Appendix C

Supporting Documentation for Remedial Alternatives

Alternative 2 (95% UCL Removal Scenario) Summary Tables

TABLE C-1

ALTERNATIVE 2 - 95% UPPER CONFIDENCE LIMIT (UCL) SCENARIO: OFF-SITE CREEK AREA
SUMMARY OF EXISTING AND POST-REMEDIATION CONDITIONS

FORMER THOMSON CONSUMER ELECTRONICS FACILITY
CIRCLEVILLE, OHIO

	Existing Conditions		Samples Requiring Remediation			Post-Remediation Conditions		Remaining Samples > 1,505 PPM Preliminary Remediation Goal		
Averaging Area	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)
4	235	95% Chebyshev	None			N/A	N/A	None		
5	78	95% Chebyshev	None			N/A	N/A	None		
6A	2,650	95% Chebyshev	IA-05	18-24	13,300	1,446	95% Chebyshev	C-OCA-13	6-12	7,200
			C-OCA-15	12-18	10,800			*M-1*	*0-6*	*6,380*
			C-OCA-2	0-6	9,920			M-2	6-12	6,370
			IA-05	12-18	9,880			C-OCA-13	12-18	4,540
			C-OCA-2	6-12	8,500			C-OCA-1	0-6	4,410
			C-OCA-15	6-12	5,240			*M-1*	*6-12*	*2,720*
			C-OCA-13	0-6	4,550			IA-15	18-24	2,460
			C-OCA-15	0-6	1,950 [1,250] / 1,570			C-OCA-2	12-18	2,310
			IA-05	6-12	83.6			C-OCA-14	0-6	1,890
			IA-05	0-6	38.1			T-6-C1L	0-6	1,610
6B	3,648	95% Chebyshev	T-OCA-23-OB1R	6-12	15,800	1,492	95% Chebyshev	C-OCA-4	0-6	7,740
			T-OCA-22-OB1R	6-12	15,000			T-OCA-18-OB1L	18-24	5,370
			T-OCA-18-OB1L	6-12	14,400			T-OCA-50-OB1L	0-6	4,510
			C-OCA-19	6-12	12,800 [12,100]			T-OCA-50-C2L	0-6	4,450
			T-OCA-23-OB1R	0-6	12,100			T-OCA-51-OB1L	0-6	4,390
			C-OCA-17	6-12	10,500			T-OCA-50-C2R	0-6	4,220
			C-OCA-19	0-6	10,100			SS-2/3	2-5	3,670
			T-OCA-22-OB1R	0-6	7,870 [11,900]			*C-OCA-8*	*0-6*	*3,640*
			T-OCA-18-OB1L	12-18	8,680			*SS-6/7*	*0-1*	*3,310*
			C-OCA-7	0-6	7,980			T-OCA-51-C2L	6-12	3,250
			T-OCA-19-OB1R	0-6	7,950			T-OCA-51-C2L	0-6	2,740 [3,600]
			T-OCA-18-OB1L	0-6	3,410 [3,600] / 3,920			*SS-4/5*	*0-1*	*2,730*
			C-OCA-17	0-6	3,460			T-OCA-21-OB1R	0-6	1,830
6C	2,421	95% Chebyshev	T-OCA-24-OB1R	0-6	8,040 / 11,000	1,443	95% Chebyshev	T-5-C1R	6-12	6,930
			T-OCA-49-C2R	0-6	8,600			C-OCA-16	18-24	6,310
			C-OCA-20	0-6	8,510			M-4	12-18	5,950
			C-OCA-3	0-6	8,080			M-4	6-12	5,840
			T-OCA-24-OB1R	6-12	7,780			C-OCA-10	6-12	5,535
			T-5-C1L	6-12	7,620			C-OCA-6	0-6	5,270
			C-OCA-5	0-6	7,490			M-3	0-6	4,040
			C-OCA-20	6-12	7,350			C-OCA-21	0-6	3,160
			C-OCA-3	6-12	7,210			C-OCA-21	6-12	3,070
			T-5-C1L	0-6	1,200			T-OCA-49-C2L	6-12	2,680
								C-OCA-6	6-12	2,080
								M-5	0-6	1,880
								C-OCA-16	12-18	1,740
								C-OCA-22	0-6	1,670
6D	955	95% H-UCL	None			N/A	N/A	T-OCA-48-C2L	0-6	3,080
								T-OCA-48-C2R	0-6	2,910 [2,470]
								T-OCA-48-C2L	6-12	2,400
								T-OCA-29-OB1R	0-6	1,860
								T-4-C2R	0-6	1,740
								T-OCA-30-C2R	18-24	1,570
7	180	95% Chebyshev	None			N/A	N/A	None		
8A	548	95% Approx. Gamma UCL	None			N/A	N/A	T-OCA-32-OB1R	6-12	2,220
								T-OCA-33-OB1R	6-12	1,820
8B	731	95% Chebyshev	None			N/A	N/A	T-OCA-35-OB1R	12-18	2,760
								T-OCA-35-OB1R	6-12	2,730
								T-OCA-34-OB1R	6-12	1,850
9	165	95% Chebyshev	None			N/A	N/A	None		
10	144	95% H-UCL	None			N/A	N/A	None		

Notes:
1. 95% UCL = 95% Upper Confidence Limit on the arithmetic mean of the applicable data set.
2. UCLs were calculated using ProUCL, a software program created by the USEPA Office of Research and Development.
3. NA = Not Applicable, the UCL under existing conditions is below the preliminary remediation goal.
4. Shaded, italicized samples represent sample locations that do not required remediation to achieve the PRG, but will be addressed by the removal of adjacent samples requiring remediation.

