ALTERMAN LAW GROUP PC

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November 28, 2017

Via E-mail: cirian.mike@epa.gov
And First Class Mail

Michael A. Cirian, P.E.
United States Environmental Protection Agency
108 East 9th Street
Libby, MT 59923

Re: Columbia Falls Aluminum Company plant demolition
Our client: Calbag Resources LLC
Our file no. 3262.063

Dear Mr. Cirian:

This office represents Calbag Resources LLC, the contractor engaged by Columbia Falls Aluminum Company (CFAC) to demolish portions of the concrete structures at the Columbia Falls aluminum plant, crush the concrete, remove the rebar, and fill the basements of the former potrooms at the plant. As currently planned, Calbag is removing the above-grade concrete and the concrete within 18 inches of the surface grade, and leaving the concrete walls in place from 18 inches below surface grade down to the floors of the basements. Calbag will fracture the concrete floors so that water can drain through the floors, then use the crushed concrete as part of the fill in the basements, completing the project with clean sand and gravel.

With the concurrence of CFAC, Calbag is requesting that EPA consent to Calbag placing the crushed concrete in the potroom basements. This request is actually two separate requests:

1. Consent to place the crushed concrete from stockpiles 1, 1A, and 2 into the pot room basements; and

2. Consent to place the crushed concrete that Calbag will produce from the rest of the project into the basements of Pot Rooms 1, 2, 3, and 4.

I've enclosed a photo for your reference to show the locations of the stockpiles and where the material came from.

Both requests assume that neither EPA nor the Montana Department of Environmental Quality (MDEQ) will object to the floors and walls remaining in place on site. The crushed material is essentially the same in nature as the concrete that will remain in the walls and floor of the structure to be buried, except that Calbag will have removed the rebar, and it presents no more hazard to the environment and the general public than do the concrete walls and floors.

Request for consent to place the concrete that has already been crushed

I've attached a summary of testing results of the support structures in Pot Rooms 1 and 3, indicating that, with two exceptions, the level of the tested items in the concrete is less than EPA's RSLs for residential soil. One exception is that the fluoride level in the Pot Room 1 concrete was 23% higher than the residential RSL, though still less than 1/10 of the industrial soil RSL. The other exception is that the arsenic level in the concrete from both pot rooms is slightly above the industrial RSL, though still at or below background levels for soil in Flathead County.[1] The concrete is otherwise suitable to be placed as fill in the basements. The crushed concrete is not sufficient to fill the basements, and most of the material that Calbag will use to fill the basements will be clean sand and gravel from elsewhere on the property.

Under those circumstances, it seems reasonable to use the crushed concrete to fill the basements on this industrial site, given that it will be surrounded by similar uncrushed concrete.

Request for consent to place the future crushed concrete into the basements

The second part of this request is that EPA consent to Calbag and CFAC placing the concrete that Calbag will crush from the rest of the project – generally, the grade-level floors and superstructure of the remaining pot rooms – into the basements, subject to Calbag or CFAC testing the crushed concrete to confirm that the concentrations of metals in the remaining concrete are similar to those in the concrete from the pot rooms that have already been tested. Calbag would follow the same process for the concrete from Pot Rooms 5 through 10.

Calbag has no reason to think that the concrete yet to be crushed is significantly different from the concrete that Calbag has already crushed, nor from the concrete walls and floors that will remain in place after the demolition is complete.

Both requests are consistent with the Waste Management Plan that MDEQ approved by letter dated June 24, 2016 (copy enclosed), and Calbag will continue to be responsible for testing materials in accordance with the approved plan.

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[1] Appendix C to Montana Department of Environmental Quality (MDEQ) document titled "Background Concentrations of Inorganic Constituents in Montana surface soils" identifies two sampling locations in Flathead County, the county that includes the aluminum plant, from which fine concentrations of arsenic were reported at 5.1 and 6.4 milligrams per kilogram, both above EPA's RSL for industrial soil. It's reasonable to surmise that concrete made with sand and gravel from Flathead County would be unusually high in those elements that are unusually high in nearby soil and rock.

Conclusion

Thank you for considering Calbag's request. My client and I understand that we will also have to satisfy any requirements of MDEQ. We look forward to working with you to complete this project.

