

Panoramic View of West Side of Area 6 Slag Pile - Looking Southwest (L) to Northwest (R)



AREA 6 - FERROCOLUMBIUM SLAG (Aluminothermic Process)

Estimated Volume	Estimated Footprint Area
1,529 Meters <sup>3</sup>	1,295 Meters <sup>2</sup>
Background Count Rate (counts/2 minutes)	
11,431	
Range of Sample Count Rates (counts/2 minutes)	
13,003 - 1,073,907	

Panoramic View of East Side of Area 6 Slag Pile - Looking Northeast (L) to East (R)



Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-95	Light blue/grey fine to medium-grained slag, some secondary mineralization along fracture lines (lightly fractured).	700,643
Kd - Uranium    Kd - Thorium    Kd - Radium		
661,000    152,733    56,229		

6-95  
6/17/08  
16:25

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-A	Partial slag "button" having a green-colored tinge. The slag buttons are highly vesicular and dense. Broken surfaces still exhibit a green tinge but also a grey-dark grey fine-grained crystalline structure.	96,766
Kd - Uranium    Kd - Thorium		
14,900    12,367		

6-A  
6/17/08  
16:25

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-96	Medium blue/grey fine to medium-grained slag, some secondary mineralization along fracture lines (lightly fractured), little vesicles.	616,551
Kd - Thorium    Kd - Radium		
255,667    56,229		

6-96  
6/17/08  
16:23

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-97	Medium grey fine grained slag, highly vesicular with few vugs.	810,979
Kd - Uranium    Kd - Thorium    Kd - Radium		
300,000    430,000    16,052		

6-97  
6/17/08  
16:23

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-98	Dark grey, coarse grained slag. Glassy platy crystallization arranged randomly relative to one another on outer portion, some honey combs on interior side.	223,110
Kd - Uranium    Kd - Thorium    Kd - Radium		
20,500    12,000    194,241		

6-98  
6/17/08  
16:35

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-99	Light grey fine-grained slag with some opaque white medium-grained crystal inclusions, little vesicles.	514,840
Kd - Uranium    Kd - Thorium    Kd - Radium		
318,000    92,333    194,241		

6-99  
6/17/08  
16:37

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-100	Light grey fine-grained slag, lightly vesicular, lightly fractured.	195,337
Kd - Radium		
5,545		

6-100  
6/17/08  
17:08

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-94	Medium grey fine-grained slag with platy vertical crystallization (honey comb) on interior side. Honey comb oriented in roughly triangular pattern.	627,272
Kd - Uranium    Kd - Thorium    Kd - Radium		
691,000    156,900    8,947		

6-94  
6/17/08  
16:23

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-B	Outer cooling rind of slag "button", dark brown-dark purple crystalline texture, somewhat friable.	17,678

6-B  
6/18/08  
09:55

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-93	Medium blue/grey fine-grained slag, little vesicles with some white secondary mineralization within the matrix.	680,894
Kd - Uranium    Kd - Thorium    Kd - Radium		
936,000    228,733    5,705		

6-93  
6/17/08  
17:15

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-92	Medium grey fine-grained slag, little vesicles.	732,875
Kd - Uranium    Kd - Thorium    Kd - Radium		
534,000    167,333    25,000		

6-92  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-91	Medium grey medium to large-grained slag, highly vesicular crystals appear to be platy/glassy in nature and are randomly configured with relation to each other.	575,420
Kd - Uranium    Kd - Thorium    Kd - Radium		
184,000    96,667    38,133		

6-91  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-90	Medium grey fine-grained slag, little vesicles, platy vertical crystallization noted in several vesicles.	510,794
Kd - Radium		
5,160		

6-90  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-89	Medium grey fine-grained slag with platy vertical crystallization (honey comb) on interior side. Honey comb has good hue to it. Few vesicles noted as well as some platy crystals.	385,696
Kd - Uranium    Kd - Thorium    Kd - Radium		
634,000    706,667    2,901		

6-89  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-88	Light grey fine grained slag with little vesicles, slight white mineral deposit noted, refractory material noted on one side.	1,073,907

6-88  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-D	White refractory brick material which is often found at base of "buttons".	13,003

6-D  
6/17/08  
18:47

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-101	Light brown exterior to purple interior medium-grained sandy textured material, moderately friable.	230,395
Kd - Uranium    Kd - Thorium    Kd - Radium		
17,700    17,333    103,252		

6-101  
6/17/08  
16:41

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-102	Dark grey fine-grained slag with some medium-grained glassy platy crystal inclusions, metallic bead inclusions.	520,886
Kd - Uranium    Kd - Thorium    Kd - Radium		
361,000    493,333    10,811		

