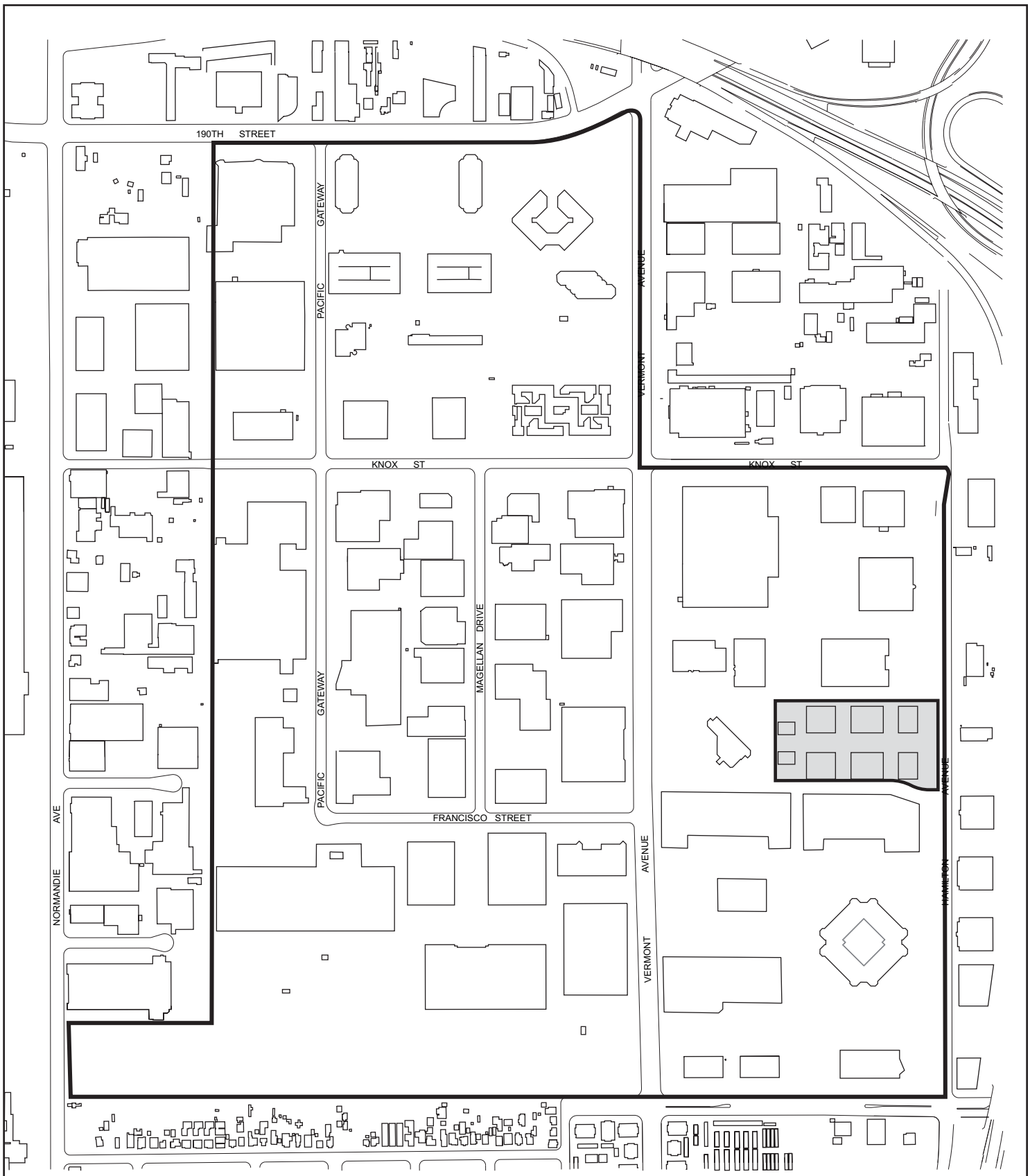
PARCEL 7351-033-040

Parcel 7351-033-040 is located in the central portion of the former Butadiene Plancor. Butadiene was manufactured within the plancor as a component of synthetic rubber. The parcel was used for water treatment, steam production, and service buildings during the period of plancor operation. Plancor facilities identified in the parcel area are as follows:

- Aboveground tanks used for storage of butadiene gas, treated water, boiler feed water, and "C5 slop";
- A lime pit;
- Chemical storage, storage house, "change house', guard house, boiler house and cafeteria buildings;
- A "utility service/cooler box";
- Unspecified isoprene purification equipment;
- An electrical power substation; and
- Underground pipelines for transport of surface runoff and/or wastewater.

