

MAGELLAN DRIVE

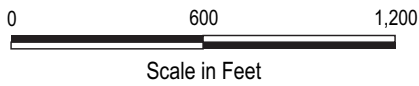
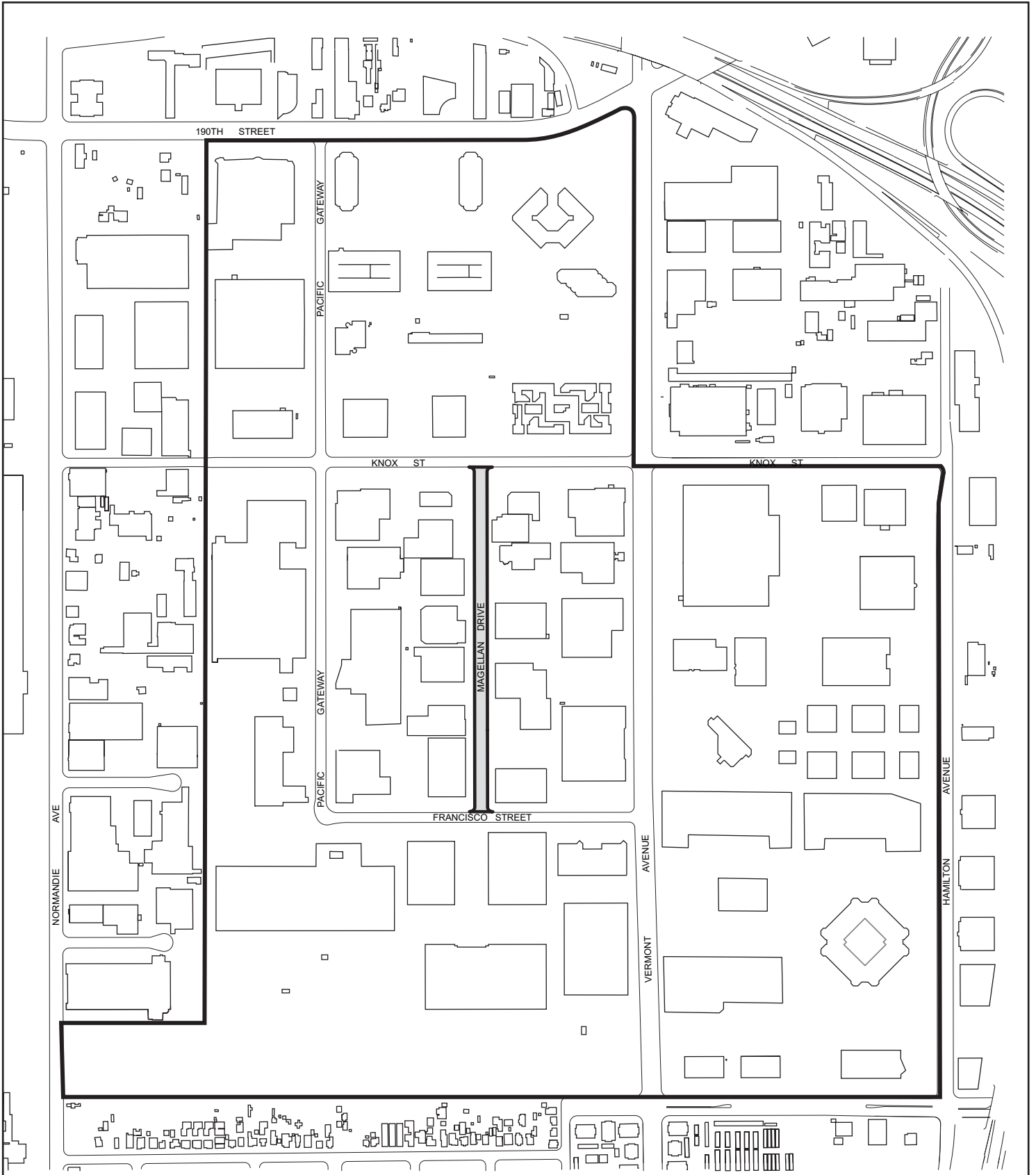
Magellan Drive is located within the central portion of the former Styrene Plancor. Styrene was manufactured within the plancor as a component of synthetic rubber. The street transects, from north to south, a former styrene finishing (purification) unit, a styrene production and propane cracking unit, and ethylbenzene production unit. Styrene finishing is inferred to be a purification process accomplished through fractionation. By-products of the styrene finishing process may have included heavy oils, tar, and coke. These wastes were disposed of in the Waste Pit Area approximately 1,800 feet south of the parcel area, or recycled and used as boiler fuel.

