

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

United States of America, COLORADO

For: Manuel Parras

Date: Saturday, August 04, 2018

VT-ALLES 1-16-18

WELD

Case 1

Job Date: Friday, August 03, 2018

Sincerely,

Luke Kosakewich and Crew

Legal Notice

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The Road to Excellence Starts with Safety

Sold To #: 369404	Ship To #: 3787025	Quote #:	Sales Order #: 0905036703
Customer: EXTRACTION OIL & GAS		Customer Rep: Manuel Parras	
Well Name: VT-ALLES		Well #: 1-16-18	API/UWI #: 05-123-44415-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: SW NW-15-5N-65W-1907FNL-459FWL			
Contractor:		Rig/Platform Name/Num: Patterson 901	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Luke Kosakewich	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	20150ft	Job Depth TVD	6865ft
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	0	9.625	8.921	36		J-55	0	1649	0	1649
Casing	0	5.5	4.778	20	BTC	P-110	0	20148	0	6865
Open Hole Section			8.75				1649	8342	1649	6865
Open Hole Section			8.5				8342	20150	6865	6865

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	5.5	1	KLX
Float Shoe	5.5			20148	Bottom Plug			
Float Collar	5.5			20143	SSR plug set			
Insert Float					Plug Container	5.5	1	HES
Stage Tool					Centralizers			

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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.73		6	

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
2	ElastiCem	ELASTICEM (TM) SYSTEM	3225	sack	13.2	1.57		8	7.53
3	Displacement	Displacement	446.8	bbl	8.33			10	
Cement Left In Pipe									
Amount		5 ft			Reason			Shoe Joint	
Mix Water: pH 7		Mix Water Chloride: 0 ppm			Mix Water Temperature: 70 °F				
Plug Bumped? Yes		Bump Pressure: 2,400 psi			Floats Held? No				
<p>Comment There were full returns throughout the job. We bumped the plug at 2,700 psi. at 5 bpm. Final pressure was 3,200. Pressured up the well to 3,632 psi. to burst the plug. Pumped a 5 bbls. wet shoe at 5 bpm. Check floats. Floats did not hold. Got 5 bbls. of fluid back to the truck. Pumped 5 bbls. to recheck floats. . Floats did not hold. Got 5 bbls. of fluid back to the truck. Pumped 5 bbls. to recheck floats one last time. Floats did not hold. Got 5 bbls. of fluid back to the truck. Pumped 5 bbls. to hold the wet shoe in place and shut in the well with 1,600 psi. to let the cement set up. Got 50 bbls. of spacer and 40 bbls. of cement to surface.</p>									

1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	8/3/2018	07:30:00	USER					Crew was called out at 07:30 for an on location time of 16:30.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	8/3/2018	13:20:00	USER					Crew held a pre journey safety meeting and JSA.
Event	3	Depart Shop for Location	Depart Shop for Location	8/3/2018	13:30:00	USER					Started journey management with dispatch and left location.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	8/3/2018	14:30:00	USER					Crew performed a site assessment, safety meeting and hazard hunt on location. Checked in with the customer and discussed the job procedures, rig up and well bore schematics. The rig was running casing.
Event	5	Other	Other	8/3/2018	14:45:00	USER					Well bore: MD: 20,150', TP: 5.5" 20# set at 20,148', FC: 20,143', TVD: 6,865', SC: 9.625" 36# set at 1,649', OH: 8.75" drilled to 8,342. OH: 8.5" from 8,342 to 20,150, Mud # 9.6 ppg. Water test: PH: 7, Chlorides: 0, Temp: 70 Degrees.
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/3/2018	14:45:00	USER					The crew held a pre rig up safety meeting and JSA.
Event	7	Rig-Up Equipment	Rig-Up Equipment	8/3/2018	15:00:00	USER					The crew rigged up all lines, hoses and equipment for the job.

