Missouri Department of Natural Resources

TABLE 1: SELECTED ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED MAY 1, 2009
TANNERY SLUDGE FARM FIELDS SITE, COUNTY NAME, MISSOURI

- All values listed in parts per million (mg/kg) unless otherwise noted.
- NL denotes benchmark value not listed in reference source.
- NA denotes not applicable or not analyzed
- Sample results in bold are significantly[1] above background concentrations

Sample ID	SS-05	SS-01	SS-02		SS-03		SS-04	SS-06			SCDM[2]	MRBCA RBTL[3]			EPA SL[4]		TCLP[5] (mg/L)
Depth of Sample, in or ft	Background							0-2"	6-8"	10-12"		Res.	Non-Res	Migrn to GW	Res.	Ind.	
Sample Location Description		Composit e of sludge dumping area east of road	Composite of field west of road		Field nearest the road, south of road		Soil composite north boundary of property	Field east of edge of driveway									
Laboratory Number	0913583	0910052	0910053	EPA Split of 0910053	0910055	0910056 Duplicate of 0910055	0910063	0913584	0913585	0913586							
Metals																	
Aluminum	14,900.0	17,200.0	13,800.0	5,880	16,000.0	16,300.0	4,400.0	17,900.0	22,200.0	23,100.0	NL	75500	933000	137000	77332	100000	NL
Arsenic	8.28	8.63	7.45	<7.8	5.1	5.14	6.69	9.43	10.8	12.1	0.43	3.89	15.9	7.22	0.39	1.77	NL
Barium	204.0	206.0	215.0	437	183.0	177.0	108.0	215.0	217.0	254.0	5500	15000	181000	2040	15642	100000	NL
Barium, TCLP, mg/l	.87	.49	.35	<.749	.94	.8	.26	.88	1.23	.94	NL	NL	NL	NL	NL	NL	100
Beryllium	.642	.701	.59	<1.6	.702	.717	.192 (e)	.689	.854	.896	160	0.737	3.19	78.4	156	2156	NL
Cadmium	.339 (e)	.434 (e)	.606	10.8	.536	.518	.996	.431 (e)	.326 (e)	.241 (e)	39	16.8	74.8	9.32	39	564	NL
Chromium, total	20.1	**88.1**	**129.0**	**152 (g)**	45.6	44.7	**551.0**	**95.9**	32.7	26.9	230	74600	472000	4470000	210	500	NL
Cobalt	10.8	13.3 (f)	11.9	6.3	7.29	7.33	11.2	12.5	14.1	13.5	NL	NL	NL	NL	900	2130	NL
Hexavalent Chromium	<14.0 (a)	<13.0 (a)	**22.0 (a)**	<1.6	**20.0 (a)**	**49.0 (a)**	**16.0 (a)**	<5.1 (a)	**29.0 (a)**	**28.0 (a)**	230	0.147	0.639	0.0016	30	71	NL
Lead	18.2	17.2 (f)	22.4	17	12.7	12.7	20.4	15.3	15.8	14.4	NL	260	660	3.76	400	800	NL
Manganese	561.0	672.0	635.0	417	394.0	388.0	473.0	652.0	786.0	767.0	11000	9680	96700	2720	3470	35000	NL
Mercury	.0206	.05	.037	0.0315	.0128	.0147	.018	.0196	.0265	.0283	23	46.3	630	NL	23	340	NL
Molybdenum-TCLP	.412 (e)	**1.42**	**2.66**	NA	.377 (e)	.364 (e)	**7.0**	1.02	.648	.622	NL	NL	NL	NL	NL	NL	NL
Zinc	76.9	83.5	121.0	166	67.7	67.1	**232.0**	80.9	67.1	66.0	23000	22800	288000	7220	23500	100000	NL

[1] Above the PQL when background concentration is < PQL, or three times the background concentration when contaminant is detected in background sample.

[2] SCDM - Superfund Chemical Data Matrix, January 28, 2004, lower of reference dose and cancer risk benchmarks for soil pathway

[3] MRBCA RBTL- Missouri Risk-Based Corrective Action Risk-Based Target Level, June 2006. RBTLs are for soil type 2 (silty), residential and non-residential land use, and soil concentrations protective of groundwater.

