LOGSHEET FOR FIELD CHANGES TO CONTROLLED DOCUMENTS

Document Number: RF/RMRS-98-220

Document Title: Final Sampling and Analysis Plan Source Removal at Trench 1 IHSS 108 (Starmet SAP)

Change Number	Date	Section/Page Modified	Description of Change	Resp. Manager Approval	Radiological Engineering Approval	ESH&Q Approval	QA Approval	Completion of DC-06.01	Completion of SES/USQ Checklist
1	5/14/98	Tables: 3.1, 3.2, 3.3, 3.3a, 3.4, 3.5	Tables modified to make alterations in sample bottles sizes (smaller bottles/lower masses per laboratory requirements, adding/modifying line item codes, and removing acid/base preservation requirements for Cimcool (mitigating a safety concern)						NA per QA

ADMIN RECORD

BZ-1108-A-00042

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Table 3.1 Excavated Depleted Uranium Analyses

Analytical Method	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time
Gamma Spectrometry	RC03A003	Gamma-emitting isotopes	125+	250 ml wide mouth glass or as required by the gamma spectroscopy subcontractor.	None	6 months
SW-846 Method 6010A, and 7000 Series	RS05A022 PA03A016	8 RCRA Metals + Cu, Zn, Sb, Be, Ni, Ti, Hg and V	33+	20 ml glass vial with Teflon lined lid as appropriate (need approximately 25g of sample)	Cool, 4° C	180 days to extraction, except Hg: 28 days from extraction to analysis
SW-846 Method 8240B/8260A	RS01A006	Volatile Organic Compounds	33+	20 ml glass vial with Teflon lined lid as appropriate	Cool, 4° C	14 days
SW-846 Method 8270B	RS02A004	Semi-Volatile Organic Compounds	33+	60 ml wide mouth glass jar with Teflon lined lid	Cool, 4° C	14 days until extraction, 40 days after extraction
SW-846 Method 8240B/8260A (Trip Blanks)	RS01A005	Volatile Organic Compounds	1 trip blank per cooler	2 x 40 mL glass, Teflon lined septa lid	Cool, 4° C HCl pH<2	14 days
Litmus Paper field test	N/A	Soil pH	125+	N/A	N/A – field test	N/A – field test

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Table 3.2 Drained Lathe Coolant (CimCool) Analyses

Analytical Methods	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time	Comment
Fingerprint Analysis	PA03A005		1 per phase per package	1-20 ml poly with Teflon lined lid	Cool, 4° C	6 months	
Isotopic Analysis (g/L)	PA04A003 PA04A004 PA04A005	Pu, Am, Uranium isotopes	1 per phase per package	Combine with fingerprint	None	6 months	
Gamma Spectrometry	RC03A001	gamma emitting isotopes	1 per phase per package	1-L Marinelli	None		
SW-846 Method 8080/8081	RS03A005	PCBs	1 per phase per package	40 ml amber glass with Teflon lined lid	Cool, 4° C	7 days until extraction, 40 days after extraction	
SW-846 Method 6010A and 7000 series	RS05A022 PA03A016 (mercury)	Total Target Analyte List (TAL) Metals	1 per phase per package	125 ml poly with Teflon lined lid	Cool, 4° C	6 months, except mercury - 28 days	
335 Series Methods, or SW-846 Method 9010A/9012	PA03A014	Total Cyanide	1 per phase per package	125 ml poly with Teflon lined lid	Cool, 4° C	14 days	Detection Limit (DL) of 0.005 mg/L required
SW-846 Method 8260A	RS01A006	Volatile Organic Compounds	1 per phase per package	3-40 ml glass vials	Cool, 4°C	14 days	
SW-846 Method 8270B	SS03A001	Semi-Volatile Organic Compounds	1 per phase per package	3-1 L amber glass	Cool, 4°C	7 days until extraction, 40 days after extraction	Only required if Bld 374 can't treat Cimcool

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Table 3.3 Final Treated Waste Analyses