TABLE C-2

ALTERNATIVE 2 - 95% UPPER CONFIDENCE LIMIT (UCL) SCENARIO: UPPER CREEK AREA
SUMMARY OF EXISTING AND POST-REMEDIATION CONDITIONS

FORMER THOMSON CONSUMER ELECTRONICS FACILITY
CIRCLEVILLE, OHIO

	Existing Conditions		Samples Requiring Remediation			Post-Remediation Conditions		Remaining Samples > 400 PPM Preliminary Remediation Goal		
Averaging Area	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)
2	330	95% Chebyshev	None			N/A	N/A	T-9-C1L	0-6	2,520
								T-OCA-9-C2R	0-6	504
								T-9-C1L	6-12	442
								T-OCA-7-C1L	12-18	412
								T-OCA-8-C2L	0-6	407
3	1,152	95% Chebyshev	T-OCA-10-C2L	6-12	5,270	390	95% Chebyshev	T-OCA-14-C1R	6-12	1,960
			T-OCA-12-C2L	6-12	5,060			T-OCA-16-C2L	0-6	1,910
			T-OCA-11-C2L	0-6	5,030			*T-OCA-11-C1L*	*0-6*	*1,760*
			T-8-C1L	0-6	4,870			T-OCA-16-B	12-18	1,670
			T-OCA-12-C1R	0-6	6,020 [3,290]			T-OCA-16-C1L	6-12	1,580
			T-OCA-13-C2L	0-6	4,290			T-8-C1R	0-6	1,570
			T-OCA-10-C1L	0-6	7,820 [323]			T-OCA-13-OB1L	0-6	1,020
			T-OCA-13-C2L	6-12	4,000			T-OCA-14-C2L	0-6	985
			T-OCA-15-C2L	18-24	3,780			T-OCA-10-B	6-12	968
			T-OCA-12-C1R	6-12	3,760			T-OCA-14-C1L	0-6	918
			T-OCA-15-C2L	24-30	3,520			T-OCA-10-A	0-6	1,610 [201]
			T-OCA-16-C1L	0-6	5,400 [529]			T-OCA-16-C2L	6-12	843
			T-OCA-10-C2L	0-6	2,860			T-OCA-14-C2R	6-12	806
			T-OCA-12-C2L	0-6	2,580			T-8-C1R	6-12	655
			T-OCA-12-C1L	0-6	2,570			T-OCA-12-C2L	12-18	629
			T-OCA-15-C2L	12-18	2,400			T-OCA-16-C1R	0-6	611
			T-OCA-14-C2R	0-6	2,350			T-OCA-15-C2R	0-6	495 [464]
			T-OCA-15-C2L	6-12	2,280			T-OCA-16-B	6-12	444
			T-OCA-14-C1R	0-6	1,050 [3,180]					
			T-OCA-15-C2L	0-6	1,400					

Notes:
1. 95% UCL = 95% Upper Confidence Limit on the arithmetic mean of the applicable data set.
2. UCLs were calculated using ProUCL, a software program created by the USEPA Office of Research and Development.
3. NA = Not Applicable, the UCL under existing conditions is below the preliminary remediation goal.
4. Shaded, italicized samples represent sample locations that do not required remediation to achieve the PRG, but will be addressed by the removal of adjacent samples requiring remediation.

TABLE C-3

ALTERNATIVE 2 - 95% UPPER CONFIDENCE LIMIT (UCL) SCENARIO: SOUTH DITCH, EAST SWALE, FORMER RAW MATERIALS HANDLING AREA
SUMMARY OF EXISTING AND POST-REMEDIATION CONDITIONS

FORMER THOMSON CONSUMER ELECTRONICS FACILITY
CIRCLEVILLE, OHIO

	Existing Conditions		Samples Requiring Remediation			Post-Remediation Conditions		Remaining Samples > 750 PPM Preliminary Remediation Goal		
Averaging Area	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)	Approx. UCL Concentration (ppm)	UCL Method	Sample Location	Depth (inches)	Lead Concentration (ppm)
South Ditch A	2,302	95% H-UCL	T-SD-2-B	6-12	12,100	678	95% H-UCL	15+70-B	2-8	2,460
			15+70-A	0-2	10,500			13+60-C1L	0-6	2,080
			2A	0-2	8,770			TSD19+30-B	18-24	1,730
			T-SD-2-A	0-6	4,320			15+70-C1R	0-6	1,210
			19+30-B	2-8	4,050			19+30-C1L	0-6	807
			21+05-C1L	0-6	3,500					
			SS-SED-1-A	0-2	2,720					
			T-SD-2-C2L	0-6	2,640					
			19+30-A	0-2	1,720					
South Ditch B	1,760	95% Chebyshev	0+25-C1L	0-6	16,200	701	95% Chebyshev	*TSD0+25-C1L*	*0-6*	*2,470*
			12+30-A	0-6	4,680			T-SD-4-C1R	0-6	2,390
			0+25-C1L	6-12	4,350			3A	0-2	2,240
			5A	0-2	2,770			T-SD-5-C1L	0-6	1,870
			4A	0-2	2,500			SS-SED-2-A	0-2	1,650
								12+30-C1L	0-6	1,620
								T-SD-5-A	0-6	1,370
								T-SD-4-A	0-6	1,320
								T-SD-4-C2L	0-6	1,240
								T-SD-6-C1R	0-6	1,050 [1,200]
								0+25-C2R	0-6	1,060
								T-SD-6-A	0-6	1,040
East Swale	1,289	95% H-UCL	ED-2-A	0-2	23,500	745	95% H-UCL	T-ES-3-A	0-6	5,850
			T-ES-1-A	0-6	17,600			T-ES-4-B	6-12	5,010
			RC-S6	0-4	6,100			T-ES-2-A	0-6	4,640
								T-ES-1-C1R	0-6	2,490
								ED-1-A	0-2	1,890
								T-ES-4-A	0-6	1,720
								T-ES-1-B	24-30	1,170
								T-ES-1-C1L	0-6	1,030
								T-ES-1-B	12-18	968
								T-ES-3-C2L	0-6	937
								ED-2-C1R	0-6	895
								ED-1-C1L	0-6	882
								T-ES-1-C1R	6-12	752
Former RMHA	10,382	95% Chebyshev	EB-27-1	18-24	180,000 [64,000]	718	95% Chebyshev	EB-27-2	30-36	2,900 [2,850]
			EB-9-2	18-24	4,200 [4,005]			EB-29-1	18-24	2,500
			EB-28-2	30-36	3,700			EB-18-1	18-24	4,000 [14]
			EB-28-1	18-24	2,900			EB-7-1	6-12	2,000
			EB-9-1	6-12	330 [305]			EB-15-2	30-36	2,000
								EB-29-2	30-36	1,400
								EB-4-1	6-12	900
								EB-12-1	6-12	890
								EB-6-1	6-12	790

Notes:
1. 95% UCL = 95% Upper Confidence Limit on the arithmetic mean of the applicable data set.
2. UCLs were calculated using ProUCL, a software program created by the USEPA Office of Research and Development.
3. NA = Not Applicable, the UCL under existing conditions is below the preliminary remediation goal.
4. Shaded, italicized samples represent sample locations that do not required remediation to achieve the PRG, but will be addressed by the removal of adjacent samples requiring remediation.

