

HALLIBURTON

iCem[®] Service

CONOCO/PHILLIPS COMPANY EBUSINESS

United States of America, COLORADO

Date: Tuesday, February 19, 2019

Prosper Farms 4-65 11-12 3CH Surface

Job Date: Tuesday, February 19, 2019

Sincerely,

Bryce Hinsch

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Prosper Farms 4-65 11-12 3CH** cement **surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 95 bbls of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

The Road to Excellence Starts with Safety

Sold To #: 352431		Ship To #: 3899063		Quote #: 0022543798		Sales Order #: 0905498519					
Customer: CONOCO/PHILLIPS COMPANY-EBUS				Customer Rep: JASON BEACH							
Well Name: PROSPER FARMS 4-65 11-12			Well #: 3CH			API/UWI #: 05-005-07382-00					
Field: WILDCAT		City (SAP): WATKINS		County/Parish: ARAPAHOE			State: COLORADO				
Legal Description: NW SW-11-4S-65W-2276FSL-490FWL											
Contractor:				Rig/Platform Name/Num: Nabors B16							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307				Srvc Supervisor: Vitali Neverdasov							
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST						
Job depth MD		2179ft			Job Depth TVD		2190				
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		16	15.25				0	100	0	100	
Casing	0	9.625	8.921	36	STC	J-55	0	2179	0	2179	
Open Hole Section			13.5				100	2190	0	2190	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625					Top Plug	9.625	1	HES		
Float Shoe	9.625	1	N/A	2179		Bottom Plug	9.625	1	HES		
Float Collar	9.625	1	N/A	2135		SSR plug set	9.625				
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625	18			
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	10 lb/gal Tuned Spacer III	Tuned Spacer III			50	bbl	10	8.97		4.5	

38.40 gal/bbl		FRESH WATER							
62.54 lbm/bbl		BARITE, BULK (100003681)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem	SWIFTCEM (TM) SYSTEM	490	sack	12	2.57		8	15.14
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
15.14 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	SwiftCem	SWIFTCEM (TM) SYSTEM	255	sack	14.2	1.59		6	7.9
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	165	bbl	8.33			8	
Cement Left In Pipe	Amount	44 ft			Reason	Shoe Joint			
<p>Comment : 95 BBLs OF CEMENT BACK TO SURFACE. DURING PRESSURE TEST NOTICED LEAK COMING OUT FROM TOP CAPS OF HT-400. METAL RINGS WHERE BENT AND SMASHED. PER CUSTOMER AND HES OFFICE APPROVAL HAD TO ISOLATE LEAKING SIDE AND PUMP THE JOB WITH 1 SIDE. OVER ALL JOB WENT GOOD.</p>									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	2/19/2019	05:30:00	USER					For Location @ 10:00
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/19/2019	09:15:00	USER					Called Journey
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	2/19/2019	10:15:00	USER					38 MILES. DISCUSS NUMBERS AND PROCEDURE WITH CUSTOMER. RIG IS GETTING READY TO LAND CASING. FREUS OFF LOADING CEMENT IN TO SILOS. CANNOT SPOT TRUCKS.
Event	4	Casing on Bottom	Casing on Bottom	2/19/2019	10:30:00	USER					Landing joint brought to floor and landed
Event	5	Circulate Well	Circulate Well	2/19/2019	10:50:00	USER					RIG UP CEMENT HEAD AND MANIFOLD FOR RIG TO CIRCULATE.
Event	6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	2/19/2019	11:40:00	USER					JSA to discuss the hazards of rig-up
Event	7	Rig-Up Equipment	Rig-Up Equipment	2/19/2019	11:45:00	USER					Rig-up all surface lines and equipment.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/19/2019	12:45:00	USER	0.00	0.00	0.00	-2.00	With all Personal, to discuss the hazards of pumping the job, and pump schedule.
Event	9	Start Job	Start Job	2/19/2019	13:28:22	COM4	8.55	0.00	0.00	-10.00	
Event	10	Test Lines	Test Lines	2/19/2019	13:37:00	USER	8.55	0.00	1.80	-13.00	DURING PRESSURE TEST NOTICED LEAK GOING FROM TOP CAPS OF HT 400.

