Soil Sampling and Analytical Plan for Area I Phase B Source Area Investigation Work Plan Tronox Facility - Henderson, Nevada

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Grid	LOU	Phase B	Sample ID	Sample	Perchlorate	Metals	Hex Cr	TPH- TPI	H-GRO VOCs 2.	Wet	OCPs 4.	SVOCs 5	· Radio-	Dioxins/	PCBs <sup>8.</sup>	Formaldehyde (EPA Asbestos 9.	Geo-	Page 1 of 7
Location	Number	Boring No.	Number	Depths <sup>1.</sup> (ft, bgs)	(EPA 314.0)		(EPA 7199)	DRO/ORO (EPA 8015B)			(8081A)	(EPA 8270C		Furans 7.	(EPA 1668)	8315A) EPA/540/R- 97/028	technical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
			•		Borings a	are organ	ized by gri	d location as s	hown on Plate A	- Starting po	oint is on	the north	western mo	st grid in Ar	rea 1 (H-3) a	nd ending with the southeaster	n most gr	id in Area I (O-4).
H-3	1, 10	RSAH3	RSA3-0.0	0.0												X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds)
H-3	1, 10		RSA3-0.5	0.5	X	X	X	X	X	X	X	X	X	X				and as an eastward step-out to LOU 10 (Former Onsite Hazardous
H-3 H-3	1, 10 1, 10	-	RSA3-10 RSA3-20	10 20	X	X	X	X	X	X	Hold Hold	X	X					Waste Landfill).
H-3	1, 10	1	RSA3-20	30	X	X	X	X	X	X	X	X	X					
I-2	1, 10	RSAI2	RSAI2-0.0	0.0												X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds)
I-2	1, 10		RSAI2-0.5	0.5	X	X	X	X	X	X	X	X	X	X				and as an eastward step-out to LOU 10 (Former Onsite Hazardous
I-2	1, 10	4	RSAI2-10	10	X	X	X	X	X	X	Hold	X	X					Waste Landfill).
I-2 I-2	1, 10 1, 10	1	RSAI2-20 RSAI2-30	20 30	X	X	X	X	X	X	Hold X	X	X					
I-3	1	RSAI3	RSAI3-0.0	0.0			,		,							X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds)
I-3	1		RSAI3-0.5	0.5	Х	Х	Х	X	X	X	Х	Х	X	X				and for general site coverage.
I-3	1		RSAI3-10	10	X	X	X	X	X	X	Hold	X	X					
I-3 I-3	1	-	RSAI3-20 RSAI3-25	20 25	X	X	X	X	X	X	Hold X	X	X					
I-3	1, 32	SA201	SA201-0.0	0	^	^	^	^	^	^	^	^	^			X		Boring located on the north berm of the GW-11 Pond to evaluate LOU 32
I-3	1, 32	]	SA201-0.5	0.5	Х	Х	Х	Х	X	Х	Х	Х	Х	Х				(Chromium and Perchlorate Groundwater Remediation Unit) and
I-3	1, 32	4	SA201-10	10	X	X	X	X	X	X	Hold	X	X				-	LOU 1 (former Trade Effluent Settling Ponds) and for general Site
I-3	1, 32		SA201-20	20 25	X	X	X	X	X	X	Hold	X	X					coverage.
I-3 I-4	1, 32 1, 32	RSAI4	SA201-25 RSAI4-0.0	0.0	X	Х	X	^	^	X	X	X	Х	+		X		Boring located on the north berm of the GW-11 Pond to evaluate LOU 32
1-4	1, 32		RSAI4-0.5	0.5	X	Х	X	X	X	Х	Х	Х	X	Х				(Chromium and Perchlorate Groundwater Remediation Unit) and
I-4	1, 32		RSAI4-10	10	Х	Х	Х	X	X	Х	Hold	Х	Х					LOU 1 (former Trade Effluent Settling Ponds) and for general Site
I-4	1, 32	4	RSAI4-20	20	X	X	X	X	X	X	Hold	X	X					coverage.
I-4 I-5	1, 32 1, 32	RSAI5	RSAI4-30 RSAI5-0.0	30 0.0	X	Х	X	X	X	Х	X	X	X			X		Boring located on the north berm of the GW-11 Pond to evaluate LOU 32
I-5	1, 32	KOAIS	RSAI5-0.0 RSAI5-0.5	0.5	X	Х	X	X	X	X	X	Х	X	X		^		(Chromium and Perchlorate Groundwater Remediation Unit) and
I-5	1, 32	1	RSAI5-10	10	X	X	X	X	X	X	Hold	X	X					LOU 1 (former Trade Effluent Settling Ponds) and for general Site
I-5	1, 32		RSAI5-20	20	X	X	Х	X	X	Х	Hold	Х	Х					coverage.
I-5	1, 32	DCAIZ	RSAI5-30	30	Х	X	X	Х	X	Х	X	Х	X					Design legated to explicate LOLI 4 (former Trade Efficient Cettling Dende)
-7  -7	1, 22, 23, 32 1, 22, 23, 32	RSAI7	RSAI7-0.0 RSAI7-0.5	0.0	X	Х	X	X	X	X	X	Х	X	X		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds), LOUs 22 & 23 (Ponds WC-West & WC-East), and LOU 32 (Chromium