Very truly yours,

ALTERMAN LAW GROUP PC

Dean N. Alterman

Dean N. Alterman

Enclosures: Testing Data from Pot Rooms 1 and 3
Site photograph
June 24, 2016 MDEQ letter

Copy: Mr. Jim Perris
Mr. Cliff Boyd (e-mail only)
Ms. Kathryn Norris, TetraTech
Mr. Cory Mikita, MDEQ
Mr. Michael Rieger, MDEQ

ED_002345C_00003500-00003

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
BR-001-C-03102017	Battery Room, 5-point composite	Arsenic	2.2		mg/kg	100
		Barium	91.3		mg/kg	2000
		Cadmium	0.38	J	mg/kg	20
		Chromium	17.7		mg/kg	100
		Lead	46.8		mg/kg	100
		Mercury	0.019		mg/kg	4
		Selenium	4	U	mg/kg	20
		Silver	0.8	U	mg/kg	100
		Cyanide, Total	0.3		mg/kg	NA
		Fluoride	86		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.068	U	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.068	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
BR-002-C-03102017	Battery Room, 5-point composite	Arsenic	1.7		mg/kg	100
		Barium	59.4		mg/kg	2000
		Cadmium	0.7	U	mg/kg	20
		Chromium	8.8		mg/kg	100
		Lead	2.7		mg/kg	100
		Mercury	0.017		mg/kg	4
		Selenium	3.5	U	mg/kg	20
		Silver	0.7	U	mg/kg	100
		Cyanide, Total	0.14		mg/kg	NA
		Fluoride	46.4		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.068	U	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.068	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
BR-003-C-03102017	Battery Room, 5-point composite	Arsenic	9.6		mg/kg	100
		Barium	108		mg/kg	2000
		Cadmium	0.31	J	mg/kg	20
		Chromium	22.4		mg/kg	100
		Lead	19.4		mg/kg	100
		Mercury	0.045		mg/kg	4
		Selenium	3.8	U	mg/kg	20
		Silver	0.75	U	mg/kg	100
		Cyanide, Total	0.21		mg/kg	NA
		Fluoride	128		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.11		mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.11		mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
BR-004-C-03102017	Battery Room, discrete grab sample	Arsenic	3.2		mg/kg	100
		Barium	117		mg/kg	2000
		Cadmium	0.82	U	mg/kg	20
		Chromium	13.8		mg/kg	100
		Lead	9		mg/kg	100
		Mercury	0.016	J	mg/kg	4
		Selenium	4.1	U	mg/kg	20
		Silver	0.82	U	mg/kg	100
		Cyanide, Total	0.22		mg/kg	NA
		Fluoride	69.3		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.042	J	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.042	J	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
BR-005-C-03102017	Battery Room, discrete grab sample	Arsenic	2.4		mg/kg	100
		Barium	80		mg/kg	2000
		Cadmium	0.83	U	mg/kg	20
		Chromium	11.2		mg/kg	100
		Lead	9.3		mg/kg	100
		Mercury	0.021		mg/kg	4
		Selenium	4.1	U	mg/kg	20
		Silver	0.83	U	mg/kg	100
		Cyanide, Total	1.4		mg/kg	NA
		Fluoride	52.5		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.068	U	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.068	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
OD-01-001C-03092017	Pot Room 1, ore debris, 5-point composite	TCLP Arsenic	0.1	U	mg/L	5
		TCLP Barium	0.888		mg/L	100
		TCLP Cadmium	0.245		mg/L	1
		TCLP Chromium	0.198	J	mg/L	5
		TCLP Lead	0.071		mg/L	5
		TCLP Mercury	0.002	U	mg/L	0.2
		TCLP Selenium	0.039	J	mg/L	1
		TCLP Silver	0.1	U	mg/L	5
		TCLP Cyanide	0.0048	J	mg/L	NA
		TCLP Fluoride	275		mg/L	NA