[4] EPA SL - EPA Region 6 Screening Levels, March 8, 2008, residential and industrial use.

[5] TCLP - Toxicity Characteristic Leaching Procedure regulatory limit, 40 CFR Part 261, Subpart C.

a - Analyzed by colorimetric method (SW846 7196A)

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

g - Estimated value, actualy concentration may be higher than reported

TABLE 2: SELECTED ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED APRIL 29, 2009
NATIONAL BEEF FACILITY SITE, BUCHANAN COUNTY, MISSOURI

● All values listed in parts per million (mg/kg) unless otherwise noted. NA - Not Analyzed
● NL denotes benchmark value not listed in reference source.

Sample ID	SS01		SS02	SS03	SS04	SS05		SS06		SS07													SCDM[2]	MRBCA RBTL[3]			EPA SL[4]		TCLP[5] (mg/L)
Sample Collected By	MDNR	MDNR	MDNR	MDNR	MDNR	MDNR	EPA	MDNR	EPA	MDNR	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA							
Sample Location Description	Grab of sludge from belt press in shed		Composite of dark colored sludge from shed in NE corner of property	Grab of light colored sludge in back of NE corner of shed	Composite of light colored sludge in back of NE corner of shed	Grab of blue/green sludge from shavings pit near loading area	Grab of blue/green sludge from shavings pit near loading area	Composite of blue/green sludge from shavings pit near loading area	Composite of blue/green sludge from shavings pit near loading area	Composite of brown & blue/green sludge mix from shavings pit near loading area	Filter Cake collected off running filter press	Composite sludge from storage bin	Chrome tanning solution (liquid)	Chrome tanning solution (liquid)	Dumpster solid sample composite	Dumpster solid sample composite	Solid sample from behind shed	Soil sample north side of site composite	Field Blank	Effluent grab	Effluent composite		Res.	Non-Res	Migrn to GW	Res.	Ind.	
Laboratory Number	0910040	0910041 Replicate of 0910040	0910042	0910043	0910044	0910048	4425-101	0910049	4425-102	0910050	4425-1	4425-2	4425-103*	4425-103 Dup*	4425-104	4425-104 Dup	4425-105	4425-106	4425-200*	4425-201*	4425-202*								
Metals																													
Aluminum	310.0	296.0	265.0	242.0	228.0	174.0	200 (j)	717.0	203(j)	260.0	273(j)	299(j)	5.59	10	289(j)	281(j)	403(j)	2,810	<0.05	NA	<0.05	NL	75500	933000	137000	77332	100000	NL
Arsenic	1.42 (e)	<1.0	<1.0	1.84 (e)	<1.0	21.9 (k,f)	<8.3	13.5 (k)	<10.6	20.3 (k)	<16.3	<15.8	NA	NA	<16.3(j)	<15.7(j)	<7.5(j)	<5.0	<0.025	NA	<0.025(j)	0.43	3.89	15.9	7.22	0.39	1.77	NL
Barium	27.7	27.7	26.7	30.1	24.0	37.3	32.8(j)	31.6	30.4(j)	33.4	37.5	35.5	0.025	0.044	25.6	33.3	75	74.4(j)	<0.01	NA	0.014	5500	15000	181000	2040	15642	100000	NL