Analytical Method	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time
Gamma Spectroscopy (offsite)	TR01A058	gamma emitting radioisotopes	3	Combine with isotopic container	None	6 months
Isotopic Analysis	RC01B004	Uranium, Americium, and Plutonium isotopes	3	250 mL wide mouth glass jar, with Teflon lined lid (need 250 g)	None	6 months
SW-846 Method 9045	SS08B002	Soil pH or corrosivity	3	Combine with main TCLP jar	Cool, 4° C	ASAP (up to 14 days)
SW-846 Chapter 7	SS08B005	Reactive Sulfide	3	Combine with main TCLP jar	Cool, 4° C	7 days
	SS08B004	Reactive Cyanide				14 days
SW-846 Method 8240B/8260A (Trip Blanks)	SS08B014	Volatile Organic Compounds	1 trip blank per cooler	2 x 40ml VOA vials – Teflon-lined lid	Cool, 4° C HCl pH<2	14 days
TCLP SW-846 1311 (extraction)	SS08B008	8 TCLP metals + Cu, Zn, Sb, Ni, Tl, V, Hg (Method 6010A, except Hg, method 7470) all analysis with detection levels < RCRA UTS. Note - use Method 7841 for Tl if can't meet UTS levels with Method 6010A.	3	Main TCLP jar: Need 250 grams of sample (for TCLP and other "combined" analysis). May use 1-250 ml wide mouth glass jar with Teflon lined lid, as appropriate.	Cool, 4° C	180 days to extraction, 180 days from extraction to analysis, except Hg - 28 days to extraction, 28 days from extraction to analysis
	SS08B011	TCLP Semivolatiles (Method 8270/8270A)		Note: do not exceed 350 grams total (because of high sample radioactivity)		14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B013	TCLP Chlorinated Herbicides (Method 8151)				14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B012	TCLP Organochlorine Pesticides (Method 8080/8081)				14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B010	TCLP Volatiles (Method 8240B/8260)		TCLP VOA jar: Need 60 grams. May use 60 ml wide mouth glass jar with Teflon lined lid, as appropriate. Note: do not exceed 100 grams total (because of high sample radioactivity)		14 days to extraction, 14 days from extraction to analysis
Determined by Envirocare	N/A	Envirocare evaluation (fingerprint) samples	5	2 pounds, as required	None	None

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Table 3.3a Used Mineral Oil Analysis

Analytical Method	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time
Isotopic Analysis	RC01B020	Uranium	1	1-20 ml poly with Teflon-lined lid	None	6 months

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Table 3.4 Excavated Cemented Cyanide Analyses

