PANTERRA ENERGY SURFACE CASING CEMENT REPORT

Panterra Energy, LLC								
6900 Highway 86								
Kiowa CO 80117								
PROJECT NUMBER	pcs17-4-cp		PROJECT LEAD DRILLER		RIG #	HOLE #	BIT TYPE(S)	START DATE
PROJECT LOCATION	COFFEYVILLE, KS		SKYLER WILSON		PE: 1002	COF_AC 4	HAMMER	4/24/2017
GENERAL CONTRACTOR	PIPELINE CONTROLS AND SERVICES							COMPLETION DATE
								5/1517
GEOLOGIC LOG	DEPTH	TYPE	GRAIN SIZE	COLOR	WATER Y/N	ADDITIVES	PH	MUD WT
top soil	0'-5'	dirt	solid	brown		NONE	N/A	N/A
shale	5'-55'	bridle	solid	black				
sticky clay	55'-70'	clay	solid	grey				
	70-400	LIMESTONE	SOLID	GREY				
GPS COORDINATES (UTM)			N:	37.050349	E:	-95.641455		
HOLE DIAMETER (IN)	9 7/8"		NOTES:					
TOTAL HOLE DEPTH	400'	CASING COMPLETED AND FILLED WITH 108 BAGS OF CEMENT						
CASING SIZE	10.75"							
CASING HOLE DIAMETER	16"							
CASING HOLE DEPTH	150							
CEMENT CIRCULATED TO SURFACE	YES							
GROUT MATERIAL	PORTLAND CEMENT							
#OF BAGS OF CEMENT	85 bags Portland Cement							
ANODE SIZE	2" x 25							
BOTTOM ANODE DEPTH	400'							
TOP ANODE DEPTH	150'							
# OF BAGS OF COKE BREEZE	200							
WAS VAC TRUCK USED	YES							
EQUIPMENT USED ON SITE	DRILL MAX	rental drill rig/ mokat						
	MUD PUPPY	air compressor booster truck/ mokat						
	SUPPORT VEHICLES	pipe truck/ mokat						
	GROUTING RIG							
	PICK UP							
DRILLER'S SIGNATURE VERIFYING THE ACCURACY OF THIS INFORMATION :	*Skyler Wilson*						License #916	