I-7	1, 22, 23, 32	1	RSAI7-10	10	X	X	X	X	X	X	Hold	X	X				Х	and Perchlorate Groundwater Remediation Unit).
I-7	1, 22, 23, 32		RSAI7-20	20	X	X	Х	X	X	Х	Hold	Х	Х					
I-7	1, 22, 23, 32	DCA IO	RSAJ2-0.0	30 0.0	Х	X	X	X	X	Х	X	Х	X					Design legated to evaluate LOLI 4 (former Trade Efficient Cettling Dende) LOLI 40
J-2 J-2	1, 10 1, 10	RSAJ2	RSAJ2-0.0 RSAJ2-0.5	0.0	X	Х	X	X	X	Х	X	X	X	X		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds), LOU 10 (Former Onsite Hazardous Landfill) and to investigate potential offsite VOC sources.
J-2	1, 10	1	RSAJ2-10	10	X	X	X	X	X	X	Hold	X	X					(to ome of one of the contract
J-2	1, 10		RSAJ2-20	20	X	Х	X	X	X	X	Hold	X	Х					
J-2	1, 10	DCA IO	RSAJ2-30	30	Х	X	X	X	X	X	X	Х	Х			V		Deving legated to evaluate LOLL4 (former Trade Efficient Cattling Dands)
J-3 J-3	1	RSAJ3	RSAJ3-0.0 RSAJ3-0.5	0.0	X	Х	X	X	X	X	X	X	X	X		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds) and for general site coverage.
J-3	1	1	RSAJ3-10	10	X	X	X	X	X	X	Hold	X	X				Х	and for gonoral one coverage.
J-3	1	]	RSAJ3-20	20	Х	Х	X	X	X	Х	Hold	Х	Х					
J-3	1 22	SA202	RSAJ3-30 SA202-0.0	30	X	Х	Х	Х	X	Х	Х	Х	Х	1		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds),
J-3 J-3	1, 32 1, 32	3AZUZ	SA202-0.0 SA202-0.5	0.0	X	Х	X	X	X	Х	Х	X	X	X		X		LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit), and for general
J-3	1, 32	1	SA202-0.5	10	X	X	X	X	X	X	Hold	X	X					Site coverage.
J-3	1, 32	]	SA202-20	20	X	X	X	X	X	X	Hold	Х	X					
J-3	1, 32	04000	SA202-30	30	Х	X	X	Х	X	Х	X	Х	X					Daving legated to evaluate LOLIA (former Trade 5/4) and Cattling Davids
J-3 J-3	1, 60 1, 60	SA206	SA206-0.0 SA206-0.5	0.0	X	Х	X	X	X	X	X	X	X	X		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds) and LOU 60 (former Acid Drain System), and for general Site coverage.
J-3	1, 60	1	SA206-0.3	10	X	X	X	X	X	X	Hold	X	X					255 05 (.Simol Noid Brain System), and for gonoral one coverage.
J-3	1, 60	]	SA206-20	20	Х	Х	X	X	X	Х	Hold	Х	Х					
J-3	1, 60	DC4 :-	SA206-30	30	Х	X	X	Х	X	Х	X	X	Х					Designs benefit of another OW 44 Decision and a 100 LOC (C)
J-5 J-5	1, 22, 32 1, 22, 32	RSAJ5	RSAJ5-0.0 RSAJ5-0.5	0.0	X	Х	X	X	X	X	X	X	X	X		X		Boring located east of GW-11 Pond to evaluate LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit) and LOU 1 (former Trade Effluent Settling Ponds),
J-5	1, 22, 32	1	RSAJ5-0.5	10	X	X	X	X	X	X	Hold	X	X	^				as an upgradient boring to evaluate LOU 22 (Pond WC-West and Associated
J-5	1, 22, 32	]	RSAJ5-20	20	X	X	X	X	X	Х	Hold	Х	X					Piping), and for general Site coverage.
J-5	1, 22, 32	DCA IO	RSAJ5-25	25	Х	X	X	X	X	Х	X	Х	X			V		Daving legated each of OW 44 David to explore LOUI 90 (OL) and a second
J-6 J-6	1, 22, 32 1, 22, 32	RSAJ6	RSAJ6-0.0 RSAJ6-0.5	0.0 0.5	X	Х	X	X	X	X	X	X	X	X		X		Boring located east of GW-11 Pond to evaluate LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit) and LOU 1 (former Trade Effluent Settling Ponds),
J-6	1, 22, 32	1	RSAJ6-0.5	10	X	X	X	X	X	X	Hold	X	X	^				as an upgradient boring to evaluate LOU 22 (Pond WC-West and Associated
J-6	1, 22, 32	]	RSAJ6-20	20	Х	Х	Х	X	X	Х	Hold	Х	Х					Piping), and for general Site coverage.
J-6	1, 22, 32	0.446=	RSAJ6-30	30	X	X	X	X	X	X	X	Х	Х					Design books day analysis white or at a factor of the Color
J-6 J-6	22, 23 22, 23	SA127	SA127-0.0 SA127-0.5	0.0	X	Х	X	X	X	X	X	X	X	X		X		Boring located to evaluate white crusty surface soil east of the pump house between LOUs 22 and 23 (Ponds WC-West and WC-East).
J-6	22, 23	1	SA127-0.3	10	X	X	X	X	X	X	X	X	X					The state of the s