Barium, TCLP, mg/l	<.1	<.1	<.1	.17	.16	<.1	<0.0812	<.1 (f)	<0.138	<.1	<0.0505	<0.0484	NA	NA	<0.118	<0.147	<0.124	<0.118(j)	NA	NA	NA	NL	NL	NL	NL	NL	NL	100
Cadmium	.137 (e)	.149 (e)	<.1	.107 (e)	<.1	<.1	<1.7	.292 (e)	<2.1	<.1	<3.3	<3.2	0.006	0.009	14.8	17.4	119(j)	12.4(j)	<0.003	NA	<0.003(j)	39	16.8	74.8	9.32	39	564	NL
Chromium, TCLP, mg/l	<.1	<.1	.11	.13	.16	495.0	224	108.0	67.8	318.0	<0.015	<0.015	NA	NA	0.135	0.135	<0.015	<0.015	NA	NA	NA	NL	NL	NL	NL	NL	NL	5
Chromium, total	334.0	329.0	348.0	469.0	391.0	22,300.0	17,300	14,900.0	15,100	23,600.0	347)j)	269	12,400	40,500	3120	3440	344	492	<0.132(j)	NA	<0.078(j)	230	74600	472000	4470000	210	500	NL
Cobalt	16.6	16.0	16.3	22.1	21.3	<.25	3.3	.518	3.4(j)	.544	5.4	5.2	NA	NA	4.6	4.8	9.7(j)	4.63	<0.01	NA	<0.01	NL	NL	NL	NL	900	2130	NL
Hexavalent Chromium	35.0 (a)	30.0 (a)	46.0 (a)	13.0 (a)	7.7 (a)	1.7 (a)	12(b)	29.0 (a)	4.3(b)	21.0 (a)	<3.1	<3.3	NA	NA	<3.1	NA	2.2	NA	NA	NA	NA	230	0.147	0.639	0.0016	30	71	NL
Hexavalent Chromium, TCLP	NA	NA	NA	NA	NA	NA	<10(j)	NA	<10(j)	NA	<10(j)	67.3(j)	NA	NA	<10(j)	<10(j)	<10(j)	<10(j)	NA	NA	NA	NL	NL	NL	NL	NL	NL	5
Iron	NA	NA	NA	NA	NA	NA	2630(j)	NA	61,900(j)	NA	91,100	82,600	30.7	40.4	57,300	67,900	25.3(j)	19.2	<0.005	NA	0.19(j)	NL	1220	12300	NL	54750	100000	NL
Lead	12.9 (k)	12.3 (k)	10.0 (k)	8.72 (k)	8.27 (k)	1.79 (e)	<8.3	4.26	<10.6	2.32 (e)	<16.3	<15.8	<0.05	<0.05	3,000	2,900	3,840(j)	469	<0.05	NA	<0.05	NL	260	660	3.76	400	800	NL
Manganese	758.0	753.0	665.0	869.0	895.0	87.0	99.4	50.9	432	92.9	719(j)	653(j)	5.46	7.6	0.021	0.025	<3.0(j)	2.75	<0.002	NA	0.748(j)	11000	9680	96700	2720	3470	35000	NL
Mercury	<.0025	<.0025	<.0025	<.0025	<.0025	.107	0.208	<.0025 (f)	0.216	.113	<0.0002	<0.0002	NA	NA	502(j)	564(j)	<0.0085	0.0393	NA	NA	NA	23	46.3	630	NL	23	340	NL
Molybdenum-TCLP	11.3	11.1	11.5	12.9	10.7	5.13	NA	7.59	NA	5.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	NL	NL	NL	NL	NL	NL
Nickel	NA	NA	NA	NA	NA	NA	<3.3	NA	<4.2	NA	40.7	46.2	0.484	0.582	39.6	30.8	49.7(j)	23.9(j)	<0.02	NA	<0.02	1600	1510	18600	505	1570	22700	NL
Silver	<.25	<.25	<.25	.28 (e)	<.25	.723 (k)	<3.3	.332 (e)	<4.2	.615 (k)	<6.5	<6.3	0.068	0.123	26,400	23,800	<3.0(j)	<2.0	<0.025	NA	<0.025	390	374	4480	16.3	390	5680	NL
Zinc	75.8	74.6	77.6	97.3	82.6	36.0 (k)	44.2	47.8 (k)	59.1(j)	41.7 (k)	78.6(j)	87.8(j)	2.17	3.43	366(j)	184(j)	195(j)	218(j)	<0.025	NA	0.056(j)	23000	22800	288000	7220	23500	100000	NL
Volatile Organic Compounds (VOCs)																													
1,2,4-Trimethylbenzene	.503	.5	.535	<.125 (i)	<.125 (i)	.31	NA	3.22	NA	1.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	749	10100	3.94	5.73	223	NL
1,3,5-Trimethylbenzene	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	NA	.638	NA	<.25 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	749	10100	0.891	21	77	NL