Alternative 2 (95% UCL Removal Scenario) Calculation Output Sheets - Existing Conditions

General UCL Statistics for Full Data Sets - Former RMHA (Existing)

User Selected Options

From File	Pb.wst
Full Precision	OFF
Confidence Coefficient	95%
ıber of Bootstrap Operations	2000

PB Analysis Data

General Statistics

Number of Valid Observations	66	Number of Distinct Observations	49

Raw Statistics		Log-transformed Statistics	
Minimum	6.5	Minimum of Log Data	1.872
Maximum	122000	Maximum of Log Data	11.71
Mean	2343	Mean of log Data	4.613
Geometric Mean	100.8	SD of log Data	2.115
Median	40		
SD	14984		
Std. Error of Mean	1844		
Coefficient of Variation	6.396		
Skewness	8.077		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.44	Lilliefors Test Statistic	0.194
Lilliefors Critical Value	0.109	Lilliefors Critical Value	0.109
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	5420	95% H-UCL	2122
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	2347
95% Adjusted-CLT UCL (Chen-1995)	7336	97.5% Chebyshev (MVUE) UCL	2993
95% Modified-t UCL (Johnson-1978)	5726	99% Chebyshev (MVUE) UCL	4263

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.229	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	10245	
MLE of Mean	2343	
MLE of Standard Deviation	4899	
nu star	30.18	
Approximate Chi Square Value (.05)	18.64	**Nonparametric Statistics**
Adjusted Level of Significance	0.0464	95% CLT UCL 5376
Adjusted Chi Square Value	18.43	95% Jackknife UCL 5420
		95% Standard Bootstrap UCL 5317
Anderson-Darling Test Statistic	8.603	95% Bootstrap-t UCL 41608
Anderson-Darling 5% Critical Value	0.897	95% Hall's Bootstrap UCL 20362
Kolmogorov-Smirnov Test Statistic	0.229	95% Percentile Bootstrap UCL 6003
Kolmogorov-Smirnov 5% Critical Value	0.121	95% BCA Bootstrap UCL 8171
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 10382
		97.5% Chebyshev(Mean, Sd) UCL 13861
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 20694
5% Approximate Gamma UCL (Use when n >= 40)	3794	
95% Adjusted Gamma UCL (Use when n < 40)	3836	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 10382

ı: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL
ıese recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - East Swale (Existing)

User Selected Options

From File	EastSwaleData.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	88	Number of Distinct Observations	85

Raw Statistics		**Log-transformed Statistics**	
Minimum	12.3	Minimum of Log Data	2.51
Maximum	23500	Maximum of Log Data	10.06
Mean	1002	Mean of log Data	5.17
Geometric Mean	175.9	SD of log Data	1.699
Median	167		
SD	3244		
Std. Error of Mean	345.8		
Coefficient of Variation	3.239		
Skewness	5.609		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.383	Lilliefors Test Statistic	0.0767
Lilliefors Critical Value	0.0944	Lilliefors Critical Value	0.0944
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1576	95% H-UCL	1289
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1539
95% Adjusted-CLT UCL (Chen-1995)	1791	97.5% Chebyshev (MVUE) UCL	1895
95% Modified-t UCL (Johnson-1978)	1611	99% Chebyshev (MVUE) UCL	2594

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.376	**Data appear Lognormal at 5% Significance Level**
Theta Star	2665	
MLE of Mean	1002	
MLE of Standard Deviation	1634	
nu star	66.15	
Approximate Chi Square Value (.05)	48.43	**Nonparametric Statistics**
Adjusted Level of Significance	0.0473	95% CLT UCL 1570
Adjusted Chi Square Value	48.18	95% Jackknife UCL 1576
		95% Standard Bootstrap UCL 1575
Anderson-Darling Test Statistic	6.508	95% Bootstrap-t UCL 2507
Anderson-Darling 5% Critical Value	0.847	95% Hall's Bootstrap UCL 3923
Kolmogorov-Smirnov Test Statistic	0.2	95% Percentile Bootstrap UCL 1608
Kolmogorov-Smirnov 5% Critical Value	0.102	95% BCA Bootstrap UCL 1802
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 2509
		97.5% Chebyshev(Mean, Sd) UCL 3161
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 4442
95% Approximate Gamma UCL (Use when n >= 40)	1368	
95% Adjusted Gamma UCL (Use when n < 40)	1375	

Potential UCL to Use	Use 95% H-UCL 1289

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - South Ditch A (Existing)

User Selected Options

From File	SDitch Area A.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	80	Number of Distinct Observations	77

Raw Statistics		**Log-transformed Statistics**	
Minimum	6	Minimum of Log Data	1.792
Maximum	12100	Maximum of Log Data	9.401
Mean	869.3	Mean of log Data	4.879
Geometric Mean	131.5	SD of log Data	2.033
Median	112.5		
SD	2127		
Std. Error of Mean	237.8		
Coefficient of Variation	2.447		
Skewness	3.892		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.349	Lilliefors Test Statistic	0.0793
Lilliefors Critical Value	0.0991	Lilliefors Critical Value	0.0991
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1265	95% H-UCL	2302
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	2447
95% Adjusted-CLT UCL (Chen-1995)	1371	97.5% Chebyshev (MVUE) UCL	3089
95% Modified-t UCL (Johnson-1978)	1282	99% Chebyshev (MVUE) UCL	4351

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.35	**Data appear Lognormal at 5% Significance Level**
Theta Star	2482	
MLE of Mean	869.3	
MLE of Standard Deviation	1469	
nu star	56.03	
Approximate Chi Square Value (.05)	39.83	**Nonparametric Statistics**
Adjusted Level of Significance	0.047	95% CLT UCL 1261
Adjusted Chi Square Value	39.57	95% Jackknife UCL 1265
		95% Standard Bootstrap UCL 1263
Anderson-Darling Test Statistic	3.731	95% Bootstrap-t UCL 1480
Anderson-Darling 5% Critical Value	0.852	95% Hall's Bootstrap UCL 1387
Kolmogorov-Smirnov Test Statistic	0.174	95% Percentile Bootstrap UCL 1292
Kolmogorov-Smirnov 5% Critical Value	0.108	95% BCA Bootstrap UCL 1411
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 1906
		97.5% Chebyshev(Mean, Sd) UCL 2355
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 3236
95% Approximate Gamma UCL (Use when n >= 40)	1223	
95% Adjusted Gamma UCL (Use when n < 40)	1231	