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Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths <sup>1.</sup> (ft, bgs)	Perchlorate (EPA 314.0)			TPH- DRO/ORO (EPA 8015B)			OCPs <sup>4.</sup> (8081A)	SVOCs <sup>5.</sup> (EPA 8270C)	Radio- nuclides <sup>6.</sup>	Dioxins/ Furans <sup>7.</sup>	PCBs <sup>8.</sup> (EPA 1668)	Formaldehyde (EPA 8315A) Asbestos <sup>9.</sup> EPA/540/R- 97/028	Geo- technical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
					Borings a	are organi	zed by gri	d location as sho	wn on Plate A	- Starting po	int is on	the northw	estern mo	st grid in Ar	ea 1 (H-3) a	nd ending with the southeaster	n most gr	id in Area I (O-4).
J-7	1, 23, 32	RSAJ7	RSAJ7-0.0	0.0												X		Boring located east of GW-11 Pond to evaluate LOU 32 (Chromium and Perchlorate
J-7 J-7	1, 23, 32 1, 23, 32		RSAJ7-0.5 RSAJ7-10	0.5 10	X	X	X	X	X	X	X	X	X	X				Groundwater Remediation Unit) and LOU 1 (former Trade Effluent Settling Ponds), as an upgradient boring to evaluate LOU 23 (Pond WC-East and Associated
J-7	1, 23, 32		RSAJ7-20	20	X	X	X	X	X	X	Hold	X	X					Piping), and for general Site coverage.
J-7	1, 23, 32		RSAJ7-30	30	Х	Х	Х	X	Х	Х	Х	Х	Х					
J-8 J-8	1, 22, 23, 32 1, 22, 23, 32	RSAJ8	RSAJ8-0.0 RSAJ8-0.5	0.0	X	X	X	X	X	X	X	X	X	X		X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds), LOUs 22 & 23 (Ponds WC-West & WC-East), and LOU 32 (Chromium and
J-8	1, 22, 23, 32		RSAJ8-10	10	X	X	X	X	X	X	Hold	X	X	^				Perchlorate Groundwater Remediation Unit), and for general Site coverage.
J-8	1, 22, 23, 32		RSAJ8-20	20	Х	Х	Х	X	X	Х	Hold	Х	Х					, , , , , , , , , , , , , , , , , , , ,
J-8	1, 22, 23, 32	CA450	RSAJ8-30	30	Х	X	X	X	X	X	Х	Х	X					Derive located to evaluate LOLL 2 (Once Area Courth of Trade Efficient
K-2 K-2	2	SA152	SA152-0.0 SA152-0.5	0.0	X	X	Х	X	X	X	Х	X	X	X		X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent Settling Ponds) as a step-out boring to SA18 as requested by NDEP in
K-2	2		SA152-10	10	X	X	X	X	X	X	Hold	X	X	7.				comments to the Phase A report.
K-2	2		SA152-20	20	X	Х	Х	X	Х	X	Hold	Х	Х					
K-2 K-2	2	RSAK2	SA152-30 RSAK2-0.0	30 0.0	Х	Х	Х	X	X	Х	Х	Х	Х			X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent
K-2 K-2	2	NOMNZ	RSAK2-0.0 RSAK2-0.5	0.0	Х	X	Х	X	X	Х	X	X	X	X		^		Settling Ponds) and to evaluate potential offsite VOC source to the west.
K-2	2		RSAK2-10	10	X	X	X	X	X	X	Hold	X	X					g,
K-2	2		RSAK2-20	20	X	X	X	X	X	X	Hold	X	X					
K-2 K-3	2 1, 2, 32	SA88	RSAK3-30 SA88-0.0	30 0.0	Х	Х	Х	X	X	Х	X	Х	Х			X		Boring located north (downgradient) of LOU 2 (Open Area South of
K-3	1, 2, 32	5A00	SA88-0.5	0.5	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				Trade Effluent Settling Ponds) and south (upgradient) of LOU 1 (former
K-3	1, 2, 32		SA88-10	10	Х	Х	Х	Х	Х	X	Hold	Х	Х					Trade Effluent Settling Ponds), and LOU 32 (Chromium and Perchlorate Groundwater
K-3	1, 2, 32		SA88-20	20	X	X	X	X	X	X	Hold	X	X					Remediation Unit), and for general Site coverage.
K-3 K-3	1, 2, 32 1, 32	RSAK3	SA88-30 RSAK3-0.0	30 0.0	Х	Х	Х	X	X	X	Х	X	Х			X		Boring located on the northern berm GW-11 Pond to evaluate LOU 1 (former Trade
K-3	1, 32	107110	RSAK3-0.5	0.5	Х	Х	Х	Х	X	Х	Х	X	Х	Х				Effluent Ponds) and LOU 32 (Chromium and Perchlorate Groundwater Remediation
K-3	1, 32		RSAK3-10	10	Х	Х	Х	X	X	Х	Hold	X	Х					Unit).
K-3	1, 32		RSAK3-20	20 30	X	X	X	X	X	X	Hold	X	X					
K-3 K-3	1, 32 2, 32, 60	SA134	RSAK3-30 SA134-0.0	0.0	Χ	Х	X	X		X	X	X	Χ			X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent
K-3	2, 32, 60	<b>0</b> ,	SA134-0.5	0.5	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				Settling Ponds), LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit),
K-3	2, 32, 60		SA134-10	10	X	X	X	X	X	X	Hold	X	X					and LOU 60 (former Acid Drain System).
K-3 K-3	2, 32, 60 2, 32, 60		SA134-20 SA134030	20 30	X	X	X	X	X	X	Hold X	X	X					
K-3	1, 2, 32	RSAK4	RSAK4-0.0	0.0	^	^	^	^	^	^			^			X		Boring located to evaluate LOU 32 (Crhomium and Perchlorate Groundwater
K-4	1, 2, 32		RSAK4-0.5	0.5	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				Remediation Unit) and as an upgradient boring to LOU 1(former Trade Effluent Settling
K-4	1, 2, 32		RSAK4-10	10	X	X	X	X	X	X	Hold	X	X					Ponds) and LOU 2 (Open Area South of Trade Effluent Settling Ponds).
K-4 K-4	1, 2, 32 1, 2, 32		RSAK4-20 RSAK4-30	20 30	X	X	X	X	X	X	Hold X	X	X					-
K-5	1, 32	RSAK5	RSAK5-0.0	0.0												X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds) and
K-5	1, 32		RSAK5-0.5	0.5	Х	Х	Х	X	Х	X	Х	X	X	Х				LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit).
K-5 K-5	1, 32 1, 32		RSAK5-10 RSAK5-20	10 20	X	X	X	X	X	X	Hold Hold	X	X					
K-5 K-5	1, 32		RSAK5-20	30	X	X	X	X	X	X	Х	X	X					
K-6	1, 32	SA76	SA76-0.0	0.0								-				X		Boring located north of groundwater recharge trenches to evaluate
K-6	1, 32		SA76-0.5	0.5	X	X	X	X	X	X	X	X	X	X				LOU 1 (former Trade Effluent Settling Ponds) and LOU 32
K-6 K-6	1, 32 1, 32		SA76-10 SA76-20	10 20	X	X	X	X	X	X	Hold Hold	X	X					(Chromium and Perchlorate Groundwater Remediation Unit).
K-6	1, 32		SA76-25	25	X	X	X	X	X	X	X	X	X					
K-6	1, 32	RSAK6	RSAK6-0.0	0.0												X		Boring located south of groundwater recharge trenches to evaluate
K-6	1, 32		RSAK6-0.5	0.5	X	X	X	X	X	X	X	X	X	X				LOU 1 (former Trade Effluent Settling Ponds) and LOU 32
K-6 K-6	1, 32 1, 32		RSAK6-10 RSAK6-20	10 20	X	X	X	X	X	X	Hold Hold	X	X				(Chromium and Perchlorate Groundwater Remediation Unit).	(Chromium and Perchlorate Groundwater Remediation Unit).
K-6	1, 32		RSAK6-30	30	X	X	X	X	X	X	X	X	X					
K-7	1, 22, 23, 32	RSAK7	RSAK7-0.0	0.0												X		Boring located to evaluate LOU 1 (former Trade Effluent Settling Ponds),
K-7	1, 22, 23, 32		RSAK7-0.5	0.5	X	X	X	X	X	X	X	X	X	Х				LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit),
K-7 K-7	1, 22, 23, 32 1, 22, 23, 32		RSAK7-10 RSAK7-20	10 20	X	X	X	X	X	X	Hold Hold	X	X				and pipelines associated with LOUs 22 and 23 (Ponds WC-West & WC-East).	jand pipelines associated with LOUS 22 and 23 (Ponds WC-West & WC-East).
	1, 22, 23, 32		RSAK7-24		X	X	X	X	X	X	X	X	X	1				†