Further information regarding the nature of the materials stored in the chemical storage building, the use of the change house and utility service/cooler box is not available.

T:\Ladd\DelAmo\694-133



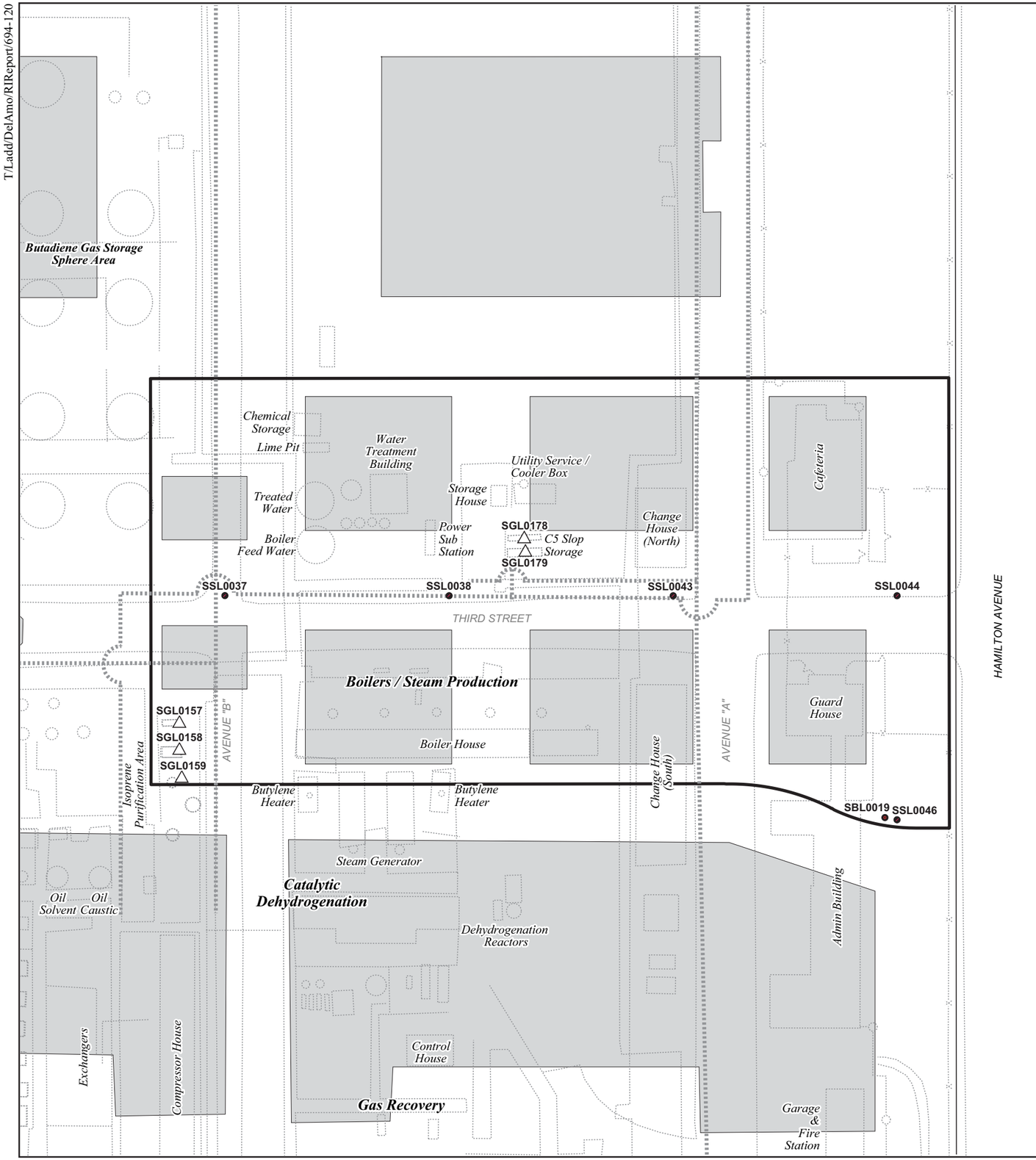
0 600 1,200

Scale in Feet

N

LOCATION MAP
Parcel 7351-033-040

T/Ladd/DelAmo/RIReport/694-120



Legend

- Soil gas sampling location
- Soil boring
- Parcel boundary
- Cooling Tower #3 — Outlines of historical features with use/contents indicated
- Acetone / Acetonitrile
- Approximate location of former underground pipelines with a potential to have transported VOC-containing fluids