Potential UCL to Use		Use 95% H-UCL	2302

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - South Ditch B (Existing)

User Selected Options

From File	SDitch Area B.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	77	Number of Distinct Observations	74

Raw Statistics		**Log-transformed Statistics**	
Minimum	2.45	Minimum of Log Data	0.896
Maximum	16200	Maximum of Log Data	9.693
Mean	755.8	Mean of log Data	4.726
Geometric Mean	112.9	SD of log Data	2.095
Median	88.1		
SD	2022		
Std. Error of Mean	230.4		
Coefficient of Variation	2.675		
Skewness	6.213		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.355	Lilliefors Test Statistic	0.131
Lilliefors Critical Value	0.101	Lilliefors Critical Value	0.101
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1140	95% H-UCL	2379
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	2449
95% Adjusted-CLT UCL (Chen-1995)	1309	97.5% Chebyshev (MVUE) UCL	3106
95% Modified-t UCL (Johnson-1978)	1167	99% Chebyshev (MVUE) UCL	4396

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.348	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	2172	
MLE of Mean	755.8	
MLE of Standard Deviation	1281	
nu star	53.6	
Approximate Chi Square Value (.05)	37.78	**Nonparametric Statistics**
Adjusted Level of Significance	0.0469	95% CLT UCL 1135
Adjusted Chi Square Value	37.53	95% Jackknife UCL 1140
		95% Standard Bootstrap UCL 1136
Anderson-Darling Test Statistic	3.221	95% Bootstrap-t UCL 1577
Anderson-Darling 5% Critical Value	0.853	95% Hall's Bootstrap UCL 2619
Kolmogorov-Smirnov Test Statistic	0.154	95% Percentile Bootstrap UCL 1178
Kolmogorov-Smirnov 5% Critical Value	0.11	95% BCA Bootstrap UCL 1410
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 1760
		97.5% Chebyshev(Mean, Sd) UCL 2195
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 3049
95% Approximate Gamma UCL (Use when n >= 40)	1072	
95% Adjusted Gamma UCL (Use when n < 40)	1080	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 1760

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 2 (Existing)

User Selected Options

From File	Existing Conditions (old).wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	57	Number of Distinct Observations	54

Raw Statistics		Log-transformed Statistics	
Minimum	4.8	Minimum of Log Data	1.569
Maximum	2520	Maximum of Log Data	7.832
Mean	131.1	Mean of log Data	3.806
Median	32.4	SD of log Data	1.326
SD	343.6		
Coefficient of Variation	2.621		
Skewness	6.262		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.357	Lilliefors Test Statistic	0.132
Lilliefors Critical Value	0.117	Lilliefors Critical Value	0.117
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	207.2	95% H-UCL	180.1
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	208.9
95% Adjusted-CLT UCL (Chen-1995)	246.3	97.5% Chebyshev (MVUE) UCL	253.8
95% Modified-t UCL (Johnson-1978)	213.5	99% Chebyshev (MVUE) UCL	341.8

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.561	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	233.5	
MLE of Mean	131.1	
MLE of Standard Deviation	175	
nu star	64	
Approximate Chi Square Value (.05)	46.59	**Nonparametric Statistics**
Adjusted Level of Significance	0.0458	95% CLT UCL 205.9
Adjusted Chi Square Value	46.21	95% Jackknife UCL 207.2
		95% Standard Bootstrap UCL 209.4
Anderson-Darling Test Statistic	3.182	95% Bootstrap-t UCL 343.2
Anderson-Darling 5% Critical Value	0.808	95% Hall's Bootstrap UCL 470.7
Kolmogorov-Smirnov Test Statistic	0.172	95% Percentile Bootstrap UCL 212.9
Kolmogorov-Smirnov 5% Critical Value	0.124	95% BCA Bootstrap UCL 268.9
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 329.5
		97.5% Chebyshev(Mean, Sd) UCL 415.3
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 583.9
95% Approximate Gamma UCL	180	
95% Adjusted Gamma UCL	181.5	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 329.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 3 (Existing)

User Selected Options

From File	Data with 2007 Highlights.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	142	Number of Distinct Observations	134

Raw Statistics		**Log-transformed Statistics**	
Minimum	4.3	Minimum of Log Data	1.459
Maximum	5270	Maximum of Log Data	8.57
Mean	684.7	Mean of log Data	4.621
Geometric Mean	101.6	SD of log Data	2.085
Median	78.15		
SD	1277		
Std. Error of Mean	107.2		
Coefficient of Variation	1.865		
Skewness	2.2		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.323	Lilliefors Test Statistic	0.14
Lilliefors Critical Value	0.0744	Lilliefors Critical Value	0.0744
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	862.1	95% H-UCL	1618
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1926
95% Adjusted-CLT UCL (Chen-1995)	882	97.5% Chebyshev (MVUE) UCL	2391
95% Modified-t UCL (Johnson-1978)	865.4	99% Chebyshev (MVUE) UCL	3303

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.349	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	1960	
MLE of Mean	684.7	
MLE of Standard Deviation	1158	
nu star	99.2	
Approximate Chi Square Value (.05)	77.23	**Nonparametric Statistics**
Adjusted Level of Significance	0.0483	95% CLT UCL 860.9
Adjusted Chi Square Value	77.03	95% Jackknife UCL 862.1
		95% Standard Bootstrap UCL 861.7
Anderson-Darling Test Statistic	8.252	95% Bootstrap-t UCL 885.5
Anderson-Darling 5% Critical Value	0.856	95% Hall's Bootstrap UCL 888.2
Kolmogorov-Smirnov Test Statistic	0.181	95% Percentile Bootstrap UCL 864.2
Kolmogorov-Smirnov 5% Critical Value	0.0848	95% BCA Bootstrap UCL 881.1
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 1152
		97.5% Chebyshev(Mean, Sd) UCL 1354
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1751
95% Approximate Gamma UCL (Use when n >= 40)	879.5	
95% Adjusted Gamma UCL (Use when n < 40)	881.7	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 1152

