

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo		RfDo		SFi		RfDi		V	CAS No.		Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		skin abs. soils		Residential Soil (mg/kg)	Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)					
7.0E-02	x	4.0E-02	i	3.5E-02	x	4.0E-02	r	y	108-60-1	Bis(2-chloroisopropyl)ether	2.0E-01	ca	7.4E+00	ca	1.9E-01	ca	2.7E-01	ca
4.6E+01	c			4.6E+01	c			y	542-88-1	Bis(chloromethyl)ether	6.8E-06	ca	2.0E-03	ca	1.4E-04	ca	2.4E-04	ca
7.0E-02	x	4.0E-02	i	3.5E-02	x	4.0E-02	r	y	108-60-1	Bis(2-chloro-1-methylethyl)ether	2.0E-01	ca	7.4E+00	ca	1.9E-01	ca	2.7E-01	ca
3.0E-03	c	2.0E-02	i	8.4E-03	c	2.0E-02	r	0.1	117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)	2.0E+00	ca	5.7E+02	ca	7.9E-01	ca	2.2E+01	ca
		5.0E-02	i			5.0E-02	r	0.1	80-05-7	Bisphenol A	3.4E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		2.0E-01	i			5.7E-03	h		7440-42-8	Boron	3.8E+02	nc	1.0E+05	max	2.1E+01	nc	7.3E+03	nc
						2.0E-04	h		7637-07-2	Boron trifluoride	4.1E+05	nc	1.3E+06	nc	7.3E-01	nc		
7.0E-01	i	4.0E-03	i	7.0E-01	r	4.0E-03	r	0.1	15541-45-4	Bromate	1.7E-02	ca	2.5E+00	ca	9.5E-03	ca	9.6E-02	ca
		2.0E-02	p			2.9E-03	p	y	108-86-1	Bromobenzene	2.8E+01	nc	9.2E+01	nc	1.0E+01	nc	2.0E+01	nc
1.3E-01	c	2.0E-02	i	1.3E-01	c	2.0E-02	r	y	75-27-4	Bromodichloromethane	1.2E-01	ca	8.7E-01	ca	5.1E-02	ca	8.5E-02	ca
7.9E-03	i	2.0E-02	i	3.9E-03	i	2.0E-02	r	0.1	75-25-2	Bromoform (tribromomethane)	1.7E+00	ca	2.2E+02	ca	1.7E+00	ca	8.5E+00	ca
		1.4E-03	i			1.4E-03	i	y	74-83-9	Bromomethane (Methyl bromide)	1.3E+00	nc	1.3E+01	nc	5.2E+00	nc	8.7E+00	nc
		5.0E-03	h			5.0E-03	r	0.1	2104-96-3	Bromophos	4.0E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc
		2.0E-02	i			2.0E-02	r	0.1	1689-84-5	Bromoxynil	1.2E+01	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
		2.0E-02	i			2.0E-02	r	0.1	1689-99-2	Bromoxynil octanoate	1.6E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
							y		106-99-0	1,3-Butadiene								
3.4E+00	c	5.7E-03	r	6.0E-01	c	5.7E-03	c	y	106-99-0	"CAL-Modified PRG"	1.0E-02	ca	2.2E-02	ca	1.1E-02	ca	1.0E-02	ca
		1.0E-01	i			2.6E-03	n	0.1	71-36-3	1-Butanol	7.0E+01	nc	6.1E+04	nc	9.5E+00	nc	3.7E+03	nc
		5.0E-02	i			5.0E-02	r	0.1	2008-41-5	Butylate	3.8E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		4.0E-02	n			4.0E-02	r	y	104-51-8	n-Butylbenzene	2.4E+02	sat	2.4E+02	sat	1.5E+02	nc	2.4E+02	nc
		4.0E-02	n			4.0E-02	r	y	135-9-88	sec-Butylbenzene	2.2E+02	sat	2.2E+02	sat	1.5E+02	nc	2.4E+02	nc
		4.0E-02	n			4.0E-02	r	y	98-06-6	tert-Butylbenzene	3.9E+02	sat	3.9E+02	sat	1.5E+02	nc	2.4E+02	nc
		2.0E-01	i			2.0E-01	r	0.1	85-68-7	Butyl benzyl phthalate	1.4E+01	ca	1.0E+05	max	7.3E+02	nc	7.3E+03	nc
		1.0E+00	i			1.0E+00	r	0.1	85-70-1	Butylphthalyl butylglycolate	7.5E+03	nc	1.0E+05	max	3.7E+03	nc	3.7E+04	nc
		5.0E-04	i	1.5E+01	c	5.7E-06	c	0.001	7440-43-9	Cadmium and compounds	5.3E+00	nc	5.0E+02	nc	4.4E-04	ca	1.8E+01	nc
		5.0E-01	i			5.0E-01	r	0.1	105-60-2	Caprolactam	1.2E+02	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc
1.5E-01	c	2.0E-03	i	1.5E-01	c	2.0E-03	r	0.1	2425-06-1	Captafol	1.1E+00	ca	1.1E+01	ca	4.4E-02	ca	4.5E-01	ca
2.3E-03	c	1.3E-01	i	2.3E-03	c	1.3E-01	r	0.1	133-06-2	Captan	3.4E+00	ca	7.5E+02	ca	2.9E+00	ca	2.9E+01	ca
		1.0E-01	i			1.1E-01	r	0.1	63-25-2	Carbaryl	3.8E+02	nc	6.2E+04	nc	4.0E+02	nc	3.7E+03	nc
2.0E-02	h			2.0E-02	r			0.1	86-74-8	Carbazole	1.1E+00	ca	8.6E+01	ca	3.3E-01	ca	3.4E+00	ca

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SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"									
								Soil (mg/kg)	Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)							
1.5E-01	c	5.0E-03	i		5.0E-03	r	0.1	1563-66-2	Carbofuran	1.1E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc	
		1.0E-01	i		2.3E-01	c	y	75-15-0	Carbon disulfide	1.9E+02	nc	7.2E+02	sat	8.3E+02	nc	1.1E+03	nc	
		7.0E-04	i	1.5E-01	c	1.1E-02	c	y	56-23-5	Carbon tetrachloride	5.3E-02	ca	2.0E-01	ca	4.4E-02	ca	7.4E-02	ca
		1.0E-02	i		1.0E-02	r	0.1	55285-14-8	Carbosulfan	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc	
		1.0E-01	i		1.0E-01	r	0.1	5234-68-4	Carboxin	3.2E+02	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc	
		1.5E-02	i		1.5E-02	r	0.1	133-90-4	Chloramben	3.1E+01	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc	
4.0E-01	h		4.0E-01	r		0.1	118-75-2	Chloranil	2.7E-02	ca	4.3E+00	ca	1.7E-02	ca	1.7E-01	ca		
3.5E-01	i	5.0E-04	i	3.5E-01	i	2.0E-04	i	0.04	12789-03-6	Chlordane (technical)								
		2.0E-02	i		2.0E-02	r	0.1	90982-32-4	Chlorimuron-ethyl	8.6E+01	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
		1.0E-01	i		5.7E-05	c		7782-50-5	Chlorine	1.4E+01	nc	8.1E+04	nc	2.1E-01	nc	3.7E+03	nc	
		3.0E-02	i		1.7E-04	c		10049-04-4	Chlorine dioxide	2.3E+03	nc	3.0E+04	nc	6.3E-01	nc	1.1E+03	nc	
		2.0E-03	h		2.0E-03	r	0.1	79-11-8	Chloroacetic acid	2.6E+00	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	
1.1E-01	c	8.6E-06	r		8.6E-06	i	y	532-27-4	2-Chloroacetophenone	3.3E-02	nc	1.1E-01	nc	3.1E-02	nc	5.2E-02	nc	
		4.0E-03	i		4.0E-03	r	0.1	106-47-8	4-Chloroaniline	3.1E-01	ca	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc	
		2.0E-02	i		2.9E-01	c	y	108-90-7	Chlorobenzene	9.9E+01	nc	6.3E+03	nc	1.0E+03	nc	5.4E+02	nc	
		2.0E-02	i	1.1E-01	c	2.0E-02	r	0.1	510-15-6	Chlorobenzilate	9.7E-02	ca	1.6E+01	ca	6.0E-02	ca	6.1E-01	ca
		2.0E-01	h		2.0E-01	r	0.1	74-11-3	p-Chlorobenzoic acid	1.0E+03	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc	
		2.0E-02	h		2.0E-02	r	0.1	98-56-6	4-Chlorobenzotrifluoride	1.4E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
2.9E-03	n	2.0E-02	h		2.0E-03	h	y	126-99-8	2-Chloro-1,3-butadiene	3.4E+00	nc	1.2E+01	nc	7.3E+00	nc	1.4E+01	nc	
		4.0E-01	h		4.0E-01	r	y	109-69-3	1-Chlorobutane	4.8E+02	sat	4.8E+02	sat	1.5E+03	nc	2.4E+03	nc	
		1.4E+01	r		1.4E+01	i	y	75-68-3	1-Chloro-1,1-difluoroethane (HCFC-142b)	3.4E+02	sat	3.4E+02	sat	5.2E+04	nc	8.7E+04	nc	
		1.4E+01	r		1.4E+01	i	y	75-45-6	Chlorodifluoromethane	3.4E+02	sat	3.4E+02	sat	5.1E+04	nc	8.5E+04	nc	
		4.0E-01	n	2.9E-03	r	8.6E+00	c	y	75-00-3	Chloroethane	1.1E+00	ca	6.5E+00	ca	2.3E+00	ca	3.8E+00	ca
						y	67-66-3	Chloroform										
3.1E-02	c	1.0E-02	i	1.9E-02	c	8.6E-02	c	y										
		2.6E-02	r		2.6E-02	i	y	74-87-3	"CAL-Modified PRG"	5.6E-01	ca	2.0E+00	ca	3.5E-01	ca	5.3E-01	ca	
								74-87-3	Chloromethane (methyl chloride)	2.3E-01	ca	1.6E+02	nc	9.5E+01	nc	1.6E+02	nc	
2.7E-01	c		2.7E-01	c		0.1	95-69-2	4-Chloro-2-methylaniline	2.0E-02	ca	6.4E+00	ca	2.5E-02	ca	2.5E-01	ca		
4.6E-01	h		4.6E-01	r		0.1	3165-93-3	4-Chloro-2-methylaniline hydrochloride	2.5E-02	ca	3.7E+00	ca	1.4E-02	ca	1.5E-01	ca		
		8.0E-02	i		8.0E-02	r	y	91-58-7	beta-Chloronaphthalene	5.8E+02	nc	2.3E+04	nc	2.9E+02	nc	4.9E+02	nc	
9.7E-03	p	1.0E-03	p	9.7E-03	r	2.0E-05	p	y	88-73-3	o-Chloronitrobenzene	9.9E-01	nc	4.5E+00	nc	7.3E-02	nc	1.5E-01	nc

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SFo		RfDo		SFi		RfDi		V skin	CAS No.		Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		O abs.		Residential	Industrial	Ambient Air	Tap Water					
								C	soils	Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)					
6.7E-03	p	1.0E-03	p	6.7E-03	r	1.7E-04	p	y	100-00-5	p-Chloronitrobenzene	1.8E+00	ca	3.7E+01	nc	6.2E-01	nc	1.2E+00	nc
		5.0E-03	i			5.0E-03	r	y	95-57-8	2-Chlorophenol	1.5E+01	nc	2.4E+02	nc	1.8E+01	nc	3.0E+01	nc
		2.9E-02	r			2.9E-02	h	y	75-29-6	2-Chloropropane	1.7E+02	nc	5.9E+02	nc	1.0E+02	nc	1.7E+02	nc
3.1E-03	c	1.5E-02	i	3.1E-03	c	1.5E-02	r	0.1	1897-45-6	Chlorothalonil	2.2E+00	ca	5.6E+02	ca	2.1E+00	ca	2.2E+01	ca
		2.0E-02	i			2.0E-02	r	y	95-49-8	o-Chlorotoluene	7.7E+01	nc	5.6E+02	nc	7.3E+01	nc	1.2E+02	nc
		2.0E-01	i			2.0E-01	r	0.1	101-21-3	Chlorpropham	1.1E+03	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc
		3.0E-03	i			3.0E-03	r	0.1	2921-88-2	Chlorpyrifos	2.4E+01	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
		1.0E-02	h			1.0E-02	r	0.1	5598-13-0	Chlorpyrifos-methyl	7.6E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc
		5.0E-02	i			5.0E-02	r	0.1	64902-72-3	Chlorsulfuron	2.7E+00	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		8.0E-04	h			8.0E-04	r	0.1	60238-56-4	Chlorthiophos	4.9E+01	nc	4.9E+02	nc	2.9E+00	nc	2.9E+01	nc
		4.2E+01	i							Total Chromium (1:6 ratio Cr VI:Cr III)+++	2.1E+02	ca	4.5E+02	ca	1.6E-04	ca		
1.5E+00	i							16065-83-1	Chromium III	1.0E+05	max	1.0E+05	max			5.5E+04	nc	
		3.0E-03	i	5.1E+02	c	5.7E-05	c		18540-29-9	Chromium VI+++	1.7E+01	ca	3.7E+01	ca	1.3E-05	ca	1.1E+02	nc
		2.0E-02	p	9.8E+00	p	5.7E-06	p		7440-48-4	Cobalt	1.6E+02	nc	1.9E+03	ca	6.8E-04	ca	7.3E+02	nc
		2.2E+00	i						8007-45-2	Coke Oven Emissions	4.0E+03	ca	8.7E+03	ca	3.1E-03	ca		
		4.0E-02	h						7440-50-8	Copper and compounds	2.7E+02	nc	4.1E+04	nc			1.5E+03	nc
		1.9E+00	h		1.9E+00	r		y	123-73-9	Crotonaldehyde	2.3E-03	ca	1.1E-02	ca	3.5E-03	ca	5.8E-03	ca
1.0E-01	i			1.1E-01	i	y	98-82-8	Cumene (isopropylbenzene)	3.2E+02	nc	2.0E+03	nc	4.0E+02	nc	6.6E+02	nc		
8.4E-01	h	2.0E-03	h	8.4E-01	r	2.0E-03	r	0.1	21725-46-2	Cyanazine	1.4E-02	ca	2.1E+00	ca	7.9E-03	ca	8.0E-02	ca
		2.0E-02	i					0.1	57-12-5	Cyanide (free)	2.4E+01	nc	1.2E+04	nc			7.3E+02	nc
		2.0E-02	i			2.6E-03	c	y	74-90-8	Cyanide (hydrogen)	7.6E+00	nc	1.1E+02	nc	9.4E+00	nc	1.8E+01	nc
		4.0E-02	i			4.0E-02	r	y	460-19-5	Cyanogen	1.3E+01	nc	4.3E+02	nc	1.5E+02	nc	2.4E+02	nc
		9.0E-02	i			9.0E-02	r	y	506-68-3	Cyanogen bromide	2.9E+02	nc	9.7E+02	nc	3.3E+02	nc	5.5E+02	nc
		5.0E-02	i			5.0E-02	r	y	506-77-4	Cyanogen chloride	1.8E+01	nc	5.4E+02	nc	1.8E+02	nc	3.0E+02	nc
		1.7E+00	r			1.7E+00	i	y	110-82-7	Cyclohexane	1.4E+02	sat	1.4E+02	sat	6.2E+03	nc	1.0E+04	nc
		5.0E+00	i			5.0E+00	r	0.1	108-94-1	Cyclohexanone	1.0E+05	max	1.0E+05	max	1.8E+04	nc	1.8E+05	nc
		2.0E-01	i			2.0E-01	r	0.1	108-91-8	Cyclohexylamine	3.7E+02	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc
		5.0E-03	i			5.0E-03	r	0.1	68085-85-8	Cyhalothrin/Karate	4.1E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc
		1.0E-02	i			1.0E-02	r	0.1	52315-07-8	Cypermethrin	8.2E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc
		7.5E-03	i			7.5E-03	r	0.1	66215-27-8	Cyromazine	4.6E+02	nc	4.6E+03	nc	2.7E+01	nc	2.7E+02	nc

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TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"							
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)						
		1.0E-02	i	1.0E-02	r	0.1	1861-32-1	Dacthal	7.7E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc
		3.0E-02	i	3.0E-02	r	0.1	75-99-0	Dalapon	2.5E+01	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
		2.5E-02	i	2.5E-02	r	0.1	39515-41-8	Danitol	2.1E+02	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc
2.4E-01	i		2.4E-01	r		0.03	72-54-8	DDD	1.1E-01	ca	1.0E+01	ca	2.8E-02	ca	2.8E-01	ca
3.4E-01	i		3.4E-01	r		0.03	72-55-9	DDE	7.9E-02	ca	7.0E+00	ca	2.0E-02	ca	2.0E-01	ca
3.4E-01	i	5.0E-04	i	3.4E-01	c	5.0E-04	r	0.03	50-29-3	DDT	8.0E-02	ca	7.0E+00	ca	2.0E-02	ca
6.1E-02	h	1.0E-02	i	1.0E-02	r	0.1	1163-19-5	Decabromodiphenyl ether	8.1E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc
		4.0E-05	i	4.0E-05	r	0.1	8065-48-3	Demeton	2.4E+00	nc	2.5E+01	nc	1.5E-01	nc	1.5E+00	nc
		6.1E-02	r		0.1	2303-16-4	Diallate	3.9E-02	ca	2.8E+01	ca	1.1E-01	ca	1.1E+00	ca	
		9.0E-04	h	9.0E-04	r	0.1	333-41-5	Diazinon	6.4E+00	nc	5.5E+02	nc	3.3E+00	nc	3.3E+01	nc
		2.0E-03	n	2.0E-03	r	y	132-64-9	Dibenzofuran	1.5E+01	nc	1.6E+03	nc	7.3E+00	nc	1.2E+01	nc
		1.0E-02	i	1.0E-02	r	0.1	106-37-6	1,4-Dibromobenzene	7.2E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc
9.4E-02	c	2.0E-02	i	9.4E-02	c	2.0E-02	r	y	124-48-1	Dibromochloromethane	1.1E-01	ca	2.3E+00	ca	7.1E-02	ca
7.0E+00	c	5.7E-05	r	7.0E+00	c	5.7E-05	i	y	96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1.2E-02	ca	7.6E-02	ca	9.5E-04	ca
7.0E+00	c	5.7E-05	r	7.0E+00	c	5.7E-05	i	y	96-12-8	"CAL-Modified PRG"	1.2E-02	ca	7.6E-02	ca	9.5E-04	ca
3.6E+00	c	9.0E-03	i	2.5E-01	c	2.3E-04	c	y	106-93-4	1,2-Dibromoethane (EDB)	4.5E-03	ca	3.5E-01	ca	2.7E-02	ca
		1.0E-01	i	1.0E-01	r	0.1	84-74-2	Dibutyl phthalate	8.0E+02	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc
		3.0E-02	i	3.0E-02	r	0.1	1918-00-9	Dicamba	1.7E+02	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
5.4E-03	c	9.0E-02	i	5.7E-02	h	y	95-50-1	1,2-Dichlorobenzene	6.0E+02	sat	6.0E+02	sat	2.1E+02	nc	3.7E+02	nc
		3.0E-02	n	3.0E-02	r	y	541-73-1	1,3-Dichlorobenzene	5.3E+02	nc	6.0E+02	sat	1.1E+02	nc	1.8E+02	nc
		3.0E-02	n	4.0E-02	c	2.3E-01	c	y	106-46-7	1,4-Dichlorobenzene	6.4E-01	ca	4.6E+00	ca	1.7E-01	ca
1.2E+00	c		1.2E+00	c		0.1	91-94-1	3,3-Dichlorobenzidine	4.5E-02	ca	1.4E+00	ca	5.5E-03	ca	5.6E-02	ca
		3.0E-02	n	3.0E-02	r	0.1	90-98-2	4,4'-Dichlorobenzophenone	2.4E+02	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
9.3E+00	r		9.3E+00	h		y	764-41-0	1,4-Dichloro-2-butene	7.8E-03	ca	1.8E-02	ca	7.1E-04	ca	1.2E-03	ca
5.7E-03	c	2.0E-01	i	5.7E-02	h	y	75-71-8	Dichlorodifluoromethane	8.3E+01	nc	3.1E+02	nc	2.1E+02	nc	3.9E+02	nc
					y		75-34-3	1,1-Dichloroethane								
		1.0E-01	h	5.7E-03	c	1.4E-01	h	y	"CAL-Modified PRG"	2.8E+00	ca	6.0E+00	ca	1.2E+00	ca	1.9E+00
4.7E-02	c	2.0E-02	n	7.2E-02	c	1.1E-01	c	y	107-06-2	1,2-Dichloroethane (EDC)	5.3E-02	ca	7.7E-01	ca	9.2E-02	ca
		5.0E-02	i	2.0E-02	c	y	75-35-4	1,1-Dichloroethylene	1.3E-02	ca	1.5E+02	nc	7.3E+01	nc	1.4E+02	nc
		1.0E-02	p	1.0E-02	r	y	156-59-2	1,2-Dichloroethylene (cis)	1.7E+01	nc	1.5E+02	nc	3.7E+01	nc	6.1E+01	nc

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"						
	2.0E-02	i	2.0E-02	r	y	156-60-5	1,2-Dichloroethylene (trans)	1.0E+01	nc	2.3E+02	nc	7.3E+01	nc	1.2E+02	nc
	3.0E-03	i	3.0E-03	r	0.1	120-83-2	2,4-Dichlorophenol	1.6E+01	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
	8.0E-03	i	8.0E-03	r	0.1	94-82-6	4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	5.3E+01	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc
	1.0E-02	i	1.0E-02	r	0.05	94-75-7	2,4-Dichlorophenoxyacetic Acid (2,4-D)	4.4E+01	nc	7.7E+03	nc	3.7E+01	nc	3.7E+02	nc
3.6E-02	c	1.1E-03	r	3.6E-02	c	1.1E-03	1,2-Dichloropropane	1.1E-01	ca	1.4E+00	ca	1.8E-01	ca	3.1E-01	ca
	2.0E-02	p	2.0E-02	r	y	142-28-9	1,3-Dichloropropane	1.0E+02	nc	3.6E+02	nc	7.3E+01	nc	1.2E+02	nc
9.1E-02	c	3.0E-02	i	5.5E-02	c	5.7E-03	1,3-Dichloropropene	4.9E-02	ca	4.7E-01	ca	1.2E-01	ca	1.8E-01	ca
	3.0E-03	i	3.0E-03	r	0.1	616-23-9	2,3-Dichloropropanol	6.6E-01	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
4.1E-01	c	5.0E-04	i	2.9E-01	r	1.4E-04	Dichlorvos	3.2E-02	ca	4.2E+00	ca	2.3E-02	ca	1.6E-01	ca
4.4E-01	x	4.4E-01	r		0.1	115-32-2	Dicofol	1.1E+00	ca	3.9E+00	ca	1.5E-02	ca	1.5E-01	ca
	3.0E-02	h	5.7E-05	x	y	77-73-6	Dicyclopentadiene	5.4E-01	nc	1.8E+00	nc	2.1E-01	nc	4.2E-01	nc
1.6E+01	i	5.0E-05	i	1.6E+01	c	5.0E-05	Dieldrin	1.6E-03	ca	1.1E-01	ca	4.1E-04	ca	4.2E-03	ca
	1.0E-02	p	5.7E-03	p	0.1	112-34-5	Diethylene glycol, monobutyl ether	9.3E-01	nc	6.2E+03	nc	2.1E+01	nc	3.7E+02	nc
	6.0E-02	p	8.6E-04	p	0.1	111-90-0	Diethylene glycol, monoethyl ether	1.7E+01	nc	3.7E+04	nc	3.1E+00	nc	2.2E+03	nc
	4.0E-04	p	4.0E-04	r	0.1	617-84-5	Diethylformamide	1.3E-01	nc	2.5E+02	nc	1.5E+00	nc	1.5E+01	nc
1.2E-03	i	6.0E-01	i	1.2E-03	r	6.0E-01	Di(2-ethylhexyl)adipate	2.3E+01	ca	1.4E+03	ca	5.5E+00	ca	5.6E+01	ca
	8.0E-01	i	8.0E-01	r	0.1	84-66-2	Diethyl phthalate	3.4E+03	nc	1.0E+05	max	2.9E+03	nc	2.9E+04	nc
3.5E+02	c	3.5E+02	c		0.1	56-53-1	Diethylstilbestrol	6.0E-06	ca	4.9E-03	ca	1.9E-05	ca	1.9E-04	ca
	8.0E-02	i	8.0E-02	r	0.1	43222-48-6	Difenzoquat (Avenge)	4.9E+03	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc
	2.0E-02	i	2.0E-02	r	0.1	35367-38-5	Diffubenzuron	1.4E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
	1.1E+01	r	1.1E+01	i	y	75-37-6	1,1-Difluoroethane	8.9E+05	nc	1.2E+07	nc	4.2E+04	nc	4.2E+05	nc
	2.0E-02	n	2.0E-02	r	0.1	28553-12-0	Diisononyl phthalate	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
			1.1E-01	p		108-20-3	Diisopropyl ether	2.3E+08	nc	7.4E+08	nc	4.0E+02	nc		
	8.0E-02	i	8.0E-02	r	0.1	1445-75-6	Diisopropyl methylphosphonate	8.8E+01	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc
	2.0E-02	i	2.0E-02	r	0.1	55290-64-7	Dimethipin	5.0E+00	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
	2.0E-04	i	2.0E-04	r	0.1	60-51-5	Dimethoate	1.0E+00	nc	1.2E+02	nc	7.3E-01	nc	7.3E+00	nc
1.4E-02	h	1.4E-02	r		0.1	119-90-4	3,3'-Dimethoxybenzidine	5.5E-01	ca	1.2E+02	ca	4.7E-01	ca	4.8E+00	ca
	5.7E-06	r	5.7E-06	x	y	124-40-3	Dimethylamine	6.7E-02	nc	2.5E-01	nc	2.1E-02	nc	3.5E-02	nc
	2.0E-03	i	2.0E-03	r	0.1	121-69-7	N-N-Dimethylaniline	9.2E+00	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
7.5E-01	h	7.5E-01	r		0.1	95-68-1	2,4-Dimethylaniline	1.5E-02	ca	2.3E+00	ca	8.8E-03	ca	9.0E-02	ca

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Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo	RfDo	SFi	RfDi	V	skin	CAS No.		Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)	(mg/kg-d)	1/(mg/kg-d)	(mg/kg-d)	O	abs.			Residential	Industrial	Ambient Air	Tap Water				
				C	soils		Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	Soil (mg/kg)	(ug/l)				
5.8E-01	h	5.8E-01	r		0.1	21436-96-4	2,4-Dimethylaniline hydrochloride	8.4E-01	ca	3.0E+00	ca	1.1E-02	ca	1.2E-01	ca
2.3E+00	p	2.3E+00	r		0.1	119-93-7	3,3'-Dimethylbenzidine	5.2E-03	ca	7.5E-01	ca	2.9E-03	ca	2.9E-02	ca
	1.0E-01	h	2.3E-02	c	0.1	68-12-2	N,N-Dimethylformamide	8.4E+00	nc	6.2E+04	nc	8.3E+01	nc	3.7E+03	nc
	1.0E-03	n	1.0E-03	r	0.1	122-09-8	Dimethylphenethylamine	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
	2.0E-02	i	2.0E-02	r	0.1	105-67-9	2,4-Dimethylphenol	7.6E+01	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
	6.0E-04	i	6.0E-04	r	0.1	576-26-1	2,6-Dimethylphenol	2.3E+00	nc	3.7E+02	nc	2.2E+00	nc	2.2E+01	nc
	1.0E-03	i	1.0E-03	r	0.1	95-65-8	3,4-Dimethylphenol	3.5E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
	1.0E+01	h	1.0E+01	r	0.1	131-11-3	Dimethyl phthalate	1.0E+05	max	1.0E+05	max	3.7E+04	nc	3.7E+05	nc
	1.0E-01	i	1.0E-01	r	0.1	120-61-6	Dimethyl terephthalate	5.6E+02	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc
	1.0E-04	p	1.0E-04	r	0.1	534-52-1	4,6-Dinitro-o-cresol	4.9E-01	nc	6.2E+01	nc	3.7E-01	nc	3.7E+00	nc
	2.0E-03	i	2.0E-03	r	0.1	131-89-5	4,6-Dinitro-o-cyclohexyl phenol	1.8E-02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
	1.0E-04	p	1.0E-04	r	0.1	528-29-0	1,2-Dinitrobenzene	2.0E-01	nc	6.2E+01	nc	3.7E-01	nc	3.7E+00	nc
	1.0E-04	i	1.0E-04	r	0.1	99-65-0	1,3-Dinitrobenzene	2.0E-01	nc	6.2E+01	nc	3.7E-01	nc	3.7E+00	nc
	1.0E-04	p	1.0E-04	r	0.1	100-25-4	1,4-Dinitrobenzene	1.9E-01	nc	6.2E+01	nc	3.7E-01	nc	3.7E+00	nc
	2.0E-03	i	2.0E-03	r	0.1	51-28-5	2,4-Dinitrophenol	3.7E+00	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
6.8E-01	i	6.8E-01	r		0.1	25321-14-6	Dinitrotoluene mixture	1.4E-02	ca	2.5E+00	ca	9.8E-03	ca	9.9E-02	ca
3.1E-01	c	2.0E-03	i	3.1E-01	c	121-14-2	2,4-Dinitrotoluene (also see Dinitrotoluene mixture)	1.4E-02	ca	5.6E+00	ca	2.1E-02	ca	2.2E-01	ca
	1.0E-03	h	1.0E-03	r	0.1	606-20-2	2,6-Dinitrotoluene (also see Dinitrotoluene mixture)	1.0E-02	ca	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
	1.0E-03	i	1.0E-03	r	0.1	88-85-7	Dinoseb	7.0E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
	4.0E-02	p	4.0E-02	r	0.1	117-84-0	di-n-Octyl phthalate	3.3E+02	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc
2.7E-02	c	2.7E-02	c	8.6E-01	c	123-91-1	1,4-Dioxane	6.0E-02	ca	6.4E+01	ca	2.5E-01	ca	2.5E+00	ca
1.3E+05	c	1.3E+05	c	1.1E-08	c	1746-01-6	Dioxin (2,3,7,8-TCDD)+++	1.8E-07	ca	1.8E-05	ca	5.1E-08	ca	5.2E-07	ca
	3.0E-02	i	3.0E-02	r	0.1	957-51-7	Diphenamid	1.0E+02	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
	2.5E-02	i	2.5E-02	r	0.1	122-39-4	Diphenylamine	1.7E+02	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc
	3.0E-04	p	3.0E-04	r	0.1	74-31-7	N,N-Diphenyl-1,4 benzenediamine (DPPD)	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc
8.7E-01	c	8.7E-01	c		0.1	122-66-7	1,2-Diphenylhydrazine	2.1E-02	ca	2.0E+00	ca	7.6E-03	ca	7.7E-02	ca
	3.0E-03	p	3.0E-03	r	0.1	127-63-9	Diphenyl sulfone	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
	2.2E-03	i	2.2E-03	r	0.1	85-00-7	Diquat	1.2E-02	nc	1.4E+03	nc	8.0E+00	nc	8.0E+01	nc
7.4E+00	c	7.4E+00	c		0.1	1937-37-7	Direct black 38	1.1E-03	ca	2.3E-01	ca	9.0E-04	ca	9.1E-03	ca
7.4E+00	c	7.4E+00	c		0.1	2602-46-2	Direct blue 6	6.6E-02	ca	2.3E-01	ca	9.0E-04	ca	9.1E-03	ca

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TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)										
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"									
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)								
6.7E+00	c		6.7E+00	c		0.1	16071-86-6	Direct brown 95	7.3E-02	ca	2.6E-01	ca	9.9E-04	ca	1.0E-02	ca		
			4.0E-05	i			0.1	298-04-4	Disulfoton	2.9E-01	nc	2.5E+01	nc	1.5E-01	nc	1.5E+00	nc	
			1.0E-02	i			0.1	505-29-3	1,4-Dithiane	1.7E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc	
			2.0E-03	i			0.1	330-54-1	Diuron	1.0E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	
			4.0E-03	i			0.1	2439-10-3	Dodine	1.8E+01	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc	
			1.0E-01	n				7429-91-6	Dysprosium	7.8E+03	nc	1.0E+05	max			3.7E+03	nc	
		6.0E-03	i			0.1	115-29-7	Endosulfan	4.1E+01	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc		
		2.0E-02	i			0.1	145-73-3	Endothall	5.5E+01	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		3.0E-04	i			0.1	72-20-8	Endrin	2.4E+00	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
						y	106-89-8	Epichlorohydrin										
8.0E-02	r	2.0E-03	h	8.0E-02	c	8.6E-04	c	y										
			5.7E-03	r			0.1	106-88-7	"CAL-Modified PRG"	6.9E-02	ca	2.9E+00	ca	8.3E-02	ca	1.4E-01	ca	
								1,2-Epoxybutane	3.5E+02	nc	3.5E+03	nc	2.1E+01	nc	2.1E+02	nc		
		2.5E-02	i			0.1	759-94-4	EPTC (S-Ethyl dipropylthiocarbamate)	1.5E+02	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		5.0E-03	i			0.1	16672-87-0	Ethephon (2-chloroethyl phosphonic acid)	1.7E+00	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		5.0E-04	i			0.1	563-12-2	Ethion	4.0E+00	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
		4.0E-01	h			0.1	110-80-5	2-Ethoxyethanol	1.1E+02	nc	1.0E+05	max	7.3E+01	nc	1.5E+04	nc		
		3.0E-01	h			0.1	111-15-9	2-Ethoxyethanol acetate	2.1E+02	nc	1.0E+05	max	3.1E+02	nc	1.1E+04	nc		
		9.0E-01	i				141-78-6	Ethyl acetate	7.5E+02	nc	3.7E+04	sat	3.3E+03	nc	5.5E+03	nc		
4.8E-02	h		4.8E-02	r		y	140-88-5	Ethyl acrylate	6.6E-02	ca	4.5E-01	ca	1.4E-01	ca	2.3E-01	ca		
1.1E-02	c	1.0E-01	i	8.7E-03	c	5.7E-01	c	y										
2.9E-03	n	4.0E-01	n	2.9E-03	r	8.6E+00	c	y										
		3.0E-01	h				0.1	109-78-4	Ethylbenzene	3.8E+00	ca	8.6E+00	ca	7.6E-01	ca	1.2E+00	ca	
		9.0E-02	p				0.1	107-15-3	Ethyl chloride	1.1E+00	ca	6.5E+00	ca	2.3E+00	ca	3.8E+00	ca	
		2.0E+00	i				0.1	107-21-1	Ethylene cyanohydrin	1.3E+00	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc	
		5.0E-01	i			0.1	111-76-2	Ethylene diamine	3.0E+01	nc	5.5E+04	nc	3.3E+02	nc	3.3E+03	nc		
3.1E-01	c		3.1E-01	c	8.6E-03	c	y											
4.5E-02	c	8.0E-05	i	4.5E-02	c	8.0E-05	r	0.1	96-45-7	Ethylene glycol	1.0E+05	max	1.0E+05	max	4.2E+02	nc	7.3E+04	nc
		2.0E-01	i					60-29-7	Ethylene glycol, monobutyl ether	4.3E+02	nc	1.0E+05	max	1.4E+04	nc	1.8E+04	nc	
		9.0E-02	h					97-63-2	Ethylene oxide	6.2E-04	ca	4.1E-01	ca	2.1E-02	ca	3.6E-02	ca	
		1.0E-05	i			0.1	2104-64-5	Ethylene thiourea (ETU)	3.6E-03	ca	3.8E+01	ca	1.5E-01	ca	1.5E+00	ca		
				</														

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)									
SFo	RfDo	SFi	RfDi	V	skin	CAS No.		Rural	"Direct Contact Exposure Pathways"								
1/(mg/kg-d)	(mg/kg-d)	1/(mg/kg-d)	(mg/kg-d)	O	abs.			Residential	Industrial	Ambient Air	Tap Water						
				C	soils		Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)							
	3.0E+00	i	3.0E+00	r	0.1	84-72-0	Ethylphthalyl ethyl glycolate	1.0E+05	max	1.0E+05	max	1.1E+04	nc	1.1E+05	nc		
	8.0E-03	i	8.0E-03	r	0.1	101200-48-0	Express	4.9E+02	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc		
	2.5E-04	i	2.5E-04	r	0.1	22224-92-6	Fenamiphos	1.5E+00	nc	1.5E+02	nc	9.1E-01	nc	9.1E+00	nc		
	1.3E-02	i	1.3E-02	r	0.1	2164-17-2	Fluometuron	5.2E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
	6.0E-02	i	3.7E-03	c	0.1	16984-48-8	Fluorine (soluble fluoride)					1.4E+01	nc	2.2E+03	nc		
	8.0E-02	i	8.0E-02	r	0.1	59756-60-4	Fluoridone	4.8E+02	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc		
3.5E-03	2.0E-02	i	2.0E-02	r	0.1	56425-91-3	Flurprimidol	1.3E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
	6.0E-02	i	6.0E-02	r	0.1	66332-96-5	Flutolanil	3.7E+03	nc	3.7E+04	nc	2.2E+02	nc	2.2E+03	nc		
	1.0E-02	i	1.0E-02	r	0.1	69409-94-5	Fluvalinate	8.2E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc		
	1.0E-01	i	3.5E-03	r	0.1	133-07-3	Folpet	5.4E+00	ca	4.9E+02	ca	1.9E+00	ca	1.9E+01	ca		
	1.9E-01	i	1.9E-01	r	0.1	72178-02-0	Fomesafen	9.1E-02	ca	9.1E+00	ca	3.5E-02	ca	3.5E-01	ca		
	2.0E-03	i	2.0E-03	r	0.1	944-22-9	Fonofos	1.5E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
3.8E+00	1.5E-01	i	2.1E-02	c	8.6E-04	c	0.1	50-00-0	Formaldehyde	6.2E+01	nc	9.1E+04	nc	3.2E-01	ca	5.5E+03	nc
	2.0E+00	h	8.6E-04	p	0.1	64-18-6	Formic Acid	1.0E+05	max	1.0E+05	max	3.1E+00	nc	7.3E+04	nc		
	3.0E+00	i	3.0E+00	r	0.1	39148-24-8	Fosetyl-al	1.0E+05	max	1.0E+05	max	1.1E+04	nc	1.1E+05	nc		
	3.0E+01	i	8.6E+00	h	y	76-13-1	Freon 113	5.6E+03	sat	5.6E+03	sat	3.1E+04	nc	5.9E+04	nc		
	1.0E-03	i	1.0E-03	r	y	110-00-9	Furan	9.4E-01	nc	8.5E+00	nc	3.7E+00	nc	6.1E+00	nc		
	h	3.8E+00	r	0.1	67-45-8	Furazolidone	5.8E-04	ca	4.5E-01	ca	1.7E-03	ca	1.8E-02	ca			
1.5E+00	3.0E-03	i	1.4E-02	h	0.1	98-01-1	Furfural	2.0E+01	nc	1.8E+03	nc	5.2E+01	nc	1.1E+02	nc		
	c	1.5E+00	c	0.1	531-82-8	Furium	3.2E-01	ca	1.1E+00	ca	4.4E-03	ca	4.5E-02	ca			
	3.0E-02	i	3.0E-02	r	0.1	60568-05-0	Furmecyclox	1.6E+01	ca	5.7E+01	ca	2.2E-01	ca	2.2E+00	ca		
	4.0E-04	i	4.0E-04	r	0.1	77182-82-2	Glufosinate-ammonium	2.4E+01	nc	2.5E+02	nc	1.5E+00	nc	1.5E+01	nc		
	4.0E-04	i	2.9E-04	h	0.1	765-34-4	Glycidaldehyde	4.8E-02	nc	2.5E+02	nc	1.0E+00	nc	1.5E+01	nc		
	1.0E-01	i	1.0E-01	r	0.1	1071-83-6	Glyphosate	5.9E-01	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc		
4.1E+00	5.0E-05	i	5.0E-05	r	0.1	69806-40-2	Haloxyfop-methyl	3.4E-01	nc	3.1E+01	nc	1.8E-01	nc	1.8E+00	nc		
	1.3E-02	i	1.3E-02	r	0.1	79277-27-3	Harmony	2.5E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
	c	5.0E-04	i	4.1E+00	c	5.0E-04	Heptachlor	5.5E-03	ca	4.2E-01	ca	1.6E-03	ca	1.6E-02	ca		
	5.5E+00	c	1.3E-05	i	5.5E+00	c	1.3E-05	Heptachlor epoxide	3.0E-03	ca	3.1E-01	ca	1.2E-03	ca	1.2E-02	ca	
	2.0E-03	i	2.0E-03	r	0.1	87-82-1	Hexabromobenzene	1.6E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
	1.8E+00	c	8.0E-04	i	1.8E+00	c	8.0E-04	Hexachlorobenzene	1.7E-02	ca	9.6E-01	ca	3.7E-03	ca	3.7E-02	ca	

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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo		RfDo	SFi	RfDi		V	skin				Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)		(mg/kg-d)	1/(mg/kg-d)	(mg/kg-d)		O	abs.	CAS No.		Residential	Industrial	Ambient Air	Tap Water					
						C	soils			Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)					
7.8E-02	i	3.0E-04	n	7.8E-02	i	3.0E-04	r	0.1	87-68-3	Hexachlorobutadiene	3.3E-01	ca	2.2E+01	ca	8.5E-02	ca	8.6E-01	ca
2.7E+00	c	5.0E-04	n	2.7E+00	c	5.0E-04	r	0.04	319-84-6	HCH (alpha)	3.8E-03	ca	8.4E-01	ca	2.5E-03	ca	2.5E-02	ca
1.5E+00	c	2.0E-04	n	1.5E+00	c	2.0E-04	r	0.04	319-85-7	HCH (beta)	1.4E-02	ca	1.5E+00	ca	4.4E-03	ca	4.5E-02	ca
1.1E+00	c	3.0E-04	i	1.1E+00	c	3.0E-04	r	0.04	58-89-9	HCH (gamma) Lindane	1.7E-02	ca	2.1E+00	ca	6.0E-03	ca	6.1E-02	ca
4.0E+00	c			4.0E+00	c			0.04	608-73-1	HCH-technical	1.3E-02	ca	5.7E-01	ca	1.7E-03	ca	1.7E-02	ca
		6.0E-03	i			5.7E-05	i	0.1	77-47-4	Hexachlorocyclopentadiene	4.4E+01	nc	3.7E+03	nc	2.1E-01	nc	2.2E+02	nc
3.9E-02	c	1.0E-03	i	3.9E-02	c	1.0E-03	r	0.1	67-72-1	Hexachloroethane	1.6E+00	ca	4.4E+01	ca	1.7E-01	ca	1.7E+00	ca
		3.0E-04	i			3.0E-04	r	0.1	70-30-4	Hexachlorophene	2.5E+00	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc
1.1E-01	i	3.0E-03	i	1.1E-01	r	3.0E-03	r	0.1	121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine	1.8E-01	ca	1.6E+01	ca	6.0E-02	ca	6.1E-01	ca
		2.9E-06	r			2.9E-06	i	0.1	822-06-0	1,6-Hexamethylene diisocyanate	1.7E-01	nc	1.8E+00	nc	1.0E-02	nc	1.0E-01	nc
		1.1E+01	p			2.0E+00	c	y	110-54-3	n-Hexane	1.1E+02	sat	1.1E+02	sat	7.3E+03	nc	1.4E+04	nc
		3.3E-02	i			3.3E-02	r	0.1	51235-04-2	Hexazinone	3.0E-02	nc	2.0E+04	nc	1.2E+02	nc	1.2E+03	nc
		5.0E-02	i			5.0E-02	r	0.1	2691-41-0	HMX	3.3E+01	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
3.0E+00	i			1.7E+01	c	5.7E-05	c	0.1	302-01-2	Hydrazine, hydrazine sulfate	2.0E-05	ca	5.7E-01	ca	3.9E-04	ca	2.2E-02	ca
3.0E+00	n			1.7E+01	n			0.1	60-34-4	Hydrazine, monomethyl	7.9E-05	ca	5.7E-01	ca	3.9E-04	ca	2.2E-02	ca
3.0E+00	n			1.7E+01	n			0.1	57-14-7	Hydrazine, dimethyl	6.7E-04	ca	5.7E-01	ca	3.9E-04	ca	2.2E-02	ca
						2.6E-03	c		7647-01-0	Hydrogen chloride	5.3E+06	nc	1.7E+07	nc	9.4E+00	nc		
		2.0E-02	i			2.6E-03	c	y	74-90-8	Hydrogen cyanide	7.6E+00	nc	1.1E+02	nc	9.4E+00	nc	1.8E+01	nc
		3.0E-03	i			2.9E-03	c		7783-06-4	Hydrogen sulfide	3.1E+00	nc	3.1E+03	nc	1.0E+01	nc	1.1E+02	nc
5.6E-02	p	4.0E-02	p	5.6E-02	r	4.0E-02	r	0.1	123-31-9	p-Hydroquinone	3.4E-02	ca	3.1E+01	ca	1.2E-01	ca	1.2E+00	ca
		1.3E-02	i			1.3E-02	r	0.1	35554-44-0	Imazalil	9.7E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc
		2.5E-01	i			2.5E-01	r	0.1	81335-37-7	Imazaquin	6.6E+02	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc
		4.0E-02	i			4.0E-02	r	0.1	36734-19-7	Iprodione	2.3E+02	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc
		3.0E-01	n						7439-89-6	Iron	2.6E+03	nc	1.0E+05	max			1.1E+04	nc
		3.0E-01	i			3.0E-01	r	y	78-83-1	Isobutanol	2.6E+02	nc	4.0E+04	sat	1.1E+03	nc	1.8E+03	nc
9.5E-04	i	2.0E-01	i	9.5E-04	r	5.7E-01	c	0.1	78-59-1	Isophorone	7.3E+00	ca	1.8E+03	ca	7.0E+00	ca	7.1E+01	ca
		1.5E-02	i			1.5E-02	r	0.1	33820-53-0	Isopropalin	1.2E+02	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc
		1.0E-01	i			1.1E-01	r	0.1	1832-54-8	Isopropyl methyl phosphonic acid	4.4E+01	nc	6.2E+04	nc	4.0E+02	nc	3.7E+03	nc
		5.0E-02	i			5.0E-02	r	0.1	82558-50-7	Isoxaben	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
1.6E+01	c	2.0E-04	p	1.6E+01	c	2.0E-04	r	0.1	143-50-0	Kepone	3.0E-02	ca	1.1E-01	ca	4.1E-04	ca	4.2E-03	ca

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TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways" Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)				
8.5E-03	2.0E-03	i	2.0E-03	r	0.1	77501-63-4 7439-92-1	Lactofen Lead+++	1.6E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
							"CAL-Modified PRG"+++			8.0E+02	nc	NOTE THAT THERE IS NO CAL-Modified INDUSTRIAL VALUE, THIS IS THE REGION 9 VALUE			
	1.0E-07	i			0.1	78-00-2	Lead (tetraethyl)	4.0E-04	nc	6.2E-02	nc			3.7E-03	nc
	2.0E-03	i	2.0E-03	r	0.1	330-55-2	Linuron	1.3E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
	2.0E-02	x				7439-93-2	Lithium	1.6E+03	nc	2.0E+04	nc			7.3E+02	nc
6.0E-02	2.0E-01	i	2.0E-01	r	0.1	83055-99-6	Londax	5.0E+02	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc
	2.0E-02	i	2.0E-02	r	0.1	121-75-5	Malathion	1.1E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
	1.0E-01	i	2.0E-04	c	0.1	108-31-6	Maleic anhydride	3.1E+01	nc	5.9E+04	nc	7.3E-01	nc	3.7E+03	nc
	5.0E-01	i	5.0E-01	r y		123-33-1	Maleic hydrazide	8.8E+01	nc	2.4E+03	sat	1.8E+03	nc	3.0E+03	nc
	1.0E-04	p	1.0E-04	r	0.1	109-77-3	Malononitrile	3.3E-02	nc	6.2E+01	nc	3.7E-01	nc	3.7E+00	nc
	3.0E-02	h	3.0E-02	r	0.1	8018-01-7	Mancozeb	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
2.9E-02	5.0E-03	i	6.0E-02	r	0.1	12427-38-2	Maneb	1.6E+00	nc	2.9E+01	ca	1.1E-01	ca	1.1E+00	ca
	2.4E-02	i	5.7E-05	c		7439-96-5	Manganese and compounds+++	6.9E+02	nc	2.3E+04	nc	2.1E-01	nc	8.8E+02	nc
	9.0E-05	h	9.0E-05	r	0.1	950-10-7	Mephosfolan	9.8E-02	nc	5.5E+01	nc	3.3E-01	nc	3.3E+00	nc
	3.0E-02	i	3.0E-02	r	0.1	24307-26-4	Mepiquat chloride	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
	1.0E-01	n	2.9E-02	r	0.1	149-30-4	2-Mercaptobenzothiazole	1.7E+01	ca	5.9E+01	ca	2.3E-01	ca	2.3E+00	ca
1.0E-04	3.0E-04	i	2.6E-05	c		7487-94-7	Mercury and compounds	2.3E+01	nc	3.1E+02	nc	9.4E-02	nc	1.1E+01	nc
			8.6E-05	i		7439-97-6	Mercury (elemental)	1.8E+05	nc	5.8E+05	nc	3.1E-01	nc		
	1.0E-04	i			0.1	22967-92-6	Mercury (methyl)	6.1E+00	nc	6.2E+01	nc			3.7E+00	nc
	3.0E-05	i	3.0E-05	r	0.1	150-50-5	Merphos	2.5E-01	nc	1.8E+01	nc	1.1E-01	nc	1.1E+00	nc
	3.0E-05	i	3.0E-05	r	0.1	78-48-8	Merphos oxide	2.4E-01	nc	1.8E+01	nc	1.1E-01	nc	1.1E+00	nc
	6.0E-02	i	6.0E-02	r	0.1	57837-19-1	Metalaxyl	1.3E+02	nc	3.7E+04	nc	2.2E+02	nc	2.2E+03	nc
	1.0E-04	i	2.0E-04	h y		126-98-7	Methacrylonitrile	6.0E-02	nc	8.4E+00	nc	7.3E-01	nc	1.0E+00	nc

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)									
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"								
								Soil (mg/kg)	Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)						
	5.0E-05	i	5.0E-05	r	0.1	10265-92-6	Methamidophos	6.6E-03	nc	3.1E+01	nc	1.8E-01	nc	1.8E+00	nc		
	5.0E-01	i	1.1E+00	c	0.1	67-56-1	Methanol	5.7E+01	nc	1.0E+05	max	4.2E+03	nc	1.8E+04	nc		
	1.0E-03	i	1.0E-03	r	0.1	950-37-8	Methidathion	4.1E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc		
	2.5E-02	i	2.5E-02	r	y	16752-77-5	Methomyl	1.2E+01	nc	1.5E+02	nc	9.1E+01	nc	1.5E+02	nc		
	5.0E-03	i	5.0E-03	r	0.1	72-43-5	Methoxychlor	3.8E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
	1.0E-03	h	1.7E-02	c	0.1	109-86-4	2-Methoxyethanol	3.4E-01	nc	6.2E+02	nc	6.3E+01	nc	3.7E+01	nc		
4.9E-02	2.0E-03	h	2.6E-02	c	0.1	110-49-6	2-Methoxyethanol acetate	7.8E-01	nc	1.2E+03	nc	9.4E+01	nc	7.3E+01	nc		
		4.9E-02	c		0.1	99-59-2	2-Methoxy-5-nitroaniline	1.2E-01	ca	3.5E+01	ca	1.4E-01	ca	1.4E+00	ca		
	1.0E+00	h	1.0E+00	r	y	79-20-9	Methyl acetate	3.8E+02	nc	9.2E+04	nc	3.7E+03	nc	6.1E+03	nc		
	3.0E-02	h	3.0E-02	r	y	96-33-3	Methyl acrylate	1.7E+01	nc	2.3E+02	nc	1.1E+02	nc	1.8E+02	nc		
	1.8E-01	c	1.8E-01	c		0.1	95-53-4	2-Methylaniline (o-toluidine)	1.9E-02	ca	9.6E+00	ca	3.7E-02	ca	3.7E-01	ca	
	1.3E-01	c	1.3E-01	c		0.1	636-21-5	2-Methylaniline hydrochloride	5.2E-03	ca	1.3E+01	ca	5.1E-02	ca	5.2E-01	ca	
1.6E+00	5.0E-04	i	5.0E-04	r	0.1	94-74-6	2-Methyl-4-chlorophenoxyacetic acid	1.9E+00	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
	1.0E-02	i	1.0E-02	r	0.1	94-81-5	4-(2-Methyl-4-chlorophenoxy) butyric acid	6.7E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc		
	1.0E-03	i	1.0E-03	r	0.1	93-65-2	2-(2-Methyl-4-chlorophenoxy) propionic acid	4.6E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc		
	1.0E-03	i	1.0E-03	r	0.1	16484-77-8	2-(2-Methyl-1,4-chlorophenoxy) propionic acid	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc		
	8.6E-01	r	8.6E-01	h	y	108-87-2	Methylcyclohexane	2.6E+03	nc	8.7E+03	nc	3.1E+03	nc	5.2E+03	nc		
	c	1.6E+00	c	5.7E-03	c	0.1	101-77-9	4,4'-Methylenebisbenzeneamine	2.4E-02	ca	1.1E+00	ca	4.1E-03	ca	4.2E-02	ca	
4.6E-02	7.0E-04	h	1.5E+00	c	7.0E-04	r	0.1	101-14-4	4,4'-Methylene bis(2-chloroaniline)	1.3E-01	ca	1.1E+00	ca	4.4E-03	ca	4.5E-02	ca
		4.6E-02	r			0.1	101-61-1	4,4'-Methylene bis(N,N'-dimethyl)aniline	5.6E-01	ca	3.7E+01	ca	1.4E-01	ca	1.5E+00	ca	
	1.0E-02	h	1.0E-02	r	y	74-95-3	Methylene bromide	1.2E+01	nc	2.3E+02	nc	3.7E+01	nc	6.1E+01	nc		
	6.0E-02	i	3.5E-03	c	1.1E-01	c	y	75-09-2	Methylene chloride	5.3E-01	ca	9.7E+00	ca	1.9E+00	ca	2.1E+00	ca
	1.7E-04	r	2.0E-04	c	0.1	101-68-8	4,4'-Methylene diphenyl diisocyanate	1.0E+01	nc	1.0E+02	nc	7.3E-01	nc	6.2E+00	nc		
	4.0E-03	i			0.1	91-57-6	2-Methylnapthalene	2.9E+01	nc	2.5E+03	nc			1.5E+02	nc		
3.3E-02	6.0E-01	i	1.4E+00	i	y	78-93-3	Methyl ethyl ketone (2-Butanone)	2.6E+02	nc	1.1E+05	nc	5.1E+03	nc	7.0E+03	nc		
	8.0E-02	h	8.6E-01	i	y	108-10-1	Methyl isobutyl ketone	1.1E+02	nc	4.7E+04	nc	3.1E+03	nc	2.0E+03	nc		
	5.7E-04	r	5.7E-04	n	0.1	74-93-1	Methyl Mercaptan	3.5E+01	nc	3.5E+02	nc	2.1E+00	nc	2.1E+01	nc		
	1.4E+00	i	2.0E-01	i	y	80-62-6	Methyl methacrylate	1.1E+03	nc	2.7E+03	sat	7.3E+02	nc	1.4E+03	nc		
	h	3.3E-02	r		0.1	99-55-8	2-Methyl-5-nitroaniline	2.8E-01	ca	5.2E+01	ca	2.0E-01	ca	2.0E+00	ca		
	2.5E-04	i	2.5E-04	r	0.1	298-00-0	Methyl parathion	6.8E-01	nc	1.5E+02	nc	9.1E-01	nc	9.1E+00	nc		