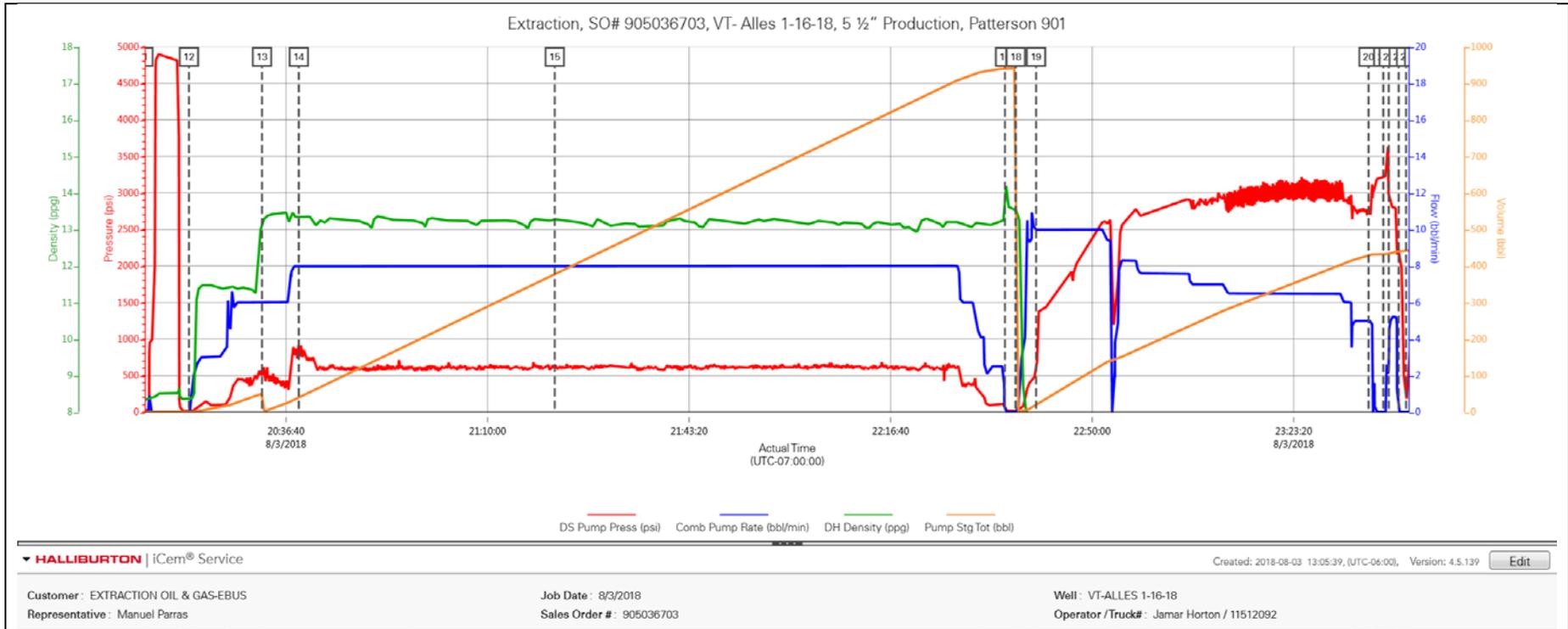
Event	8	Safety Meeting	Safety Meeting	8/3/2018	19:00:00	USER	-38.00	0.00	8.39	11.90	Halliburton cement crew held a pre cement job safety meeting and JSA with third party personnel and rig crew.
Event	9	Start Job	Start Job	8/3/2018	20:10:29	COM5	7.00	0.00	8.41	0.00	Pumped 3 bbls. of fresh water at 3 bpm. to fill lines and establish circulation.
Event	10	Test Lines	Test Lines	8/3/2018	20:13:04	COM5	25.00	0.00	8.35	2.60	Pressure tested lines to 4,900 psi. with a 500 psi. electronic kick out test.
Event	11	Pump Spacer 1	Pump Spacer 1	8/3/2018	20:20:36	COM5	9.00	0.00	8.36	0.00	Pumped 50 bbls. of Tuned Spacer III with surfactants mixed at 11.5 ppg.,Yield: 3.73 ft3/sks, 23.4 gal/sks. Density was verified by pressurized scales.
Event	12	Pump Lead Cement	Pump Lead Cement	8/3/2018	20:32:41	COM5	440.00	6.00	13.17	0.00	Pumped 902 bbls. (3225 sks.) of Elasticem mixed at 13.2 ppg.,Yield: 1.57 ft3/sks, 7.53 gal/sks. Density was verified by pressurized scales.
Event	13	Check Weight	Check Weight	8/3/2018	20:38:46	COM5	841.00	8.00	13.36	39.30	Cement weighed up at 13.2 ppg. Density was verified by pressurized scales.
Event	14	Check Weight	Check Weight	8/3/2018	21:21:06	COM5	639.00	7.90	13.28	376.40	Cement weighed up at 13.2 ppg. Density was verified by pressurized scales.
Event	15	Shutdown	Shutdown	8/3/2018	22:35:34	COM5	55.00	0.00	14.23	941.00	Shutdown and loaded the top plug.
Event	16	Drop Top Plug	Drop Top Plug	8/3/2018	22:37:18	COM5	12.00	0.00	13.53	941.00	Dropped the top plug, which was witnessed by the customer.