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Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths <sup>1.</sup> (ft, bgs)	Perchlorate (EPA 314.0)	Metals (EPA 6020)	Hex Cr (EPA 7199)	TPH- DRO/ORO (EPA 8015B)	GRO VOCs <sup>2.</sup> (EPA 8260B)	Wet Chemistry <sup>3.</sup>	OCPs <sup>4.</sup> (8081A)	SVOCs <sup>5.</sup> (EPA 8270C)	Radio- nuclides <sup>6.</sup>	Dioxins/ Furans <sup>7.</sup>	PCBs <sup>8.</sup> (EPA 1668)	8315A) EPA	70 <del>7</del> 0/10	Geo- echnical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
					Borings a	are organi	zed by gri	d location as sh	own on Plate A	- Starting po	int is on	the northw	estern mo	st grid in Ar	rea 1 (H-3) a	nd ending with the sout	heastern i	nost gri	id in Area I (O-4).
K-8	1, 32	RSAK8	RSAK8-0.0	0.0													Х		Boring located to evaluate LOU 32 (Chromium and Perchlorate
K-8 K-8	1, 32 1, 32		RSAK8-0.5 RSAK8-10	0.5 10	X	X	X	X	X	X	X	X	X	Х					Groundwater Remediation Unit) and as upgradient location to LOU 1 (former Trade Effluent Settling Ponds), and for general Site coverage.
K-8	1, 32		RSAK8-20	20	X	X	X	X	X	X	Hold	X	X						Trade Lindent Settling Fords), and for general Site Coverage.
K-8	1, 32		RSAK8-27	27	Х	Х	Х	X	Х	Х	Х	Χ	Х						
L-2 L-2	2	RSAL2	RSAL2-0.0 RSAL2-0.5	0.0	X	X	Х	X	X	Х	X	X	X	Х			X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent Settling Ponds).
L-2	2		RSAL2-10	10	X	X	X	X	X	X	Hold	X	X						Security Folias).
L-2	2	-	RSAL2-20	20	X	X	X	X	X	X	Hold	X	X						
L-2 L-3	2, 32, 60	SA82	RSAL2-30 SA82-0.0	30 0.0	Х	X	Х	X	X	X	X	X	Х				X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent
L-3	2, 32, 60	5A62	SA82-0.5	0.5	Х	Х	Х	X	X	X	Х	Х	Х	Х			^		Settling Ponds), LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit),
L-3	2, 32, 60		SA82-10	10	X	X	X	X	X	X	Hold	X	X						and the pipelines associated with LOU 60 (Acid Drain System).
L-3 L-3	2, 32, 60 2, 32, 60		SA82-20 SA82-30	20 30	X	X	X	X	X	X	Hold X	X	X						
L-3	2, 32, 00	RSAL3	RSAL3-0.0	0.0	^	^		^									Х		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent
L-3	2		RSAL3-0.5	0.5	X	X	X	X	X	X	X	X	X	X					Settling Ponds).
L-3 L-3	2		RSAL3-10 RSAL3-20	10 20	X	X	X	X	X	X	Hold Hold	X	X						
L-3	2	-	RSAL3-20	30	X	X	X	X	X	X	X	X	X						
L-4	32, 60	SA189	SA189-0.0	0.0													Χ		Boring located to evaluate LOU 60 (Acid Drain System) pipeline/flume route
L-4 L-4	32, 60 32, 60		SA189-0.5 SA189-10	0.5 10	X	X	X	X	X	X	X	X	X	Х					and LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit).
L-4 L-4	32, 60		SA189-10 SA189-20	20	X	X	X	X	X	X	Hold	X	X						
L-4	32, 60		SA189-25	25	X	X	X	X	X	X	X	X	X						
L-4	2, 32, 60	RSAL4	RSAL4-0.0	0.0	V	V	V	V	V	V	V	V	V	V			Χ		Boring located to evaluate LOU 60 (Acid Drain System) pipeline/flume route
L-4 L-4	2, 32, 60 2, 32, 60	-	RSAL4-0.5 RSAL4-10	0.5 10	X	X	X	X	X	X	X	X	X	X					and as a step-out to LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit) and LOU 2 (Open Area South of Trade Effluent Settling Ponds).
L-4	2, 32, 60		RSAL4-20	20	X	X	X	X	X	X	Hold	X	X						g,
L-4	2, 32, 60	0.4.7.4	RSAL4-25	25	Х	Х	X	X	X	X	Х	Х	Х						
L-5 L-5	32, 58 32, 58	SA74	SA74-0.0 SA74-0.5	0.0	X	X	Х	X	X	Х	Х	X	X	Х			X		Boring located adjacent to new D-1 building to evaluate LOU 58 (AP Plant Area New Building D-1 Washdown) and LOU 32 (Chromium and Perchlorate
L-5	32, 58		SA74-10	10	X	X	X	X	X	X	Hold	X	X						Groundwater Remediation Unit).
L-5	32, 58	=	SA74-20	20	X	X	X	X	X	X	Hold	X	X						
L-5 L-5	32, 58 32, 58	RSAL5	SA74-25 RSAL5-0.0	25 0.0	Х	X	X	X	X	X	X	X	X				X		Boring located to evaluate LOU 58 (AP Plant Area New Building D-1 Washdown)
L-5	32, 58	1 NO NEO	RSAL5-0.5	0.5	Х	Х	Х	X	Х	Х	Х	X	Х	Х			Α		and LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit).
L-5	32, 58	-	RSAL5-10	10	X	X	X	X	X	X	Hold	X	X						
L-5 L-5	32, 58 32, 58		RSAL5-20 RSAL5-25	20 25	X	X	X	X	X	X	Hold X	X	X						
L-7	22, 23	RSAL7	RSAL7-0.0	0.0		,					Α	,					Х		Boring located to evaluate pipeline associated with LOUs 22 and 23
L-7	22, 23	-	RSAL7-0.5	0.5	X	X	X	X	X	X	X	X	X	Х					(Ponds WC-West & WC-East), and for general Site coverage.
L-7 L-7	22, 23 22, 23	-	RSAL7-10 RSAL7-20	10 20	X	X	X	X	X	X	Hold Hold	X	X						
L-7	22, 23		RSAL7-30	30	X	X	X	X	X	X	X	X	X						
L-7	32	SA75	SA75-0.0	0.0		V	V	V			V	V	V	V			X		Boring located to evaluate LOU 32 (Chromium and Perchlorate
L-7 L-7	32 32		SA75-0.5 SA75-10	0.5 10	X	X	X	X	X	X	X	X	X	Х					Groundwater Remediation Unit).
L-7	32		SA75-20	20	X	X	X	X	X	X	Hold	X	X						
L-7	32	DOME	SA75-24	24	Х	Х	Х	X	X	X	Х	Х	Х						
L-8 L-8	5	RSAL8	RSAL8-0.0 RSAL8-0.5	0.0	X	X	X	X	X	Х	X	X	X	Х			Х		Boring located north of LOU 5(Beta Ditch) along Timet boundary as a downgradient boring to LOU 5 (Beta Ditch) and for general Site coverage.
L-8	5		RSAL8-10	10	X	X	X	X	X	X	Hold	X	X	Α					adwing table in g to 200 o (Deta Bitch) and for general one coverage.
L-8	5		RSAL8-20	20	X	X	X	X	X	X	Hold	X	X						
L-8 M-2	5	RSAM2	RSAL8-30 RSAM2-0.0	30 0.0	Х	X	Х	X	X	X	X	Х	Х				X		Boring located north of LOU 5 (Beta Ditch) along Olin (Pioneer) boundary to
M-2	2	1 COAIVIZ	RSAM2-0.5	0.5	X	Х	Х	Х	Х	Х	Х	X	Х	Х			^		evaluate potential VOC sources from the west, as a step-out boring
M-2	2		RSAM2-10	10	X	X	X	X	X	X	Hold	X	X						for LOU 2 (Open Area South of Trade Effluent Settling Ponds), and
M-2 M-2	2		RSAM2-20 RSAM2-30	20 30	X	X	X	X	X	X	Hold X	X	X						for general Site coverage.
M-2	5	SA67	SA67-0.0	0.0	^	^	^	^	^	^	^	^	^				X		Boring located south of LOU 5 (Beta Ditch) and to evlauate potential VOC
M-2	5	]	SA67-0.5	0.5	X	X	X		X	X	X	X	X	Х					sources from the west.
M-2 M-2	5 5		SA67-10 SA67-20	10 20	X	X	X		X	X	Hold Hold	X	X						
M-2	5	-	SA67-20 SA67-30	30	X	X	X		X	X	Hold	X	X						
M-2	5	1	SA67-35	35	X	X	X		X	X	X	X	X						