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 4 (Existing)

User Selected Options

From File	Data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	41	Number of Distinct Observations	39

Raw Statistics		**Log-transformed Statistics**	
Minimum	9.4	Minimum of Log Data	2.241
Maximum	931.5	Maximum of Log Data	6.837
Mean	106.4	Mean of log Data	3.747
Geometric Mean	42.39	SD of log Data	1.234
Median	27.4		
SD	188.3		
Std. Error of Mean	29.4		
Coefficient of Variation	1.769		
Skewness	2.898		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.56	Shapiro Wilk Test Statistic	0.886
Shapiro Wilk Critical Value	0.941	Shapiro Wilk Critical Value	0.941
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	155.9	95% H-UCL	151.4
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	179.1
95% Adjusted-CLT UCL (Chen-1995)	169	97.5% Chebyshev (MVUE) UCL	218.5
95% Modified-t UCL (Johnson-1978)	158.2	99% Chebyshev (MVUE) UCL	295.9

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.629	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	169.1	
MLE of Mean	106.4	
MLE of Standard Deviation	134.2	
nu star	51.62	
Approximate Chi Square Value (.05)	36.12	**Nonparametric Statistics**
Adjusted Level of Significance	0.0441	95% CLT UCL 154.8
Adjusted Chi Square Value	35.64	95% Jackknife UCL 155.9
		95% Standard Bootstrap UCL 153.7
Anderson-Darling Test Statistic	3.565	95% Bootstrap-t UCL 192.2
Anderson-Darling 5% Critical Value	0.798	95% Hall's Bootstrap UCL 185.9
Kolmogorov-Smirnov Test Statistic	0.227	95% Percentile Bootstrap UCL 155.4
Kolmogorov-Smirnov 5% Critical Value	0.144	95% BCA Bootstrap UCL 167.7
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 234.6
		97.5% Chebyshev(Mean, Sd) UCL 290.1
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 399
95% Approximate Gamma UCL (Use when n >= 40)	152.1	
95% Adjusted Gamma UCL (Use when n < 40)	154.1	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 234.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 5 (Existing)

User Selected Options

From File	Data with 2007 Highlight.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	194	Number of Distinct Observations	171

Raw Statistics		**Log-transformed Statistics**	
Minimum	10.8	Minimum of Log Data	2.38
Maximum	502	Maximum of Log Data	6.219
Mean	55.73	Mean of log Data	3.578
Geometric Mean	35.79	SD of log Data	0.857
Median	29		
SD	70.61		
Std. Error of Mean	5.07		
Coefficient of Variation	1.267		
Skewness	3.297		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.262	Lilliefors Test Statistic	0.108
Lilliefors Critical Value	0.0636	Lilliefors Critical Value	0.0636
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	64.11	95% H-UCL	58.64
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	67.55
95% Adjusted-CLT UCL (Chen-1995)	65.35	97.5% Chebyshev (MVUE) UCL	74.48
95% Modified-t UCL (Johnson-1978)	64.31	99% Chebyshev (MVUE) UCL	88.1

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	1.254	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	44.45	
MLE of Mean	55.73	
MLE of Standard Deviation	49.77	
nu star	486.5	
Approximate Chi Square Value (.05)	436.3	**Nonparametric Statistics**
Adjusted Level of Significance	0.0488	95% CLT UCL 64.07
Adjusted Chi Square Value	436	95% Jackknife UCL 64.11
		95% Standard Bootstrap UCL 63.89
Anderson-Darling Test Statistic	9.024	95% Bootstrap-t UCL 66.63
Anderson-Darling 5% Critical Value	0.777	95% Hall's Bootstrap UCL 65.62
Kolmogorov-Smirnov Test Statistic	0.165	95% Percentile Bootstrap UCL 64.28
Kolmogorov-Smirnov 5% Critical Value	0.0667	95% BCA Bootstrap UCL 65.76
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 77.83
		97.5% Chebyshev(Mean, Sd) UCL 87.39
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 106.2
95% Approximate Gamma UCL (Use when n >= 40)	62.14	
95% Adjusted Gamma UCL (Use when n < 40)	62.19	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 77.83

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6A (Existing)

User Selected Options

From File	6 B.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	87	Number of Distinct Observations	86

Raw Statistics		**Log-transformed Statistics**	
Minimum	5.1	Minimum of Log Data	1.629
Maximum	13300	Maximum of Log Data	9.496
Mean	1354	Mean of log Data	4.897
Geometric Mean	133.8	SD of log Data	2.366
Median	85.4		
SD	2775		
Std. Error of Mean	297.5		
Coefficient of Variation	2.05		
Skewness	2.587		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.316	Lilliefors Test Statistic	0.162
Lilliefors Critical Value	0.095	Lilliefors Critical Value	0.095
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1848	95% H-UCL	5877
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	5596
95% Adjusted-CLT UCL (Chen-1995)	1931	97.5% Chebyshev (MVUE) UCL	7167
95% Modified-t UCL (Johnson-1978)	1862	99% Chebyshev (MVUE) UCL	10253

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.296	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	4578	
MLE of Mean	1354	
MLE of Standard Deviation	2489	
nu star	51.45	
Approximate Chi Square Value (.05)	35.97	**Nonparametric Statistics**
Adjusted Level of Significance	0.0472	95% CLT UCL 1843
Adjusted Chi Square Value	35.76	95% Jackknife UCL 1848
		95% Standard Bootstrap UCL 1844
Anderson-Darling Test Statistic	5.283	95% Bootstrap-t UCL 2001
Anderson-Darling 5% Critical Value	0.868	95% Hall's Bootstrap UCL 1905
Kolmogorov-Smirnov Test Statistic	0.195	95% Percentile Bootstrap UCL 1883
Kolmogorov-Smirnov 5% Critical Value	0.104	95% BCA Bootstrap UCL 1980
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 2650
		97.5% Chebyshev(Mean, Sd) UCL 3212
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 4314
95% Approximate Gamma UCL (Use when n >= 40)	1936	
95% Adjusted Gamma UCL (Use when n < 40)	1948	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 2650

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6B (Existing)

User Selected Options

From File	6 A.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	99	Number of Distinct Observations	93