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 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
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TOXICITY VALUES								CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)									
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.	Rural Residential Soil (mg/kg)		"Direct Contact Exposure Pathways"									
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)								
	5.0E-02	i		5.0E-02	r	0.1	95-48-7	2-Methylphenol	1.3E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
	5.0E-02	i		5.0E-02	r	0.1	108-39-4	3-Methylphenol	1.5E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
	5.0E-03	h		5.0E-03	r	0.1	106-44-5	4-Methylphenol	1.3E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
	2.0E-02	p		2.0E-02	r	0.1	993-13-5	Methyl phosphonic acid	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
	6.0E-03	h		1.1E-02	h	y	25013-15-4	Methyl styrene (mixture)	3.2E+01	nc	5.4E+02	nc	4.2E+01	nc	6.0E+01	nc		
	7.0E-02	h		7.0E-02	r	y	98-83-9	Methyl styrene (alpha)	6.8E+02	sat	6.8E+02	sat	2.6E+02	nc	4.3E+02	nc		
1.8E-03	c	8.6E-01	r	9.1E-04	c	2.3E+00	c	y	1634-04-4	Methyl tertbutyl ether (MTBE)	1.6E+00	ca	7.0E+01	ca	7.3E+00	ca	1.0E+01	ca
	1.5E-01	i		1.5E-01	r	0.1	51218-45-2	Metolacior (Dual)	8.9E+02	nc	9.2E+04	nc	5.5E+02	nc	5.5E+03	nc		
	2.5E-02	i		2.5E-02	r	0.1	21087-64-9	Metribuzin	5.7E+01	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
	2.0E-04	i	1.8E+01	c	2.0E-04	r	0.1	2385-85-5	Mirex	1.0E-02	ca	9.6E-02	ca	3.7E-04	ca	3.7E-03	ca	
	2.0E-03	i		2.0E-03	r	0.1	2212-67-1	Molinate	1.3E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
	5.0E-03	i				7439-98-7	Molybdenum	3.4E+01	nc	5.1E+03	nc			1.8E+02	nc			
	1.0E-01	i		1.0E-01	r	0.1	10599-90-3	Monochloramine	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc		
	2.0E-03	i		2.0E-03	r	0.1	300-76-5	Naled	1.0E+01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
	1.0E-01	i		1.0E-01	r	0.1	15299-99-7	Napropamide	7.1E+01	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc		
	2.0E-02	i	9.1E-01	c	1.4E-05	c	7440-02-0	Nickel (soluble salts)	1.4E+02	nc	1.7E+04	nc	7.3E-03	ca	7.3E+02	nc		
								Nickel refinery dust										
1.7E+00	c		1.7E+00	i		12035-72-2	Nickel subsulfide	3.8E-01	ca	1.7E+00	ca	3.9E-03	ca	4.0E-02	ca			
	3.0E-03	p		3.0E-05	p	0.1	88-74-4	2-Nitroaniline	7.5E+00	nc	1.8E+03	nc	1.1E-01	nc	1.1E+02	nc		
	3.0E-04	p	2.1E-02	r	3.0E-04	p	0.1	99-09-2	3-Nitroaniline	1.8E+01	nc	8.2E+01	ca	3.2E-01	ca	3.2E+00	ca	
	3.0E-03	p	2.1E-02	r	1.0E-03	p	0.1	100-01-6	4-Nitroaniline	2.3E+01	ca	8.2E+01	ca	3.2E-01	ca	3.2E+00	ca	
	5.0E-04	i		5.7E-04	h	y	98-95-3	Nitrobenzene	1.2E+00	nc	1.0E+02	nc	2.1E+00	nc	3.4E+00	nc		
	7.0E-02	h		7.0E-02	r	0.1	67-20-9	Nitrofurantoin	1.2E+01	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
1.3E+00	c		1.3E+00	c		0.1	59-87-0	Nitrofurazone	8.3E-04	ca	1.3E+00	ca	5.1E-03	ca	5.2E-02	ca		
1.4E-02	n		1.4E-02	r		0.1	55-63-0	Nitroglycerin	3.5E+01	ca	1.2E+02	ca	4.7E-01	ca	4.8E+00	ca		
	1.0E-01	i		1.0E-01	r	0.1	556-88-7	Nitroguanidine	9.8E+00	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc		
	5.7E-03	r	9.4E+00	h	5.7E-03	i	y	79-46-9	2-Nitropropane	2.0E-04	ca	3.0E-01	ca	7.1E-04	ca	7.2E-03	ca	
		c	1.1E+01	c		y	924-16-3	N-Nitrosodi-n-butylamine	1.4E-03	ca	2.9E-02	ca	6.0E-04	ca	1.0E-03	ca		
		i	2.8E+00	r		0.1	1116-54-7	N-Nitrosodiethanolamine	4.1E-05	ca	6.2E-01	ca	2.4E-03	ca	2.4E-02	ca		
		c	3.6E+01	c		0.1	55-18-5	N-Nitrosodiethylamine	1.2E-05	ca	4.8E-02	ca	1.8E-04	ca	1.9E-03	ca		

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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo		RfDo		SFi		RfDi		V	CAS No.		Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		O		Residential	Industrial	Ambient Air	Tap Water					
								C		Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)					
1.6E+01	c	8.0E-06	p	1.6E+01	c	8.0E-06	r	0.1	62-75-9	N-Nitrosodimethylamine	8.7E-06	ca	1.1E-01	ca	4.1E-04	ca	4.2E-03	ca
9.0E-03	c	2.0E-02	p	9.0E-03	c	2.0E-02	r	0.1	86-30-6	N-Nitrosodiphenylamine	3.7E+00	ca	1.9E+02	ca	7.4E-01	ca	7.5E+00	ca
7.0E+00	i			7.0E+00	r			0.1	621-64-7	N-Nitroso di-n-propylamine	7.3E-04	ca	2.5E-01	ca	9.5E-04	ca	9.6E-03	ca
2.2E+01	i			2.2E+01	r			0.1	10595-95-6	N-Nitroso-N-methylethylamine	4.5E-05	ca	7.8E-02	ca	3.0E-04	ca	3.1E-03	ca
2.1E+00	i			2.1E+00	c			0.1	930-55-2	N-Nitrosopyrrolidine	1.1E-04	ca	8.2E-01	ca	3.2E-03	ca	3.2E-02	ca
		2.0E-02	p			2.0E-02	r	y	99-08-1	m-Nitrotoluene	7.8E+01	nc	1.0E+03	sat	7.3E+01	nc	1.2E+02	nc
2.3E-01	p	1.0E-02	h	2.3E-01	r	1.0E-02	r	y	88-72-2	o-Nitrotoluene	5.0E-02	ca	2.2E+00	ca	2.9E-02	ca	4.8E-02	ca
1.7E-02	p	1.0E-02	p	1.7E-02	r	1.0E-02	r	y	99-99-0	p-Nitrotoluene	7.2E-01	ca	3.0E+01	ca	3.9E-01	ca	6.5E-01	ca
		4.0E-02	i			4.0E-02	r	0.1	27314-13-2	Norflurazon	1.5E+02	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc
		7.0E-04	i			7.0E-04	r	0.1	85509-19-9	NuStar	4.3E+01	nc	4.3E+02	nc	2.6E+00	nc	2.6E+01	nc
		3.0E-03	i			3.0E-03	r	0.1	32536-52-0	Octabromodiphenyl ether	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
		2.0E-03	h			2.0E-03	r	0.1	152-16-9	Octamethylpyrophosphoramide	3.2E-01	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
		5.0E-02	i			5.0E-02	r	0.1	19044-88-3	Oryzalin	2.5E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		5.0E-03	i			5.0E-03	r	0.1	19666-30-9	Oxadiazon	4.0E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc
		2.5E-02	i			2.5E-02	r	0.1	23135-22-0	Oxamyl	4.2E+00	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc
		3.0E-03	i			3.0E-03	r	0.1	42874-03-3	Oxyfluorfen	2.4E+01	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc
		1.3E-02	i			1.3E-02	r	0.1	76738-62-0	Paclobutrazol	7.9E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc
		4.5E-03	i			4.5E-03	r	0.1	4685-14-7	Paraquat	2.7E+02	nc	2.8E+03	nc	1.6E+01	nc	1.6E+02	nc
		6.0E-03	h			6.0E-03	r	0.1	56-38-2	Parathion	4.2E+01	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc
		5.0E-02	h			5.0E-02	r	0.1	1114-71-2	Pebulate	3.6E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		4.0E-02	i			4.0E-02	r	0.1	40487-42-1	Pendimethalin	3.2E+02	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc
2.3E-02	h			2.3E-02	r			0.1	87-84-3	Pentabromo-6-chloro cyclohexane	1.1E+00	ca	7.5E+01	ca	2.9E-01	ca	2.9E+00	ca
		2.0E-03	i			2.0E-03	r	0.1	32534-81-9	Pentabromodiphenyl ether	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc
		8.0E-04	i			8.0E-04	r	0.1	608-93-5	Pentachlorobenzene	6.4E+00	nc	4.9E+02	nc	2.9E+00	nc	2.9E+01	nc
2.6E-01	h	3.0E-03	i	2.6E-01	r	3.0E-03	r	0.1	82-68-8	Pentachloronitrobenzene	9.5E-02	ca	6.6E+00	ca	2.6E-02	ca	2.6E-01	ca
8.1E-02	c	3.0E-02	i	1.8E-02	c	3.0E-02	r	0.25	87-86-5	Pentachlorophenol	2.3E-01	ca	1.3E+01	ca	3.7E-01	ca	8.3E-01	ca
		1.0E-04	n						7601-90-3	Perchlorate	7.8E+00	nc	1.0E+02	nc			3.7E+00	nc
		5.0E-02	i			5.0E-02	r	0.1	52645-53-1	Permethrin	3.3E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		2.5E-01	i			2.5E-01	r	0.1	13684-63-4	Phenmedipham	1.4E+01	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc
		3.0E-01	i			5.7E-02	c	0.1	108-95-2	Phenol	5.5E+02	nc	1.0E+05	max	2.1E+02	nc	1.1E+04	nc

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES								CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)									
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O C	skin abs. soils	CAS No.	Rural Residential Soil (mg/kg)		"Direct Contact Exposure Pathways"									
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)								
4.7E-02	h	2.0E-03	n	2.0E-03	r	0.1	92-84-2	Phenothiazine	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		6.0E-03	i	6.0E-03	r	0.1	108-45-2	m-Phenylenediamine	7.0E-01	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc		
		4.7E-02	r			0.1	95-54-5	o-Phenylenediamine	3.5E-02	ca	3.7E+01	ca	1.4E-01	ca	1.4E+00	ca		
		1.9E-01	h	1.9E-01	r	0.1	106-50-3	p-Phenylenediamine	1.2E+01	nc	1.0E+05	max	6.9E+02	nc	6.9E+03	nc		
		8.0E-05	i	8.0E-05	r	0.1	62-38-4	Phenylmercuric acetate	6.0E-02	nc	4.9E+01	nc	2.9E-01	nc	2.9E+00	nc		
1.9E-03	h	1.9E-03	r		0.1	90-43-7	2-Phenylphenol	9.6E+00	ca	8.9E+02	ca	3.5E+00	ca	3.5E+01	ca			
		2.0E-04	h	2.0E-04	r	0.1	298-02-2	Phorate	4.5E-01	nc	1.2E+02	nc	7.3E-01	nc	7.3E+00	nc		
		2.0E-02	i	2.0E-02	r	0.1	732-11-6	Phosmet	1.0E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		3.0E-04	i	2.3E-04	c	0.1	7803-51-2	Phosphine	1.1E+00	nc	1.8E+02	nc	8.3E-01	nc	1.1E+01	nc		
				2.0E-03	c		7664-38-2	Phosphoric acid	4.1E+06	nc	1.3E+07	nc	7.3E+00	nc				
		2.0E-05	i				7723-14-0	Phosphorus (white)	1.6E+00	nc	2.0E+01	nc			7.3E-01	nc		
	1.0E+00	h	1.0E+00	r	0.1	100-21-0	p-Phthalic acid	2.3E+03	nc	1.0E+05	max	3.7E+03	nc	3.7E+04	nc			
3.0E+01	c	2.0E+00	i	5.7E-03	c	0.1	85-44-9	Phthalic anhydride	1.0E+05	max	1.0E+05	max	2.1E+01	nc	7.3E+04	nc		
		7.0E-02	i	7.0E-02	r	0.1	1918-02-1	Picloram	2.8E+02	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
		1.0E-02	i	1.0E-02	r	0.1	29232-93-7	Pirimiphos-methyl	7.5E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc		
		7.0E-06	h	3.0E+01	c	7.0E-06	r	0.1										
		7.0E-05	i	7.0E-02	i	7.0E-05	r	0.14	12674-11-2	PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016)	1.4E-02	ca	2.1E+01	ca				
5.0E+00	#N/A	#N/A	###	2.0E+00	##	#N/A	##	0.14										
1.2E+00	c	2.0E+00	i	2.0E+00	i	2.0E-05	r	0.14	11097-69-1	PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254)	1.3E-02	ca	7.4E-01	ca	3.3E-03	ca	3.4E-02	ca
		4.5E+00	n	4.5E+00	r		0.1	61788-33-8	Polychlorinated terphenyls	1.1E-01	ca	3.8E-01	ca	1.5E-03	ca	1.5E-02	ca	
									Polynuclear aromatic hydrocarbons (PAHs)									
		6.0E-02	i	6.0E-02	r	y	83-32-9	Acenaphthene	4.6E+02	nc	2.9E+04	nc	2.2E+02	nc	3.7E+02	nc		
		3.0E-01	i	3.0E-01	r	y	120-12-7	Anthracene	2.3E+03	nc	1.0E+05	max	1.1E+03	nc	1.8E+03	nc		
1.2E+00	c	3.9E-01	c		0.13	56-55-3	Benz[a]anthracene	3.5E-02	ca	1.3E+00	ca	1.7E-02	ca	5.6E-02	ca			
1.2E+00	c	3.9E-01	c		0.13	205-99-2	Benzo[b]fluoranthene	3.5E-02	ca	1.3E+00	ca	1.7E-02	ca	5.6E-02	ca			
#N/A	#N/A	#N/A	###	#N/A	##	#N/A	##	0.13	207-08-9	Benzo[k]fluoranthene								
1.2E+00	c	3.9E-01	c		0.13	207-08-9	"CAL-Modified PRG"	1.9E-01	ca	1.3E+00	ca	1.7E-02	ca	5.6E-02	ca			
1.2E+01	c	3.9E+00	c		0.13	50-32-8	Benzo[a]pyrene	3.5E-03	ca	1.3E-01	ca	1.7E-03	ca	5.6E-03	ca			
#N/A	#N/A	#N/A	###	#N/A	##	#N/A	##	0.13	218-01-9	Chrysene								
1.2E-01	c	3.9E-02	c		0.13		"CAL-Modified PRG"	1.9E+00	ca	1.3E+01	ca	1.7E-01	ca	2.1E-01	ca			

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)					
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V O abs. C soils	skin CAS No.			Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"				
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)			
4.1E+00	c	4.1E+00	c	0.13	53-70-3		Dibenz[ah]anthracene	3.8E-03	ca	3.8E-01	ca	1.6E-03	ca
	4.0E-02	i	4.0E-02	r	0.13	206-44-0	Fluoranthene	3.2E+02	nc	2.2E+04	nc	1.5E+02	nc
	4.0E-02	i	4.0E-02	r y	86-73-7		Fluorene	3.1E+02	nc	2.6E+04	nc	1.5E+02	nc
1.2E+00	c	3.9E-01	c	0.13	193-39-5		Indeno[1,2,3-cd]pyrene	3.5E-02	ca	1.3E+00	ca	1.7E-02	ca
#N/A	#N/A	#N/A	### #N/A	## #N/A	## y	91-20-3	Naphthalene						
1.2E-01	r	2.0E-02	i	1.2E-01	c	2.6E-03	"CAL-Modified PRG"	1.7E+00	ca	4.2E+00	ca	5.5E-02	ca
	3.0E-02	i	3.0E-02	r y	129-00-0		Pyrene	2.4E+02	nc	2.9E+04	nc	1.1E+02	nc
1.5E-01	i	9.0E-03	i	1.5E-01	r	9.0E-03	Prochloraz	1.6E-01	ca	1.1E+01	ca	4.4E-02	ca
	6.0E-03	h	6.0E-03	r	0.1	67747-09-5	Profluralin	4.9E+01	nc	3.7E+03	nc	2.2E+01	nc
	1.5E-02	i	1.5E-02	r	0.1	26399-36-0	Prometon	5.6E+01	nc	9.2E+03	nc	5.5E+01	nc
	4.0E-03	i	4.0E-03	r	0.1	1610-18-0	Prometryn	1.8E+01	nc	2.5E+03	nc	1.5E+01	nc
	7.5E-02	i	7.5E-02	r	0.1	7287-19-6	Pronamide	4.9E+02	nc	4.6E+04	nc	2.7E+02	nc
	1.3E-02	i	1.3E-02	r	0.1	23950-58-5	Propachlor	4.5E+01	nc	8.0E+03	nc	4.7E+01	nc
	5.0E-03	i	5.0E-03	r	0.1	1918-16-7	Propanil	3.0E+01	nc	3.1E+03	nc	1.8E+01	nc
	2.0E-02	i	2.0E-02	r	0.1	709-98-8	Propargite	1.6E+02	nc	1.2E+04	nc	7.3E+01	nc
	2.0E-03	i	2.0E-03	r	0.1	2312-35-8	Propargyl alcohol	3.8E-01	nc	1.2E+03	nc	7.3E+00	nc
	2.0E-02	i	2.0E-02	r	0.1	107-19-7	Propazine	8.1E+01	nc	1.2E+04	nc	7.3E+01	nc
	2.0E-02	i	2.0E-02	r	0.1	139-40-2	Propham	1.3E+02	nc	1.2E+04	nc	7.3E+01	nc
	1.3E-02	i	1.3E-02	r	0.1	122-42-9	Propiconazole	8.6E+01	nc	8.0E+03	nc	4.7E+01	nc
	1.0E-01	i	1.1E-01	i	98-82-8	60207-90-1	Isopropylbenzene (see Cumene)	3.2E+02	nc	2.0E+03	nc	4.0E+02	nc
	4.0E-02	n	4.0E-02	r y	103-65-1		n-Propylbenzene	2.4E+02	sat	2.4E+02	sat	1.5E+02	nc
	5.0E-01	p	8.6E-04	p	0.1	57-55-6	Propylene glycol	1.7E+01	nc	1.0E+05	max	3.1E+00	nc
	7.0E-01	h	7.0E-01	r	0.1	52125-53-8	Propylene glycol, monoethyl ether	4.3E+04	nc	1.0E+05	max	2.6E+03	nc
	7.0E-01	h	2.0E+00	c	0.1	107-98-2	Propylene glycol, monomethyl ether	1.7E+02	nc	1.0E+05	max	7.3E+03	nc
2.4E-01	i	8.6E-03	r	1.3E-02	c	8.6E-03	Propylene oxide	4.1E-03	ca	6.6E+00	ca	5.1E-01	ca
	2.5E-01	i	2.5E-01	r	0.1	75-56-9	Pursuit	1.5E+04	nc	1.0E+05	max	9.1E+02	nc
	2.5E-02	i	2.5E-02	r	0.1	81335-77-5	Pydrin	1.9E+02	nc	1.5E+04	nc	9.1E+01	nc
	1.0E-03	i	1.0E-03	r	0.1	51630-58-1	Pyridine	1.5E+00	nc	6.2E+02	nc	3.7E+00	nc
	5.0E-04	i	5.0E-04	r	0.1	110-86-1	Quinalphos	2.9E+00	nc	3.1E+02	nc	1.8E+00	nc
3.0E+00	i	3.0E+00	r	0.1	13593-03-8		Quinoline	3.3E-03	ca	5.7E-01	ca	2.2E-03	ca
					91-22-5								

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Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo		RfDo		SFi		RfDi		V	CAS No.		Rural	"Direct Contact Exposure Pathways"						
1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		skin O abs. C soils		Residential Soil (mg/kg)	Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)					
1.1E-01	i	3.0E-03	i	1.1E-01	r	3.0E-03	r	0.1	121-82-4	RDX (Cyclonite)	1.8E-01	ca	1.6E+01	ca	6.0E-02	ca	6.1E-01	ca
		3.0E-02	i			3.0E-02	r	0.1	10453-86-8	Resmethrin	2.5E+02	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc
		5.0E-02	h			5.0E-02	r	0.1	299-84-3	Ronnel	4.0E+02	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc
		4.0E-03	i			4.0E-03	r	0.1	83-79-4	Rotenone	3.0E+01	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc
		2.5E-02	i			2.5E-02	r	0.1	78587-05-0	Savey	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc
		5.0E-03	i					0.1	7783-00-8	Selenious Acid	3.1E+02	nc	3.1E+03	nc			1.8E+02	nc
		5.0E-03	i			5.7E-03	c		7782-49-2	Selenium	3.1E+01	nc	5.1E+03	nc	2.1E+01	nc	1.8E+02	nc
		5.0E-03	h					0.1	630-10-4	Selenourea	3.1E+02	nc	3.1E+03	nc			1.8E+02	nc
		9.0E-02	i			9.0E-02	r	0.1	74051-80-2	Sethoxydim	6.9E+02	nc	5.5E+04	nc	3.3E+02	nc	3.3E+03	nc
		5.0E-03	i						7440-22-4	Silver and compounds	4.3E+01	nc	5.1E+03	nc			1.8E+02	nc
1.2E-01	h	5.0E-03	i	1.2E-01	r	5.0E-03	r	0.1	122-34-9	Simazine	9.1E-02	ca	1.4E+01	ca	5.5E-02	ca	5.6E-01	ca
		4.0E-03	i						26628-22-8	Sodium azide	3.1E+02	nc	4.1E+03	nc			1.5E+02	nc
2.7E-01	h	3.0E-02	i	2.7E-01	r	3.0E-02	r	0.1	148-18-5	Sodium diethyldithiocarbamate	4.9E-03	ca	6.4E+00	ca	2.5E-02	ca	2.5E-01	ca
		2.0E-05	i			2.0E-05	r	0.1	62-74-8	Sodium fluoroacetate	4.1E-05	nc	1.2E+01	nc	7.3E-02	nc	7.3E-01	nc
		1.0E-03	h			1.0E-03	r	0.1	13718-26-8	Sodium metavanadate	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
		6.0E-01	i						7440-24-6	Strontium, stable	3.0E+03	nc	1.0E+05	max			2.2E+04	nc
		3.0E-04	i			3.0E-04	r	0.1	57-24-9	Strychnine	8.2E-01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc
		2.0E-01	i			2.6E-01	c	y	100-42-5	Styrene	1.7E+03	sat	1.7E+03	sat	9.4E+02	nc	1.5E+03	nc
1.3E+05	c	5.0E-03	p			5.0E-03	r		80-07-9	1,1'-Sulfonylbis (4-chlorobenzene)	3.9E+02	nc	5.1E+03	nc	1.8E+01	nc	1.8E+02	nc
		2.5E-02	i			2.5E-02	r	0.1	88671-89-0	Systhane	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc
				1.3E+05	c	1.1E-08	c	0.03	1746-01-6	2,3,7,8-TCDD (dioxin)	1.8E-07	ca	1.8E-05	ca	5.1E-08	ca	5.2E-07	ca
		7.0E-02	i			7.0E-02	r	0.1	34014-18-1	Tebuthiuron	2.6E+01	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc
		2.0E-02	h			2.0E-02	r	0.1	3383-96-8	Temephos	1.6E+02	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc
		1.3E-02	i			1.3E-02	r	0.1	5902-51-2	Terbacil	3.5E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc
		2.5E-05	h			2.5E-05	r	0.1	13071-79-9	Terbufos	1.8E-01	nc	1.5E+01	nc	9.1E-02	nc	9.1E-01	nc
		1.0E-03	i			1.0E-03	r	0.1	886-50-0	Terbutryn	7.1E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc
		3.0E-04	i			3.0E-04	r	0.1	95-94-3	1,2,4,5-Tetrachlorobenzene	2.4E+00	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc
2.6E-02	i	3.0E-02	i	2.6E-02	i	3.0E-02	r	y	630-20-6	1,1,1,2-Tetrachloroethane	5.9E-01	ca	7.3E+00	ca	2.6E-01	ca	4.3E-01	ca
2.7E-01	c	6.0E-02	p	2.0E-01	c	6.0E-02	r	y	79-34-5	1,1,2,2-Tetrachloroethane	5.6E-02	ca	9.2E-01	ca	3.3E-02	ca	5.2E-02	ca
5.4E-01	c	1.0E-02	i	2.1E-02	c	1.0E-02	c	y	127-18-4	Tetrachloroethylene (PCE)	2.6E-02	ca	1.3E+00	ca	3.2E-01	ca	1.0E-01	ca

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Data Reduction/Attenuation Factor (See User's Guide) and Chemical Abstract Services																					
TOXICITY VALUES							CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)													
SFo	RfDo	SFi	RfDi	V	skin	CAS No.		Rural	"Direct Contact Exposure Pathways"												
1/(mg/kg-d)	(mg/kg-d)	1/(mg/kg-d)	(mg/kg-d)	O	abs.		C	soils	Residential	Industrial	Ambient Air	Tap Water									
								Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)										
2.0E+01	h	3.0E-02	i		3.0E-02	r	0.1	58-90-2	2,3,4,6-Tetrachlorophenol	2.2E+02	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc				
				2.0E+01	r		0.1	5216-25-1	p,a,a,a-Tetrachlorotoluene	1.2E-03	ca	8.6E-02	ca	3.3E-04	ca	3.4E-03	ca				
		2.4E-02		3.0E-02	i	2.4E-02	r	3.0E-02	r	0.1	961-11-5	Tetrachlorovinphos	9.1E-01	ca	7.2E+01	ca	2.8E-01	ca	2.8E+00	ca	
			5.0E-04	i		5.0E-04	r	0.1	3689-24-5	Tetraethyldithiopyrophosphate	2.8E+00	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc			
		7.6E-03	n	2.1E-01	n	6.8E-03	n	8.6E-02	n	y		109-99-9	Tetrahydrofuran	9.3E+00	ca	2.1E+01	ca	9.8E-01	ca	1.6E+00	ca
			6.6E-05	i					7440-28-0	Thallium and compounds+++	5.2E+00	nc	6.7E+01	nc				2.4E+00	nc		
		1.0E-02	i		1.0E-02	r	0.1	28249-77-6	Thiobencarb	6.5E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc				
		5.0E-02	n		5.0E-02	r	0.1	N/A	Thiocyanate	3.1E+03	nc	1.0E+05	max	1.8E+02	nc	1.8E+03	nc				
		3.0E-04	h		3.0E-04	r	0.1	39196-18-4	Thiofanox	1.0E-02	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc				
		8.0E-02	i		8.0E-02	r	0.1	23564-05-8	Thiophanate-methyl	1.4E+02	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc				
		5.0E-03	i		5.0E-03	r	0.1	137-26-8	Thiram	1.2E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc				
		6.0E-01	h					7440-31-5	Tin (inorganic, also see tributyltin oxide)	2.6E+03	nc	1.0E+05	max				2.2E+04	nc			
3.8E+00	c	4.0E+00	n		8.6E-03	n		7440-32-6	Titanium	1.0E+05	max	1.0E+05	max	3.1E+01	nc	1.5E+05	nc				
		2.0E-01	i		8.6E-02	c	y		108-88-3	Toluene	5.2E+02	sat	5.2E+02	sat	3.1E+02	nc	5.8E+02	nc			
				4.0E+00	c		0.1	95-80-7	Toluene-2,4-diamine	4.5E-04	ca	4.5E-01	ca	1.7E-03	ca	1.8E-02	ca				
		6.0E-01	h		6.0E-01	r	0.1	95-70-5	Toluene-2,5-diamine	2.3E+02	nc	1.0E+05	max	2.2E+03	nc	2.2E+04	nc				
		2.0E-01	h		2.0E-01	r	0.1	823-40-5	Toluene-2,6-diamine	5.5E+01	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc				
		1.9E-01	i		1.9E-01	r	0.1	106-49-0	p-Toluidine	4.9E-02	ca	9.1E+00	ca	3.5E-02	ca	3.5E-01	ca				
1.2E+00	c			1.2E+00	c		0.1	8001-35-2	Toxaphene	2.4E-02	ca	1.4E+00	ca	5.5E-03	ca	5.6E-02	ca				
		7.5E-03	i		7.5E-03	r	0.1	66841-25-6	Tralomethrin	4.6E+02	nc	4.6E+03	nc	2.7E+01	nc	2.7E+02	nc				
		1.3E-02	i		1.3E-02	r	0.1	2303-17-5	Triallate	9.7E+01	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc				
		1.0E-02	i		1.0E-02	r	0.1	82097-50-5	Triasulfuron	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc				
		5.0E-03	i		5.0E-03	r	0.1	615-54-3	1,2,4-Tribromobenzene	3.9E+01	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc				
		9.2E-03	p	2.0E-01	p	9.2E-03	r	2.0E-01	r	0.1	126-73-8	Tributyl phosphate	5.3E+01	ca	1.9E+02	ca	7.2E-01	ca	7.3E+00	ca	
3.4E-02	h	3.0E-04	i				0.1	56-35-9	Tributyltin oxide (TBTO)	1.8E+01	nc	1.8E+02	nc				1.1E+01	nc			
				3.4E-02	r		0.1	634-93-5	2,4,6-Trichloroaniline	6.4E-01	ca	5.1E+01	ca	2.0E-01	ca	2.0E+00	ca				
				2.9E-02	r		0.1	33663-50-2	2,4,6-Trichloroaniline hydrochloride	1.7E+01	ca	5.9E+01	ca	2.3E-01	ca	2.3E+00	ca				
		3.6E-03	c	1.0E-02	i		1.0E-03	p	y		120-82-1	1,2,4-Trichlorobenzene	3.6E+01	nc	2.2E+02	nc	3.7E+00	nc	7.2E+00	nc	
			2.8E-01	n		2.9E-01	c	y		71-55-6	1,1,1-Trichloroethane	1.2E+03	sat	1.2E+03	sat	1.0E+03	nc	1.7E+03	nc		
		7.2E-02	c	4.0E-03	i	5.7E-02	c	4.0E-03	r	y		79-00-5	1,1,2-Trichloroethane	1.4E-01	ca	1.6E+00	ca	1.2E-01	ca	1.9E-01	ca

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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)																
SFo		RfDo		SFi		RfDi		V	skin		CAS No.	Rural	"Direct Contact Exposure Pathways"														
1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		O	abs.		Residential	Industrial	Ambient Air	Tap Water													
								C	soils		Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)													
1.3E-02	c	3.0E-04	n	7.0E-03	c	1.7E-01	c	y		79-01-6	Trichloroethylene (TCE)																
										79-01-6	"CAL-Modified PRG"								3.3E-02	ca	6.5E+00	ca	9.5E-01	ca	1.4E+00	ca	
		3.0E-01	i			2.0E-01	h	y		75-69-4	Trichlorofluoromethane								3.0E+02	nc	2.0E+03	sat	7.3E+02	nc	1.3E+03	nc	
		1.0E-01	i			1.0E-01	r		0.1	95-95-4	2,4,5-Trichlorophenol								7.2E+02	nc	6.2E+04	nc	3.7E+02	nc	3.7E+03	nc	
7.0E-02	c	1.0E-04	n	7.0E-02	c	1.0E-04	r		0.1	88-06-2	2,4,6-Trichlorophenol																
										88-06-2	"CAL-Modified PRG"								1.7E+00	ca	2.5E+01	ca	9.5E-02	ca	9.6E-01	ca	
2.0E+00	n	1.0E-02	i			1.0E-02	r		0.1	93-76-5	2,4,5-Trichlorophenoxyacetic Acid								7.4E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc	
		8.0E-03	i			8.0E-03	r		0.1	93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid								5.8E+01	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc	
		5.0E-03	i			5.0E-03	r	y		598-77-6	1,1,2-Trichloropropane								9.5E+00	nc	2.7E+02	nc	1.8E+01	nc	3.0E+01	nc	
		6.0E-03	i	2.0E+00	r	1.4E-03	n	y		96-18-4	1,2,3-Trichloropropane								3.5E-03	ca	7.5E-02	ca	3.3E-03	ca	5.5E-03	ca	
		1.0E-02	p			3.0E-04	p	y		96-19-5	1,2,3-Trichloropropene								4.7E+00	nc	1.7E+01	nc	1.1E+00	nc	2.2E+00	nc	
		3.0E-03	i			3.0E-03	r		0.1	58138-08-2	Tridiphanne								1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc	
7.7E-03	i	2.0E-03	r			5.7E-02	c	y		121-44-8	Triethylamine								1.3E+02	nc	1.1E+03	nc	2.1E+02	nc	6.2E+01	nc	
		7.5E-03	i	7.7E-03	r	7.5E-03	r		0.1	1582-09-8	Trifluralin								3.4E+00	ca	2.2E+02	ca	8.6E-01	ca	8.7E+00	ca	
		1.4E-04	r			1.4E-04	n		0.1	552-30-7	Trimellitic Anhydride (TMAN)								8.6E+00	nc	8.6E+01	nc	5.1E-01	nc	5.1E+00	nc	
		5.0E-02	p			1.7E-03	p	y		95-63-6	1,2,4-Trimethylbenzene								4.6E+01	nc	1.7E+02	nc	6.2E+00	nc	1.2E+01	nc	
		5.0E-02	p			1.7E-03	p	y		108-67-8	1,3,5-Trimethylbenzene								2.0E+01	nc	7.0E+01	nc	6.2E+00	nc	1.2E+01	nc	
3.7E-02	h			3.7E-02	r			0.1	512-56-1	Trimethyl phosphate								1.1E-02	ca	4.7E+01	ca	1.8E-01	ca	1.8E+00	ca		
3.0E-02	i	3.0E-02	i			3.0E-02	r		0.1	99-35-4	1,3,5-Trinitrobenzene								4.0E+01	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc	
		1.0E-02	h			1.0E-02	r		0.1	479-45-8	Trinitrophenylmethyl nitramine								1.3E+01	nc	6.2E+03	nc	3.7E+01	nc	3.7E+02	nc	
		5.0E-04	i	3.0E-02	r	5.0E-04	r		0.1	118-96-7	2,4,6-Trinitrotoluene								3.9E-01	ca	5.7E+01	ca	2.2E-01	ca	2.2E+00	ca	
		2.0E-02	p			2.0E-02	r		0.1	791-28-6	Triphenylphosphine oxide								1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
1.4E-02	p	3.1E-01	p	1.4E-02	r	3.1E-01	r		0.1	115-96-8	Tris(2-chloroethyl) phosphate								3.5E+01	ca	1.2E+02	ca	4.7E-01	ca	4.8E+00	ca	
3.2E-03	p	1.0E-01	p	3.2E-03	r	1.0E-01	r		0.1	78-42-2	Tris(2-ethylhexyl) phosphate								1.5E+02	ca	5.4E+02	ca	2.1E+00	ca	2.1E+01	ca	
1.1E-01	r	2.0E-04	n							7440-61-1	Uranium (chemical toxicity only)								1.6E+01	nc	2.0E+02	nc				7.3E+00	nc
		1.0E-03	n							7440-62-2	Vanadium and compounds								3.6E+01	nc	1.0E+03	nc				3.7E+01	nc
		1.0E-03	i			1.0E-03	r		0.1	1929-77-7	Vernam								7.2E+00	nc	6.2E+02	nc	3.7E+00	nc	3.7E+01	nc	
		2.5E-02	i			2.5E-02	r		0.1	50471-44-8	Vinclozolin								1.4E+02	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc	
		1.0E+00	h			5.7E-02	i	y		108-05-4	Vinyl acetate								2.8E+02	nc	1.4E+03	nc	2.1E+02	nc	4.1E+02	nc	
		8.6E-04	r	1.1E-01	h	8.6E-04	i	y		593-60-2	Vinyl bromide (bromoethene)								1.9E-01	ca	4.2E-01	ca	6.0E-02	ca	1.0E-01	ca	

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1/(mg/kg-d)		(mg/kg-d)		1/(mg/kg-d)		(mg/kg-d)		O		Residential	Industrial	Ambient Air	Tap Water						
								abs.		Soil (mg/kg)	Soil (mg/kg)	(ug/m^3)	(ug/l)						
2.7E-01	c	3.0E-03	i	2.7E-01	c	2.9E-02	i	y	75-01-4	Vinyl chloride (child/adult)+++	3.0E-03	ca	5.5E-02	ca	2.5E-02	ca	4.1E-02	ca	
2.7E-01	c	3.0E-03	i	2.7E-01	c	2.9E-02	i	y	75-01-4	Vinyl chloride (adult)	3.0E-03	ca	5.5E-02	ca	2.5E-02	ca	4.1E-02	ca	
		3.0E-04	i			3.0E-04	r	0.1	81-81-2	Warfarin	1.8E+00	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc	
		2.0E-01	i			2.0E-01	c	y	0.1	1330-20-7	Xylenes	7.6E+02	nc	4.2E+02	sat	7.3E+02	nc	1.2E+03	nc
		3.0E-01	i						7440-66-6	Zinc	1.3E+03	nc	1.0E+05	max			1.1E+04	nc	
		3.0E-04	i						1314-84-7	Zinc phosphide	2.3E+01	nc	3.1E+02	nc			1.1E+01	nc	
		5.0E-02	i			5.0E-02	r	0.1	12122-67-7	Zineb	7.5E+01	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc	
1.3E+01	c			1.3E+01	c				39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	1.9E-04	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca	
1.3E+01	c			1.3E+01	c				3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	1.9E-04	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca	
1.3E+03	c			1.3E+03	c				67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	4.9E-04	ca	2.2E-03	ca	5.1E-06	ca	5.2E-05	ca	
1.3E+03	c			1.3E+03	c				37871-00-4	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1.8E-05	ca	2.2E-03	ca	5.1E-06	ca	5.2E-05	ca	
1.3E+03	c			1.3E+03	c				55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	4.9E-04	ca	2.2E-03	ca	5.1E-06	ca	5.2E-05	ca	
1.3E+04	c			1.3E+04	c				70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca	
1.3E+04	c			1.3E+04	c				39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca	
1.3E+04	c			1.3E+04	c				57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca	
1.3E+04	c			1.3E+04	c				72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca	
1.3E+04	c			1.3E+04	c				19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	4.2E-06	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca	
6.5E+03	c			6.5E+03	c				57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3.8E-07	ca	4.4E-04	ca	1.0E-06	ca	1.0E-05	ca	
1.3E+05	c			1.3E+05	c				40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	4.9E-06	ca	2.2E-05	ca	5.1E-08	ca	5.2E-07	ca	
5.5E+02	c			5.5E+02	c				540-73-8	1,2-Dimethylhydrazine	1.2E-03	ca	5.2E-03	ca	1.2E-05	ca	1.2E-04	ca	
2.4E+00	c			2.4E+00	c				1120-71-4	1,3-Propane sultone	2.7E-01	ca	1.2E+00	ca	2.8E-03	ca	2.8E-02	ca	
1.2E+02	c			3.9E+01	c				42397-64-8	1,6-Dinitropyrene	5.3E-03	ca	2.4E-02	ca	1.7E-04	ca	5.6E-04	ca	
1.2E+01	c			3.9E+00	c				42397-65-9	1,8-Dinitropyrene	5.3E-02	ca	2.4E-01	ca	1.7E-03	ca	5.6E-03	ca	
1.8E+00	c			1.8E+00	c				555-84-0	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolid	3.6E-01	ca	1.6E+00	ca	3.7E-03	ca	3.7E-02	ca	
1.5E-01	c			1.5E-01	c				82-28-0	1-Amino-2-methylantraquinone	4.3E+00	ca	1.9E+01	ca	4.4E-02	ca	4.5E-01	ca	
1.2E+00	c			3.9E-01	c				5522-43-0	1-Nitropyrene	5.3E-01	ca	2.4E+00	ca	1.7E-02	ca	5.6E-02	ca	
2.3E+00	c			2.3E+00	c				3570-75-0	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thia	2.8E-01	ca	1.2E+00	ca	2.9E-03	ca	2.9E-02	ca	
1.3E+01	c			1.3E+01	c				39635-31-9	2,3,3',4,4',5,5'-HpCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca	
6.5E+01	c			6.5E+01	c				69782-90-7	2,3,3',4,4',5'-HxCB	9.9E-03	ca	4.4E-02	ca	1.0E-04	ca	1.0E-03	ca	
6.5E+01	c			6.5E+01	c				38380-08-4	2,3,3',4,4',5-HxCB	9.9E-03	ca	4.4E-02	ca	1.0E-04	ca	1.0E-03	ca	

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES						CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V skin O abs. C soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"						
							Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)					
1.3E+01	c	1.3E+01	c		32598-14-4	2,3,3',4,4'-PeCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca
1.3E+00	c	1.3E+00	c		52663-72-6	2,3',4,4',5,5'-HxCB	4.9E-01	ca	2.2E+00	ca	5.1E-03	ca	5.2E-02	ca
1.3E+01	c	1.3E+01	c		65510-44-3	2',3,4,4',5-PeCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca
1.3E+01	c	1.3E+01	c		31508-00-6	2,3',4,4',5-PeCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca
6.5E+01	c	6.5E+01	c		74472-37-0	2,3,4,4',5-PeCB	9.9E-03	ca	4.4E-02	ca	1.0E-04	ca	1.0E-03	ca
1.3E+04	c	1.3E+04	c		60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca
1.3E+04	c	1.3E+04	c		57117-44-9	2,3,4,7,8,9-Hexachlorodibenzofuran	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca
6.5E+04	c	6.5E+04	c		57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.7E-06	ca	4.4E-05	ca	1.0E-07	ca	1.0E-06	ca
3.3E+03	c	1.3E+04	c			2,3,7,8-Hexachlorodibenzo-p-dioxin (mixture)	1.9E-04	ca	8.7E-04	ca	5.1E-07	ca	2.0E-05	ca
1.3E+04	c	1.3E+04	c		51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.8E-06	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca
2.3E-02	c	2.3E-02	c		615-05-4	2,4-Diaminoanisole	2.8E+01	ca	1.2E+02	ca	2.9E-01	ca	2.9E+00	ca
1.3E-02	c	1.3E-02	c		39156-41-7	2,4-Diaminoanisole sulfate	4.9E+01	ca	2.2E+02	ca	5.1E-01	ca	5.2E+00	ca
3.8E+00	c	3.8E+00	c		53-96-3	2-Acetylaminofluorene	1.7E-01	ca	7.5E-01	ca	1.7E-03	ca	1.8E-02	ca
1.6E+01	c	1.6E+01	c		712-68-5	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazol	4.0E-02	ca	1.8E-01	ca	4.1E-04	ca	4.2E-03	ca
3.3E-02	c	3.3E-02	c		117-79-3	2-Aminoanthraquinone	1.9E+01	ca	8.7E+01	ca	2.0E-01	ca	2.0E+00	ca
4.3E+00	c	4.3E+00	c		129-15-7	2-Methyl-1-nitroanthraquinone (of uncertain	1.5E-01	ca	6.7E-01	ca	1.5E-03	ca	1.6E-02	ca
1.8E+00	c	1.8E+00	c		91-59-8	2-Naphthylamine	3.6E-01	ca	1.6E+00	ca	3.7E-03	ca	3.7E-02	ca
1.2E-01	c	3.9E-02	c		607-57-8	2-Nitrofluorene	5.3E+00	ca	2.4E+01	ca	1.7E-01	ca	5.6E-01	ca
1.3E+03	c	1.3E+03	c		32774-16-6	3,3',4,4',5,5'-HxCB	4.9E-04	ca	2.2E-03	ca	5.1E-06	ca	5.2E-05	ca
1.3E+04	c	1.3E+04	c		57465-28-8	3,3',4,4',5-PeCB	4.9E-05	ca	2.2E-04	ca	5.1E-07	ca	5.2E-06	ca
1.3E+01	c	1.3E+01	c		32598-13-3	3,3',4,4'-TCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca
1.3E+01	c	1.3E+01	c		70362-50-4	3,4,4'5-TCB	4.9E-02	ca	2.2E-01	ca	5.1E-04	ca	5.2E-03	ca
7.8E-02	c	7.8E-02	c		6109-97-3	3-Amino-9-ethylcarbazolehydrochloride	8.2E+00	ca	3.7E+01	ca	8.5E-02	ca	8.6E-01	ca
1.4E-01	c	1.4E-01	c		563-47-3	3-Chloro-2-methylpropene	4.6E+00	ca	2.0E+01	ca	4.7E-02	ca	4.8E-01	ca
2.2E+01	c	2.2E+01	c		56-49-5	3-Methylcholanthrene	2.9E-02	ca	1.3E-01	ca	3.0E-04	ca	3.1E-03	ca
1.4E-01	c	1.4E-01	c		101-80-4	4,4-Diaminodiphenyl ether	4.6E+00	ca	2.0E+01	ca	4.7E-02	ca	4.8E-01	ca
9.2E-01	c	9.2E-01	c		838-88-0	4,4-Methylene bis(2-methylaniline)	7.0E-01	ca	3.1E+00	ca	7.2E-03	ca	7.3E-02	ca
1.2E+00	c	1.2E+00	c		13552-44-8	4,4-Methylenedianiline dihydrochloride	5.3E-01	ca	2.4E+00	ca	5.5E-03	ca	5.6E-02	ca
1.5E+01	c	1.5E+01	c		139-65-1	4,4-Thiodianiline	4.3E-02	ca	1.9E-01	ca	4.4E-04	ca	4.5E-03	ca
2.1E+01	c	2.1E+01	c		92-67-1	4-Aminobiphenyl (4-aminodiphenyl)	3.0E-02	ca	1.4E-01	ca	3.2E-04	ca	3.2E-03	ca

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
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TOXICITY VALUES						CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)					
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V skin O abs. C soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"				
							Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)			
1.6E-02	c	1.6E-02	c		95-83-0	4-Chloro-ortho-phenylenediamine	4.0E+01	ca	1.8E+02	ca	4.1E-01	ca
4.6E+00	c	4.6E+00	c		60-11-7	4-Dimethylaminoazobenzene	1.4E-01	ca	6.2E-01	ca	1.4E-03	ca
1.2E+00	c	3.9E-01	c		57835-92-4	4-Nitropyrene	5.3E-01	ca	2.4E+00	ca	1.7E-02	ca
1.2E+01	c	3.9E+00	c		3697-24-3	5-Methylchrysene	5.3E-02	ca	2.4E-01	ca	1.7E-03	ca
1.3E-01	c	1.3E-01	c		602-87-9	5-Nitroacenaphthene	4.9E+00	ca	2.2E+01	ca	5.1E-02	ca
1.2E+02	c	3.9E+01	c		7496-02-8	6-Nitrochrysene	5.3E-03	ca	2.4E-02	ca	1.7E-04	ca
2.5E+02	c	2.5E+02	c		57-97-6	7,12-Dimethylbenz(a)anthracene	2.6E-03	ca	1.1E-02	ca	2.7E-05	ca
1.2E+01	c	3.9E+00	c		194-59-2	7H-dibenzo(c,g)carbazole	5.3E-02	ca	2.4E-01	ca	1.7E-03	ca
4.0E-01	c	4.0E-01	c		26148-68-5	A-alpha-C(2-Amino-9H-pyrido[2,3-b]indole)	1.6E+00	ca	7.2E+00	ca	1.7E-02	ca
7.0E-02	c	7.0E-02	c		60-35-5	Acetamide	9.1E+00	ca	4.1E+01	ca	9.5E-02	ca
8.7E+03	c	8.7E+03	c		50-76-0	Actinomycin D	7.4E-05	ca	3.3E-04	ca	7.6E-07	ca
2.4E-01	c	2.4E-01	c		3688-53-7	AF-2-[2-(2-furyl)-3(5-nitro-2-furyl)]acrylamide	2.7E+00	ca	1.2E+01	ca	2.8E-02	ca
9.4E-01	c	9.4E-01	c		61-82-5	Amitrole	6.8E-01	ca	3.0E+00	ca	7.1E-03	ca
	c	2.2E+02	c		1332-21-4	Asbestos [1/(100 PCM fibers/m^3)]^-1	4.0E+01	ca		ca	3.0E-05	ca
8.8E-01	c	8.8E-01	c		492-80-8	Auramine	7.3E-01	ca	3.3E+00	ca	7.5E-03	ca
1.1E+01	c	1.1E+01	c		115-02-6	Azaserine	5.8E-02	ca	2.6E-01	ca	6.0E-04	ca
1.8E+00	c	1.8E+00	c		446-86-6	Azathioprine	3.6E-01	ca	1.6E+00	ca	3.7E-03	ca
1.2E+00	c	3.9E-01	c		205-82-3	Benzo(j)fluoranthene	5.3E-01	ca	2.4E+00	ca	1.7E-02	ca
2.0E-02	c	2.0E-02	c		1694-09-3	Benzyl violet 4B	3.2E+01	ca	1.4E+02	ca	3.3E-01	ca
7.0E+00	c	8.4E+00	c		1304-56-9	Beryllium oxide	9.1E-02	ca	4.1E-01	ca	7.9E-04	ca
3.0E+03	c	3.0E+03	c		13510-49-1	Beryllium sulfate	2.1E-04	ca	9.5E-04	ca	2.2E-06	ca
1.0E+00	c	1.0E+00	c		3068-88-0	beta-Butyrolactone	6.4E-01	ca	2.9E+00	ca	6.6E-03	ca
1.4E+01	c	1.4E+01	c		57-57-8	beta-Propiolactone	4.6E-02	ca	2.0E-01	ca	4.7E-04	ca
2.0E-04	c	2.0E-04	c		25013-16-5	Butylated hydroxyanisole	3.2E+03	ca	1.4E+04	ca	3.3E+01	ca
2.4E+02	c	2.5E-01	c		569-61-9	C.I. Basic Red 9 monohydrochloride	2.7E-03	ca	1.2E-02	ca	2.7E-02	ca
2.3E-03	c	4.4E+02	c		305-03-3	Chlorambucil	1.9E+01	ca	1.2E+03	ca	1.5E-05	ca
1.3E+00	c	1.2E+00	c		57-74-9	Chlordane	6.9E-02	ca	2.2E+00	ca	5.5E-03	ca
9.1E-02	c	9.1E-02	c		115-28-6	Chlorendic acid	7.0E+00	ca	3.1E+01	ca	7.3E-02	ca
8.9E-02	c	8.9E-02	c		108171-26-2	Chlorinated paraffins (Avg. chain length, C1:	7.2E+00	ca	3.2E+01	ca	7.5E-02	ca
2.4E+00	c	2.4E+00	c		107-30-2	Chloromethyl methyl ether (technical grade)	2.7E-01	ca	1.2E+00	ca	2.8E-03	ca

