APPENDIX I-1

SUMMARY OF ORGANIC COMPOUNDS DETECTED IN SURFACE SOILS

Table I-1
Summary of Organic Compounds Detected in Surface Soils
AMS No. 7

Suite/Compound	Detection Frequency	Max. Conc. (ug/kg)	BH06-S-00	Off-Site			Incinerator			Cooling Tower			Diesel UST			Potential Sources*
				SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	BH08-S-00	SS-13	SS-14	BH07-S-00	
Pentane, 2-methyl-	2	19J	---	---	---	---	17J	---	---	---	---	---	---	19J	---	unknown
SVOCs (ug/kg)																
Benzo(a)anthracene	1	145J	---	---	---	---	---	---	---	---	---	---	---	---	145J	incomplete combustion of fuels
Benzo(a)pyrene	1	76J	---	---	---	---	---	---	---	---	---	---	---	---	76J	incomplete combustion of fuels
Benzo (b)flouranthene	1	126J	---	---	---	---	---	---	---	---	---	---	---	---	126J	incomplete combustion of fuels
Chyrsene	1	142J	---	---	---	---	---	---	---	---	---	---	---	---	142J	incomplete combustion of fuels
Flouranthrene	1	426	---	---	---	---	---	---	---	---	---	---	---	---	426	incomplete combustion of fuels
Phenanthrene	1	191J	---	---	---	---	---	---	---	---	---	---	---	---	191J	incomplete combustion of fuels
Pyrene	1	329J	---	---	---	---	---	---	---	---	---	---	---	---	329J	incomplete combustion of fuels
PCBs (ug/kg)																
Aroclor 1260	4	166	---	---	---	---	28	---	---	166	---	---	106	142	---	heat transfer fluids, pesticide extender

--- Compound not detected above MDL (see Appendix H for associated MDLs)
J - Estimated concentration
Note: * Sources:
National Toxicity Profile (NTP) database
Risk Assessment Information System (RAIS) database
USEPA Pesticide Product Information System

