

# HALLIBURTON

iCem<sup>®</sup> Service

## **URSA RESOURCES GROUP**

**For: URSA**

Date: Wednesday, September 05, 2018

**BR B-19N 33C-19-2-97 2 Stage Surface PJR**

Sincerely,

**Grand Junction Cement Engineering**

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	9/4/2018	14:00:00	USER					Crew called out for Ursa, 2 Stage Surface job. Requested on location at 20:00 on 9/4/2018.
Event	2	Safety Meeting	9/4/2018	15:55:00	USER					Discussed all travel related safety issues with crew. Focused on animals.
Event	3	Travel to Location	9/4/2018	16:00:00	USER					Crew safely traveled to location.
Event	4	Arrive At Location	9/4/2018	18:30:00	USER					Checked in with company man. All employees signed in at the company mans shack. Wrote down the well information and discussed job procedure. Rig finishing running casing.
Event	5	Well Information	9/4/2018	18:32:00	USER					Customer: Richard McNeall, TD: 3670', Casing: 9 5/8" 36 lb 0'-3646', OH: 13.5" 0'-3670', Shoe Joint: 45', WBM: 9.6 ppg. Wtr Test 7 ph, 70 degree, 0 Chloride, <200 Sulfates
Event	6	Jobsite Assessment	9/4/2018	18:35:00	USER					Identify and discuss all location related safety issues with crew. Discussed how to spot equipment. Reviewed JSA. Discussed all rig up related safety issues with crew.

Event	7	Spot Equipment	9/4/2018	18:40:00	USER					Used spotters to get all equipment into position.
Event	8	Rig-Up Equipment	9/4/2018	18:50:00	USER					Rigged up 1 pump truck and 2 silos using our iron and hoses.
Event	9	Pre-Job Safety Meeting	9/4/2018	20:30:00	USER	1.00	8.37	0.00	0.0	Discussed all job related safety issues and pump schedule with crew and all involved parties on location. Rigged up the floor using our 2 bails, positive displacement manifold, and Halliburton 9 5/8" cement head.
Event	10	Start Job	9/4/2018	20:50:00	USER	-1.00	8.38	0.00	0.0	Started Job, rig has returns.
Event	11	Fill Lines	9/4/2018	20:54:00	USER	-1.00	8.38	0.00	0.0	5 bbls water
Event	12	Pressure Test	9/4/2018	21:02:59	USER	3451.00	8.42	0.00	0.0	500 psi kickout test, 3000 psi high psi test
Event	13	Fresh Water	9/4/2018	21:09:17	USER	8.00	8.35	1.80	0.1	20 bbls water
Event	14	Pump Cement	9/4/2018	21:20:17	USER	87.00	12.23	3.90	23.5	200 bbls, 574 sks, 12.5 ppg, 1.96 cuft/ft, 10.18 gal/sk
Event	15	Shutdown	9/4/2018	21:50:25	USER	12.00	0.11	0.00	210.9	Shutdown.
Event	16	Drop Plug	9/4/2018	21:54:09	USER	10.00	0.10	0.00	210.9	Customer to witness dropping dart. Halliburton DV Tool and plug set.
Event	17	Pump Displacement	9/4/2018	21:56:07	USER	11.00	0.10	1.20	211.0	131 bbls water and 148 bbls WBM, Total displacement 278 bbls.
Event	18	Bump Plug	9/4/2018	22:53:01	USER	355.00	8.33	0.00	295.1	We did not bump the plug. We displaced our calculated volume and then pumped half of the shoe tract as per company rep.

Event	19	Check Floats	9/4/2018	22:56:03	USER	124.00	8.30	0.00	297.0	Checked floats. The first time they were leaking back. We pressured up again and check them and they held. Got 1 bbl back to the pump.
Event	20	Drop Opening Device For Multiple Stage Cementer	9/4/2018	23:28:00	USER	1.00	8.37	0.00	298.3	We dropped the opening device and realized that the 1st stage dart was stil in the bottom of the plug container. We Pulled the plug container off the casing and pulled the Dart out. We then dropped the Opening device, loaded the closing plug into the plug container, and put the head back on the casing. We waited 12 minutes before pressuring up on the DV Tool.
Event	21	Circulate Well	9/4/2018	23:38:03	USER	6.00	8.22	0.90	298.4	We pressured up to 350 psi then it dropped off to 70 psi. We pumped 20 bbls of water but then shutdown per the company rep because we had no returns. We were worried that the tool had not opened. We didnt want to give them a wet shoe.
Event	22	Comment	9/4/2018	23:57:49	USER	58.00	8.38	0.00	320.8	We were told to rig it down. When the release line was opened we got flow and new that it had to be the tool that was open. Since the floats held when we checked them earlier. We got permission to pump 30 more bbls.
Event	23	Circulate Well	9/5/2018	00:35:15	USER	35.00	8.56	1.70	321.1	We Pumped 24 bbls and

										established circulation. We pumped a total of 40 bbls and turned it over to the rig. The rig circulated out 50 bbls of cement. The rig circulated for 2 1/2 hours.
Event	24	Pre-Job Safety Meeting	9/5/2018	02:30:00	USER	-7.00	8.37	0.00	363.2	Discussed all job related safety issues and pump schedule with crew and all involved parties on location. Rigged up the floor using our 2 bails, positive displacement manifold, and Halliburton 9 5/8" cement head.
Event	25	Fill Lines	9/5/2018	02:49:10	USER	34.00	8.37	0.90	363.2	3 bbls water
Event	26	Pressure Test	9/5/2018	02:58:58	USER	3461.00	8.50	0.00	0.0	500 psi kickout test, 3000 psi high psi test
Event	27	Pump Spacer	9/5/2018	03:05:46	USER	9.00	8.45	1.70	0.3	20 bbls water
Event	28	Pump Cement	9/5/2018	03:14:34	USER	100.00	12.29	3.90	23.3	264 bbls, 604 sks, 12.3 ppg, 2.45 cuft/ft, 14.18 gal/sk
Event	29	Drop Plug	9/5/2018	03:54:56	USER	5.00	0.22	0.00	280.5	Customer to witness dropping dart. Halliburton DV Tool and plug set.
Event	30	Pump Displacement	9/5/2018	03:55:51	USER	10.00	0.26	3.50	0.2	157 bbls water
Event	31	Bump Plug	9/5/2018	04:24:37	USER	821.00	8.36	3.10	160.6	Landed plug with 157 bbls away. Started to loose returns at 80 bbls into displacement. lost them completely when we slowed our rate for the last 10 bbls.
Event	32	Check Floats	9/5/2018	04:27:19	USER	1692.00	8.38	0.00	161.0	Checked Floats. Floats held, 1 1/2 bbls back.
Event	33	End Job	9/5/2018	04:30:00	USER	-3.00	8.34	0.00	161.0	Job Complete

Event	34	Pre Rig Down	9/5/2018	04:35:00	USER	1896.00	8.39	0.00	162.4	Discuss all rig down related safety issues with crew.
Event	35	Rig-Down Equipment	9/5/2018	04:40:00	USER	-2.00	8.34	0.00	0.0	Crew safely rigged down.
Event	36	Travel to Home	9/5/2018	05:55:00	USER					Discuss all travel related safety issues with crew.
Event	37	Depart Location for Home	9/5/2018	06:00:00	USER					Thank you for your business! KC Smith and crew.