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
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TOXICITY VALUES						CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)					
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V skin O abs. C soils	CAS No.		Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"				
							Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)			
2.4E+02	c	2.4E+02	c		54749-90-5	Chlorozotocin	2.7E-03 ca	1.2E-02 ca	2.8E-05 ca	2.8E-04 ca		
4.6E-03	c	4.6E-03	c		87-29-6	Cinnamyl anthranilate	1.4E+02 ca	6.2E+02 ca	1.4E+00 ca	1.5E+01 ca		
	c	2.2E+00	c			Coke oven emissions						
2.2E-01	c	2.2E-01	c		135-20-6	Cupferron	2.9E+00 ca	1.3E+01 ca	3.0E-02 ca	3.1E-01 ca		
6.1E-01	c	6.1E-01	c		50-18-0	Cyclophosphamide (anhydrous)	1.0E+00 ca	4.7E+00 ca	1.1E-02 ca	1.1E-01 ca		
5.7E-01	c	5.7E-01	c		6055-19-2	Cyclophosphamide (hydrated)	1.1E+00 ca	5.0E+00 ca	1.2E-02 ca	1.2E-01 ca		
5.3E-03	c	5.3E-03	c		5160-02-1	D & C Red No. 9	1.2E+02 ca	5.4E+02 ca	1.3E+00 ca	1.3E+01 ca		
4.9E+01	c	4.9E+01	c		4342-03-4	Dacarbazine	1.3E-02 ca	5.8E-02 ca	1.4E-04 ca	1.4E-03 ca		
7.6E-02	c	7.6E-02	c		117-10-2	Dantron	8.4E+00 ca	3.8E+01 ca	8.7E-02 ca	8.8E-01 ca		
1.2E+00	c	3.9E-01	c		226-36-8	Dibenz(a,h)acridine	5.3E-01 ca	2.4E+00 ca	1.7E-02 ca	5.6E-02 ca		
1.2E+00	c	3.9E-01	c		224-42-0	Dibenz(a,i)acridine	5.3E-01 ca	2.4E+00 ca	1.7E-02 ca	5.6E-02 ca		
1.2E+01	c	3.9E+00	c		192-65-4	Dibenzo(a,e)pyrene	5.3E-02 ca	2.4E-01 ca	1.7E-03 ca	5.6E-03 ca		
1.2E+02	c	3.9E+01	c		189-64-0	Dibenzo(a,h)pyrene	5.3E-03 ca	2.4E-02 ca	1.7E-04 ca	5.6E-04 ca		
1.2E+02	c	3.9E+01	c		189-55-9	Dibenzo(a,i)pyrene	5.3E-03 ca	2.4E-02 ca	1.7E-04 ca	5.6E-04 ca		
1.2E+02	c	3.9E+01	c		191-30-0	Dibenzo(a,l)pyrene	5.3E-03 ca	2.4E-02 ca	1.7E-04 ca	5.6E-04 ca		
	c	1.1E+00	c			Diesel exhaust particulate	7.9E+03 ca		6.0E-03 ca			
1.7E+00	c	1.7E+00	c		101-90-6	Diglycidyl resorcinol ether (DGRE)	3.8E-01 ca	1.7E+00 ca	3.9E-03 ca	4.0E-02 ca		
4.4E-02	c	4.4E-02	c		94-58-6	Dihydrosafrole	1.5E+01 ca	6.5E+01 ca	1.5E-01 ca	1.5E+00 ca		
1.3E+01	c	1.3E+01	c		79-44-7	Dimethylcarbamyl chloride	4.9E-02 ca	2.2E-01 ca	5.1E-04 ca	5.2E-03 ca		
4.5E-02	c	4.5E-02	c		513-37-1	Dimethylvinylchloride	1.4E+01 ca	6.4E+01 ca	1.5E-01 ca	1.5E+00 ca		
4.5E-03	c	4.5E-03	c		2475-45-8	Disperse Blue 1 (technical grade)	1.4E+02 ca	6.4E+02 ca	1.5E+00 ca	1.5E+01 ca		
3.9E+01	c	3.9E+01	c		50-28-2	Estradiol 17B	1.6E-02 ca	7.3E-02 ca	1.7E-04 ca	1.7E-03 ca		
6.5E+01	c	6.5E+01	c		151-56-4	Ethyleneimine	9.9E-03 ca	4.4E-02 ca	1.0E-04 ca	1.0E-03 ca		
4.8E+00	c	4.8E+00	c		67730-11-4	dJimidazole)	1.3E-01 ca	6.0E-01 ca	1.4E-03 ca	1.4E-02 ca		
1.4E+00	c	1.4E+00	c		67730-10-3	Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]indol	4.6E-01 ca	2.0E+00 ca	4.7E-03 ca	4.8E-02 ca		
1.0E+01	c	1.0E+01	c		16568-02-8	Gyromitrin	6.4E-02 ca	2.9E-01 ca	6.6E-04 ca	6.7E-03 ca		
5.1E-02	c	5.1E-02	c		2784-94-3	HC Blue 1	1.3E+01 ca	5.6E+01 ca	1.3E-01 ca	1.3E+00 ca		
1.3E+04	c	1.3E+04	c		34465-46-8	Hexachlorodibenzo-p-dioxin	4.9E-05 ca	2.2E-04 ca	5.1E-07 ca	5.2E-06 ca		
3.0E+00	c	3.0E+00	c		10034-93-2	Hydrazine Sulfate	2.0E-05 ca	9.5E-01 ca	2.2E-03 ca	2.2E-02 ca		
1.4E+00	c	1.4E+00	c		76180-96-6	IQ (2-Amino-3-methylimidazo-[4,5-f]quinolin	4.6E-01 ca	2.0E+00 ca	4.7E-03 ca	4.8E-02 ca		

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TOXICITY VALUES					CAS No.	CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)							
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V skin O abs. C soils			Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"				Tap Water (ug/l)		
							Industrial Soil (mg/kg)	Ambient Air (ug/m^3)						
7.8E+00	c	7.8E+00	c		303-34-4	Lasiocarpine	8.2E-02	ca	3.7E-01	ca	8.5E-04	ca	8.6E-03	ca
2.8E-01	c	2.8E-01	c		301-04-2	Lead acetate	2.3E+00	ca	1.0E+01	ca	2.4E-02	ca	2.4E-01	ca
3.8E-02	c	3.8E-02	c		1335-32-6	Lead subacetate	1.7E+01	ca	7.5E+01	ca	1.7E-01	ca	1.8E+00	ca
1.2E+00	c	1.2E+00	c		68006-83-7	Me-A-alpha-C (2-Amino-3-methyl-9H-pyrid	5.3E-01	ca	2.4E+00	ca	5.5E-03	ca	5.6E-02	ca
1.3E+02	c	1.3E+02	c		3223-07-2	Melphalan	4.9E-03	ca	2.2E-02	ca	5.1E-05	ca	5.2E-04	ca
9.9E-02	c	9.9E-02	c		66-27-3	Methyl methanesulfonate	6.5E+00	ca	2.9E+01	ca	6.7E-02	ca	6.8E-01	ca
4.0E-01	c	4.0E-01	c		56-04-2	Methylthiouracil	1.6E+00	ca	7.2E+00	ca	1.7E-02	ca	1.7E-01	ca
8.6E-01	c	8.6E-01	c		90-94-8	Michler's ketone	7.4E-01	ca	3.3E+00	ca	7.7E-03	ca	7.8E-02	ca
8.2E+03	c	8.2E+03	c		50-07-7	Mitomycin C	7.8E-05	ca	3.5E-04	ca	8.1E-07	ca	8.2E-06	ca
1.0E+01	c	1.0E+01	c		315-22-0	Monocrotaline	6.4E-02	ca	2.9E-01	ca	6.6E-04	ca	6.7E-03	ca
5.3E-03	c	5.3E-03	c		139-13-9	Nitrilotriacetic acid	1.2E+02	ca	5.4E+02	ca	1.3E+00	ca	1.3E+01	ca
1.0E-02	c	1.0E-02	c		18662-53-8	Nitrilotriacetic acid, trisodium salt monohydr	6.4E+01	ca	2.9E+02	ca	6.6E-01	ca	6.7E+00	ca
8.2E-02	c	8.2E-02	c		1836-75-5	Nitrofen (technical grade)	7.8E+00	ca	3.5E+01	ca	8.1E-02	ca	8.2E-01	ca
8.3E+00	c	8.3E+00	c		70-25-7	N-Methyl-N-nitro-N-nitrosoguanidine	7.7E-02	ca	3.4E-01	ca	8.0E-04	ca	8.1E-03	ca
6.7E+00	c	6.7E+00	c		59-89-2	N-Nitrosomorpholine	9.6E-02	ca	4.3E-01	ca	9.9E-04	ca	1.0E-02	ca
2.7E+01	c	2.7E+01	c		759-73-9	N-Nitroso-N-ethylurea	9.0E-06	ca	1.1E-01	ca	2.5E-04	ca	2.5E-03	ca
1.2E+02	c	1.2E+02	c		684-93-5	N-Nitroso-N-methylurea	5.3E-03	ca	2.4E-02	ca	5.5E-05	ca	5.6E-04	ca
1.1E+02	c	1.1E+02	c		615-53-2	N-Nitroso-N-methylurethane	5.8E-03	ca	2.6E-02	ca	6.0E-05	ca	6.1E-04	ca
1.4E+00	c	1.4E+00	c		16543-55-8	N-Nitrosornicotine	4.6E-01	ca	2.0E+00	ca	4.7E-03	ca	4.8E-02	ca
9.4E+00	c	9.4E+00	c		100-75-4	N-Nitrosopiperidine	6.8E-02	ca	3.0E-01	ca	7.1E-04	ca	7.2E-03	ca
3.0E-03	c	3.0E-03	c		132-27-4	O-Phenylphenate, sodium	2.1E+02	ca	9.5E+02	ca	2.2E+00	ca	2.2E+01	ca
3.8E+00	c	3.8E+00	c		97-56-3	ortho-Aminoazotoluene	1.7E-01	ca	7.5E-01	ca	1.7E-03	ca	1.8E-02	ca
1.4E-01	c	1.4E-01	c		90-04-0	ortho-Anisidine	4.6E+00	ca	2.0E+01	ca	4.7E-02	ca	4.8E-01	ca
1.1E-01	c	1.1E-01	c		134-29-2	ortho-Anisidine hydrochloride	5.8E+00	ca	2.6E+01	ca	6.0E-02	ca	6.1E-01	ca
1.5E-01	c	1.5E-01	c		120-71-8	para-Cresidine	4.3E+00	ca	1.9E+01	ca	4.4E-02	ca	4.5E-01	ca
2.2E-03	c	2.2E-03	c		62-44-2	Phenacetin	2.9E+02	ca	1.3E+03	ca	3.0E+00	ca	3.1E+01	ca
1.7E-01	c	1.7E-01	c		94-78-0	Phenazopyridine	3.8E+00	ca	1.7E+01	ca	3.9E-02	ca	4.0E-01	ca
1.5E-01	c	1.5E-01	c		136-40-3	Phenazopyridine hydrochloride	4.3E+00	ca	1.9E+01	ca	4.4E-02	ca	4.5E-01	ca
1.5E+02	c	1.5E+02	c		3546-10-9	Phenesterin	4.3E-03	ca	1.9E-02	ca	4.4E-05	ca	4.5E-04	ca
4.6E-01	c	4.6E-01	c		50-06-6	Phenobarbital	1.4E+00	ca	6.2E+00	ca	1.4E-02	ca	1.5E-01	ca

Table H-6

Updated Rural Resident PRGs including Updated OEHHA Toxicity Values and Ingestion of Fruits and Vegetables

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG
 ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide)
 DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES					CAS No.	CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)					
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)	SFi 1/(mg/kg-d)	RfDi (mg/kg-d)	V skin O abs. C soils			Rural Residential Soil (mg/kg)	"Direct Contact Exposure Pathways"				
								Industrial Soil (mg/kg)	Ambient Air (ug/m^3)	Tap Water (ug/l)		
3.1E+00	c	3.1E+00	c		59-96-1	Phenoxybenzamine	2.1E-01	ca	9.2E-01	ca	2.1E-03	ca
2.7E+00	c	2.7E+00	c		63-92-3	Phenoxybenzamine hydrochloride	2.4E-01	ca	1.1E+00	ca	2.5E-03	ca
2.2E-02	c	2.2E-02	c		156-10-5	p-Nitrosodiphenylamine	2.9E+01	ca	1.3E+02	ca	3.0E-01	ca
5.0E+00	c	2.0E+00	c		133-63-63	Polychlorinated biphenyls						
1.6E-02	c	1.6E-02	c		3564-09-8	Ponceau 3R	4.0E+01	ca	1.8E+02	ca	4.1E-01	ca
4.5E-03	c	4.5E-03	c		3761-53-3	Ponceau MX (D&C Red No.5)	1.4E+02	ca	6.4E+02	ca	1.5E+00	ca
4.9E-01	c	4.9E-01	c		7758-01-2	Potassium bromate	1.3E+00	ca	5.8E+00	ca	1.4E-02	ca
1.4E+01	c	1.4E+01	c		671-16-9	Procarbazine	4.6E-02	ca	2.0E-01	ca	4.7E-04	ca
1.2E+01	c	1.2E+01	c		366-70-1	Procarbazine hydrochloride	5.3E-02	ca	2.4E-01	ca	5.5E-04	ca
1.0E+00	c	1.0E+00	c		51-52-5	Propylthiouracil	6.4E-01	ca	2.9E+00	ca	6.6E-03	ca
1.1E+01	c	1.1E+01	c		50-55-5	Reserpine	5.8E-02	ca	2.6E-01	ca	6.0E-04	ca
2.2E-01	c	2.2E-01	c		94-59-7	Safrole	2.9E+00	ca	1.3E+01	ca	3.0E-02	ca
2.2E-01	c	3.5E+01	c		10048-13-2	Sterigmatocystin	2.9E+00	ca	1.3E+01	ca	1.9E-04	ca
1.1E+02	c	1.1E+02	c		18883-66-4	Streptozotocin	5.8E-03	ca	2.6E-02	ca	6.0E-05	ca
1.6E-01	c	1.6E-01	c		96-09-3	Styrene oxide	4.0E+00	ca	1.8E+01	ca	4.1E-02	ca
1.9E-01	c	1.9E-01	c		95-06-7	Sulfallate	3.4E+00	ca	1.5E+01	ca	3.5E-02	ca
6.1E+00	c	6.1E+00	c		62-55-5	Thioacetamide	1.0E-01	ca	4.7E-01	ca	1.1E-03	ca
7.2E-02	c	7.2E-02	c		62-56-6	Thiourea	8.9E+00	ca	4.0E+01	ca	9.2E-02	ca
3.9E-02	c	3.9E-02	c		26471-62-5	Toluene diisocyanate	1.6E+01	ca	7.3E+01	ca	1.7E-01	ca
4.4E-01	c	4.4E-01	c		55738-54-0	trans-2[(Dimethylamino)-methylimino]-5-[2-(	1.5E+00	ca	6.5E+00	ca	1.5E-02	ca
1.2E+01	c	1.2E+01	c		52-24-4	Tris-(1-aziridinyl)phosphine sulfide	5.3E-02	ca	2.4E-01	ca	5.5E-04	ca
2.3E+00	c	2.3E+00	c		126-72-7	Tris(2,3-dibromopropyl)phosphate	2.8E-01	ca	1.2E+00	ca	2.9E-03	ca
2.6E+01	c	2.6E+01	c		62450-06-0	Trp-P-1 (Tryptophan-P-1)	2.5E-02	ca	1.1E-01	ca	2.6E-04	ca
3.2E+00	c	3.2E+00	c		62450-07-1	Trp-P-2 (Tryptophan-P-2)	2.0E-01	ca	8.9E-01	ca	2.1E-03	ca
1.0E+00	c	1.0E+00	c		51-79-6	Urethane	6.4E-01	ca	2.9E+00	ca	6.6E-03	ca

mg/kg-d = milligrams per kilogram per day
 µg/m³ = microgram per cubic meter
 µg/L = microgram per liter
 mg/kg = milligrams per kilogram

Appendix I

Chemical Data Gap Analysis Results for Soil

Appendix I

Chemical Data Gap Analysis Results for Soil

Appendix I contains tables supporting the determination of the number of soil samples needed to fill the chemical data gap for soils for the Santa Susana Field Laboratory (SSFL) Area IV Environmental Impact Statement (EIS). The objectives of the chemical data gap analysis are to determine the number of samples needed to augment the existing data in order to: 1) perform a human health risk assessment, 2) characterize the soil in areas of known or suspected chemical use, 3) determine the nature and extent of identified soil contamination for use in evaluating alternatives, and 4) adequately characterize all of Area IV. Tables I-1 through I-6 support the calculation of the number of samples and analyses required to perform a human health risk assessment for each exposure unit (EU). Tables I-7 and I-8 summarize the number of samples and analyses required to fully characterize all of Area IV (including areas of known or suspected contamination), as well as determine the horizontal and vertical extent of contamination.

Tables I-1 through I-4 summarize the results of the chemical data gap analysis (i.e., the minimum number of additional soil samples that need to be collected) as detailed in Tables I-5 and I-6 to conduct a human health risk assessment (on soils). The chemical data gap analysis for the risk assessment was performed for two exposure scenarios (residential and rural residential) at two soil depth intervals (0 to 2 feet and 2 to 10 feet). Additional discussion is provided below to assist the reader in interpreting the information in the tables.

For example, in Table I-5, the results of the chemical risk data gap analysis are presented for both exposure scenarios at the 0 to 2 foot soil depth interval. Summary statistics (i.e., number of detections, maximum detected result, number of valid samples [n], average concentration, and standard deviation [σ]) are provided for each EU for the selected chemicals of interest (COIs). Non-detect results with detection limits greater than the screening level for the COI (i.e., the preliminary remediation goal [PRG] and/or background, if applicable) were rejected and not included as a valid sample.

The number of soil samples required to complete a risk assessment for each exposure scenario at the specified soil depth interval within each EU was determined statistically for all COIs based on the COI's relative shift. The relative shift (Δ/σ) is the ratio of delta (Δ), or the gray region, to the standard deviation. Delta (Δ) was set equal either to one-half the applicable PRG or background if the background value was greater than the PRG. In circumstances where the number of valid samples was less than that required to perform a statistical analysis (i.e., $n < 8$) and/or the average concentration of the COI within the EU exceeded the screening level (i.e., EU identified as being impacted - "Y"), the relative shift was set to 1.5. A statistical test (Sign Test or Wilcoxon Rank Sum Test for COIs with background values) was used to determine the required number of samples per EU (N) for each COI based on the COI's relative shift, a false negative rate (α) of 5%, and a false positive rate (β) of 10%. The number of additional samples needed to complete a risk assessment (i.e., risk data gap) was calculated as the difference

between the number of required risk assessment samples and the number of existing valid samples (i.e., data gap = $N - n$).

The results in Table I-5 (i.e., 0 to 2 foot soil depth interval) are summarized by chemical group in Tables I-1 and I-2 for the residential and rural residential exposure scenarios, respectively. The number of additional samples required by chemical group (e.g., metals) is driven by the largest data gap for any COI in that chemical group within a particular EU. For example, the data gap for metals in EU-10 (486 samples) is dictated by lead.

The summary tables also show whether an EU is impacted (“Y”) by at least one COI in the chemical group. A unit is considered to be impacted if the average concentration of at least one COI in that chemical group is greater than the applicable screening level. If the EU is not considered impacted, then the impact status of the unit is considered indeterminate (“I”) because the EU either may not have been impacted or there may have been an insufficient number of samples ($n < 8$) to perform the statistical analysis. If an EU was determined to be impacted, then the number of additional samples required (data gap) for each chemical group was adjusted because extensive sampling would not be required prior to remediation. If the relative shift for a COI was less than 1.0, then the relative shift for that COI was set to 1.0 and the data gap was calculated. If the relative shift was greater than or equal to 1.0, then no adjustment to the relative shift was made. The largest data gap for any COI after this adjustment was reported for the chemical group in the summary tables. For example, the data gap for lead in EU-10 (486 samples) was adjusted because the EU was determined to be impacted for semivolatile organic compounds (SVOCs).

The overall data gap for an EU is defined as the largest “adjusted” data gap between the chemical groups for that specific EU. The “adjusted” data gaps for each EU were then added together to establish the overall number of additional samples that need to be collected, at a minimum, to complete a risk assessment for a given exposure scenario for the SSFL Area IV EIS.

Tables I-7 and I-8 provide a listing of chemical use areas and underdeveloped land within each EU, and indicate the number of sampling locations that standard practice would indicate was required to characterize or delineate contamination in each area. Table I-7 indicates the data needs for soil from 0 to 10-ft depths and it is assumed that two samples (one from 0 to 2 feet and one from 2 to 10 feet) would be collected at each location. Table I-8 indicates the data needs for depths greater than 10 feet. In general, a sample at a depth greater than 10 feet would only be required if the vertical extent of identified contamination needs to be defined.

It is important to recognize that the number of samples shown is an estimate and that many field-specific factors may lead to an increase or decrease in the number of samples that are required to characterize or delineate soil contamination. For example, if contamination is identified in a previously uncharacterized chemical use area, additional samples would most likely be needed in order to define the area of contamination. On the other hand, in areas where bedrock is found at shallow depths, deeper soil samples may not be available and the number of samples required to delineate soil contamination would therefore be fewer than indicated.

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-1. Chemical Risk Data Gap Summary for Residential Scenario (0-2 ft. Soil Interval)

Exposure Unit (EU ID)	Data Gap (Additional Number of Samples Required) by Chemical Group															Overall Adjusted EU Data Gap
	VOCs			SVOCs			PCBs			Dioxins/Furans			Metals			
	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	
EU-01	8	I	8	0	Y	0	149	Y	0	0	Y	0	0	I	0	8
EU-02	15	I	15	8	I	8	11	I	11	0	Y	0	14	I	14	15
EU-03	9	I	9	9	I	9	0	Y	0	4	Y	4	7	I	7	9
EU-04	15	I	15	15	I	15	15	I	15	15	I	15	10	I	10	15
EU-05	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-06	15	I	15	11	I	11	2	I	2	15	I	15	10	I	10	15
EU-07	15	I	15	401	Y	14	1	I	1	11	I	11	2	I	2	15
EU-08	14	I	14	14	I	14	13	I	13	15	I	15	14	I	14	15
EU-09	15	I	15	15	I	15	0	I	0	15	I	15	11	I	11	15
EU-10	14	I	14	0	Y	0	0	I	0	0	I	0	486	I	10	14
EU-11	15	I	15	0	I	0	0	I	0	0	I	0	14	I	14	15
EU-12	15	I	15	15	I	15	15	I	15	15	I	15	12	I	12	15
EU-13	12	I	12	3	I	3	0	I	0	2	I	2	10	Y	10	12
EU-14	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-15	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-16	15	I	15	15	I	15	13	I	13	11	I	11	13	I	13	15
TOTAL	222		222	551		164	264		115	148		148	645		169	223

Y = Yes; the average (mean) of existing data [$n \geq 8$] for an analyte within the specified chemical group exceeds its associated screening level (DCGL).

I = Indeterminate; the unit is not impacted (i.e., mean of existing data $\leq$ DCGL for $n \geq 8$) or insufficient data exists (i.e., $n < 8$) to statistically evaluate whether the unit has been impacted.

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-2. Chemical Risk Data Gap Summary for Rural Residential Scenario (0-2 ft. Soil Interval)

Exposure Unit (EU ID)	Data Gap (Additional Number of Samples Required) by Chemical Group															
	VOCs			SVOCs			PCBs			Dioxins/Furans			Metals			Overall Adjusted EU Data Gap
	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	
EU-01	13	I	13	4	Y	0	14	Y	14	0	Y	0	0	I	0	
EU-02	15	I	15	14	I	14	14	I	14	0	Y	0	68	I	14	15
EU-03	15	Y	15	12	I	12	12	Y	12	5	Y	5	9	I	7	15
EU-04	15	I	15	15	I	15	15	I	15	15	I	15	10	I	10	15
EU-05	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-06	15	I	15	14	I	14	12	I	12	15	I	15	10	I	10	15
EU-07	15	I	15	11	Y	11	14	Y	14	13	I	13	2	Y	2	15
EU-08	14	I	14	15	I	15	13	I	13	15	I	15	14	I	14	15
EU-09	15	I	15	15	I	15	9	I	9	15	I	15	11	I	11	15
EU-10	14	I	14	13	Y	13	13	I	13	4	Y	4	486	I	10	14
EU-11	15	I	15	14	I	14	10	Y	10	0	Y	0	14	I	14	15
EU-12	15	I	15	15	I	15	15	I	15	15	I	15	12	I	12	15
EU-13	12	I	12	14	I	14	12	I	12	11	I	11	10	Y	10	14
EU-14	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-15	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-16	15	I	15	13	I	13	13	I	13	13	I	13	13	I	13	15
TOTAL	233		233	214		210	211		211	166		166	701		169	237

Y = Yes; the average (mean) of existing data [n ≥ 8] for an analyte within the specified chemical group exceeds its associated screening level (DCGL).

I = Indeterminate; the unit is not impacted (i.e., mean of existing data ≤ DCGL for n ≥ 8) or insufficient data exists (i.e., n < 8) to statistically evaluate whether the unit has been impacted.

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-3. Chemical Risk Data Gap Summary for Residential Scenario (2-10 ft. Soil Interval)

Exposure Unit (EU ID)	Data Gap (Additional Number of Samples Required) by Chemical Group															
	VOCs			SVOCs			PCBs			Dioxins/Furans			Metals			Overall Adjusted EU Data Gap
	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	
EU-01	13	I	13	166	Y	4	158	Y	0	0	Y	0	0	I	0	
EU-02	15	I	15	14	I	14	15	I	15	11	I	11	14	I	14	15
EU-03	2	I	2	60	Y	13	14	I	14	13	I	13	0	I	0	14
EU-04	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-05	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-06	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-07	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-08	12	I	12	11	I	11	12	I	12	15	I	15	0	I	0	15
EU-09	43	I	14	14	I	14	14	I	14	15	I	15	131	Y	18	18
EU-10	13	I	13	11	I	11	0	I	0	0	I	0	11	I	11	13
EU-11	13	I	13	8	I	8	0	I	0	0	I	0	12	I	12	13
EU-12	15	I	15	12	I	12	15	I	15	15	I	15	8	I	8	15
EU-13	14	I	14	15	I	15	14	I	14	13	I	13	14	Y	14	15
EU-14	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-15	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-16	15	I	15	15	I	15	3	I	3	3	I	3	14	I	14	15
TOTAL	245		216	416		207	335		177	175		175	288		175	236

Y = Yes; the average (mean) of existing data [n ≥ 8] for an analyte within the specified chemical group exceeds its associated screening level (DCGL).

I = Indeterminate; the unit is not impacted (i.e., mean of existing data ≤ DCGL for n ≥ 8) or insufficient data exists (i.e., n < 8) to statistically evaluate whether the unit has been impacted.

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-4. Chemical Risk Data Gap Summary for Rural Residential Scenario (2-10 ft. Soil Interval)

Exposure Unit (EU ID)	Data Gap (Additional Number of Samples Required) by Chemical Group															Overall Adjusted EU Data Gap
	VOCs			SVOCs			PCBs			Dioxins/Furans			Metals			
	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	No. of Samples (Statistical-based)	Area Impacted?	Adjusted No. of Samples	
EU-01	14	I	14	50	Y	10	10	I	10	0	Y	0	7	I	7	14
EU-02	15	I	15	15	I	15	15	I	15	12	I	12	14	I	14	15
EU-03	12	Y	12	399	Y	13	15	I	15	13	I	13	0	I	0	15
EU-04	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-05	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-06	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-07	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-08	15	I	15	11	I	11	12	I	12	15	I	15	0	I	0	15
EU-09	13	Y	13	14	I	14	15	I	15	15	I	15	534	Y	18	18
EU-10	13	I	13	14	I	14	15	I	15	5	Y	5	11	I	11	15
EU-11	13	I	13	15	I	15	12	I	12	0	Y	0	12	I	12	15
EU-12	15	I	15	14	I	14	15	I	15	15	I	15	8	I	8	15
EU-13	14	I	14	15	I	15	15	I	15	14	I	14	14	Y	14	15
EU-14	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-15	15	I	15	15	I	15	15	I	15	15	I	15	14	I	14	15
EU-16	15	I	15	3	I	3	3	I	3	10	I	10	14	I	14	15
TOTAL	229		229	640		214	217		217	189		189	698		182	242

Y = Yes; the average (mean) of existing data [$n \geq 8$] for an analyte within the specified chemical group exceeds its associated screening level (DCGL).

I = Indeterminate; the unit is not impacted (i.e., mean of existing data $\leq$ DCGL for $n \geq 8$) or insufficient data exists (i.e., $n < 8$) to statistically evaluate whether the unit has been impacted.