2-Butanone (MEK)	<.625 (i)	<.625 (i)	3.95	.741 (e)	2.01	<.625 (i)	NA	<.625 (i)	NA	29.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47000	44200	579000	0.127	32089	34092	NL
acetone	<2.5 (i)	<2.5 (i)	16.8	13.2	17.9	<2.5 (i)	NA	<2.5 (i)	NA	8.63 (e)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70000	61500	807000	8.61	14150	60479	NL
carbon disulfide	.552	.504	.353	.317	.331	.216 (e)	NA	.574	NA	.355 (e)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7800	7290	95600	7.99	721	721	NL
Chloroform	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	NA	.911	NA	<.25 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	780	180	678	0.753	0.24	0.58	NL
Naphthalene	.777 (e)	.794 (e)	.872 (e)	<.625 (i)	<.625 (i)	<.625 (i)	NA	1.27	NA	2.4 (e)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3100	36.3	119	0.327	124	209	NL
n-Butylbenzene	2.06	2.01	2.36	.211 (e)	.333	3.25	NA	50.4	NA	13.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	2730	35900	14.8	144	237	NL
n-Propylbenzene (Isocumene)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	NA	.268	NA	<.25 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	2730	35900	13.2	144	237	NL
p-Isopropyltoluene (p-Cymene)	.403	.397	.153 (e)	<.125 (i)	<.125 (i)	.258	NA	1.02	NA	.395 (e)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	20500	269000	272	NL	NL	NL
sec-Butylbenzene	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	<.125 (i)	NA	.252	NA	<.25 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	2730	35900	35.3	111	223	NL
Tetrahydrofuran	<.625 (i)	<.625 (i)	<.625 (i)	<.625 (i)	<.625 (i)	<.625 (i)	NA	<.625 (i)	NA	1.53 (e)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	501	3350	0.0602	9	23	NL
Semi-Volatile Organic Compounds (SVOCs)																													
4-Chloro-3-methylphenol	34.2	37.8	20.3	6.27	19.0	1,840.0	NA	4,140.0	NA	2,940.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NL	NL	NL	NL	6100	62000	NL
4-Methylphenol (p-Cresol)	55.9	66.6	55.4	1.37 (e)	3.29	<.711 (i)	NA	<1.58 (i)	NA	<.929 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	390	275	2840	0.751	305	3420	NL
Di-n-octyl phthalate	<.402 (i)	<.399 (i)	<.24 (i)	<.667 (i)	<.678 (i)	2.83	NA	1.59	NA	3.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1600	2320	22800	76.1	NL	NL	NL
Naphthalene	<.402 (i)	<.399 (i)	<.24 (i)	<.667 (i)	<.678 (i)	<.356 (i)	NA	2.44	NA	<.464 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3100	36.3	119	0.327	124	209	NL
Phenol	16.6	16.2	8.8	2.79	10.5	<.356 (i)	NA	<.788 (i)	NA	<.464 (i)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23000	11800	128000	32.4	18331	100000	NL