		TCLP Aroclor 1016	0.0005	U	mg/L	NA
		TCLP Aroclor 1221	0.0005	U	mg/L	NA
		TCLP Aroclor 1232	0.0005	U	mg/L	NA
		TCLP Aroclor 1242	0.0005	U	mg/L	NA
		TCLP Aroclor 1248	0.0005	U	mg/L	NA
		TCLP Aroclor 1254	0.0005	U	mg/L	NA
		TCLP Aroclor 1260	0.0005	U	mg/L	NA
		TCLP Aroclor 1268	0.0005	U	mg/L	NA
		TCLP Aroclor-1262	0.0005	U	mg/L	NA
		TCLP PCBs, Total	0.0005	U	mg/L	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-001-C-03092017	Pot Room 1, basement level floor concrete, 5-point composite	Arsenic	6.5		mg/kg	100
		Barium	48.4		mg/kg	2000
		Cadmium	0.48	J	mg/kg	20
		Chromium	10.1		mg/kg	100
		Lead	7.9		mg/kg	100
		Mercury	0.017	U	mg/kg	4
		Selenium	4.3	U	mg/kg	20
		Silver	2.9		mg/kg	100
		Cyanide, Total	0.4		mg/kg	NA
		Fluoride	62.7		mg/kg	NA
		Aroclor 1016	0.071	U	mg/kg	NA
		Aroclor 1221	0.071	U	mg/kg	NA
		Aroclor 1232	0.071	U	mg/kg	NA
		Aroclor 1242	0.071	U	mg/kg	NA
		Aroclor 1248	0.071	U	mg/kg	NA
		Aroclor 1254	0.071	U	mg/kg	NA
		Aroclor 1260	0.071	U	mg/kg	NA
		Aroclor 1268	0.071	U	mg/kg	NA
		Aroclor-1262	0.071	U	mg/kg	NA
		PCBs, Total	0.071	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-002-C-03092017	Pot Room 1, basement level floor concrete, 5-point composite	Arsenic	5		mg/kg	100
		Barium	55		mg/kg	2000
		Cadmium	0.87	U	mg/kg	20
		Chromium	8.3		mg/kg	100
		Lead	3.3		mg/kg	100
		Mercury	0.013	J	mg/kg	4
		Selenium	4.3	U	mg/kg	20
		Silver	0.87	U	mg/kg	100
		Cyanide, Total	0.61		mg/kg	NA
		Fluoride	81.2		mg/kg	NA
		Aroclor 1016	0.072	U	mg/kg	NA
		Aroclor 1221	0.072	U	mg/kg	NA
		Aroclor 1232	0.072	U	mg/kg	NA
		Aroclor 1242	0.072	U	mg/kg	NA
		Aroclor 1248	0.072	U	mg/kg	NA
		Aroclor 1254	0.072	U	mg/kg	NA
		Aroclor 1260	0.072	U	mg/kg	NA
		Aroclor 1268	0.072	U	mg/kg	NA
		Aroclor-1262	0.072	U	mg/kg	NA
		PCBs, Total	0.072	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-003-C-03092017	Pot Room 1, basement level floor concrete, 5-point composite	Arsenic	3.7		mg/kg	100
		Barium	97		mg/kg	2000
		Cadmium	0.85	U	mg/kg	20
		Chromium	12.8		mg/kg	100
		Lead	5.5		mg/kg	100
		Mercury	0.017	U	mg/kg	4
		Selenium	4.2	U	mg/kg	20
		Silver	0.85	U	mg/kg	100
		Cyanide, Total	0.52		mg/kg	NA
		Fluoride	625		mg/kg	NA
		Aroclor 1016	0.071	U	mg/kg	NA
		Aroclor 1221	0.071	U	mg/kg	NA
		Aroclor 1232	0.071	U	mg/kg	NA
		Aroclor 1242	0.071	U	mg/kg	NA
		Aroclor 1248	0.071	U	mg/kg	NA
		Aroclor 1254	0.071	U	mg/kg	NA
		Aroclor 1260	0.071	U	mg/kg	NA
		Aroclor 1268	0.071	U	mg/kg	NA
		Aroclor-1262	0.071	U	mg/kg	NA
		PCBs, Total	0.071	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-004-C-03092017	Pot Room 1, basement level floor concrete, 5-point composite	Arsenic	2		mg/kg	100
		Barium	87		mg/kg	2000
		Cadmium	0.86	U	mg/kg	20
		Chromium	9.3		mg/kg	100
		Lead	6.1		mg/kg	100
		Mercury	0.018	U	mg/kg	4
		Selenium	4.3	U	mg/kg	20
		Silver	0.86	U	mg/kg	100
		Cyanide, Total	0.5		mg/kg	NA
		Fluoride	32.8		mg/kg	NA
		Aroclor 1016	0.071	U	mg/kg	NA
		Aroclor 1221	0.071	U	mg/kg	NA
		Aroclor 1232	0.071	U	mg/kg	NA
		Aroclor 1242	0.071	U	mg/kg	NA
		Aroclor 1248	0.071	U	mg/kg	NA
		Aroclor 1254	0.071	U	mg/kg	NA
		Aroclor 1260	0.071	U	mg/kg	NA
