Circulation Prior to Cement Job	No	10 min SGS
Mud Density In (ppg)		30 min SGS
Mud Density Out (ppg)		Flare Prior to / during the Cement Job
PV Mud In		No
PV Mud Out		Gas Present
		No
		Gas Units

TEMPERATURE

Ambient Temperature (°F)	33.00	Slurry Cement Temperature (°F)	67.00
Mix Water Temperature (°F)	64.00	Flow Line Temperature (°F)	

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H2O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3000			0.00				5.0000
Tail Slurry	Cement Plug	13.0000	1.9858	10.80		0.00	125	249.0000	44.2000
Displacement Final	Displacement	8.3000			0.00			0.0000	2.0000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	Cement Plug	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	Cement Plug	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	Cement Plug	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Tail Slurry	Cement Plug	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	Cement Plug	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK

TREATMENT SUMMARY

TIME	FLUID	RATE (bpm)	FLUID VOL (bbls)	PIPE PRESS (psi)	ANNULUS PRESS (psi)	COMMENTS
1/21/2020 3:15:00 PM	Water	2.00	5.00	240.00		
1/21/2020 3:20:00 PM	Cement Plug	3.50	55.00	520.00		

Client: Chevron USA Inc.

Well: NAP-GOV'T 1-A

Well API: 05-045-05051

Start Date: 1/21/2020

End Date: 1/21/2020

Field Ticket #:



MIN / MAX / AVG PRESSURE AND RATES

	MIN	MAX	AVG
Pressure (psi)	240.00	520.00	380.00
Rate (bpm)	2.00	3.50	2.75

Client: Chevron USA Inc.

Start Date: 1/21/2020

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Well: NAP-GOV'T 1-A

End Date: 1/21/2020

Well API: 05-045-05051

Field Ticket #:





DISPLACEMENT AND END OF JOB SUMMARY

Displaced By		Amt of Cement Returned / Reversed	5.00
Calculated Displacement Vol (bbls)	0.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	0.00	Amt of Spacer to Surface	5.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amt Bled Back After Job	0.00
Bump Plug Pressure (psi)	0.00	Total Volume Pumped (bbls)	60.00
Were Returned Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity	0	Plug Catcher	No
Number of Plugs	1		

SQUEEZE

Injection Rate (bpm)		Fluid Density (ppg)	
Injection Pressure (psi)		ISIP (psi)	
Type of Squeeze		FSIP (psi)	
Operators Max SQ Pressure (psi)			

Comments

TREATMENT REPORT

JOB SUMMARY

Client: Chevron USA Inc.

Start Date: 1/21/2020

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Well: NAP-GOV'T 1-A

End Date: 1/21/2020

Well API: 05-045-05051

Field Ticket #:



# BJ Cementing Event Log

Plug & Abandon- Plug - Rifle, CO - Douglas Diaz

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/21/2020 09:30	Callout					Yard call 0930, on location 1330
2	01/21/2020 10:52	Depart for Location					Leave Rifle shop for location
3	01/21/2020 13:10	Arrive on Location					Arrive on location
4	01/21/2020 13:10	Spot Units					Spot in units
5	01/21/2020 14:05	Rig Up					Pre rig up safety meeting, rig in all equipment
6	01/21/2020 14:45	Prime Up					Prime up pump
7	01/21/2020 14:56	STEACS Briefing					Pre job safety meeting with company man and rig crew
8	01/21/2020 15:15	Pump Spacer	8.3400	2.00	5.00	240.00	Pumping fresh water spacer
9	01/21/2020 15:18	Pressure Test				3000.00	Pressure test, pressure held
10	01/21/2020 15:20	Pumping Cement	13.0000	3.50	55.00	520.00	Pumping plug cement
11	01/21/2020 15:55	End Pumping					Ended pumping, 5 bbls cement to surface
12	01/21/2020 15:55	Wash Pumps and Lines					Wash pump and lines to high wall tank, winterize pump
13	01/21/2020 16:45	Rig Down					Pre rig down safety meeting, rig down all lines and equipment
14	01/21/2020 17:30	Leave Location					Leave location for Rifle shop

Client: Chevron USA Inc.

Quote #: QUC-41442-H5N9H7

Well Name / API: NAP-GOVT 1-A / 05-045-05051

Plan #: ORD-24006-X7T8B8

Well MD: 4050

Execution #: EXC-24006-X7T8B802





JobMaster Program Version 4.02C1  
Job Number: 20735  
Customer: Chevron  
Well Name: Nap-Gov't 1-A