Production of styrene occurred through dehydrogenation of ethylbenzene. Thermal cracking of propane resulted in the production of ethylene, which was combined with benzene in a separate process area at the south end of the street segment to produce ethylbenzene. The ethylbenzene was then purified through settling and fractionation processes.

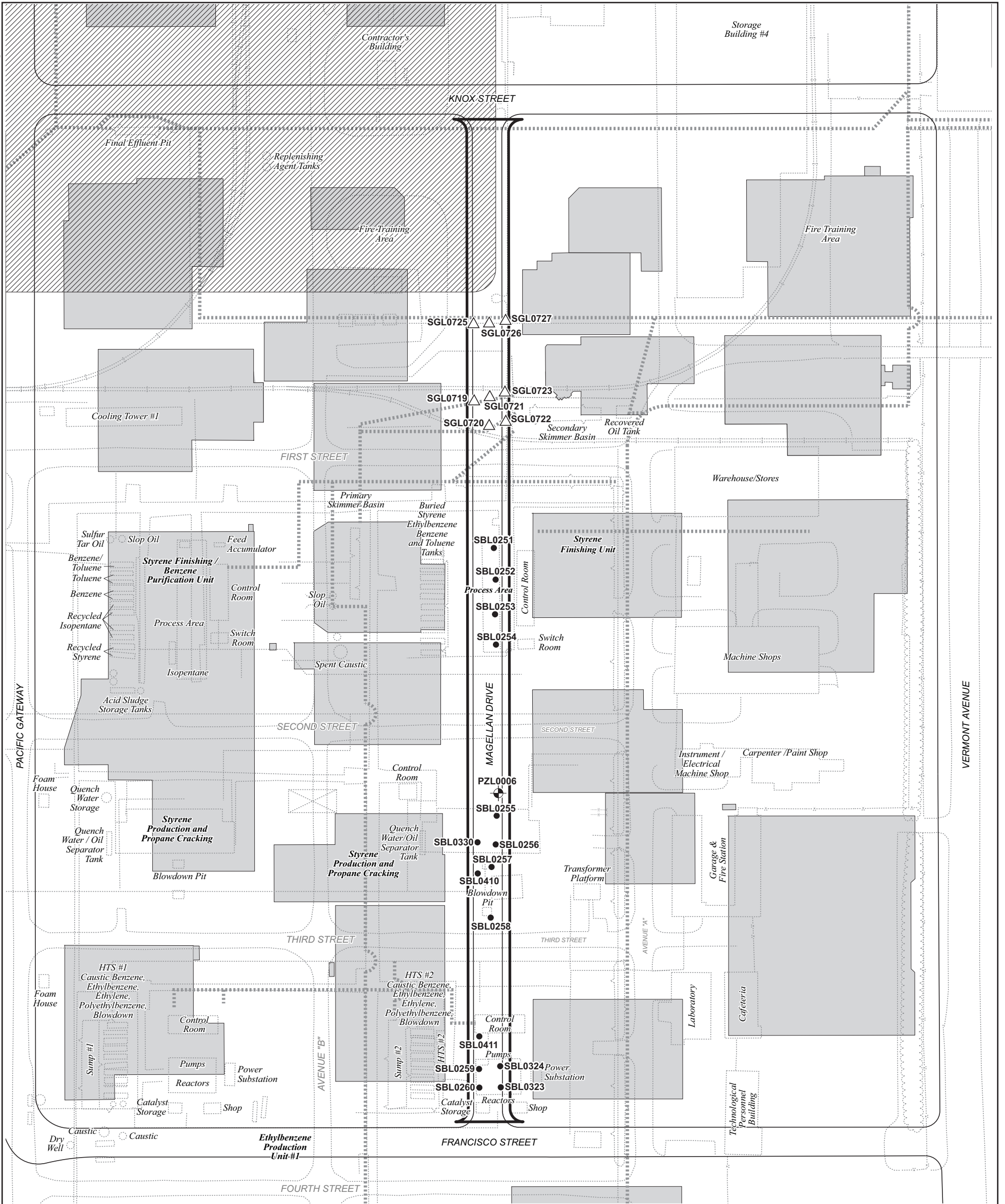
Former plancor facilities within the street segment are as follows:

- A styrene finishing unit process area;
- A styrene production and propane cracking process area;
- Two blowdown pits;
- Control room and pumps/reactors buildings associated with the ethylbenzene production area;
- A small catalyst storage building; and,
- Underground pipelines used for transport of surface runoff water and/or wastewater.









In addition to the above, the north end of the street segment partially overlaps with a stained area that is apparent on some historical aerial photographs taken during the operational period of the plancor. There is no documentation to indicate the nature of the staining material, but carbon black storage facilities were within the stained area (but not on the parcel). Carbon black is soot, and was used as reinforcing filler in the rubber to improve its durability.



**LOCATION MAP
Magellan Drive**



Legend

-  Soil gas sampling location
-  Soil boring
-  Groundwater monitoring well
-  Parcel boundary
-  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
-  Approximate former location of persistent soil staining



Scale in Feet

**SAMPLING LOCATIONS AND HISTORICAL FEATURES
Magellan Drive**



**SUMMARY OF ANALYTICAL DATA
PARCEL Magellan Dr**

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil Gas (<= 15')	SGL0719	7.00	03/31/94	VOCs	Benzene	0.52 ppmv	
					Ethylbenzene	2.1 ppmv	
					Toluene	0.15 ppmv	
	SGL0720	7.00	03/31/94	VOCs		All ND	
	SGL0721	7.00	03/31/94	VOCs	Tetrachloroethene	0.027 ppmv	
	SGL0722	7.00	03/31/94	VOCs		All ND	
	SGL0723	7.00	03/31/94	VOCs		All ND	
	SGL0725	7.00	04/01/94	VOCs		All ND	
	SGL0726	7.00	04/01/94	VOCs	Freon 113	2.5 ppmv	
SGL0727	7.00	04/01/94	VOCs		All ND		
Shallow Soil (<= 15')	SBL0251	3.50	04/14/03	VOCs	Acetone	0.021 mg/kg	
				SVOCs/PAHs	Acenaphthene	0.0025 mg/kg	
					Acenaphthylene	0.003 mg/kg	
					Anthracene	0.029 mg/kg	
					Benzo(a)anthracene	0.015 mg/kg	
					Benzo(a)pyrene	0.01 mg/kg	
					Benzo(b)fluoranthene	0.034 mg/kg	
					Benzo(g,h,i)perylene	0.0067 mg/kg	
					Benzo(k)fluoranthene	0.013 mg/kg	
					Chrysene	0.038 mg/kg	
					Dibenzo(a,h)anthracene	0.026 mg/kg	
					Fluoranthene	0.04 mg/kg	
					Fluorene	0.0091 mg/kg	
					Indeno(1,2,3-c,d)pyrene	0.0063 mg/kg	
	Naphthalene	0.0047 mg/kg					
	Phenanthrene	0.079 mg/kg					
	Pyrene	0.035 mg/kg					
	SBL0252	5.50	04/14/03	SVOCs/PAHs	Anthracene	0.0028 mg/kg	
					Benzo(a)anthracene	0.0006 mg/kg	
					Benzo(b)fluoranthene	0.00069 mg/kg	
Benzo(k)fluoranthene					0.0005 mg/kg		
Chrysene					0.00092 mg/kg		
Dibenzo(a,h)anthracene					0.00028 mg/kg		
Fluoranthene					0.0034 mg/kg		
Fluorene					0.0011 mg/kg		
Naphthalene					0.0011 mg/kg		
Phenanthrene	0.012 mg/kg						