		Aroclor 1268	0.071	U	mg/kg	NA
		Aroclor-1262	0.071	U	mg/kg	NA
		PCBs, Total	0.071	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-005-C-03092017	Pot Room 1, ground level floor concrete, 5-point composite	Arsenic	3.1		mg/kg	100
		Barium	70.1		mg/kg	2000
		Cadmium	0.83	U	mg/kg	20
		Chromium	10.3		mg/kg	100
		Lead	5		mg/kg	100
		Mercury	0.016	U	mg/kg	4
		Selenium	4.1	U	mg/kg	20
		Silver	0.83	U	mg/kg	100
		Cyanide, Total	1.1		mg/kg	NA
		Fluoride	239		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.077		mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.077		mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-006-C-03092017	Pot Room 1, ground level floor concrete, 5-point composite	Arsenic	2.6		mg/kg	100
		Barium	111		mg/kg	2000
		Cadmium	0.85	U	mg/kg	20
		Chromium	13.7		mg/kg	100
		Lead	5.4		mg/kg	100
		Mercury	0.016	U	mg/kg	4
		Selenium	4.2	U	mg/kg	20
		Silver	0.85	U	mg/kg	100
		Cyanide, Total	0.096	U	mg/kg	NA
		Fluoride	402		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.69		mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.69		mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-007-C-03102017	Pot Room 1, ground level floor concrete, 5-point composite	Arsenic	5.4		mg/kg	100
		Barium	125		mg/kg	2000
		Cadmium	0.85	U	mg/kg	20
		Chromium	27.9		mg/kg	100
		Lead	7.8		mg/kg	100
		Mercury	0.017	U	mg/kg	4
		Selenium	4.3	U	mg/kg	20
		Silver	0.85	U	mg/kg	100
		Cyanide, Total	0.098	U	mg/kg	NA
		Fluoride	432		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.099		mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.099		mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRF-01-008-C-03102017	Pot Room 1, ground level floor concrete, 5-point composite	Arsenic	2.6		mg/kg	100
		Barium	95.5		mg/kg	2000
		Cadmium	0.84	U	mg/kg	20
		Chromium	11.5		mg/kg	100
		Lead	3.5		mg/kg	100
		Mercury	0.016	U	mg/kg	4
		Selenium	4.2	U	mg/kg	20
		Silver	0.84	U	mg/kg	100
		Cyanide, Total	0.091	J	mg/kg	NA
		Fluoride	171		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.035	J	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.035	J	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRS-01-001-C-03092017	Pot Room 1, structural concrete, 5-point composite	Arsenic	3		mg/kg	100
		Barium	70.7		mg/kg	2000
		Cadmium	0.73	U	mg/kg	20
		Chromium	9.1		mg/kg	100
		Lead	3.6		mg/kg	100
		Mercury	0.017	U	mg/kg	4
		Selenium	3.6	U	mg/kg	20
		Silver	0.73	U	mg/kg	100
		Cyanide, Total	0.36		mg/kg	NA
		Fluoride	380		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.068	U	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.068	U	mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRW-01-001-C-03092017	Pot Room 1, basement level wall concrete, 5-point composite	Arsenic	2.4		mg/kg	100
		Barium	92.6		mg/kg	2000
		Cadmium	0.74	U	mg/kg	20
		Chromium	12.3		mg/kg	100
		Lead	3.9		mg/kg	100
		Mercury	0.016	U	mg/kg	4
		Selenium	3.7	U	mg/kg	20
		Silver	0.74	U	mg/kg	100
		Cyanide, Total	0.088	J	mg/kg	NA
		Fluoride	54.1		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.54		mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.54		mg/kg	NA