N

0 100 200

Scale in Feet

SAMPLING LOCATIONS AND HISTORICAL FEATURES
Parcel No. 7351-033-040

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil Gas (<= 15')	SGL0157	6.50	04/15/93	VOCs	Benzene	0.050 ppmv	
					Ethylbenzene	0.11 ppmv	
					Toluene	0.080 ppmv	
					Xylenes (Total)	0.070 ppmv	
	SGL0158	6.50	04/15/93	VOCs	Benzene	0.070 ppmv	
					Ethylbenzene	0.18 ppmv	
					Toluene	0.090 ppmv	
					Xylenes (Total)	0.080 ppmv	
	SGL0159	6.50	04/15/93	VOCs	Ethylbenzene	0.10 ppmv	
					Toluene	0.090 ppmv	
					Xylenes (Total)	0.070 ppmv	
	SGL0178	6.50	04/20/93	VOCs		All ND	
	SGL0179	6.50	04/20/93	VOCs		All ND	
Shallow Soil (<= 15')	SSL0037	0.50	06/16/93	SVOCs/PAHs		All ND	
				Pest./PCBs	4,4'-DDD	0.016 mg/kg	
					4,4'-DDE	0.016 mg/kg	
					4,4'-DDT	0.075 mg/kg	
					Dieldrin	0.010 mg/kg	
				Metals	Al	15,000 mg/kg	
					As	**14 mg/kg**	**Background (10)**
					Ba	140 mg/kg	
					Be	0.56 mg/kg	
					Ca	9,700 mg/kg	
					Cd	6.8 mg/kg	
					Co	9.6 mg/kg	
					Cr	18 mg/kg	
					Cu	42 mg/kg	
					Fe	24,000 mg/kg	
					K	3,000 mg/kg	
					Mg	6,800 mg/kg	
					Mn	390 mg/kg	
					Na	510 mg/kg	
					Ni	14 mg/kg	
					Pb	13 mg/kg	
					V	38 mg/kg	
					Zn	56 mg/kg	
				Cyanide	Cyanide	ND	

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SSL0038	0.50	06/16/93	SVOCs/PAHs		All ND	
				Pest./PCBs	4,4'-DDD	0.016 mg/kg	
					4,4'-DDE	0.016 mg/kg	
					4,4'-DDT	0.075 mg/kg	
					Dieldrin	0.010 mg/kg	
				Metals	Al	15,000 mg/kg	
					As	**14 mg/kg**	**Background (10)**
					Ba	140 mg/kg	
					Be	0.56 mg/kg	
					Ca	9,700 mg/kg	
					Cd	6.8 mg/kg	
					Co	9.6 mg/kg	
					Cr	18 mg/kg	
					Cu	42 mg/kg	
					Fe	24,000 mg/kg	
					K	3,000 mg/kg	
					Mg	6,800 mg/kg	
					Mn	390 mg/kg	
					Na	510 mg/kg	
					Ni	14 mg/kg	
					Pb	13 mg/kg	
					V	38 mg/kg	
					Zn	56 mg/kg	
				Cyanide	Cyanide	ND	
	SSL0043	0.50	06/16/93	SVOCs/PAHs		All ND	
				Pest./PCBs	4,4'-DDD	0.020 mg/kg	
					4,4'-DDE	0.038 mg/kg	
					4,4'-DDT	0.057 mg/kg	
				Metals	Al	15,000 mg/kg	
					As	5.5 mg/kg	
					Ba	130 mg/kg	
					Be	0.52 mg/kg	
					Ca	6,600 mg/kg	
					Cd	6.9 mg/kg	
					Co	9.2 mg/kg	
					Cr	19 mg/kg	
					Cu	22 mg/kg	