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PARCEL Magellan Dr

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SBL0252	5.50	04/14/03	SVOCs/PAHs	Pyrene	0.0019 mg/kg	
		8.00	04/14/03	VOCs		All ND	
Shallow Soil (<= 15')	SBL0253	6.00	04/14/03	VOCs	Benzene	6.4 mg/kg	Residential PRG (0.60)
					Ethylbenzene	170 mg/kg	Residential PRG (8.9)
					Styrene	13 mg/kg	
					Toluene	34 mg/kg	
				SVOCs/PAHs	2-Methylnaphthalene	0.015 mg/kg	
					Acenaphthene	0.0036 mg/kg	
					Acenaphthylene	0.004 mg/kg	
					Anthracene	0.018 mg/kg	
					Benzo(a)anthracene	0.0049 mg/kg	
					Benzo(a)pyrene	0.0038 mg/kg	
					Benzo(b)fluoranthene	0.0057 mg/kg	
					Benzo(g,h,i)perylene	0.0018 mg/kg	
					Benzo(k)fluoranthene	0.0039 mg/kg	
					Chrysene	0.011 mg/kg	
					Dibenzo(a,h)anthracene	0.0037 mg/kg	
					Fluoranthene	0.019 mg/kg	
					Fluorene	0.015 mg/kg	
					Indeno(1,2,3-c,d)pyrene	0.0018 mg/kg	
					Naphthalene	0.036 mg/kg	
					Phenanthrene	0.16 mg/kg	
Pyrene	0.015 mg/kg						
Shallow Soil (<= 15')	SBL0254	10.0	04/14/03	VOCs	Benzene	0.77 mg/kg	Residential PRG (0.60)
					Ethylbenzene	14 mg/kg	Residential PRG (8.9)
				SVOCs/PAHs	Benzo(a)anthracene	0.001 mg/kg	
					Benzo(a)pyrene	0.00069 mg/kg	
					Benzo(b)fluoranthene	0.0011 mg/kg	
					Benzo(g,h,i)perylene	0.00071 mg/kg	
					Benzo(k)fluoranthene	0.0012 mg/kg	
					Chrysene	0.0012 mg/kg	
					Fluoranthene	0.0014 mg/kg	
					Fluorene	0.017 mg/kg	
					Indeno(1,2,3-c,d)pyrene	0.0012 mg/kg	
					Naphthalene	0.00047 mg/kg	
					Phenanthrene	0.0075 mg/kg	
					Pyrene	0.0012 mg/kg	

SUMMARY OF ANALYTICAL DATA
PARCEL Magellan Dr

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SBL0255	1.50	04/14/03	SVOCs/PAHs	2-Methylnaphthalene	0.064 mg/kg	
					Acenaphthylene	0.13 mg/kg	
					Anthracene	0.029 mg/kg	
					Benzo(a)anthracene	0.092 mg/kg	
					Benzo(a)pyrene	0.095 mg/kg	
					Benzo(b)fluoranthene	0.13 mg/kg	
					Benzo(g,h,i)perylene	0.07 mg/kg	
					Benzo(k)fluoranthene	0.085 mg/kg	
					Chrysene	0.13 mg/kg	
					Dibenzo(a,h)anthracene	0.019 mg/kg	
					Fluoranthene	0.13 mg/kg	
					Indeno(1,2,3-c,d)pyrene	0.066 mg/kg	
					Naphthalene	0.015 mg/kg	
					Phenanthrene	0.1 mg/kg	
Pyrene	0.18 mg/kg						
	7.00	04/14/03	VOCs		All ND		
SBL0256	1.50	04/14/03	SVOCs/PAHs	2-Methylnaphthalene	0.032 mg/kg		
				Benzo(a)anthracene	0.037 mg/kg		
				Benzo(a)pyrene	0.039 mg/kg		
				Benzo(b)fluoranthene	0.056 mg/kg		
				Benzo(g,h,i)perylene	0.053 mg/kg		
				Benzo(k)fluoranthene	0.049 mg/kg		
				Chrysene	0.14 mg/kg		
				Fluoranthene	0.049 mg/kg		
				Phenanthrene	0.13 mg/kg		
				Pyrene	0.14 mg/kg		
	6.90	04/14/03	VOCs		All ND		
SBL0257	1.50	04/15/03	SVOCs/PAHs	2-Methylnaphthalene	0.098 mg/kg		
				Acenaphthene	0.01 mg/kg		
				Acenaphthylene	0.14 mg/kg		
				Anthracene	0.043 mg/kg		
				Benzo(a)anthracene	0.14 mg/kg		
				Benzo(a)pyrene	0.064 mg/kg		
				Benzo(b)fluoranthene	0.11 mg/kg		
				Benzo(g,h,i)perylene	0.048 mg/kg		
				Benzo(k)fluoranthene	0.091 mg/kg		
Chrysene	0.26 mg/kg						