Table 1: Columbia Falls Aluminum Company
Analytical Results - March 2017

Sample ID	Sample Location	Analyte	Result	Lab Qualifier	Units	Regulatory Limit[a]
PRW-01-002-C-03092017	Pot Room 1, basement level wall concrete, 5-point composite	Arsenic	2.8		mg/kg	100
		Barium	86.2		mg/kg	2000
		Cadmium	0.81	U	mg/kg	20
		Chromium	10.5		mg/kg	100
		Lead	5.8		mg/kg	100
		Mercury	0.016	J	mg/kg	4
		Selenium	4.1	U	mg/kg	20
		Silver	0.81	U	mg/kg	100
		Cyanide, Total	32.1		mg/kg	NA
		Fluoride	146		mg/kg	NA
		Aroclor 1016	0.068	U	mg/kg	NA
		Aroclor 1221	0.068	U	mg/kg	NA
		Aroclor 1232	0.068	U	mg/kg	NA
		Aroclor 1242	0.068	U	mg/kg	NA
		Aroclor 1248	0.068	U	mg/kg	NA
		Aroclor 1254	0.045	J	mg/kg	NA
		Aroclor 1260	0.068	U	mg/kg	NA
		Aroclor 1268	0.068	U	mg/kg	NA
		Aroclor-1262	0.068	U	mg/kg	NA
		PCBs, Total	0.045	J	mg/kg	NA

Notes:

a	All samples except OD-01-001C-03092017 were analyzed for total metals, so the regulatory limits shown are 20 times the RCRA Toxicity Characteristic limits. Sample OD-01-001C-03092017, however, was analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals (instead of total metals), so the RCRA Toxicity Characteristic limits are applicable.
mg/kg	Milligram per kilogram
mg/L	Milligram per liter
NA	Not available
U	Not detected at the associated reporting limit.
J	Associated concentration is an estimate.

Sample ID	Sample Location	EPA Residential Soil RSL	EPA Industrial Soil RSL	Units	Analyte	Result	Lab Qualifier	Units
PRS-01-001-C-03092017	Pot Room 1, structural concrete, 5-point composite	0.68	3	mg/kg	Arsenic	3		mg/kg
		1500	22000	mg/kg	Barium	70.7		mg/kg
		7.1	98	mg/kg	Cadmium	0.73	U	mg/kg
		12000	180000	mg/kg	Chromium	9.1		mg/kg
		400	800	mg/kg	Lead	3.6		mg/kg
		1.1	4.6	mg/kg	Mercury	0.017	U	mg/kg
		39	580	mg/kg	Selenium	3.6	U	mg/kg
		39	580	mg/kg	Silver	0.73	U	mg/kg
		2.3	15	mg/kg	Cyanide, Total	0.36		mg/kg
		310	4700	mg/kg	Fluoride	**380**		mg/kg
		0.41	5.1	mg/kg	Aroclor 1016	0.068	U	mg/kg
		0.2	0.83	mg/kg	Aroclor 1221	0.068	U	mg/kg
		0.17	0.72	mg/kg	Aroclor 1232	0.068	U	mg/kg
		0.23	0.95	mg/kg	Aroclor 1242	0.068	U	mg/kg
		0.23	0.95	mg/kg	Aroclor 1248	0.068	U	mg/kg
		0.12	0.97	mg/kg	Aroclor 1254	0.068	U	mg/kg
		0.24	0.99	mg/kg	Aroclor 1260	0.068	U	mg/kg
		--	--	mg/kg	Aroclor 1268	0.068	U	mg/kg
		--	--	mg/kg	Aroclor-1262	0.068	U	mg/kg
		0.23	0.94	mg/kg	PCBs, Total	0.068	U	mg/kg

Notes:

Highlighted result indicates exceedance above EPA RSL for Industrial Soil

Highlighted and bold result indicates exceedance above EPA RSL for Residential Soil