6-102  
6/17/08  
16:44

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-C	Smaller slag "button" with a white "cauliflower"-textured secondary mineralization associated with fractures within the slag. Slag button has cooling texture with bush platy minerals toward the interior of the "button".	440,267
Kd - Uranium    Kd - Thorium    Kd - Radium		
452,000    466,667    5,041		

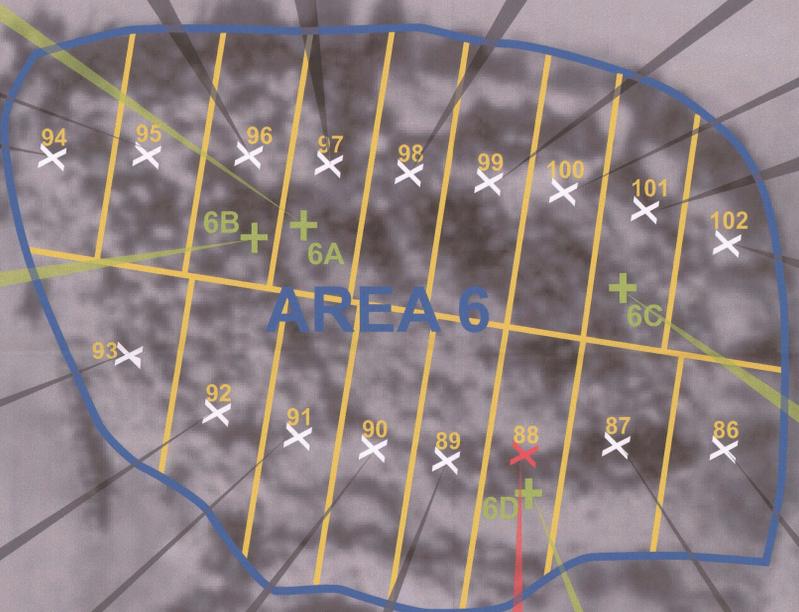
6-C  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-86	Dark grey, fine-grained slag with medium-grained white inclusions, some vesicles noted as well as some platy glassy crystals.	114,582
Kd - Uranium    Kd - Thorium    Kd - Radium		
1,660,000    317,333    10,125		

6-86  
6/17/08  
17:00

Sample Number	Detailed Sample Description	Sample Count Rate (counts/2 minutes)
6-87	Light grey highly vesicular fine-grained slag, moderately fractured.	257,438
Kd - Uranium    Kd - Thorium    Kd - Radium		
230,000    366,667    5,520		

6-87  
6/17/08  
18:47



**LEGEND**

86 X Statistically-based Grid Sample (June 2008)/Future Leaching Test Sample

6A + Observational Sample (June 2008)

88 X Statistically-based Grid Sample that was Subjected to Initial Leaching Test (June 2008)\*

**Estimated Material Volume Within Area 6 (%)**

- < 1% Outer cooling rind of slag "button" - Brown to purple crystalline texture, moderately friable  
Sample Count Rate (counts/2 minutes): 17,678
- < 1% White refractory brick which is often found at the base of "buttons"  
Sample Count Rate (counts/2 minutes): 13,003
- < 1% Light brown exterior to purple interior medium-grained, sandy-textured material, moderately friable  
Sample Count Rate (counts/2 minutes): 230,395
- 10%-15% Partial slag "buttons" - Grey to dark grey fine-grained, highly vesicular slag that exhibits a green-colored tinge (even on broken surfaces)  
Sample Count Rate (counts/2 minutes): 96,766
- 16% Grey fine-grained slag, variable amount of vesicles, lightly to moderately fractured.  
Sample Count Rate Range (counts/2 minutes): 195,337 - 257,438
- 15% Grey fine-grained slag, lightly to highly vesicular, no evidence of fracturing.  
Sample Count Rate Range (counts/2 minutes): 114,582 - 310,372
- 90% Smaller slag "button" - Grey to dark grey fine to coarse-grained slag, highly vesicular, some pieces are lightly fractured - secondary mineralization (white) along fractures and/or vesicles, most pieces exhibit platy crystals within  
Sample Count Rate Range (counts/2 minutes): 114,582 - 1,073,907

**NOTES:** \* The initial leaching test results can be found in Appendix H of this document.

The estimates of the volumes of the types of material found within Area 6 are based on rounded numbers and as such, the percentages do not add up to 100.

Slag shown in the photographs, including the larger pieces located next to the ruler and that which is in the Minireal Beakers, was crushed after collection.

