

# SS-25 and Porter 39A Relief Well Fluids and Fluid Additives

Date	Fluid Type	BBLs Pumped	Additive	Amount Added (lbs)	Additive	Amount Added (lbs)	Additive	Amount Added (lbs)	Additive	Amount Added (lbs)
10/24/2015	HEC Polymer Pill	60	GeoZan	360						
	KCL 3%	10	Kcl	106						
	Total BBLs	70								
11/13/2015	Polymer Pill	20	GeoZan	150	Amber Guard	50	CaCl 9.4	1,160		
	CaCl 9.4 ppg	696	CaCl	40,368						
	Total BBLs	716								
11/15/2015	Barite Pill 18 ppg	19	Barite	11,500	Desco	50	Caustic Soda	50	CaCl	1,102
	CaCl 9.4	220	CaCl	12,760						
	Total BBLs	239								
11/18/2015	Barite Pill 18 ppg	35	Barite	17,600	Desco	100	Caustic Soda	50	CaCl	2,030
	CaCl 9.4	185	CaCl	10730						
	Total BBLs	220								
11/24/2015	Polymer Pill	50	GeoZan	325	Desco	50	Caustic Soda	50		
	Barite Pill	35	Barite	17,600						
	Fresh Water	1006								
	Total BBLs	1091								
11/25/2015	Polymer Pill w/ LCM	150	GeoZan	900	CaCl	8,700	Nut Shell Fine	60	Nut Shell Med	60
	CaCl 9.4	56	Saw Dust	60						
	Fresh Water	960	CaCl	3,248						
	Total BBLs	1166								
12/22/2015	WBM 15 ppg	200	Gel	3,000	Barite	75,300				
	WBM 15 ppg /w LCM	125	Nut Shell	3750	DiaSeal-M	6,250				
	Total	325								
2/11/2016	Poly Tek+	1120	Kcl	11,872	GeoZan	840	DrisPac SL	2,240	Caustic Soda	1120
			PolyTek+	37,000	Amber Guard	550				
	Total BBLs	1120								

These are not exact volumes or materials used. This was calculated from all the Halliburton daily logs from all the pump jobs. Product and fluid descriptions are in the folder Product and fluid info