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Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths <sup>1.</sup> (ft, bgs)	Perchlorate (EPA 314.0)	Metals (EPA 6020)	Hex Cr (EPA 7199)		VOCs <sup>2.</sup> (EPA 8260B)	Wet Chemistry <sup>3.</sup>	OCPs <sup>4.</sup> (8081A)	SVOCs <sup>5.</sup> (EPA 8270C)	Radio- nuclides <sup>6.</sup>	Dioxins/ Furans <sup>7.</sup>	PCBs <sup>8.</sup> (EPA 1668)	Formaldehyde (EPA 8315A)	Asbestos <sup>9.</sup> EPA/540/R- 97/028	Geo- technical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
	<u>I</u>	l			Borings	are organi	zed by gri	d location as shown	on Plate A	- Starting po	int is on	the northw	estern mos	st grid in Ar	ea 1 (H-3) a	nd ending with the	e southeaster	n most gri	id in Area I (O-4).
M-3	2	SA100	SA100-0.0	0.0													X		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent
M-3	2	-	SA100-0.5	0.5	X	X	X	X	X	X	X	X	X	Х					Settling Ponds) and to evaluate potential VOC sources from the west.
M-3 M-3	2		SA100-10 SA100-20	10 20	X	X	X	X	X	X	Hold Hold	X	X						
M-3	2		SA100-20	30	X	X	X	X	X	X	X	X	X						
M-3	2	RSAM3	RSAM3-0.0	0.0													Х		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent Settling
M-3	2		RSAM3-0.5	0.5	X	X	Х	X	X	X	X	X	Х	Х					Ponds).
M-3	2		RSAM3-10	10	X	X	X	X	X	X	Hold	X	X					Х	
M-3 M-3	2		RSAM3-20 RSAM3-30	20 30	X	X	X	X	X	X	Hold X	X	X					Х	
M-4	2	SA69	SA69-0.0	0.0			Α	X	,	Α		Α	Λ.				Х		Boring located north of LOU 5 (Beta Ditch) as a step-out to LOU 2 (Open Area
M-4	2		SA69-0.5	0.5	X	X	Х	X	Х	X	X	X	Χ	Х					South of Trade Effluent Settling Ponds) and to investigate for potential offsite VOC
M-4	2		SA69-10	10	X	X	X	X	X	X	Hold	X	X						sources from the west.
M-4 M-4	2	-	SA69-20 SA69-30	20 30	X	X	X	X	X	X	Hold X	X	X						
M-4	2	RSAM4	RSAM4-0.0	0.0	Α			X	Α	Α		Α					Х		Boring located to evaluate LOU 2 (Open Area South of Trade Effluent Settling
M-4	2	]	RSAM4-0.5	0.5	X	Х	Х	X	Х	Х	Х	Х	X	Х					Ponds) and for general Site coverage.
M-4	2		RSAM4-10	10	X	X	X	X	X	X	Hold	X	X						
M-4 M-4	2	-	RSAM4-20 RSAM4-30	20 30	X	X	X	X	X	X	Hold X	X	X						
M-4	5	SA66	SA66-0.0	0.0	^	^	^	^	^	^	^	^	^				X		Boring located in LOU 5 (Beta Ditch) to evaluate the Beta Ditch and for general
M-4	5	300	SA66-0.5	0.5	Х	Х	Х	X	Х	Х	Х		Х	Х					Site coverage.
M-4	5		SA66-10	10	X	X	Х	X	Х	X	Hold		Χ						
M-4 M-4	5		SA66-20 SA66-30	20 30	X	X	X	X	X	X	Hold Hold		X						
M-4	5	-	SA66-35	35	X	X	X	X	X	X	Х		X						
N-2	35	SA56	SA56-0.0	0.0			~	X	,	Α							Х		Boring located along western Site boundary to evaluate LOU 35
N-2	35		SA56-0.5	0.5	X	X	Х	X X	X	X	X	X	Χ	Х	X				(former Truck Emptying/Dumping Site) and potential offsite VOC
N-2	35		SA56-10	10	X	X	X	X X	X	X	Hold	X	X		X			Х	sources from the west. PCBs and TPH-G were detected in Phase A
N-2 N-2	35 35		SA56-20 SA56-30	20 30	X	X	X	X X	X	X	Hold Hold	X	X		X			X	soil boring SA09.
N-2	35		SA56-30 SA56-40	40	X	X	X	X X	X	X	Х	X	X		X			^	
N-2	n/a	RSAN2	RSAN2-0.0	0.0		,		, , , ,		7.			,				Х		Boring located along western Site boundary north of LOU 35
N-2	n/a		RSAN2-0.5	0.5	X	X	X	X	X	X	X	X	X	Χ	X				(Truck Emptying/Dumping Site) to evaluate potential offsite VOC sources
N-2 N-2	n/a n/a		RSAN2-10 RSAN2-20	10 20	X	X	X	X	X	X	Hold Hold	X	X		X				from the west, and for general Site coverage.
N-2	n/a		RSAN2-30	30	X	X	X	X	X	X	Hold	X	X		X				
N-2	n/a	-	RSAN2-40	40	X	X	X	X	X	X	X	X	X		X				
N-3	54	SA85	SA85-0.0	0.0													X		Boring located northwest of AP Lab building to evaluate LOU 54 (AP Plant Area
N-3 N-3	54 54		SA85-0.5 SA85-10	0.5 10	X	X	X		X	X	X	X	X	Х		X			Change House/Laboratory Septic Tank). Dilute formaldehyde titrant was used in LOU 38 (Former Satellite Accumulation Point, AP Laboratory) and possibly discharge
N-3	54		SA85-10 SA85-20	20	X	X	X		X	X	Hold	X	X			X			to LOU 54.
N-3	54	-	SA85-30	30	X	X	X		X	X	Hold	X	X			X			
N-3	54		SA85-35	35	Х	X	Х		X	Х	X	X	Χ			X			
N-3 N-3	38 38	RSAN3	RSAN3-0.0 RSAN3-0.5	0.0	V	V	X	X	X	V		X	Х	X		X	X		Boring located to evaluate LOU 38 (Former Satellite Accumulation Point, AP Laboratory). Dilute formaldehyde titrant was used in the
N-3 N-3	38	-	RSAN3-0.5 RSAN3-10	10	X	X	X	X	X	X	X Hold	X	X	^		X			AP Laboratory). Dilute formaldenyde titrant was used in the
N-3	38		RSAN3-20	20	X	X	X	X	X	X	Hold	X	X			X			··· <b>/</b>
N-3	38		RSAN3-30	30	X	Х	Х	X	X	X	Hold	X	X			X			
N-3	38	SA87	RSAN3-40	40	Х	X	Х	X	X	X	Х	X	Χ			X	X		Boring located at the southeast corner of the AP Maintenance Shop
N-4 N-4	39 39	SA01	SA87-0.0 SA87-0.5	0.0	X	X	Х	X	X	Х	X		Х	Х			^		building to evaluate LOU 39 (Satellite Accumulation Point, AP Maintenance Shop).
N-4	39		SA87-10	10	Х	X	X	X	X	X	Hold		X						5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
N-4	39		SA87-20	20	X	X	Х	X	X	X	Hold		X						
N-4	39		SA87-30	30	X	X	X	X	X	X	Hold		X						
N-4 N-4	39 39	RSAN4	SA87-40 RSAN4-0.0	40 0.0	Χ	X	X	X	Х	X	X	1	Х				X		Boring located to evaluate former drum storage area in LOU 39
N-4	39	11071144	RSAN4-0.5	0.5	X	Х	Х	X	Х	X	Х	Х	Х	Х			^		(Satellite Accumulation Point, AP Maintenance Shop) and for general Site
N-4	39	]	RSAN4-10	10	Х	Х	Х	X	Х	Х	Hold	Х	X						coverage.
N-4	39		RSAN4-20	20	X	X	X	X	X	X	Hold	X	X						
N-4 N-4	39 39	-	RSAN4-30 RSAN4-40	30 40	X	X	X	X	X	X	Hold X	X	X						
N-4 O-2	35	RSAO2	RSAN4-40 RSAO2-0.0	0.0	^	^	^	^	^	^		^	^				X		Boring located along western boundary of Site to evaluate LOU 35
0-2	35	1.0,102	RSAO2-0.5	0.5	Х	Х	Х	Х Х	Х	Х	Х	Х	Х	Х	Х		~		(Truck Emptying/Dumping Site) and potential offsite VOC
0-2	35		RSAO2-10	10	X	X	X	X X	X	X	Hold	X	X		X				sources from the west. PCBs and TPH-GRO were detetcted in Phase
O-2 O-2	35		RSAO2-20	20	X	X	X	X X	X	X	Hold Hold	X	X		X			A soil boring SA09.	A soil boring SA09.
O-2	35 35	1	RSAO2-30 RSAO2-40	30 40	X	X	X	X X	X	X	Hola	X	X		X				
~ ~		i		10										1		1	1	1	1