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Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SBL0257	1.50	04/15/03	SVOCs/PAHs	Dibenzo(a,h)anthracene	0.023 mg/kg	
					Fluoranthene	0.39 mg/kg	
					Fluorene	0.011 mg/kg	
					Indeno(1,2,3-c,d)pyrene	0.048 mg/kg	
					Naphthalene	0.02 mg/kg	
					Phenanthrene	0.29 mg/kg	
					Pyrene	0.73 mg/kg	
		6.50	04/15/03	VOCs		All ND	
	SBL0258	1.50	04/15/03	SVOCs/PAHs	2-Methylnaphthalene	0.026 mg/kg	
					Acenaphthylene	0.044 mg/kg	
					Anthracene	0.023 mg/kg	
					Benzo(a)anthracene	0.05 mg/kg	
					Benzo(a)pyrene	0.033 mg/kg	
					Benzo(b)fluoranthene	0.053 mg/kg	
					Benzo(g,h,i)perylene	0.018 mg/kg	
Benzo(k)fluoranthene					0.037 mg/kg		
Chrysene					0.11 mg/kg		
Dibenzo(a,h)anthracene					0.0089 mg/kg		
Fluoranthene					0.12 mg/kg		
Indeno(1,2,3-c,d)pyrene					0.022 mg/kg		
Naphthalene					0.0064 mg/kg		
Phenanthrene		0.11 mg/kg					
Pyrene	0.28 mg/kg						
	6.50	04/15/03	VOCs		All ND		
SBL0260	3.50	04/15/03	VOCs	Ethylbenzene	1.2 mg/kg		
				sec-Butylbenzene	0.81 mg/kg		
		3.50	04/15/03	SVOCs/PAHs	Acenaphthene	0.0062 mg/kg	
	Benzo(a)anthracene				0.0032 mg/kg		
	Benzo(a)pyrene				0.0025 mg/kg		
	Benzo(b)fluoranthene				0.005 mg/kg		
	Benzo(g,h,i)perylene				0.00056 mg/kg		
	Benzo(k)fluoranthene				0.0039 mg/kg		
	Chrysene				0.0072 mg/kg		
	Fluoranthene				0.0066 mg/kg		
	Indeno(1,2,3-c,d)pyrene				0.0011 mg/kg		
	Naphthalene				0.00059 mg/kg		
	Phenanthrene				0.00063 mg/kg		

