CEMENTING TREATMENT REPORT

PIONEER NATURAL RESOURCES

TREATMENT NUMBER	DATE
JM2013006	5/6/2013
STAGE	**JOB TYPE**
1	Surface

WELL NAME AND NO.	LOCATION (LEGAL)		RIG NAME:	CEMENT PUMPER:
Parker Trust 33-22	NW/SE 19-16S-53W		Patterson # 190	23005
FIELD	**FORMATION**			
Black Fox	Wildcat			
COUNTY	**STATE**	**API NO.**		
Lincoln	Colorado	05-073-06510		

RIG FORMAN: Dave Martinez

CEMENT SUPER: Frank L. Gonzales

Jose Madrid

SPECIAL INSTRUCTIONS

Personnel: Jose,Don,Ron,Barry,Gary,J.R.,Bruce

LIFT PRESSURE	835	psi		
PRESSURE LIMIT	2000	psi	**BUMP PLUG TO**	1500
			NO. of Centralizers	14

WELL DATA			BOTTOM	FT	TOP	FT
BIT SIZE	12 1/4	**CSG/Liner Size**	8 5/8			
TOTAL DEPTH	3105	**WEIGHT**	24			
MUD TYPE		**FOOTAGE**	3084.63			
☐ BHST		**GRADE**	K-55			
☐ BHCT		**THREAD**	ST&C			
MUD DENSITY		LESS FOOTAGE SHOE JOINT(S)	39.71			TOTAL:
MUD VISC		**Disp. Capacity**	193.5			193.5

Include Footage From Ground Level To Head In Disp. Capacity

			Stage Tool			
FLOAT	TYPE			TYPE		
	DEPTH			DEPTH		
SHOE	TYPE			TYPE		
	DEPTH			DEPTH		

Head & Plugs		☐ TBG ☐ D.P.	SQUEEZE JOB	
	SIZE		TOOL	TYPE
☐ Double Box 6	**WEIGHT**			DEPTH
☐ Single	**GRADE**		**TAIL PIPE:**	SIZE DEPTH
☐ Swage	**THREADS**		**TUBING VOLUME**	BBLs
☐ Knockout	☐ New ☐ Used		**CSG VOL BELOW TOOL**	BBLs
	DEPTH		**TOTAL**	BBLs
CEMENT TEMPERATURE:			**ANNULAR VOLUME**	BBLs

WATER QUALITY:	6	**pH**	0	**PPG**	56	**TEMP**

TIME	PRESSURE		VOLUME PUMPED		JOB SCHEDULED FOR	ARRIVE ON LOCATION	RIG UP	LEFT LOCATION
0001 to 2400	TBG	CSG	INCR	CUM	TIME: 7:00 DATE 5/6/2013	TIME: 10:10 DATE: 5/6/2013	TIME: 11:03 DATE: 5/6/2013	TIME: 15:30 DATE: 5/6/2013

					RATE	FLUID TYPE	DENSITY	
11:10								Safety Meeting
11:47			2	2	1	H2O	8.3	Load Lines
11:48		2000	1	3	1	H2O	8.3	Pressure Test Pump and Lines
11:54		182	50	55	4	H2O	8.3	Water Ahead
12:02		340	340	395	4	Cmt.	13.5	Pump Cement @ 13.5 PPG - 1134 Sks.
13:17								Drop Plug
13:18		60	193.5		4	H2O	8.3	Pump Displacement
13:33		170		455			8.3	60 Bbls. Away
13:48		650		515			8.3	120 Bbls. Away
14:03		950		575			8.3	180 Bbls. Away
14:11		1050					8.3	Final lift
14:11		1500		588	1		8.3	BUMP PLUG
14:21								Wait 10 Minutes / Plug Held
14:22			50	638	4	H2O	8.3	WASH UP PUMP AND LINES
15:30								RIG DOWN

System Used	No.of Sacks	Yield ft^3/sk	COMPOSITION OF SYSTEM	SLURRY MIXED BBLS	SLURRY MIXED DENSITY
Surf. Set	1134	1.69	Class G ,Pozz, P20,S1,P42,P154,P29,P46	340	13.5

CIRCULATION	☑ Yes ☐ No	**WASHED CASING DOWN**	☐ Yes ☑ No	**BREAKDOWN**	182 **PSI**	**FINAL**	1500 **PSI**
		RETURNED TO SURFACE		BEFORE PLUG BUMP			
DISPLACEMENT VOL.	193.5 **BBLS**	62		**PRESSURE**	**1050 PSI**	**RATE**	4 **BPM**