

**Foster, Rebecca**

---

**From:** Dave.Strickland@RingPower.com  
**Sent:** Thursday, September 30, 2010 3:36 PM  
**To:** Foster, Rebecca  
**Subject:** RE: DEP inspection Ring Power Riverview  
**Attachments:** ecblank.gif; RingPower Model 250 residue lab data.pdf; Sludge profile.pdf; System One Sludge.pdf

Here are the System One sludge analyticals for the Riverview store

*(See attached file: RingPower Model 250 residue lab data.pdf)(See attached file: Sludge profile.pdf)(See attached file: System One Sludge.pdf)*

**Model 250/257 Distillation Residue**

	# of Analyses	COVERED RANGE:			STD.DEV.
		MINIMUM	MAXIMUM	AVERAGE	
<b>GENERAL ANALYSIS OF TOTAL SAMPLE:</b>					
COLOR	9	DK BROWN	DK BRN, GRY	DK BROWN	
WATER CONTENT (WT %)	9	<0.1	0.1	0.1	0.0
NON-VOLATILE RESIDUE @150C (WT %)	9	26	100	66.2	30.5
NVR COMMENTS	9	est. by difference	est. by difference	est. by difference	
NVR DESCRIPTION	0	MODEL 250 RESIDUE			
NON-VOLATILE RESIDUE @200C (WT %)	4	17	68	39.5	23.8
NVR DESCRIPTION	4	OIL	SLUDGE	OIL	
FLASH AT 200 F / NO FLASH AT 202 F	4	NO	YES	YES	
FLASH AT 140 F / NO FLASH AT 142 F	9	NO	NO	NO	
FLASH AT 73 F / NO FLASH AT 75 F	9	NO	NO	NO	
pH ON WATER EXTRACT	9	5.7	8.3	7.0	0.8
RADIOACTIVITY	9	ND	ND	ND	
WATER COMPATIBILITY	9	COMPATIBLE	COMPATIBLE	COMPATIBLE	
<b>FUEL EVALUATION OF TOTAL SAMPLE:</b>					
HEAT CONTENT (BTU/LB)	9	18700	20000	19277.8	417.7
ASH UPON COMBUSTION (WT %)	9	<1	1.3	0.6	0.3
TOTAL HALOGENS (WT %)	5	0.1	0.35	0.11	0.1
TOTAL FLUORINE (WT %)	5	<0.011	0.011	0.007	0.0
TOTAL CHLORINE (WT %)	5	<0.03	0.33	0.10	0.1
TOTAL BROMINE (WT %)	5	<0.018	<0.018	<0.018	0
TOTAL SULFUR (WT %)	5	<0.022	0.49	0.16	0.2
<b>METAL CONTENT (PPM):</b>					
Ag (Silver)	9	<1.3	<2	<1.7	0.2
Al (Aluminum)	9	<66	300	94.5	91.5
As (Arsenic)	9	<13	<20	<17	2.0
B (Boron)	3	<5.3	56	19.0	16.8
Ba (Barium)	9	<53	<79	<68.3	7.7
Be (Beryllium)	9	<0.66	<0.99	<0.85	0.1
Ca (Calcium)	3	<66	2500	781.6	881.6
Cd (Cadmium)	9	<4	9.2	3.6	2.3
Co (Cobalt)	9	<4	<5.9	<5.1	0.6
Cr (Chromium)	9	<2.7	11	3.1	3.1
Cu (Copper)	9	5.5	310	141.0	114.9
Fe (Iron)	9	<80	880	345.9	283.8
Hg (Mercury)	9	<13	<20	<17	2.0
K (Potassium)	9	<33	340	82.3	104.7
Mg (Magnesium)	9	39	800	209.8	242.2
Mn (Manganese)	9	<2.7	23	8.4	7.6
Mo (Molybdenum)	9	<11	59	20.4	20.4
Na (Sodium)	9	<40	800	244.7	242.5
Ni (Nickel)	9	<5.3	<7.9	<6.8	0.8
P (Phosphorus)	9	<66	1400	569.2	479.1
Pb (Lead)	9	<6.6	400	90.3	128.6
Sb (Antimony)	9	<20	<30	<25.7	3.0
Se (Selenium)	9	<27	<40	<34.3	3.9
Si (Silicon)	9	290	14000	3628.9	4749.7
Sn (Tin)	9	<9.3	14	7.0	2.7
Ti (Titanium)	9	<2.7	7	2.3	1.8
Tl (Thallium)	9	<40	<59	<51.3	5.7
V (Vanadium)	9	<2.7	<4	<3.4	0.4
Zn (Zinc)	9	25	1500	592.1	519.0