* - Results in mg/L

[2] SCDM - Superfund Chemical Data Matrix, January 28, 2004, lower of reference dose and cancer risk benchmarks for soil pathway

[3] MRBCA RBTL- Missouri Risk-Based Corrective Action Risk-Based Target Level, June 2006. RBTLs are for soil type 2 (silty), residential and non-residential land use, and soil concentrations protective of groundwater

[4] EPA SL - EPA Region 6 Screening Levels, March 8, 2008, residential and industrial use.

[5] TCLP - Toxicity Characteristic Leaching Procedure regulatory limit, 40 CFR Part 261, Subpart C.

a - Analyzed by colorimetric method (SW846 7196A)

b - Analyzed by ion chromatographic method (SW846 7199)

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

h - Analyte present in blank at > 1/2 reported value

i - PQL elevated due to sample dilution

k - Estimated value, matrix interference

j- Estimated value

TABLE 3: SELECTED ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED MAY 1, 2009
TANNERY SLUDGE FARM FIELDS SITE, BUCHANAN COUNTY, MISSOURI

- All values listed in parts per billion (ug/l) unless otherwise noted.
- NL denotes benchmark value not listed in reference source.

Sample ID	WS-02	SCDM[1]		MRBCA [2] RBTL	EPA SL[3]	MO WQS[4]
Sample Location Description	Well in field near two silos and a haybarn	MCL	SL			
Laboratory Number	0910057					
Water Quality Indicators						
Field Temperature	12.9	NL	NL	NL	NL	NL
pH	7.06	NL	NL	NL	NL	NL
Specific Conductivity, umhos/cm	657.0	NL	NL	NL	NL	NL
Metals						
Aluminum	84.9	NL	NL	15600	36500	NL
Arsenic	<1.0	10	0.057	10	0.045	50
Barium	256.0	2000	2600	2000	7300	2000
Chromium, total	.32 (e)	100	110	100	54750	100
Hexavalent Chromium	<10(a)	NL	110	0.00337	110	NL
Lead	5.87	15	NL	15	15	15
Manganese	24.6	NL	5100	2190	1700	50
Molybdenum-Total in Water	<2.0	NL	NL	78	180	NL
Silver	1.3 (h)	NL	180	78.1	180	50
Zinc	34.3 (f)	NL	11000	4690	11000	5000

[1] SCDM - Superfund Chemical Data Matrix January 2004, Maximum Contaminant Level (MCL) for drinking water, and lowest of reference dose and cancer risk screening levels (SL) for groundwater/surface water pathway drinking water.

[2] MRBCA RBTL - Missouri Risk-Based Corrective Action Risk-Based Target Level for domestic water use, June 2006.

[3] EPA SL - EPA Region 6 Screening Levels, tap water

[4] MO WQS - Missouri Water Quality Standards, groundwater/drinking water use catagories, Missouri Code of State Regulations, 10 CSR 20-7.031, October 31, 1999.

a - Analyzed by colorimetric method (SW846 7196A)

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

h - Analyte present in blank at > 1/2 reported value

TABLE 4: SELECTED ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED MAY 1, 2009
NATIONAL BEEF FACILITY SITE, BUCHANAN COUNTY, MISSOURI

- All values listed in parts per billion (ug/l) unless otherwise noted.
- NL denotes benchmark value not listed in reference source.

Sample ID	WS-04	WS-05	WS-05	WS-09	WS-10	SCDM[1]		MRBCA [2] RBTL	EPA SL[3]	MO WQS[4]
Sample Location Description	National Beef Well # 5	National Beef Well # 2	National Beef Well # 1	National Beef Well # 3	National Beef Well # 4	MCL	SL			
Laboratory Number	0910060	0910061	0910064	0913581	0913582					
Water Quality Indicators										
Field Temperature	16.4	15.6	15.1	14.9	15.7	NL	NL	NL	NL	NL
pH	7.34	7.17	7.82	7.71	7.58	NL	NL	NL	NL	NL
Specific Conductivity, umhos/cm	891.0	1,020.0	597.0	803.0	962.0	NL	NL	NL	NL	NL
Metals										
Aluminum	2.57 (e)	2.9 (e)	<2.0	<2.0	<2.0	NL	NL	15600	36500	NL
Arsenic	<1.0	4.23 (e)	<1.0	2.48 (e)	1.25 (e)	10	0.057	10	0.045	50
Barium	105.0	119.0	132.0	130.0	148.0	2000	2600	2000	7300	2000
Chromium, total	<.25	<.25	<.25	<.25	<.25	100	110	100	54750	100
Hexavalent Chromium	<10(a)	<10(a)	<10(a)	<10(a)	<10(a)	NL	110	0.00337	110	NL
Lead	<.25	<.25	<.25	<.25	<.25	15	NL	15	15	15
Manganese	445.0	713.0	418.0	688.0	923.0	NL	5100	2190	1700	50
Molybdenum-Total in Water	3.49 (e)	2.1 (e)	3.07 (e)	3.14 (e)	3.59 (e)	NL	NL	NL	NL	NL
Silver	1.04 (h)	.96 (h,e)	.78 (h,e)	.73 (h,e)	.69 (h,e)	NL	180	78.1	180	50
Zinc	1.83 (f,h)	2.52 (f)	1.72 (f,h)	1.4 (f,h)	1.23 (f,h)	NL	11000	4690	11000	5000

