

BASS BROTHERS ENTERPRISES INC.

North Custer Mountain, S. D. 57051

9-5/8" OD CASING SETTING

1-6
28-235-35

Commencing at 9:40 p.m., MST 4-19-66, ran 9-5/8" OD casing as follows:

NO.	JTS.	DESCRIPTION	THREADS OFF	LENGTH	FROM	TO
---		Rotary correction		22.24	0.00	22.24
88		9-5/8" OD 43.5 lb. per ft. N-80 Buttress thread casing:				
1		9-5/8" OD 43.5 lb. per ft. N-80 cross over jt., from Buttress thread to LT&C		3608.54	22.24	3630.78
44		9-5/8" OD 43.5 lb. per ft. N-80 LT&C casing		39.63	3630.78	3670.41
---		9-5/8" OD Halliburton DV stage tool:		1847.56	3670.41	5517.97
12		9-5/8" OD 43.5 lb. per ft. N-80 LT&C casing		2.12	5517.97	5520.09
33		9-5/8" OD 47.0 lb. per ft. N-80 LT&C casing		495.85	5520.09	6015.94
32		9-5/8" OD 53.5 lb. per ft. N-80 LT&C casing		1421.46	6015.94	7437.40
---		9-5/8" OD Halliburton DV stage tool		1335.90	7437.40	8773.30
46		9-5/8" OD 53.5 lb. per ft. N-80 LT&C casing		2.13	8773.30	8775.43
34		9-5/8" OD 53.5 lb. per ft. P-110 LT&C casing		1927.22	8775.43	10702.65
---		9-5/8" OD Halliburton differential fill collar		1425.25	10702.65	12127.90
---		9-5/8" OD Halliburton float collar:		1.91	12127.90	12129.81
1		9-5/8" OD 53.5 lb. per ft. P-110 LT&C casing		1.60	12129.81	12131.41
---		9-5/8" OD Halliburton float shoe		42.15	12131.41	12173.56
				1.70	12173.56	12175.26

Ran a total of seven Halliburton centralizers, including one on each of the bottom three joints, and one above and below each of the two stage collars. Bottom three joints of casing were externally sand blasted. Landed casing at 12:30 p.m., 4-20-66, setting 10% of the weight on bottom. Total hook load 520,000 lbs. All casing joints were tested by Loomis Hydraulic Testing Co. to 5000 psi above the slips. Circulated 3 hours, and 10 minutes after landing casing, before cementing. Cemented as follows:

First Stage: Halliburton pumped in 20 bbls. fresh water, followed by 1475 sx. Trinity Lite Water neat, followed by 200 sx. Trinity Inferno neat. Mixing time 18 minutes on Trinity Lite Water, and 5 minutes on Trinity Inferno. Slurry weight 12.4 lbs. per gal. on Trinity Lite-Water, 15.7 lbs. per gal. on Trinity Inferno. Pumping time 66 minutes. Maximum pump pressure 1350 psi. Finished displacement, opened the DV tool at 5:28 p.m., 4-20-66. Displaced with 689 bbls. mud. Had cement returns to the surface at 6:25 p.m. Circulated out 210 sx. Circulated 6 hours through the DV collar at 8773.

Second Stage: Halliburton pumped in 20 bbls. fresh water, followed by 1135 sx. Trinity Lite-Water neat, followed by 200 sx. Trinity Inferno neat. Mixing time 17 minutes on the Trinity Lite-Water, and 6 minutes on the Trinity Inferno. Slurry weight 12.2 lbs. per gal. on the Trinity Lite-Water and 16.2 lbs. per gal. on the Trinity Inferno. Pumping time 48 minutes. Maximum pump pressure 1450 psi. Plug down at 12:48 a.m., 4-21-66. Pressured to 2500 psi; held. Bled off pressure; floats held. Dropped bomb to open the upper stage tool at 5518'; tool opened at 1:30 a.m., 4-21-66. Had cement returns to the surface at 1:45 a.m. Circulated out 260 sx. Circulated through the stage tool for 6 hours.

Third Stage: Halliburton pumped in 20 bbls. fresh water, followed by 1170 sx. Trinity Lite-Water neat, followed by 200 sx. Trinity Inferno neat. Mixing time on Trinity Lite Water cement was 16 minutes. Mixing time on Trinity Inferno was 5 minutes. Slurry weight of Trinity Lite Water 12.4 lb. per gal. Slurry weight of Trinity Inferno 16.0 lbs. per gal. Pumping time 43 minutes. Maximum pump pressure 1650 psi. Plug down at 8:14 a.m., MST, 4-21-66. Pressured up on plug to 2900 psi; held. Released all pressure; no back flow. Cement returns to the surface were obtained after 250 bbls. of displacement had been pumped. Total displacement was 412 bbls. Circulated out 567 sx. WOC.