

**Table 1. Soil Analytical Results - IEPA TACO Tier 1 SROs**

BNSF/North of Loewenthal Metals  
Chicago, Cook County, Illinois

All results are presented in milligrams/kilograms (mg/kg) unless otherwise noted

Analyses	Exposure Route-Specific Values for Soils <sup>1</sup>				TACO Soil Background Levels <sup>2</sup>	Sample ID, Sample Depth, and Sample Date					
	Residential	Industrial / Commercial	Construction Worker	Soil Component of the Groundwater Ingestion Route		GP-1	GP-1	GP-2	GP-2	GP-3	GP-3
						0-2'	2-4'	0-2'	2-4'	0-2'	2-4'
						6/21/2013					
PAHs	Ing / Inh	Ing / Inh	Ing / Inh	Class I / Class II	City of Chicago						
Acenaphthene	4,700 / NE	120,000 / NE	120,000 / NE	570 / 2,900	0.09	0.461	< 0.0408	0.114	0.0459	0.741	0.0394
Acenaphthylene <sup>3</sup>	2,300 / NE	61,000 / NE	61,000 / NE	85 / 420	0.03	0.379	0.0476	0.160	0.101	0.860	0.148
Anthracene	23,000 / NE	610,000 / NE	610,000 / NE	12,000 / 59,000	0.25	1.7	0.0879	0.488	0.223	4.17	0.162
Benzo(a)anthracene	0.9 / NE	8 / NE	170 / NE	2 / 8	1.1	7.38	0.324	2.02	0.787	18.0	1.74
Benzo(a)pyrene	0.09 / NE	0.8 / NE	17 / NE	8 / 82	1.3	6.81	0.282	1.53	0.683	15.6	1.50
Benzo(b)fluoranthene	0.9 / NE	8 / NE	170 / NE	5 / 25	1.5	12.1	0.602	3.66	1.50	32.9	2.60
Benzo(g,h,i)perylene <sup>3</sup>	2,300 / NE	61,000 / NE	61,000 / NE	27,000 / 130,000	0.68	3.37	0.107	0.517	0.261	5.49	0.447
Benzo(k)fluoranthene	9 / NE	78 / NE	1,700 / NE	49 / 250	0.99	< 0.0402	< 0.0408	< 0.0752	< 0.041	< 0.429	0.0394
Chrysene	88 / NE	780 / NE	17,000 / NE	160 / 800	1.2	6.72	0.341	2.00	0.868	16.9	1.73
Dibenzo(a,h)anthracene	0.09 / NE	0.8 / NE	17 / NE	2 / 7.6	0.2	1.11	< 0.0408	0.231	0.0841	1.74	0.135
Fluoranthene	3,100 / NE	82,000 / NE	82,000 / NE	4,300 / 21,000	2.7	12.2	0.589	4.05	1.43	37.2	1.67
Fluorene	3,100 / NE	82,000 / NE	82,000 / NE	560 / 2,800	0.1	0.432	< 0.0408	0.111	0.0491	0.998	0.0394
Indeno(1,2,3-cd)pyrene	0.9 / NE	8 / NE	170 / NE	14 / 69	0.86	3.12	0.115	0.545	0.252	5.42	0.391
Naphthalene	1,600 / NE	41,000 / 270	4,100 / 1.8	12 / 18	0.04	0.588	0.148	0.301	0.278	0.902	0.155
Phenanthrene <sup>3</sup>	2,300 / NE	61,000 / NE	61,000 / NE	210 / 1,100	1.3	6.17	0.454	2.12	1.11	16.7	0.393
Pyrene	2,300 / NE	61,000 / NE	61,000 / NE	4,200 / 21,000	1.9	8.35	0.486	2.80	1.05	25.6	3.06
Metals											
Arsenic	13.0 / 750	13.0 / 1,200	61 / 25,000	29	13.0	125	12.7	107	39.0	39.8	15.0
Barium	5,550 / 690,000	140,000 / 910,000	14,000 / 870,000	1,500	110	246	105	402	365	669	90.9
Cadmium	78 / 1,800	2,000 / 2,800	200 / 59,000	5.2	0.6	6.5	2.0	4.9	3.1	8.2	85.0
Chromium	230 / 270	6,100 / 420	4,100 / 690	32	16.2	28.1	10.6	25.2	20.3	26.9	15.6
Copper	2,900 / NE	82,000 / NE	8,200 / NE	59,000	19.6	347	60.2	324	256	409	64.9
Lead (Total)	400 / NE	800 / NE	700 / NE	107	36.0	1,040	109	1,220	1,130	3,190	169
Manganese	1,600 / 69,000	41,000 / 91,000	4,100 / 8,700	NE	636	397	156	400	294	396	348
Mercury	23 / 10	610 / 16	61 / 0.1	0.89	0.06	1.8	0.94	0.86	0.47	0.69	0.36
Selenium	390 / NE	10,000 / NE	1,000 / NE	303	0.48	1.9	< 1.8	< 1.7	< 1.8	2.2	< 3.5
Silver	390 / NE	10,000 / NE	1,000 / NE	4.4	0.6	< 0.83	< 0.82	< 0.81	< 0.83	0.92	< 0.81
Zinc	23,000 / NE	610,000 / NE	61,000 / NE	5,100	95.0	1,810	639	1,880	923	1,760	8,740
TCLP Lead (mg/L)				Class I / Class II							
Lead (TCLP)	5 mg/L <sup>5</sup>			0.0075 / 0.1	NE	< 0.50	< 0.50	< 0.50	< 0.50	49.8	< 0.50
pH						7.4	6.5	7.7	7.5	7.3	7.0

Notes: Refer to page 2 of 2

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**NOTES:**

	Soil depths are measured in feet below ground surface (bgs).
NE	Tier 1 objective not established in TACO.
TACO	Tiered Approach to Corrective Action Objectives
SROs	Soil remediation objectives
BTEX	Benzene, toluene, ethylbenzene, xylenes (total). Soil samples were collected and analyzed for BTEX using USEPA Methods 5035 and 8260.
PAHs	Polynuclear aromatic hydrocarbons. Soil samples were collected and analyzed for PAHs using USEPA Methods 3546, 8310 and 8270 by Selected Ion Monitoring.
<0.83	Analyte/compound not present at concentration above laboratory reporting limit.
<0.50	Laboratory reporting limit is above most stringent Tier 1 SRO.
<b>1.9</b>	Indicates detected concentration above the most stringent TACO Tier 1 SRO.
<sup>1</sup> Bolded remediation objective is the most stringent of the TACO Tier 1 remediation objectives for the soil ingestion, inhalation, and soil component of the groundwater ingestion exposure routes for industrial/commercial properties.	
<sup>2</sup> The values listed are the established background concentrations for background soils for sites in Chicago, IL (35 IAC 742, Appendix A, Table H).	
<sup>3</sup> Analyte/compound is not included as a TACO Tier 1 objective. Suggested values are taken from the IEPA's "Non-TACO Chemicals" (03/14/2011).	
<sup>4</sup> Selected pH-specific values for Class I metals represent the most stringent value associated with the range of observed pH values (6.5 to 7.7).	
<sup>5</sup> TACO Tier 1 SROs for soil ingestion and inhalation are not applicable to TCLP Lead. According to 40 CFR Part 261, the USEPA's Identification and Listing of Hazardous Waste, TCLP lead samples with concentrations greater than 5 mg/L will be classified as hazardous waste.	