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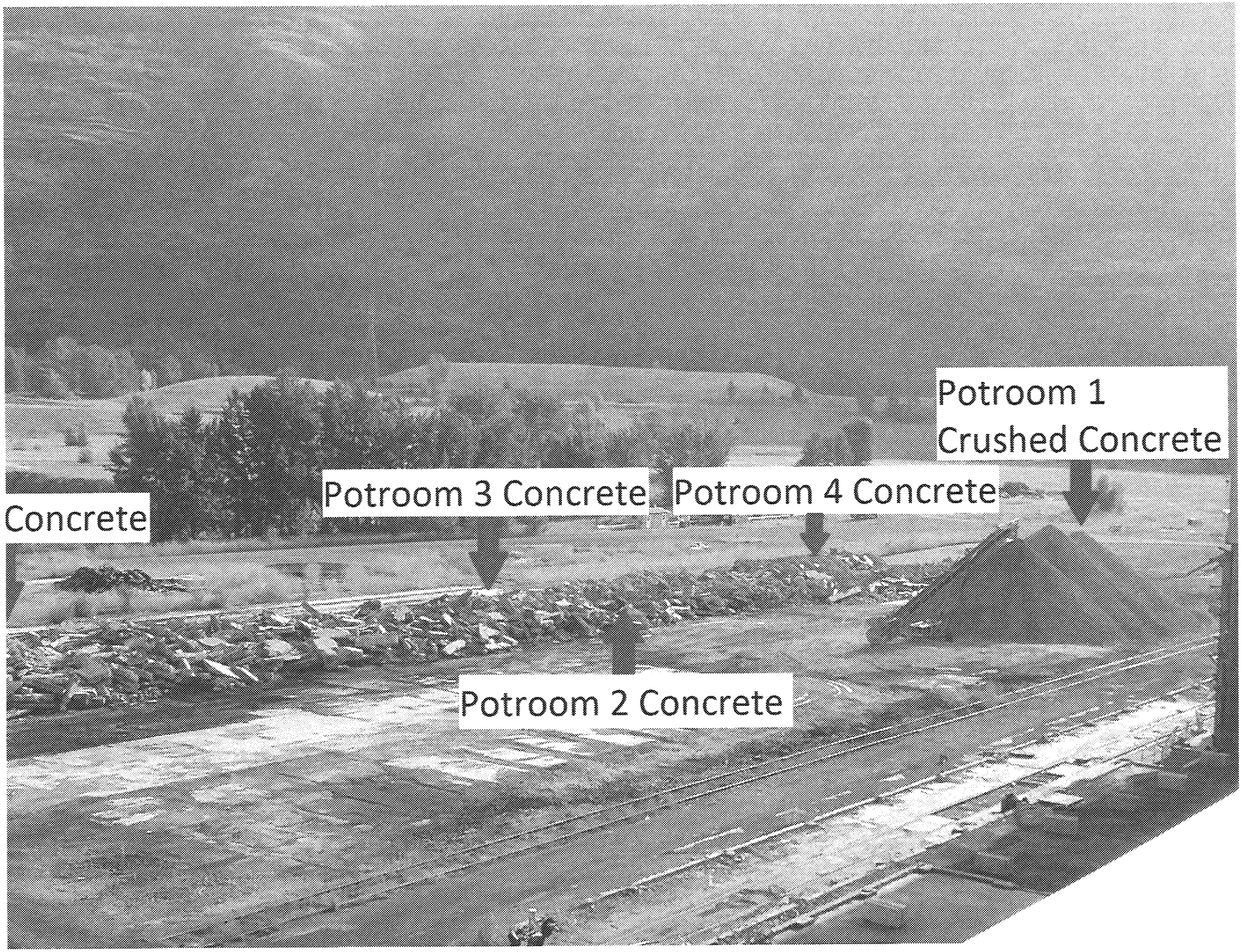
Sample ID	Sample Location	EPA Residential Soil RSL	EPA Industrial Soil RSL	Units	Analyte	Lab Result	Lab Qualifier	Units
PRS-03-001-C	Pot Room 3, structural concrete, 5-point composite	0.68	3	mg/kg	Arsenic	3.7		mg/kg
		1500	22000	mg/kg	Barium	164		mg/kg
		7.1	98	mg/kg	Cadmium	0.27	U	mg/kg
		12000	180000	mg/kg	Chromium	32.8		mg/kg
		400	800	mg/kg	Lead	5		mg/kg
		1.1	4.6	mg/kg	Mercury	0.011	U	mg/kg
		39	580	mg/kg	Selenium	0.24	U	mg/kg
		39	580	mg/kg	Silver	0.5	U	mg/kg
		2.3	15	mg/kg	Cyanide, Total	0.046	J	mg/kg
		310	4700	mg/kg	Fluoride	120	D	mg/kg
		0.41	5.1	mg/kg	Aroclor 1016	0.009	U	mg/kg
		0.2	0.83	mg/kg	Aroclor 1221	0.009	U	mg/kg
		0.17	0.72	mg/kg	Aroclor 1232	0.009	U	mg/kg
		0.23	0.95	mg/kg	Aroclor 1242	0.009	U	mg/kg
		0.23	0.95	mg/kg	Aroclor 1248	0.009	U	mg/kg
		0.12	0.97	mg/kg	Aroclor 1254	0.08		mg/kg
		0.24	0.99	mg/kg	Aroclor 1260	0.0093	U	mg/kg
		--	--	mg/kg	Aroclor 1268	0.0093	U	mg/kg
		--	--	mg/kg	Aroclor-1262	0.0093	U	mg/kg
		0.23	0.94	mg/kg	PCBs, Total	0.08		mg/kg