Table I-1
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AMS No. 7

Suite/Compound	Detection Frequency	Max. Conc. (ug/kg)	BH06-S-00	Off-Site			Incinerator			Cooling Tower			Diesel UST			
				SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	BH08-S-00	SS-13	SS-14	BH07-S-00	Potential Sources*
VOCs (ug/kg)																
Acetone	6	190	86	97.4	184	155	---	---	109	---	---	190	---	---	---	solvents, laboratory contaminant
Benzene	2	2.42	---	---	---	---	2.37	---	---	---	---	---	---	2.42	---	fuels, solvents, pesticides (impurity)
2-Butanone (MEK)	6	9.14J	---	---	---	---	7.10J	7.69J	---	7.87J	4.57J	---	9.14J	4.11J	---	solvents, laboratory contaminant
Carbon Disulfide	2	3.37	---	---	---	---	2.47	---	---	---	---	---	---	3.37	---	resin solvents, insecticides
Methylene Chloride	13	34.7	21.2	6.22	31.1	4.29	4.43	34.7	31.7	9.21	7.45	5.27	6.67	6.32	16.5	solvents, laboratory contaminant
Toluene	5	10.8	---	---	---	---	10.8	---	---	2.92	---	---	3.44	10.7	2.15	fuels, solvents
Trichloroethene (TCE)	1	2.25	---	---	---	---	---	---	---	2.25	---	---	---	---	---	grease solvents, heat exchange fluid
1,2,4 Trimethylbenzene	2	5.37	---	---	---	---	4.19	---	---	---	---	---	---	5.37	---	high octane fuels, paint solvents
1,3,5 Trimethylbenzene	2	2.74	---	---	---	---	2.26	---	---	---	---	---	---	2.74	---	paint solvents
Xylenes (total)	4	17.8	---	---	---	---	16.5	---	---	---	---	---	3.23	17.8	1.94	fuels, solvents, pesticides (impurity)
VOC tics (ug/kg)																
Acetaldehyde	2	5J	---	---	5J	5J	---	---	---	---	---	---	---	---	---	degredation of toluene
Acetic Acid, methyl ester	1	56J	---	---	---	---	---	---	---	56J	---	---	---	---	---	paint solvents
Arsenous acid, tris(trimethylsilyl)	1	3J	---	---	---	---	---	---	3J	---	---	---	---	---	---	pesticides
Benzaldehyde	1	7J	---	---	---	---	---	---	---	7J	---	---	---	---	---	oil and resin solvents, degredation of toluene, pesticides
Butanal	3	10J	---	---	6J	4J	---	---	---	---	---	---	10J	---	---	solvents
Butanal, 3-methyl-	1	5J	---	5J	---	---	---	---	---	---	---	---	---	---	---	unknown
Butane, 2-methyl-	3	35J	---	---	---	---	33J	---	---	---	---	---	11J	35J	---	solvents
Cyclohexane	1	10J	---	---	---	---	10J	---	---	---	---	---	---	---	---	paint and oil solvents, pesticides
Cyclohexane, methyl-	2	14J	---	---	---	---	13J	---	---	---	---	---	---	14J	---	solvents
Cyclotetrasiloxane, octamethyl	4	11J	---	8J	11J	7J	---	---	8J	---	---	---	---	---	---	unknown
Cyclotrisiloxane, hexamethyl	3	4J	---	3J	4J	4J	---	---	---	---	---	---	---	---	---	unknown
2-Furancarboxaldehyde	5	28J	---	3J	28J	17J	---	---	6J	---	---	19.4J	---	---	---	oil solvents, insecticides, herbicides
Heptanal	1	3J	---		3J	---	---	---	---	---	---	---	---	---	---	unknown
Hexanal	12	190J	---	22J	52J	56J	190J	160J	29J	130J	55J	37.6J	200J	58J	25.8J	unknown
Hexane	1	23J	---	---	---	---	23J	---	---	---	---	---	---	25J	---	high octane fuels, glue solvents
Pentanal	6	42J	---	---	15J	13J	---	26J	6J	26J	---	---	42J	---	---	unknown
Pentane	1	59J	---	---	---	---	59J	---	---	---	---	---	---	---	---	fuels, solvents, pesticides

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APPENDIX I-2

COMPOUNDS DETECTED IN SURFACE SOILS POTENTIALLY ASSOCIATED WITH PESTICIDES/HERBICIDE SPRAYING

Table I-2

Compounds Detected in Surface Soils Potentially Assocciated with Pesticide/Herbicide Spraying AMS No. 7

Suite	Compound	Detection Frequency (x/13)	Maximum Concentration (ug/kg)
VOCs	Benzene	2	2.42
	Carbon Disulfide	2	3.37
	Xylenes (total)	4	17.8
VOC tics	Arsenous acid, tris(trimethylsilyl)	1	17.22J
	Benzaldehyde	1	7J
	Cyclohexane	1	10J
	2-Furancarboxaldehyde	3	28J
	Pentane	1	59J
PCBs	Aroclor 1260	5	166

Note:
Compounds are inert components of some current and discontinued pesticides, occurring as impurities, carriers or extenders.

APPENDIX I-3

SUMMARY OF METALS DETECTED IN SURFACE SOILS

Table I-3

Summary of Metals Detected in Surface Soils
AMS No. 7

Metal	Detection Frequency (x/13)	Maximum Concentration (mg/kg)
Aluminum	13	10800
Arsenic	4	1.5
Barium	13	96.9
Calcium	13	53600
Chromium	13	12.4
Copper	13	16
Iron	12	7610
Lead	13	152
Magnesium	13	5320
Manganese	13	153
Nickel	13	7.5
Potassium	13	2480
Sodium	13	86.2
Vanadium	11	16.9
Zinc	12	181

APPENDIX I-4

SUMMARY OF ORGANIC COMPOUNDS DETECTED IN SUBSURFACE SOILS AT SHALLOW BOREHOLES

Table I-4
Summary of Organic Compounds Detected in Subsurface Soils at Shallow Boreholes
AMS No. 7