Raw Statistics		**Log-transformed Statistics**	
Minimum	10.3	Minimum of Log Data	2.332
Maximum	15800	Maximum of Log Data	9.668
Mean	2012	Mean of log Data	5.384
Geometric Mean	217.8	SD of log Data	2.351
Median	121		
SD	3735		
Std. Error of Mean	375.4		
Coefficient of Variation	1.856		
Skewness	2.209		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.313	Lilliefors Test Statistic	0.168
Lilliefors Critical Value	0.089	Lilliefors Critical Value	0.089
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	2635	95% H-UCL	8682
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	8600
95% Adjusted-CLT UCL (Chen-1995)	2719	97.5% Chebyshev (MVUE) UCL	10965
95% Modified-t UCL (Johnson-1978)	2649	99% Chebyshev (MVUE) UCL	15610

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.306	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	6574	
MLE of Mean	2012	
MLE of Standard Deviation	3637	
nu star	60.6	
Approximate Chi Square Value (.05)	43.7	**Nonparametric Statistics**
Adjusted Level of Significance	0.0476	95% CLT UCL 2630
Adjusted Chi Square Value	43.49	95% Jackknife UCL 2635
		95% Standard Bootstrap UCL 2623
Anderson-Darling Test Statistic	6.224	95% Bootstrap-t UCL 2767
Anderson-Darling 5% Critical Value	0.866	95% Hall's Bootstrap UCL 2681
Kolmogorov-Smirnov Test Statistic	0.198	95% Percentile Bootstrap UCL 2670
Kolmogorov-Smirnov 5% Critical Value	0.0975	95% BCA Bootstrap UCL 2793
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 3648
		97.5% Chebyshev(Mean, Sd) UCL 4356
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 5747
95% Approximate Gamma UCL (Use when n >= 40)	2790	
95% Adjusted Gamma UCL (Use when n < 40)	2804	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 3648

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6C (Existing)

User Selected Options

From File	6C.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	108	Number of Distinct Observations	104

Raw Statistics		**Log-transformed Statistics**	
Minimum	13	Minimum of Log Data	2.565
Maximum	9520	Maximum of Log Data	9.161
Mean	1371	Mean of log Data	5.096
Geometric Mean	163.4	SD of log Data	2.238
Median	64.9		
SD	2502		
Std. Error of Mean	240.8		
Coefficient of Variation	1.825		
Skewness	1.953		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.295	Lilliefors Test Statistic	0.182
Lilliefors Critical Value	0.0853	Lilliefors Critical Value	0.0853
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1771	95% H-UCL	4363
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	4759
95% Adjusted-CLT UCL (Chen-1995)	1816	97.5% Chebyshev (MVUE) UCL	6016
95% Modified-t UCL (Johnson-1978)	1778	99% Chebyshev (MVUE) UCL	8486

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.318	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	4313	
MLE of Mean	1371	
MLE of Standard Deviation	2432	
nu star	68.68	
Approximate Chi Square Value (.05)	50.6	**Nonparametric Statistics**
Adjusted Level of Significance	0.0478	95% CLT UCL 1767
Adjusted Chi Square Value	50.39	95% Jackknife UCL 1771
		95% Standard Bootstrap UCL 1766
Anderson-Darling Test Statistic	8.256	95% Bootstrap-t UCL 1838
Anderson-Darling 5% Critical Value	0.863	95% Hall's Bootstrap UCL 1802
Kolmogorov-Smirnov Test Statistic	0.244	95% Percentile Bootstrap UCL 1767
Kolmogorov-Smirnov 5% Critical Value	0.0946	95% BCA Bootstrap UCL 1812
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 2421
		97.5% Chebyshev(Mean, Sd) UCL 2875
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 3767
95% Approximate Gamma UCL (Use when n >= 40)	1861	
95% Adjusted Gamma UCL (Use when n < 40)	1869	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 2421

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6D (Existing)

User Selected Options

From File	6D.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	53	Number of Distinct Observations	51

Raw Statistics		**Log-transformed Statistics**	
Minimum	14.9	Minimum of Log Data	2.701
Maximum	3080	Maximum of Log Data	8.033
Mean	447	Mean of log Data	4.949
Geometric Mean	141.1	SD of log Data	1.578
Median	116		
SD	715.9		
Std. Error of Mean	98.33		
Coefficient of Variation	1.602		
Skewness	2.276		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.283	Lilliefors Test Statistic	0.0984
Lilliefors Critical Value	0.122	Lilliefors Critical Value	0.122
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	611.7	95% H-UCL	954.8
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1064
95% Adjusted-CLT UCL (Chen-1995)	641.6	97.5% Chebyshev (MVUE) UCL	1323
95% Modified-t UCL (Johnson-1978)	616.8	99% Chebyshev (MVUE) UCL	1831

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.526	**Data appear Lognormal at 5% Significance Level**
Theta Star	850.5	
MLE of Mean	447	
MLE of Standard Deviation	616.6	
nu star	55.71	
Approximate Chi Square Value (.05)	39.55	**Nonparametric Statistics**
Adjusted Level of Significance	0.0455	95% CLT UCL 608.7
Adjusted Chi Square Value	39.17	95% Jackknife UCL 611.7
		95% Standard Bootstrap UCL 606.5
Anderson-Darling Test Statistic	2.157	95% Bootstrap-t UCL 663.3
Anderson-Darling 5% Critical Value	0.811	95% Hall's Bootstrap UCL 634.5
Kolmogorov-Smirnov Test Statistic	0.162	95% Percentile Bootstrap UCL 609.6
Kolmogorov-Smirnov 5% Critical Value	0.129	95% BCA Bootstrap UCL 649.7
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 875.6
		97.5% Chebyshev(Mean, Sd) UCL 1061
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1425
95% Approximate Gamma UCL (Use when n >= 40)	629.5	
95% Adjusted Gamma UCL (Use when n < 40)	635.6	

Potential UCL to Use	Use 95% H-UCL	954.8

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 7 (Existing)

User Selected Options

From File	Data with 2007 Highlights.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	75	Number of Distinct Observations	73

Raw Statistics		**Log-transformed Statistics**	
Minimum	5.9	Minimum of Log Data	1.775
Maximum	607	Maximum of Log Data	6.409
Mean	106.3	Mean of log Data	3.835
Geometric Mean	46.27	SD of log Data	1.278
Median	27.9		
SD	146.3		
Std. Error of Mean	16.9		
Coefficient of Variation	1.376		
Skewness	1.851		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.262	Lilliefors Test Statistic	0.166
Lilliefors Critical Value	0.102	Lilliefors Critical Value	0.102
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	134.4	95% H-UCL	152.9
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	187.8
95% Adjusted-CLT UCL (Chen-1995)	137.9	97.5% Chebyshev (MVUE) UCL	224.6
95% Modified-t UCL (Johnson-1978)	135	99% Chebyshev (MVUE) UCL	296.8