																				Page 5 of 7
Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths <sup>1.</sup> (ft, bgs)	Perchlorate (EPA 314.0)	Metals (EPA 6020)	Hex Cr (EPA 7199		TPH-GRO EPA 8015B)	VOCs <sup>2.</sup> (EPA 8260B)	Wet Chemistry <sup>3.</sup>	OCPs <sup>4.</sup> (8081A)	SVOCs <sup>5.</sup> (EPA 8270C		Dioxins/ Furans <sup>7.</sup>	PCBs <sup>8.</sup> (EPA 1668)	Formaldehyde (EPA 8315A)	Asbestos <sup>9.</sup> EPA/540/R- 97/028	Geo- technical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
					Borings a	are organi	zed by gı	rid location a	s shown	on Plate A	- Starting poi	int is on	the north	vestern m	ost grid in A	rea 1 (H-3) a	and ending with th	e southeaste	rn most gr	rid in Area I (O-4).
0-2	n/a	SA35	SA35-0.0	0.0														X		Boring located along western Site boundary to evaluate potential offsite VOC sources
0-2	n/a		SA35-0.5	0.5	X	X	X	X	X	X	X	X	X	X	X	X				from the west. PCBs and TPH-GRO were detetcted in Phase A soil boring SA09.
O-2 O-2	n/a n/a		SA35-10 SA35-20	10 20	X	X	X	X	X	X	X	Hold Hold	X	X		X				
0-2	n/a		SA35-20	30	X	X	X	X	X	X	X	Hold	X	X		X				-
0-2	n/a		SA35-40	40	Х	Х	X	X	Χ	Х	Х	Х	Х	X		Х				
0-2	35, 60	SA166	SA166-0.0	0.0		.,			.,	.,		.,						Х		Boring located along western Site boundary to evaluate LOU 35
O-2 O-2	35, 60 35, 60	_	SA166-0.5 SA166-10	0.5 10	X	X	X	X	X	X	X	X Hold	X	X	X	X			X	(Truck Emptying/Dumping Site), LOU 60 (Acid Drain System), and potential offsite VOC sources from the west. PCBs and TPH-GRO
0-2	35, 60	_	SA166-20	20	X	X	X	X	X	X	X	Hold	X	X		X				were detetcted in Phase A soil boring SA09.
0-2	35, 60		SA166-30	30	Х	Х	Х	X	Χ	Х	Х	Hold	Х	Х		X				3
0-2	35, 60		SA166-35	35	X	X	X	X	Χ	Х	Х	X	Х	X		Х			X	
O-3 O-3	35 35	SA48	SA48-0.0 SA48-0.5	0.0 0.5	X	X	Х	X	Х	X	X	Х	X	X	X	X		X		Boring located along western Site boundary to evaluate LOU 35
O-3	35	_	SA48-0.5 SA48-10	10	X	X	X	X	X	X	X	Hold	X	X	^	X				(Truck Emptying/Dumping Site) and potential offsite VOC sources from the west. PCBs and TPH-GRO were detetcted in Phase
O-3	35		SA48-20	20	X	X	X	X	X	X	X	Hold	X	X		X				A soil boring SA09.
O-3	35		SA48-30	30	Х	X	Х	Х	Χ	Х	Χ	Hold	Х	Х		Х				
O-3	35	SA57	SA48-37	37	Х	Х	X	Х	Х	Х	Х	X	Х	X		X	1	V		Desire leasted along western Cite have described at 1 CU 25
O-3 O-3	35 35	SA57	SA57-0.0 SA57-0.5	0.0 0.5	X	X	X	X	Х	X	X	X	X	X	X	X		Х		Boring located along western Site boundary to evaluate LOU 35 (Truck Emptying/Dumping Site) and potential offsite VOC
0-3	35	_	SA57-10	10	X	X	X	X	X	X	X	Hold	X	X	, , , ,	X				sources from the west. PCBs and TPH-GRO were detected in Phase
O-3	35		SA57-20	20	X	Х	Х	X	Χ	Х	Х	Hold	Х	X		Х				A soil boring SA09.
0-3	35	_	SA57-30	30	X	X	X	X	X	X	X	Hold	X	X		X				
O-3 O-3	35 64	SA180	SA57-40 SA180-0.0	40 0.0	Х	X	Х	X	X	Х	Х	Х	Х	Х		Х		X		Boring located to evaluate soil stain in northern portion of LOU 64 (Koch
O-3	64	3A100	SA180-0.5	0.5	Х	Х	Х	X		Х	Х	Х	Х	X	Х	X		^		Materials Company Site).
O-3	64		SA180-10	10	X	X	X	X		X	X	Hold	X	X		X				
O-3	64		SA180-20	20	Х	Х	Х	X		Х	X	Hold	Х	Х		X				
0-3	64		SA180-30	30	X	X	X	X		X	X	Hold	X	X		X				
O-3 O-3	64 64	SA181	SA180-40 SA181-0.0	37 0.0	X	X	Х	Х		Х	Х	Х	Х	X		X		X		Boring located to evaluate soil stain in northern portion of LOU 64 (Koch
0.0	04	0/1101	0/1101 0.0	0.0														X		boning located to evaluate son stain in northern portion of 200 of (100)
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N-2