Notes:
Highlighted result indicates exceedance above EPA RSL for Industrial Soil
Highlighted and bold result indicates exceedance above EPA RSL for Residential Soil

ED_002345C_00003500-00022



ED_002345C_00003500-00023

DEQ
Montana Department of Environmental Quality

June 24, 2016

Steve Wright
Columbia Falls Aluminum Co. LLC
2000 Aluminum Dr.
Columbia Falls, MT 59912

Cliff Boyd
CALBAG Resources, LLC
1700 Topaz Dr.
Missoula, MT 59808

Subject: CFAC Building 1 Plan & Schedule Approval [EPA ID No. MTD057561763; FID 2386]

Dear Messrs. Wright and Boyd:

On June 9, 2016, the Department of Environmental Quality (Department) received the Final Waste Management Plan and Schedule for Columbia Falls Aluminum Company Building 1 (Plan) as required per the Administrative Order on Consent (AOC). On June 23, 2016, the Department received the financial assurance documents for the Plan as required per the AOC. The Department has reviewed and hereby approves the Plan subject to the conditions and comments listed below. The Department-approved Plan is hereby incorporated by reference into the AOC as an enforceable requirement per Paragraph 26 of the AOC. All listed or characteristic hazardous waste must be removed from the Pot Room Building (Building 1) by June 24, 2018.

1. The Department has approved the start of the 90-day period for processing, storing, transporting, and disposing of each of the 72 cathodes, which do not contain a heel as beginning when a cathode is removed from the pot hole. The 90-day trigger/start date for each of the remaining cathodes with heels will begin when the aluminum heel of the pot is removed (AOC, Paragraph 20).

2. The AOC, Plan, and the Department's approval of the Plan require that CFAC and Calbag will properly characterize, remove, and properly dispose of all hazardous waste from the Building 1. Neither the AOC nor the Plan authorize CFAC or Calbag to store hazardous waste from the Building 1 on the property in any manner other than what is described in the approved Plan.

3. The Department has reviewed and approved the Surety Bond, Standby Trust Agreement, and Certificate of Liability Insurance as required by the AOC.

4. The Plan covers removal and disposal of hazardous waste associated with industrial operations within Building 1. Removal and disposal of hazardous waste in the floor of, or soil below Building 1, that was contaminated by sources outside of Building 1, such as contaminated ground water are not included in this Plan.

5. Demolition of the concrete foundation of Building 1 will require coordination with site-wide remedial activities. Additional cleanup or actions may be required of Columbia Falls Aluminum Company or Glencore under other authorities, including, but not limited to, those of the Department under the Comprehensive Environmental Cleanup and Responsibility Act and other applicable statutes, and EPA under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended. Additional work required for site-wide remedial action could include characterization of the scope and extent of contamination under Building 1, demolition of the Building 1 concrete foundation, and limits on the use of the concrete as fill material.

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6. The Department acknowledges receipt of your Health and Safety Plan. The Department does not have authority and therefore will not approve or disapprove the Health and Safety Plan.

7. Except as expressly provided in the AOC, neither this letter nor the AOC relieve Calbag or CFAC from any obligation to comply with all applicable state, federal, and local statutes, rules, ordinances, and permit conditions.

If you have any questions, please contact me at (406) 444-6383.

Sincerely,

Jenny Chambers
Division Administrator
DEQ Waste Management & Remediation Division
P.O. Box 200901
Helena, MT 59620-0901
Email: jchambers@mt.gov

cc via email: Norm Mullen/Brad Jones, Thad Adkins, DEQ Legal
Mark Hall/Cory Mikita, DEQ HW
Jeni Flatow, DEQ REM
Tom Stoops, Lisa Dewitt, Superfund
Mike Cirian, EPA Remediation
Jim Perris, CALBAG Resources, LLC
Katy Norris, Tetra Tech
Mike Rieger, DEQ ENFD