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.703	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	151.1	
MLE of Mean	106.3	
MLE of Standard Deviation	126.8	
nu star	105.5	
Approximate Chi Square Value (.05)	82.79	**Nonparametric Statistics**
Adjusted Level of Significance	0.0468	95% CLT UCL 134.1
Adjusted Chi Square Value	82.4	95% Jackknife UCL 134.4
		95% Standard Bootstrap UCL 134
Anderson-Darling Test Statistic	4.019	95% Bootstrap-t UCL 139.1
Anderson-Darling 5% Critical Value	0.796	95% Hall's Bootstrap UCL 137.6
Kolmogorov-Smirnov Test Statistic	0.214	95% Percentile Bootstrap UCL 134.8
Kolmogorov-Smirnov 5% Critical Value	0.107	95% BCA Bootstrap UCL 140.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 179.9
		97.5% Chebyshev(Mean, Sd) UCL 211.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 274.4
95% Approximate Gamma UCL (Use when n >= 40)	135.4	
95% Adjusted Gamma UCL (Use when n < 40)	136.1	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 179.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 8A (Existing)

User Selected Options

From File	8A.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	25	Number of Distinct Observations	24

Raw Statistics		**Log-transformed Statistics**	
Minimum	13.1	Minimum of Log Data	2.573
Maximum	2220	Maximum of Log Data	7.705
Mean	336.8	Mean of log Data	4.875
Geometric Mean	131	SD of log Data	1.466
Median	189		
SD	539.6		
Std. Error of Mean	107.9		
Coefficient of Variation	1.602		
Skewness	2.791		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.593	Shapiro Wilk Test Statistic	0.945
Shapiro Wilk Critical Value	0.918	Shapiro Wilk Critical Value	0.918
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	521.5	95% H-UCL	982
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	909
95% Adjusted-CLT UCL (Chen-1995)	578.8	97.5% Chebyshev (MVUE) UCL	1149
95% Modified-t UCL (Johnson-1978)	531.5	99% Chebyshev (MVUE) UCL	1621

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.596	**Data appear Gamma Distributed at 5% Significance Level**
Theta Star	565.3	
MLE of Mean	336.8	
MLE of Standard Deviation	436.4	
nu star	29.79	
Approximate Chi Square Value (.05)	18.33	**Nonparametric Statistics**
Adjusted Level of Significance	0.0395	95% CLT UCL 514.4
Adjusted Chi Square Value	17.72	95% Jackknife UCL 521.5
		95% Standard Bootstrap UCL 511.7
Anderson-Darling Test Statistic	0.75	95% Bootstrap-t UCL 849.4
Anderson-Darling 5% Critical Value	0.793	95% Hall's Bootstrap UCL 1424
Kolmogorov-Smirnov Test Statistic	0.146	95% Percentile Bootstrap UCL 526.7
Kolmogorov-Smirnov 5% Critical Value	0.183	95% BCA Bootstrap UCL 611.4
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 807.3
		97.5% Chebyshev(Mean, Sd) UCL 1011
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1411
95% Approximate Gamma UCL (Use when n >= 40)	547.5	
95% Adjusted Gamma UCL (Use when n < 40)	566.4	

Potential UCL to Use	Use 95% Approximate Gamma UCL 547.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 8B (Existing)

User Selected Options

From File	8B.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	41	Number of Distinct Observations	39

Raw Statistics		**Log-transformed Statistics**	
Minimum	8.4	Minimum of Log Data	2.128
Maximum	2760	Maximum of Log Data	7.923
Mean	292	Mean of log Data	4.324
Geometric Mean	75.52	SD of log Data	1.513
Median	49.3		
SD	645.3		
Std. Error of Mean	100.8		
Coefficient of Variation	2.21		
Skewness	3.222		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.47	Shapiro Wilk Test Statistic	0.899
Shapiro Wilk Critical Value	0.941	Shapiro Wilk Critical Value	0.941
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	461.7	95% H-UCL	483
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	526.5
95% Adjusted-CLT UCL (Chen-1995)	511.9	97.5% Chebyshev (MVUE) UCL	657.2
95% Modified-t UCL (Johnson-1978)	470.1	99% Chebyshev (MVUE) UCL	914.1

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.455	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	641.3	
MLE of Mean	292	
MLE of Standard Deviation	432.7	
nu star	37.33	
Approximate Chi Square Value (.05)	24.35	**Nonparametric Statistics**
Adjusted Level of Significance	0.0441	95% CLT UCL 457.7
Adjusted Chi Square Value	23.96	95% Jackknife UCL 461.7
		95% Standard Bootstrap UCL 462.7
Anderson-Darling Test Statistic	3.536	95% Bootstrap-t UCL 603.8
Anderson-Darling 5% Critical Value	0.819	95% Hall's Bootstrap UCL 489.4
Kolmogorov-Smirnov Test Statistic	0.216	95% Percentile Bootstrap UCL 462.4
Kolmogorov-Smirnov 5% Critical Value	0.146	95% BCA Bootstrap UCL 515.8
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 731.2
		97.5% Chebyshev(Mean, Sd) UCL 921.3
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1295
95% Approximate Gamma UCL (Use when n >= 40)	447.8	
95% Adjusted Gamma UCL (Use when n < 40)	454.9	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 731.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 9 (Existing)

User Selected Options

From File	Data with 2007 Highlights.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	216	Number of Distinct Observations	193

Raw Statistics		Log-transformed Statistics	
Minimum	7.7	Minimum of Log Data	2.041
Maximum	1020	Maximum of Log Data	6.928
Mean	118.1	Mean of log Data	4.074
Geometric Mean	58.77	SD of log Data	1.172
Median	49.1		
SD	159.3		
Std. Error of Mean	10.84		
Coefficient of Variation	1.349		
Skewness	2.603		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.244	Lilliefors Test Statistic	0.101
Lilliefors Critical Value	0.0603	Lilliefors Critical Value	0.0603
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	136	95% H-UCL	140.4
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	168
95% Adjusted-CLT UCL (Chen-1995)	138	97.5% Chebyshev (MVUE) UCL	190.4
95% Modified-t UCL (Johnson-1978)	136.3	99% Chebyshev (MVUE) UCL	234.4

