



Occidental Petroleum Corporation

SBJ 13-3HZ

Surface Casing

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SBJ 13-3HZ – Surface Casing

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1. Project Background

On October 02, 2021, Magnum utilized PCMP-Q technology on the surface casing cementing job with a total of 344 bbl mixed and pumped, and maximum combined displacement rate of 6 bbl/min. The total time of operations was 2 hours.



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2. Cement Blend Data

This is the blend data of the Cement ordered for the job.

Blend Description	Cement Properties
Base Cement Blend : MAG S 14.1	
Mix Water (gal/sk)	5.89
Yield (ft ³ /sk)	1.28
Lab Results	
Density (ppg)	14.1
Working Time (hr:min)	2:13
Thickening Time (hr:min)	3:05
Compressive Strength (psi/12h)	698
Compressive Strength (psi/24h)	1070
Mix water Temperature (°F)	65
Slurry Temperature (°F)	65



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3. Pump Schedule

PUMP SCHEDULE							
RATE (BPM)	EVENT	VOLUME (BBL)	DENSITY (LB/GAL)	# OF SACKS	SACK WEIGHT (LB/SK)	YIELD (FT ³ /SK)	MIX WATER (GAL/SK)
	Start Job				Max PSI 1200		
	Drop Plug						
3	Fill Fresh Water	5.0	8.3				
	Test Lines 2500						
4	Fresh Water	5.0	8.3				
4	Mag Mark	10.0	8.3				
4	Fresh Water	10.0	8.3				
6	Mag S 14.1	179.4	14.1	786	87.00	1.28	5.89
	Shut down						
6	Drop Plug						
	Displacement	139.2	8.3				
	Land Plug						
	TOL						
	TOT	0.0			Bump Plug 500psi Over		
	Spacer to Surface						
	Cement to Surface	.8.0					
TOTAL	TOTAL PIPE	SHOE JOINT		FLOAT COLLAR		BBL/FT	H2O REQ.
139.20	1,877.00	42.00		1836.00		0.0798	300
SHOE JOINT CAP.	3.10	USE MUD SCALES TO VERIFY WEIGHT					
PRESSURE TO LAND (PSI)		550		TOTAL FLUID PUMPED (BBL)		348	
Collapse (psi)	3,090	Burst (psi)		5750		JOB#	108974
Client	OXI	Well Name		SBJ 13-3HZ		Job Type	Surface
Water Temp (°F)	60	Water pH		6		Water Chlorie (mg/L)	>250
Total Hardness (mg/L):	300						



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4. Job Sequence / Procedure 1 of 2

US Treatment Report					
Customer: OCCIDENTAL PETROLEUM CORP. Rep: David Cornett Supervisor: WESLEY BELL Job Type: US Primary Casing-Surface			Job #: JOB00108974 Job Date: 10-2-2021 Time Requested: 10:00 Time Arrived: 8:50 Time Released: 14:00		
Ria: Ikon 12 Well: SBJ 13-3HZ UWI: SBJ 13-3HZ Surface: T4N R68W S13					
786.9 sk MAG S 14.1 + 1.00% MCA-1 + 0.10% MCDF-P					
		Yield:	1.28 ft ³ /sk = 179.39bbbls	Mix Water:	5.89 gal/sk = 4634.84gal
BHCT (F)	81	BHST (F)	81	Surface Casing Casing Size (in)	9.625
Surface Casing Grade	L-80	Surface Casing Weight (lb/ft)	40	Collapse Csg Pressure (psi)	3098
Float Depth (ft)	1836	Funnel Vis (sec/qt)	TBD	Hole Size (in)	13.5
Max Csg Pressure (psi)	5750	Max Pressure (psi)	1200	Mud Density (lb/gal)	8.5
Mud Type	Water Based	Plug Size (in)	9.625	Plug Type	Rig Supplie
Surface Casing (in)	9.625	Surface Casing Grade	L80		d
Surface Casing WT (lb/ft)	40	TMD (ft)	1888	Surface Casing Length (ft)	1877
Unkown UDF	Surface Casing			TVD (ft)	1830
Treatment Info: Sacks Used: 786 Sacks Not Used: 0					
Preflush: 10bbbls Fresh Water & 10bbbls MAG Mark & 10bbbls Fresh Water					
				Circulation Time:	0.5
				Slurry Temp:	70
				Water Temp:	62
				Bulk Temp:	60
				Air Temp:	60
				Air Pressure	30.1
				Slurry Returns:	30
				Plug Bumped:	Yes
				Cement Class:	Type III
				Pump Out Lines:	No
				Humidity:	56
				Float Held:	Yes
				Precipitation:	0
Displace: 139.2bbbls Fresh Water					



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Job Sequence / Procedure 2 of 2

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/mi n	Treatment Detail
08:50	0.00					Arrive on Location - Arrive on location, Requested time was 10:00
09:00	0.00					Rig in Pump and bulk
11:00	0.00					Safety Meeting - Hold safety meeting with rig crew and pump crew
11:34	2,500.00			5	2	Start Pressure Test - Load 9.625" bottom plug, Fill lines with 5bbls fresh water, Pressure test
11:37	100.00			5	3	Pump Preflush - Pump 5bbls fresh ahead
11:39	100.00			10	3	Pump Preflush - Pump 10bbls MAG Mark
11:41	100.00			10	3	Pump Preflush - Pump 10bbls fresh water
11:47	250.00			179.4	6	Pump Slurry - Pump 179.4bbls, 786sks, MAG S 14.1, Y: 1.28, WR 5.89
12:29	0.00					Stop Pumping - Finish mixing cement, Wash up pump
12:38	0.00					Drop Plug - Drop 9.625" Top Plug, Begin displacement with fresh water
12:48	250.00			50	6	Displace - 50bbls away
12:57	600.00			50	6	Displace - 100bbls away
13:07	550.00			39	2	Bump Plug - 139.2bbls away land plug, bump pressure to 1100
13:10	0.00					Check Floats - Check floats, .75bbls back, floats held.
13:15	0.00					Wash Up Truck - Wash up pump to cellar
13:25	0.00					Job complete



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5. Job Graph