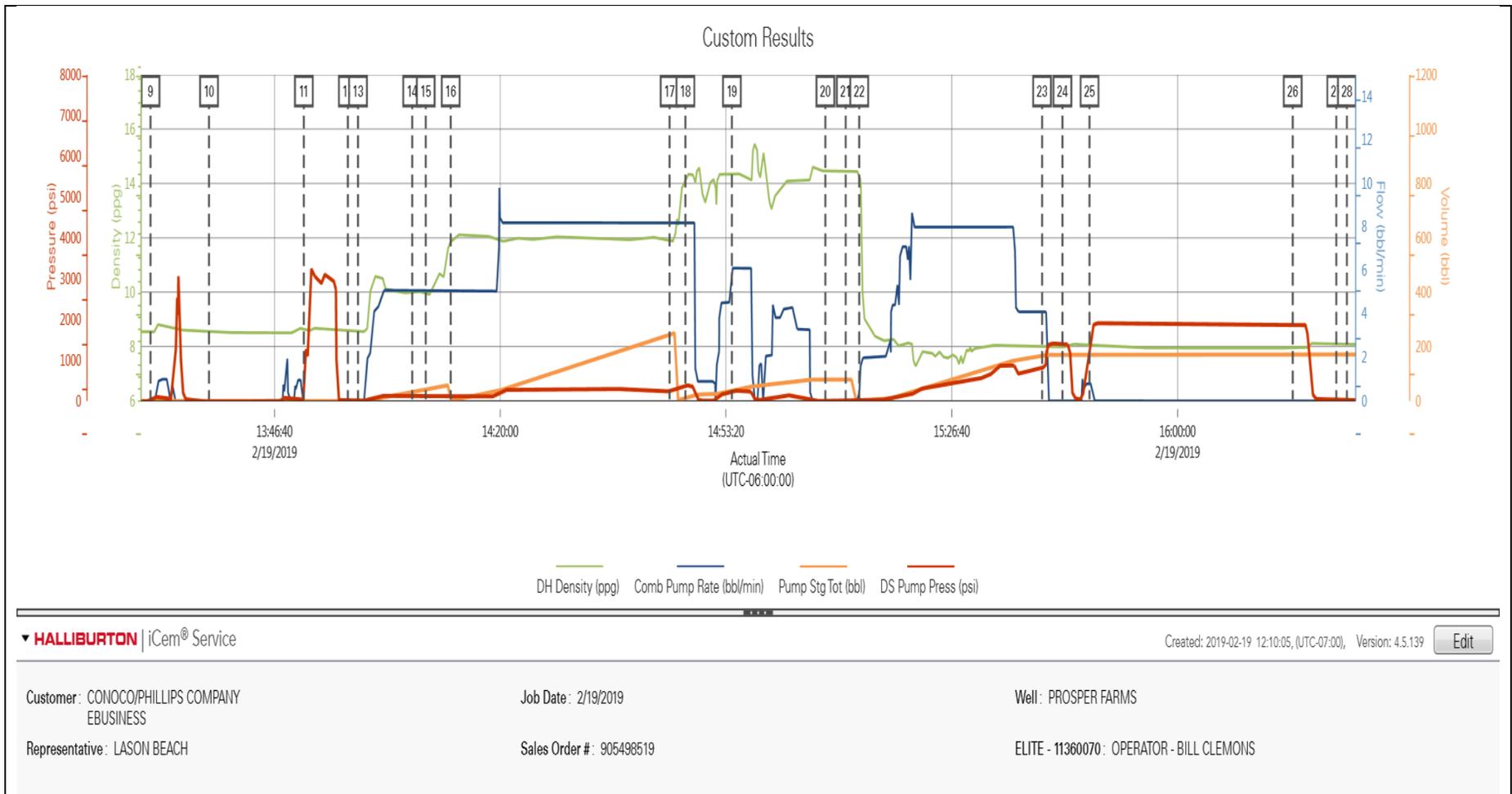
PER CUSTOMER APPROVAL
AND HES OFFICE HAD TO
ISOLATE LEAKING SIDE AND
PUMP THE JOB WITH ONE
HT - 400 PUMP.