Event	17	Pump Displacement	Pump Displacement	8/3/2018	22:37:22	COM5	12.00	0.00	13.53	941.00	Pumped 446.8 bbls. of fresh water for displacement.
Event	18	Displ Reached Cement	Displ Reached Cement	8/3/2018	22:40:42	COM5	465.00	10.00	7.90	19.90	Pressured up indicating that displacement had caught up with cement.
Event	19	Bump Plug	Bump Plug	8/3/2018	23:35:42	COM5	2764.00	5.00	7.94	429.00	Bumped the plug 500 psi. over 2,700 psi. at 5 bpm. Finale pressure was 3,200 psi. We held pressure for a minute. Pressure held. Circulated 50 bbls. of spacer and 40 bbls. of cement to surface.
Event	20	Pressure Up Well	Pressure Up Well	8/3/2018	23:38:08	USER	3210.00	0.00	7.92	432.20	Pressured up the well to 3,632 psi. to burst the plug.
Event	21	Other	Other	8/3/2018	23:39:02	USER	2970.00	2.50	7.93	433.10	Pumped 5 bbls. of fresh water at 5 bpm. for a wet shoe.
Event	22	Check Floats	Check Floats	8/3/2018	23:40:41	USER	2214.00	0.00	7.87	440.10	Bled off pressure to check floats. Floats did not hold. Got 5 bbls. of fluid back to the truck.
Event	23	Pump Water	Pump Water	8/3/2018	23:43:15	USER	1857.00	4.90	7.99	441.00	Pumped 5 bbls. of water at 5 bpm. to recheck floats.
Event	24	Check Floats	Check Floats	8/3/2018	23:44:54	USER	1802.00	0.00	7.93	445.20	Bled off pressure to check floats. Floats did not hold. Got 5 bbls. back to the truck.
Event	25	Pump Water	Pump Water	8/3/2018	23:47:27	USER	1451.00	0.00	8.02	445.20	Pumped 5 bbls. of water at 5 bpm. to recheck floats.

Event	26	Check Floats	Check Floats	8/3/2018	23:59:02	USER	1529.00	0.00	7.99	450.80	Bled off pressure to check floats. Floats did not hold. Got 5 bbls. back to the truck.
Event	27	Pump Water	Pump Water	8/4/2018	00:00:42	USER	521.00	0.00	8.00	450.80	Pumped 5 bbls. of water at 5 bpm. and shutdown.
Event	28	Shut In Well	Shut In Well	8/4/2018	00:05:22	USER	1473.00	0.00	8.06	457.30	Shut the well in with 1,600 psi. to let the cement set up.
Event	29	Shutdown	Shutdown	8/4/2018	00:08:31	USER	1589.00	0.00	8.05	457.30	Shut down.
Event	30	End Job	End Job	8/4/2018	00:17:09	COM5					Washed and blew down all pumps and lines until clean and dry.
Event	31	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/4/2018	00:40:00	USER					Halliburton cement crew held a pre rig down safety meeting and JSA.
Event	32	Rig-Down Equipment	Rig-Down Equipment	8/4/2018	00:50:00	USER					Rigged down all lines, hoses and equipment.
Event	33	Safety Meeting - Departing Location	Safety Meeting - Departing Location	8/4/2018	03:00:00	USER					Held a pre journey safety meeting with the crew.
Event	34	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	8/4/2018	03:30:00	USER					Started journey management with dispatch and left location.

2.0 Attachments

2.1 Extraction, SO# 905036703, VT- Alles 1-16-18.png



2.2 Case 1-Custom Results.png