N-2

35

35

SA56

SA56

SA166

SA56-10

SA56-30

SA166-10

10

30

10

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X

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Soil sample collected from beneath the northwest portion of LOU 35 (Truck Emptying/Dumping Site)

Soil sample collected from below beneath the northwest portion of LOU 35 (Truck Emptying/Dumping Site) to evaluate leaching potential of Site-related analytes from Muddy Creek

Soil sample collected from beneath the northwest portion of LOU 35 (Truck Emptying/Dumping Site)

and LOU 60 (former Acid Drain System) to evaluate leaching potential of Site-related analytes.

to evaluate leaching potential of Site-related analytes. Expected soil type: Gravelly Sand.

Formation - First Fine-Grained Facies (MCfg1) soils. Contact between Qal and MCfg1 is approximately 20 feet bgs. Groundwater anticipated to be at approximately 45 feet bgs. No soil

sample will be collected within capillary fringe. Expected soil type: Silt.

Expected soil type: Sandy Gravel.

Tronox Facility - Henderson, Nevad																			
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Location Description and Characterized Area Rationale	Geo- technical Tests <sup>10.</sup>	Asbestos <sup>9.</sup> EPA/540/R- 97/028	Formaldehyde (EPA 8315A)	PCBs <sup>8.</sup> (EPA 1668)	Dioxins/ Furans <sup>7.</sup>	Radio- nuclides <sup>6.</sup>	SVOCs <sup>5.</sup> (EPA 8270C)	OCPs <sup>4.</sup> (8081A)	Wet Chemistry <sup>3.</sup>	VOCs <sup>2.</sup> (EPA 8260B)		Hex Cr (EPA 7199)	Metals (EPA 6020)	Perchlorate (EPA 314.0)	Sample Depths <sup>1.</sup> (ft, bgs)	Sample ID Number	Phase B Boring No.	LOU Number	Grid Location
d in Area I (O-4).	n most gr	southeaster	nd ending with the	ea 1 (H-3) a	st grid in A	estern mo	the northw	int is on	- Starting po	on Plate A	d location as shown	ed by gri	re organiz	Borings a					
Located as a downgradient boring to LOU 64 (Koch Materials Company Site)		Χ													0.0	SA55-0.0	SA55	64	0-4
as a step-out to LOU 35 (Truck Emptying/Dumping Site) to investigate for					X	X	X	Х	X	X	X	X	X	X	0.5	SA55-0.5		64	0-4
VOCs from potential offsite sources to the west, and for general Site coverage.						X	X	Hold	X	X	X	X	X	X	10	SA55-10		64	0-4
						X	X	Hold Hold	X	X	X	X	X	X	20 30	SA55-20 SA55-30		64 64	O-4 O-4
						X	X	X	X	X	X	X	X	X	35	SA55-35		64	0-4
Boring located to evaluate LOU 64 (Koch Materials Company Site).		Х					,								0.0	RSA04-0.0	RSAO4	64	0-4
				Χ	X	X	X	Х	Х	Х	Х	Χ	Χ	Χ	0.5	RSA04-0.5		64	0-4
				X		X	X	Hold	X	X	X	Χ	X	X	10	RSA04-10		64	0-4
				X		X	X	Hold	X	X	X	X	X	X	20	RSA04-20	4	64	0-4
				X		X	X	Hold X	X	X	X	X	X	X	30	RSA04-30	4	64 64	0-4
Boring located to evaluate soil stain in northern portion of LOU 64 (Koch		Х		Х		Х	λ	٨	Χ	Х	X	Х	Х	Х	37 0.0	RSA04-37 SA182-0.0	SA182	60, 64	O-4 O-4
Materials Company Site) and LOU 60 (Acid Drain System).		^			Х	X	X	Х	X	Х	X	Х	Х	X	0.0	SA182-0.5	3A102	60, 64	0-4
	Х					X	X	Hold	X	X	X	X	X	X	10	SA182-10	1	60, 64	0-4
						Х	Х	Hold	X	X	X	Х	Х	Х	20	SA182-20		60, 64	0-4
	X					X	Χ	Hold	X	Х	Х	Χ	Χ	Х	30	SA182-30		60, 64	0-4
						X	X	X	X	X	X	Χ	Χ	X	37	SA182-37		60, 64	0-4
Boring located to evaluate soil stain in northern portion of LOU 64 (Koch		X													0.0	SA183-0.0	SA183	64	0-4
Materials Company Site).					X	X	X	X	X	X	X	X	X	X	0.5	SA183-0.5		64	0-4
						X	X	Hold Hold	X	X	X	X	X	X	10 20	SA183-10		64 64	O-4 O-4
						X	X	Hold	X	X	X	X	X	X	30	SA183-20 SA183-30		64	0-4
						X	X	X	X	X	X	X	X	X	37	SA183-37		64	0-4
			U		u.			ı			U				-		66	r of Borings:	Numb
															) Samples <sup>11</sup> :	edure (SPLP	hing Proc	cipitate Leac	Synthetic Pr
Location Description and Characterized Area Rationale	Geo- technical Testing	Asbestos EPA/540/R- 97/028	Formal-dehyde Titrant (EPA 8315A)	PCBs (EPA 8082)	Dioxins/ Furans	Radio- nuclides	SVOCs (EPA 8270C)	OCPs (8081A)	Wet Chemistry	VOCs (EPA 8260B)	TPH- DRO/ORO (EPA 8015B)	Hex Cr (EPA 7199)	Metals (EPA 6020)	Perchlorate (EPA 314.0)	Sample Depths (ft, bgs)	Sample ID Number	Phase B Boring No.	LOU Number	Grid Location
Soil sample collected from the outlet of LOU 60 (Acid Drain System) to evaluate leaching potential Site-related analytes from Alluvium (Qal) soils. Expected soil type: Sand.	Х	X	Х			Х	Х		Х	Х	Х	Х	Х	Х	10	RSAJ3-10	RSAJ3	1, 32	J-3
Optional sample - only to be collected if soil type is different than at 10 ft bgs.;no sample will be collected within the capillary fringe. Contact between Qal & MCfg1 is approximately 38 feet b Groundwater is expected to occur at approximately 33 feet bgs. Expected soil type: Silt.	х	Х	X			х	х		x	х	x	Х	Х	х	DD* = depth (ft)	RSAJ3-DD	RSAJ3	1, 32	J-3
Soil sample collected from the northern portion of of LOU 1 (former Trade Effluent Settling Ponds LOUs 22 & 23 (Ponds WC-West & WC-East), and LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit) to evaluate leaching potential of Site-related analytes from Alluv (Qal) soils. Expected soil type: Gravelly Sand.	х	Х	х			Х	Х		Х	Х	х	X	Х	X	10	RSAI7-10	RSAI7	22, 23	I-7
Optional sample - only to be collected if soil type is different than at 10 ft bgs.;no sample will be collected within the capillary fringe. Contact between Qal & MCfg1 is approximately 27 feet b Groundwater is expected to occur at approximately 25 feet bgs. Expected soil type: Silt.		Х	х			Х	Х		х	Х	х	Х	Х	Х	DD* = depth (ft)	RSAI7-DD	RSAI7	22, 23	I-7
Soil sample collected below LOU 2 (Open Area South of Trade Effluent Settling Ponds) to evalual leaching potential of Site-related analytes. Expected soil type: Sand.	Х	Х	х			Х	Х		Х	Х	х	Х	Х	Х	10	RSAM3-10	RSAM3	2	M-3
Soil sample collected from below the northern part of LOU 2 (Open Area South of Trade Effluent Settling Ponds) to evaluate leaching potential of Site-related analytes from Muddy Creek Formati First Fine-Grained Facies (MCfg1) soils. Contact between Qal and MCfg1 is approximately 26 fe bgs. Groundwater anticipated to be at approximately 37 feet bgs. No soil sample will be collected within capillary fringe. Expected soil type: Silt.	X	Х	х			х	х		х	х	х	Х	Х	Х	30	RSAM3-30	RSAM3	2	M-3