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SSL0043	0.50	06/16/93	Metals	Fe	23,000 mg/kg	
					K	3,400 mg/kg	
					Mg	6,100 mg/kg	
					Mn	350 mg/kg	
					Na	270 mg/kg	
					Ni	14 mg/kg	
					Pb	37 mg/kg	
					V	37 mg/kg	
					Zn	62 mg/kg	
				Cyanide	Cyanide	ND	
	SSL0044	0.50	06/16/93	SVOCs/PAHs		All ND	
				Pest./PCBs	4,4'-DDD	0.020 mg/kg	
					4,4'-DDE	0.038 mg/kg	
					4,4'-DDT	0.057 mg/kg	
				Metals	Al	15,000 mg/kg	
					As	5.5 mg/kg	
					Ba	130 mg/kg	
					Be	0.52 mg/kg	
					Ca	6,600 mg/kg	
					Cd	6.9 mg/kg	
					Co	9.2 mg/kg	
					Cr	19 mg/kg	
					Cu	22 mg/kg	
					Fe	23,000 mg/kg	
					K	3,400 mg/kg	
					Mg	6,100 mg/kg	
					Mn	350 mg/kg	
					Na	270 mg/kg	
					Ni	14 mg/kg	
					Pb	37 mg/kg	
					V	37 mg/kg	
					Zn	62 mg/kg	
				Cyanide	Cyanide	ND	
	SSL0046	0.50	06/16/93	SVOCs/PAHs		All ND	
				Pest./PCBs	4,4'-DDD	0.020 mg/kg	
					4,4'-DDE	0.038 mg/kg	
					4,4'-DDT	0.057 mg/kg	

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SSL0046	0.50	06/16/93	Metals	Al	15,000 mg/kg	
					As	5.5 mg/kg	
					Ba	130 mg/kg	
					Be	0.52 mg/kg	
					Ca	6,600 mg/kg	
					Cd	6.9 mg/kg	
					Co	9.2 mg/kg	
					Cr	19 mg/kg	
					Cu	22 mg/kg	
					Fe	23,000 mg/kg	
					K	3,400 mg/kg	
					Mg	6,100 mg/kg	
					Mn	350 mg/kg	
					Na	270 mg/kg	
					Ni	14 mg/kg	
					Pb	37 mg/kg	
					V	37 mg/kg	
					Zn	62 mg/kg	
				Cyanide	Cyanide	ND	
Deep Soil (> 15')	SBL0019	47.0	11/30/92	Physical Properties	PAN	0.53 %	
					0.037MM_SIEVE	0.88 %	
					0.044MM_SIEVE	4.59 %	
					0.063MM_SIEVE	15.80 %	
					0.088MM_SIEVE	19.86 %	
					0.125MM_SIEVE	30.54 %	
					0.177MM_SIEVE	15.27 %	
					0.250MM_SIEVE	5.91 %	
					0.354MM_SIEVE	2.82 %	
					0.500MM_SIEVE	1.77 %	
					0.707MM_SIEVE	1.15 %	
					1.000MM_SIEVE	0.71 %	
					1.414MM_SIEVE	0.18 %	
		48.5	11/30/92	Physical Properties	Bulk Density H	1.56 g/cc	
					Bulk Density V	1.59 g/cc	
					Grain Density H	2.61 g/cc	
					Grain Density V	2.59 g/cc	
					Porosity H	40.00 %vb	

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Deep Soil (> 15')	SBL0019	48.5	11/30/92	Physical Properties	Porosity V	38.79 %vb	
					Effective Porosity H	8.2 %vb	
					Effective Porosity V	6.39 %vb	
					Moisture Content	30.7 %wt	
		123	12/01/92	Physical Properties	Bulk Density H	1.85 g/cc	
					Bulk Density V	1.80 g/cc	
					Grain Density H	2.61 g/cc	
					Grain Density V	2.58 g/cc	
					Porosity H	29.19 %vb	
					Porosity V	30.43 %vb	
					Effective Porosity H	10.24 %vb	
					Effective Porosity V	12.49 %vb	
					Native State Air Permeability H	13.8 md	
					Native State Air Permeability V	7.27 md	
					Water Permeability H	3.27 md	
					Water Permeability V	1.34 md	
		123	12/01/92	Physical Properties	PAN	0.30 %	
					0.037MM_SIEVE	0.35 %	
					0.044MM_SIEVE	1.77 %	
					0.063MM_SIEVE	34.63 %	
					0.088MM_SIEVE	13.77 %	
					0.125MM_SIEVE	21.39 %	
					0.177MM_SIEVE	8.22 %	
					0.250MM_SIEVE	9.93 %	
					0.354MM_SIEVE	6.32 %	
					0.500MM_SIEVE	2.48 %	
					0.707MM_SIEVE	0.59 %	
					1.000MM_SIEVE	0.24 %	
		128	12/01/92	Physical Properties	Bulk Density H	1.35 g/cc	
					Bulk Density V	1.27 g/cc	
					Grain Density H	2.72 g/cc	
					Grain Density V	2.62 g/cc	
					Porosity H	44.80 %vb	
					Porosity V	51.34 %vb	
					Effective Porosity H	7.76 %vb	
					Effective Porosity V	7.27 %vb	
					PAN	5.51 %	