**Model 250/257 Distillation Residue**

## COVERED RANGE:

	<u># of Analyses</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>AVERAGE</u>	<u>STD.DEV.</u>
<b>TCLP ANALYSIS:</b>					
% of Phases	4	1	1	1	0
Solids (wt %)	4	2.85	4.2	3.49	0.7
Dry Solids (wt %)	4	0.83	3.5	2.485	1.2
<b>TCLP METALS</b>					
D004 Arsenic (As)	4	<5.0	<5.0	<5.0	0
D005 Barium (Ba)	4	10.4	49.1	27.025	16.4
D006 Cadmium (Cd)	4	1.37	7.81	4.15	3.2
D007 Chromium (Cr)	4	0.74	6.93	3.6225	2.6
D008 Lead (Pb)	4	25.4	125	65.975	46.4
D009 Mercury (Hg)	4	<0.1	<0.1	<0.1	0
D010 Selenium (Se)	4	<0.9	<0.9	<0.9	0
D011 Silver (Ag)	4	<0.5	0.57	0.33	0.2
<b>TCLP VOLATILES</b>					
D018 Benzene (BENZ)	4	<0.2	0.244	0.136	0.1
D019 Carbon Tetrachloride (CCL4)	4	<0.2	<0.2	<0.2	0
D021 Chlorobenzene (CLBENZ)	4	<0.2	<0.2	<0.2	0
D022 Chloroform (CFORM)	4	<0.2	<0.2	<0.2	0
D027 Dichlorobenzene, 1,4- (14DCBENZ)	4	<0.2	<0.2	<0.2	0
D028 Dichloroethane, 1,2- (12DCA)	4	<0.2	<0.2	<0.2	0
D029 Dichloroethylene, 1,1- (11DCE)	4	<0.2	<0.2	<0.2	0
D035 Methyl Ethyl Ketone (MEK)	4	<0.5	<0.5	<0.5	0
D039 Tetrachloroethylene (PERC)	4	<0.2	<0.2	<0.2	0
D040 Trichloroethylene (TCE)	4	<0.2	<0.2	<0.2	0
D043 Vinyl Chloride (VC)	4	<0.14	<0.14	<0.14	0
<b>TCLP SEMI-VOLATILES</b>					
D023 Cresol, O- (2MPHENOL)	4	<200	<200	<200	0
D024/D025 Cresol, p- & m- (3+4MPHENOL)	4	<200	<200	<200	0
D030 Dinitrotoluene, 2,4- (24DNT)	4	<40	<40	<40	0
D032 Hexachlorobenzene (HCBENZ)	4	<40	<40	<40	0
D033 Hexachloro-1,3-butadiene (HCBDB)	4	<200	<200	<200	0
D034 Hexachloroethane (HCA)	4	<200	<200	<200	0
D036 Nitrobenzene (NBENZ)	4	<200	<200	<200	0
D037 Pentachlorophenol (PCPHENOL)	4	<200	<200	<200	0
D038 Pyridine (PYR)	4	<210	<210	<210	0
D041 Trichlorophenol, 2,4,5- (245TCP)	4	<200	<200	<200	0
D042 Trichlorophenol, 2,4,6- (246TCP)	4	<200	<200	<200	0
<b>GENERAL COMPOSITION:</b>					
AQUEOUS PHASE (VOL %)	9	0	0	0	0
ORGANIC PHASE (VOL %)	9	98	100	99.2	0.8
BOTTOM SLUDGE (VOL %)	9	0	1	0.1	0.3
BOTTOM SOLID (VOL %)	9	0	2	0.7	0.9
<b>PHASE ANALYSIS OF TOTAL SAMPLE:</b>					
SPECIFIC GRAVITY	9	0.85	0.94	0.9	0.0
VISCOSITY (CPS)	9	50	350	84.4	103.9

**Model 250/257 Distillation Residue**

	# of Analyses	COVERED RANGE:			STD.DEV.
		MINIMUM	MAXIMUM	AVERAGE	
<b>VOLATILE ORGANIC COMPOSITION (WT%)</b>					
SAMPLE PREP METHODS	9	ESTD %	ESTD %	ESTD %	
DETECTION METHODS	9	N	CS2	CS2	
—	9	F,F	F,F,M	F,F,M	
HIGH-BOILING ALIPHATICS (HHC)					
MEDIUM-BOILING ALIPHATICS (MHC)	9	0	33	5.7	10.5
TOTAL OTHERS OR TRACES (<1.0% EACH)	9	0	67	28.1	26.3
—	9	0	1.3	0.2	0.4
<b>TOTAL VOCS</b>					
<b>SPECIFIC ORGANIC COMPOSITION:</b>					
POLYCHLORINATED BIPHENYLS - PCBS (PPM)	9	ND	ND	ND	
HALOGENATED VOLATILE ORGANIC COMPOSITION	1	NR	No HVOC detected above PQL		

**COMMENTS:**

ND=NONE DETECTED, NR=NOT RUN,  
 N=NEAT, CS2=CARBON DISULFIDE,  
 F=FID, MS=MASS-SPEC