Suite/Compound	Detection Frequency (x/12)	Borehole BH06				Borehole BH07			Borehole BH08				
		S-05	S-10	S-18	S-76	S-05	S-10	S-85*	S-05	S-10	S-15	S-18	S-80
VOCs (ug/kg)													
Acetone [1]	8	41.2	---	16.1	34.6	---	---	---	52.2	26.4	62.5	27.8	26.7
Methylene Chloride [1]	11	44.0	51.0	32.7	---	21.1	25.2	30.0	26.7	30.5	35.8	34.6	20.5
Toluene	1	---	---	---	---	3.96	---	---	---	---	---	---	---
Trichloroethene (TCE)	1	---	---	---	---	---	---	---	---	---	---	36.7	---
1,2,4-Trimethylbenzene	1	---	---	---	---	2.08	---	---	---	---	---	---	---
Xylenes (total)	1	---	---	---	---	4.48	---	---	---	---	---	---	---
VOC tics (ug/kg)													
Pentane	1	---	---	---	---	12.5J	---	---	---	---	---	---	---
SVOC tics (ug/kg)													
1,1,2,2-Tetrachloroethane	1	---	---	---	---	---	15J	---	---	---	---	---	---

S-05 - sample ID denoting depth (in ft.bgs)
--- Compound not detected above MDL (see Appendix H for assoicated MDLs)
J - estimated value
* - compounds attributed to drilling additive (see Table 4-5) are omitted
1 - possible laboratory artifact

APPENDIX I-5

SUMMARY OF METALS DETECTED IN SUBSURFACE SOILS AT SHALLOW BOREHOLES

Table I-5

Summary of Metals Detected in Subsurface Soils at Shallow Boreholes
AMS No. 7

Metal	Detection Frequency (x/12)	Maximum Concentration (mg/kg)
Aluminum	12	15,900
Arsenic	6	2.9
Barium	12	131
Calcium	12	46,600
Chromium	12	17.9
Copper	10	7.6
Iron	12	16,000
Lead	12	7.4
Magnesium	12	8,250
Manganese	12	342
Nickel	11	13.1
Potassium	12	4,370
Sodium	10	123
Vanadium	7	22.2
Zinc	9	36.5

APPENDIX I-6

ORGANIC COMPOUNDS, METALS AND INORGANICS DETECTED IN GROUNDWATER

Table I-6

Organic Compounds, Metals and Inorganics Detected in Groundwater
AMS No. 7

Suite/Compound	Detection Frequency (x/4)	Seymour Aquifer			San Angelos Aquifer
		MW06	MW07	MW08	MW09
VOCs (ug/l)					
1,1-Dichloroethylene	1	---	---	0.3	---
cis-1,2-Dichloroethylene	1	---	---	30	---
trans-1,2-Dichloroethylene	1	---	---	2.8	---
trichloroethylene	1	--	--	140	--
VOC tics (ug/l)					
Acetone [1]	1	---	---	8.7	---
Chloroform	1	---	---	0.5	---
4-Isopropyltoluene	1	---	---	0.1	---
SVOCs (ug/l)					
Bis(2-ethylhexyl)phthalate	2	---	---	1.0	1.3J
SVOC tics (ug/l)					
Camphorsufonic Acid	1	---	---	3.8J	---
Tetradecanoic Acid	1	---	---	17J	---
Hydrocarbon Oil	1	---	21J	---	---
Metals (ug/l)					
Antimony	1	---	---	1.0	---
Barium	4	200	410	320	260
Chromium	4	12	15	8.3	1.3
Copper	4	7.9	10	4.1	4.3
Lead	2	14	6.8	---	---
Nickel	4	12	18	8.7	100
Inorganics (mg/l)					
Flouride	3	0.9	0.6	0.6	---
Nitrate	3	9.5	---	0.5	0.7
Nitrite	1	0.01	---	---	---

--- Compound not detected above MDL

J - estimated value

[1] - possible laboratory contaminant