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SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Deep Soil (> 15')	SBL0019	128	12/01/92	Physical Properties	0.020MM_SIEVE	7.81 %	
					0.030MM_SIEVE	31.33 %	
					0.037MM_SIEVE	38.24 %	
					0.053MM_SIEVE	8.71 %	
					0.074MM_SIEVE	0.90 %	
					0.105MM_SIEVE	0.50 %	
					0.149MM_SIEVE	0.70 %	
					0.210MM_SIEVE	0.60 %	
					0.300MM_SIEVE	1.00 %	
					0.420MM_SIEVE	0.80 %	
					0.590MM_SIEVE	1.50 %	
					0.840MM_SIEVE	1.60 %	
					1.190MM_SIEVE	0.50 %	
					2.380MM_SIEVE	0.30 %	
		160	12/01/92	Physical Properties	Bulk Density H	1.48 g/cc	
					Bulk Density V	1.75 g/cc	
					Grain Density H	2.59 g/cc	
					Grain Density V	2.62 g/cc	
					Porosity H	42.95 %vb	
					Porosity V	33.23 %vb	
					Effective Porosity H	10.26 %vb	
					Effective Porosity V	4.89 %vb	
		160	12/01/92	Physical Properties	PAN	1.06 %	
					0.020MM_SIEVE	3.95 %	
					0.030MM_SIEVE	9.73 %	
					0.037MM_SIEVE	24.66 %	
					0.053MM_SIEVE	3.08 %	
					0.074MM_SIEVE	5.30 %	
					0.105MM_SIEVE	6.17 %	
					0.149MM_SIEVE	9.54 %	
					0.210MM_SIEVE	11.46 %	
					0.300MM_SIEVE	12.04 %	
					0.420MM_SIEVE	7.23 %	
					0.590MM_SIEVE	3.47 %	
					0.840MM_SIEVE	1.35 %	
					1.190MM_SIEVE	0.96 %	
		168	12/02/92	Physical Properties	PAN	0.61 %	

SUMMARY OF ANALYTICAL DATA
PARCEL 7351-033-040

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Deep Soil (> 15')	SBL0019	168	12/02/92	Physical Properties	0.037MM_SIEVE	0.52 %	
					0.044MM_SIEVE	2.00 %	
					0.063MM_SIEVE	5.30 %	
					0.088MM_SIEVE	26.48 %	
					0.125MM_SIEVE	46.44 %	
					0.177MM_SIEVE	16.75 %	
					0.250MM_SIEVE	0.69 %	
					0.354MM_SIEVE	0.43 %	
					0.500MM_SIEVE	0.26 %	
					0.707MM_SIEVE	0.52 %	
		169	12/02/92	Physical Properties	Bulk Density H	1.49 g/cc	
					Bulk Density V	1.52 g/cc	
					Grain Density H	2.58 g/cc	
					Grain Density V	2.59 g/cc	
					Porosity H	42.35 %vb	
					Porosity V	41.27 %vb	
					Effective Porosity H	18.73 %vb	
					Effective Porosity V	14.46 %vb	
					Air Permeability H	1.7E-05 cm/s	
					Air Permeability V	5.8E-06 cm/s	
					Native State Air Permeability H	260.00 md	
					Native State Air Permeability V	88.3 md	
					Hydraulic Conductivity H	1.5E-04 cm/s	
					Hydraulic Conductivity V	9.8E-05 cm/s	
					Water Permeability H	170 md	
					Water Permeability V	110 md	

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