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-01	18.82	Dioxins	TCDD-TEQ (Total all)	mg/kg	17	1.84E-04	26	1.19E-05	3.63E-05	1.5	15	0	Y	22	1.40E-05	3.93E-05	1.5	15	0	Y
EU-01	18.82	Inorganic	Aluminum	mg/kg	37	24000	38	1.21E+04	4.86E+03	3.0	8	0	I	38	1.21E+04	4.86E+03	3.0	8	0	I
EU-01	18.82	Inorganic	Antimony	mg/kg	11	11.7	31	4.34E+00	5.05E+00	3.0	8	0	I	21	1.22E+00	2.49E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Arsenic	mg/kg	33	6.6	44	3.79E+00	1.37E+00	3.0	8	0	I	44	3.79E+00	1.37E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Barium	mg/kg	44	140	44	8.22E+01	2.31E+01	3.0	8	0	I	44	8.22E+01	2.31E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Beryllium	mg/kg	36	1	44	5.02E-01	1.78E-01	3.0	8	0	I	44	5.02E-01	1.78E-01	3.0	8	0	I
EU-01	18.82	Inorganic	Boron	mg/kg	18	31.8	38	7.62E+00	5.06E+00	3.0	8	0	I	38	7.62E+00	5.06E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Cadmium	mg/kg	24	3.2	44	8.65E-01	7.24E-01	3.0	8	0	I	44	8.65E-01	7.24E-01	3.0	8	0	I
EU-01	18.82	Inorganic	Chromium	mg/kg	44	79.1	44	1.97E+01	1.17E+01	3.0	8	0	I	44	1.97E+01	1.17E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Cobalt	mg/kg	43	10	44	6.06E+00	2.03E+00	3.0	8	0	I	44	6.06E+00	2.03E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Copper	mg/kg	44	634	44	4.31E+01	1.30E+02	3.0	8	0	I	44	4.31E+01	1.30E+02	1.0	26	0	I
EU-01	18.82	Inorganic	Lead	mg/kg	42	552	44	3.64E+01	8.31E+01	0.9	31	0	I	44	3.64E+01	8.31E+01	0.9	31	0	I
EU-01	18.82	Inorganic	Manganese	mg/kg	11	362	11	2.29E+02	8.77E+01	3.0	8	0	I	11	2.29E+02	8.77E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Mercury	mg/kg	26	23	44	6.51E-01	3.45E+00	3.0	8	0	I	44	6.51E-01	3.45E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Molybdenum	mg/kg	18	1.2	44	4.71E+00	4.95E+00	3.0	8	0	I	44	4.71E+00	4.95E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Nickel	mg/kg	41	75	44	1.63E+01	1.21E+01	3.0	8	0	I	44	1.63E+01	1.21E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Selenium	mg/kg	5	0.37	38	2.35E+00	2.29E+00	3.0	8	0	I	38	2.35E+00	2.29E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Silver	mg/kg	31	49.9	49	3.37E+00	8.85E+00	3.0	8	0	I	49	3.37E+00	8.85E+00	2.4	9	0	I
EU-01	18.82	Inorganic	Thallium	mg/kg	27	2.4	42	1.33E+00	1.88E+00	1.4	15	0	I	42	1.33E+00	1.88E+00	1.4	15	0	I
EU-01	18.82	Inorganic	Vanadium	mg/kg	44	66	44	3.26E+01	1.17E+01	3.0	8	0	I	44	3.26E+01	1.17E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Zinc	mg/kg	44	732	44	9.82E+01	1.04E+02	3.0	8	0	I	44	9.82E+01	1.04E+02	3.0	8	0	I
EU-01	18.82	PCBs	Aroclor 1242	mg/kg			35	7.78E-02	4.01E-02	2.8	11	0	I	37			3.0	11	0	I
EU-01	18.82	PCBs	Aroclor 1248	mg/kg	1	0.18	35	7.72E-02	3.85E-02	2.9	11	0	I	1	1.80E-01		1.5	15	14	I
EU-01	18.82	PCBs	Aroclor 1254	mg/kg	18	2.2	37	2.37E-01	4.31E-01	1.5	15	0	Y	18	4.12E-01	5.74E-01	1.5	15	0	Y
EU-01	18.82	PCBs	Aroclor 1260	mg/kg	13	2	36	1.70E-01	3.58E-01	0.3	185	149	I	13	3.31E-01	5.72E-01	1.5	15	2	Y
EU-01	18.82	SVOC	2-Methylnaphthalene	mg/kg	8	0.78	33	7.21E-02	1.54E-01	3.0	11	0	I	33	7.21E-02	1.54E-01	3.0	11	0	I
EU-01	18.82	SVOC	Acenaphthene	mg/kg	1	0.008	50	2.30E-01	6.50E-01	3.0	11	0	I	50	2.30E-01	6.50E-01	3.0	11	0	I
EU-01	18.82	SVOC	Anthracene	mg/kg	7	0.039	50	2.31E-01	6.49E-01	3.0	11	0	I	50	2.31E-01	6.49E-01	3.0	11	0	I
EU-01	18.82	SVOC	Benzo(a)anthracene	mg/kg	12	0.34	47	1.00E-01	1.29E-01	1.5	15	0	I	36	5.16E-02	9.29E-02	1.5	15	0	Y
EU-01	18.82	SVOC	Benzo(a)pyrene	mg/kg	12	0.28	37	4.33E-02	7.04E-02	1.5	15	0	Y	16	6.72E-02	1.04E-01	1.5	15	0	Y
EU-01	18.82	SVOC	Benzo(b)fluoranthene	mg/kg	15	0.46	47	1.03E-01	1.38E-01	1.4	16	0	I	37	5.60E-02	1.08E-01	1.5	15	0	Y
EU-01	18.82	SVOC	Benzo(k)fluoranthene	mg/kg	12	0.38	47	1.00E-01	1.27E-01	1.5	15	0	I	38	5.16E-02	8.65E-02	1.1	21	0	I
EU-01	18.82	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	6	0.23	32	8.80E-01	2.17E+00	3.0	11	0	I	29	2.82E-01	3.24E-01	3.0	11	0	I
EU-01	18.82	SVOC	Chrysene	mg/kg	18	0.5	50	2.73E-01	6.50E-01	2.9	11	0	I	48	1.56E-01	2.92E-01	3.0	11	0	I
EU-01	18.82	SVOC	Dibenzo(a,h)anthracene	mg/kg	8	0.033	38	2.20E-02	1.69E-02	3.0	11	0	I	12	1.03E-02	1.12E-02	1.5	15	3	Y
EU-01	18.82	SVOC	Diethyl phthalate	mg/kg	1	0.0061	32	8.52E-01	2.18E+00	3.0	11	0	I	32	8.52E-01	2.18E+00	3.0	11	0	I
EU-01	18.82	SVOC	Di-n-butyl phthalate	mg/kg	3	0.02	32	8.62E-01	2.18E+00	3.0	11	0	I	32	8.62E-01	2.18E+00	3.0	11	0	I
EU-01	18.82	SVOC	Fluoranthene	mg/kg	17	2.1	50	3.50E-01	7.45E-01	3.0	11	0	I	50	3.50E-01	7.45E-01	3.0	11	0	I
EU-01	18.82	SVOC	Fluorene	mg/kg	1	0.006	50	2.30E-01	6.50E-01	3.0	11	0	I	50	2.30E-01	6.50E-01	3.0	11	0	I
EU-01	18.82	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	9	0.11	47	8.33E-02	1.12E-01	1.7	14	0	I	36	2.80E-02	2.58E-02	0.7	40	4	I
EU-01	18.82	SVOC	Naphthalene	mg/kg	7	0.64	49	8.72E-02	1.38E-01	3.0	11	0	I	49	8.72E-02	1.38E-01	3.0	11	0	I
EU-01	18.82	SVOC	Pyrene	mg/kg	18	1.6	50	3.18E-01	6.85E-01	3.0	11	0	I	50	3.18E-01	6.85E-01	3.0	11	0	I
EU-01	18.82	VOC	1,1,1-Trichloroethane	mg/kg			23	5.42E-03	2.01E-03	3.0	11	0	I	23	5.42E-03	2.01E-03	3.0	11	0	I
EU-01	18.82	VOC	1,1-Dichloroethane	mg/kg			23	5.42E-03	2.01E-03	3.0	11	0	I	23	5.42E-03	2.01E-03	3.0	11	0	I
EU-01	18.82	VOC	1,1-Dichloroethene	mg/kg			23	5.97E-03	1.60E-03	3.0	11	0	I	23	5.97E-03	1.60E-03	3.0	11	0	I
EU-01	18.82	VOC	Acetone	mg/kg	2	4.8	18	3.16E-01	1.12E+00	3.0	11	0	I	18	3.16E-01	1.12E+00	3.0	11	0	I
EU-01	18.82	VOC	Benzene	mg/kg			23	5.42E-03	2.01E-03	3.0	11	0	I	23	5.42E-03	2.01E-03	3.0	11	0	I
EU-01	18.82	VOC	cis-1,2-Dichloroethene	mg/kg			13	5.82E-03	2.54E-03	3.0	11	0	I	13	5.82E-03	2.54E-03	3.0	11	0	I
EU-01	18.82	VOC	Ethylbenzene	mg/kg			23	5.38E-03	2.03E-03	3.0	11	0	I	23	5.38E-03	2.03E-03	3.0	11	0	I
EU-01	18.82	VOC	m,p-Xylenes	mg/kg			13	5.82E-03	2.54E-03	3.0	11	0	I	13	5.82E-03	2.54E-03	3.0	11	0	I
EU-01	18.82	VOC	Methyl ethyl ketone	mg/kg	2	0.011	19	3.89E-02	3.13E-02	3.0	11	0	I	19	3.89E-02	3.13E-02	3.0	11	0	I
EU-01	18.82	VOC	Methylene chloride	mg/kg	4	0.28	23	3.56E-02	6.42E-02	3.0	11	0	I	23	3.56E-02	6.42E-02	3.0	11	0	I
EU-01	18.82	VOC	Tetrachloroethene	mg/kg			23	5.42E-03	2.01E-03	3.0	11	0	I	23	5.42E-03	2.01E-03	3.0	11	0	I
EU-01	18.82	VOC	Toluene	mg/kg	5	0.014	23	6.20E-03	3.29E-03	3.0	11	0	I	23	6.20E-03	3.29E-03	3.0	11	0	I
EU-01	18.82	VOC	trans-1,2-Dichloroethene	mg/kg			18	5.59E-03	2.17E-03	3.0	11	0	I	18	5.59E-03	2.17E-03	3.0	11	0	I
EU-01	18.82	VOC	Trichloroethene	mg/kg			23	5.42E-03	2.01E-03	3.0	11	0	I	23	5.42E-03	2.01E-03	3.0	11	0	I
EU-01	18.82	VOC	Vinyl chloride	mg/kg			23	9.94E-03	3.69E-03	3.0	11	0	I	2	2.35E-03	4.95E-04	1.5	15	13	I
EU-01	18.82	VOC	Xylenes, Total	mg/kg	4	0.013	7	8.29E-03	3.25E-03	1.5	15	8	I	7	8.29E-03	3.25E-03	1.5	15	8	I
EU-02	17.64	Dioxins	TCDD-TEQ (Total all)	mg/kg	27	6.64E-04	34	6.32E-05	1.63E-04	1.5	15	0	Y	29	7.39E-05	1.75E-04	1.5	15	0	Y
EU-02	17.64	Inorganic	Aluminum	mg/kg	9	14000	9	1.11E+04	2.21E+03	3.0	8	0	I	9	1.11E+04	2.21E+03	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-02	17.64	Inorganic	Antimony	mg/kg			11	1.01E+01	3.41E+00	3.0	8	0	I	1	3.40E-02		1.5	14	13	I
EU-02	17.64	Inorganic	Arsenic	mg/kg	10	9	19	4.16E+00	2.00E+00	3.0	8	0	I	19	4.16E+00	2.00E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Barium	mg/kg	22	1000	22	2.06E+02	3.19E+02	3.0	8	0	I	22	2.06E+02	3.19E+02	2.2	10	0	I
EU-02	17.64	Inorganic	Beryllium	mg/kg	11	0.7	19	4.95E-01	1.21E-01	3.0	8	0	I	19	4.95E-01	1.21E-01	3.0	8	0	I
EU-02	17.64	Inorganic	Boron	mg/kg	1	2.5	9	5.87E+00	1.44E+00	3.0	8	0	I	9	5.87E+00	1.44E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Cadmium	mg/kg	12	20	19	1.81E+00	4.49E+00	3.0	8	0	I	19	1.81E+00	4.49E+00	0.6	64	45	I
EU-02	17.64	Inorganic	Chromium	mg/kg	19	72	19	2.26E+01	1.56E+01	3.0	8	0	I	19	2.26E+01	1.56E+01	3.0	8	0	I
EU-02	17.64	Inorganic	Cobalt	mg/kg	19	14	19	6.15E+00	2.77E+00	3.0	8	0	I	19	6.15E+00	2.77E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Copper	mg/kg	19	200	19	2.69E+01	4.78E+01	3.0	8	0	I	19	2.69E+01	4.78E+01	2.8	8	0	I
EU-02	17.64	Inorganic	Lead	mg/kg	25	100	25	2.46E+01	2.28E+01	3.0	8	0	I	25	2.46E+01	2.28E+01	3.0	8	0	I
EU-02	17.64	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-02	17.64	Inorganic	Mercury	mg/kg	7	1	20	1.59E-01	2.16E-01	3.0	8	0	I	20	1.59E-01	2.16E-01	3.0	8	0	I
EU-02	17.64	Inorganic	Molybdenum	mg/kg	2	0.49	19	6.07E+00	5.47E+00	3.0	8	0	I	19	6.07E+00	5.47E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Nickel	mg/kg	18	130	19	2.13E+01	3.09E+01	3.0	8	0	I	19	2.13E+01	3.09E+01	2.3	9	0	I
EU-02	17.64	Inorganic	Selenium	mg/kg			19	3.00E+00	2.73E+00	3.0	8	0	I	19	3.00E+00	2.73E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Silver	mg/kg	13	150	22	1.70E+01	4.12E+01	3.0	8	0	I	22	1.70E+01	4.12E+01	0.5	90	68	I
EU-02	17.64	Inorganic	Thallium	mg/kg	9	0.35	14	1.95E+00	2.36E+00	1.1	22	8	I	14	1.95E+00	2.36E+00	1.1	22	8	I
EU-02	17.64	Inorganic	Vanadium	mg/kg	19	38	19	2.79E+01	6.35E+00	3.0	8	0	I	19	2.79E+01	6.35E+00	3.0	8	0	I
EU-02	17.64	Inorganic	Zinc	mg/kg	22	3400	22	4.99E+02	9.71E+02	3.0	8	0	I	22	4.99E+02	9.71E+02	0.7	48	26	I
EU-02	17.64	PCBs	Aroclor 1242	mg/kg			4	1.71E-01	5.86E-02	1.5	15	11	I	5			1.5	15	10	I
EU-02	17.64	PCBs	Aroclor 1248	mg/kg			4	1.71E-01	5.86E-02	1.5	15	11	I	5			1.5	15	10	I
EU-02	17.64	PCBs	Aroclor 1254	mg/kg	1	0.071	5	1.51E-01	6.76E-02	1.5	15	10	I	1	7.10E-02		1.5	15	14	I
EU-02	17.64	PCBs	Aroclor 1260	mg/kg			4	1.71E-01	5.86E-02	1.5	15	11	I	5			1.5	15	10	I
EU-02	17.64	SVOC	2-Methylnaphthalene	mg/kg			9	6.97E-02	7.55E-02	3.0	11	2	I	9	6.97E-02	7.55E-02	3.0	11	2	I
EU-02	17.64	SVOC	Acenaphthene	mg/kg			13	8.98E-02	7.75E-02	3.0	11	0	I	13	8.98E-02	7.75E-02	3.0	11	0	I
EU-02	17.64	SVOC	Anthracene	mg/kg			13	8.98E-02	7.75E-02	3.0	11	0	I	13	8.98E-02	7.75E-02	3.0	11	0	I
EU-02	17.64	SVOC	Benzo(a)anthracene	mg/kg	1	0.012	13	9.04E-02	7.68E-02	2.5	11	0	I	7	2.21E-02	5.34E-03	1.5	15	8	I
EU-02	17.64	SVOC	Benzo(a)pyrene	mg/kg	2	0.043	7	2.41E-02	9.10E-03	1.5	15	8	I	2	2.80E-02	2.12E-02	1.5	15	13	I
EU-02	17.64	SVOC	Benzo(b)fluoranthene	mg/kg	2	0.065	13	9.40E-02	7.41E-02	2.6	11	0	I	7	2.89E-02	1.60E-02	1.5	15	8	I
EU-02	17.64	SVOC	Benzo(k)fluoranthene	mg/kg	1	0.012	13	9.04E-02	7.68E-02	2.5	11	0	I	13	9.04E-02	7.68E-02	1.2	18	5	I
EU-02	17.64	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	1	0.022	8	1.43E-01	5.45E-02	3.0	11	3	I	8	1.43E-01	5.45E-02	3.0	11	3	I
EU-02	17.64	SVOC	Chrysene	mg/kg	2	0.027	13	9.16E-02	7.56E-02	3.0	11	0	I	13	9.16E-02	7.56E-02	3.0	11	0	I
EU-02	17.64	SVOC	Dibenzo(a,h)anthracene	mg/kg	1	0.008	7	2.16E-02	6.65E-03	1.5	15	8	I	1	8.00E-03		1.5	15	14	I
EU-02	17.64	SVOC	Diethyl phthalate	mg/kg			8	1.43E-01	5.48E-02	3.0	11	3	I	8	1.43E-01	5.48E-02	3.0	11	3	I
EU-02	17.64	SVOC	Di-n-butyl phthalate	mg/kg			8	1.43E-01	5.48E-02	3.0	11	3	I	8	1.43E-01	5.48E-02	3.0	11	3	I
EU-02	17.64	SVOC	Fluoranthene	mg/kg	3	0.036	13	9.27E-02	7.46E-02	3.0	11	0	I	13	9.27E-02	7.46E-02	3.0	11	0	I
EU-02	17.64	SVOC	Fluorene	mg/kg			13	8.98E-02	7.75E-02	3.0	11	0	I	13	8.98E-02	7.75E-02	3.0	11	0	I
EU-02	17.64	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	2	0.053	13	9.24E-02	7.53E-02	2.5	11	0	I	7	2.59E-02	1.23E-02	1.5	15	8	I
EU-02	17.64	SVOC	Naphthalene	mg/kg			13	8.98E-02	7.75E-02	3.0	11	0	I	13	8.98E-02	7.75E-02	3.0	11	0	I
EU-02	17.64	SVOC	Pyrene	mg/kg	3	0.043	13	9.27E-02	7.47E-02	3.0	11	0	I	13	9.27E-02	7.47E-02	3.0	11	0	I
EU-02	17.64	VOC	1,1,1-Trichloroethane	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	1,1-Dichloroethane	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	1,1-Dichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Acetone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-02	17.64	VOC	Benzene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	cis-1,2-Dichloroethene	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-02	17.64	VOC	Ethylbenzene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	m,p-Xylenes	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-02	17.64	VOC	Methyl ethyl ketone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-02	17.64	VOC	Methylene chloride	mg/kg			6	3.00E-01	5.44E-09	1.5	15	9	I	6	3.00E-01	5.44E-09	1.5	15	9	I
EU-02	17.64	VOC	Tetrachloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6			1.5	15	9	I
EU-02	17.64	VOC	Toluene	mg/kg	2	0.11	6	7.00E-02	3.10E-02	1.5	15	9	I	6	7.00E-02	3.10E-02	1.5	15	9	I
EU-02	17.64	VOC	trans-1,2-Dichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Trichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6			1.5	15	9	I
EU-02	17.64	VOC	Vinyl chloride	mg/kg			3		1.5	15	12	I	6			1.5	15	9	I	
EU-02	17.64	VOC	Xylenes, Total	mg/kg			3	5.00E-02	0.00E+00	1.5	15	12	I	3	5.00E-02	0.00E+00	1.5	15	12	I
EU-03	18.12	Dioxins	TCDD-TEQ (Total all)	mg/kg	9	2.62E-05	11	4.77E-06	7.98E-06	1.5	15	4	Y	10	5.23E-06	8.26E-06	1.5	15	5	Y
EU-03	18.12	Inorganic	Aluminum	mg/kg	17	15000	17	1.03E+04	2.74E+03	3.0	8	0	I	17	1.03E+04	2.74E+03	3.0	8	0	I
EU-03	18.12	Inorganic	Antimony	mg/kg	10	0.86	23	4.12E+00	5.09E+00	3.0	8	0	I	18	1.59E+00	1.30E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Arsenic	mg/kg	25	9	29	3.58E+00	1.98E+00	3.0	8	0	I	29	3.58E+00	1.98E+00	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-03	18.12	Inorganic	Barium	mg/kg	29	200	29	6.75E+01	2.96E+01	3.0	8	0	I	29	6.75E+01	2.96E+01	3.0	8	0	I
EU-03	18.12	Inorganic	Beryllium	mg/kg	18	1.4	29	5.26E-01	2.23E-01	3.0	8	0	I	29	5.26E-01	2.23E-01	3.0	8	0	I
EU-03	18.12	Inorganic	Boron	mg/kg	4	10	17	4.68E+00	2.79E+00	3.0	8	0	I	17	4.68E+00	2.79E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Cadmium	mg/kg	14	4.6	29	7.07E-01	9.36E-01	3.0	8	0	I	29	7.07E-01	9.36E-01	2.9	8	0	I
EU-03	18.12	Inorganic	Chromium	mg/kg	29	41	29	1.66E+01	8.23E+00	3.0	8	0	I	29	1.66E+01	8.23E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Cobalt	mg/kg	29	15	29	5.73E+00	2.53E+00	3.0	8	0	I	29	5.73E+00	2.53E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Copper	mg/kg	29	130	29	2.32E+01	3.14E+01	3.0	8	0	I	29	2.32E+01	3.14E+01	3.0	8	0	I
EU-03	18.12	Inorganic	Lead	mg/kg	29	89.6	29	1.81E+01	2.14E+01	3.0	8	0	I	29	1.81E+01	2.14E+01	3.0	8	0	I
EU-03	18.12	Inorganic	Manganese	mg/kg	7	907	7	3.29E+02	2.64E+02	1.5	14	7	I	7	3.29E+02	2.64E+02	1.5	14	7	I
EU-03	18.12	Inorganic	Mercury	mg/kg	58	35	75	1.73E+00	5.17E+00	2.3	9	0	I	75	1.73E+00	5.17E+00	2.3	9	0	I
EU-03	18.12	Inorganic	Molybdenum	mg/kg	8	0.88	29	4.80E+00	5.44E+00	3.0	8	0	I	29	4.80E+00	5.44E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Nickel	mg/kg	26	24	29	9.39E+00	4.70E+00	3.0	8	0	I	29	9.39E+00	4.70E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Selenium	mg/kg	1	0.77	31	1.74E+00	2.30E+00	3.0	8	0	I	31	1.74E+00	2.30E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Silver	mg/kg	6	4.8	32	1.19E+00	1.56E+00	3.0	8	0	I	32	1.19E+00	1.56E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Thallium	mg/kg	11	0.33	26	4.74E-01	3.87E-01	3.0	8	0	I	26	4.74E-01	3.87E-01	3.0	8	0	I
EU-03	18.12	Inorganic	Vanadium	mg/kg	29	77	29	2.60E+01	1.13E+01	3.0	8	0	I	29	2.60E+01	1.13E+01	3.0	8	0	I
EU-03	18.12	Inorganic	Zinc	mg/kg	29	4630	29	3.42E+02	8.78E+02	3.0	8	0	I	29	3.42E+02	8.78E+02	0.8	38	9	I
EU-03	18.12	PCBs	Aroclor 1242	mg/kg			23	6.95E-02	4.84E-02	2.3	12	0	I	3	4.73E-03	2.12E-03	1.5	15	12	I
EU-03	18.12	PCBs	Aroclor 1248	mg/kg			23	6.95E-02	4.84E-02	2.3	12	0	I	3	4.73E-03	2.12E-03	1.5	15	12	I
EU-03	18.12	PCBs	Aroclor 1254	mg/kg	7	0.43	23	9.28E-02	8.89E-02	1.2	18	0	I	7	1.15E-01	1.50E-01	1.5	15	8	I
EU-03	18.12	PCBs	Aroclor 1260	mg/kg	10	7.8	28	1.22E+00	2.52E+00	1.5	15	0	Y	10	3.27E+00	3.42E+00	1.5	15	5	Y
EU-03	18.12	SVOC	2-Methylnaphthalene	mg/kg	1	0.00449	7	7.93E-03	6.69E-03	1.5	15	8	I	7	7.93E-03	6.69E-03	1.5	15	8	I
EU-03	18.12	SVOC	Acenaphthene	mg/kg			10	5.62E-02	1.28E-01	3.0	11	1	I	10	5.62E-02	1.28E-01	3.0	11	1	I
EU-03	18.12	SVOC	Anthracene	mg/kg			10	5.62E-02	1.28E-01	3.0	11	1	I	10	5.62E-02	1.28E-01	3.0	11	1	I
EU-03	18.12	SVOC	Benzo(a)anthracene	mg/kg	2	0.004	9	1.58E-02	1.35E-02	3.0	11	2	I	8	1.29E-02	1.10E-02	1.6	14	6	I
EU-03	18.12	SVOC	Benzo(a)pyrene	mg/kg	2	0.004	7	1.40E-02	1.13E-02	1.5	15	8	I	3	3.67E-03	5.77E-04	1.5	15	12	I
EU-03	18.12	SVOC	Benzo(b)fluoranthene	mg/kg	4	0.0144	8	1.74E-02	1.30E-02	3.0	11	3	I	7	1.43E-02	1.04E-02	1.5	15	8	I
EU-03	18.12	SVOC	Benzo(k)fluoranthene	mg/kg	2	0.006	8	1.74E-02	1.34E-02	3.0	11	3	I	8	1.74E-02	1.34E-02	3.0	11	3	I
EU-03	18.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	3	0.0194	6	2.80E-01	5.51E-01	1.5	15	9	I	6	2.80E-01	5.51E-01	1.5	15	9	I
EU-03	18.12	SVOC	Chrysene	mg/kg	3	0.008	10	5.71E-02	1.28E-01	3.0	11	1	I	10	5.71E-02	1.28E-01	3.0	11	1	I
EU-03	18.12	SVOC	Dibenzo(a,h)anthracene	mg/kg			8	1.69E-02	1.40E-02	3.0	11	3	I	3	3.00E-03	6.72E-11	1.5	15	12	I
EU-03	18.12	SVOC	Diethyl phthalate	mg/kg			6	2.82E-01	5.50E-01	1.5	15	9	I	6	2.82E-01	5.50E-01	1.5	15	9	I
EU-03	18.12	SVOC	Di-n-butyl phthalate	mg/kg	3	0.011	6	2.78E-01	5.52E-01	1.5	15	9	I	6	2.78E-01	5.52E-01	1.5	15	9	I
EU-03	18.12	SVOC	Fluoranthene	mg/kg	4	0.0084	10	5.59E-02	1.29E-01	3.0	11	1	I	10	5.59E-02	1.29E-01	3.0	11	1	I
EU-03	18.12	SVOC	Fluorene	mg/kg			10	5.62E-02	1.28E-01	3.0	11	1	I	10	5.62E-02	1.28E-01	3.0	11	1	I
EU-03	18.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	1	0.005	8	1.71E-02	1.37E-02	3.0	11	3	I	7	1.40E-02	1.13E-02	1.5	15	8	I
EU-03	18.12	SVOC	Naphthalene	mg/kg	1	0.00613	10	5.50E-02	1.29E-01	3.0	11	1	I	10	5.50E-02	1.29E-01	3.0	11	1	I
EU-03	18.12	SVOC	Pyrene	mg/kg	4	0.00982	10	5.60E-02	1.28E-01	3.0	11	1	I	10	5.60E-02	1.28E-01	3.0	11	1	I
EU-03	18.12	VOC	1,1,1-Trichloroethane	mg/kg			14	3.09E-02	2.29E-02	3.0	11	0	I	14	3.09E-02	2.29E-02	3.0	11	0	I
EU-03	18.12	VOC	1,1-Dichloroethane	mg/kg			14	3.09E-02	2.29E-02	3.0	11	0	I	14	3.09E-02	2.29E-02	3.0	11	0	I
EU-03	18.12	VOC	1,1-Dichloroethene	mg/kg			14	3.09E-02	2.29E-02	3.0	11	0	I	6	5.33E-03	5.16E-04	1.5	15	9	I
EU-03	18.12	VOC	Acetone	mg/kg	3	5.2	14	9.70E-01	1.30E+00	3.0	11	0	I	14	9.70E-01	1.30E+00	3.0	11	0	I
EU-03	18.12	VOC	Benzene	mg/kg			14	3.09E-02	2.29E-02	3.0	11	0	I	14	3.09E-02	2.29E-02	2.0	12	0	I
EU-03	18.12	VOC	cis-1,2-Dichloroethene	mg/kg			6	5.33E-03	5.16E-04	1.5	15	9	I	6	5.33E-03	5.16E-04	1.5	15	9	I
EU-03	18.12	VOC	Ethylbenzene	mg/kg			14	3.09E-02	2.29E-02	3.0	11	0	I	14	3.09E-02	2.29E-02	3.0	11	0	I
EU-03	18.12	VOC	m,p-Xylenes	mg/kg			6	7.83E-03	2.79E-03	1.5	15	9	I	6	7.83E-03	2.79E-03	1.5	15	9	I
EU-03	18.12	VOC	Methyl ethyl ketone	mg/kg	3	0.037	6	3.62E-02	2.38E-02	1.5	15	9	I	6	3.62E-02	2.38E-02	1.5	15	9	I
EU-03	18.12	VOC	Methylene chloride	mg/kg	2	0.013	14	1.79E-01	1.46E-01	3.0	11	0	I	14	1.79E-01	1.46E-01	1.8	12	0	I
EU-03	18.12	VOC	Tetrachloroethene	mg/kg	1	0.1	14	3.44E-02	2.92E-02	3.0	11	0	I	7	1.89E-02	3.58E-02	1.5	15	8	I
EU-03	18.12	VOC	Toluene	mg/kg	1	0.42	14	8.21E-02	1.08E-01	3.0	11	0	I	14	8.21E-02	1.08E-01	3.0	11	0	I
EU-03	18.12	VOC	trans-1,2-Dichloroethene	mg/kg			6	5.33E-03	5.16E-04	1.5	15	9	I	6	5.33E-03	5.16E-04	1.5	15	9	I
EU-03	18.12	VOC	Trichloroethene	mg/kg	2	0.22	14	4.87E-02	6.03E-02	3.0	11	0	I	8	4.78E-02	8.21E-02	1.5	15	7	Y
EU-03	18.12	VOC	Vinyl chloride	mg/kg			6	8.33E-03	3.33E-03	1.5	15	9	I				1.5	15	15	I
EU-03	18.12	VOC	Xylenes, Total	mg/kg	1	0.08	11	4.34E-02	1.99E-02	3.0	11	0	I	11	4.34E-02	1.99E-02	3.0	11	0	I
EU-04	18.26	Dioxins	TCDD-TEQ (Total all)	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-04	18.26	Inorganic	Aluminum	mg/kg	4	14000	4	1.23E+04	1.50E+03	1.5	14	10	I	4	1.23E+04	1.50E+03	1.5	14	10	I
EU-04	18.26	Inorganic	Antimony	mg/kg	2	0.16	4	1.35E-01	3.08E-02	1.5	14	10	I	4	1.35E-01	3.08E-02	1.5	14	10	I
EU-04	18.26	Inorganic	Arsenic	mg/kg	4	3.4	4	2.90E+00	7.57E-01	1.5	14	10	I	4	2.90E+00	7.57E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Barium	mg/kg	4	79	4	7.35E+01	4.12E+00	1.5	14	10	I	4	7.35E+01	4.12E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Beryllium	mg/kg	4	0.56	4	4.75E-01	8.27E-02	1.5	14	10	I	4	4.75E-01	8.27E-02	1.5	14	10	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-04	18.26	Inorganic	Boron	mg/kg	4	3.5	4	2.93E+00	4.57E-01	1.5	14	10	I	4	2.93E+00	4.57E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Cadmium	mg/kg	4	0.39	4	1.79E-01	1.41E-01	1.5	14	10	I	4	1.79E-01	1.41E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Chromium	mg/kg	4	24	4	1.83E+01	3.95E+00	1.5	14	10	I	4	1.83E+01	3.95E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Cobalt	mg/kg	4	6.5	4	6.00E+00	3.92E-01	1.5	14	10	I	4	6.00E+00	3.92E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Copper	mg/kg	4	15	4	1.13E+01	2.53E+00	1.5	14	10	I	4	1.13E+01	2.53E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Lead	mg/kg	4	40	4	1.47E+01	1.69E+01	1.5	14	10	I	4	1.47E+01	1.69E+01	1.5	14	10	I
EU-04	18.26	Inorganic	Manganese	mg/kg	4	290	4	2.88E+02	5.00E+00	1.5	14	10	I	4	2.88E+02	5.00E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Mercury	mg/kg	4	0.024	4	1.34E-02	7.15E-03	1.5	14	10	I	4	1.34E-02	7.15E-03	1.5	14	10	I
EU-04	18.26	Inorganic	Molybdenum	mg/kg	4		4	5.48E-01	1.05E-01	1.5	14	10	I	4	5.48E-01	1.05E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Nickel	mg/kg	4	14	4	1.15E+01	1.73E+00	1.5	14	10	I	4	1.15E+01	1.73E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Selenium	mg/kg	2	0.26	4	4.33E-01	2.60E-01	1.5	14	10	I	4	4.33E-01	2.60E-01	1.5	14	10	I
EU-04	18.26	Inorganic	Silver	mg/kg	5	0.15	5	8.76E-02	5.70E-02	1.5	14	9	I	5	8.76E-02	5.70E-02	1.5	14	9	I
EU-04	18.26	Inorganic	Thallium	mg/kg	4	0.48	4	4.00E-01	9.06E-02	1.5	14	10	I	4	4.00E-01	9.06E-02	1.5	14	10	I
EU-04	18.26	Inorganic	Vanadium	mg/kg	4	36	4	3.18E+01	3.69E+00	1.5	14	10	I	4	3.18E+01	3.69E+00	1.5	14	10	I
EU-04	18.26	Inorganic	Zinc	mg/kg	4	120	4	6.58E+01	3.66E+01	1.5	14	10	I	4	6.58E+01	3.66E+01	1.5	14	10	I
EU-04	18.26	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	SVOC	Acenaphthene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Anthracene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Benzo(a)anthracene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I				1.5	15	15	I
EU-04	18.26	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I	3			1.5	15	12	I
EU-04	18.26	SVOC	Benzo(b)fluoranthene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I				1.5	15	15	I
EU-04	18.26	SVOC	Benzo(k)fluoranthene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I				1.5	15	15	I
EU-04	18.26	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Chrysene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I	3			1.5	15	12	I
EU-04	18.26	SVOC	Diethyl phthalate	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Di-n-butyl phthalate	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Fluoranthene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Fluorene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I				1.5	15	15	I
EU-04	18.26	SVOC	Naphthalene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	SVOC	Pyrene	mg/kg			3	3.00E-01	6.08E-09	1.5	15	12	I	3	3.00E-01	6.08E-09	1.5	15	12	I
EU-04	18.26	VOC	1,1,1-Trichloroethane	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	1,1-Dichloroethane	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	1,1-Dichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	Acetone	mg/kg	2	0.01	2	1.00E-02	0.00E+00	1.5	15	13	I	2	1.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	VOC	Benzene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	VOC	Ethylbenzene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	VOC	Methyl ethyl ketone	mg/kg	2	0.09	2	5.00E-02	5.66E-02	1.5	15	13	I	2	5.00E-02	5.66E-02	1.5	15	13	I
EU-04	18.26	VOC	Methylene chloride	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	Tetrachloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	Toluene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	trans-1,2-Dichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	Trichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-04	18.26	VOC	Vinyl chloride	mg/kg			3	1.00E-02	1.34E-10	1.5	15	12	I	3			1.5	15	12	I
EU-04	18.26	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Arsenic	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Barium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Beryllium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Cadmium	mg/kg						1.5	14	14	I				1.5	14	14	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-05	18.87	Inorganic	Chromium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Cobalt	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Copper	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Lead	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Mercury	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Molybdenum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Nickel	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Silver	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Vanadium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Zinc	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	SVOC	Acenaphthene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Anthracene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Benzo(a)anthracene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Benzo(a)pyrene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Benzo(b)fluoranthene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Benzo(k)fluoranthene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Chrysene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Dibenzo(a,h)anthracene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Diethyl phthalate	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Di-n-butyl phthalate	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Fluoranthene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Fluorene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Naphthalene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	SVOC	Pyrene	mg/kg			2	1.70E-01	0.00E+00	1.5	15	13	I	2	1.70E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	1,1,1-Trichloroethane	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	1,1-Dichloroethane	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	1,1-Dichloroethene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Benzene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Ethylbenzene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Methylene chloride	mg/kg			2	3.00E-01	0.00E+00	1.5	15	13	I	2	3.00E-01	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	Tetrachloroethene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	Toluene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	trans-1,2-Dichloroethene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	Trichloroethene	mg/kg			2	5.00E-02	0.00E+00	1.5	15	13	I	2	5.00E-02	0.00E+00	1.5	15	13	I
EU-05	18.87	VOC	Vinyl chloride	mg/kg			2			1.5	15	13	I	2			1.5	15	13	I
EU-05	18.87	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	Inorganic	Aluminum	mg/kg	6	14400	6	1.14E+04	2.70E+03	1.5	14	8	I	6	1.14E+04	2.70E+03	1.5	14	8	I
EU-06	18.08	Inorganic	Antimony	mg/kg	2	4.3	12	4.39E+00	3.12E+00	3.0	8	0	I	10	3.07E+00	5.08E-01	3.0	8	0	I
EU-06	18.08	Inorganic	Arsenic	mg/kg	14	5.9	17	3.93E+00	1.31E+00	3.0	8	0	I	17	3.93E+00	1.31E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Barium	mg/kg	17	126	17	9.64E+01	2.00E+01	3.0	8	0	I	17	9.64E+01	2.00E+01	3.0	8	0	I
EU-06	18.08	Inorganic	Beryllium	mg/kg	14	1.2	17	6.65E-01	2.80E-01	3.0	8	0	I	17	6.65E-01	2.80E-01	3.0	8	0	I
EU-06	18.08	Inorganic	Boron	mg/kg			4	3.25E+00	2.65E-01	1.5	14	10	I	4	3.25E+00	2.65E-01	1.5	14	10	I
EU-06	18.08	Inorganic	Cadmium	mg/kg	9	2.1	17	1.01E+00	8.41E-01	3.0	8	0	I	17	1.01E+00	8.41E-01	3.0	8	0	I
EU-06	18.08	Inorganic	Chromium	mg/kg	17	28	17	1.86E+01	6.38E+00	3.0	8	0	I	17	1.86E+01	6.38E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Cobalt	mg/kg	17	10.6	17	7.64E+00	1.78E+00	3.0	8	0	I	17	7.64E+00	1.78E+00	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-06	18.08	Inorganic	Copper	mg/kg	17	15.8	17	1.19E+01	3.34E+00	3.0	8	0	I	17	1.19E+01	3.34E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Lead	mg/kg	16	15.7	17	8.32E+00	3.45E+00	3.0	8	0	I	17	8.32E+00	3.45E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Manganese	mg/kg	4	346	4	2.80E+02	4.50E+01	1.5	14	10	I	4	2.80E+02	4.50E+01	1.5	14	10	I
EU-06	18.08	Inorganic	Mercury	mg/kg	3	0.1	17	1.74E-01	8.43E-02	3.0	8	0	I	17	1.74E-01	8.43E-02	3.0	8	0	I
EU-06	18.08	Inorganic	Molybdenum	mg/kg			16	2.13E+00	3.47E+00	3.0	8	0	I	16	2.13E+00	3.47E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Nickel	mg/kg	17	17.5	17	1.22E+01	3.64E+00	3.0	8	0	I	17	1.22E+01	3.64E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Selenium	mg/kg	3	0.6	17	1.72E+00	2.19E+00	3.0	8	0	I	17	1.72E+00	2.19E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Silver	mg/kg	3	7	14	1.93E+00	2.00E+00	3.0	8	0	I	14	1.93E+00	2.00E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Thallium	mg/kg			12	1.49E+00	1.44E+00	1.8	11	0	I	12	1.49E+00	1.44E+00	1.8	11	0	I
EU-06	18.08	Inorganic	Vanadium	mg/kg	17	43.7	17	3.12E+01	7.00E+00	3.0	8	0	I	17	3.12E+01	7.00E+00	3.0	8	0	I
EU-06	18.08	Inorganic	Zinc	mg/kg	17	119	17	6.89E+01	2.31E+01	3.0	8	0	I	17	6.89E+01	2.31E+01	3.0	8	0	I
EU-06	18.08	PCBs	Aroclor 1242	mg/kg			9	4.57E-02	9.01E-03	3.0	11	2	I	9			3.0	11	2	I
EU-06	18.08	PCBs	Aroclor 1248	mg/kg			9	4.57E-02	9.01E-03	3.0	11	2	I	9			3.0	11	2	I
EU-06	18.08	PCBs	Aroclor 1254	mg/kg			9	4.57E-02	9.01E-03	3.0	11	2	I	9			3.0	11	2	I
EU-06	18.08	PCBs	Aroclor 1260	mg/kg	3	0.12	9	5.23E-02	2.83E-02	3.0	11	2	I	3	5.63E-02	5.51E-02	1.5	15	12	I
EU-06	18.08	SVOC	2-Methylnaphthalene	mg/kg			4	2.05E-02	1.91E-02	1.5	15	11	I	4	2.05E-02	1.91E-02	1.5	15	11	I
EU-06	18.08	SVOC	Acenaphthene	mg/kg			16	8.01E-02	7.25E-02	3.0	11	0	I	16	8.01E-02	7.25E-02	3.0	11	0	I
EU-06	18.08	SVOC	Anthracene	mg/kg			16	1.95E-02	1.29E-02	3.0	11	0	I	16	1.95E-02	1.29E-02	3.0	11	0	I
EU-06	18.08	SVOC	Benzo(a)anthracene	mg/kg	2	0.007	16	2.15E-02	1.14E-02	3.0	11	0	I	14	1.93E-02	1.04E-02	1.7	14	0	I
EU-06	18.08	SVOC	Benzo(a)pyrene	mg/kg	2	0.007	16	2.18E-02	1.10E-02	1.7	14	0	I	2	6.50E-03	7.07E-04	1.5	15	13	I
EU-06	18.08	SVOC	Benzo(b)fluoranthene	mg/kg	2	0.008	16	2.19E-02	1.08E-02	3.0	11	0	I	14	1.97E-02	9.76E-03	1.8	12	0	I
EU-06	18.08	SVOC	Benzo(k)fluoranthene	mg/kg	2	0.006	16	2.16E-02	1.13E-02	3.0	11	0	I	16	2.16E-02	1.13E-02	3.0	11	0	I
EU-06	18.08	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	1	0.27	6	7.00E-02	9.80E-02	1.5	15	9	I	6	7.00E-02	9.80E-02	1.5	15	9	I
EU-06	18.08	SVOC	Chrysene	mg/kg	2	0.011	16	2.23E-02	1.03E-02	3.0	11	0	I	16	2.23E-02	1.03E-02	3.0	11	0	I
EU-06	18.08	SVOC	Dibenzo(a,h)anthracene	mg/kg	1	0.019	16	2.93E-02	7.90E-03	3.0	11	0	I	1	1.90E-02		1.5	15	14	I
EU-06	18.08	SVOC	Diethyl phthalate	mg/kg			6	3.00E-02	0.00E+00	1.5	15	9	I	6	3.00E-02	0.00E+00	1.5	15	9	I
EU-06	18.08	SVOC	Di-n-butyl phthalate	mg/kg	2	0.06	6	3.67E-02	1.21E-02	1.5	15	9	I	6	3.67E-02	1.21E-02	1.5	15	9	I
EU-06	18.08	SVOC	Fluoranthene	mg/kg	2	0.007	16	2.16E-02	1.13E-02	3.0	11	0	I	16	2.16E-02	1.13E-02	3.0	11	0	I
EU-06	18.08	SVOC	Fluorene	mg/kg			16	2.14E-02	1.15E-02	3.0	11	0	I	16	2.14E-02	1.15E-02	3.0	11	0	I
EU-06	18.08	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	2	0.02	16	2.31E-02	9.63E-03	3.0	11	0	I	14	2.11E-02	8.53E-03	2.1	12	0	I
EU-06	18.08	SVOC	Naphthalene	mg/kg			16	4.69E-02	2.92E-02	3.0	11	0	I	16	4.69E-02	2.92E-02	3.0	11	0	I
EU-06	18.08	SVOC	Pyrene	mg/kg	2	0.006	16	2.15E-02	1.14E-02	3.0	11	0	I	16	2.15E-02	1.14E-02	3.0	11	0	I
EU-06	18.08	VOC	1,1,1-Trichloroethane	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	1,1-Dichloroethane	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	1,1-Dichloroethene	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	Acetone	mg/kg	3	0.059	5	3.00E-02	1.66E-02	1.5	15	10	I	5	3.00E-02	1.66E-02	1.5	15	10	I
EU-06	18.08	VOC	Benzene	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	cis-1,2-Dichloroethene	mg/kg			5	5.00E-03	7.36E-11	1.5	15	10	I	5	5.00E-03	7.36E-11	1.5	15	10	I
EU-06	18.08	VOC	Ethylbenzene	mg/kg	4	0.008	11	5.09E-03	1.04E-03	3.0	11	0	I	11	5.09E-03	1.04E-03	3.0	11	0	I
EU-06	18.08	VOC	m,p-Xylenes	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-06	18.08	VOC	Methyl ethyl ketone	mg/kg	1	0.01	2	7.50E-03	3.54E-03	1.5	15	13	I	2	7.50E-03	3.54E-03	1.5	15	13	I
EU-06	18.08	VOC	Methylene chloride	mg/kg	1	0.007	11	5.18E-03	6.03E-04	3.0	11	0	I	11	5.18E-03	6.03E-04	3.0	11	0	I
EU-06	18.08	VOC	Tetrachloroethene	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	Toluene	mg/kg	6	0.051	11	2.04E-02	1.61E-02	3.0	11	0	I	11	2.04E-02	1.61E-02	3.0	11	0	I
EU-06	18.08	VOC	trans-1,2-Dichloroethene	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	Trichloroethene	mg/kg			11	5.00E-03	1.09E-10	3.0	11	0	I	11	5.00E-03	1.09E-10	3.0	11	0	I
EU-06	18.08	VOC	Vinyl chloride	mg/kg			11	7.73E-03	2.61E-03	3.0	11	0	I	11			3.0	11	0	I
EU-06	18.08	VOC	Xylenes, Total	mg/kg	6	0.03	11	1.23E-02	8.76E-03	3.0	11	0	I	11	1.23E-02	8.76E-03	3.0	11	0	I
EU-07	16.12	Dioxins	TCDD-TEQ (Total all)	mg/kg	2	8.65E-06	4	3.17E-06	3.91E-06	1.5	15	11	I	2	5.97E-06	3.80E-06	1.5	15	13	I
EU-07	16.12	Inorganic	Aluminum	mg/kg	11	17900	11	9.76E+03	3.97E+03	3.0	8	0	I	11	9.76E+03	3.97E+03	3.0	8	0	I
EU-07	16.12	Inorganic	Antimony	mg/kg	9	11	12	7.44E+00	3.19E+00	3.0	8	0	I	10	6.93E+00	3.27E+00	2.7	9	0	I
EU-07	16.12	Inorganic	Arsenic	mg/kg	2	11.3	12	3.19E+00	3.03E+00	3.0	8	0	I	12	3.19E+00	3.03E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Barium	mg/kg	12	150	12	7.98E+01	3.05E+01	3.0	8	0	I	12	7.98E+01	3.05E+01	3.0	8	0	I
EU-07	16.12	Inorganic	Beryllium	mg/kg	9	0.86	12	6.00E-01	2.87E-01	3.0	8	0	I	12	6.00E-01	2.87E-01	3.0	8	0	I
EU-07	16.12	Inorganic	Boron	mg/kg			11	5.86E+00	3.23E+00	3.0	8	0	I	11	5.86E+00	3.23E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Cadmium	mg/kg	8	2.9	12	9.66E-01	8.38E-01	3.0	8	0	I	12	9.66E-01	8.38E-01	3.0	8	0	I
EU-07	16.12	Inorganic	Chromium	mg/kg	12	46	12	2.19E+01	1.35E+01	3.0	8	0	I	12	2.19E+01	1.35E+01	3.0	8	0	I
EU-07	16.12	Inorganic	Cobalt	mg/kg	12	12	12	6.91E+00	2.74E+00	3.0	8	0	I	12	6.91E+00	2.74E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Copper	mg/kg	12	70.7	12	2.64E+01	2.33E+01	3.0	8	0	I	12	2.64E+01	2.33E+01	3.0	8	0	I
EU-07	16.12	Inorganic	Lead	mg/kg	11	79	12	2.42E+01	2.29E+01	3.0	8	0	I	12	2.42E+01	2.29E+01	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-07	16.12	Inorganic	Manganese	mg/kg	9	340	9	2.14E+02	8.56E+01	3.0	8	0	I	9	2.14E+02	8.56E+01	3.0	8	0	I
EU-07	16.12	Inorganic	Mercury	mg/kg	7	1.1	12	3.71E-01	3.77E-01	3.0	8	0	I	12	3.71E-01	3.77E-01	3.0	8	0	I
EU-07	16.12	Inorganic	Molybdenum	mg/kg	1	1.3	12	3.04E+00	4.20E+00	3.0	8	0	I	12	3.04E+00	4.20E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Nickel	mg/kg	12	72	12	2.35E+01	2.09E+01	3.0	8	0	I	12	2.35E+01	2.09E+01	3.0	8	0	I
EU-07	16.12	Inorganic	Selenium	mg/kg			12	2.01E+00	2.41E+00	3.0	8	0	I	12	2.01E+00	2.41E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Silver	mg/kg	14	615	24	5.27E+01	1.47E+02	1.3	17	0	I	24	5.27E+01	1.47E+02	1.5	14	0	Y
EU-07	16.12	Inorganic	Thallium	mg/kg	1	2.4	12	1.90E+00	1.77E+00	1.5	14	2	I	12	1.90E+00	1.77E+00	1.5	14	2	I
EU-07	16.12	Inorganic	Vanadium	mg/kg	12	38	12	2.71E+01	7.95E+00	3.0	8	0	I	12	2.71E+01	7.95E+00	3.0	8	0	I
EU-07	16.12	Inorganic	Zinc	mg/kg	12	1200	12	3.52E+02	4.23E+02	3.0	8	0	I	12	3.52E+02	4.23E+02	1.6	13	1	I
EU-07	16.12	PCBs	Aroclor 1242	mg/kg			16	3.75E-02	1.99E-02	3.0	11	0	I	1	3.40E-03		1.5	15	14	I
EU-07	16.12	PCBs	Aroclor 1248	mg/kg	2	0.34	16	6.69E-02	8.56E-02	1.3	17	1	I	3	1.81E-01	1.69E-01	1.5	15	12	I
EU-07	16.12	PCBs	Aroclor 1254	mg/kg	11	0.22	16	7.32E-02	4.95E-02	2.2	12	0	I	11	8.85E-02	5.29E-02	1.5	15	4	Y
EU-07	16.12	PCBs	Aroclor 1260	mg/kg	3	0.18	16	5.15E-02	4.23E-02	2.6	11	0	I	4	8.29E-02	7.52E-02	1.5	15	11	I
EU-07	16.12	SVOC	2-Methylnaphthalene	mg/kg	3	0.008	9	1.68E+00	3.01E+00	3.0	11	2	I	9	1.68E+00	3.01E+00	3.0	11	2	I
EU-07	16.12	SVOC	Acenaphthene	mg/kg	1	0.004	9	1.68E+00	3.01E+00	3.0	11	2	I	9	1.68E+00	3.01E+00	3.0	11	2	I
EU-07	16.12	SVOC	Anthracene	mg/kg	4	8.2	9	2.03E+00	3.57E+00	3.0	11	2	I	9	2.03E+00	3.57E+00	3.0	11	2	I
EU-07	16.12	SVOC	Benzo(a)anthracene	mg/kg	7	16	8	2.67E+00	5.68E+00	1.5	15	7	Y	8	2.67E+00	5.68E+00	1.5	15	7	Y
EU-07	16.12	SVOC	Benzo(a)pyrene	mg/kg	9	31	9	5.91E+00	1.17E+01	1.5	15	6	Y	9	5.91E+00	1.17E+01	1.5	15	6	Y
EU-07	16.12	SVOC	Benzo(b)fluoranthene	mg/kg	9	26	9	5.02E+00	9.84E+00	1.5	15	6	Y	9	5.02E+00	9.84E+00	1.5	15	6	Y
EU-07	16.12	SVOC	Benzo(k)fluoranthene	mg/kg	9	15	9	3.29E+00	6.36E+00	1.5	15	6	Y	9	3.29E+00	6.36E+00	1.5	15	6	Y
EU-07	16.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			8	1.16E+00	1.74E+00	3.0	11	3	I	7	6.01E-01	7.58E-01	1.5	15	8	I
EU-07	16.12	SVOC	Chrysene	mg/kg	9	22	9	3.64E+00	7.63E+00	0.2	410	401	I	9	3.64E+00	7.63E+00	1.5	15	6	Y
EU-07	16.12	SVOC	Dibenzo(a,h)anthracene	mg/kg	4	0.021	6	1.10E-02	8.12E-03	1.5	15	9	I	4	1.38E-02	8.85E-03	1.5	15	11	I
EU-07	16.12	SVOC	Diethyl phthalate	mg/kg			8	1.89E+00	3.14E+00	3.0	11	3	I	8	1.89E+00	3.14E+00	3.0	11	3	I
EU-07	16.12	SVOC	Di-n-butyl phthalate	mg/kg	1	0.098	8	1.91E+00	3.13E+00	3.0	11	3	I	8	1.91E+00	3.13E+00	3.0	11	3	I
EU-07	16.12	SVOC	Fluoranthene	mg/kg	9	32	9	5.78E+00	1.16E+01	3.0	11	2	I	9	5.78E+00	1.16E+01	3.0	11	2	I
EU-07	16.12	SVOC	Fluorene	mg/kg	1	0.004	9	1.68E+00	3.01E+00	3.0	11	2	I	9	1.68E+00	3.01E+00	3.0	11	2	I
EU-07	16.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	9	77	9	1.16E+01	2.58E+01	1.5	15	6	Y	9	1.16E+01	2.58E+01	1.5	15	6	Y
EU-07	16.12	SVOC	Naphthalene	mg/kg	3	0.006	6	4.33E-03	1.86E-03	1.5	15	9	I	6	4.33E-03	1.86E-03	1.5	15	9	I
EU-07	16.12	SVOC	Pyrene	mg/kg	9	27	9	6.15E+00	1.18E+01	3.0	11	2	I	9	6.15E+00	1.18E+01	3.0	11	2	I
EU-07	16.12	VOC	1,1,1-Trichloroethane	mg/kg			1	1.00E-02		1.5	15	14	I	1	1.00E-02		1.5	15	14	I
EU-07	16.12	VOC	1,1-Dichloroethane	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	1,1-Dichloroethene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Acetone	mg/kg			1	2.00E-02		1.5	15	14	I	1	2.00E-02		1.5	15	14	I
EU-07	16.12	VOC	Benzene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	cis-1,2-Dichloroethene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Ethylbenzene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	m,p-Xylenes	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-07	16.12	VOC	Methyl ethyl ketone	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-07	16.12	VOC	Methylene chloride	mg/kg			1	1.00E-02		1.5	15	14	I	1	1.00E-02		1.5	15	14	I
EU-07	16.12	VOC	Tetrachloroethene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Toluene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	trans-1,2-Dichloroethene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Trichloroethene	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Vinyl chloride	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-07	16.12	VOC	Xylenes, Total	mg/kg			1	5.00E-03		1.5	15	14	I	1	5.00E-03		1.5	15	14	I
EU-08	19.85	Dioxins	TCDD-TEQ (Total all)	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-08	19.85	Inorganic	Aluminum	mg/kg	4	28000	4	2.08E+04	7.54E+03	1.5	14	10	I	4	2.08E+04	7.54E+03	1.5	14	10	I
EU-08	19.85	Inorganic	Antimony	mg/kg			4	6.22E+00	6.68E+00	1.5	14	10	I	2	4.47E-01	4.99E-01	1.5	14	12	I
EU-08	19.85	Inorganic	Arsenic	mg/kg	2	5.8	4	4.93E+00	2.02E+00	1.5	14	10	I	4	4.93E+00	2.02E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Barium	mg/kg	4	150	4	1.14E+02	3.01E+01	1.5	14	10	I	4	1.14E+02	3.01E+01	1.5	14	10	I
EU-08	19.85	Inorganic	Beryllium	mg/kg	4	1	4	8.13E-01	2.59E-01	1.5	14	10	I	4	8.13E-01	2.59E-01	1.5	14	10	I
EU-08	19.85	Inorganic	Boron	mg/kg			4	1.12E+01	7.82E+00	1.5	14	10	I	4	1.12E+01	7.82E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Cadmium	mg/kg	1	0.07	4	6.43E-01	4.49E-01	1.5	14	10	I	4	6.43E-01	4.49E-01	1.5	14	10	I
EU-08	19.85	Inorganic	Chromium	mg/kg	4	32	4	2.43E+01	8.73E+00	1.5	14	10	I	4	2.43E+01	8.73E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Cobalt	mg/kg	4	11	4	8.98E+00	2.83E+00	1.5	14	10	I	4	8.98E+00	2.83E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Copper	mg/kg	4	18	4	1.37E+01	4.81E+00	1.5	14	10	I	4	1.37E+01	4.81E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Lead	mg/kg	4	11	4	8.08E+00	3.42E+00	1.5	14	10	I	4	8.08E+00	3.42E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Manganese	mg/kg					1.5	14	14	I				1.5	14	14	I	
EU-08	19.85	Inorganic	Mercury	mg/kg	1	0.01	4	1.28E-01	9.14E-02	1.5	14	10	I	4	1.28E-01	9.14E-02	1.5	14	10	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-08	19.85	Inorganic	Molybdenum	mg/kg	1	0.33	4	6.21E+00	6.69E+00	1.5	14	10	I	4	6.21E+00	6.69E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Nickel	mg/kg	4	20	4	1.58E+01	4.86E+00	1.5	14	10	I	4	1.58E+01	4.86E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Selenium	mg/kg			4	3.67E+00	2.85E+00	1.5	14	10	I	4	3.67E+00	2.85E+00	1.5	14	10	I
EU-08	19.85	Inorganic	Silver	mg/kg			4	7.62E-01	4.77E-01	1.5	14	10	I	4	7.62E-01	4.77E-01	1.5	14	10	I
EU-08	19.85	Inorganic	Thallium	mg/kg	1	0.28	2	1.39E+00	1.57E+00	1.5	14	12	I	2	1.39E+00	1.57E+00	1.5	14	12	I
EU-08	19.85	Inorganic	Vanadium	mg/kg	4	62	4	4.70E+01	1.56E+01	1.5	14	10	I	4	4.70E+01	1.56E+01	1.5	14	10	I
EU-08	19.85	Inorganic	Zinc	mg/kg	4	79	4	5.98E+01	2.07E+01	1.5	14	10	I	4	5.98E+01	2.07E+01	1.5	14	10	I
EU-08	19.85	PCBs	Aroclor 1242	mg/kg			2	5.40E-02	4.24E-03	1.5	15	13	I	2			1.5	15	13	I
EU-08	19.85	PCBs	Aroclor 1248	mg/kg			2	5.40E-02	4.24E-03	1.5	15	13	I	2			1.5	15	13	I
EU-08	19.85	PCBs	Aroclor 1254	mg/kg			2	5.40E-02	4.24E-03	1.5	15	13	I	2			1.5	15	13	I
EU-08	19.85	PCBs	Aroclor 1260	mg/kg			2	5.40E-02	4.24E-03	1.5	15	13	I	2			1.5	15	13	I
EU-08	19.85	SVOC	2-Methylnaphthalene	mg/kg			1	3.30E-02		1.5	15	14	I	1	3.30E-02		1.5	15	14	I
EU-08	19.85	SVOC	Acenaphthene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	SVOC	Anthracene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	SVOC	Benzo(a)anthracene	mg/kg			3	4.60E-02	1.73E-02	1.5	15	12	I				1.5	15	15	I
EU-08	19.85	SVOC	Benzo(a)pyrene	mg/kg			2	3.60E-02	0.00E+00	1.5	15	13	I				1.5	15	12	I
EU-08	19.85	SVOC	Benzo(b)fluoranthene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	1	3.30E-02		1.5	15	14	I
EU-08	19.85	SVOC	Benzo(k)fluoranthene	mg/kg			3	5.70E-02	3.64E-02	1.5	15	12	I	3	5.70E-02	3.64E-02	1.5	15	12	I
EU-08	19.85	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			3	1.90E-01	1.21E-01	1.5	15	12	I	3	1.90E-01	1.21E-01	1.5	15	12	I
EU-08	19.85	SVOC	Chrysene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	SVOC	Dibenzo(a,h)anthracene	mg/kg			3	5.70E-02	3.64E-02	1.5	15	12	I	3			1.5	15	12	I
EU-08	19.85	SVOC	Diethyl phthalate	mg/kg			3	1.90E-01	1.21E-01	1.5	15	12	I	3	1.90E-01	1.21E-01	1.5	15	12	I
EU-08	19.85	SVOC	Di-n-butyl phthalate	mg/kg			3	1.90E-01	1.21E-01	1.5	15	12	I	3	1.90E-01	1.21E-01	1.5	15	12	I
EU-08	19.85	SVOC	Fluoranthene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	SVOC	Fluorene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			3	6.73E-02	5.43E-02	1.5	15	12	I	3			1.5	15	15	I
EU-08	19.85	SVOC	Naphthalene	mg/kg			4	2.68E-02	1.66E-02	1.5	15	11	I	4	2.68E-02	1.66E-02	1.5	15	11	I
EU-08	19.85	SVOC	Pyrene	mg/kg			3	3.50E-02	1.73E-03	1.5	15	12	I	3	3.50E-02	1.73E-03	1.5	15	12	I
EU-08	19.85	VOC	1,1,1-Trichloroethane	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	1,1-Dichloroethane	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	1,1-Dichloroethene	mg/kg			3	5.67E-03	5.77E-04	1.5	15	12	I	3	5.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Acetone	mg/kg			3	5.67E-02	5.77E-03	1.5	15	12	I	3	5.67E-02	5.77E-03	1.5	15	12	I
EU-08	19.85	VOC	Benzene	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	cis-1,2-Dichloroethene	mg/kg			3	4.67E-03	2.31E-03	1.5	15	12	I	3	4.67E-03	2.31E-03	1.5	15	12	I
EU-08	19.85	VOC	Ethylbenzene	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	m,p-Xylenes	mg/kg			3	4.67E-03	2.31E-03	1.5	15	12	I	3	4.67E-03	2.31E-03	1.5	15	12	I
EU-08	19.85	VOC	Methyl ethyl ketone	mg/kg			3	4.33E-02	2.89E-02	1.5	15	12	I	3	4.33E-02	2.89E-02	1.5	15	12	I
EU-08	19.85	VOC	Methylene chloride	mg/kg			3	2.27E-02	2.31E-03	1.5	15	12	I	3	2.27E-02	2.31E-03	1.5	15	12	I
EU-08	19.85	VOC	Tetrachloroethene	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	Toluene	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	trans-1,2-Dichloroethene	mg/kg			3	4.67E-03	2.31E-03	1.5	15	12	I	3	4.67E-03	2.31E-03	1.5	15	12	I
EU-08	19.85	VOC	Trichloroethene	mg/kg			3	4.33E-03	2.89E-03	1.5	15	12	I	3	4.33E-03	2.89E-03	1.5	15	12	I
EU-08	19.85	VOC	Vinyl chloride	mg/kg			3	8.67E-03	5.77E-03	1.5	15	12	I	1	2.00E-03		1.5	15	14	I
EU-08	19.85	VOC	Xylenes, Total	mg/kg			1	1.00E-03		1.5	15	14	I	1	1.00E-03		1.5	15	14	I
EU-09	17.18	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	Inorganic	Aluminum	mg/kg	3	21000	3	1.49E+04	7.00E+03	1.5	14	11	I	3	1.49E+04	7.00E+03	1.5	14	11	I
EU-09	17.18	Inorganic	Antimony	mg/kg	1	0.38	4	2.50E+00	1.41E+00	1.5	14	10	I	4	2.50E+00	1.41E+00	1.5	14	10	I
EU-09	17.18	Inorganic	Arsenic	mg/kg	3	5	6	4.65E+00	9.33E-01	1.5	14	8	I	6	4.65E+00	9.33E-01	1.5	14	8	I
EU-09	17.18	Inorganic	Barium	mg/kg	5	125	6	8.54E+01	4.51E+01	1.5	14	8	I	6	8.54E+01	4.51E+01	1.5	14	8	I
EU-09	17.18	Inorganic	Beryllium	mg/kg	3	0.91	6	3.85E-01	4.06E-01	1.5	14	8	I	6	3.85E-01	4.06E-01	1.5	14	8	I
EU-09	17.18	Inorganic	Boron	mg/kg	1	9.2	3	5.73E+00	3.02E+00	1.5	14	11	I	3	5.73E+00	3.02E+00	1.5	14	11	I
EU-09	17.18	Inorganic	Cadmium	mg/kg	3	1.8	6	8.05E-01	7.50E-01	1.5	14	8	I	6	8.05E-01	7.50E-01	1.5	14	8	I
EU-09	17.18	Inorganic	Chromium	mg/kg	6	27.5	6	1.92E+01	5.29E+00	1.5	14	8	I	6	1.92E+01	5.29E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Cobalt	mg/kg	6	10.1	6	8.07E+00	1.67E+00	1.5	14	8	I	6	8.07E+00	1.67E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Copper	mg/kg	6	16	6	1.19E+01	3.43E+00	1.5	14	8	I	6	1.19E+01	3.43E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Lead	mg/kg	4	17	6	8.37E+00	4.80E+00	1.5	14	8	I	6	8.37E+00	4.80E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Manganese	mg/kg	3	331	3	2.69E+02	5.97E+01	1.5	14	11	I	3	2.69E+02	5.97E+01	1.5	14	11	I
EU-09	17.18	Inorganic	Mercury	mg/kg	5	0.12	6	5.02E-02	3.72E-02	1.5	14	8	I	6	5.02E-02	3.72E-02	1.5	14	8	I
EU-09	17.18	Inorganic	Molybdenum	mg/kg			6	4.56E+00	6.04E+00	1.5	14	8	I	6	4.56E+00	6.04E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Nickel	mg/kg	6	17	6	1.24E+01	3.56E+00	1.5	14	8	I	6	1.24E+01	3.56E+00	1.5	14	8	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-09	17.18	Inorganic	Selenium	mg/kg			6	4.75E+00	3.06E+00	1.5	14	8	I	6	4.75E+00	3.06E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Silver	mg/kg			6	1.92E+00	2.00E+00	1.5	14	8	I	6	1.92E+00	2.00E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Thallium	mg/kg	1	1.9	6	2.42E+00	1.83E+00	1.5	14	8	I	6	2.42E+00	1.83E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Vanadium	mg/kg	6	48.6	6	3.73E+01	7.80E+00	1.5	14	8	I	6	3.73E+01	7.80E+00	1.5	14	8	I
EU-09	17.18	Inorganic	Zinc	mg/kg	6	210	6	8.22E+01	6.39E+01	1.5	14	8	I	6	8.22E+01	6.39E+01	1.5	14	8	I
EU-09	17.18	PCBs	Aroclor 1242	mg/kg			13	5.61E-02	2.43E-03	3.0	11	0	I	13			3.0	11	0	I
EU-09	17.18	PCBs	Aroclor 1248	mg/kg			13	5.61E-02	2.43E-03	3.0	11	0	I	13			3.0	11	0	I
EU-09	17.18	PCBs	Aroclor 1254	mg/kg			13	5.61E-02	2.43E-03	3.0	11	0	I	13			3.0	11	0	I
EU-09	17.18	PCBs	Aroclor 1260	mg/kg	6	0.15	13	7.97E-02	2.89E-02	3.0	11	0	I	6	9.52E-02	3.10E-02	1.5	15	9	I
EU-09	17.18	SVOC	2-Methylnaphthalene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Acenaphthene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Anthracene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Benzo(a)anthracene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Benzo(a)pyrene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3			1.5	15	12	I
EU-09	17.18	SVOC	Benzo(b)fluoranthene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Benzo(k)fluoranthene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	SVOC	Chrysene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Dibenzo(a,h)anthracene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3			1.5	15	12	I
EU-09	17.18	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	SVOC	Fluoranthene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Fluorene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Naphthalene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	SVOC	Pyrene	mg/kg			3	5.33E-03	2.31E-03	1.5	15	12	I	3	5.33E-03	2.31E-03	1.5	15	12	I
EU-09	17.18	VOC	1,1,1-Trichloroethane	mg/kg			3	1.00E-02	1.34E-10	1.5	15	12	I	3	1.00E-02	1.34E-10	1.5	15	12	I
EU-09	17.18	VOC	1,1-Dichloroethane	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	1,1-Dichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	Acetone	mg/kg			3	2.00E-02	2.69E-10	1.5	15	12	I	3	2.00E-02	2.69E-10	1.5	15	12	I
EU-09	17.18	VOC	Benzene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	cis-1,2-Dichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	Ethylbenzene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	VOC	Methylene chloride	mg/kg			3	1.00E-02	1.34E-10	1.5	15	12	I	3	1.00E-02	1.34E-10	1.5	15	12	I
EU-09	17.18	VOC	Tetrachloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	Toluene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	trans-1,2-Dichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	Trichloroethene	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-09	17.18	VOC	Vinyl chloride	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I				1.5	15	15	I
EU-09	17.18	VOC	Xylenes, Total	mg/kg			3	5.00E-03	6.72E-11	1.5	15	12	I	3	5.00E-03	6.72E-11	1.5	15	12	I
EU-10	17.39	Dioxins	TCDD-TEQ (Total all)	mg/kg	2	1.71E-06	13	3.12E-07	4.27E-07	3.0	11	0	I	11	3.06E-07	4.66E-07	1.5	15	4	Y
EU-10	17.39	Inorganic	Aluminum	mg/kg	45	25000	45	1.22E+04	3.57E+03	3.0	8	0	I	45	1.22E+04	3.57E+03	3.0	8	0	I
EU-10	17.39	Inorganic	Antimony	mg/kg	10	7.5	51	2.98E+00	4.36E+00	3.0	8	0	I	40	8.44E-01	1.55E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Arsenic	mg/kg	42	7.3	53	4.17E+00	1.38E+00	3.0	8	0	I	53	4.17E+00	1.38E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Barium	mg/kg	53	150	53	8.29E+01	2.24E+01	3.0	8	0	I	53	8.29E+01	2.24E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Beryllium	mg/kg	42	1.1	53	5.29E-01	1.70E-01	3.0	8	0	I	53	5.29E-01	1.70E-01	3.0	8	0	I
EU-10	17.39	Inorganic	Boron	mg/kg	11	13.4	43	7.75E+00	8.79E+00	3.0	8	0	I	43	7.75E+00	8.79E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Cadmium	mg/kg	32	2	56	4.76E-01	4.06E-01	3.0	8	0	I	56	4.76E-01	4.06E-01	3.0	8	0	I
EU-10	17.39	Inorganic	Chromium	mg/kg	55	30	56	1.55E+01	4.10E+00	3.0	8	0	I	56	1.55E+01	4.10E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Cobalt	mg/kg	53	11	53	5.72E+00	1.48E+00	3.0	8	0	I	53	5.72E+00	1.48E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Copper	mg/kg	56	93	56	1.20E+01	1.43E+01	3.0	8	0	I	56	1.20E+01	1.43E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Lead	mg/kg	54	2550	56	5.47E+01	3.40E+02	0.2	542	486	I	56	5.47E+01	3.40E+02	0.2	542	486	I
EU-10	17.39	Inorganic	Manganese	mg/kg	4	391	4	3.08E+02	6.41E+01	1.5	14	10	I	4	3.08E+02	6.41E+01	1.5	14	10	I
EU-10	17.39	Inorganic	Mercury	mg/kg	33	0.12	56	7.76E-02	7.49E-02	3.0	8	0	I	56	7.76E-02	7.49E-02	3.0	8	0	I
EU-10	17.39	Inorganic	Molybdenum	mg/kg	34	1.1	53	2.80E+00	4.33E+00	3.0	8	0	I	53	2.80E+00	4.33E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Nickel	mg/kg	55	27	56	1.06E+01	3.78E+00	3.0	8	0	I	56	1.06E+01	3.78E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Selenium	mg/kg	18	5	53	2.08E+00	1.98E+00	3.0	8	0	I	53	2.08E+00	1.98E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Silver	mg/kg	16	0.47	53	7.54E-01	8.69E-01	3.0	8	0	I	53	7.54E-01	8.69E-01	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

							Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)													
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result		Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?		Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-10	17.39	Inorganic	Thallium	mg/kg	14	0.6	52	1.60E+00	1.81E+00	1.4	15	0	I	52	1.60E+00	1.81E+00	1.4	15	0	I
EU-10	17.39	Inorganic	Vanadium	mg/kg	53	54	53	3.01E+01	6.90E+00	3.0	8	0	I	53	3.01E+01	6.90E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Zinc	mg/kg	53	130	53	5.69E+01	1.99E+01	3.0	8	0	I	53	5.69E+01	1.99E+01	3.0	8	0	I
EU-10	17.39	PCBs	Aroclor 1242	mg/kg			40	5.85E-02	2.78E-02	3.0	11	0	I	2	3.45E-03	2.83E-05	1.5	15	13	I
EU-10	17.39	PCBs	Aroclor 1248	mg/kg	3	0.246	39	6.89E-02	4.39E-02	2.5	11	0	I	4	1.40E-01	1.07E-01	1.5	15	11	I
EU-10	17.39	PCBs	Aroclor 1254	mg/kg	4	1	41	8.67E-02	1.49E-01	0.7	40	0	I	5	2.58E-01	4.18E-01	1.5	15	10	I
EU-10	17.39	PCBs	Aroclor 1260	mg/kg	1	0.0327	40	5.92E-02	2.67E-02	3.0	11	0	I	2	1.81E-02	2.07E-02	1.5	15	13	I
EU-10	17.39	SVOC	2-Methylnaphthalene	mg/kg	2	0.058	45	5.92E-02	4.38E-02	3.0	11	0	I	45	5.92E-02	4.38E-02	3.0	11	0	I
EU-10	17.39	SVOC	Acenaphthene	mg/kg	1	0.049	53	6.83E-02	7.43E-02	3.0	11	0	I	53	6.83E-02	7.43E-02	3.0	11	0	I
EU-10	17.39	SVOC	Anthracene	mg/kg	2	0.1	53	6.77E-02	7.44E-02	3.0	11	0	I	53	6.77E-02	7.44E-02	3.0	11	0	I
EU-10	17.39	SVOC	Benzo(a)anthracene	mg/kg	3	0.96	52	8.43E-02	1.43E-01	1.3	17	0	I	32	6.29E-02	1.76E-01	1.5	15	0	Y
EU-10	17.39	SVOC	Benzo(a)pyrene	mg/kg	3	0.96	32	6.35E-02	1.79E-01	1.5	15	0	Y	3	4.69E-01	4.73E-01	1.5	15	12	I
EU-10	17.39	SVOC	Benzo(b)fluoranthene	mg/kg	4	0.94	52	8.45E-02	1.43E-01	1.3	17	0	I	32	6.32E-02	1.76E-01	1.5	15	0	Y
EU-10	17.39	SVOC	Benzo(k)fluoranthene	mg/kg	2	0.8	52	8.04E-02	1.22E-01	1.5	15	0	I	51	7.57E-02	1.19E-01	0.8	32	0	I
EU-10	17.39	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	8	0.475	28	2.06E-01	3.32E-01	3.0	11	0	I	28	2.06E-01	3.32E-01	3.0	11	0	I
EU-10	17.39	SVOC	Chrysene	mg/kg	7	0.94	53	8.85E-02	1.44E-01	3.0	11	0	I	53	8.85E-02	1.44E-01	3.0	11	0	I
EU-10	17.39	SVOC	Dibenzo(a,h)anthracene	mg/kg	2	0.14	49	5.42E-02	4.24E-02	1.3	17	0	I	2	9.35E-02	6.58E-02	1.5	15	13	I
EU-10	17.39	SVOC	Diethyl phthalate	mg/kg	3	0.017	28	2.49E-01	3.97E-01	3.0	11	0	I	28	2.49E-01	3.97E-01	3.0	11	0	I
EU-10	17.39	SVOC	Di-n-butyl phthalate	mg/kg	8	0.27	28	2.69E-01	3.89E-01	3.0	11	0	I	28	2.69E-01	3.89E-01	3.0	11	0	I
EU-10	17.39	SVOC	Fluoranthene	mg/kg	7	2	53	1.15E-01	2.84E-01	3.0	11	0	I	53	1.15E-01	2.84E-01	3.0	11	0	I
EU-10	17.39	SVOC	Fluorene	mg/kg	1	0.013	53	6.77E-02	7.46E-02	3.0	11	0	I	53	6.77E-02	7.46E-02	3.0	11	0	I
EU-10	17.39	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	2	0.7	52	7.66E-02	1.07E-01	1.8	12	0	I	32	5.03E-02	1.25E-01	1.5	15	0	Y
EU-10	17.39	SVOC	Naphthalene	mg/kg	9	0.13	70	4.81E-02	6.95E-02	3.0	11	0	I	70	4.81E-02	6.95E-02	3.0	11	0	I
EU-10	17.39	SVOC	Pyrene	mg/kg	9	1.7	53	1.08E-01	2.45E-01	3.0	11	0	I	53	1.08E-01	2.45E-01	3.0	11	0	I
EU-10	17.39	VOC	1,1,1-Trichloroethane	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	1,1-Dichloroethane	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	1,1-Dichloroethene	mg/kg			29	7.95E-03	7.64E-03	3.0	11	0	I	26	5.40E-03	6.08E-04	3.0	11	0	I
EU-10	17.39	VOC	Acetone	mg/kg	2	5	29	2.56E-01	9.30E-01	3.0	11	0	I	29	2.56E-01	9.30E-01	3.0	11	0	I
EU-10	17.39	VOC	Benzene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	cis-1,2-Dichloroethene	mg/kg			26	3.39E-03	1.89E-03	3.0	11	0	I	26	3.39E-03	1.89E-03	3.0	11	0	I
EU-10	17.39	VOC	Ethylbenzene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	m,p-Xylenes	mg/kg			26	3.62E-03	2.39E-03	3.0	11	0	I	26	3.62E-03	2.39E-03	3.0	11	0	I
EU-10	17.39	VOC	Methyl ethyl ketone	mg/kg			26	2.45E-02	2.18E-02	3.0	11	0	I	26	2.45E-02	2.18E-02	3.0	11	0	I
EU-10	17.39	VOC	Methylene chloride	mg/kg	1	0.023	29	2.19E-02	3.93E-03	3.0	11	0	I	29	2.19E-02	3.93E-03	3.0	11	0	I
EU-10	17.39	VOC	Tetrachloroethene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	26	3.39E-03	1.89E-03	3.0	11	0	I
EU-10	17.39	VOC	Toluene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	trans-1,2-Dichloroethene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	3.0	11	0	I
EU-10	17.39	VOC	Trichloroethene	mg/kg			29	6.14E-03	8.44E-03	3.0	11	0	I	29	6.14E-03	8.44E-03	1.9	12	0	I
EU-10	17.39	VOC	Vinyl chloride	mg/kg			26	7.13E-03	3.12E-03	3.0	11	0	I	29			3.0	11	0	I
EU-10	17.39	VOC	Xylenes, Total	mg/kg			1	1.60E-02		1.5	15	14	I	1	1.60E-02		1.5	15	14	I
EU-11	17.73	Dioxins	TCDD-TEQ (Total all)	mg/kg	38	5.52E-06	110	5.77E-07	9.63E-07	2.3	12	0	I	60	5.76E-07	1.21E-06	1.5	15	0	Y
EU-11	17.73	Inorganic	Aluminum	mg/kg	27	26900	27	1.69E+04	4.86E+03	3.0	8	0	I	27	1.69E+04	4.86E+03	3.0	8	0	I
EU-11	17.73	Inorganic	Antimony	mg/kg	18	2.7	24	1.11E+00	2.79E+00	3.0	8	0	I	22	2.99E-01	5.52E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Arsenic	mg/kg	34	6.2	36	3.28E+00	1.35E+00	3.0	8	0	I	36	3.28E+00	1.35E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Barium	mg/kg	29	163	29	9.83E+01	2.57E+01	3.0	8	0	I	29	9.83E+01	2.57E+01	3.0	8	0	I
EU-11	17.73	Inorganic	Beryllium	mg/kg	29	0.95	29	6.10E-01	1.59E-01	3.0	8	0	I	29	6.10E-01	1.59E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Boron	mg/kg	13	6	25	3.70E+00	1.96E+00	3.0	8	0	I	25	3.70E+00	1.96E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Cadmium	mg/kg	27	0.59	29	2.70E-01	1.35E-01	3.0	8	0	I	29	2.70E-01	1.35E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Chromium	mg/kg	36	39.7	36	2.13E+01	6.10E+00	3.0	8	0	I	36	2.13E+01	6.10E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Cobalt	mg/kg	29	11.5	29	7.15E+00	2.21E+00	3.0	8	0	I	29	7.15E+00	2.21E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Copper	mg/kg	36	24.9	36	1.24E+01	4.12E+00	3.0	8	0	I	36	1.24E+01	4.12E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Lead	mg/kg	36	420	36	2.11E+01	6.86E+01	1.1	22	0	I	36	2.11E+01	6.86E+01	1.1	22	0	I
EU-11	17.73	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-11	17.73	Inorganic	Mercury	mg/kg	56	6.1	87	1.58E-01	6.88E-01	3.0	8	0	I	87	1.58E-01	6.88E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Molybdenum	mg/kg	25	2.5	29	5.97E-01	5.64E-01	3.0	8	0	I	29	5.97E-01	5.64E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Nickel	mg/kg	36	23.4	36	1.39E+01	4.04E+00	3.0	8	0	I	36	1.39E+01	4.04E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Selenium	mg/kg	16	0.54	29	4.85E-01	4.37E-01	3.0	8	0	I	29	4.85E-01	4.37E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Silver	mg/kg	16	0.15	29	1.63E-01	2.58E-01	3.0	8	0	I	29	1.63E-01	2.58E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Thallium	mg/kg	25	0.39	27	3.05E-01	6.97E-02	3.0	8	0	I	27	3.05E-01	6.97E-02	3.0	8	0	I
EU-11	17.73	Inorganic	Vanadium	mg/kg	29	78	29	3.82E+01	1.24E+01	3.0	8	0	I	29	3.82E+01	1.24E+01	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-11	17.73	Inorganic	Zinc	mg/kg	36	87.3	36	5.58E+01	1.21E+01	3.0	8	0	I	36	5.58E+01	1.21E+01	3.0	8	0	I
EU-11	17.73	PCBs	Aroclor 1242	mg/kg	1	0.0234	78	4.86E-02	2.14E-02	3.0	11	0	I	5	7.64E-03	8.81E-03	1.5	15	10	I
EU-11	17.73	PCBs	Aroclor 1248	mg/kg			78	4.83E-02	2.18E-02	3.0	11	0	I	5	3.67E-03	2.19E-04	1.5	15	10	I
EU-11	17.73	PCBs	Aroclor 1254	mg/kg	17	0.36	78	5.37E-02	4.11E-02	2.7	11	0	I	20	5.82E-02	7.62E-02	1.5	15	0	Y
EU-11	17.73	PCBs	Aroclor 1260	mg/kg	7	0.33	78	5.43E-02	4.13E-02	2.7	11	0	I	10	5.04E-02	9.95E-02	1.5	15	5	Y
EU-11	17.73	SVOC	2-Methylnaphthalene	mg/kg	1	0.00042	26	1.95E-01	3.43E-01	3.0	11	0	I	26	1.95E-01	3.43E-01	3.0	11	0	I
EU-11	17.73	SVOC	Acenaphthene	mg/kg			26	7.61E-02	1.00E-01	3.0	11	0	I	26	7.61E-02	1.00E-01	3.0	11	0	I
EU-11	17.73	SVOC	Anthracene	mg/kg	2	0.0042	26	7.54E-02	1.00E-01	3.0	11	0	I	26	7.54E-02	1.00E-01	3.0	11	0	I
EU-11	17.73	SVOC	Benzo(a)anthracene	mg/kg	2	0.012	26	7.64E-02	9.98E-02	1.9	12	0	I	11	1.77E-02	4.90E-03	3.0	11	0	I
EU-11	17.73	SVOC	Benzo(a)pyrene	mg/kg	2	0.013	15	2.15E-02	1.04E-02	1.8	12	0	I	2	9.65E-03	4.74E-03	1.5	15	13	I
EU-11	17.73	SVOC	Benzo(b)fluoranthene	mg/kg	1	0.02	26	8.43E-02	1.05E-01	1.8	12	0	I	11	1.84E-02	4.72E-03	3.0	11	0	I
EU-11	17.73	SVOC	Benzo(k)fluoranthene	mg/kg			25	8.69E-02	1.06E-01	1.8	12	0	I	20	3.81E-02	2.44E-02	3.0	11	0	I
EU-11	17.73	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	8	0.54	24	2.34E-01	3.56E-01	3.0	11	0	I	24	2.34E-01	3.56E-01	2.8	11	0	I
EU-11	17.73	SVOC	Chrysene	mg/kg	3	0.014	26	7.58E-02	1.00E-01	3.0	11	0	I	26	7.58E-02	1.00E-01	3.0	11	0	I
EU-11	17.73	SVOC	Dibenzo(a,h)anthracene	mg/kg	1	0.0035	21	3.65E-02	2.50E-02	2.2	12	0	I	1	3.50E-03		1.5	15	14	I
EU-11	17.73	SVOC	Diethyl phthalate	mg/kg	2	0.012	24	2.64E-01	3.48E-01	3.0	11	0	I	24	2.64E-01	3.48E-01	3.0	11	0	I
EU-11	17.73	SVOC	Di-n-butyl phthalate	mg/kg	12	0.22	24	2.22E-01	3.48E-01	3.0	11	0	I	24	2.22E-01	3.48E-01	3.0	11	0	I
EU-11	17.73	SVOC	Fluoranthene	mg/kg	2	0.027	26	7.73E-02	9.92E-02	3.0	11	0	I	26	7.73E-02	9.92E-02	3.0	11	0	I
EU-11	17.73	SVOC	Fluorene	mg/kg			26	7.61E-02	1.00E-01	3.0	11	0	I	26	7.61E-02	1.00E-01	3.0	11	0	I
EU-11	17.73	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	1	0.0076	26	8.39E-02	1.05E-01	1.8	12	0	I	11	1.72E-02	5.67E-03	3.0	11	0	I
EU-11	17.73	SVOC	Naphthalene	mg/kg			37	3.71E-02	7.84E-02	3.0	11	0	I	37	3.71E-02	7.84E-02	3.0	11	0	I
EU-11	17.73	SVOC	Pyrene	mg/kg	2	0.03	26	8.12E-02	1.01E-01	3.0	11	0	I	26	8.12E-02	1.01E-01	3.0	11	0	I
EU-11	17.73	VOC	1,1,1-Trichloroethane	mg/kg	1	2	19	1.09E-01	4.58E-01	3.0	11	0	I	19	1.09E-01	4.58E-01	3.0	11	0	I
EU-11	17.73	VOC	1,1-Dichloroethane	mg/kg			18	3.57E-03	2.04E-03	3.0	11	0	I	18	3.57E-03	2.04E-03	3.0	11	0	I
EU-11	17.73	VOC	1,1-Dichloroethene	mg/kg			18	4.47E-03	1.93E-03	3.0	11	0	I	18	4.47E-03	1.93E-03	3.0	11	0	I
EU-11	17.73	VOC	Acetone	mg/kg	2	0.00999	11	1.09E-02	5.31E-03	3.0	11	0	I	11	1.09E-02	5.31E-03	3.0	11	0	I
EU-11	17.73	VOC	Benzene	mg/kg	1	0.001	18	3.29E-03	2.03E-03	3.0	11	0	I	18	3.29E-03	2.03E-03	3.0	11	0	I
EU-11	17.73	VOC	cis-1,2-Dichloroethene	mg/kg			18	3.28E-03	1.97E-03	3.0	11	0	I	18	3.28E-03	1.97E-03	3.0	11	0	I
EU-11	17.73	VOC	Ethylbenzene	mg/kg			18	3.57E-03	2.04E-03	3.0	11	0	I	18	3.57E-03	2.04E-03	3.0	11	0	I
EU-11	17.73	VOC	m,p-Xylenes	mg/kg			18	5.57E-03	4.35E-03	3.0	11	0	I	18	5.57E-03	4.35E-03	3.0	11	0	I
EU-11	17.73	VOC	Methyl ethyl ketone	mg/kg			11	1.05E-02	5.63E-03	3.0	11	0	I	11	1.05E-02	5.63E-03	3.0	11	0	I
EU-11	17.73	VOC	Methylene chloride	mg/kg	5	0.003	18	8.75E-03	8.33E-03	3.0	11	0	I	18	8.75E-03	8.33E-03	3.0	11	0	I
EU-11	17.73	VOC	Tetrachloroethene	mg/kg			18	3.57E-03	2.04E-03	3.0	11	0	I	18	3.57E-03	2.04E-03	3.0	11	0	I
EU-11	17.73	VOC	Toluene	mg/kg	1	0.001	18	3.29E-03	2.03E-03	3.0	11	0	I	18	3.29E-03	2.03E-03	3.0	11	0	I
EU-11	17.73	VOC	trans-1,2-Dichloroethene	mg/kg			18	3.28E-03	1.97E-03	3.0	11	0	I	18	3.28E-03	1.97E-03	3.0	11	0	I
EU-11	17.73	VOC	Trichloroethene	mg/kg			18	3.57E-03	2.04E-03	3.0	11	0	I	18	3.57E-03	2.04E-03	3.0	11	0	I
EU-11	17.73	VOC	Vinyl chloride	mg/kg			18	3.57E-03	2.04E-03	3.0	11	0	I	9	1.66E-03	6.04E-04	2.5	11	2	I
EU-11	17.73	VOC	Xylenes, Total	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-12	19.30	Dioxins	TCDD-TEQ (Total all)	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-12	19.30	Inorganic	Aluminum	mg/kg	2	25200	2	1.98E+04	7.71E+03	1.5	14	12	I	2	1.98E+04	7.71E+03	1.5	14	12	I
EU-12	19.30	Inorganic	Antimony	mg/kg	2	1.2	2	8.35E-01	5.16E-01	1.5	14	12	I	2	8.35E-01	5.16E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Arsenic	mg/kg	2	4.9	2	4.15E+00	1.06E+00	1.5	14	12	I	2	4.15E+00	1.06E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Barium	mg/kg	2	86.3	2	8.41E+01	3.18E+00	1.5	14	12	I	2	8.41E+01	3.18E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Beryllium	mg/kg	2	0.66	2	6.15E-01	6.36E-02	1.5	14	12	I	2	6.15E-01	6.36E-02	1.5	14	12	I
EU-12	19.30	Inorganic	Boron	mg/kg			2	4.30E+00	7.07E-01	1.5	14	12	I	2	4.30E+00	7.07E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Cadmium	mg/kg			2	3.30E-01	5.66E-02	1.5	14	12	I	2	3.30E-01	5.66E-02	1.5	14	12	I
EU-12	19.30	Inorganic	Chromium	mg/kg	2	23.9	2	2.06E+01	4.74E+00	1.5	14	12	I	2	2.06E+01	4.74E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Cobalt	mg/kg	2	10.4	2	9.80E+00	8.49E-01	1.5	14	12	I	2	9.80E+00	8.49E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Copper	mg/kg	2	21.6	2	1.86E+01	4.31E+00	1.5	14	12	I	2	1.86E+01	4.31E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Lead	mg/kg	2	14.7	2	1.16E+01	4.38E+00	1.5	14	12	I	2	1.16E+01	4.38E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Manganese	mg/kg	2	331	2	3.30E+02	2.12E+00	1.5	14	12	I	2	3.30E+02	2.12E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Mercury	mg/kg	2	0.02	2	1.50E-02	7.07E-03	1.5	14	12	I	2	1.50E-02	7.07E-03	1.5	14	12	I
EU-12	19.30	Inorganic	Molybdenum	mg/kg	1	5.9	2	7.95E+00	2.90E+00	1.5	14	12	I	2	7.95E+00	2.90E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Nickel	mg/kg	2	16	2	1.44E+01	2.33E+00	1.5	14	12	I	2	1.44E+01	2.33E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Selenium	mg/kg			2	3.50E+00	5.66E-01	1.5	14	12	I	2	3.50E+00	5.66E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Silver	mg/kg	2	5.5	2	5.00E+00	7.07E-01	1.5	14	12	I	2	5.00E+00	7.07E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Thallium	mg/kg	2	0.87	2	7.15E-01	2.19E-01	1.5	14	12	I	2	7.15E-01	2.19E-01	1.5	14	12	I
EU-12	19.30	Inorganic	Vanadium	mg/kg	2	47.8	2	4.19E+01	8.34E+00	1.5	14	12	I	2	4.19E+01	8.34E+00	1.5	14	12	I
EU-12	19.30	Inorganic	Zinc	mg/kg	2	75.6	2	6.64E+01	1.30E+01	1.5	14	12	I	2	6.64E+01	1.30E+01	1.5	14	12	I
EU-12	19.30	PCBs	Aroclor 1242	mg/kg					1.5	15	15	I				1.5	15	15	I	

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-12	19.30	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	SVOC	2-Methylnaphthalene	mg/kg			2	3.50E-03	7.07E-04	1.5	15	13	I	2	3.50E-03	7.07E-04	1.5	15	13	I
EU-12	19.30	SVOC	Acenaphthene	mg/kg	1	0.012	2	7.50E-03	6.36E-03	1.5	15	13	I	2	7.50E-03	6.36E-03	1.5	15	13	I
EU-12	19.30	SVOC	Anthracene	mg/kg	1	0.025	2	1.40E-02	1.56E-02	1.5	15	13	I	2	1.40E-02	1.56E-02	1.5	15	13	I
EU-12	19.30	SVOC	Benzo(a)anthracene	mg/kg	1	0.07	2	3.65E-02	4.74E-02	1.5	15	13	I	2	3.65E-02	4.74E-02	1.5	15	13	I
EU-12	19.30	SVOC	Benzo(a)pyrene	mg/kg	1	0.053	2	2.80E-02	3.54E-02	1.5	15	13	I	2	2.80E-02	3.54E-02	1.5	15	13	I
EU-12	19.30	SVOC	Benzo(b)fluoranthene	mg/kg	1	0.037	2	2.00E-02	2.40E-02	1.5	15	13	I	2	2.00E-02	2.40E-02	1.5	15	13	I
EU-12	19.30	SVOC	Benzo(k)fluoranthene	mg/kg	1	0.054	2	2.85E-02	3.61E-02	1.5	15	13	I	2	2.85E-02	3.61E-02	1.5	15	13	I
EU-12	19.30	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	SVOC	Chrysene	mg/kg	1	0.072	2	3.75E-02	4.88E-02	1.5	15	13	I	2	3.75E-02	4.88E-02	1.5	15	13	I
EU-12	19.30	SVOC	Dibenzo(a,h)anthracene	mg/kg	1	0.011	2	7.00E-03	5.66E-03	1.5	15	13	I	2	7.00E-03	5.66E-03	1.5	15	13	I
EU-12	19.30	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	SVOC	Fluoranthene	mg/kg	1	0.13	2	6.65E-02	8.98E-02	1.5	15	13	I	2	6.65E-02	8.98E-02	1.5	15	13	I
EU-12	19.30	SVOC	Fluorene	mg/kg	1	0.011	2	7.00E-03	5.66E-03	1.5	15	13	I	2	7.00E-03	5.66E-03	1.5	15	13	I
EU-12	19.30	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	1	0.021	2	1.20E-02	1.27E-02	1.5	15	13	I	2	1.20E-02	1.27E-02	1.5	15	13	I
EU-12	19.30	SVOC	Naphthalene	mg/kg			2	3.50E-03	7.07E-04	1.5	15	13	I	2	3.50E-03	7.07E-04	1.5	15	13	I
EU-12	19.30	SVOC	Pyrene	mg/kg	1	0.13	2	6.65E-02	8.98E-02	1.5	15	13	I	2	6.65E-02	8.98E-02	1.5	15	13	I
EU-12	19.30	VOC	1,1,1-Trichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	1,1-Dichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	1,1-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Benzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Ethylbenzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Methylene chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Tetrachloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Toluene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	trans-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Trichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Vinyl chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-13	17.12	Dioxins	TCDD-TEQ (Total all)	mg/kg	4	2.31E-06	9	9.82E-07	7.06E-07	3.0	11	2	I	4	1.46E-06	8.36E-07	1.5	15	11	I
EU-13	17.12	Inorganic	Aluminum	mg/kg	24	31100	24	1.93E+04	5.79E+03	3.0	8	0	I	24	1.93E+04	5.79E+03	3.0	8	0	I
EU-13	17.12	Inorganic	Antimony	mg/kg	11	870	12	7.60E+01	2.50E+02	1.5	14	2	Y	11	8.20E+01	2.61E+02	1.5	14	3	Y
EU-13	17.12	Inorganic	Arsenic	mg/kg	18	350	19	2.40E+01	7.92E+01	1.5	14	0	Y	19	2.40E+01	7.92E+01	1.5	14	0	Y
EU-13	17.12	Inorganic	Barium	mg/kg	14	130	14	9.14E+01	2.11E+01	3.0	8	0	I	14	9.14E+01	2.11E+01	3.0	8	0	I
EU-13	17.12	Inorganic	Beryllium	mg/kg	14	1	14	7.14E-01	1.53E-01	3.0	8	0	I	14	7.14E-01	1.53E-01	3.0	8	0	I
EU-13	17.12	Inorganic	Boron	mg/kg	6	8.1	14	6.90E+00	1.23E+00	3.0	8	0	I	14	6.90E+00	1.23E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Cadmium	mg/kg	9	0.31	14	2.29E-01	2.47E-01	3.0	8	0	I	14	2.29E-01	2.47E-01	3.0	8	0	I
EU-13	17.12	Inorganic	Chromium	mg/kg	18	32.9	18	2.36E+01	5.15E+00	3.0	8	0	I	18	2.36E+01	5.15E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Cobalt	mg/kg	14	11	14	8.36E+00	1.51E+00	3.0	8	0	I	14	8.36E+00	1.51E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Copper	mg/kg	18	16.2	18	1.25E+01	2.25E+00	3.0	8	0	I	18	1.25E+01	2.25E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Lead	mg/kg	20	27000	21	1.41E+03	5.89E+03	1.5	14	0	Y	21	1.41E+03	5.89E+03	1.5	14	0	Y
EU-13	17.12	Inorganic	Manganese	mg/kg	4	394	4	3.17E+02	7.00E+01	1.5	14	10	I	4	3.17E+02	7.00E+01	1.5	14	10	I
EU-13	17.12	Inorganic	Mercury	mg/kg	19	0.27	28	5.34E-02	6.74E-02	3.0	8	0	I	28	5.34E-02	6.74E-02	3.0	8	0	I
EU-13	17.12	Inorganic	Molybdenum	mg/kg	7	0.97	14	1.28E+00	2.53E+00	3.0	8	0	I	14	1.28E+00	2.53E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Nickel	mg/kg	18	19	18	1.48E+01	2.56E+00	3.0	8	0	I	18	1.48E+01	2.56E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Selenium	mg/kg	11	1.2	14	8.06E-01	1.24E+00	3.0	8	0	I	14	8.06E-01	1.24E+00	3.0	8	0	I
EU-13	17.12	Inorganic	Silver	mg/kg	5	0.53	14	2.97E-01	2.79E-01	3.0	8	0	I	14	2.97E-01	2.79E-01	3.0	8	0	I
EU-13	17.12	Inorganic	Thallium	mg/kg	9	0.31	10	7.46E-01	1.49E+00	1.7	12	2	I	10	7.46E-01	1.49E+00	1.7	12	2	I
EU-13	17.12	Inorganic	Vanadium	mg/kg	14	64.8	14	4.42E+01	1.01E+01	3.0	8	0	I	14	4.42E+01	1.01E+01	3.0	8	0	I
EU-13	17.12	Inorganic	Zinc	mg/kg	18	75.6	18	5.39E+01	1.01E+01	3.0	8	0	I	18	5.39E+01	1.01E+01	3.0	8	0	I
EU-13	17.12	PCBs	Aroclor 1242	mg/kg			17	6.18E-02	2.85E-02	3.0	11	0	I	17			3.0	11	0	I
EU-13	17.12	PCBs	Aroclor 1248	mg/kg			17	6.18E-02	2.85E-02	3.0	11	0	I	17			3.0	11	0	I
EU-13	17.12	PCBs	Aroclor 1254	mg/kg	6	0.29	17	7.51E-02	8.05E-02	1.4	16	0	I	6	1.08E-01	1.33E-01	1.5	15	9	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-13	17.12	PCBs	Aroclor 1260	mg/kg	3	0.021	16	6.14E-02	4.60E-02	2.4	12	0	I	3	1.48E-02	8.33E-03	1.5	15	12	I
EU-13	17.12	SVOC	2-Methylnaphthalene	mg/kg	1	0.14	16	1.44E-01	1.48E-01	3.0	11	0	I	16	1.44E-01	1.48E-01	3.0	11	0	I
EU-13	17.12	SVOC	Acenaphthene	mg/kg			19	7.94E-02	6.67E-02	3.0	11	0	I	19	7.94E-02	6.67E-02	3.0	11	0	I
EU-13	17.12	SVOC	Anthracene	mg/kg			19	7.94E-02	6.67E-02	3.0	11	0	I	19	7.94E-02	6.67E-02	3.0	11	0	I
EU-13	17.12	SVOC	Benzo(a)anthracene	mg/kg	4	0.044	19	8.04E-02	6.60E-02	2.9	11	0	I	9	2.36E-02	1.08E-02	1.6	14	5	I
EU-13	17.12	SVOC	Benzo(a)pyrene	mg/kg	4	0.032	9	2.06E-02	8.82E-03	2.1	12	3	I	4	1.62E-02	1.27E-02	1.5	15	11	I
EU-13	17.12	SVOC	Benzo(b)fluoranthene	mg/kg	4	0.045	19	8.05E-02	6.59E-02	2.9	11	0	I	9	2.38E-02	1.09E-02	1.6	14	5	I
EU-13	17.12	SVOC	Benzo(k)fluoranthene	mg/kg	3	0.019	19	7.76E-02	6.84E-02	2.8	11	0	I	19	7.76E-02	6.84E-02	1.4	16	0	I
EU-13	17.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	12	0.72	18	1.40E-01	1.59E-01	3.0	11	0	I	18	1.40E-01	1.59E-01	3.0	11	0	I
EU-13	17.12	SVOC	Chrysene	mg/kg	4	0.056	19	8.14E-02	6.53E-02	3.0	11	0	I	19	8.14E-02	6.53E-02	3.0	11	0	I
EU-13	17.12	SVOC	Dibenzo(a,h)anthracene	mg/kg			13	3.76E-02	2.58E-02	2.1	12	0	I	1	2.00E-03		1.5	15	14	I
EU-13	17.12	SVOC	Diethyl phthalate	mg/kg	3	0.0094	18	1.47E-01	1.41E-01	3.0	11	0	I	18	1.47E-01	1.41E-01	3.0	11	0	I
EU-13	17.12	SVOC	Di-n-butyl phthalate	mg/kg	12	0.11	18	8.99E-02	6.30E-02	3.0	11	0	I	18	8.99E-02	6.30E-02	3.0	11	0	I
EU-13	17.12	SVOC	Fluoranthene	mg/kg	5	0.096	19	8.39E-02	6.51E-02	3.0	11	0	I	19	8.39E-02	6.51E-02	3.0	11	0	I
EU-13	17.12	SVOC	Fluorene	mg/kg			19	7.94E-02	6.67E-02	3.0	11	0	I	19	7.94E-02	6.67E-02	3.0	11	0	I
EU-13	17.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	4	0.017	19	7.68E-02	6.92E-02	2.7	11	0	I	9	1.60E-02	8.62E-03	2.0	12	3	I
EU-13	17.12	SVOC	Naphthalene	mg/kg	2	0.12	19	7.00E-02	7.41E-02	3.0	11	0	I	19	7.00E-02	7.41E-02	3.0	11	0	I
EU-13	17.12	SVOC	Pyrene	mg/kg	6	0.13	19	8.78E-02	6.57E-02	3.0	11	0	I	19	8.78E-02	6.57E-02	3.0	11	0	I
EU-13	17.12	VOC	1,1,1-Trichloroethane	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	10	3.23E-02	2.29E-02	3.0	11	1	I
EU-13	17.12	VOC	1,1-Dichloroethane	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	4	5.75E-03	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	1,1-Dichloroethene	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	4	5.75E-03	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	Acetone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-13	17.12	VOC	Benzene	mg/kg	1	0.001	10	3.18E-02	2.35E-02	3.0	11	1	I	10	3.18E-02	2.35E-02	1.9	12	2	I
EU-13	17.12	VOC	cis-1,2-Dichloroethene	mg/kg			4	5.75E-03	5.00E-04	1.5	15	11	I	4	5.75E-03	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	Ethylbenzene	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	10	3.23E-02	2.29E-02	3.0	11	1	I
EU-13	17.12	VOC	m,p-Xylenes	mg/kg			4	1.13E-02	5.00E-04	1.5	15	11	I	4	1.13E-02	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	Methyl ethyl ketone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-13	17.12	VOC	Methylene chloride	mg/kg	2	0.003	10	1.82E-01	1.53E-01	3.0	11	1	I	10	1.82E-01	1.53E-01	1.7	14	4	I
EU-13	17.12	VOC	Tetrachloroethene	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	4	5.75E-03	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	Toluene	mg/kg	3	0.003	10	3.13E-02	2.42E-02	3.0	11	1	I	10	3.13E-02	2.42E-02	3.0	11	1	I
EU-13	17.12	VOC	trans-1,2-Dichloroethene	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	10	3.23E-02	2.29E-02	3.0	11	1	I
EU-13	17.12	VOC	Trichloroethene	mg/kg			10	3.23E-02	2.29E-02	3.0	11	1	I	4	5.75E-03	5.00E-04	1.5	15	11	I
EU-13	17.12	VOC	Vinyl chloride	mg/kg			4	5.75E-03	5.00E-04	1.5	15	11	I	10			3.0	11	1	I
EU-13	17.12	VOC	Xylenes, Total	mg/kg			3	5.00E-02	0.00E+00	1.5	15	12	I	3	5.00E-02	0.00E+00	1.5	15	12	I
EU-14	17.08	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Arsenic	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Barium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Beryllium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Cadmium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Chromium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Cobalt	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Copper	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Lead	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Mercury	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Molybdenum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Nickel	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Silver	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Vanadium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Zinc	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

							Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario						
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result														
EU-14	17.08	SVOC	Acenaphthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(a)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(b)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(k)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Chrysene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Fluorene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Naphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1,1-Trichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1-Dichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Benzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Ethylbenzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Methylene chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Tetrachloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Toluene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	trans-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Trichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Vinyl chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	Inorganic	Aluminum	mg/kg	1	15000	1	1.50E+04		1.5	14	13	I	1	1.50E+04		1.5	14	13	I
EU-15	18.68	Inorganic	Antimony	mg/kg			1	1.10E+01		1.5	14	13	I	1			1.5	14	13	I
EU-15	18.68	Inorganic	Arsenic	mg/kg			1	6.00E+00		1.5	14	13	I	1	6.00E+00		1.5	14	13	I
EU-15	18.68	Inorganic	Barium	mg/kg	1	85	1	8.50E+01		1.5	14	13	I	1	8.50E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Beryllium	mg/kg	1	0.8	1	8.00E-01		1.5	14	13	I	1	8.00E-01		1.5	14	13	I
EU-15	18.68	Inorganic	Boron	mg/kg			1	1.10E+01		1.5	14	13	I	1	1.10E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Cadmium	mg/kg			1	1.00E+00		1.5	14	13	I	1	1.00E+00		1.5	14	13	I
EU-15	18.68	Inorganic	Chromium	mg/kg	1	29	1	2.90E+01		1.5	14	13	I	1	2.90E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Cobalt	mg/kg	1	8	1	8.00E+00		1.5	14	13	I	1	8.00E+00		1.5	14	13	I
EU-15	18.68	Inorganic	Copper	mg/kg	1	11	1	1.10E+01		1.5	14	13	I	1	1.10E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Lead	mg/kg	1	17	1	1.70E+01		1.5	14	13	I	1	1.70E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Mercury	mg/kg			1	2.00E-01		1.5	14	13	I	1	2.00E-01		1.5	14	13	I
EU-15	18.68	Inorganic	Molybdenum	mg/kg			1	1.10E+01		1.5	14	13	I	1	1.10E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Nickel	mg/kg	1	12	1	1.20E+01		1.5	14	13	I	1	1.20E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Selenium	mg/kg			1	6.00E+00		1.5	14	13	I	1	6.00E+00		1.5	14	13	I
EU-15	18.68	Inorganic	Silver	mg/kg			1	1.00E+00		1.5	14	13	I	1	1.00E+00		1.5	14	13	I
EU-15	18.68	Inorganic	Thallium	mg/kg						1.5	14	14	I	1			1.5	14	13	I
EU-15	18.68	Inorganic	Vanadium	mg/kg	1	51	1	5.10E+01		1.5	14	13	I	1	5.10E+01		1.5	14	13	I
EU-15	18.68	Inorganic	Zinc	mg/kg	1	64	1	6.40E+01		1.5	14	13	I	1	6.40E+01		1.5	14	13	I
EU-15	18.68	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Acenaphthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

							Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario						
						Maximum Detected Result	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects															
EU-15	18.68	SVOC	Benzo(a)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(b)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(k)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Chrysene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Fluorene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Naphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	1,1,1-Trichloroethane	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	1,1-Dichloroethane	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	1,1-Dichloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Acetone	mg/kg			1	5.70E-02		1.5	15	14	I	1	5.70E-02		1.5	15	14	I
EU-15	18.68	VOC	Benzene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	cis-1,2-Dichloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Ethylbenzene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	m,p-Xylenes	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Methyl ethyl ketone	mg/kg			1	5.70E-02		1.5	15	14	I	1	5.70E-02		1.5	15	14	I
EU-15	18.68	VOC	Methylene chloride	mg/kg			1	2.30E-02		1.5	15	14	I	1	2.30E-02		1.5	15	14	I
EU-15	18.68	VOC	Tetrachloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Toluene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	trans-1,2-Dichloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Trichloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-15	18.68	VOC	Vinyl chloride	mg/kg			1	1.10E-02		1.5	15	14	I	1			1.5	15	14	I
EU-15	18.68	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-16	19.65	Dioxins	TCDD-TEQ (Total all)	mg/kg	2	5.01E-08	4	1.78E-07	1.78E-07	1.5	15	11	I	2	2.63E-08	3.37E-08	1.5	15	13	I
EU-16	19.65	Inorganic	Aluminum	mg/kg	9	19000	9	1.46E+04	3.01E+03	3.0	8	0	I	9	1.46E+04	3.01E+03	3.0	8	0	I
EU-16	19.65	Inorganic	Antimony	mg/kg	1	6.7	9	1.11E+01	1.71E+00	3.0	8	0	I	1	6.70E+00		1.5	14	13	I
EU-16	19.65	Inorganic	Arsenic	mg/kg	1	3.2	9	5.47E+00	9.54E-01	3.0	8	0	I	9	5.47E+00	9.54E-01	3.0	8	0	I
EU-16	19.65	Inorganic	Barium	mg/kg	9	95	9	7.71E+01	1.57E+01	3.0	8	0	I	9	7.71E+01	1.57E+01	3.0	8	0	I
EU-16	19.65	Inorganic	Beryllium	mg/kg	9	0.8	9	6.86E-01	1.01E-01	3.0	8	0	I	9	6.86E-01	1.01E-01	3.0	8	0	I
EU-16	19.65	Inorganic	Boron	mg/kg	1	13	9	1.12E+01	1.72E+00	3.0	8	0	I	9	1.12E+01	1.72E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Cadmium	mg/kg			9	8.96E-01	3.13E-01	3.0	8	0	I	9	8.96E-01	3.13E-01	3.0	8	0	I
EU-16	19.65	Inorganic	Chromium	mg/kg	9	36.8	9	2.46E+01	4.71E+00	3.0	8	0	I	9	2.46E+01	4.71E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Cobalt	mg/kg	9	11	9	8.14E+00	1.77E+00	3.0	8	0	I	9	8.14E+00	1.77E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Copper	mg/kg	9	16	9	1.16E+01	4.20E+00	3.0	8	0	I	9	1.16E+01	4.20E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Lead	mg/kg	9	15.4	9	1.19E+01	2.54E+00	3.0	8	0	I	9	1.19E+01	2.54E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Manganese	mg/kg	1	290	1	2.90E+02		1.5	14	13	I	1	2.90E+02		1.5	14	13	I
EU-16	19.65	Inorganic	Mercury	mg/kg			9	1.61E-01	6.01E-02	3.0	8	0	I	9	1.61E-01	6.01E-02	3.0	8	0	I
EU-16	19.65	Inorganic	Molybdenum	mg/kg			9	1.04E+01	3.64E+00	3.0	8	0	I	9	1.04E+01	3.64E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Nickel	mg/kg	9	18	9	1.41E+01	3.47E+00	3.0	8	0	I	9	1.41E+01	3.47E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Selenium	mg/kg			9	5.16E+00	1.81E+00	3.0	8	0	I	9	5.16E+00	1.81E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Silver	mg/kg			9	9.74E-01	7.67E-02	3.0	8	0	I	9	9.74E-01	7.67E-02	3.0	8	0	I
EU-16	19.65	Inorganic	Thallium	mg/kg	1	0.3	4	2.68E+00	2.68E+00	1.5	14	10	I	4	2.68E+00	2.68E+00	1.5	14	10	I
EU-16	19.65	Inorganic	Vanadium	mg/kg	9	57.1	9	4.62E+01	5.12E+00	3.0	8	0	I	9	4.62E+01	5.12E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Zinc	mg/kg	9	73	9	5.99E+01	1.02E+01	3.0	8	0	I	9	5.99E+01	1.02E+01	3.0	8	0	I
EU-16	19.65	PCBs	Aroclor 1242	mg/kg			2	1.20E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	PCBs	Aroclor 1248	mg/kg			2	1.20E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	PCBs	Aroclor 1254	mg/kg			2	1.20E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	PCBs	Aroclor 1260	mg/kg			2	1.20E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	SVOC	2-Methylnaphthalene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Acenaphthene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Anthracene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Benzo(a)anthracene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I	2			1.5	15	13	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-5. Chemical Risk Data Gap Analysis (0-2 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-16	19.65	SVOC	Benzo(b)fluoranthene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	SVOC	Benzo(k)fluoranthene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Chrysene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I	2			1.5	15	13	I
EU-16	19.65	SVOC	Diethyl phthalate	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Di-n-butyl phthalate	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Fluoranthene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Fluorene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2			1.5	15	13	I
EU-16	19.65	SVOC	Naphthalene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	SVOC	Pyrene	mg/kg			2	3.70E-01	0.00E+00	1.5	15	13	I	2	3.70E-01	0.00E+00	1.5	15	13	I
EU-16	19.65	VOC	1,1,1-Trichloroethane	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	1,1-Dichloroethane	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	1,1-Dichloroethene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Acetone	mg/kg			8	5.79E-02	3.04E-03	3.0	11	3	I	8	5.79E-02	3.04E-03	3.0	11	3	I
EU-16	19.65	VOC	Benzene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	cis-1,2-Dichloroethene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Ethylbenzene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	m,p-Xylenes	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Methyl ethyl ketone	mg/kg			8	5.79E-02	3.04E-03	3.0	11	3	I	8	5.79E-02	3.04E-03	3.0	11	3	I
EU-16	19.65	VOC	Methylene chloride	mg/kg			8	2.34E-02	1.41E-03	3.0	11	3	I	8	2.34E-02	1.41E-03	3.0	11	3	I
EU-16	19.65	VOC	Tetrachloroethene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Toluene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	trans-1,2-Dichloroethene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Trichloroethene	mg/kg			8	5.75E-03	4.63E-04	3.0	11	3	I	8	5.75E-03	4.63E-04	3.0	11	3	I
EU-16	19.65	VOC	Vinyl chloride	mg/kg			8	1.16E-02	5.18E-04	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-01	18.82	Dioxins	TCDD-TEQ (Total all)	mg/kg	15	5.17E-05	20	6.47E-06	1.33E-05	1.5	15	0	Y	16	7.91E-06	1.46E-05	1.5	15	0	Y
EU-01	18.82	Inorganic	Aluminum	mg/kg	19	27000	19	1.29E+04	6.04E+03	3.0	8	0	I	19	1.29E+04	6.04E+03	3.0	8	0	I
EU-01	18.82	Inorganic	Antimony	mg/kg	7	17.5	13	6.29E+00	6.18E+00	2.5	9	0	I	10	4.98E+00	6.52E+00	1.3	17	7	I
EU-01	18.82	Inorganic	Arsenic	mg/kg	11	6.5	17	4.42E+00	1.49E+00	3.0	8	0	I	17	4.42E+00	1.49E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Barium	mg/kg	17	190	17	9.20E+01	4.32E+01	3.0	8	0	I	17	9.20E+01	4.32E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Beryllium	mg/kg	12	0.93	17	5.49E-01	1.99E-01	3.0	8	0	I	17	5.49E-01	1.99E-01	3.0	8	0	I
EU-01	18.82	Inorganic	Boron	mg/kg	6	8	15	6.80E+00	2.49E+00	3.0	8	0	I	15	6.80E+00	2.49E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Cadmium	mg/kg	6	3	17	6.15E-01	7.10E-01	3.0	8	0	I	17	6.15E-01	7.10E-01	3.0	8	0	I
EU-01	18.82	Inorganic	Chromium	mg/kg	17	44	17	1.82E+01	9.29E+00	3.0	8	0	I	17	1.82E+01	9.29E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Cobalt	mg/kg	16	9.5	17	5.88E+00	1.91E+00	3.0	8	0	I	17	5.88E+00	1.91E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Copper	mg/kg	16	60.4	17	1.37E+01	1.39E+01	3.0	8	0	I	17	1.37E+01	1.39E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Lead	mg/kg	17	143	18	1.67E+01	3.27E+01	2.3	9	0	I	18	1.67E+01	3.27E+01	2.3	9	0	I
EU-01	18.82	Inorganic	Manganese	mg/kg	8	308	8	1.64E+02	9.04E+01	3.0	8	0	I	8	1.64E+02	9.04E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Mercury	mg/kg	5	0.2	17	8.43E-02	8.91E-02	3.0	8	0	I	17	8.43E-02	8.91E-02	3.0	8	0	I
EU-01	18.82	Inorganic	Molybdenum	mg/kg	2	0.83	17	6.37E+00	4.85E+00	3.0	8	0	I	17	6.37E+00	4.85E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Nickel	mg/kg	13	27.9	17	1.10E+01	6.15E+00	3.0	8	0	I	17	1.10E+01	6.15E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Selenium	mg/kg	2	0.47	11	3.11E+00	2.58E+00	3.0	8	0	I	11	3.11E+00	2.58E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Silver	mg/kg	6	10.8	18	2.72E+00	2.96E+00	3.0	8	0	I	18	2.72E+00	2.96E+00	3.0	8	0	I
EU-01	18.82	Inorganic	Thallium	mg/kg	10	2.8	17	1.80E+00	1.98E+00	1.3	17	0	I	17	1.80E+00	1.98E+00	1.3	17	0	I
EU-01	18.82	Inorganic	Vanadium	mg/kg	17	51	17	3.06E+01	1.10E+01	3.0	8	0	I	17	3.06E+01	1.10E+01	3.0	8	0	I
EU-01	18.82	Inorganic	Zinc	mg/kg	17	729	17	1.01E+02	1.66E+02	3.0	8	0	I	17	1.01E+02	1.66E+02	3.0	8	0	I
EU-01	18.82	PCBs	Aroclor 1242	mg/kg			27	7.89E-02	5.93E-02	1.9	12	0	I	28			3.0	11	0	I
EU-01	18.82	PCBs	Aroclor 1248	mg/kg	6	1.9	27	2.09E-01	4.28E-01	0.3	185	158	I	6	6.82E-01	7.71E-01	1.5	15	9	I
EU-01	18.82	PCBs	Aroclor 1254	mg/kg	5	0.66	27	1.11E-01	1.44E-01	0.8	32	5	I	5	2.69E-01	2.83E-01	1.5	15	10	I
EU-01	18.82	PCBs	Aroclor 1260	mg/kg	5	49	28	1.83E+00	9.24E+00	1.5	15	0	Y	5	9.87E+00	2.19E+01	1.5	15	10	I
EU-01	18.82	SVOC	2-Methylnaphthalene	mg/kg	1	0.005	17	2.86E-01	7.42E-01	3.0	11	0	I	17	2.86E-01	7.42E-01	3.0	11	0	I
EU-01	18.82	SVOC	Acenaphthene	mg/kg			22	4.03E-01	8.71E-01	3.0	11	0	I	22	4.03E-01	8.71E-01	3.0	11	0	I
EU-01	18.82	SVOC	Anthracene	mg/kg	1	0.002	22	4.03E-01	8.71E-01	3.0	11	0	I	22	4.03E-01	8.71E-01	3.0	11	0	I
EU-01	18.82	SVOC	Benzo(a)anthracene	mg/kg	4	3	19	2.44E-01	6.79E-01	0.3	185	166	I	13	2.42E-01	8.29E-01	1.5	15	2	Y
EU-01	18.82	SVOC	Benzo(a)pyrene	mg/kg	3	1.7	13	1.42E-01	4.68E-01	1.5	15	2	Y	7	2.47E-01	6.41E-01	1.5	15	8	I
EU-01	18.82	SVOC	Benzo(b)fluoranthene	mg/kg	4	6.2	19	4.05E-01	1.41E+00	1.5	15	0	Y	14	4.56E-01	1.65E+00	1.5	15	1	Y
EU-01	18.82	SVOC	Benzo(k)fluoranthene	mg/kg	2	0.017	18	1.01E-01	1.39E-01	1.4	16	0	I	13	2.03E-02	2.56E-02	3.0	11	0	I
EU-01	18.82	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	2	0.018	11	1.01E+00	1.10E+00	3.0	11	0	I	9	5.69E-01	5.46E-01	1.8	12	3	I
EU-01	18.82	SVOC	Chrysene	mg/kg	7	8.6	23	7.19E-01	1.91E+00	1.0	23	0	I	21	5.01E-01	1.86E+00	0.5	71	50	I
EU-01	18.82	SVOC	Dibenzo(a,h)anthracene	mg/kg			13	1.92E-02	2.60E-02	2.1	12	0	I	5	3.00E-03	3.68E-11	1.5	15	10	I
EU-01	18.82	SVOC	Diethyl phthalate	mg/kg			11	1.00E+00	1.11E+00	3.0	11	0	I	11	1.00E+00	1.11E+00	3.0	11	0	I
EU-01	18.82	SVOC	Di-n-butyl phthalate	mg/kg			11	1.01E+00	1.10E+00	3.0	11	0	I	11	1.01E+00	1.10E+00	3.0	11	0	I
EU-01	18.82	SVOC	Fluoranthene	mg/kg	6	1.9	22	4.45E-01	9.20E-01	3.0	11	0	I	22	4.45E-01	9.20E-01	3.0	11	0	I
EU-01	18.82	SVOC	Fluorene	mg/kg			22	4.03E-01	8.71E-01	3.0	11	0	I	22	4.03E-01	8.71E-01	3.0	11	0	I
EU-01	18.82	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	2	0.0095	17	8.53E-02	1.27E-01	1.5	15	0	I	12	1.17E-02	9.82E-03	1.8	12	0	I
EU-01	18.82	SVOC	Naphthalene	mg/kg	1	0.008	20	1.43E-01	2.41E-01	3.0	11	0	I	20	1.43E-01	2.41E-01	3.0	11	0	I
EU-01	18.82	SVOC	Pyrene	mg/kg	7	5.5	23	5.83E-01	1.36E+00	3.0	11	0	I	23	5.83E-01	1.36E+00	3.0	11	0	I
EU-01	18.82	VOC	1,1,1-Trichloroethane	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	1,1-Dichloroethane	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	1,1-Dichloroethene	mg/kg			7	8.43E-03	8.20E-03	1.5	15	8	I	6	5.33E-03	5.16E-04	1.5	15	9	I
EU-01	18.82	VOC	Acetone	mg/kg	3	0.66	7	1.28E-01	2.36E-01	1.5	15	8	I	7	1.28E-01	2.36E-01	1.5	15	8	I
EU-01	18.82	VOC	Benzene	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	cis-1,2-Dichloroethene	mg/kg			5	9.20E-03	1.01E-02	1.5	15	10	I	5	9.20E-03	1.01E-02	1.5	15	10	I
EU-01	18.82	VOC	Ethylbenzene	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	m,p-Xylenes	mg/kg			5	9.20E-03	1.01E-02	1.5	15	10	I	5	9.20E-03	1.01E-02	1.5	15	10	I
EU-01	18.82	VOC	Methyl ethyl ketone	mg/kg			6	7.40E-02	9.86E-02	1.5	15	9	I	6	7.40E-02	9.86E-02	1.5	15	9	I
EU-01	18.82	VOC	Methylene chloride	mg/kg	3	0.062	7	3.34E-02	3.82E-02	1.5	15	8	I	7	3.34E-02	3.82E-02	1.5	15	8	I
EU-01	18.82	VOC	Tetrachloroethene	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	6	4.67E-03	1.86E-03	1.5	15	9	I
EU-01	18.82	VOC	Toluene	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	trans-1,2-Dichloroethene	mg/kg			6	8.50E-03	9.18E-03	1.5	15	9	I	6	8.50E-03	9.18E-03	1.5	15	9	I
EU-01	18.82	VOC	Trichloroethene	mg/kg			7	7.86E-03	8.61E-03	1.5	15	8	I	7	7.86E-03	8.61E-03	1.5	15	8	I
EU-01	18.82	VOC	Vinyl chloride	mg/kg			6	9.17E-03	3.54E-03	1.5	15	9	I	1	2.00E-03		1.5	15	14	I
EU-01	18.82	VOC	Xylenes, Total	mg/kg	2	0.006	2	6.00E-03	0.00E+00	1.5	15	13	I	2	6.00E-03	0.00E+00	1.5	15	13	I
EU-02	17.64	Dioxins	TCDD-TEQ (Total all)	mg/kg	2	1.48E-05	4	3.94E-06	7.26E-06	1.5	15	11	I	3	5.12E-06	8.41E-06	1.5	15	12	I
EU-02	17.64	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario						
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-02	17.64	Inorganic	Antimony	mg/kg			4	1.08E+01	5.00E-01	1.5	14	10	I							
EU-02	17.64	Inorganic	Arsenic	mg/kg			4	5.50E+00	5.77E-01	1.5	14	10	I	4	5.50E+00	5.77E-01	1.5	14	10	I
EU-02	17.64	Inorganic	Barium	mg/kg	4	96	4	8.78E+01	9.00E+00	1.5	14	10	I	4	8.78E+01	9.00E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Beryllium	mg/kg	4	0.8	4	7.00E-01	8.16E-02	1.5	14	10	I	4	7.00E-01	8.16E-02	1.5	14	10	I
EU-02	17.64	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-02	17.64	Inorganic	Cadmium	mg/kg			4	1.00E+00	0.00E+00	1.5	14	10	I	4	1.00E+00	0.00E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Chromium	mg/kg	4	20	4	1.85E+01	1.29E+00	1.5	14	10	I	4	1.85E+01	1.29E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Cobalt	mg/kg	4	9	4	7.00E+00	1.83E+00	1.5	14	10	I	4	7.00E+00	1.83E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Copper	mg/kg	4	16	4	9.75E+00	4.19E+00	1.5	14	10	I	4	9.75E+00	4.19E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Lead	mg/kg	5	12	5	9.80E+00	1.30E+00	1.5	14	9	I	5	9.80E+00	1.30E+00	1.5	14	9	I
EU-02	17.64	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-02	17.64	Inorganic	Mercury	mg/kg			4	2.00E-01	0.00E+00	1.5	14	10	I	4	2.00E-01	0.00E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Molybdenum	mg/kg			4	1.08E+01	5.00E-01	1.5	14	10	I	4	1.08E+01	5.00E-01	1.5	14	10	I
EU-02	17.64	Inorganic	Nickel	mg/kg	4	14	4	1.18E+01	1.71E+00	1.5	14	10	I	4	1.18E+01	1.71E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Selenium	mg/kg			4	5.50E+00	5.77E-01	1.5	14	10	I	4	5.50E+00	5.77E-01	1.5	14	10	I
EU-02	17.64	Inorganic	Silver	mg/kg			4	1.00E+00	0.00E+00	1.5	14	10	I	4	1.00E+00	0.00E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Thallium	mg/kg			2	5.00E+00	0.00E+00	1.5	14	12	I	2	5.00E+00	0.00E+00	1.5	14	12	I
EU-02	17.64	Inorganic	Vanadium	mg/kg	4	39	4	3.60E+01	2.45E+00	1.5	14	10	I	4	3.60E+01	2.45E+00	1.5	14	10	I
EU-02	17.64	Inorganic	Zinc	mg/kg	5	100	5	5.76E+01	2.39E+01	1.5	14	9	I	5	5.76E+01	2.39E+01	1.5	14	9	I
EU-02	17.64	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	SVOC	2-Methylnaphthalene	mg/kg			4	1.33E-01	7.40E-02	1.5	15	11	I	4	1.33E-01	7.40E-02	1.5	15	11	I
EU-02	17.64	SVOC	Acenaphthene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Anthracene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Benzo(a)anthracene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	1	2.20E-02		1.5	15	14	I
EU-02	17.64	SVOC	Benzo(a)pyrene	mg/kg			1	2.20E-02		1.5	15	14	I				1.5	15	15	I
EU-02	17.64	SVOC	Benzo(b)fluoranthene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	1	2.20E-02		1.5	15	14	I
EU-02	17.64	SVOC	Benzo(k)fluoranthene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			6	1.70E-01	2.72E-09	1.5	15	9	I	6	1.70E-01	2.72E-09	1.5	15	9	I
EU-02	17.64	SVOC	Chrysene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Dibenzo(a,h)anthracene	mg/kg			1	2.20E-02		1.5	15	14	I				1.5	15	15	I
EU-02	17.64	SVOC	Diethyl phthalate	mg/kg			6	1.70E-01	2.72E-09	1.5	15	9	I	6	1.70E-01	2.72E-09	1.5	15	9	I
EU-02	17.64	SVOC	Di-n-butyl phthalate	mg/kg			6	1.70E-01	2.72E-09	1.5	15	9	I	6	1.70E-01	2.72E-09	1.5	15	9	I
EU-02	17.64	SVOC	Fluoranthene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Fluorene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	1	2.20E-02		1.5	15	14	I
EU-02	17.64	SVOC	Naphthalene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	SVOC	Pyrene	mg/kg			7	1.49E-01	5.59E-02	1.5	15	8	I	7	1.49E-01	5.59E-02	1.5	15	8	I
EU-02	17.64	VOC	1,1,1-Trichloroethane	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	1,1-Dichloroethane	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	1,1-Dichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Acetone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-02	17.64	VOC	Benzene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	VOC	Ethylbenzene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-02	17.64	VOC	Methyl ethyl ketone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-02	17.64	VOC	Methylene chloride	mg/kg			6	3.00E-01	5.44E-09	1.5	15	9	I	6	3.00E-01	5.44E-09	1.5	15	9	I
EU-02	17.64	VOC	Tetrachloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Toluene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	trans-1,2-Dichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Trichloroethene	mg/kg			6	5.00E-02	9.62E-10	1.5	15	9	I	6	5.00E-02	9.62E-10	1.5	15	9	I
EU-02	17.64	VOC	Vinyl chloride	mg/kg			3			1.5	15	12	I	6			1.5	15	9	I
EU-02	17.64	VOC	Xylenes, Total	mg/kg			3	5.00E-02	0.00E+00	1.5	15	12	I	3	5.00E-02	0.00E+00	1.5	15	12	I
EU-03	18.12	Dioxins	TCDD-TEQ (Total all)	mg/kg	1	1.12E-08	2	4.31E-08	4.51E-08	1.5	15	13	I	2	4.31E-08	4.51E-08	1.5	15	13	I
EU-03	18.12	Inorganic	Aluminum	mg/kg	14	22000	15	1.18E+04	4.97E+03	3.0	8	0	I	15	1.18E+04	4.97E+03	3.0	8	0	I
EU-03	18.12	Inorganic	Antimony	mg/kg	5	0.93	16	3.83E+00	4.36E+00	3.0	8	0	I	13	1.87E+00	1.15E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Arsenic	mg/kg	20	4.5	23	3.27E+00	1.45E+00	3.0	8	0	I	23	3.27E+00	1.45E+00	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-03	18.12	Inorganic	Barium	mg/kg	22	130	23	6.83E+01	2.93E+01	3.0	8	0	I	23	6.83E+01	2.93E+01	3.0	8	0	I
EU-03	18.12	Inorganic	Beryllium	mg/kg	13	0.76	23	5.28E-01	1.49E-01	3.0	8	0	I	23	5.28E-01	1.49E-01	3.0	8	0	I
EU-03	18.12	Inorganic	Boron	mg/kg	5	9.1	15	5.87E+00	2.78E+00	3.0	8	0	I	15	5.87E+00	2.78E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Cadmium	mg/kg	4	0.84	23	3.51E-01	3.44E-01	3.0	8	0	I	23	3.51E-01	3.44E-01	3.0	8	0	I
EU-03	18.12	Inorganic	Chromium	mg/kg	22	22	23	1.29E+01	5.03E+00	3.0	8	0	I	23	1.29E+01	5.03E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Cobalt	mg/kg	22	7.7	23	5.20E+00	1.73E+00	3.0	8	0	I	23	5.20E+00	1.73E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Copper	mg/kg	22	31.1	23	1.17E+01	6.90E+00	3.0	8	0	I	23	1.17E+01	6.90E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Lead	mg/kg	23	25.4	23	8.24E+00	4.68E+00	3.0	8	0	I	23	8.24E+00	4.68E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Manganese	mg/kg	11	526	11	2.08E+02	1.29E+02	3.0	8	0	I	11	2.08E+02	1.29E+02	2.7	9	0	I
EU-03	18.12	Inorganic	Mercury	mg/kg	10	2.7	29	3.32E-01	5.49E-01	3.0	8	0	I	29	3.32E-01	5.49E-01	3.0	8	0	I
EU-03	18.12	Inorganic	Molybdenum	mg/kg	4	1.2	23	4.31E+00	4.96E+00	3.0	8	0	I	23	4.31E+00	4.96E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Nickel	mg/kg	17	14	23	7.07E+00	2.75E+00	3.0	8	0	I	23	7.07E+00	2.75E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Selenium	mg/kg	6	1	19	1.91E+00	2.06E+00	3.0	8	0	I	19	1.91E+00	2.06E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Silver	mg/kg	5	11.4	23	2.02E+00	2.79E+00	3.0	8	0	I	23	2.02E+00	2.79E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Thallium	mg/kg	8	4	19	1.45E+00	1.23E+00	2.1	10	0	I	19	1.45E+00	1.23E+00	2.1	10	0	I
EU-03	18.12	Inorganic	Vanadium	mg/kg	22	40	23	2.58E+01	9.22E+00	3.0	8	0	I	23	2.58E+01	9.22E+00	3.0	8	0	I
EU-03	18.12	Inorganic	Zinc	mg/kg	22	826	23	9.26E+01	1.63E+02	3.0	8	0	I	23	9.26E+01	1.63E+02	3.0	8	0	I
EU-03	18.12	PCBs	Aroclor 1242	mg/kg			1	5.60E-02		1.5	15	14	I				1.5	15	15	I
EU-03	18.12	PCBs	Aroclor 1248	mg/kg			1	5.60E-02		1.5	15	14	I				1.5	15	15	I
EU-03	18.12	PCBs	Aroclor 1254	mg/kg			1	5.60E-02		1.5	15	14	I				1.5	15	15	I
EU-03	18.12	PCBs	Aroclor 1260	mg/kg	1	0.14	1	1.40E-01		1.5	15	14	I	1	1.40E-01		1.5	15	14	I
EU-03	18.12	SVOC	2-Methylnaphthalene	mg/kg	5	0.04	10	4.75E-02	1.07E-01	3.0	11	1	I	10	4.75E-02	1.07E-01	3.0	11	1	I
EU-03	18.12	SVOC	Acenaphthene	mg/kg	7	0.9	11	1.82E-01	2.86E-01	3.0	11	0	I	11	1.82E-01	2.86E-01	3.0	11	0	I
EU-03	18.12	SVOC	Anthracene	mg/kg	3	4	11	5.37E-01	1.27E+00	3.0	11	0	I	11	5.37E-01	1.27E+00	3.0	11	0	I
EU-03	18.12	SVOC	Benzo(a)anthracene	mg/kg	6	14	11	2.88E+00	4.48E+00	1.5	15	4	Y	10	3.16E+00	4.61E+00	1.5	15	5	Y
EU-03	18.12	SVOC	Benzo(a)pyrene	mg/kg	6	15	10	3.07E+00	4.69E+00	1.5	15	5	Y	7	4.39E+00	5.12E+00	1.5	15	8	I
EU-03	18.12	SVOC	Benzo(b)fluoranthene	mg/kg	6	16	11	3.52E+00	5.67E+00	1.5	15	4	Y	10	3.87E+00	5.85E+00	1.5	15	5	Y
EU-03	18.12	SVOC	Benzo(k)fluoranthene	mg/kg	6	15	11	3.45E+00	5.44E+00	1.5	15	4	Y	11	3.45E+00	5.44E+00	1.5	15	4	Y
EU-03	18.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			2	2.30E-01	1.41E-01	1.5	15	13	I	2	2.30E-01	1.41E-01	1.5	15	13	I
EU-03	18.12	SVOC	Chrysene	mg/kg	3	13	11	1.67E+00	4.08E+00	0.5	71	60	I	11	1.67E+00	4.08E+00	0.2	410	399	I
EU-03	18.12	SVOC	Dibenzo(a,h)anthracene	mg/kg	5	2.2	10	2.95E-01	6.78E-01	1.5	15	5	Y	6	4.83E-01	8.50E-01	1.5	15	9	I
EU-03	18.12	SVOC	Diethyl phthalate	mg/kg			2	2.30E-01	1.41E-01	1.5	15	13	I	2	2.30E-01	1.41E-01	1.5	15	13	I
EU-03	18.12	SVOC	Di-n-butyl phthalate	mg/kg			2	2.30E-01	1.41E-01	1.5	15	13	I	2	2.30E-01	1.41E-01	1.5	15	13	I
EU-03	18.12	SVOC	Fluoranthene	mg/kg	6	25	11	4.98E+00	7.76E+00	3.0	11	0	I	11	4.98E+00	7.76E+00	3.0	11	0	I
EU-03	18.12	SVOC	Fluorene	mg/kg	5	0.92	11	1.81E-01	2.84E-01	3.0	11	0	I	11	1.81E-01	2.84E-01	3.0	11	0	I
EU-03	18.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	5	6.4	10	1.07E+00	1.99E+00	1.5	15	5	Y	9	1.18E+00	2.07E+00	1.5	15	6	Y
EU-03	18.12	SVOC	Naphthalene	mg/kg	5	0.14	16	4.58E-02	8.90E-02	3.0	11	0	I	16	4.58E-02	8.90E-02	3.0	11	0	I
EU-03	18.12	SVOC	Pyrene	mg/kg	6	21	11	4.29E+00	6.71E+00	3.0	11	0	I	11	4.29E+00	6.71E+00	3.0	11	0	I
EU-03	18.12	VOC	1,1,1-Trichloroethane	mg/kg	2	0.41	15	6.98E-02	1.38E-01	3.0	11	0	I	15	6.98E-02	1.38E-01	3.0	11	0	I
EU-03	18.12	VOC	1,1-Dichloroethane	mg/kg	2	0.13	15	3.05E-02	3.90E-02	3.0	11	0	I	15	3.05E-02	3.90E-02	3.0	11	0	I
EU-03	18.12	VOC	1,1-Dichloroethene	mg/kg			15	2.31E-02	2.28E-02	3.0	11	0	I	9	5.11E-03	3.89E-04	3.0	11	2	I
EU-03	18.12	VOC	Acetone	mg/kg	6	0.036	15	4.18E-01	4.92E-01	3.0	11	0	I	15	4.18E-01	4.92E-01	3.0	11	0	I
EU-03	18.12	VOC	Benzene	mg/kg			15	2.25E-02	2.33E-02	3.0	11	0	I	15	2.25E-02	2.33E-02	2.0	12	0	I
EU-03	18.12	VOC	cis-1,2-Dichloroethene	mg/kg			9	4.11E-03	1.62E-03	3.0	11	2	I	9	4.11E-03	1.62E-03	3.0	11	2	I
EU-03	18.12	VOC	Ethylbenzene	mg/kg	1	0.1	15	2.58E-02	3.01E-02	3.0	11	0	I	15	2.58E-02	3.01E-02	3.0	11	0	I
EU-03	18.12	VOC	m,p-Xylenes	mg/kg	1	0.0006	9	5.29E-03	3.90E-03	3.0	11	2	I	9	5.29E-03	3.90E-03	3.0	11	2	I
EU-03	18.12	VOC	Methyl ethyl ketone	mg/kg	1	0.024	9	2.08E-02	2.10E-02	3.0	11	2	I	9	2.08E-02	2.10E-02	3.0	11	2	I
EU-03	18.12	VOC	Methylene chloride	mg/kg	4	4.2	15	6.16E-01	1.36E+00	1.6	14	0	I	15	6.16E-01	1.36E+00	1.5	15	0	Y
EU-03	18.12	VOC	Tetrachloroethene	mg/kg	2	0.33	15	5.45E-02	9.89E-02	2.4	12	0	I	11	5.61E-02	1.17E-01	1.5	15	4	Y
EU-03	18.12	VOC	Toluene	mg/kg	2	3.6	15	4.69E-01	1.16E+00	3.0	11	0	I	15	4.69E-01	1.16E+00	3.0	11	0	I
EU-03	18.12	VOC	trans-1,2-Dichloroethene	mg/kg			9	4.11E-03	1.62E-03	3.0	11	2	I	9	4.11E-03	1.62E-03	3.0	11	2	I
EU-03	18.12	VOC	Trichloroethene	mg/kg	2	1	15	1.36E-01	3.15E-01	3.0	11	0	I	11	1.68E-01	3.67E-01	1.5	15	4	Y
EU-03	18.12	VOC	Vinyl chloride	mg/kg			9	5.44E-03	3.71E-03	3.0	11	2	I	3	2.00E-03	2.00E-04	1.5	15	12	I
EU-03	18.12	VOC	Xylenes, Total	mg/kg	3	0.52	10	1.14E-01	1.79E-01	3.0	11	1	I	10	1.14E-01	1.79E-01	3.0	11	1	I
EU-04	18.26	Dioxins	TCDD-TEQ (Total all)	mg/kg					1.5	15	15	I				1.5	15	15	I	
EU-04	18.26	Inorganic	Aluminum	mg/kg	1	11000	1	1.10E+04		1.5	14	13	I	1	1.10E+04		1.5	14	13	I
EU-04	18.26	Inorganic	Antimony	mg/kg			1	7.50E-01		1.5	14	13	I	1	7.50E-01		1.5	14	13	I
EU-04	18.26	Inorganic	Arsenic	mg/kg	3	4.3	3	3.37E+00	8.14E-01	1.5	14	11	I	3	3.37E+00	8.14E-01	1.5	14	11	I
EU-04	18.26	Inorganic	Barium	mg/kg	1	81	1	8.10E+01		1.5	14	13	I	1	8.10E+01		1.5	14	13	I
EU-04	18.26	Inorganic	Beryllium	mg/kg			1	5.00E-01		1.5	14	13	I	1	5.00E-01		1.5	14	13	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-04	18.26	Inorganic	Boron	mg/kg			1	1.00E+01		1.5	14	13	I	1	1.00E+01		1.5	14	13	I
EU-04	18.26	Inorganic	Cadmium	mg/kg			1	5.00E-01		1.5	14	13	I	1	5.00E-01		1.5	14	13	I
EU-04	18.26	Inorganic	Chromium	mg/kg	1	12	1	1.20E+01		1.5	14	13	I	1	1.20E+01		1.5	14	13	I
EU-04	18.26	Inorganic	Cobalt	mg/kg	1	6.7	1	6.70E+00		1.5	14	13	I	1	6.70E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Copper	mg/kg	1	6.6	1	6.60E+00		1.5	14	13	I	1	6.60E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Lead	mg/kg	1	4.7	1	4.70E+00		1.5	14	13	I	1	4.70E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-04	18.26	Inorganic	Mercury	mg/kg			1	1.00E-01		1.5	14	13	I	1	1.00E-01		1.5	14	13	I
EU-04	18.26	Inorganic	Molybdenum	mg/kg			1	5.00E-01		1.5	14	13	I	1	5.00E-01		1.5	14	13	I
EU-04	18.26	Inorganic	Nickel	mg/kg	1	7.3	1	7.30E+00		1.5	14	13	I	1	7.30E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Selenium	mg/kg			1	2.50E+00		1.5	14	13	I	1	2.50E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Silver	mg/kg			1	6.00E+00		1.5	14	13	I	1	6.00E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Thallium	mg/kg			1	2.50E+00		1.5	14	13	I	1	2.50E+00		1.5	14	13	I
EU-04	18.26	Inorganic	Vanadium	mg/kg	1	27	1	2.70E+01		1.5	14	13	I	1	2.70E+01		1.5	14	13	I
EU-04	18.26	Inorganic	Zinc	mg/kg	1	45	1	4.50E+01		1.5	14	13	I	1	4.50E+01		1.5	14	13	I
EU-04	18.26	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	SVOC	Acenaphthene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Anthracene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Benzo(a)anthracene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Benzo(a)pyrene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Benzo(b)fluoranthene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Benzo(k)fluoranthene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Chrysene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Dibenzo(a,h)anthracene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Diethyl phthalate	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Di-n-butyl phthalate	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Fluoranthene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Fluorene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Naphthalene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	SVOC	Pyrene	mg/kg			2	3.00E-02	0.00E+00	1.5	15	13	I	2	3.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	VOC	1,1,1-Trichloroethane	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	1,1-Dichloroethane	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	1,1-Dichloroethene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	Acetone	mg/kg			2	2.00E-02	0.00E+00	1.5	15	13	I	2	2.00E-02	0.00E+00	1.5	15	13	I
EU-04	18.26	VOC	Benzene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	cis-1,2-Dichloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-04	18.26	VOC	Ethylbenzene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-04	18.26	VOC	Methyl ethyl ketone	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-04	18.26	VOC	Methylene chloride	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	Tetrachloroethene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	Toluene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	trans-1,2-Dichloroethene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	Trichloroethene	mg/kg			4	5.00E-03	0.00E+00	1.5	15	11	I	4	5.00E-03	0.00E+00	1.5	15	11	I
EU-04	18.26	VOC	Vinyl chloride	mg/kg			4	7.50E-03	2.89E-03	1.5	15	11	I	4	7.50E-03	2.89E-03	1.5	15	11	I
EU-04	18.26	VOC	Xylenes, Total	mg/kg	1	0.01	3	6.67E-03	2.89E-03	1.5	15	12	I	3	6.67E-03	2.89E-03	1.5	15	12	I
EU-05	18.87	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Arsenic	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Barium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Beryllium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Cadmium	mg/kg						1.5	14	14	I				1.5	14	14	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario						
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-05	18.87	Inorganic	Chromium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Cobalt	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Copper	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Lead	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Mercury	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Molybdenum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Nickel	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Silver	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Vanadium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	Inorganic	Zinc	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-05	18.87	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	SVOC	Acenaphthene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Anthracene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Benzo(a)anthracene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Benzo(a)pyrene	mg/kg			4			1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	SVOC	Benzo(b)fluoranthene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	SVOC	Benzo(k)fluoranthene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Chrysene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Dibenzo(a,h)anthracene	mg/kg			4			1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	SVOC	Diethyl phthalate	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Di-n-butyl phthalate	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Fluoranthene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Fluorene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	SVOC	Naphthalene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	SVOC	Pyrene	mg/kg			4	1.70E-01	0.00E+00	1.5	15	11	I	4	1.70E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	1,1,1-Trichloroethane	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	1,1-Dichloroethane	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	1,1-Dichloroethene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Benzene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Ethylbenzene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-05	18.87	VOC	Methylene chloride	mg/kg			4	3.00E-01	0.00E+00	1.5	15	11	I	4	3.00E-01	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	Tetrachloroethene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	VOC	Toluene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	trans-1,2-Dichloroethene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4	5.00E-02	0.00E+00	1.5	15	11	I
EU-05	18.87	VOC	Trichloroethene	mg/kg			4	5.00E-02	0.00E+00	1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	VOC	Vinyl chloride	mg/kg			4			1.5	15	11	I	4			1.5	15	11	I
EU-05	18.87	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-06	18.08	Inorganic	Antimony	mg/kg			1	3.20E+00		1.5	14	13	I	1	3.20E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Arsenic	mg/kg			1	5.30E+00		1.5	14	13	I	1	5.30E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Barium	mg/kg	1	86	1	8.60E+01		1.5	14	13	I	1	8.60E+01		1.5	14	13	I
EU-06	18.08	Inorganic	Beryllium	mg/kg			1	3.00E-02		1.5	14	13	I	1	3.00E-02		1.5	14	13	I
EU-06	18.08	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-06	18.08	Inorganic	Cadmium	mg/kg	1	1.9	1	1.90E+00		1.5	14	13	I	1	1.90E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Chromium	mg/kg	1	7.5	1	7.50E+00		1.5	14	13	I	1	7.50E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Cobalt	mg/kg	1	6.5	1	6.50E+00		1.5	14	13	I	1	6.50E+00		1.5	14	13	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario						
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-06	18.08	Inorganic	Copper	mg/kg	1	8	1	8.00E+00		1.5	14	13	I	1	8.00E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Lead	mg/kg			1	4.20E+00		1.5	14	13	I	1	4.20E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-06	18.08	Inorganic	Mercury	mg/kg			1	2.00E-02		1.5	14	13	I	1	2.00E-02		1.5	14	13	I
EU-06	18.08	Inorganic	Molybdenum	mg/kg			1	8.00E-01		1.5	14	13	I	1	8.00E-01		1.5	14	13	I
EU-06	18.08	Inorganic	Nickel	mg/kg	1	9.4	1	9.40E+00		1.5	14	13	I	1	9.40E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Selenium	mg/kg			1	7.50E+00		1.5	14	13	I	1	7.50E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Silver	mg/kg			2	8.50E-01	2.12E-01	1.5	14	12	I	2	8.50E-01	2.12E-01	1.5	14	12	I
EU-06	18.08	Inorganic	Thallium	mg/kg			1	4.00E+00		1.5	14	13	I	1	4.00E+00		1.5	14	13	I
EU-06	18.08	Inorganic	Vanadium	mg/kg	1	25	1	2.50E+01		1.5	14	13	I	1	2.50E+01		1.5	14	13	I
EU-06	18.08	Inorganic	Zinc	mg/kg	1	45	1	4.50E+01		1.5	14	13	I	1	4.50E+01		1.5	14	13	I
EU-06	18.08	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Acenaphthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Benzo(a)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Benzo(b)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Benzo(k)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Chrysene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Fluorene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Naphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	SVOC	Pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	VOC	1,1,1-Trichloroethane	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	1,1-Dichloroethane	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	1,1-Dichloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Acetone	mg/kg			2	2.00E-02	0.00E+00	1.5	15	13	I	2	2.00E-02	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Benzene	mg/kg			8	5.00E-03	6.22E-11	3.0	11	3	I	8	5.00E-03	6.22E-11	3.0	11	3	I
EU-06	18.08	VOC	cis-1,2-Dichloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Ethylbenzene	mg/kg			8	5.00E-03	6.22E-11	3.0	11	3	I	8	5.00E-03	6.22E-11	3.0	11	3	I
EU-06	18.08	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-06	18.08	VOC	Methyl ethyl ketone	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Methylene chloride	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Tetrachloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Toluene	mg/kg			8	5.00E-03	6.22E-11	3.0	11	3	I	8	5.00E-03	6.22E-11	3.0	11	3	I
EU-06	18.08	VOC	trans-1,2-Dichloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Trichloroethene	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Vinyl chloride	mg/kg			2	5.00E-03	0.00E+00	1.5	15	13	I	2	5.00E-03	0.00E+00	1.5	15	13	I
EU-06	18.08	VOC	Xylenes, Total	mg/kg			8	8.75E-03	2.31E-03	3.0	11	3	I	8	8.75E-03	2.31E-03	3.0	11	3	I
EU-07	16.12	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	Inorganic	Aluminum	mg/kg	3	16200	3	1.23E+04	3.64E+03	1.5	14	11	I	3	1.23E+04	3.64E+03	1.5	14	11	I
EU-07	16.12	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-07	16.12	Inorganic	Arsenic	mg/kg	3	6.1	3	5.10E+00	9.54E-01	1.5	14	11	I	3	5.10E+00	9.54E-01	1.5	14	11	I
EU-07	16.12	Inorganic	Barium	mg/kg	3	111	3	8.18E+01	2.99E+01	1.5	14	11	I	3	8.18E+01	2.99E+01	1.5	14	11	I
EU-07	16.12	Inorganic	Beryllium	mg/kg	3	0.83	3	6.70E-01	1.42E-01	1.5	14	11	I	3	6.70E-01	1.42E-01	1.5	14	11	I
EU-07	16.12	Inorganic	Boron	mg/kg			3	2.83E+00	5.77E-02	1.5	14	11	I	3	2.83E+00	5.77E-02	1.5	14	11	I
EU-07	16.12	Inorganic	Cadmium	mg/kg			3	2.00E-02	2.69E-10	1.5	14	11	I	3	2.00E-02	2.69E-10	1.5	14	11	I
EU-07	16.12	Inorganic	Chromium	mg/kg	3	26.4	3	1.97E+01	6.42E+00	1.5	14	11	I	3	1.97E+01	6.42E+00	1.5	14	11	I
EU-07	16.12	Inorganic	Cobalt	mg/kg	3	10.6	3	7.37E+00	2.87E+00	1.5	14	11	I	3	7.37E+00	2.87E+00	1.5	14	11	I
EU-07	16.12	Inorganic	Copper	mg/kg	3	11.3	3	8.93E+00	2.35E+00	1.5	14	11	I	3	8.93E+00	2.35E+00	1.5	14	11	I
EU-07	16.12	Inorganic	Lead	mg/kg	3	7.8	3	6.70E+00	1.01E+00	1.5	14	11	I	3	6.70E+00	1.01E+00	1.5	14	11	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-07	16.12	Inorganic	Manganese	mg/kg	3	384	3	2.66E+02	1.06E+02	1.5	14	11	I	3	2.66E+02	1.06E+02	1.5	14	11	I
EU-07	16.12	Inorganic	Mercury	mg/kg			3	1.33E-02	5.77E-03	1.5	14	11	I	3	1.33E-02	5.77E-03	1.5	14	11	I
EU-07	16.12	Inorganic	Molybdenum	mg/kg			3	5.47E-01	5.77E-03	1.5	14	11	I	3	5.47E-01	5.77E-03	1.5	14	11	I
EU-07	16.12	Inorganic	Nickel	mg/kg	3	21.1	3	1.34E+01	6.96E+00	1.5	14	11	I	3	1.34E+01	6.96E+00	1.5	14	11	I
EU-07	16.12	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-07	16.12	Inorganic	Silver	mg/kg			3	1.80E+00	2.34E+00	1.5	14	11	I	3	1.80E+00	2.34E+00	1.5	14	11	I
EU-07	16.12	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-07	16.12	Inorganic	Vanadium	mg/kg	3	45.9	3	3.45E+01	1.00E+01	1.5	14	11	I	3	3.45E+01	1.00E+01	1.5	14	11	I
EU-07	16.12	Inorganic	Zinc	mg/kg	3	57.8	3	4.68E+01	1.22E+01	1.5	14	11	I	3	4.68E+01	1.22E+01	1.5	14	11	I
EU-07	16.12	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	SVOC	2-Methylnaphthalene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Acenaphthene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Anthracene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Benzo(a)anthracene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Benzo(a)pyrene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I				1.5	15	15	I
EU-07	16.12	SVOC	Benzo(b)fluoranthene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Benzo(k)fluoranthene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	SVOC	Chrysene	mg/kg	1	0.012	3	6.67E-03	4.62E-03	1.5	15	12	I	3	6.67E-03	4.62E-03	1.5	15	12	I
EU-07	16.12	SVOC	Dibenzo(a,h)anthracene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I				1.5	15	15	I
EU-07	16.12	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	SVOC	Fluoranthene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Fluorene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Naphthalene	mg/kg			3	8.67E-03	8.08E-03	1.5	15	12	I	3	8.67E-03	8.08E-03	1.5	15	12	I
EU-07	16.12	SVOC	Pyrene	mg/kg	1	0.01	3	6.00E-03	3.46E-03	1.5	15	12	I	3	6.00E-03	3.46E-03	1.5	15	12	I
EU-07	16.12	VOC	1,1,1-Trichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	1,1-Dichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	1,1-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Benzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Ethylbenzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Methylene chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Tetrachloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Toluene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	trans-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Trichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Vinyl chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-07	16.12	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-08	19.85	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-08	19.85	Inorganic	Aluminum	mg/kg	12	12500	12	9.79E+03	1.87E+03	3.0	8	0	I	12	9.79E+03	1.87E+03	3.0	8	0	I
EU-08	19.85	Inorganic	Antimony	mg/kg	5	10.3	12	1.11E+00	2.90E+00	3.0	8	0	I	12	1.11E+00	2.90E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Arsenic	mg/kg	12	5.4	12	3.03E+00	1.10E+00	3.0	8	0	I	12	3.03E+00	1.10E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Barium	mg/kg	12	92	12	7.76E+01	1.17E+01	3.0	8	0	I	12	7.76E+01	1.17E+01	3.0	8	0	I
EU-08	19.85	Inorganic	Beryllium	mg/kg	11	0.7	12	5.53E-01	2.50E-01	3.0	8	0	I	11	4.85E-01	8.77E-02	3.0	8	0	I
EU-08	19.85	Inorganic	Boron	mg/kg			9	2.94E+00	1.48E+00	3.0	8	0	I	9	2.94E+00	1.48E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Cadmium	mg/kg	7	0.95	12	3.32E-01	4.12E-01	3.0	8	0	I	12	3.32E-01	4.12E-01	3.0	8	0	I
EU-08	19.85	Inorganic	Chromium	mg/kg	12	21.5	12	1.45E+01	2.98E+00	3.0	8	0	I	12	1.45E+01	2.98E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Cobalt	mg/kg	12	10.7	12	6.76E+00	1.69E+00	3.0	8	0	I	12	6.76E+00	1.69E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Copper	mg/kg	12	14.5	12	8.24E+00	2.57E+00	3.0	8	0	I	12	8.24E+00	2.57E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Lead	mg/kg	12	7.5	12	5.15E+00	1.38E+00	3.0	8	0	I	12	5.15E+00	1.38E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Manganese	mg/kg	9	373	9	2.60E+02	5.78E+01	3.0	8	0	I	9	2.60E+02	5.78E+01	3.0	8	0	I
EU-08	19.85	Inorganic	Mercury	mg/kg	7	0.04	12	2.06E-02	9.27E-03	3.0	8	0	I	12	2.06E-02	9.27E-03	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-08	19.85	Inorganic	Molybdenum	mg/kg	3	0.35	10	4.92E+00	4.80E+00	3.0	8	0	I	10	4.92E+00	4.80E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Nickel	mg/kg	12	15.2	12	9.68E+00	2.47E+00	3.0	8	0	I	12	9.68E+00	2.47E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Selenium	mg/kg			9	9.08E-01	1.95E+00	3.0	8	0	I	9	9.08E-01	1.95E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Silver	mg/kg	1	4.5	13	2.61E+00	2.34E+00	3.0	8	0	I	13	2.61E+00	2.34E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Thallium	mg/kg	7	2	11	5.81E-01	5.68E-01	3.0	8	0	I	11	5.81E-01	5.68E-01	3.0	8	0	I
EU-08	19.85	Inorganic	Vanadium	mg/kg	12	40	12	2.86E+01	4.68E+00	3.0	8	0	I	12	2.86E+01	4.68E+00	3.0	8	0	I
EU-08	19.85	Inorganic	Zinc	mg/kg	12	63.5	12	4.82E+01	8.47E+00	3.0	8	0	I	12	4.82E+01	8.47E+00	3.0	8	0	I
EU-08	19.85	PCBs	Aroclor 1242	mg/kg			3	3.70E-02	1.00E-03	1.5	15	12	I	3			1.5	15	12	I
EU-08	19.85	PCBs	Aroclor 1248	mg/kg			3	3.70E-02	1.00E-03	1.5	15	12	I	3			1.5	15	12	I
EU-08	19.85	PCBs	Aroclor 1254	mg/kg			3	3.70E-02	1.00E-03	1.5	15	12	I	3			1.5	15	12	I
EU-08	19.85	PCBs	Aroclor 1260	mg/kg			3	3.70E-02	1.00E-03	1.5	15	12	I	3			1.5	15	12	I
EU-08	19.85	SVOC	2-Methylnaphthalene	mg/kg	1	0.002	5	6.60E-03	6.99E-03	1.5	15	10	I	5	6.60E-03	6.99E-03	1.5	15	10	I
EU-08	19.85	SVOC	Acenaphthene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Anthracene	mg/kg	1	0.002	5	6.60E-03	6.99E-03	1.5	15	10	I	5	6.60E-03	6.99E-03	1.5	15	10	I
EU-08	19.85	SVOC	Benzo(a)anthracene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Benzo(a)pyrene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5			1.5	15	10	I
EU-08	19.85	SVOC	Benzo(b)fluoranthene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Benzo(k)fluoranthene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			4	9.58E-02	5.00E-02	1.5	15	11	I	4	9.58E-02	5.00E-02	1.5	15	11	I
EU-08	19.85	SVOC	Chrysene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Dibenzo(a,h)anthracene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5			1.5	15	10	I
EU-08	19.85	SVOC	Diethyl phthalate	mg/kg	1	0.003	4	7.50E-03	7.68E-03	1.5	15	11	I	4	7.50E-03	7.68E-03	1.5	15	11	I
EU-08	19.85	SVOC	Di-n-butyl phthalate	mg/kg			4	3.05E-02	1.48E-02	1.5	15	11	I	4	3.05E-02	1.48E-02	1.5	15	11	I
EU-08	19.85	SVOC	Fluoranthene	mg/kg	2	0.007	5	7.20E-03	6.83E-03	1.5	15	10	I	5	7.20E-03	6.83E-03	1.5	15	10	I
EU-08	19.85	SVOC	Fluorene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			5	7.00E-03	6.71E-03	1.5	15	10	I	5	7.00E-03	6.71E-03	1.5	15	10	I
EU-08	19.85	SVOC	Naphthalene	mg/kg	1	0.002	5	6.60E-03	6.99E-03	1.5	15	10	I	5	6.60E-03	6.99E-03	1.5	15	10	I
EU-08	19.85	SVOC	Pyrene	mg/kg	2	0.006	5	7.00E-03	6.86E-03	1.5	15	10	I	5	7.00E-03	6.86E-03	1.5	15	10	I
EU-08	19.85	VOC	1,1,1-Trichloroethane	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	1,1-Dichloroethane	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	1,1-Dichloroethene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Acetone	mg/kg	1	0.014	3	1.47E-02	2.08E-03	1.5	15	12	I	3	1.47E-02	2.08E-03	1.5	15	12	I
EU-08	19.85	VOC	Benzene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	cis-1,2-Dichloroethene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Ethylbenzene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	m,p-Xylenes	mg/kg			3	9.67E-03	5.77E-04	1.5	15	12	I	3	9.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Methyl ethyl ketone	mg/kg			3	9.67E-03	5.77E-04	1.5	15	12	I	3	9.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Methylene chloride	mg/kg			3	8.67E-03	3.79E-03	1.5	15	12	I	3	8.67E-03	3.79E-03	1.5	15	12	I
EU-08	19.85	VOC	Tetrachloroethene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Toluene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	trans-1,2-Dichloroethene	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I	3	4.67E-03	5.77E-04	1.5	15	12	I
EU-08	19.85	VOC	Trichloroethene	mg/kg	1	0.001	3	3.33E-03	2.08E-03	1.5	15	12	I	3	3.33E-03	2.08E-03	1.5	15	12	I
EU-08	19.85	VOC	Vinyl chloride	mg/kg			3	4.67E-03	5.77E-04	1.5	15	12	I				1.5	15	15	I
EU-08	19.85	VOC	Xylenes, Total	mg/kg			3	1.43E-02	1.15E-03	1.5	15	12	I	3	1.43E-02	1.15E-03	1.5	15	12	I
EU-09	17.18	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-09	17.18	Inorganic	Aluminum	mg/kg	8	23000	8	1.41E+04	6.39E+03	3.0	8	0	I	8	1.41E+04	6.39E+03	3.0	8	0	I
EU-09	17.18	Inorganic	Antimony	mg/kg	2	37	7	7.06E+00	1.33E+01	1.5	14	7	I	7	7.06E+00	1.33E+01	1.5	14	7	I
EU-09	17.18	Inorganic	Arsenic	mg/kg	8	27	8	1.07E+01	8.98E+00	1.7	12	4	I	8	1.07E+01	8.98E+00	1.7	12	4	I
EU-09	17.18	Inorganic	Barium	mg/kg	8	4100	8	5.93E+02	1.42E+03	1.9	11	3	I	8	5.93E+02	1.42E+03	0.5	90	82	I
EU-09	17.18	Inorganic	Beryllium	mg/kg	6	0.89	8	6.90E-01	1.33E-01	3.0	8	0	I	8	6.90E-01	1.33E-01	3.0	8	0	I
EU-09	17.18	Inorganic	Boron	mg/kg			7	4.63E+00	4.88E+00	1.5	14	7	I	7	4.63E+00	4.88E+00	1.5	14	7	I
EU-09	17.18	Inorganic	Cadmium	mg/kg	2	35	8	5.04E+00	1.21E+01	1.6	13	5	I	8	5.04E+00	1.21E+01	0.2	542	534	I
EU-09	17.18	Inorganic	Chromium	mg/kg	8	2800	8	4.24E+02	9.73E+02	1.5	14	6	Y	8	4.24E+02	9.73E+02	1.5	14	6	Y
EU-09	17.18	Inorganic	Cobalt	mg/kg	8	71	8	1.75E+01	2.21E+01	3.0	8	0	I	8	1.75E+01	2.21E+01	3.0	8	0	I
EU-09	17.18	Inorganic	Copper	mg/kg	8	10000	8	1.38E+03	3.50E+03	0.4	139	131	I	8	1.38E+03	3.50E+03	1.5	14	6	Y
EU-09	17.18	Inorganic	Lead	mg/kg	8	510	8	9.03E+01	1.79E+02	0.4	139	131	I	8	9.03E+01	1.79E+02	0.4	139	131	I
EU-09	17.18	Inorganic	Manganese	mg/kg	1	205	1	2.05E+02		1.5	14	13	I	1	2.05E+02		1.5	14	13	I
EU-09	17.18	Inorganic	Mercury	mg/kg	2	260	8	3.68E+01	9.10E+01	1.5	14	6	Y	8	3.68E+01	9.10E+01	1.5	14	6	Y
EU-09	17.18	Inorganic	Molybdenum	mg/kg	2	1000	8	1.63E+02	3.53E+02	0.6	64	56	I	8	1.63E+02	3.53E+02	1.5	14	6	Y
EU-09	17.18	Inorganic	Nickel	mg/kg	8	2000	8	2.70E+02	6.99E+02	1.1	22	14	I	8	2.70E+02	6.99E+02	1.5	14	6	Y

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-09	17.18	Inorganic	Selenium	mg/kg	3	15	12	3.67E+00	3.70E+00	3.0	8	0	I	12	3.67E+00	3.70E+00	3.0	8	0	I
EU-09	17.18	Inorganic	Silver	mg/kg	2	1100	8	1.59E+02	3.84E+02	0.5	90	82	I	8	1.59E+02	3.84E+02	1.5	14	6	Y
EU-09	17.18	Inorganic	Thallium	mg/kg			8	2.49E+00	1.74E+00	1.5	14	6	I	8	2.49E+00	1.74E+00	1.5	14	6	I
EU-09	17.18	Inorganic	Vanadium	mg/kg	8	51.1	8	3.44E+01	1.07E+01	3.0	8	0	I	8	3.44E+01	1.07E+01	3.0	8	0	I
EU-09	17.18	Inorganic	Zinc	mg/kg	8	6300	8	8.67E+02	2.20E+03	3.0	8	0	I	8	8.67E+02	2.20E+03	0.3	243	235	I
EU-09	17.18	PCBs	Aroclor 1242	mg/kg			1	5.70E-02		1.5	15	14	I	2			1.5	15	13	I
EU-09	17.18	PCBs	Aroclor 1248	mg/kg			1	5.70E-02		1.5	15	14	I	2			1.5	15	13	I
EU-09	17.18	PCBs	Aroclor 1254	mg/kg			1	5.70E-02		1.5	15	14	I	2			1.5	15	13	I
EU-09	17.18	PCBs	Aroclor 1260	mg/kg			1	5.70E-02		1.5	15	14	I	2			1.5	15	15	I
EU-09	17.18	SVOC	2-Methylnaphthalene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Acenaphthene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Anthracene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Benzo(a)anthracene	mg/kg			3	1.33E-01	1.73E-01	1.5	15	12	I	1	4.00E-03		1.5	15	14	I
EU-09	17.18	SVOC	Benzo(a)pyrene	mg/kg			1	4.00E-03		1.5	15	14	I	5			1.5	15	10	I
EU-09	17.18	SVOC	Benzo(b)fluoranthene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	2	1.85E-02	2.05E-02	1.5	15	13	I
EU-09	17.18	SVOC	Benzo(k)fluoranthene	mg/kg			3	1.44E-01	1.68E-01	1.5	15	12	I	2	5.15E-02	6.72E-02	1.5	15	13	I
EU-09	17.18	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	1	0.38	4	1.09E+00	1.48E+00	1.5	15	11	I	3	3.47E-01	2.89E-02	1.5	15	12	I
EU-09	17.18	SVOC	Chrysene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Dibenzo(a,h)anthracene	mg/kg			2	5.15E-02	6.72E-02	1.5	15	13	I	5			1.5	15	10	I
EU-09	17.18	SVOC	Diethyl phthalate	mg/kg			4	1.82E+00	1.71E+00	1.5	15	11	I	4	1.82E+00	1.71E+00	1.5	15	11	I
EU-09	17.18	SVOC	Di-n-butyl phthalate	mg/kg			4	1.82E+00	1.71E+00	1.5	15	11	I	4	1.82E+00	1.71E+00	1.5	15	11	I
EU-09	17.18	SVOC	Fluoranthene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Fluorene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			3	1.55E-01	1.64E-01	1.5	15	12	I	1	4.00E-03		1.5	15	14	I
EU-09	17.18	SVOC	Naphthalene	mg/kg			7	1.48E-01	1.70E-01	1.5	15	8	I	7	1.48E-01	1.70E-01	1.5	15	8	I
EU-09	17.18	SVOC	Pyrene	mg/kg			5	2.05E-01	1.71E-01	1.5	15	10	I	5	2.05E-01	1.71E-01	1.5	15	10	I
EU-09	17.18	VOC	1,1,1-Trichloroethane	mg/kg	1	3	9	3.38E-01	9.98E-01	3.0	11	2	I	9	3.38E-01	9.98E-01	3.0	11	2	I
EU-09	17.18	VOC	1,1-Dichloroethane	mg/kg	1	3.8	9	4.27E-01	1.27E+00	1.1	21	12	I	9	4.27E-01	1.27E+00	1.1	21	12	I
EU-09	17.18	VOC	1,1-Dichloroethene	mg/kg	1	0.38	9	4.71E-02	1.25E-01	3.0	11	2	I	9	4.71E-02	1.25E-01	1.5	15	6	Y
EU-09	17.18	VOC	Acetone	mg/kg	1	0.35	9	8.81E-02	9.83E-02	3.0	11	2	I	9	8.81E-02	9.83E-02	3.0	11	2	I
EU-09	17.18	VOC	Benzene	mg/kg	1	0.028	11	1.12E-02	1.47E-02	3.0	11	0	I	11	1.12E-02	1.47E-02	3.0	11	0	I
EU-09	17.18	VOC	cis-1,2-Dichloroethene	mg/kg	1	0.06	9	1.12E-02	1.83E-02	3.0	11	2	I	9	1.12E-02	1.83E-02	3.0	11	2	I
EU-09	17.18	VOC	Ethylbenzene	mg/kg	3	0.52	11	1.30E-01	2.16E-01	3.0	11	0	I	11	1.30E-01	2.16E-01	3.0	11	0	I
EU-09	17.18	VOC	m,p-Xylenes	mg/kg			7	5.57E-03	5.35E-04	1.5	15	8	I	7	5.57E-03	5.35E-04	1.5	15	8	I
EU-09	17.18	VOC	Methyl ethyl ketone	mg/kg			9	4.98E-02	1.71E-02	3.0	11	2	I	9	4.98E-02	1.71E-02	3.0	11	2	I
EU-09	17.18	VOC	Methylene chloride	mg/kg			9	4.64E-02	7.65E-02	3.0	11	2	I	9	4.64E-02	7.65E-02	3.0	11	2	I
EU-09	17.18	VOC	Tetrachloroethene	mg/kg			9	5.00E-03	1.58E-03	3.0	11	2	I	9	5.00E-03	1.58E-03	3.0	11	2	I
EU-09	17.18	VOC	Toluene	mg/kg	2	0.77	11	8.04E-02	2.29E-01	3.0	11	0	I	11	8.04E-02	2.29E-01	3.0	11	0	I
EU-09	17.18	VOC	trans-1,2-Dichloroethene	mg/kg			9	5.67E-03	2.06E-03	3.0	11	2	I	9	5.67E-03	2.06E-03	3.0	11	2	I
EU-09	17.18	VOC	Trichloroethene	mg/kg	1	0.42	9	5.11E-02	1.38E-01	3.0	11	2	I	9	5.11E-02	1.38E-01	1.5	15	6	Y
EU-09	17.18	VOC	Vinyl chloride	mg/kg	1	0.07	9	1.67E-02	2.02E-02	0.6	52	43	I	2	3.60E-02	4.81E-02	1.5	15	13	I
EU-09	17.18	VOC	Xylenes, Total	mg/kg	3	1.4	4	7.80E-01	6.42E-01	1.5	15	11	I	4	7.80E-01	6.42E-01	1.5	15	11	I
EU-10	17.39	Dioxins	TCDD-TEQ (Total all)	mg/kg	6	3.33E-06	18	7.18E-07	1.05E-06	2.1	12	0	I	10	1.09E-06	1.32E-06	1.5	15	5	Y
EU-10	17.39	Inorganic	Aluminum	mg/kg	37	20000	37	1.32E+04	3.88E+03	3.0	8	0	I	37	1.32E+04	3.88E+03	3.0	8	0	I
EU-10	17.39	Inorganic	Antimony	mg/kg	2	0.45	41	1.68E+00	3.03E+00	3.0	8	0	I	37	6.98E-01	2.84E-01	3.0	8	0	I
EU-10	17.39	Inorganic	Arsenic	mg/kg	37	11	41	4.86E+00	1.56E+00	3.0	8	0	I	41	4.86E+00	1.56E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Barium	mg/kg	43	190	43	9.74E+01	3.07E+01	3.0	8	0	I	43	9.74E+01	3.07E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Beryllium	mg/kg	33	1.9	43	8.39E-01	9.64E-01	3.0	8	0	I	41	6.36E-01	2.61E-01	3.0	8	0	I
EU-10	17.39	Inorganic	Boron	mg/kg	4	11.8	37	1.22E+01	1.07E+01	3.0	8	0	I	37	1.22E+01	1.07E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Cadmium	mg/kg	13	1.3	44	6.80E-01	9.94E-01	3.0	8	0	I	44	6.80E-01	9.94E-01	2.7	9	0	I
EU-10	17.39	Inorganic	Chromium	mg/kg	42	42	44	1.90E+01	9.38E+00	3.0	8	0	I	44	1.90E+01	9.38E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Cobalt	mg/kg	41	11.7	43	8.44E+00	9.52E+00	3.0	8	0	I	43	8.44E+00	9.52E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Copper	mg/kg	43	130	44	1.64E+01	2.38E+01	3.0	8	0	I	44	1.64E+01	2.38E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Lead	mg/kg	42	97	44	1.22E+01	1.98E+01	3.0	8	0	I	44	1.22E+01	1.98E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Manganese	mg/kg	3	313	3	2.83E+02	4.04E+01	1.5	14	11	I	3	2.83E+02	4.04E+01	1.5	14	11	I
EU-10	17.39	Inorganic	Mercury	mg/kg	21	0.22	42	7.82E-02	6.36E-02	3.0	8	0	I	42	7.82E-02	6.36E-02	3.0	8	0	I
EU-10	17.39	Inorganic	Molybdenum	mg/kg	20	7.5	43	4.44E+00	1.08E+01	3.0	8	0	I	41	2.21E+00	3.65E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Nickel	mg/kg	41	25	44	1.35E+01	9.34E+00	3.0	8	0	I	44	1.35E+01	9.34E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Selenium	mg/kg	15	5.3	43	2.92E+00	1.98E+00	3.0	8	0	I	43	2.92E+00	1.98E+00	3.0	8	0	I
EU-10	17.39	Inorganic	Silver	mg/kg	3	5.6	43	3.44E+00	1.05E+01	3.0	8	0	I	41	1.17E+00	1.18E+00	3.0	8	0	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-10	17.39	Inorganic	Thallium	mg/kg	1	0.53	41	1.94E+00	1.29E+00	2.0	10	0	I	41	1.94E+00	1.29E+00	2.0	10	0	I
EU-10	17.39	Inorganic	Vanadium	mg/kg	43	79	43	3.46E+01	1.25E+01	3.0	8	0	I	43	3.46E+01	1.25E+01	3.0	8	0	I
EU-10	17.39	Inorganic	Zinc	mg/kg	43	730	43	7.34E+01	1.06E+02	3.0	8	0	I	43	7.34E+01	1.06E+02	3.0	8	0	I
EU-10	17.39	PCBs	Aroclor 1242	mg/kg			21	5.95E-02	1.97E-02	3.0	11	0	I				1.5	15	15	I
EU-10	17.39	PCBs	Aroclor 1248	mg/kg			21	5.95E-02	1.97E-02	3.0	11	0	I				1.5	15	15	I
EU-10	17.39	PCBs	Aroclor 1254	mg/kg	1	0.19	21	6.38E-02	3.37E-02	3.0	11	0	I	1	1.90E-01		1.5	15	14	I
EU-10	17.39	PCBs	Aroclor 1260	mg/kg	1	0.2	21	6.64E-02	3.64E-02	3.0	11	0	I	1	2.00E-01		1.5	15	14	I
EU-10	17.39	SVOC	2-Methylnaphthalene	mg/kg			25	5.63E-01	2.00E+00	3.0	11	0	I	25	5.63E-01	2.00E+00	3.0	11	0	I
EU-10	17.39	SVOC	Acenaphthene	mg/kg			44	3.41E-01	1.52E+00	3.0	11	0	I	44	3.41E-01	1.52E+00	3.0	11	0	I
EU-10	17.39	SVOC	Anthracene	mg/kg	1	0.022	44	3.39E-01	1.52E+00	3.0	11	0	I	44	3.39E-01	1.52E+00	3.0	11	0	I
EU-10	17.39	SVOC	Benzo(a)anthracene	mg/kg	3	0.057	42	6.92E-02	5.54E-02	3.0	11	0	I	21	1.84E-02	1.33E-02	1.3	17	0	I
EU-10	17.39	SVOC	Benzo(a)pyrene	mg/kg	3	0.11	21	1.96E-02	2.28E-02	0.8	32	11	I	4	4.60E-02	4.75E-02	1.5	15	11	I
EU-10	17.39	SVOC	Benzo(b)fluoranthene	mg/kg	3	0.08	42	6.96E-02	5.54E-02	3.0	11	0	I	21	1.91E-02	1.59E-02	1.1	21	0	I
EU-10	17.39	SVOC	Benzo(k)fluoranthene	mg/kg	2	0.041	42	7.00E-02	5.56E-02	3.0	11	0	I	42	7.00E-02	5.56E-02	1.7	14	0	I
EU-10	17.39	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	1	0.0113	9	1.55E+00	3.24E+00	3.0	11	2	I	7	2.73E-01	3.69E-01	1.5	15	8	I
EU-10	17.39	SVOC	Chrysene	mg/kg	3	0.13	43	1.17E-01	2.99E-01	3.0	11	0	I	42	7.17E-02	5.56E-02	3.0	11	0	I
EU-10	17.39	SVOC	Dibenzo(a,h)anthracene	mg/kg			36	5.74E-02	4.63E-02	1.2	18	0	I	1	3.00E-03		1.5	15	14	I
EU-10	17.39	SVOC	Diethyl phthalate	mg/kg			9	1.41E+00	3.28E+00	3.0	11	2	I	9	1.41E+00	3.28E+00	3.0	11	2	I
EU-10	17.39	SVOC	Di-n-butyl phthalate	mg/kg	1	0.004	9	5.64E+00	1.33E+01	3.0	11	2	I	9	5.64E+00	1.33E+01	3.0	11	2	I
EU-10	17.39	SVOC	Fluoranthene	mg/kg	5	0.11	44	3.38E-01	1.52E+00	3.0	11	0	I	44	3.38E-01	1.52E+00	3.0	11	0	I
EU-10	17.39	SVOC	Fluorene	mg/kg			44	3.41E-01	1.52E+00	3.0	11	0	I	44	3.41E-01	1.52E+00	3.0	11	0	I
EU-10	17.39	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg	1	0.0059	42	7.13E-02	5.61E-02	3.0	11	0	I	19	1.39E-02	5.20E-03	3.0	11	0	I
EU-10	17.39	SVOC	Naphthalene	mg/kg	3	0.1	61	4.89E-02	5.47E-02	3.0	11	0	I	61	4.89E-02	5.47E-02	3.0	11	0	I
EU-10	17.39	SVOC	Pyrene	mg/kg	5	0.11	44	3.38E-01	1.52E+00	3.0	11	0	I	44	3.38E-01	1.52E+00	3.0	11	0	I
EU-10	17.39	VOC	1,1,1-Trichloroethane	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	29	1.03E-02	1.70E-02	3.0	11	0	I
EU-10	17.39	VOC	1,1-Dichloroethane	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	29	1.03E-02	1.70E-02	3.0	11	0	I
EU-10	17.39	VOC	1,1-Dichloroethene	mg/kg			29	1.24E-02	1.60E-02	3.0	11	0	I	24	5.36E-03	5.75E-04	3.0	11	0	I
EU-10	17.39	VOC	Acetone	mg/kg	4	0.022	25	4.18E-02	1.17E-01	3.0	11	0	I	25	4.18E-02	1.17E-01	3.0	11	0	I
EU-10	17.39	VOC	Benzene	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	29	1.03E-02	1.70E-02	2.7	11	0	I
EU-10	17.39	VOC	cis-1,2-Dichloroethene	mg/kg			24	2.86E-03	1.56E-03	3.0	11	0	I	24	2.86E-03	1.56E-03	3.0	11	0	I
EU-10	17.39	VOC	Ethylbenzene	mg/kg			30	2.00E-02	5.55E-02	3.0	11	0	I	30	2.00E-02	5.55E-02	3.0	11	0	I
EU-10	17.39	VOC	m,p-Xylenes	mg/kg			24	3.07E-03	2.10E-03	3.0	11	0	I	24	3.07E-03	2.10E-03	3.0	11	0	I
EU-10	17.39	VOC	Methyl ethyl ketone	mg/kg			24	1.79E-02	1.70E-02	3.0	11	0	I	24	1.79E-02	1.70E-02	3.0	11	0	I
EU-10	17.39	VOC	Methylene chloride	mg/kg			29	5.98E-02	9.78E-02	3.0	11	0	I	29	5.98E-02	9.78E-02	2.7	11	0	I
EU-10	17.39	VOC	Tetrachloroethene	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	24	2.86E-03	1.56E-03	3.0	11	0	I
EU-10	17.39	VOC	Toluene	mg/kg			30	2.00E-02	5.55E-02	3.0	11	0	I	30	2.00E-02	5.55E-02	3.0	11	0	I
EU-10	17.39	VOC	trans-1,2-Dichloroethene	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	29	1.03E-02	1.70E-02	3.0	11	0	I
EU-10	17.39	VOC	Trichloroethene	mg/kg			29	1.03E-02	1.70E-02	3.0	11	0	I	25	3.95E-03	5.64E-03	2.9	11	0	I
EU-10	17.39	VOC	Vinyl chloride	mg/kg			24	6.24E-03	2.35E-03	3.0	11	0	I	29			3.0	11	0	I
EU-10	17.39	VOC	Xylenes, Total	mg/kg			2	1.58E-01	2.01E-01	1.5	15	13	I	2	1.58E-01	2.01E-01	1.5	15	13	I
EU-11	17.73	Dioxins	TCDD-TEQ (Total all)	mg/kg	13	2.04E-06	28	4.87E-07	5.57E-07	3.0	11	0	I	16	4.25E-07	6.91E-07	1.5	15	0	Y
EU-11	17.73	Inorganic	Aluminum	mg/kg	6	28000	6	2.14E+04	5.18E+03	1.5	14	8	I	6	2.14E+04	5.18E+03	1.5	14	8	I
EU-11	17.73	Inorganic	Antimony	mg/kg	2	9.8	2	8.50E+00	1.84E+00	1.5	14	12	I	2	8.50E+00	1.84E+00	1.5	14	12	I
EU-11	17.73	Inorganic	Arsenic	mg/kg	9	5.9	9	3.94E+00	1.09E+00	3.0	8	0	I	9	3.94E+00	1.09E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Barium	mg/kg	4	121	4	9.31E+01	2.21E+01	1.5	14	10	I	4	9.31E+01	2.21E+01	1.5	14	10	I
EU-11	17.73	Inorganic	Beryllium	mg/kg	4	0.86	4	7.70E-01	1.22E-01	1.5	14	10	I	4	7.70E-01	1.22E-01	1.5	14	10	I
EU-11	17.73	Inorganic	Boron	mg/kg	5	3.6	6	1.68E+00	9.76E-01	1.5	14	8	I	6	1.68E+00	9.76E-01	1.5	14	8	I
EU-11	17.73	Inorganic	Cadmium	mg/kg	2	0.41	4	3.05E-01	1.16E-01	1.5	14	10	I	4	3.05E-01	1.16E-01	1.5	14	10	I
EU-11	17.73	Inorganic	Chromium	mg/kg	8	30.7	8	2.19E+01	5.74E+00	3.0	8	0	I	8	2.19E+01	5.74E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Cobalt	mg/kg	4	10.4	4	6.15E+00	2.92E+00	1.5	14	10	I	4	6.15E+00	2.92E+00	1.5	14	10	I
EU-11	17.73	Inorganic	Copper	mg/kg	7	20.3	8	1.33E+01	6.05E+00	3.0	8	0	I	8	1.33E+01	6.05E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Lead	mg/kg	11	11.2	11	7.08E+00	2.05E+00	3.0	8	0	I	11	7.08E+00	2.05E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Manganese	mg/kg	2	158	2	1.52E+02	9.19E+00	1.5	14	12	I	2	1.52E+02	9.19E+00	1.5	14	12	I
EU-11	17.73	Inorganic	Mercury	mg/kg	13	0.53	19	1.07E-01	1.30E-01	3.0	8	0	I	19	1.07E-01	1.30E-01	3.0	8	0	I
EU-11	17.73	Inorganic	Molybdenum	mg/kg	1	0.32	4	4.13E-01	2.17E-01	1.5	14	10	I	4	4.13E-01	2.17E-01	1.5	14	10	I
EU-11	17.73	Inorganic	Nickel	mg/kg	8	19.1	8	1.33E+01	4.29E+00	3.0	8	0	I	8	1.33E+01	4.29E+00	3.0	8	0	I
EU-11	17.73	Inorganic	Selenium	mg/kg			4	3.97E-01	1.87E-01	1.5	14	10	I	4	3.97E-01	1.87E-01	1.5	14	10	I
EU-11	17.73	Inorganic	Silver	mg/kg	1	0.071	4	3.38E+00	3.84E+00	1.5	14	10	I	4	3.38E+00	3.84E+00	1.5	14	10	I
EU-11	17.73	Inorganic	Thallium	mg/kg	2	0.37	2	2.95E-01	1.06E-01	1.5	14	12	I	2	2.95E-01	1.06E-01	1.5	14	12	I
EU-11	17.73	Inorganic	Vanadium	mg/kg	4	52.4	4	3.95E+01	9.55E+00	1.5	14	10	I	4	3.95E+01	9.55E+00	1.5	14	10	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

							Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
						Maximum Detected Result	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects															
EU-11	17.73	Inorganic	Zinc	mg/kg	8	77.6	8	5.61E+01	1.08E+01	3.0	8	0	I	8	5.61E+01	1.08E+01	3.0	8	0	I
EU-11	17.73	PCBs	Aroclor 1242	mg/kg			22	3.51E-02	1.63E-02	3.0	11	0	I	3	3.70E-03	1.67E-04	1.5	15	12	I
EU-11	17.73	PCBs	Aroclor 1248	mg/kg			22	3.51E-02	1.63E-02	3.0	11	0	I	3	3.70E-03	1.67E-04	1.5	15	12	I
EU-11	17.73	PCBs	Aroclor 1254	mg/kg	3	0.11	22	4.14E-02	2.19E-02	3.0	11	0	I	5	2.94E-02	4.61E-02	1.5	15	10	I
EU-11	17.73	PCBs	Aroclor 1260	mg/kg	2	0.0195	22	3.83E-02	1.63E-02	3.0	11	0	I	4	7.19E-03	8.27E-03	1.5	15	11	I
EU-11	17.73	SVOC	2-Methylnaphthalene	mg/kg	1	0.028	12	1.41E-01	1.72E-01	3.0	11	0	I	12	1.41E-01	1.72E-01	3.0	11	0	I
EU-11	17.73	SVOC	Acenaphthene	mg/kg	1	0.002	12	3.91E-02	2.84E-02	3.0	11	0	I	12	3.91E-02	2.84E-02	3.0	11	0	I
EU-11	17.73	SVOC	Anthracene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	12	3.93E-02	2.81E-02	3.0	11	0	I
EU-11	17.73	SVOC	Benzo(a)anthracene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	6	1.68E-02	1.16E-02	1.5	15	9	I
EU-11	17.73	SVOC	Benzo(a)pyrene	mg/kg			8	2.17E-02	1.34E-02	1.4	16	8	I				1.5	15	15	I
EU-11	17.73	SVOC	Benzo(b)fluoranthene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	6	1.68E-02	1.16E-02	1.5	15	9	I
EU-11	17.73	SVOC	Benzo(k)fluoranthene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	12	3.93E-02	2.81E-02	3.0	11	0	I
EU-11	17.73	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	3	0.089	12	1.78E-01	2.50E-01	3.0	11	0	I	12	1.78E-01	2.50E-01	3.0	11	0	I
EU-11	17.73	SVOC	Chrysene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	12	3.93E-02	2.81E-02	3.0	11	0	I
EU-11	17.73	SVOC	Dibenzo(a,h)anthracene	mg/kg			12	3.93E-02	2.81E-02	2.0	12	0	I				1.5	15	15	I
EU-11	17.73	SVOC	Diethyl phthalate	mg/kg			12	2.19E-01	1.82E-01	3.0	11	0	I	12	2.19E-01	1.82E-01	3.0	11	0	I
EU-11	17.73	SVOC	Di-n-butyl phthalate	mg/kg	5	0.047	12	1.64E-01	1.81E-01	3.0	11	0	I	12	1.64E-01	1.81E-01	3.0	11	0	I
EU-11	17.73	SVOC	Fluoranthene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	12	3.93E-02	2.81E-02	3.0	11	0	I
EU-11	17.73	SVOC	Fluorene	mg/kg	1	0.003	12	3.92E-02	2.82E-02	3.0	11	0	I	12	3.92E-02	2.82E-02	3.0	11	0	I
EU-11	17.73	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	6	1.68E-02	1.16E-02	1.5	15	9	I
EU-11	17.73	SVOC	Naphthalene	mg/kg	1	0.18	14	2.68E-02	4.60E-02	3.0	11	0	I	14	2.68E-02	4.60E-02	3.0	11	0	I
EU-11	17.73	SVOC	Pyrene	mg/kg			12	3.93E-02	2.81E-02	3.0	11	0	I	12	3.93E-02	2.81E-02	3.0	11	0	I
EU-11	17.73	VOC	1,1,1-Trichloroethane	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	1,1-Dichloroethane	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	1,1-Dichloroethene	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	Acetone	mg/kg			2	5.01E-03	1.63E-04	1.5	15	13	I	2	5.01E-03	1.63E-04	1.5	15	13	I
EU-11	17.73	VOC	Benzene	mg/kg			7	4.29E-03	2.29E-03	1.5	15	8	I	7	4.29E-03	2.29E-03	1.5	15	8	I
EU-11	17.73	VOC	cis-1,2-Dichloroethene	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	Ethylbenzene	mg/kg			12	1.27E-01	1.52E-01	3.0	11	0	I	12	1.27E-01	1.52E-01	3.0	11	0	I
EU-11	17.73	VOC	m,p-Xylenes	mg/kg			6	8.34E-03	4.92E-03	1.5	15	9	I	6	8.34E-03	4.92E-03	1.5	15	9	I
EU-11	17.73	VOC	Methyl ethyl ketone	mg/kg			2	5.01E-03	1.63E-04	1.5	15	13	I	2	5.01E-03	1.63E-04	1.5	15	13	I
EU-11	17.73	VOC	Methylene chloride	mg/kg	2	0.001	6	3.84E-03	2.23E-03	1.5	15	9	I	6	3.84E-03	2.23E-03	1.5	15	9	I
EU-11	17.73	VOC	Tetrachloroethene	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	Toluene	mg/kg			12	1.27E-01	1.52E-01	3.0	11	0	I	12	1.27E-01	1.52E-01	3.0	11	0	I
EU-11	17.73	VOC	trans-1,2-Dichloroethene	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	6	4.17E-03	2.48E-03	1.5	15	9	I
EU-11	17.73	VOC	Trichloroethene	mg/kg	1	0.018	8	5.42E-03	5.66E-03	3.0	11	3	I	8	5.42E-03	5.66E-03	2.9	11	3	I
EU-11	17.73	VOC	Vinyl chloride	mg/kg			6	4.17E-03	2.48E-03	1.5	15	9	I	2	9.99E-04	2.97E-05	1.5	15	13	I
EU-11	17.73	VOC	Xylenes, Total	mg/kg			6	2.52E-01	1.18E-01	1.5	15	9	I	6	2.52E-01	1.18E-01	1.5	15	9	I
EU-12	19.30	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-12	19.30	Inorganic	Aluminum	mg/kg	8	21700	8	1.59E+04	4.08E+03	3.0	8	0	I	8	1.59E+04	4.08E+03	3.0	8	0	I
EU-12	19.30	Inorganic	Antimony	mg/kg	3	1.1	7	7.22E-01	6.88E-01	1.5	14	7	I	7	7.22E-01	6.88E-01	1.5	14	7	I
EU-12	19.30	Inorganic	Arsenic	mg/kg	10	10.4	10	6.91E+00	2.66E+00	3.0	8	0	I	10	6.91E+00	2.66E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Barium	mg/kg	9	124	9	9.39E+01	2.06E+01	3.0	8	0	I	9	9.39E+01	2.06E+01	3.0	8	0	I
EU-12	19.30	Inorganic	Beryllium	mg/kg	8	0.87	9	6.94E-01	1.65E-01	3.0	8	0	I	9	6.94E-01	1.65E-01	3.0	8	0	I
EU-12	19.30	Inorganic	Boron	mg/kg	3	11.7	6	7.92E+00	3.65E+00	1.5	14	8	I	6	7.92E+00	3.65E+00	1.5	14	8	I
EU-12	19.30	Inorganic	Cadmium	mg/kg	2	1.5	9	5.28E-01	5.67E-01	3.0	8	0	I	9	5.28E-01	5.67E-01	3.0	8	0	I
EU-12	19.30	Inorganic	Chromium	mg/kg	9	43.5	9	2.36E+01	8.32E+00	3.0	8	0	I	9	2.36E+01	8.32E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Cobalt	mg/kg	9	12.2	9	9.01E+00	2.14E+00	3.0	8	0	I	9	9.01E+00	2.14E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Copper	mg/kg	9	20.5	9	1.21E+01	4.98E+00	3.0	8	0	I	9	1.21E+01	4.98E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Lead	mg/kg	10	14.4	10	7.93E+00	3.18E+00	3.0	8	0	I	10	7.93E+00	3.18E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Manganese	mg/kg	8	567	8	3.37E+02	1.12E+02	3.0	8	0	I	8	3.37E+02	1.12E+02	3.0	8	0	I
EU-12	19.30	Inorganic	Mercury	mg/kg	3	0.04	9	5.00E-02	4.77E-02	3.0	8	0	I	9	5.00E-02	4.77E-02	3.0	8	0	I
EU-12	19.30	Inorganic	Molybdenum	mg/kg			7	4.69E+00	4.97E+00	1.5	14	7	I	7	4.69E+00	4.97E+00	1.5	14	7	I
EU-12	19.30	Inorganic	Nickel	mg/kg	9	65.4	9	2.16E+01	1.76E+01	3.0	8	0	I	9	2.16E+01	1.76E+01	3.0	8	0	I
EU-12	19.30	Inorganic	Selenium	mg/kg	1	0.37	9	2.10E+00	1.67E+00	3.0	8	0	I	9	2.10E+00	1.67E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Silver	mg/kg	3	13	9	3.37E+00	4.25E+00	3.0	8	0	I	9	3.37E+00	4.25E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Thallium	mg/kg	3	2	9	1.59E+00	1.37E+00	1.9	11	2	I	9	1.59E+00	1.37E+00	1.9	11	2	I
EU-12	19.30	Inorganic	Vanadium	mg/kg	9	48.2	9	4.08E+01	7.21E+00	3.0	8	0	I	9	4.08E+01	7.21E+00	3.0	8	0	I
EU-12	19.30	Inorganic	Zinc	mg/kg	9	69.6	9	5.51E+01	9.29E+00	3.0	8	0	I	9	5.51E+01	9.29E+00	3.0	8	0	I
EU-12	19.30	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

							Risk Data Gap - Residential Scenario							Risk Data Gap - Rural Residential Scenario							
						Maximum Detected Result	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?			Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects																
EU-12	19.30	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I	
EU-12	19.30	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I	
EU-12	19.30	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I	
EU-12	19.30	SVOC	2-Methylnaphthalene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	9	7.78E-03	1.17E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Acenaphthene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	9	7.78E-03	1.17E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Anthracene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	9	7.78E-03	1.17E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Benzo(a)anthracene	mg/kg			9	1.21E-02	2.47E-02	3.0	11	2	I	8	3.88E-03	3.54E-04	3.0	11	3	I	
EU-12	19.30	SVOC	Benzo(a)pyrene	mg/kg			8	3.88E-03	3.54E-04	3.0	11	3	I	1	3.00E-03		1.5	15	14	I	
EU-12	19.30	SVOC	Benzo(b)fluoranthene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	8	3.88E-03	3.54E-04	3.0	11	3	I	
EU-12	19.30	SVOC	Benzo(k)fluoranthene	mg/kg			9	1.21E-02	2.47E-02	3.0	11	2	I	9	1.21E-02	2.47E-02	3.0	11	2	I	
EU-12	19.30	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			3	1.90E-01	1.73E-01	1.5	15	12	I	3	1.90E-01	1.73E-01	1.5	15	12	I	
EU-12	19.30	SVOC	Chrysene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	9	7.78E-03	1.17E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Dibenzo(a,h)anthracene	mg/kg			8	3.88E-03	3.54E-04	3.0	11	3	I	1	3.00E-03		1.5	15	14	I	
EU-12	19.30	SVOC	Diethyl phthalate	mg/kg	2	0.002	3	1.31E-01	2.24E-01	1.5	15	12	I	3	1.31E-01	2.24E-01	1.5	15	12	I	
EU-12	19.30	SVOC	Di-n-butyl phthalate	mg/kg			3	1.38E-01	2.18E-01	1.5	15	12	I	3	1.38E-01	2.18E-01	1.5	15	12	I	
EU-12	19.30	SVOC	Fluoranthene	mg/kg	2	0.002	9	7.33E-03	1.19E-02	3.0	11	2	I	9	7.33E-03	1.19E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Fluorene	mg/kg			9	7.78E-03	1.17E-02	3.0	11	2	I	9	7.78E-03	1.17E-02	3.0	11	2	I	
EU-12	19.30	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			9	2.12E-02	5.20E-02	3.0	11	2	I	8	3.88E-03	3.54E-04	3.0	11	3	I	
EU-12	19.30	SVOC	Naphthalene	mg/kg	1	0.002	10	7.04E-03	1.13E-02	3.0	11	1	I	10	7.04E-03	1.13E-02	3.0	11	1	I	
EU-12	19.30	SVOC	Pyrene	mg/kg	3	0.005	9	7.56E-03	1.18E-02	3.0	11	2	I	9	7.56E-03	1.18E-02	3.0	11	2	I	
EU-12	19.30	VOC	1,1,1-Trichloroethane	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	1,1-Dichloroethane	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	1,1-Dichloroethene	mg/kg			1	5.90E-03		1.5	15	14	I	1	5.90E-03		1.5	15	14	I	
EU-12	19.30	VOC	Acetone	mg/kg			1	5.90E-02		1.5	15	14	I	1	5.90E-02		1.5	15	14	I	
EU-12	19.30	VOC	Benzene	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	cis-1,2-Dichloroethene	mg/kg			1	2.40E-03		1.5	15	14	I	1	2.40E-03		1.5	15	14	I	
EU-12	19.30	VOC	Ethylbenzene	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	m,p-Xylenes	mg/kg			1	2.40E-03		1.5	15	14	I	1	2.40E-03		1.5	15	14	I	
EU-12	19.30	VOC	Methyl ethyl ketone	mg/kg			1	1.20E-02		1.5	15	14	I	1	1.20E-02		1.5	15	14	I	
EU-12	19.30	VOC	Methylene chloride	mg/kg			1	5.90E-02		1.5	15	14	I	1	5.90E-02		1.5	15	14	I	
EU-12	19.30	VOC	Tetrachloroethene	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	Toluene	mg/kg	1	0.0036	1	3.60E-03		1.5	15	14	I	1	3.60E-03		1.5	15	14	I	
EU-12	19.30	VOC	trans-1,2-Dichloroethene	mg/kg			1	2.40E-03		1.5	15	14	I	1	2.40E-03		1.5	15	14	I	
EU-12	19.30	VOC	Trichloroethene	mg/kg			1	1.20E-03		1.5	15	14	I	1	1.20E-03		1.5	15	14	I	
EU-12	19.30	VOC	Vinyl chloride	mg/kg			1	2.40E-03		1.5	15	14	I	1	2.40E-03		1.5	15	14	I	
EU-12	19.30	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I	
EU-13	17.12	Dioxins	TCDD-TEQ (Total all)	mg/kg	1	2.24E-08	2	3.91E-07	5.22E-07	1.5	15	13	I	1	2.24E-08		1.5	15	14	I	
EU-13	17.12	Inorganic	Aluminum	mg/kg	18	24000	18	1.67E+04	4.62E+03	3.0	8	0	I	18	1.67E+04	4.62E+03	3.0	8	0	I	
EU-13	17.12	Inorganic	Antimony	mg/kg	2	22	7	3.69E+00	8.16E+00	1.5	14	7	I	7	3.69E+00	8.16E+00	1.5	14	7	I	
EU-13	17.12	Inorganic	Arsenic	mg/kg	9	11	9	5.64E+00	2.18E+00	3.0	8	0	I	9	5.64E+00	2.18E+00	3.0	8	0	I	
EU-13	17.12	Inorganic	Barium	mg/kg	2	100	2	9.70E+01	4.24E+00	1.5	14	12	I	2	9.70E+01	4.24E+00	1.5	14	12	I	
EU-13	17.12	Inorganic	Beryllium	mg/kg	2	0.64	2	6.40E-01	0.00E+00	1.5	14	12	I	2	6.40E-01	0.00E+00	1.5	14	12	I	
EU-13	17.12	Inorganic	Boron	mg/kg	2	14	2	1.04E+01	5.16E+00	1.5	14	12	I	2	1.04E+01	5.16E+00	1.5	14	12	I	
EU-13	17.12	Inorganic	Cadmium	mg/kg	2	0.32	2	3.10E-01	1.41E-02	1.5	14	12	I	2	3.10E-01	1.41E-02	1.5	14	12	I	
EU-13	17.12	Inorganic	Chromium	mg/kg	3	27	3	2.30E+01	3.61E+00	1.5	14	11	I	3	2.30E+01	3.61E+00	1.5	14	11	I	
EU-13	17.12	Inorganic	Cobalt	mg/kg	2	7.9	2	7.50E+00	5.66E-01	1.5	14	12	I	2	7.50E+00	5.66E-01	1.5	14	12	I	
EU-13	17.12	Inorganic	Copper	mg/kg	3	12	3	1.10E+01	1.19E+00	1.5	14	11	I	3	1.10E+01	1.19E+00	1.5	14	11	I	
EU-13	17.12	Inorganic	Lead	mg/kg	10	1900	10	2.44E+02	5.90E+02	1.5	14	4	Y	10	2.44E+02	5.90E+02	1.5	14	4	Y	
EU-13	17.12	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I	
EU-13	17.12	Inorganic	Mercury	mg/kg	1	0.011	3	4.39E-02	6.61E-02	1.5	14	11	I	3	4.39E-02	6.61E-02	1.5	14	11	I	
EU-13	17.12	Inorganic	Molybdenum	mg/kg	2	0.51	2	4.95E-01	2.12E-02	1.5	14	12	I	2	4.95E-01	2.12E-02	1.5	14	12	I	
EU-13	17.12	Inorganic	Nickel	mg/kg	3	14	3	1.36E+01	5.13E-01	1.5	14	11	I	3	1.36E+01	5.13E-01	1.5	14	11	I	
EU-13	17.12	Inorganic	Selenium	mg/kg	2	0.43	2	3.65E-01	9.19E-02	1.5	14	12	I	2	3.65E-01	9.19E-02	1.5	14	12	I	
EU-13	17.12	Inorganic	Silver	mg/kg	2	0.094	2	8.65E-02	1.06E-02	1.5	14	12	I	2	8.65E-02	1.06E-02	1.5	14	12	I	
EU-13	17.12	Inorganic	Thallium	mg/kg			2	5.85E-01	7.07E-03	1.5	14	12	I	2	5.85E-01	7.07E-03	1.5	14	12	I	
EU-13	17.12	Inorganic	Vanadium	mg/kg	2	45	2	4.35E+01	2.12E+00	1.5	14	12	I	2	4.35E+01	2.12E+00	1.5	14	12	I	
EU-13	17.12	Inorganic	Zinc	mg/kg	3	56.1	3	4.70E+01	9.05E+00	1.5	14	11	I	3	4.70E+01	9.05E+00	1.5	14	11	I	
EU-13	17.12	PCBs	Aroclor 1242	mg/kg			1	2.30E-02		1.5	15	14	I	1			1.5	15	14	I	
EU-13	17.12	PCBs	Aroclor 1248	mg/kg			1	2.30E-02		1.5	15	14	I	1			1.5	15	14	I	
EU-13	17.12	PCBs	Aroclor 1254	mg/kg			1	4.60E-02		1.5	15	14	I				1.5	15	15	I	

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

							Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result														
EU-13	17.12	PCBs	Aroclor 1260	mg/kg			1	4.60E-02		1.5	15	14	I				1.5	15	15	I
EU-13	17.12	SVOC	2-Methylnaphthalene	mg/kg			4	2.20E-01	1.00E-01	1.5	15	11	I	4	2.20E-01	1.00E-01	1.5	15	11	I
EU-13	17.12	SVOC	Acenaphthene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	Anthracene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	Benzo(a)anthracene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I				1.5	15	15	I
EU-13	17.12	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-13	17.12	SVOC	Benzo(b)fluoranthene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I				1.5	15	15	I
EU-13	17.12	SVOC	Benzo(k)fluoranthene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg	1	0.072	7	1.56E-01	3.70E-02	1.5	15	8	I	7	1.56E-01	3.70E-02	1.5	15	8	I
EU-13	17.12	SVOC	Chrysene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	Dibenzo(a,h)anthracene	mg/kg			1	7.40E-02		1.5	15	14	I				1.5	15	15	I
EU-13	17.12	SVOC	Diethyl phthalate	mg/kg			7	1.99E-01	7.56E-02	1.5	15	8	I	7	1.99E-01	7.56E-02	1.5	15	8	I
EU-13	17.12	SVOC	Di-n-butyl phthalate	mg/kg	1	0.068	7	1.55E-01	3.86E-02	1.5	15	8	I	7	1.55E-01	3.86E-02	1.5	15	8	I
EU-13	17.12	SVOC	Fluoranthene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	Fluorene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I				1.5	15	15	I
EU-13	17.12	SVOC	Naphthalene	mg/kg			7	1.47E-01	6.20E-02	1.5	15	8	I	7	1.47E-01	6.20E-02	1.5	15	8	I
EU-13	17.12	SVOC	Pyrene	mg/kg			7	1.56E-01	3.63E-02	1.5	15	8	I	7	1.56E-01	3.63E-02	1.5	15	8	I
EU-13	17.12	VOC	1,1,1-Trichloroethane	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	1,1-Dichloroethane	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	1,1-Dichloroethene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	1	6.00E-03		1.5	15	14	I
EU-13	17.12	VOC	Acetone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-13	17.12	VOC	Benzene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	cis-1,2-Dichloroethene	mg/kg			1	6.00E-03		1.5	15	14	I	1	6.00E-03		1.5	15	14	I
EU-13	17.12	VOC	Ethylbenzene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	m,p-Xylenes	mg/kg			1	1.10E-02		1.5	15	14	I	1	1.10E-02		1.5	15	14	I
EU-13	17.12	VOC	Methyl ethyl ketone	mg/kg			3	5.00E-01	0.00E+00	1.5	15	12	I	3	5.00E-01	0.00E+00	1.5	15	12	I
EU-13	17.12	VOC	Methylene chloride	mg/kg			7	2.58E-01	1.11E-01	1.5	15	8	I	7	2.58E-01	1.11E-01	1.5	15	8	I
EU-13	17.12	VOC	Tetrachloroethene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	1	6.00E-03		1.5	15	14	I
EU-13	17.12	VOC	Toluene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	trans-1,2-Dichloroethene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	7	4.37E-02	1.66E-02	1.5	15	8	I
EU-13	17.12	VOC	Trichloroethene	mg/kg			7	4.37E-02	1.66E-02	1.5	15	8	I	1	6.00E-03		1.5	15	14	I
EU-13	17.12	VOC	Vinyl chloride	mg/kg			1	6.00E-03		1.5	15	14	I	7			1.5	15	8	I
EU-13	17.12	VOC	Xylenes, Total	mg/kg			3	5.00E-02	0.00E+00	1.5	15	12	I	3	5.00E-02	0.00E+00	1.5	15	12	I
EU-14	17.08	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Arsenic	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Barium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Beryllium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Cadmium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Chromium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Cobalt	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Copper	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Lead	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Mercury	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Molybdenum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Nickel	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Silver	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Vanadium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	Inorganic	Zinc	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-14	17.08	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-14	17.08	SVOC	Acenaphthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(a)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(b)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Benzo(k)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Chrysene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Fluorene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Naphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	SVOC	Pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1,1-Trichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1-Dichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	1,1-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Benzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Ethylbenzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Methylene chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Tetrachloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Toluene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	trans-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Trichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Vinyl chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-14	17.08	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	Dioxins	TCDD-TEQ (Total all)	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	Inorganic	Aluminum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Antimony	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Arsenic	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Barium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Beryllium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Boron	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Cadmium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Chromium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Cobalt	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Copper	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Lead	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Mercury	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Molybdenum	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Nickel	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Selenium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Silver	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Vanadium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	Inorganic	Zinc	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-15	18.68	PCBs	Aroclor 1242	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1248	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1254	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	PCBs	Aroclor 1260	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	2-Methylnaphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Acenaphthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δσ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-15	18.68	SVOC	Benzo(a)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(b)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Benzo(k)fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Chrysene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Dibenzo(a,h)anthracene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Diethyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Di-n-butyl phthalate	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Fluoranthene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Fluorene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Naphthalene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	SVOC	Pyrene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	1,1,1-Trichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	1,1-Dichloroethane	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	1,1-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Acetone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Benzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	cis-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Ethylbenzene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	m,p-Xylenes	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Methyl ethyl ketone	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Methylene chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Tetrachloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Toluene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	trans-1,2-Dichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Trichloroethene	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Vinyl chloride	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-15	18.68	VOC	Xylenes, Total	mg/kg						1.5	15	15	I				1.5	15	15	I
EU-16	19.65	Dioxins	TCDD-TEQ (Total all)	mg/kg			8	1.73E-07	2.87E-08	3.0	11	3	I	5	1.54E-07	1.67E-08	1.5	15	10	I
EU-16	19.65	Inorganic	Aluminum	mg/kg	8	19000	8	1.60E+04	2.20E+03	3.0	8	0	I	8	1.60E+04	2.20E+03	3.0	8	0	I
EU-16	19.65	Inorganic	Antimony	mg/kg			8	1.20E+01	0.00E+00	3.0	8	0	I				1.5	14	14	I
EU-16	19.65	Inorganic	Arsenic	mg/kg			8	6.00E+00	0.00E+00	3.0	8	0	I	8	6.00E+00	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Barium	mg/kg	8	110	8	8.86E+01	1.16E+01	3.0	8	0	I	8	8.86E+01	1.16E+01	3.0	8	0	I
EU-16	19.65	Inorganic	Beryllium	mg/kg			8	1.00E+00	0.00E+00	3.0	8	0	I	8	1.00E+00	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Boron	mg/kg			8	1.20E+01	0.00E+00	3.0	8	0	I	8	1.20E+01	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Cadmium	mg/kg			8	1.00E+00	0.00E+00	3.0	8	0	I	8	1.00E+00	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Chromium	mg/kg	8	27	8	2.26E+01	3.07E+00	3.0	8	0	I	8	2.26E+01	3.07E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Cobalt	mg/kg	8	12	8	9.25E+00	1.49E+00	3.0	8	0	I	8	9.25E+00	1.49E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Copper	mg/kg	8	15	8	1.34E+01	1.41E+00	3.0	8	0	I	8	1.34E+01	1.41E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Lead	mg/kg	1	6	8	5.88E+00	3.54E-01	3.0	8	0	I	8	5.88E+00	3.54E-01	3.0	8	0	I
EU-16	19.65	Inorganic	Manganese	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-16	19.65	Inorganic	Mercury	mg/kg			8	2.00E-01	3.98E-09	3.0	8	0	I	8	2.00E-01	3.98E-09	3.0	8	0	I
EU-16	19.65	Inorganic	Molybdenum	mg/kg			8	1.20E+01	0.00E+00	3.0	8	0	I	8	1.20E+01	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Nickel	mg/kg	8	18	8	1.65E+01	9.26E-01	3.0	8	0	I	8	1.65E+01	9.26E-01	3.0	8	0	I
EU-16	19.65	Inorganic	Selenium	mg/kg			8	6.00E+00	0.00E+00	3.0	8	0	I	8	6.00E+00	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Silver	mg/kg			8	1.00E+00	0.00E+00	3.0	8	0	I	8	1.00E+00	0.00E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Thallium	mg/kg						1.5	14	14	I				1.5	14	14	I
EU-16	19.65	Inorganic	Vanadium	mg/kg	8	61	8	4.60E+01	9.07E+00	3.0	8	0	I	8	4.60E+01	9.07E+00	3.0	8	0	I
EU-16	19.65	Inorganic	Zinc	mg/kg	8	75	8	6.09E+01	9.06E+00	3.0	8	0	I	8	6.09E+01	9.06E+00	3.0	8	0	I
EU-16	19.65	PCBs	Aroclor 1242	mg/kg			8	1.19E-01	3.54E-03	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	PCBs	Aroclor 1248	mg/kg			8	1.19E-01	3.54E-03	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	PCBs	Aroclor 1254	mg/kg			8	1.19E-01	3.54E-03	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	PCBs	Aroclor 1260	mg/kg			8	1.19E-01	3.54E-03	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	SVOC	2-Methylnaphthalene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Acenaphthene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Anthracene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Benzo(a)anthracene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	SVOC	Benzo(a)pyrene	mg/kg						1.5	15	15	I	8			3.0	11	3	I

Appendix I - Chemical Data Gap Analysis Results for Soil

Table I-6. Chemical Risk Data Gap Analysis (2-10 ft. Soil Interval)

EU ID	EU Size (acres)	Chemical Group	Analyte	Result Units	Number of Detects	Maximum Detected Result	Risk Data Gap - Residential Scenario						Risk Data Gap - Rural Residential Scenario							
							Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?	Number of Valid Samples (n)	Avg.	Std. Dev. (σ)	Relative Shift (Δ/σ)	Required Number of Samples per EU (N)	Risk Data Gap (No. of Additional Samples Needed)	EU Impacted?
EU-16	19.65	SVOC	Benzo(b)fluoranthene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	SVOC	Benzo(k)fluoranthene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	SVOC	bis(2-Ethylhexyl) phthalate	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Chrysene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Dibenzo(a,h)anthracene	mg/kg					1.5	15	15	I	I	8			3.0	11	3	I
EU-16	19.65	SVOC	Diethyl phthalate	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Di-n-butyl phthalate	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Fluoranthene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Fluorene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Indeno(1,2,3-cd)pyrene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	SVOC	Naphthalene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	SVOC	Pyrene	mg/kg			8	3.46E-01	1.19E-02	3.0	11	3	I	8	3.46E-01	1.19E-02	3.0	11	3	I
EU-16	19.65	VOC	1,1,1-Trichloroethane	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	1,1-Dichloroethane	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	1,1-Dichloroethene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Acetone	mg/kg			8	5.79E-02	1.73E-03	3.0	11	3	I	8	5.79E-02	1.73E-03	3.0	11	3	I
EU-16	19.65	VOC	Benzene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	cis-1,2-Dichloroethene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Ethylbenzene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	m,p-Xylenes	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Methyl ethyl ketone	mg/kg			8	5.79E-02	1.73E-03	3.0	11	3	I	8	5.79E-02	1.73E-03	3.0	11	3	I
EU-16	19.65	VOC	Methylene chloride	mg/kg			8	2.31E-02	6.41E-04	3.0	11	3	I	8	2.31E-02	6.41E-04	3.0	11	3	I
EU-16	19.65	VOC	Tetrachloroethene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Toluene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	trans-1,2-Dichloroethene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Trichloroethene	mg/kg			8	5.88E-03	3.54E-04	3.0	11	3	I	8	5.88E-03	3.54E-04	3.0	11	3	I
EU-16	19.65	VOC	Vinyl chloride	mg/kg			8	1.18E-02	4.63E-04	3.0	11	3	I	8			3.0	11	3	I
EU-16	19.65	VOC	Xylenes, Total	mg/kg					1.5	15	15	I	I			1.5	15	15	I	I

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
1	Old Conservation Yard	Former Rocketdyne Conservation Yard	Unknown Drums	x	2	x	2	x	2	x	2		0	x	2		0		0		0		0	Additional characterization samples in yard.	2
		Former AI Conservation Yard	Unknown Drums	x	5	x	5	x	5	x	5		0	x	5		0		0		0		0	Delineation of known contamination. No Previous samples for Dioxin.	5
		Former North Slope Storage Area	Unknown material storage and drums	x	8	x	8	x	8	x	8		0		0		0		0		0		0	No previous 2- 10 foot samples. Downslope delineation.	8
		Former Container Storage Area	Storage containers adjacent to former fuel operations	x	5	x	5		0		0		0	x	2		0		0		0		0	Characterization	5
		Former AST 4731 Earthen Berm	General storage, unknown Drums, petroleum products	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Further Characterization	1
		Former AST 4732 Earthen Berm	General storage, unknown Drums, petroleum products	x	3	x	3	x	3	x	3		0		0		0		0		0		0	Inorganic COI > DCGL detected. Delineation.	3
		Former Fueling Area at Bldg 4320	Petroleum Products, PCBs, Metals detected	x	3	x	3	x	3	x	3		0		0		0		0		0		0	Delineation	3
		Former SRE Pond Discharge Pipeline	Discharge Water (VOCs, SVOCs, Metals, TPH). Sediment contained Dioxin, PCBs	x	3	x	3	x	3	x	3		0	x	3		0		0		0		0	Delineation. Dioxin and metals greater than DCGL	3
		Former Telephone Pole Storage Area	PAHs, fire-related dioxins		0	x	3		0		0		0		0		0		0		0		0	Delineation of SVOC greater than DCGL. Dioxin likely fire-related.	3
		Northern Debris Area	Metal, Asbestos, Unknown Containers, Burned Material	x	4	x	4	x	4	x	4		0	x	4		0		0		0		0	Characterization. No previous samples in the area. Note: buried debris.	4
		Southern Debris Area	Construction debris, empty Containers, Asbestos, Burned Debris	x	6	x	6	x	6	x	6		0	x	6		0		0		0		0	Delineation.	6
		North Slope Storage Area A	Metallic Debris, Burned Debris, Unknown Containers	x	8	x	8	x	8	x	8		0	x	8		0		0		0		0	SVOC COI > DCGL detected at top of slope.	8
		North Slope Debris Area B	Metallic Debris, Burned Debris, Unknown Containers	x	6	x	6	x	6	x	6		0	x	6		0		0		0		0	Characterization	6
		Southeast Transformer Area	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Delineation. Note: Transformers removed.	2
		Southwest Transformer Area	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization of Transformer Pole Area	1
		Transformer Area 737	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization. No previous samples.	2
		Transformer Area in South OCY	PCBs		0	x	3	x	3		0		0		0		0		0		0		0	Characterization.	3
		Topographic Low Spot, Downslope Area	Runoff from OCY drainage	x	4	x	4	x	4	x	4		0	x	4		0		0		0		0	Delineation of DCGL exceedences.	4
	Building B204 Waste Oil Tank		Oil, Unknown	x	7	x	7	x	7	x	7		0	x	7		0		0		0		0	Delineation of DCGL exceedences.	7
	Undeveloped Area	Undeveloped Area	None		6		6		6		6		0		6		0		0		0		0	Fully Characterize Area IV	6

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations	
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples			
EU1 TOTAL					71		76		68		60		0		47		0		0		0		0			82
2	New Conservation Yard	New Conservation Yard	Equipment Storage, Metals detected, Metals and Dioxins in drainage pathways.		0		4		4	x	7		0	x	7		0		0		0		0	Delineation of metals DCGL exceedence in yard. Delineation of dioxin within northern and southern drainage.	7	
		Ash Pile	Metals, Dioxin		0	x	2	x	2	x	2		0	x	8		0		0		0		0	Delineation	8	
	Undeveloped Area	Undeveloped Area	None		17		17		17		17		0		17		0		0		0		0	Fully Characterize Area IV	17	
EU2 TOTAL					17		23		23		26		0		32		0		0		0		0			32
3	Sodium Reactor Experiment (SRE) Complex Area	Sodium Compound Cleaning Area	Sodium, Oils, PCBs, Metals	x	3	x	3	x	3	x	3		0		0		0		0		0		0	Characterization	3	
		UST 27	Diesel/Fuel Oil	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1	
		UST 71	Gasoline	x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2	
		UST 74	Diesel	x	1	x	1		0	x	1		0		0		0		0		0		0	Confirmation samples	1	
		SRE Pond Influent Channels	No documented uses		1		1		1		1		0		1		0		0		0		0	Characterization	1	
		Former Industrial Dry Well	Hexavalent Chromium, Chemicals associated with 4003 Leach Field	x	0		0	x	0	x	0		0	x	0		0		0		0		0	Will be characterized/delineated with samples associated with B003 Leach Field.	0	
		SRE Pond	Unknown	x	10	x	10	x	10	x	10		0	x	10		0		0		0		0	Delineation around pond.	10	
		SRE Pond Discharge Pipeline	Dioxin	x	1	x	1	x	1	x	1		0	x	1		0		0		0		0	Define downstream extent of contamination.	1	
		Downslope Drainage and Pond Areas	Unknown, Dioxin	x	2	x	2	x	2	x	2		0	x	2		0		0		0		0	Define downstream extent of contamination	2	
		SCE Steam Power Plant	Mercury, Petroleum, Solvents, PCBs, Metals	x	7	x	7	x	7	x	7		0	x	7		0		0		0		0	No previous characterization (except inorganics)	7	
		Entire Site AS Storage Area	Equipment Containers	x	4	x	4	x	4	x	4		0	x	4		0		0		0		0	No previous characterization of flat areas of the site. Freon detected in soil gas.	4	
		Building 4003 Leach Field	No documented uses. Dioxin detected.	x	4	x	4	x	4	x	4		0	x	4		0		0		0		0	Leach field Removed in 2000. Confirmation samples. Delineation at 2-10 ft.	4	
		Building 4153 SRE Service Bldg	Sodium, Unknown	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1	
		Building 4184	Lead, Acids, Diesel Fuel	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1	
		Building 4505	Storage of Unknown Materials	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1	
		Building 4695	Sodium		0		0		0	x	1		0		0		0		0		0		0	Characterization	1	
		Transformer Area 4693	PCBs		0	x	4	x	4		0		0		0		0		0		0		0	Delineation of PCB DCGL exceedence	4	

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
3		Transformer Area Southeast of Building 4003	PCBs		0	x	4	x	4		0		0		0		0		0		0		0	Delineation of PCB DCGL exceedence	4
		Building 4133 Debris Area	Unknown	x	6	x	6	x	6	x	6		0		0		0		0		0		0	Characterization	6
		Old Stain (Bldg 003)	Oils, Unknown, PCBs detected	x	2	x	2	x	2	x	2		0	x	2		0		0		0		0	Delineation	2
	Undeveloped Area	Undeveloped Area	None		5		5		5		5		0		0		0		0		0		0	Fully Characterize Area IV	5
EU3 TOTAL					52		60		56		51		0		31		0		0				0		61
4	Building 064 Leach Field	Leach Field	Unknown, metals, VOCs	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Insufficient samples for characterization. NOTE: 2-10' only	2
	DOE Leach fields	Building 4030 Leach Field	Metals		0		0		0	x	3		0		0		0		0		0		0	Characterization	3
		Building 4093 Leach Field	No identified chemical use/unknown. Storage.	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Building 4074	Metals		0		0		0	x	1		0		0		0		0		0		0	Characterization	1
		Buildings 4030/4035	Metals, Diesel Fuel	x	3	x	3		0	x	3		0		0		0		0		0		0	Characterization	3
		Building 4641	Materials Handling/Solvents/Unknown	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Building 4073	Unknown/Reactor Building	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1
		Building 4083	Unknown/Reactor Control Building	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4093	Unknown/Reactor Building	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4103	Unknown	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1
		Building 4123	Radiological, Unknown	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4453	Radiological, Unknown	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4014	Sodium Storage		0		0		0	x	5		0		0		0		0		0		0	Characterization	5
		Transformer Pole	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		Substation Near Building 4641	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		ASTs in Building 4023	Unknown	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
	Unaffiliated Areas	Building 4037	Solvents, 1,4-Dioxane, Diesel, Hydraulic Oil, Waste Oils, Metals	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
	Hazardous Waste Material Facility	Building 4133	Hazardous Waste Treatment Management, Alkali Metals Treatment	x	18	x	18	x	18	x	18		0		0		0		0		0		0	Characterization	18
		Debris Piles	Unknown	x	6	x	6	x	6	x	6		0		0		0		0		0		0	Characterization	6

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
4		Possible Soil Pile East of Building 4133	Unknown	x	6	x	6	x	6	x	6		0		0		0		0		0			Characterization	6
		Building 4654	Unknown, Radiological	x	5	x	5	x	5	x	5		0		0		0		0		0		0	Characterization	5
		Stockpile area	Unknown	x	5	x	5	x	5	x	5		0		0		0		0		0		0	Characterization	5
		Sink Holes	Unknown		0	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
	Undeveloped Area	Undeveloped Areas	None		8		8		0		8		0		0		0		0		0		0	Fully Characterize Area IV	8
EU4 TOTAL					72		76		58		83		0		0		0		0		0		0		85
5	Building 4029	Reactive Metal Storage Yard	Unknown	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
	Southeast Drum Storage Yard	Drum Storage Area	Unknown	x	6	x	6	x	6	x	6		0		0		0		0		0		0	Characterization	6
	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach Field	Coal Storage Area	Solvents, PCBs, Metals, debris (asbestos)	x	5	x	5	x	5	x	5		0		0		0		0		0		0	Characterization	5
	Undeveloped Area	Undeveloped Areas	None		16		16		0		16		0		0		0		0		0		0	Fully Characterize Area IV	16
EU5 TOTAL					13		13		13		13		0		0		0		0		0		0		29
6	Radioactive Materials Handling Facility	Building 4021 Leach Field	Unknown	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Transformer	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Building 4075 Debris Area	Mixed Waste	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4664 Debris Area	Unknown	x	3	x	3	x	3	x	3		0		0		0		0		0		0	Characterization	3
		Building 4563	Unknown	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Building 4133 Debris Area	Unknown	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Drainage and Catch Basins	Unknown	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Note: could not locate on map	4
		Stormwater Discharge Pipe	Unknown		0	x	1	x	0	x	1		0		0		0		0		0		0	Characterization	1
		Mixed Waste Storage Yard	Unknown	x	12	x	12	x	12	x	12		0		0		0		0		0		0	Characterization	12
		Miscellaneous Buildings	Unknown	x	7	x	7	x	7	x	7		0		0		0		0		0		0	Characterization	7
		ASTs	Diesel	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4021	mixed waste	x	5	x	5	x	5	x	5		0		0		0		0		0		0	Characterization	5
		Building 4022	mixed waste	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
6		Building 4663	Material Storage, Unknown	x	4	x	4	x	4	x	4		0		0		0		0	x	4		0	Characterization	4
		Building 4021 Tank	rinse water/unknown	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1
		Buildings 4075/4563	mixed waste storage	x	6	x	6	x	6	x	6		0		0		0		0	x	6		0	Characterization	6
		Building 4665	Unknown. Oxidation Facility Supply Storage	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4664	Incinerator		0		0		0	x	4		0	x	4		0		0		0		0	Characterization	4
		Waste Receiving Area	Unknown	x	2	x	2	x	2	x	2		0		0		0		0	x	2		0	Characterization	2
		Building 4688	Acids, Sodium Cleaning Area		0		0		0	x	4		0		0		0		0		0		0	Characterization	4
		Oil Sump	Hydrocarbons, PCBs	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1
		Building 4621	Radioactive Waste Storage	x	4	x	4	x	4	x	4		0		0		0		0	x	4		0	Characterization	4
		Building 4029 Gun Club	Non-radioactive Hazardous Waste Storage	x	3	x	3	x	3	x	3		0		0		0		0		0		0	Characterization	3
	Group 7 Unaffiliated Areas	Building 4028/4811	Liquid Metals	x	8	x	8		0	x	8		0		0		0		0		0		0	Characterization	8
		UT-19	Fuel Oil	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
		Transformer	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
	DOE Leach fields	Building 4023	Metals, SVOC, VOC	x	2	x	4		0	x	6		0		0		0		0		0		0	Characterization	6
		Building 4025 Tanks	Unknown	x	2	x	2	x	2	x	2		0		0		0		0		0	x	2	Characterization	2
	Group 5 Unaffiliated Areas	Building 4625	Storage, Unknown	x	2	x	2	x	2	x	2		0		0		0		0		0	x	2	Characterization	2
	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	Building 4005	TPH, PCP, Metals Dust, Coal Dust, Coke, Cyanide, Green Liquor, Silica, VOCs, SVOCs	x	16	x	16	x	16	x	16	x	16		0		0		0		0		0	Characterization	16
		Former PDU	Aluminum, Caustics, Solvents, Metals, Green Liquor, SVOC, Asbestos, Freon, Lead Paint, Sodium Hydroxide.	x	20	x	20	x	20	x	20	x	20		0		0		0		0		0	Characterization.	20
		Building 4027	Beryllium, Waste Oil, Contaminated Wastes, Batteries, Paint Wastes, Flammable Wastes, Caustics, and Corrosives	x	6	x	6		0	x	6		0		0		0	x	6		0		0	Characterization	6

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4032	Kerosene, PCBs, Lead Paint, Asbestos	x	5	x	5		0	x	5		0		0		0		0		0		0	1 sample by each UST on east side + 3 additional	5
6		Building 4042	Lithium, Alcohol, Unknown Chemicals	x	4	x	4	x	4	x	4		0		0	x	4	x	4		0	x	4	2 by former ASTs, 2 additional	4
		Building 4049	Aluminum, Caustics, Solvents, Metals, Green Liquor, SVOC, Asbestos, Freon, Lead Paint, Sodium Hydroxide.	x	2	x	2		0	x	2	x	2		0		0		0		0	x	2	Characterization	2
		Substations 4705, 4742	PCBs		0	x	4	x	4		0		0		0		0		0		0		0	Characterization. 2 at 4705, 1 at 4742, none at 4727.	4
		Bag House Including Catch Basin	Calcium Carbonate, Coal, Coke, Cyanide, Green Liquor, Silica, Chloramines, Hexachlorobenzene, Sodium Carbonate, Molten Salt Carbonate, Chromium, Toluene, Xylene, Aromatic Hydrocarbons, Heavy Metals	x	6	x	6		6	x	6	x	6		0		0		0		0		0	Characterization	6
	HMSA	Building 4024	Unknown, PCBs	x	5	x	5	x	5	x	5		0		0		0		0		0		0	Characterization	5
	Undeveloped Area	Undeveloped Area	None		15		15		0		15		0		0		0		0		0		0	Fully Characterize Area IV	15
EU6 TOTAL					168		178		136		180		44		4		4		10		16		10		188
7	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	17th Street Drainage Area	PCB, calcium carbonate, coal, coke, Cyanide, Green Liquor, Silica, Chloramines, hexachlorobenzene, sodium carbonate, molten salt carbonate, chromium, toluene, xylene, aromatic hydrocarbons, heavy metals		0	x	21	x	21	x	21	x	21		0		0		0		0		0	Characterization	21
	Boeing Leach Fields	Building 4011 Leach Field	Solvents, Metals	x	6	x	6		0	x	6		0		0		0		0		0		0	Delineation	6
		Building 4011	VOCs, Metals, Hydrocarbons	x	8	x	8		0	x	8		0		0		0		0		0		0	Characterization	8
		Building 4007	Non-radiological Chemical Storage	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4008	Chemical and flammable Storage	x	2	x	2	x	2	x	2		0		0		0		0		0	x	2	Characterization	2
		Building 4171	X-ray Room, Metals		0		0		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4172	Solvents, Metals	x	1		0		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4611	Spray Paints	x	1		0		0	x	1		0		0		0		0		0		0	Characterization	1

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Transformer 4711	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Transformer Pole	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
7		UST	Fuel/Diesel	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1
	Environmental Effects Laboratory	ASTs	Fuel	x	3	x	3		0		0		0		0		0		0		0		0	Characterization	3
		EEL Cryo Lab and Test cells	VOCs, Metals, Hydraulic Oil	x	6	x	6		0	x	6		0		0		0		0		0		0	Characterization,	6
		Hazardous Materials Storage Pad	Solvents, Metals, Oil	x	5	x	5		0	x	5		0		0		0		0		0		0	Characterization	5
		Transformers	PCBs		0	x	3	x	3		0		0		0		0		0		0		0	Delineation, including vertical in the 2-10' zone.	3
	Compound A	Observed Contamination North of Compound A	Dioxin, Metals PCB Contamination		0	x	10	x	10	x	10		0	x	10		0		0		0		0	Delineation	10
	Undeveloped Area	Undeveloped Area	None		6		6		0		6		0		0		0		0		0		0		6
EU7 TOTAL					41		76		41		70		21		10		0		0		0		2		79
8	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	Building 4006	Mercury, Tetralin, Gasoline, TPH, Metals, Solvents	x	8	x	8		0	x	8	x	0		0		0		0		0		0	Characterization	8
		Building 4006 tanks	Gasoline	x	4		0		0		0		0		0		0		0		0		0		4
		Building 4026	Asbestos, Hydrocarbons Ammonia, Deworals Sodium, Downanol,	x	7	x	7		0	x	7		0		0		0		0		0		0	Characterization	7
		Building 4826	Same as Building 4026	x	5	x	5		0	x	5		0		0		0		0		0		0	Characterization	5
		Building 4426	Oil, Paint, Gasoline, Transformer and Capacitor Oil, Hydraulic Oil, Alcohol, Solvents, VOCs, Freon	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1
		Building 4358	Unknown Chemical Storage	x	2	x	2	x	2	x	2	x	2		0		0		0		0		0	Characterization	2
		Building 4402	Solvents	x	1		0		0		0		0		0		0		0		0		0	Characterization	1
		Building 4616	Sodium Nitrate		0		0		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4615	Non-radiological. Combustion Testing Facility	x	4	x	4	x	4	x	4		0	x	2		0		0		0		0	Characterization	4
		Substations 4706, 4726	PCBs		0	x	4	x	4		0		0		0		0		0		0		0	Delineation/Characterization.	4

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4005/4006 Leach field	TPH, PCP, Metals Dust, Coal Dust, Coke, Cyanide, Green Liquor, Silica, VOCs, SVOCs	x	6	x	6		0	x	6		0		0		0		0		0		0	Characterization	6
8	Building 4059 Former SNAP Reactor Facility	Building 4019	Sodium, Freon, Mercury, Kerosene, Solvents	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		Building 4057	Metals, Paint, Oil, Downanol	x	6	x	6		0	x	6		0		0		0		0		0		0	Characterization	6
		Building 4360	Acids, Bases	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
		Building 4358	Chemical Storage	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Characterization	2
		Building 4459	Flammables, Diesel	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
		Buildings 4626	Unknown. Equipment Storage	x	10	x	10	x	10	x	10		0		0		0		0		0		0	Characterization	10
		Substation, Transformers 4759,4757,4719	PCBs		0	x	8	x	8		0		0		0		0		0		0		0	Characterization	8
		Between Buildings 4626 and 4757	Metals		0		0		0	x	3		0		0		0		0		0		0	Delineation of specific metals (Ag, Se, Be)	3
	DOE Leach Fields 2	Building 4010 Leach Field	Metals, TCE, Hydrazine	x	6		0		0	x	6		0		0		0		0		0	x	6	Characterization	6
		Building 4010	Metals, TCE, Hydrazine	x	4		0		0	x	4		0		0		0		0		0	x	4	Characterization	4
		Building 4012	Metals		0		0		0	x	4		0		0		0		0		0		0	Characterization	4
		Building 4013	TPH, PCBs, Metals	x	8	x	8		0	x	8		0		0		0		0		0		0	Characterization	8
		Substation 4713	PCB		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Substation 4708A/4708B	PCB		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Substation 4756	PCB		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Substation West of 4010	PCB		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Substation East of 4010	PCB		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Air Compressor Pad and pipeline	Hydrazine		0	x	2		0	x	2		0		0		0		0		0	x	2	Characterization	2
		AST-T-EMG	Diesel	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
		AST-EMGEN	Fuel Oil	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
		AST T-LO1	Oil	x	1	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		AST T-CF1	Hydrazine		0		0		0		0		0		0		0		0		0	x	1	Characterization	1
		AST TCF-2	Morpholine	x	1		0		0		0		0		0		0		0		0		0	Characterization	1

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		AST TCF-3	Sulfuric Acid		0		0		0	x	1		0								0			Characterization	1
8		AST EMSTG	Oil	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
	Building 4457 Hazardous Materials Storage Area	Building 4457 and Sumps	Waste Oils, Acids, Bases, Solvents, Lubricants	x	9	x	9		0	x	9		0				0		0		0		0	Characterization	9
		Building 4357	Metals, Propellents		0		0		0	x	2		0		0		0		0		0	x	2	Characterization	2
		Building 4025	EDTA, Potassium Permanganate, Sodium Bisulfide, Ferrous Sulfate	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		Building 4355	Acids, Bases, Oils	x	5	x	5		0		0		0		0		0		0		0		0	Characterization	5
		Building 4334	Ammonia, Lubricants, Oils, Greases	x	7	x	7		0	x	7		0		0		0		0		0		0	Characterization	7
		Building 4226	Hazardous Materials Storage. Hydrocarbons, Ammonia, Deworals Sodium, SVOCs, TPH, Dowanol	x	4	x	4	x	4	x	4		0		0		0		0		0		0	Characterization	4
		Building 4361	Chlorine, Hydrazine, Acids, Bases	x	2	x	2		0		0		0		0		0		0		0	x	2	Characterization	2
		Building 4335	Turbine Generator Room	x	1	x	1	x	1	x	0		0		0		0		0		0		0	Characterization	1
		Building 4656	Hydrazine, Morpholine, Acids, Bases	x	2	x	2		0		0		0		0		0		0		0	x	2	Characterization	2
	Boeing Leach fields	Building 4735 AST	Fuel	x	3	x	3		0		0		0		0		0		0		0		0	delineate inorganic contamination	3
		SCTI Pump Station		x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2
	Unaffiliated	Building 4356 Sodium Component Test Installation	Fuel Oil, Hydrazine, Morpholine, Diesel, PCBs, Metals, Sulfuric Acid	x	6	x	6	x	6	x	6		0		0		0		0		0	x	6	Characterization	6
		Building 4502 Parking Lot	Coal Storage		0	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
	Undeveloped Area	Undeveloped Areas	None		2		2		0		2		0		0		0		0		0		0	Full Characterization of Area IV	2
EU8 TOTAL					134		146		53		126		2		2		0		0		0		25		174
9	Building 4065 Metals Laboratory Clarifier	Building 4065 Metals Clarifier	Solvents, Kerosene, Metals, Acids, Bases, Mercury	x	8	x	8		0	x	8		0		0		0		0		0		0	Characterization/Delineation of mercury contamination	8
		Building 4065	Solvents, Kerosene, Metals, Acids, Bases	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		Building 4066	Instrument Repair and Calibration	x	6	x	6		0	x	6		0		0		0		0		0		0	Characterization	6