Analytical Method	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time
Gamma Spectroscopy (onsite)	RC03A005	Gamma emitting radioisotopes	10+	TBD	None	
Gamma Spectroscopy (offsite)	TR01A058	Gamma emitting radioisotopes	3+	Combine with isotopic container	None	6 months
Isotopic Analysis	RC01B004	Uranium, Americium, and Plutonium isotopes	3+	250 mL wide mouth glass jar with Teflon lined lid	None	6 months
SW-846 Method 9010A/9012	SS08B021 or PA03A014	Total Cyanide (Note: may be either onsite or offsite analysis)	10+	Combine with Main TCLP jar or if by itself, use 60 ml wide mouth glass.	Cool, 4° C	14 days
SW-846 Chapter 7	SS08B005	Reactive Sulfide	3+	Combine with Main TCLP jar	Cool, 4° C	7 days
	SS08B004	Reactive Cyanide				14 days
SW-846 Method 9045	SS08B002	Soil pH or corrosivity	3+	Combine with Main TCLP jar	Cool, 4° C	ASAP (up to 14 days)
SW-846 Method 8240B/8260A	SS01B006	Volatile Organic Compounds	3+	Combine with TCLP VOA jar	Cool, 4° C	14 days
SW-846 Method 8270B	SS02B004	Semi-Volatile Organic Compounds	3+	Combine with Main TCLP jar	Cool, 4° C	14 days until extraction, 40 days after extraction
SW-846 Method 8240B/8260A (Trip Blanks)	SS01B005	Volatile Organic Compounds	1 trip blank per cooler	2 x 40 mL VOA vials - Teflon lined septa lids	Cool, 4° C HCl pH<2	14 days
TCLP SW-846 1311 (extraction)	SS08B008	8 TCLP metals + Cu, Zn, Sb, Ni, Tl, V, Hg (Method 6010A, except Hg, method 7470) all analysis with detection levels < RCRA UTS. Note - use Method 7841 for Tl if can't meet UTS levels with Method 6010A.	3+	Main TCLP jar: Use 16oz wide mouth glass jar with Teflon lined lid, as appropriate, so that the Main TCLP jar can be combined with other samples listed in this table	Cool, 4° C	180 days to extraction, 180 days from extraction to analysis, except Hg - 28 days to extraction, 28 days from extraction to analysis
	SS08B011	TCLP Semivolatiles (Method 8270/8270A)				14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B013	TCLP Chlorinated Herbicides (Method 8151)				14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B012	TCLP Organochlorine Pesticides (Method 8080/8081)				14 days to TCLP extraction, 7 days to preparative extraction, 40 days from preparative extraction to analysis
	SS08B010	TCLP Volatiles (Method 8240B/8260)		TCLP VOA jar: Need 60 grams. May use 60 ml wide mouth glass jar with Teflon lined lid, as appropriate.		14 days to extraction, 14 days from extraction to analysis
Determined by Envirocare	N/A	Envirocare evaluation (fingerprint) samples	5	2 pounds, as required	None	None

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Table 3.5 Excavated Still Bottoms Analyses

Analytical Method	Line Item Code	Analyte	# of Samples	Container	Preservative	Holding Time
Gamma Spectroscopy	TR01A058	Gamma-emitting isotopes	1 per phase per package	Combine with isotopic container	None	6 months
Isotopic Analysis	RC01B004	Uranium, Americium, and Plutonium isotopes	1 per phase per package	250 mL wide mouth glass jar with Teflon lined lid	None	6 months
SW-846 Method 8240A/8260A	SS01B006	Volatile Organic Compounds	1 per phase per package	60g wide mouth glass vials Teflon lined lid	Cool, 4° C	14 days
SW-846 Method 8240B/8260A (Trip Blanks)	SS01B003	Volatile Organic Compounds	1 trip blank per cooler	2 x 40 mL VOA vials - Teflon lined septa lids	Cool, 4° C	14 days
EPA 600/4-84-017 Method EPA 300.00	TR01A067 (RECRL)	Total Sulfur	1 per phase per package	250g glass wide mouth with Teflon lined lid. Note: combine all the following analysis into this jar	Cool, 4° C	28 days
SW-846 Method 8270B	SS02B004	Semi-Volatile Organic Compounds	1 per phase per package		Cool, 4° C	7 days until extraction, 40 days after extraction
SW-846 Method 6010A and 7000 Series	SS05B022	Total Analyte List (TAL) Metals	1 per phase per package		Cool, 4° C	6 months except Hg – 28 days
SW-846 Method 9010A/9012	SS08B021	Total Cyanide	1 per phase per package		Cool, 4° C	24 days
SW-846 Method 8080/8081	SS03B006	PCBs	1 per phase per package		Cool, 4° C	7 days until extraction, 40 days after extraction
SW-846 300 Series	TR01A068 (RECRL)	Chlorine	1 per phase per package		Cool, 4° C	28 days
SW-846 340 Series	TR01A069 (RECRL)	Flourine	1 per phase per package		Cool, 4° C	28 days
ASTM D240	TR01A070 (RECRL)	Heat Content (BTU/lb)	1 per phase per package		Cool, 4° C	28 days
SW-846 Method 1010	SS08B001	Flashpoint/Ignitability	1 per phase per package		Cool, 4° C	28 days