Event	11	Test Lines	Test Lines	2/19/2019	13:51:00	USER	8.65	0.00	1.60	31.00	Test lines @ 3150 psi
Event	12	Check Weight	Check Weight	2/19/2019	13:57:30	COM4	8.56	0.00	1.60	11.00	
Event	13	Pump Spacer	Pump Spacer	2/19/2019	13:59:00	USER	8.55	0.00	1.60	8.00	BATCH/ WEIGHT/ PUMP 50 BBLs OF SPACER @ 10 PPG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	2/19/2019	14:07:00	USER	9.97	5.10	30.90	108.00	DROP BOTTOM PLUG ON THE FLY 47 BBLs IN TO SPACER
Event	15	Pump Lead Cement	Pump Lead Cement	2/19/2019	14:09:00	USER	9.88	5.10	41.10	96.00	BATCH/ WEIGHT/PUMP 490 sks(224.3 bbls) of Lead Swiftcem @ 12.0 ppg, verified with pressurized scales
Event	16	Check Weight	Check Weight	2/19/2019	14:12:41	COM4	11.87	5.10	1.40	135.00	
Event	17	Pump Tail Cement	Pump Tail Cement	2/19/2019	14:45:00	USER	11.83	8.20	243.60	234.00	BATCH/WEIGHT/PUMP 255 SKS (72.2 BBLs) OF TAIL CEMENT @ 14.2 PPG.
Event	18	Check Weight	Check Weight	2/19/2019	14:47:20	COM4	14.19	8.20	11.70	374.00	
Event	19	Check Weight	Check Weight	2/19/2019	14:54:12	COM4	14.31	6.10	35.80	243.00	
Event	20	Shutdown	Shutdown	2/19/2019	15:08:00	USER	14.46	0.00	78.60	-3.00	Finished pumping cement
Event	21	Drop Top Plug	Drop Top Plug	2/19/2019	15:11:00	USER	14.44	0.00	78.60	-3.00	Pre-loaded top plug in plug container verified by customer rep.
Event	22	Pump Displacement - Start	Pump Displacement - Start	2/19/2019	15:13:00	USER	14.44	0.00	0.00	-3.00	165 bbls fresh water. Washing up on top of the plug.
Event	23	Bump Plug	Bump Plug	2/19/2019	15:40:00	USER	8.06	4.10	167.10	829.00	@500 psi over final circulating pressure of 816 psi

Event	24	Check Floats	Check Floats	2/19/2019	15:43:00	USER	7.99	0.00	169.70	1404.00	Floats held. 1.5 bbls back
Event	25	Event	Event	2/19/2019	15:47:00	USER	8.04	0.80	170.60	1270.00	PRESSURE UP 1800 PSI FOR 30 MIN CASING TEST.
Event	26	Event	Event	2/19/2019	16:17:00	USER	7.95	0.00	171.00	1887.00	BLEED OFF PRESSURE.
Event	27	End Job	End Job	2/19/2019	16:23:26	COM4	8.08	0.00	171.00	23.00	
Event	28	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/19/2019	16:25:00	USER	8.06	0.00	171.00	11.00	JSA to discuss the hazards of rig-down