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Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Shallow Soil (<= 15')	SBL0260	3.50	04/15/03	SVOCs/PAHs	Pyrene	0.015 mg/kg	
	SBL0323	4.50	05/15/03	VOCs	Benzene	0.0088 mg/kg	
					Ethylbenzene	0.0024 mg/kg	
					SVOCs/PAHs	2-Methylnaphthalene	0.0051 mg/kg
				Acenaphthene	0.0013 mg/kg		
				Acenaphthylene	0.006 mg/kg		
				Anthracene	0.0076 mg/kg		
				Benzo(a)anthracene	0.0056 mg/kg		
				Benzo(a)pyrene	0.0041 mg/kg		
				Benzo(b)fluoranthene	0.0026 mg/kg		
				Benzo(k)fluoranthene	0.0018 mg/kg		
				Chrysene	0.0076 mg/kg		
				Dibenzo(a,h)anthracene	0.00041 mg/kg		
				Fluoranthene	0.01 mg/kg		
				Fluorene	0.0046 mg/kg		
				Indeno(1,2,3-c,d)pyrene	0.00081 mg/kg		
	Naphthalene	0.0012 mg/kg					
	Phenanthrene	0.027 mg/kg					
	Pyrene	0.032 mg/kg					
	SBL0324	5.50	05/15/03	VOCs	Ethylbenzene	0.21 mg/kg	
					Isopropylbenzene	0.0077 mg/kg	
					n-Propylbenzene	0.0052 mg/kg	
					sec-Butylbenzene	0.047 mg/kg	
				SVOCs/PAHs	2-Methylnaphthalene	0.00051 mg/kg	
					Acenaphthylene	0.00094 mg/kg	
					Anthracene	0.0017 mg/kg	
					Chrysene	0.00043 mg/kg	
					Fluoranthene	0.00056 mg/kg	
					Phenanthrene	0.00033 mg/kg	
	Pyrene	0.00093 mg/kg					
	SBL0330	2.50	05/15/03	SVOCs/PAHs	2-Methylnaphthalene	1.1 mg/kg	
					Acenaphthene	0.79 mg/kg	
					Acenaphthylene	0.54 mg/kg	
Anthracene					1.9 mg/kg		
Benzo(a)anthracene					3.9 mg/kg	Industrial PRG (2.1)	
Benzo(a)pyrene					2.6 mg/kg	Industrial PRG (0.21)	
Benzo(b)fluoranthene					1.2 mg/kg		

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PARCEL Magellan Dr**

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded	
Shallow Soil (<= 15')	SBL0330	2.50	05/15/03	SVOCs/PAHs	Benzo(g,h,i)perylene	0.66 mg/kg		
					Benzo(k)fluoranthene	1.4 mg/kg	Industrial PRG (1.3)	
					Chrysene	4.6 mg/kg		
					Dibenzo(a,h)anthracene	0.15 mg/kg		
					Fluoranthene	6.6 mg/kg		
					Fluorene	3.6 mg/kg		
					Indeno(1,2,3-c,d)pyrene	0.52 mg/kg		
					Naphthalene	0.98 mg/kg		
					Phenanthrene	27 mg/kg		
	Pyrene	16 mg/kg						
		8.50	05/15/03	VOCs	Naphthalene	0.014 mg/kg		
					Tetrachloroethene	0.0019 mg/kg		
		SBL0410	2.50	09/03/03	SVOCs/PAHs	2-Methylnaphthalene	0.015 mg/kg	
						Acenaphthene	0.0055 mg/kg	
						Acenaphthylene	0.024 mg/kg	
						Anthracene	0.019 mg/kg	
						Benzo(a)anthracene	0.047 mg/kg	
						Benzo(a)pyrene	0.022 mg/kg	
						Benzo(b)fluoranthene	0.014 mg/kg	
	Benzo(g,h,i)perylene					0.015 mg/kg		
	Benzo(k)fluoranthene					0.021 mg/kg		
	Chrysene					0.05 mg/kg		
	Dibenzo(a,h)anthracene					0.008 mg/kg		
	Fluoranthene					0.07 mg/kg		
	Fluorene					0.019 mg/kg		
	Indeno(1,2,3-c,d)pyrene					0.012 mg/kg		
	Naphthalene	0.025 mg/kg						
	Phenanthrene	0.23 mg/kg						
	Pyrene	0.16 mg/kg						
	SBL0411	7.20	09/03/03	VOCs		All ND		
Deep Soil (> 15')	SBL0259	16.0	04/15/03	VOCs	Benzene	6.1 mg/kg	Residential PRG (0.60)	
				SVOCs/PAHs		All ND		
Groundwater - Water Table	PZL0006	NA	04/01/93	VOCs	Benzene	46 ug/l	CA MCL (1)	
					Ethylbenzene	490 ug/l		
					Styrene	14 ug/l		
					Tetrachloroethene	45 ug/l	CA MCL (5)	
					Toluene	8.0 ug/l		