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4062	Unknown storage	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		Transformer 4762	PCBs		0	x	4	x	4		0		0		0		0		0		0		0	Delineation of PCB DCGL exceedence	4
9		USTs	Fuel Oil	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
	Building 4020 Rockwell International Hot Laboratory and Leach field	Rockwell International Hot Laboratory-Building 4020 and Leach Field	Solvents, Fuels, SVOCs, Metals	x	14	x	14		0	x	14		0		0		0		0		0		0	Characterization	14
		Metals Contamination - Northeast Corner	Metals		0		0		0	x	10		0		0		0		0		0		0	Delineation of metals contamination.	10
		USTs UT10 and UT11	Solvents, Petroleum	x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2
		Substation 4720	PCB		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
	DOE Leach Fields 3	Building 4373 & Leach Field	Propellents, Hydrazine, Solvents, TPH, Metals	x	9	x	9		0	x	9		0		0		0		0		0	x	9	Characterization	9
		Building 4383 & Leach Field	Solvents	x	8		0		0		0		0		0		0		0		0		0	Characterization	8
		Building 4055	Solvents, Metals, Adhesives, Coatings	x	6	x	6		0	x	6		0		0		0		0		0		0	Characterization	6
		Building 4374	Support Building for 4373, Solvents and Metals	x	5		0		0	x	5		0		0		0		0		0	x	5	Characterization	5
		Substation 4755	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Substation 4883A & 4883B	PCBs		0	x	3	x	3		0		0		0		0		0		0		0	Characterization	3
		Substation 4707	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
	Unaffiliated Areas	Transformer Pole X14	PCB		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		Transformer 4760 A	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Transformer 4760 B	PCBs		0	x	2	x	2		0		0		0		0		0		0		0	Characterization	2
		Building 4662	Parts Cleaning Pad	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	1
		Building 4461	Oils metals	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		ASTs	Unknown	x	2	x	2	x	2	x	2		0		0		0		0		0		0	Location not found	2
		Building 4463	Solvents, Pump Cleaning	x	4	x	4		0		0		0		0		0		0		0		0	Characterization	4
		Building 4462	Petroleum Hydrocarbons, Metals	x	4	x	4		0	x	4		0		0		0		0		0		0	Characterization	4
		USTs	Fuel, Diesel,	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
	Undeveloped Area	Undeveloped Areas	None		2		2		0		2		0		0		0		0		0		0	Full Characterization of Area IV	2
EU9 TOTAL					87		90		18		83		0		0		0		0		0		14		113

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
10	Building 4100 Trench (Buildings 4462/4463)	Building 4100 Trench	Burned Debris and Unknown Material	x	9	x	9	x	9	x	9		0	x	9		0		0		0		0	Delineation N and S of the Trenchs. Also to the east (down slope).	9
		Building 4100	Acids, Bases	x	7	x	7		0	x	7		0		0		0		0		0		0	Characterization	7
		Building 4100 Leach Field	Unknown	x	6	x	6	x	6	x	6		0		0		0		0		0		0	Characterization	6
		Substation/Transformer 4709	PCB		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		Hummocky Terrain	Unknown	x	9	x	9	x	9	x	9		0	x	9		0		0		0		0	Characterization	9
	Building 4056 Landfill	B056 Landfill	Unknown	x	9	x	9	x	9	x	9		0	x	9		0		0		0		0	Confirm extent	9
		Southern Debris Area	Unknown	x	11	x	11	x	11	x	11		0	x	11		0		0		0		0	Confirm extent	11
		Roadside Debris Area	Unknown	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Building 056 Excavation Debris Area	Unknown	x	4	x	4	x	4	x	4	x	4	x	4		0		0		0		0	Delineation	4
		Building 100 Discharge Area	Dioxin		0		0	x	3		0		0	x	3		0		0		0		0	Delineation	3
	Undeveloped Area	Undeveloped Areas	None		3		3		0		3		0		3		0		0		0		0	Full Characterization of Area IV	3
EU10 TOTAL					58		59		52		58		4		48		0		0		0		0		62
11	Building 4886 Former Sodium Disposal Facility (FSDF)	Bldg 4886 Concrete Pool Area	Sodium, Solvents, Glycols, SVOCs, Terphenyls, PCB	x	2	x	2	x	2	x	2		0		0		0		0	x	2		0	Downstream extent of dioxin/PCBs in drainages.	2
		Steam Lance	Kerosene, Metals	x	1	x	1		0	x	1		0		0		0		0		0		0	Delineation	1
		Southern Investigation Area	Perchlorate, Unknown	x	2	x	2	x	2	x	2		0	x	2	x	1		0		0		0	Define eastern extent (extra perchlorate?)	2
		Former Drum Debris Area	Unknown, Mercury	x	3	x	3	x	3	x	3		0		0	x	3		0		0		0	Define extent of exceedence	3
		FSDF Pistol Range	Lead		0		0		0	x	4		0		0		0		0		0		0	Delineate Extent	4
	Building 4009 Leach Field	Leach Field and Septic Tank	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	2	x	2	x	2	x	2		0	x	2		0		0		0		0	Septic tank and leach field removed. Confirmation samples below fill to verify removal.	2
		Building 4009	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	3	x	3	x	3	x	3		0	x	3		0		0		0		0	Characterization	3
		SGR Liquid Waste Hold-up Tank and Pit	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	0	x	0	x	0	x	0		0		0		0		0		0		0	Vertical delineation	0
		OMR Waste Hold-up Tank and Pit	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	1	x	1	x	1	x	1		0		0		0		0		0		0	Characterization	1

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
11		UT3 (Tank)	Diesel	x	1	x	1		0	x	1		0		0		0		0		0		0	UST removed with soil. Confirmation sample at depth	1
		Transformer Pole	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		Solar Concentrator Facility	Acids, NaK		0		0		0	x	6		0		0		0		0		0		0	Determine extent of inorganic contamination	6
	Undeveloped Area	Undeveloped Areas	None		4		4		0		4		0		0		0		0		0		0	Full Characterization of Area IV	4
EU11 TOTAL					19		20		14		29		0		7		4		0		2		0		30
12	Area IV Pond Dredge Area	Pond Dredge	Unknown	x	13	x	13	x	13	x	13	x	13	x	13	x	13	x	13	x	13	x	13	Delineate contamination/characterize pond	13
	DOE Leach Fields 3	Building 4363 & Leach Field	Metals, Solvents, Naphthalene	x	10	x	10		0	x	10		0		0		0		0		0		0	Characterization	10
		Building 4173	Sodium Storage		0		0		0	x	2		0		0		0		0		0		0	Have not located buildings	2
		USTs	Fuel Oil	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
		Substation 4853	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Characterization	1
		Building 4473	Hydraulic testing, oils	x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2
		Building 4854	Fuel gauge testing/unknown	x	2	x	2		0	x	2		0		0		0		0		0		0	Characterization	2
		Building 4863	Hydraulic testing, oils	x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2
		Building 4873	Hydraulic test lab, oils	x	2	x	2		0		0		0		0		0		0		0		0	Characterization	2
		Buildings 4375, 4874, 4875	Unknown, Drum Storage,	x	3	x	3		0	x	3		0		0		0		0		0		0	Characterization	3
		Building 4353 & Leach Field	Explosives, metals		0		0		0	x	7		0		0		0	x	7		0		0	Characterize soil at depth in Leach Field	7
	Undeveloped Area	Undeveloped Areas	None		6		6		0		6		0		0		0		0		0		0	Full Characterization of Area IV	6
EU12 TOTAL					41		42		14		43		13		13		13		20		13		13		51
13	Empire State Atomic Development Authority (ESADA)	Former ESADA Storage Yard	Solvents, SVOCs, Dowanol, hydrocarbons, PCBs, Sodium, Metals	x	8	x	8	x	8	x	8				0		0		0		0		0	Delineation of extent	8
		Process Development Unit AST Area	Green Liquor		0	x	5		0	x	5	x	5		0		0		0		0		0	Delineation of extent	5
		ESADA Pistol range	Lead		0		0		0	x	4				0		0		0		0		0	Delineation of extent	4
		Transformer Pole X35	PCBs		0		0	x	0		0				0		0		0		0		0	Characterization	0
	Undeveloped Area	Undeveloped Areas	None		13		13		0		13		0		0		0		0		0		0	Full Characterization of Area IV	13
EU13 TOTAL					21		26		8		30		5		0		0		0		0		0		30

Table I-7
Samples Required for Characterization and Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
14	None	None	None		15		15		15		15		0		0		0		0		0		0		15
EU14 TOTAL					15		15		15		15		0		0		0		0				0		15
15	Unaffiliated Areas	Building 4865	Unknown	x	1	x	1		0	x	1		0		0		0		0		0		0	Characterization	14
	Undeveloped Areas	None	None		14		14		0		14		0		0		0		0		0		0	Full Characterization of Area IV	14
EU15 TOTAL					14		14		0		14		0		0		0		0		0		0		14
16	None	None	None		15		15		15		15		0		0		0		0		0		0		15
EU16 TOTAL					15		15		15		15		0		0		0		0		0		0		15
TOTAL					838		929		584		896		89		194		21		30		31		64	TOTAL SAMPLING LOCATIONS	1060

Notes: Unless otherwise noted, all samples to be collected at two depths: 0-2' and 2-10'

TOTAL SAMPLES2120

¹ SWMU/AOC and Chemical Use Areas were identified through the RFA and RFI programs performed by others (SAIC1994, MWH 2007, CH2M HILL 2008).

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
1	Old Conservation Yard	Former Rocketdyne Conservation Yard	Unknown Drums	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Former AI Conservation Yard	Unknown Drums	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Former North Slope Storage Area	Unknown material storage and drums	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Former Container Storage Area	Storage containers adjacent to former fuel operations	x	0	x	0		0		0		0	x	0		0		0		0		0		0
		Former AST 4731 Earthen Berm	General storage, unknown Drums, petroleum products	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Former AST 4732 Earthen Berm	General storage, unknown Drums, petroleum products	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Former Fueling Area at Bldg 4320	Petroleum Products, PCBs, Metals detected	x	0	x	2	x	2	x	0		0		0		0		0		0		0	Vertical delineation SVOC, and PCB DCGL exceedence.	2
		Former SRE Pond Discharge Pipeline	Discharge Water (VOCs, SVOCs, Metals, TPH). Sediment contained Dioxin, PCBs	x	0	x	0	x	0	x	2		0	x	0		0		0		0		0	Vertical delineation of metals DCGL exceedence	2
		Former Telephone Pole Storage Area	PAHs, fire-related dioxins		0	x	0		0		0		0		0		0		0		0		0		0
		Northern Debris Area	Metal, Asbestos, Unknown Containers, Burned Material	x	0	x	0	x	0	x	0		0	x	2		0		0		0		0	Vertical delineation of dioxin DCGL exceedence.	2
		Southern Debris Area	Construction debris, empty Containers, Asbestos, Burned Debris	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		North Slope Storage Area A	Metallic Debris, Burned Debris, Unknown Containers	x	0	x	2	x	0	x	0		0	x	0		0		0		0		0	SVOC COI >DCGL detected at top of slope.	2
		North Slope Debris Area B	Metallic Debris, Burned Debris, Unknown Containers	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Southeast Transformer Area	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Southwest Transformer Area	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Transformer Area 737	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Transformer Area in South OCY	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Topographic Low Spot, Downslope Area	Runoff from OCY drainage	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0	Delineation of known exceedence of metals DCGL	0
	Building B204 Waste Oil Tank		Oil, Unknown	x	0	x	4	x	4	x	0		0	x	0		0		0		0		0	Vertical delineation of PCB and SVOC DCGL exceedence.	4
	Undeveloped Area		Unknown		0		0		0		0		0		0		0		0		0		0		0
EU1 TOTAL					0		8		6		2		0		2		0		0		0		0		12

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
2	New Conservation Yard	New Conservation Yard	Equipment Storage, Metals detected, Metals and Dioxins in drainage pathways.		0		0			x	0		0	x	0		0		0		0		0		0
		Ash Pile	Metals, Dioxin		0	x	0	x		x	0		0	x	0		0		0		0		0		0
	Undeveloped Area		Unknown		0		0		0		0		0		0		0		0		0		0		0
EU2 TOTAL					0		0		0		0		0		0		0		0		0		0		0
3	Sodium Reactor Experiment (SRE)	Sodium Compound Cleaning Area	Sodium, Oils, PCBs, Metals	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		UST 27	Diesel/Fuel Oil	x	1	x	1		0		0		0		0		0		0		0		0	Confirmation sampling.	1
		UST 71	Gasoline	x	1	x	1		0		0		0		0		0		0		0		0	Characterization	1
		UST 74	Diesel	x	1	x	1		0		0		0		0		0		0		0		0	Confirmation sampling.	1
		SRE Pond Influent Channels	No documented uses		0	x	2		0	x	2		0		0		0		0		0		0	Delineate vertical extent of metals and SVOC DCGL exceedence.	2
		Former Industrial Dry Well	Hexavalent Chromium, Chemicals associated with 4003 Leach Field	x	0		0	x	0	x	1		0	x	0		0		0		0		0	Shallow bedrock; collect bedrock sample	1
		SRE Pond	Unknown	x	1	x	0	x	0	x	0		0	x	0		0		0		0		0	Vertical extent of VOCs in west end of pond.	1
		SRE Pond Discharge Pipeline	Dioxin	x	0	x	2	x	0	x	2		0	x	0		0		0		0		0	Vertical extent of dioxin, metals and SVOCs in drainage ditch.	2
		Downslope Drainage and Pond Areas	Unknown, Dioxin	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		SCE Steam Power Plant	Mercury, Petroleum, Solvents, PCBs, Metals	x	0	x	0	x	0	x	1		0	x	0		0		0		0		0	Delineate vertical extent of inorganic DCGL exceedence at Cooling Tower.	1
		Entire Site AS Storage Area	Equipment Containers	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Building 4003 Leach Field	No documented uses. Dioxin detected.	x	0	x	2	x	0	x	2		0	x	0		0		0		0		0		2
		Building 4153 SRE Service Bldg	Sodium, Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4184	Lead, Acids, Diesel Fuel	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4505	Storage of Unknown Materials	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4695	Sodium		0		0		0	x	0		0		0		0		0		0		0		0
3		Transformer Area 4693	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Transformer Area Southeast of Building 4003	PCBs		0	x	1	x	1		0		0		0		0		0		0		0	Delineate vertical extent of PCB DCGL exceedence.	1
		Building 4133 Debris Area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Old Stain (Bldg 003)	Oils, Unknown, PCBs detected	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
	Undeveloped Area		Unknown		0		0		0		0		0		0		0		0		0		0		0
EU3 TOTAL					4		10		1		8		0		0		0		0		0		0		13
4	Building 064 Leach Field	Leach Field	Unknown, metals, VOCs	x	2	x	2		0	x	2		0		0		0		0		0		0	Insufficient samples for characterization	2
	DOE Leach fields	Building 4030 Leach Field	Metals		0		0		0	x	0		0		0		0		0		0		0		0
		Building 4093 Leach Field	No identified chemical use/unknown. Storage.	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4074	Metals		0		0		0	x	0		0		0		0		0		0		0		0
		Buildings 4030/4035	Metals, Diesel Fuel	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4641	Materials Handling/Solvents/Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4073	Unknown/Reactor Building	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4083	Unknown/Reactor Control Building	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4093	Unknown/Reactor Building	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4103	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4123	Radiological, Unknown	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4453	Radiological, Unknown	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4014	Sodium Storage		0		0		0	x	0		0		0		0		0		0		0		0
		Transformer Pole	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation Near Building 4641	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		ASTs in Building 4023	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Unaffiliated Areas	Building 4037	Solvents, 1,4-Dioxane, Diesel, Hydraulic Oil, Waste Oils, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
	Hazardous Waste Material Facility	Building 4133	Hazardous Waste Treatment Management. Alkali Metals Treatment.	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
4		Debris Piles	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Possible Soil Pile East of Building 4133	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0				0
		Building 4654	Unknown, Radiological	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Stockpile area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Sink Holes	Unknown		0	x	0		0	x	0		0		0		0		0		0		0		0
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU4 TOTAL					2		2		0		2		0		0		0		0		0		0		2
5	Building 4029	Reactive Metal Storage Yard	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Southeast Drum Storage Yard	Drum Storage Area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach Field	Coal Storage Area	Solvents, PCBs, Metals, debris (asbestos)	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU5 TOTAL					0		0		0		0		0		0		0		0		0		0		0
6	Radioactive Materials Handling Facility	Building 4021 Leach Field	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Transformer	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Building 4075 Debris Area	Mixed Waste	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4664 Debris Area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4563	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4133 Debris Area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Drainage and Catch Basins	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Stormwater Discharge Pipe	Unknown		0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Mixed Waste Storage Yard	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Miscellaneous Buildings	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		ASTs	Diesel	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4021	mixed waste	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
6		Building 4022	mixed waste	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4663	Material Storage, Unknown	x	0	x	0	x	0	x	0		0		0		0		0	x	0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4021 Tank	rinse water/unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Buildings 4075/4563	mixed waste storage	x	0	x	0	x	0	x	0		0		0		0		0	x	0		0		0
		Building 4665	Unknown. Oxidation Facility Supply Storage	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4664	Incinerator		0		0		0	x	0		0	x			0		0		0		0		0
		Waste Receiving Area	Unknown	x	0	x	0	x	0	x	0		0		0		0		0	x	0		0		0
		Building 4688	Acids, Sodium Cleaning Area		0		0		0	x	0		0		0		0		0		0		0		0
		Oil Sump	Hydrocarbons, PCBs	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4621	Radioactive Waste Storage	x	0	x	0	x	0	x	0		0		0		0		0	x	0		0		0
		Building 4029 Gun Club	Non-radioactive Hazardous Waste Storage	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Group 7 Unaffiliated Areas	Building 4028/4811	Liquid Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		UT-19	Fuel Oil	x	0	x	0		0		0		0		0		0		0		0		0		0
		Transformer	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
	DOE Leach fields	Building 4023	Metals, SVOC, VOC	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4025 Tanks	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0	x	0		0
	Group 5 Unaffiliated Areas	Building 4625	Storage, Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0	x	0		0
	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	Building 4005	TPH, PCP, Metals Dust, Coal Dust, Coke, Cyanide, Green Liquor, Silica, VOCs, SVOCs	x	0	x	0	x	0	x	0	x	0		0		0		0		0		0		0
		Former PDU	Aluminum, Caustics, Solvents, Metals, Green Liquor, SVOC, Asbestos, Freon, Lead Paint, Sodium Hydroxide.	x	0	x	0	x	0	x	0	x	0		0		0		0		0		0		0
6		Building 4027	Beryllium, Waste Oil, Contaminated Wastes, Batteries, Paint Wastes, Flammable Wastes, Caustics, and Corrosives	x	0	x	0		0	x	0		0		0		0	x			0		0		0
		Building 4032	Kerosene, PCBs, Lead Paint, Asbestos	x	0	x	0		0	x	0		0		0		0				0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4042	Lithium, Alcohol, Unknown Chemicals	x	0	x	0	x	0	x	0		0		0	x		x			0	x	0		0
		Building 4049	Aluminum, Caustics, Solvents, Metals, Green Liquor, SVOC, Asbestos, Freon, Lead Paint, Sodium Hydroxide.	x	0	x	0		0	x	0	x	0		0		0				0	x	0		0
		Substations 4705, 4742	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Bag House Including Catch Basin	Calcium Carbonate, Coal, Coke, Cyanide, Green Liquor, Silica, Chloramines, Hexachlorobenezene, Sodium Carbonate, Molten Salt Carbonate, Chromium, Toluene, Xylene, Aromatic Hydrocarbons, Heavy Metals	x	0	x	0		0	x	0	x	0		0		0		0		0		0		0
	HMSA	Building 4024	Unknown, PCBs	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
	Undeveloped Area	Undeveloped Area	None		0		0		0		0		0		0		0		0		0		0		0
EU6 TOTAL					0		0		0		0		0		0		0		0		0		0		0
7	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	17th Street Drainage Area	PCB, calcium carbonate, coal, coke, Cyanide, Green Liquor, Silica, Chloramines, hexachlorobenezene, sodium carbonate, molten salt carbonate, chromium, toluene, xylene, aromatic hydrocarbons, heavy metals		0	x	0	x	0	x	0	x	0		0		0		0		0		0		0
	Boeing Leach Fields	Building 4011 Leach Field	Solvents, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4011	VOCs, Metals, Hydrocarbons	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4007	Non-radiological Chemical Storage	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4008	Chemical and flammable Storage	x	0	x	0	x	0	x	0		0		0		0		0		0	x			0
7		Building 4171	X-ray Room, Metals		0		0		0	x	0		0		0		0		0		0		0		0
		Building 4172	Solvents, Metals	x	0		0		0	x	0		0		0		0		0		0		0		0
		Building 4611	Spray Paints	x	0		0		0	x	0		0		0		0		0		0		0		0
		Transformer 4711	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Transformer Pole	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		UST	Fuel/Diesel	x	1	x	1		0	x	0		0		0		0		0		0		0	Characterization	1
	Environmental Effects Laboratory	ASTs	Fuel	x	0	x	0		0		0		0		0		0		0		0		0		0
		EEL Cryo Lab and Test cells	VOCs, Metals, Hydraulic Oil	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Hazardous Materials Storage Pad	Solvents, Metals, Oil	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Transformers	PCBs		0	x	1	x	1		0		0		0		0		0		0		0		1
	Compound A	Observed Contamination North of Compound A	Dioxin, Metals PCB Contamination		0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
	Undeveloped Area	Undeveloped Area	None		0		0		0		0		0		0		0		0		0		0		0
EU7 TOTAL					1		2		1		0		0		0		0		0		0		0		2
8	Building 4005 Coal Gasification Process Development Unit (PDU) and Leach field	Building 4006	Mercury, Tetralin, Gasoline, TPH, Metals, Solvents	x	0	x	0		0	x	0	x	0		0		0		0		0		0		0
		Building 4006 tanks	Gasoline	x	0		0		0		0		0		0		0		0		0		0		0
		Building 4026	Asbestos, Hydrocarbons Ammonia, Deworals Sodium, Downanol,	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4826	Same as Building 4026	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4426	Oil, Paint, Gasoline, Transformer and Capacitor Oil, Hydraulic Oil, Alcohol, Solvents, VOCs, Freon	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4358	Unknown Chemical Storage	x	0	x	0	x	0	x	0	x	0		0		0		0		0		0		0
		Building 4402	Solvents	x	0		0		0		0		0		0		0		0		0		0		0
8		Building 4616	Sodium Nitrate		0		0		0	x	0		0		0		0		0		0		0		0
		Building 4615	Non-radiological. Combustion Testing Facility	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Substations 4706, 4726	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Building 4005/4006 Leach field	TPH, PCP, Metals Dust, Coal Dust, Coke, Cyanide, Green Liquor, Silica, VOCs, SVOCs	x	0	x	0		0	x	0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
	Building 4059 Former SNAP Reactor Facility	Building 4019	Sodium, Freon, Mercury, Kerosene, Solvents	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4057	Metals, Paint, Oil, Downanol	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4360	Acids, Bases	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4358	Chemical Storage	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4459	Flammables, Diesel	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Buildings 4626	Unknown. Equipment Storage	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Substation, Transformers 4759,4757,4719	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Between Buildings 4626 and 4757	Metals		0		0		0	x	0		0		0		0		0		0		0		0
	DOE Leach Fields 2	Building 4010 Leach Field	Metals, TCE, Hydrazine	x	0		0		0	x	0		0		0		0		0		0	x	0		0
		Building 4010	Metals, TCE, Hydrazine	x	0		0		0	x	0		0		0		0		0		0	x	0		0
		Building 4012	Metals		0		0		0	x	0		0		0		0		0		0		0		0
		Building 4013	TPH, PCBs, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Substation 4713	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation 4708A/4708B	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation 4756	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation West of 4010	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation East of 4010	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Air Compressor Pad and pipeline	Hydrazine		0	x	0		0	x	0		0		0		0		0		0	x	0		0
		AST-T-EMG	Diesel	x	0	x	0		0		0		0		0		0		0		0		0		0
		AST-EMGEN	Fuel Oil	x	0	x	0		0		0		0		0		0		0		0		0		0
8		AST T-LO1	Oil	x	0	x	0	x	0		0		0		0		0		0		0		0		0
		AST T-CF1	Hydrazine		0		0		0		0		0		0		0		0		0	x	0		0
		AST TCF-2	Morpholine	x	0		0		0		0		0		0		0		0		0		0		0
		AST TCF-3	Sulfuric Acid		0		0		0	x	0		0		0						0		0		0
		AST EMSTG	Oil	x	0	x	0		0		0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
	Building 4457 Hazardous Materials Storage Area	Building 4457 and Sumps	Waste Oils, Acids, Bases, Solvents, Lubricants	x	0	x	0		0	x	4		0		0		0		0		0		0	Vertical delineation of metal DCGL exceedence	4
		Building 4357	Metals, Propellents		0		0		0	x	0		0		0		0		0		0	x	0		0
		Building 4025	EDTA, Potassium Permanganate, Sodium Bisulfide, Ferrous Sulfate	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4355	Acids, Bases, Oils	x	0	x	0		0		0		0		0		0		0		0		0		0
		Building 4334	Ammonia, Lubricants, Oils, Greases	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4226	Hazardous Materials Storage. Hydrocarbons, Ammonia, Deworals Sodium, SVOCs, TPH, Dowanol	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4361	Chlorine, Hydrazine, Acids, Bases	x	0	x	0		0		0		0		0		0		0		0	x	0		0
		Building 4335	Turbine Generator Room	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4656	Hydrazine, Morpholine, Acids, Bases	x	0	x	0		0		0		0		0		0		0		0	x	0		0
	Boeing Leach fields	Building 4735 AST	Fuel	x	0	x	0		0		0		0		0		0		0		0		0		0
		SCTI Pump Station		x	0	x	0		0		0		0		0		0		0		0		0		0
	Unaffiliated	Building 4356 Sodium Component Test Installation	Fuel Oil, Hydrazine, Morpholine, Diesel, PCBs, Metals, Sulfuric Acid	x	0	x	0	x		x	0		0		0		0		0		0	x	0		0
		Building 4502 Parking Lot	Coal Storage		0	x	0		0	x	0		0		0		0		0		0		0		0
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU8 TOTAL					0		0		0		4		0		0		0		0		0		0		4
9	Building 4065 Metals Laboratory Clarifier	Building 4065 Metals Clarifier	Solvents, Kerosene, Metals, Acids, Bases, Mercury	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4065	Solvents, Kerosene, Metals, Acids, Bases	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4066	Instrument Repair and Calibration	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4062	Unknown storage	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Transformer 4762	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		USTs	Fuel Oil	x	0	x	0		0	x	0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellents		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
	Building 4020 Rockwell International Hot Laboratory and Leach field	Rockwell International Hot Laboratory-Building 4020 and Leach Field	Solvents, Fuels, SVOCs, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Metals Contamination - Northeast Corner	Metals		0		0		0	x	0		0		0		0		0		0		0		0
		USTs UT10 and UT11	Solvents, Petroleum	x	0	x	0		0		0		0		0		0		0		0		0		0
		Substation 4720	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
	DOE Leach Fields 3	Building 4373 & Leach Field	Propellents, Hydrazine, Solvents, TPH, Metals	x	0	x	0		0	x	2		0		0		0		0		0	x	0	Delineate vertical extent of metals DCGL exceedence in leach field.	2
		Building 4383 & Leach Field	Solvents	x	0		0		0		0		0		0		0		0		0		0		0
		Building 4055	Solvents, Metals, Adhesives, Coatings	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4374	Support Building for 4373, Solvents and Metals	x	0		0		0	x	0		0		0		0		0		0	x	0		0
		Substation 4755	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation 4883A & 4883B	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Substation 4707	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
	Unaffiliated Areas	Transformer Pole X14	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Transformer 4760 A	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Transformer 4760 B	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Building 4662	Parts Cleaning Pad	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4461	Oils metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		ASTs	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Building 4463	Solvents, Pump Cleaning	x	0	x	0		0		0		0		0		0		0		0		0		0
9		Building 4462	Petroleum Hydrocarbons, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		USTs	Fuel, Diesel,	x	1	x	1		0	x	1		0		0		0		0		0		0	Delineate vertical extent of metals and VOC DCGL exceedence.	1
	Undeveloped Areas	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU9 TOTAL					1		1		0		3		0		0		0		0		0		0		3
10	Building 4100 Trench (Buildings 4462/4463)	Building 4100 Trench	Burned Debris and Unknown Material	x	0	x	4	x	0	x	4		0	x	4		0		0		0		0	Confirm vertical extent of dioxin, metal and SVOC DCGL exceedence.	4
		Building 4100	Acids, Bases	x	0	x	0		0	x	0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
		Building 4100 Leach Field	Unknown	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		Substation/Transformer 4709	PCB		0	x	0	x	0		0		0		0		0		0		0		0		0
		Hummocky Terrain	Unknown	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
	Building 4056 Landfill	B056 Landfill	Unknown	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Southern Debris Area	Unknown	x	0	x	0	x	0	x	3		0	x	0		0		0		0		0	Delineate vertical extent of metals DCGL exceedence.	3
		Roadside Debris Area	Unknown	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
		Building 056 Excavation Debris Area	Unknown	x	0	x	3	x	3	x	0	x		x	0		0		0		0		0	delineate vertical extent of SVOC and PCB DCGL exceedence.	3
		Building 100 Discharge Area	Dioxin		0		0	x	0		0		0	x	0		0		0		0		0		0
	Undeveloped Areas	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU10 TOTAL					0		7		3		7		0		4		0		0		0		0		10
11	Building 4886 Former Sodium Disposal Facility (FSDF)	Bldg 4886 Concrete Pool Area	Sodium, Solvents, Glycols, SVOCs, Terphenyls, PCB	x	0	x	0	x	0	x	0		0		0		0		0	x	0		0		0
		Steam Lance	Kerosene, Metals	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Southern Investigation Area	Perchlorate, Unknown	x	0	x	0	x	0	x	0		0	x	0	x	0		0		0		0		0
		Former Drum Debris Area	Unknown, Mercury	x	0	x	0	x	0	x	0		0		0	x	0		0		0		0		0
		FSDF Pistol Range	Lead		0		0		0	x	0		0		0		0		0		0		0		0
	Building 4009 Leach Field	Leach Field and Septic Tank	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	0	x	0	x	0	x	2		0	x	0		0		0		0		0	Delineate vertical extent of metals DCGL exceedence.	2
		Building 4009	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	0	x	0	x	0	x	0		0	x	0		0		0		0		0		0
11		SGR Liquid Waste Hold-up Tank and Pit	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		OMR Waste Hold-up Tank and Pit	Solvents, Kerosene, PCBs, Terphenyls, Sodium, Aluminum, Fluoride, Mercury	x	0	x	0	x	0	x	0		0		0		0		0		0		0		0
		UT3 (Tank)	Diesel	x	0	x	1		0	x	1		0		0		0		0		0		0	Confirmation sampling.	1
		Transformer Pole	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Solar Concentrator Facility	Acids, NaK		0		0		0	x	0		0		0		0		0		0		0		0

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU11 TOTAL					0		1		0		3		0		0		0		0		0		0		3
12	Area IV Pond Dredge Area	Pond Dredge	Unknown	x	0	x	0	x	0	x	3	x	0	x	0	x	0	x	0	x	0	x	0	Vertical delineation of metals DCGL exceedence.	3
	DOE Leach Fields 3	Building 4363 & Leach Field	Metals, Solvents, Naphthalene	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4173	Sodium Storage		0		0		0	x	0		0		0		0		0		0		0		0
		USTs	Fuel Oil	x	0	x	0		0		0		0		0		0		0		0		0		0
		Substation 4853	PCBs		0	x	0	x	0		0		0		0		0		0		0		0		0
		Building 4473	Hydraulic testing, oils	x	0	x	0		0		0		0		0		0		0		0		0		0
		Building 4854	Fuel gauge testing/unknown	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4863	Hydraulic testing, oils	x	0	x	0		0		0		0		0		0		0		0		0		0
		Building 4873	Hydraulic test lab, oils	x	0	x	0		0		0		0		0		0		0		0		0		0
		Buildings 4375, 4874, 4875	Unknown, Drum Storage,	x	0	x	0		0	x	0		0		0		0		0		0		0		0
		Building 4353 & Leach Field	Explosives, metals		0		0		0	x	0		0		0		0	x	0		0		0		0
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU12 TOTAL					0		0		0		3		0		0		0		0		0		0		3

Table I-8
Samples Required for Characterization and Vertical Delineation of Chemical Use Areas

			Potential/Reported Chemical Use or Release	VOCs		SVOCs		PCBs		Metals		Cyanide		Dioxin		Perchlorate		Energetics		Terphenyls		Hydrazine/Propellants		Comments	Number of Sampling Locations
Data Gaps Analysis EU	SWMU/AOC/RFI Site ¹	Chemical Use Area ¹		Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples	Use Indicated	Required Samples		
13	Empire State Atomic Development Authority (ESADA)	Former ESADA Storage Yard	Solvents, SVOCs, Dowanol, hydrocarbons, PCBs, Sodium, Metals	x	0	x	0	x	0	x	4		0		0		0		0		0		0	Delineate vertical extent of metals DCGL exceedence.	4
		Process Development Unit AST Area	Green Liquor		0	x	0		0	x	0	x	0		0		0		0		0		0		0
		ESADA Pistol range	Lead		0		0		0	x	4		0		0		0		0		0		0	Delineate vertical extent of metals DCGL exceedence.	4
		Transformer Pole X35	PCBs		0		0	x	0		0		0		0		0		0		0		0		0
	Undeveloped Area	Undeveloped Areas	None		0		0		0		0		0		0		0		0		0		0		0
EU13 TOTAL					0		0		0		8		0		0		0		0		0		0		8
14	None	None	None		0		0		0		0		0		0		0		0		0		0		0
EU14 TOTAL					0		0		0		0		0		0		0		0		0		0		0
15	Unaffiliated Areas	Building 4865	Unknown	x	1	x	1		0	x	1		0		0		0		0		0		0		1
	Undeveloped Areas	None	None		0		0		0		0		0		0		0		0		0		0		0
EU15 TOTAL					1		1		0		1		0		0		0		0		0		0		1
16	None	None	None		0		0		0		0		0		0		0		0		0		0		0
EU16 TOTAL					0		0		0		0		0		0		0		0		0		0		0
TOTAL					9		32		11		41		0		6		0		0		0		0	TOTAL SAMPLING LOCATIONS	61

¹ SWMU/AOC and Chemical Use Areas were identified through the RFA and RFI programs performed by others (SAIC1994, MWH 2007, CH2M HILL 2008).

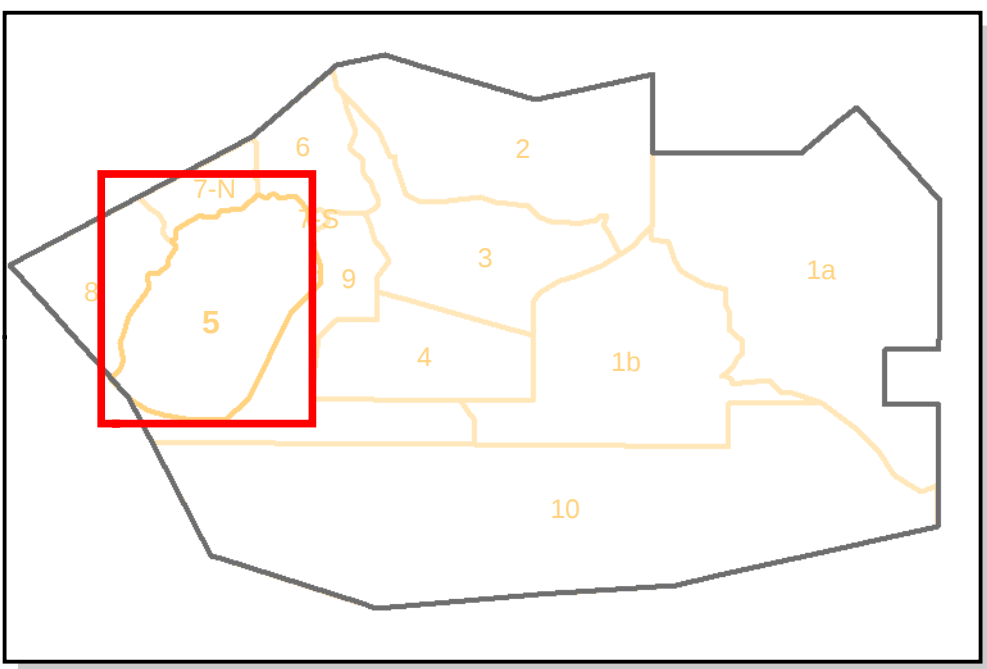
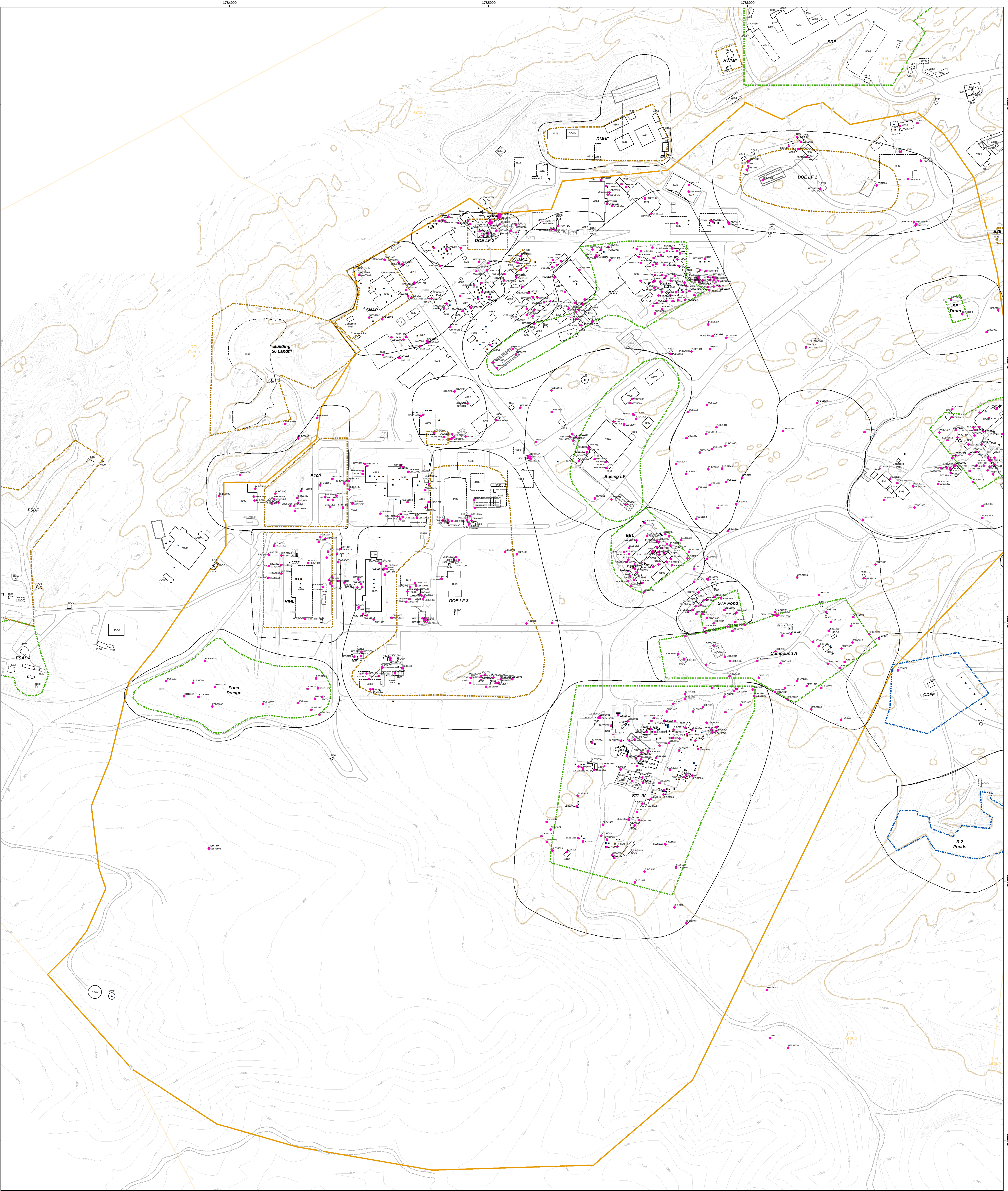
Attachment A

Working Draft RFI Program Groups 5 and 7 Sampling Location Maps

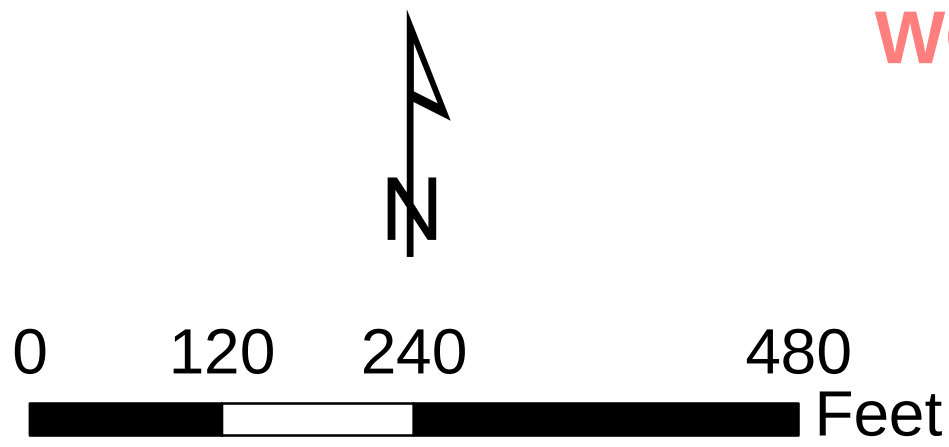
Attachment A

Working Draft RFI Program Groups 5 and 7 Sampling Location Maps

This Attachment contains Working Drafts of Sampling Location Maps for the RCRA Facility Investigation (RFI) Program for Groups 5 and 7. These maps were prepared by CH2M Hill (Group 5) and Montgomery Watson Harza (Group 7) for use in that regulatory program. The maps are provided in this Data Gaps Report for informational purposes and to show the distribution of sampling points currently being collected under the RFI program. The RFI collection and analysis program is on-going and data generated from this program may fill some of the data gaps identified in the EIS Data Gaps Analysis. However, the data gap is not considered to be filled until the suitability of these data for the objectives identified in this data gaps report can be verified.



- | EXPLANATION | | 2008 Sample Locations | |
|-------------------------------|----------------------------------|-----------------------|-----------------------|
| Transformer Poles | Transformer - Existing | RFI Group Boundary | 2008 Sample Locations |
| Tank - UST | Transformer - Removed | Leachfield | |
| Tank - AST | Transformer - Not Yet Determined | Roads - Dirt | |
| Tank - Not Yet Determined | RFI Site - Boeing | Road - Asphalt | |
| Building - Existing | RFI Site - DOE | Rocks | |
| Building - Removed | RFI Site - NASA | | |
| Building - Not Yet Determined | | | |



WORKING DRAFT

Basemap (05/19/2008)
RFI GROUP 5

Base Map Legend

- Administrative Area Boundary
- Report Group Boundary
- Existing Building or Structure
- Removed Building or Structure
- Other Tanks
- Solvent Tank
- Petroleum Fuel/Oil Tank
- Hydrazine Tank
- Awning
- Dirt Road
- A/C Curbing
- Fence
- Pipe
- Leachfield
- NPDES Outfall
- Well
- Pond
- Possible Pond
- Drainage
- Surface Water Divide
- Elevation Contour
- Rock Outcrop
- Excavation
- Trenches

Figure Legend

- RFI Soil (SM) Sample
- RFI Vapor & Soil (SV/SM) Sample
- Closure Plan Samples - Accessible
- Not Collected Due to Shallow Refusal
- RFI Vapor (SV) Sample
- RMHF RFI Site Boundary
- RCRA Permitted Units
- Flammable Storage Unit
- Temporary Storage Bin

Chemical Use Areas

Multiple Use	Metal	Leach Field
Solvent	Perchlorate	Potential
Petroleum	Hydrazine	
Oils / PCBs	Debris	

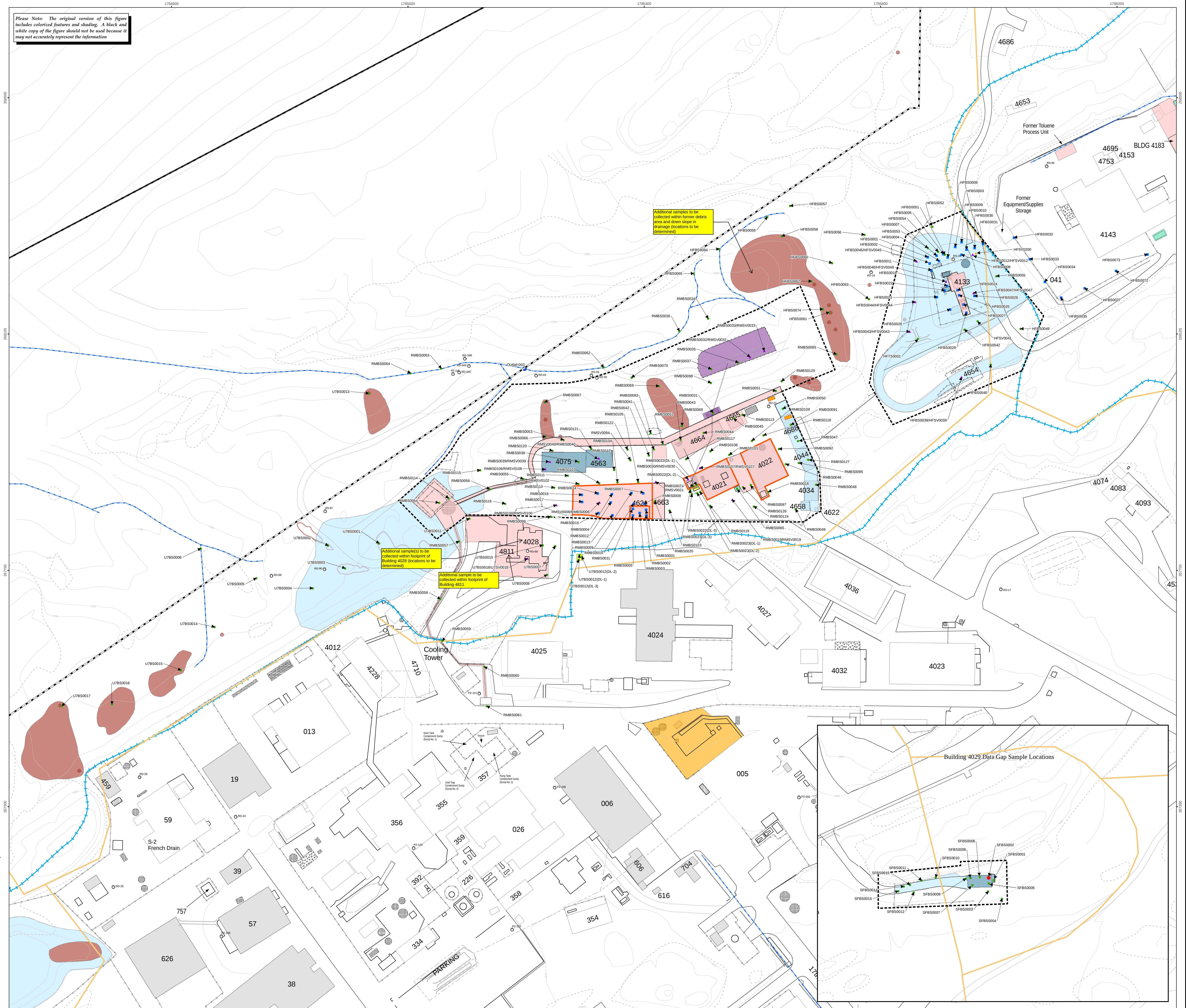


Figure Notes:

(a) Accessible proposed closure plan samples were collected during the implementation of this RFI work plan since the data will be used for RFI assessment. Additional sampling at these (or other) locations may be necessary following review of analytical data.

(b) Inaccessible proposed closure plan samples were NOT collected during implementation of Group 7 Sampling and Analysis Plan since they could not be obtained at that time. Following implementation of the approved closure plan, data from these locations will be assessed for the RFI.

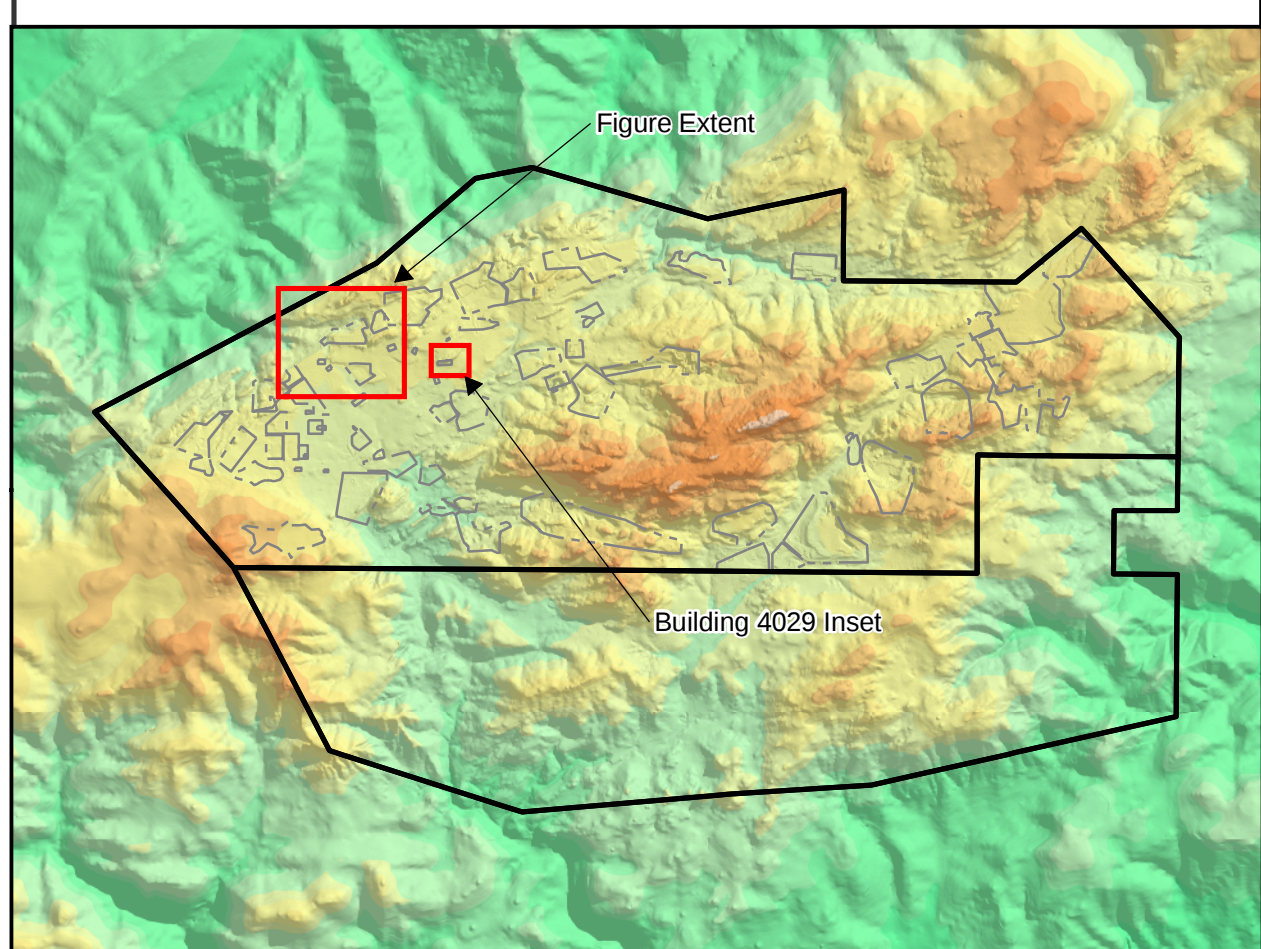
(c) T-1, T-2, T-3, T-4, T-5, T-6, RMDV Evaporation Tank, Air Receiver Tank, Building 4021 Sump Tank (UT-16), UT-14, and UT-15 have been removed.

(d) Chemical Use Area designations and site feature locations will be updated upon additional data and historical document review, as necessary.

(e) All locations shown on this figure were sampled from April 16th, 2008 to May 7th, 2008 in support of the Group 7 RFI Area data gap sampling.

Document: Group7-Sampling.mxd Date: May 27, 2008

1 inch equals 55 feet



Santa Susana Field Laboratory

2008 Group 7 Reporting Area
Data Gap Sampling Locations
Santa Susana Field Laboratory