3.0 Attachments

3.1 Case 1-Custom Results.png



HALLIBURTON

iCem[®] Service

CONOCO/PHILLIPS COMPANY EBUSINESS

For: Aron Negusse

Date: Tuesday, March 12, 2019

Prosper Farms 4-65 11-12 3CH

Conoco Prosper Farms 4-65 11-12 3CH

Job Date: Tuesday, March 12, 2019

Sincerely,

Nick Kornafel & Crew

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Prosper Farms 4-65 11-12 3CH** cement **production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 23 bbls of spacer were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

The Road to Excellence Starts with Safety

Sold To #: 352431	Ship To #: 3899063	Quote #: 0022543516	Sales Order #: 0905545868
Customer: CONOCO/PHILLIPS COMPANY-EBUS		Customer Rep: Aron Negusse	
Well Name: PROSPER FARMS 4-65 11-12		Well #: 3CH	API/UWI #: 05-005-07382-00
Field: WILDCAT	City (SAP): WATKINS	County/Parish: ARAPAHOE	State: COLORADO
Legal Description: NW SW-11-4S-65W-2276FSL-490FWL			
Contractor:		Rig/Platform Name/Num: Nabors B16	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Nikolaus Kornafel	

Job

Formation Name	
Formation Depth (MD)	Top <input type="text"/> Bottom <input type="text"/>
Form Type	BHST
Job depth MD	17898ft Job Depth TVD <input type="text"/>
Water Depth	Wk Ht Above Floor <input type="text"/>
Perforation Depth (MD)	From <input type="text"/> To <input type="text"/>

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	STC	J-55	0	2179		0
Casing		5.5	4.778	20	TXP-BTC	P-110	0	17898		0
Open Hole Section			8.5				2179	17906	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			17898	Top Plug	5.5	1	
Float Shoe	5.5				Bottom Plug	5.5	1	
Float Collar	5.5				SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	10.5 lb/gal Tuned Spacer III	Tuned Spacer III	60	bbl	10.5	6.62				
0.6670 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)								
0.10 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								

37.58 gal/bbl		FRESH WATER							
84.77 lbm/bbl		BARITE, BULK (100003681)							
0.6670 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem	ELASTICEM (TM) SYSTEM	835	sack	13.2	1.57		6	7.55
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	EconoCem	ECONOCEM (TM) SYSTEM	1490	sack	13.5	1.79		6	8.73
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	40	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	Water	Water	358	bbl	8.33				
Cement Left In Pipe	Amount	85 ft		Reason				Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride: 0			Mix Water Temperature: 69 °F				
Cement Temperature:		Plug Displaced by: Fresh water			Disp. Temperature: 69 °F				
Plug Bumped?	Yes	Bump Pressure: 2560 psi			Floats Held? Yes				
Cement Returns:	0 bbl	Returns Density:			Returns Temperature:				
Comment Estimated top of tail 6254' top of lead 765'. Calculated spacer back to surface. Got 0 barrels of cement back to the pits. Checked floats, got 5 barrels back to the truck. Floats held.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Event	Callout	3/12/2019	06:00:00	USER					O/L time 11:00. verify equipment and materials before leaving the yard
Event	2	Safety Meeting	Safety Meeting	3/12/2019	09:45:00	USER					Pre-trip safety meeting and then depart in route to location. Journey called in and approved.
Event	3	Event	Meet with customer representative	3/12/2019	10:50:00	USER					TD 17898' OH 8.5" TP 17896' FC 17820' TVD 7809' PREVIOUS CASING 9.625" 36LB @2179' MW 9.8 PPG water tested temp 69 deg ph7 chlorides less than 300 sulfates less than 200
Event	4	Safety Meeting	Location Safety Meeting	3/12/2019	12:00:00	USER					Assessment of location, and pre rig up risks and hazards.
Event	5	Safety Meeting - Pre Job	Safety Meeting - Pre Job	3/12/2019	15:15:00	USER					discuss job procedure and hazards with Halliburton staff and 3rd party employees
Event	6	Start Job	Start Job	3/12/2019	16:00:00	USER					
Event	7	Test Lines	test lines	3/12/2019	16:15:00	USER					Pumped 3 barrels of fresh water to fill lines, shutdown, closed valves, performed 500 PSI electronic kick out function test, continued with 5th gear stall out test at 1680 PSI, then proceeded to bring pressure to 6000 PSI.