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PARCEL Magellan Dr**

Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Groundwater - Water Table	PZL0006	NA	04/01/93	VOCs	Trichloroethene	18 ug/l	CA MCL (5)
					Xylenes (Total)	36 ug/l	
			10/17/95	VOCs	Benzene	900 ug/l	CA MCL (1)
					Ethylbenzene	2,300 ug/l	CA MCL (700)
					Naphthalene	72 ug/l	
					Tetrachloroethene	31 ug/l	CA MCL (5)
					Toluene	33 ug/l	
					Trichloroethene	23 ug/l	CA MCL (5)
			02/12/96	VOCs	Benzene	420 ug/l	CA MCL (1)
					Ethylbenzene	3,200 ug/l	CA MCL (700)
					Naphthalene	49 ug/l	
					Tetrachloroethene	23 ug/l	CA MCL (5)
					Toluene	30 ug/l	
					Trichloroethene	19 ug/l	CA MCL (5)
			06/07/96	VOCs	Benzene	97 ug/l	CA MCL (1)
					Cyclohexane	24 ug/l	
					Ethylbenzene	950 ug/l	CA MCL (700)
					Naphthalene	26 ug/l	
					Tetrachloroethene	16 ug/l	CA MCL (5)
					Trichloroethene	13 ug/l	CA MCL (5)
			10/16/96	VOCs	Benzene	23 ug/l	CA MCL (1)
					Ethylbenzene	1,500 ug/l	CA MCL (700)
					Tetrachloroethene	21 ug/l	CA MCL (5)
			02/03/97	VOCs	Benzene	61 ug/l	CA MCL (1)
					Ethylbenzene	1,500 ug/l	CA MCL (700)
					Naphthalene	17 ug/l	
					Tetrachloroethene	18 ug/l	CA MCL (5)
			03/18/98	VOCs	Benzene	16 ug/l	CA MCL (1)
					Cyclohexane	29 ug/l	
					Ethylbenzene	230 ug/l	
Naphthalene	2.8 ug/l						
Tetrachloroethene	8.6 ug/l	CA MCL (5)					
Toluene	1.7 ug/l						
Trichloroethene	4.6 ug/l						
cis-1,2-Dichloroethene	7.0 ug/l	CA MCL (6)					
02/08/99	VOCs	Benzene	5.9 ug/l	CA MCL (1)			
		Ethylbenzene	250 ug/l				

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Sample Media	Location	Depth (ft. bgs)	Date	Analysis Class	Analyte	Concentration	Screening Criteria Exceeded
Groundwater - Water Table	PZL0006	NA	02/08/99	VOCs	Naphthalene	3.7 ug/l	
					Tetrachloroethene	5.8 ug/l	CA MCL (5)
					cis-1,2-Dichloroethene	8.6 ug/l	CA MCL (6)
		07/31/00	VOCs	1,1-Dichloroethene	1.1 ug/l		
				Benzene	7.6 ug/l	CA MCL (1)	
				Ethylbenzene	340 ug/l		
				Naphthalene	2.7 ug/l		
				Tetrachloroethene	4.8 ug/l		
				Trichloroethene	3.9 ug/l		
				cis-1,2-Dichloroethene	11 ug/l	CA MCL (6)	
				sec-Butylbenzene	1.7 ug/l		
		01/29/04	VOCs	Benzene	6.9 ug/l	CA MCL (1)	
				Ethylbenzene	260 ug/l		
				Naphthalene	3.7 ug/l		
				Tetrachloroethene	4.8 ug/l		
Trichloroethene	3.6 ug/l						
Xylenes (Total)	3.2 ug/l						
cis-1,2-Dichloroethene	8.6 ug/l			CA MCL (6)			
sec-Butylbenzene	1.5 ug/l						