[1] SCDM - Superfund Chemical Data Matrix January 2004, Maximum Contaminant Level (MCL) for drinking water, and lowest of reference dose and cancer risk screening levels (SL) for groundwater/surface water pathway drinking water.

[2] MRBCA RBTL - Missouri Risk-Based Corrective Action Risk-Based Target Level for domestic water use, June 2006.

[3] EPA SL - EPA Region 6 Screening Levels, tap water

[4] MO WQS - Missouri Water Quality Standards, groundwater/drinking water use catagories, Missouri Code of State Regulations, 10 CSR 20-7.031, October 31, 1999.

a - Analyzed by colorimetric method (SW846 7196A)

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

h - Analyte present in blank at > 1/2 reported value

TABLE 5: SELECTED ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES COLLECTED MAY 1, 2009
TANNERY SLUDGE FARM FIELDS SITE, BUCHANAN COUNTY, MISSOURI

- All values listed in parts per billion (ug/l) unless otherwise noted.
- NL denotes benchmark value not listed in reference source.

Sample ID	WS-01	WS-03		SCDM[1]			MO WQS[2]			
Sample Location Description	Pond Culvert	Pond in center of property		MCL	SC	CMC/CCC	DW / GW	Aq. Life	Fish Consmp	Irr. / Lvstock
Laboratory Number	0910054	0910058	0910059 Duplicate of 0910058							
Water Quality Indicators										
Field Temperature	14.0	17.5	NA	NL	NL	NL	NL	NL	NL	NL
pH	7.62	8.12	NA	NL	NL	NL	NL	NL	NL	NL
Specific Conductivity, umhos/cm	<50.0	163.0	NA	NL	NL	NL	NL	NL	NL	NL
Metals										
Aluminum	230.0	1,410.0	1,460.0	NL	NL	87	NL	750	NL	NL
Arsenic	<1.0	1.92 (e)	1.97 (e)	10	0.057	NL	50	20	NL	100
Barium	160.0	89.4	90.0	2000	2600	NL	2000	NL	NL	NL
Chromium, total	.33 (e)	1.88	2.11	100	110	NL	100	42	NL	100
Hexavalent Chromium	<10(a)	<10(a)	<10(a)	NL	110	NL	NL	NL	NL	NL
Lead	.26 (e)	.62 (e)	.7 (e)	15	NL	NL	15	9	NL	NL
Manganese	208.0	263.0	275.0	NL	5100	NL	50	NL	NL	NL
Molybdenum-Total in Water	<2.0	4.34 (e)	6.56 (e)	NL	NL	NL	NL	NL	NL	NL
Silver	1.41 (h)	1.28 (h)	1.13 (h)	NL	180	NL	50	3.5	NL	NL
Zinc	4.14 (f)	5.47 (f)	6.03 (f)	NL	11000	NL	5000	241	NL	NL

[1] SCDM - Superfund Chemical Data Matrix, January 28, 2004, maximum contaminant level (MCL), lowest of reference dose and cancer risk screening concentrations (SC) for groundwater/surface water pathway, drinking water , and lower of criteria maximum concentration and criteria continuous concentration (CMC/CCC)

[2] MO WQS - Missouri Water Quality Standards, benchmarks for drinking water, groundwater, protection of aquatic life, fish consumption, and irrigation/livestock watering use categories, Missouri Code of State Regulations, 10 CSR 20-7.031, October 31, 1999.

a - Analyzed by colorimetric method (SW846 7196A)

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

h - Analyte present in blank at > 1/2 reported value

TABLE 6: SELECTED ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES COLLECTED APRIL 29, 2009
TANNERY SLUDGE FARM FIELDS SITE, BUCHANAN COUNTY, MISSOURI

- All values listed in parts per billion (ug/l)
- NL denotes benchmark value not listed in reference source.