											pressure stabilized and held with no leaks.
Event	8	Pump Spacer 1	Pump Spacer 1	3/12/2019	16:36:44	COM4	415.00	10.79	4.00	0.00	Pumped 60 barrels of 10.5 PPG 6.62 yield 42.5 gal/sk tuned spacer with 40 gal dual spacer, 40 gal musol, 10 gal D-Air, at 5 bpm 425 PSI
Event	9	Check Weight	Check Weight	3/12/2019	16:37:30	COM4	412.00	10.50	4.00	3.10	Weight verified with pressurized mud scales
Event	10	Drop Bottom Plug	Drop Bottom Plug	3/12/2019	16:47:46	COM4	342.00	10.53	4.70	50.10	Bottom plug dropped by HOWCO supervisor, witnessed by company man
Event	11	Pump Lead Cement	Pump Lead Cement	3/12/2019	16:49:39	COM4	663.00	13.16	4.70	58.90	Pumped 835 sks/234bbbs 13.2PPG 1.57 Y 7.55 gal/sk Elasticem at 8bpm 550 PSI
Event	12	Check Weight	Check Weight	3/12/2019	16:51:10	COM4	451.00	13.25	4.80	7.20	Weight verified with pressurized mud scales
Event	13	Pump Tail Cement	Pump Tail Cement	3/12/2019	17:23:33	COM4	392.00	13.38	8.10	0.10	Pumped 1490 SKS 475bbbs 13.5 PPG 1.79 Y 8.73 gal/sk econocem at 8bpm 560 PSI
Event	14	Check Weight	Check Weight	3/12/2019	17:25:55	COM4	433.00	13.50	8.00	19.00	Weight verified with pressurized mud scales
Event	15	Shutdown	Shutdown	3/12/2019	18:34:45	COM4	16.00	13.47	0.00	542.20	Shutdown after finished pumping cement, cleaned pumps and lines followed by 3 bbls of fresh water
Event	16	Drop Top Plug	Drop Top Plug	3/12/2019	18:45:43	COM4	-29.00	7.66	0.00	558.00	Top plug dropped by HOWCO supervisor, witnessed by company man
Event	17	Pump Displacement	Pump Displacement	3/12/2019	18:45:48	COM4	-39.00	7.68	0.00	558.00	Pumped 398 bbls of fresh water displacement with 20 gal of MMCR in the first 40 bbls followed with biocide throughout at 8 BPM

Event	18	Bump Plug	Bump Plug	3/12/2019	19:44:17	COM4	3721.00	7.75	0.00	413.30	Slowed down at 370 bbls away to 3 bpm. Final circulating pressure 2560 psi. bump pressure 3000 psi. once lined out brought pressure up to 3500 psi and held for a 5 minute test.
Event	19	Standby Other	Standby Other	3/12/2019	19:50:00	USER	3846.00	7.75	0.00	413.30	Released pressure to check floats and got 5.0 barrels back to the truck. Floats held.
Event	20	Safety Meeting - Pre Rig-Down	End Job	3/12/2019	19:55:00	USER	-69.00	7.67	0.00	413.40	Estimated top of tail 6254' top of lead 765'. Calculated spacer back to surface. Got 0 barrels of cement back to the pits
Event	21	Safety Meeting - Pre Rig-Down	Post-Job Safety Meeting (Pre Rig-Down)	3/12/2019	20:00:00	USER	-76.00	7.64	0.00	413.40	Pre-rig down safety meeting discussing hazards.
Event	22	Pre-Convoy Safety Meeting	Depart Location Safety Meeting	3/12/2019	22:30:00	USER					Travel risks assessed and discussed. called in a journey and had it approved

3.0 Attachments

3.1 Case 1-Custom Results.png

