

# 1 Job Details & Summary

## 1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	1555	25
Casing	Inner	9.625	8.921	36	LTC	0	1551	0

## 1.2 Equipment / People

Unit Type	Unit	Power Unit	Mileage
Bulk Trailer	509		130
Bulk Trailer	E696		130
Cement Pump	102	202	130
Light Duty Pickups	7		130

## 1.3 Timing

Event	Date/Time
Call Out	6/25/2017 12:30
Depart Facility	6/25/2017 02:00
On Location	6/25/2017 04:15
Rig Up Iron	6/25/2017 11:00
Job Started	6/25/2017 13:48
Job Completed	6/25/2017 15:23
Rig Down Iron	6/25/2017 15:50
Depart Location	6/25/2017 16:55

## 1.4 General Job Information

Metrics	Value
Well Fluid Density	8.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	135 bbls
Rig Circulation Time	0.34 hours
Calculated Displacement	116.43 bbls
Actual Displacement	116.4 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	36 bbls
Well Topped Out	No

## 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	1
Yield Point	6
10 sec. SGS	2
10 min. SGS	4
30 min. SGS	7
Filtrate	70
Flow Line Temp.	80

## 1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	8.6 lb/gal
Well Fluid Density Out of Well	8.6 lb/gal

## 1.7 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	110 °F



### 1.8 Circulation

Lost Circulation Experienced
No

### 1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem S100-12	Lead	12.00	2.53	14.85		260.00	116.99	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		142.00	56.23	1000
1	4	Water	DisplacementFinal	8.33			42.00		116.00	0

### 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	2	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	2	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	2	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	2	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	3	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	3	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	3	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	3	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	3	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk



## 2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	CALL OUT	6/25/2017	12:30					BJ CREW CALLED OUT ON LOCATION AT 6:30
2	PRE-CONVOY	6/25/2017	01:30					DISCUSSED HAZARDS OF DRIVING
3	DEPART SHOP	6/25/2017	02:00					DEPART SHOP FOR LOCATION
4	ASSESSMENT OF LOCATION	6/25/2017	04:00					MET WITH CUSTOMER REP WENT OVER JOB DETAILS, AND WHERE TO SPOT EQUIPMENT
5	PRE-RIG UP	6/25/2017	10:40					DISCUSSED HAZARDS OF RIGGING UP IRON
6	RIG UP	6/25/2017	11:00					BJ CREW RIGS UP FOR JOB
7	RIG UP COMPLETE	6/25/2017	11:25					RIG UP COMPLETED SAFELY
8	PRE-JOB	6/25/2017	13:25					CONDUCTED STEACS BRIEFING WITH BJ CREW AND RIG CREW
9	FILL LINES	6/25/2017	13:48	8.33	1	2		FILLED LINES WITH 2 BBL FRESH WATER
10	TEST LINES	6/25/2017	13:53	8.33	1	2		TESTED LINES TO 3000
11	PUMP SPACER	6/25/2017	13:56	8.33	5	20		PUMPED 20 BBL FRESH WATER SPACER
12	PUMP LEAD CEMENT	6/25/2017	14:04	12	4	117		PUMPE 117 BBL,260/SKS OF 12/LB,2.53CUFT/FT,14.85GAL/SK OF LEAD CEMENT
13	PUMP TAIL CEMENT	6/25/2017	14:41	12.5	4	56.2		PUMPED 56.2BBL,142/SKS OF 12.5,2.22CUFT/FT,12.58GAL/SK OF TAIL CEMENT
14	SHUT DOWN	6/25/2017	14:53					ALL CEMENT PUMPING COMPLETE
15	DROP PLUG	6/25/2017	14:57					TOP PLUG LEFT CEMENTING HEAD
16	DISPLACE	6/25/2017	14:58	8.33	5	116.45		DISPLACED 116.45 BBL OF FRESH WATER, CMT TO SURFACE AT 80 BBL DISPLACED 36 BBL TO SURFACE
17	SLOW RATE	6/25/2016	15:18	8.33	2	195		SLOWED RATE AT 195 BBL DISPLACED TO BUMP PLUG
18	BUMP PLUG	6/25/2017	15:23					BUMPED PLUG AT CALCULATED DISPLACEMENT OF 116.4,350 TO 850 PSI FCP
19	CHECK FLOATS	6/25/2017	15:26					FLOATS HELD 1 BBL BACK
20	PRE-RIG DOWN	6/25/2017	15:40					DISCUSSED HAZARDS OF RIGGING DOWN IRON
21	RIG DOWN	6/25/2017	15:50					BJ CREW RIGGED DOWN IRON
22	RIG DOWN COMPLETE	6/25/2015	16:15					BJ CREW COMPLETED RIG DOWN SAFELY