Sample ID	WS-01	WS-02	WS03	SCDM[1]			MO WQS[2]			
Sample Location Description	Outfall in SE corner of property next to Hwy 759	Settling tank #2 containing secondary treatment water	Trench along northern border of property at NE corner	MCL	SC	CMC/CCC	DW / GW	Aq. Life	Fish Consmp	Irr. / Lvstock
Laboratory Number	0910045	0910046	0910051							
Water Quality Indicators										
Field Temperature	18.0	18.9	17.3	NL	NL	NL	NL	NL	NL	NL
pH	7.3	8.02	7.08	NL	NL	NL	NL	NL	NL	NL
Specific Conductivity, umhos/cm	480.0	<50.0	1,330.0	NL	NL	NL	NL	NL	NL	NL
Metals										
Aluminum	1,200.0 (f)	<10.0 (i,k,f)	399.0 (f)	NL	NL	87	NL	750	NL	NL
Arsenic	2.15 (e)	<5.0 (i,k)	1.24 (e)	10	0.057	NL	50	20	NL	100
Barium	49.1	13.8 (k)	57.5	2000	2600	NL	2000	NL	NL	NL
Cadmium	.26	<1.0 (i,k)	<.2	5	18	NL	5	9.1	NL	NL
Chromium, total	50.0	3.85 (k,e)	93.4	100	110	NL	100	42	NL	100
Hexavalent Chromium	<10(a)	<10(a)	<10(a)	NL	110	NL	NL	NL	NL	NL
Cobalt	1.32 (e)	<5.0 (i,k)	4.3 (e)	NL	NL	NL	1000	NL	NL	1000
Cyanide	.009 (e)	<.002 (b)	<.002 (b)	200	730	5.2	NL	5	NL	NL
Lead	7.04	<1.25 (i,k)	3.02	15	NL	NL	15	9	NL	NL
Manganese	141.0	509.0 (k)	1,080.0	NL	5100	NL	50	NL	NL	NL
Mercury	<.05	.06 (e)	<.05	2	11	NL	2	0.5	NL	NL
Molybdenum-Total in Water	2.42 (e)	18.3	3.28 (e)	NL	NL	NL	NL	NL	NL	NL
Silver	1.95	4.52 (k,e)	1.25 (h)	NL	180	NL	50	3.5	NL	NL
Zinc	110.0 (f)	9.88 (k,f)	70.6 (f)	NL	11000	NL	5000	241	NL	NL
Volatile Organic Compounds (VOCs)										
carbon disulfide	<.5	15.0	<.5	NL	3700	NL	NL	NL	NL	NL
Semi-Volatile Organic Compounds (SVOCs)										
4-Chloro-3-methylphenol	6.25	25.9	27.8	NL	NL	NL	NL	NL	NL	NL
Di-n-octyl phthalate	<2.5	<2.5	19.0	NL	730	NL	NL	NL	NL	NL

[1] SCDM - Superfund Chemical Data Matrix, January 28, 2004, maximum contaminant level (MCL), lowest of reference dose and cancer risk screening concentrations (SC) for groundwater/surface water pathway, drinking water , and lower of criteria maximum concentration and criteria continuous concentration (CMC/CCC)

[2] MO WQS - Missouri Water Quality Standards, benchmarks for drinking water, groundwater, protection of aquatic life, fish consumption, and irrigation/livestock watering use categories, Missouri Code of State Regulations, 10 CSR 20-7.031, October 31, 1999.

a - Analyzed by colorimetric method (SW846 7196A)

b - Improper preservation

e - Estimated value, detected below PQL

f - Estimated value, QC data outside limits

h - Analyte present in blank at > 1/2 reported value

i - PQL elevated due to sample dilution

k - Estimated value, matrix interference