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Χ

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O-2 35, 60 SA166 SA166-35 35 X X X X X X X X X X X X X X X X X	Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths <sup>1.</sup> (ft, bgs)	Perchlorate (EPA 314.0)	Metals (EPA 6020)	Hex Cr (EPA 7199)	TPH- DRO/ORO (EPA 8015B)	TPH-GRO (EPA 8015B)	VOCs <sup>2.</sup> (EPA 8260B)	Wet Chemistry <sup>3.</sup>	OCPs <sup>4.</sup> (8081A)	SVOCs <sup>5.</sup> (EPA 8270C)	Radio- nuclides <sup>6.</sup>	Dioxins/ Furans <sup>7.</sup>	PCBs <sup>8.</sup> (EPA 1668)	Formaldehyde (EPA 8315A)	Asbestos <sup>9.</sup> EPA/540/R- 97/028	Geo- technical Tests <sup>10.</sup>	Location Description and Characterized Area Rationale
C						Borings a	are organiz	zed by gri	d location	as shown	on Plate A	- Starting po	int is on	the northwe	estern mos	t grid in Ar	ea 1 (H-3) a	nd ending with the	e southeaster	n most gr	rid in Area I (O-4).
O-4   64   SA182   SA182-10   10   X   X   X   X   X   X   X   X   X	O-2	35, 60	SA166	SA166-35	35	Х	х	х	х		х	х		х	х			х	х	х	Emptying/Dumping Site) and LOU 60 (Acid Drain System) to evaluate leaching potential of Site- related analytes from Muddy Creek Formation - First Fine-Grained Facies (MCfg1) soils. Contact between Qal and MCfg1 is approximately 32 feet bgs. Groundwater anticipated to be at approximately 42 feet bgs. No soil sample will be collected within capillary fringe. Expected soil
O-4 64 SA182 SA182-30 30 X X X X X X X X X X X X X X X X X	0-4	64	SA182	SA182-10	10	х	х	Х	х		Х	Х		Х	Х			х	Х	Х	Soil sample collected from northeast portion of LOU 64 (Koch Materials Company Site) and LOU 6 (Acid Drain System) to evaluate leaching potential of Site-related analytes. Expected soil type: Gravelly Sand.
QA/QC Samples:         January         January	0-4	64	SA182	SA182-30	30	×	x	x	X		X	Х		х	X			х	x	х	Soil sample collected from below beneath the northeast portion of LOU 64 (Koch Materials Compa Site) and LOU 60 (Acid Drain System) to evaluate leaching potential of Site-related analytes from Muddy Creek Formation - First Fine-Grained Facies (MCfg1) soils. Contact between Qal and MC is approximately 20 feet bgs. Groundwater anticipated to be at approximately 40 feet bgs. No soil sample will be collected within capillary fringe. Expected soil type: Sandy Sitt.
QA/QC Samples:         January         January	N	of Commission			•	200	200	200	200	20	200	200	400	200	200		50	20	70	20	
Field Duplicates (10%)         30         30         30         29         3         30         30         14         29         30         7         5         3         8         3           Field Blanks         2         2         2         2         2         2         2         2         2         2         0         2         0         0           Equipment Rinsate Blanks         18         18         18         18         18         18         18         18         18         18         18         0	Number	of Samples:				298	298	298	288	30	298	298	132	288	298	66	50	22	78	22	-
Field Duplicates (10%)         30         30         30         29         3         30         30         14         29         30         7         5         3         8         3           Field Blanks         2         2         2         2         2         2         2         2         2         0         2         0         0           Equipment Rinsate Blanks         18         18         18         18         18         18         18         18         18         18         18         0			QA/QC Sa	imples:																	1
Equipment Rinsate Blanks         18         18         18         18         4         18         18         18         18         18         18         18         18         18         18         18         18         18         18         2         1         0         0           Trip Blank Samples         0					)	30	30	30	29	3	30	30	14	29	30	7	5	3	8	3	
Trip Blank Samples         0         0         0         18         0			Field Blar	ıks		2	2	2	2	2	2	2	2	2	2	2	0	2	0	0	
Matrix Spike (5%) 15 15 15 2 13 13 3 15 15 3 2 1 0 0					ks	18	18	18	18	4	18	18	8	18	18	18	2	1	0	0	
						Ů	U		·		U	U		-		•	U	0	0	U	
Matrix Spike Duplicate (5%)   15   15   15   15   2   13   13   3   15   15   3   2   1   0   0				_ , ,														1	0	U	
Total Sample Count: 378 378 378 367 61 374 374 162 367 378 99 61 30 86 25					5%)						10							1	0	U	

## Notes:

- Not applicable boring is not associated with a specific LOU but is located to evaluate soil for general area-wide coverage. n/a
- Χ Sample will be collected and analyzed.
- No sample collected under Phase B sampling program.
- Sample depth to be determined in the field where DD = sample depth (ft).
- TPH-DRO/ORO Total petroleum hydrocarbons Diesel-Range Organics/Oil-Range Organics.
  - If area is paved, samples will be collected at 0.5 feet below, or if an unpaved area is within a reasonable distance, the sample will be moved to the unpaved area.
  - Samples for VOC analysis will be preserved in the field using sodium bisulfate (or DI water) and methanol preservatives per EPA Method 5035.
  - Consists of wet chemistry parameters (including pH) listed on Table 1 of the Phase B Source Area Work Plan.
  - Organochlorine Pesticides (includes analysis for hexachlorobenzene).
  - Semi-volatile Organic Compounds
  - Radionuclides consists of alpha spec reporting for isotopic thorium and isotopic uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP).
  - Dioxins/furans will be analyzed by EPA Method 8290 for all samples. Screening reports will be provided for 90% of the samples and full data packages for 10% of the samples.
- 8. Polychlorinated biphenyls
- Soil samples for asbestos analyses will be collected from a depth of 0 to 2-inches bgs.
- 10. Geotechnical Tests consist of: moisture content (ASTM D-2216), grain size analysis (ASTM D-422 and C117-04), Soil Dry Bulk Density (ASTM D-854, Soil-Water Filled Porosity (ASTM D-2216); Vertical Hydraulic Conductivity (ASTM D-5084/USEPA 9100).
- SPLP samples will be analyzed by EPA method 1312 using two preparation methods: 1) with extraction fluid #2 (reagent water at pH 5.00±0.05), and 2) with extraction method #3 (reagent water); per NDEP.