23	PRE-CONVOY	6/25/2017	16:30					DISCUSSED HAZARDS OF DRIVING AND DID AAR
24	DEPART LOCATION	6/25/2017	16:55					BJ CREW LEFT LOCATION

### 3 Water Analysis

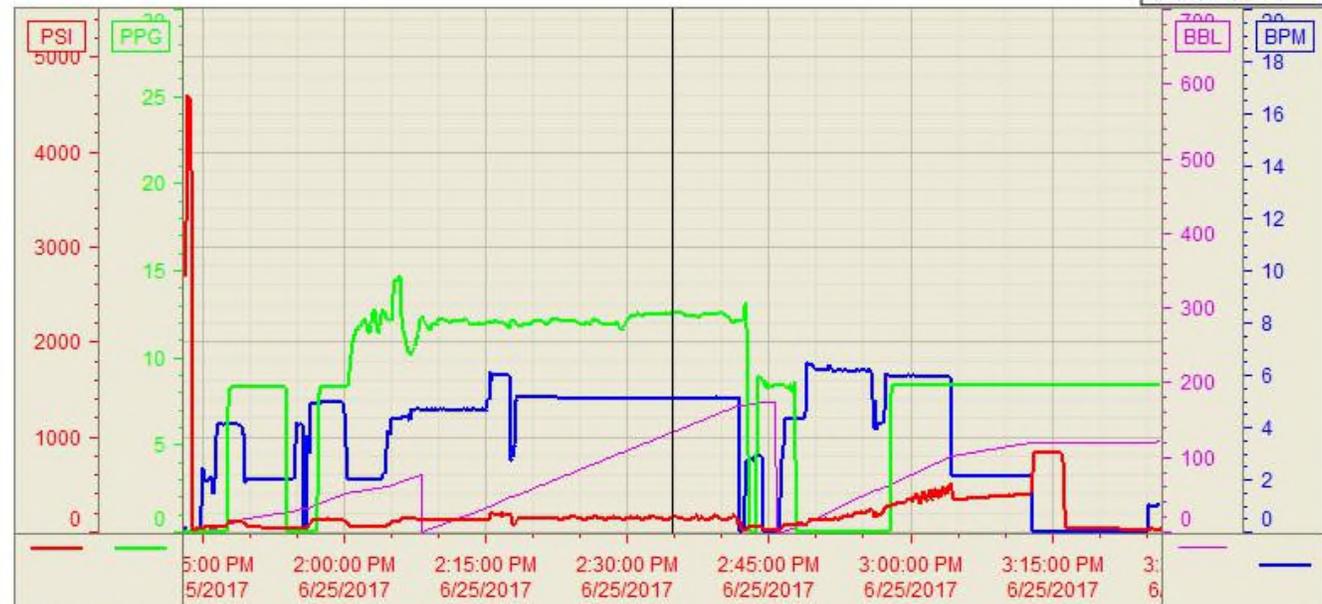
Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	99 mg/L	0-3000 mg/L
Total Alkalinity	40	0-1000
Total Hardness	50 mg/L	0-500 mg/L
Carbonates	180 mg/L	0-100 mg/L
Sulfates	>400 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	20 mg/L	0-300 mg/L

### 4 Pump Diagrams

Customer: bayswater  
Well Number: 20-19HN  
Lease Info: Ward X 20



Print Date/Time  
6/25/2017 3:34:28 PM



Name	Y value	X value/time stamp	Tag name Y
1 DS - Press (PSI)	144.7	6/25/2017 2:34:46 PM	CementerIDS_DISCHARGE_PRESS_DIAL
2 Den - Density (PPG)	12.55	6/25/2017 2:34:46 PM	CementerDENSITY_ACTUAL_RATE
3 Down Hole Total (BBLs)	133.7 i.	6/25/2017 2:34:47 PM i.	CementerDOWNHOLE_FLOW_TOTAL
4 Combined Rate	5.09	6/25/2017 2:34:46 PM	CementerFlow_Combined
5			

Source: Control1 3:34:24 PM