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.836	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	141.3	
MLE of Mean	118.1	
MLE of Standard Deviation	129.2	
nu star	361	
Approximate Chi Square Value (.05)	318	**Nonparametric Statistics**
Adjusted Level of Significance	0.0489	95% CLT UCL 135.9
Adjusted Chi Square Value	317.7	95% Jackknife UCL 136
		95% Standard Bootstrap UCL 136
Anderson-Darling Test Statistic	6.76	95% Bootstrap-t UCL 137.2
Anderson-Darling 5% Critical Value	0.792	95% Hall's Bootstrap UCL 138.1
Kolmogorov-Smirnov Test Statistic	0.142	95% Percentile Bootstrap UCL 137
Kolmogorov-Smirnov 5% Critical Value	0.064	95% BCA Bootstrap UCL 138.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 165.4
		97.5% Chebyshev(Mean, Sd) UCL 185.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 226
95% Approximate Gamma UCL (Use when n >= 40)	134.1	
95% Adjusted Gamma UCL (Use when n < 40)	134.2	

Potential UCL to Use		
	Use 95% Chebyshev (Mean, Sd) UCL	165.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 10 (Existing)

User Selected Options

From File	Data with 2007 Highlight.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	91	Number of Distinct Observations	83

Raw Statistics		**Log-transformed Statistics**	
Minimum	11.3	Minimum of Log Data	2.425
Maximum	656	Maximum of Log Data	6.486
Mean	120.9	Mean of log Data	4.415
Geometric Mean	82.65	SD of log Data	0.852
Median	92.7		
SD	127		
Std. Error of Mean	13.31		
Coefficient of Variation	1.05		
Skewness	2.486		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.234	Lilliefors Test Statistic	0.0789
Lilliefors Critical Value	0.0929	Lilliefors Critical Value	0.0929
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	143	95% H-UCL	143.5
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	171
95% Adjusted-CLT UCL (Chen-1995)	146.5	97.5% Chebyshev (MVUE) UCL	193.8
95% Modified-t UCL (Johnson-1978)	143.6	99% Chebyshev (MVUE) UCL	238.7

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	1.418	**Data appear Lognormal at 5% Significance Level**
Theta Star	85.29	
MLE of Mean	120.9	
MLE of Standard Deviation	101.6	
nu star	258	
Approximate Chi Square Value (.05)	221.8	**Nonparametric Statistics**
Adjusted Level of Significance	0.0474	95% CLT UCL 142.8
Adjusted Chi Square Value	221.3	95% Jackknife UCL 143
		95% Standard Bootstrap UCL 142.9
Anderson-Darling Test Statistic	2.087	95% Bootstrap-t UCL 147.9
Anderson-Darling 5% Critical Value	0.772	95% Hall's Bootstrap UCL 147
Kolmogorov-Smirnov Test Statistic	0.128	95% Percentile Bootstrap UCL 142.5
Kolmogorov-Smirnov 5% Critical Value	0.0956	95% BCA Bootstrap UCL 148.8
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 178.9
		97.5% Chebyshev(Mean, Sd) UCL 204
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 253.4
95% Approximate Gamma UCL (Use when n >= 40)	140.6	
95% Adjusted Gamma UCL (Use when n < 40)	141	

Potential UCL to Use	Use 95% H-UCL 143.5

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Alternative 2 (95% UCL Removal Scenario) Calculation Output Sheets Post-Remediation Conditions

General UCL Statistics for Full Data Sets - Former RMHA (Post-Remediation)

User Selected Options

From File	Pb.wst
Full Precision	OFF
Confidence Coefficient	95%
ıber of Bootstrap Operations	2000

PB Analysis Data

General Statistics

Number of Valid Observations	61	Number of Distinct Observations	44
Number of Missing Values	5		

Raw Statistics		**Log-transformed Statistics**	
Minimum	6.5	Minimum of Log Data	1.872
Maximum	2875	Maximum of Log Data	7.964
Mean	354	Mean of log Data	4.303
Geometric Mean	73.89	SD of log Data	1.803
Median	33		
SD	652.8		
Std. Error of Mean	83.59		
Coefficient of Variation	1.844		
Skewness	2.452		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.304	Lilliefors Test Statistic	0.211
Lilliefors Critical Value	0.113	Lilliefors Critical Value	0.113
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	493.6	95% H-UCL	736.5
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	862.8
95% Adjusted-CLT UCL (Chen-1995)	519.5	97.5% Chebyshev (MVUE) UCL	1084
95% Modified-t UCL (Johnson-1978)	498	99% Chebyshev (MVUE) UCL	1518

Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.408	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	868.4		
MLE of Mean	354		
MLE of Standard Deviation	554.4		
nu star	49.73		
Approximate Chi Square Value (.05)	34.54	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0461	95% CLT UCL	491.5
Adjusted Chi Square Value	34.23	95% Jackknife UCL	493.6
		95% Standard Bootstrap UCL	492.9
Anderson-Darling Test Statistic	4.63	95% Bootstrap-t UCL	537.3
Anderson-Darling 5% Critical Value	0.836	95% Hall's Bootstrap UCL	519
Kolmogorov-Smirnov Test Statistic	0.256	95% Percentile Bootstrap UCL	492.7
Kolmogorov-Smirnov 5% Critical Value	0.122	95% BCA Bootstrap UCL	529.2
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	718.3
		97.5% Chebyshev(Mean, Sd) UCL	876
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	1186
5% Approximate Gamma UCL (Use when n >= 40)	509.7		
95% Adjusted Gamma UCL (Use when n < 40)	514.2		

Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	718.3

: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL
hese recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - East Swale (Post-Remediation)

User Selected Options

From File	EastSwaleData.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	85	Number of Distinct Observations	82
Number of Missing Values	3		

Raw Statistics		Log-transformed Statistics	
Minimum	12.3	Minimum of Log Data	2.51
Maximum	5850	Maximum of Log Data	8.674
Mean	481.6	Mean of log Data	5.016
Geometric Mean	150.9	SD of log Data	1.51
Median	152		
SD	1005		
Std. Error of Mean	109		
Coefficient of Variation	2.087		
Skewness	3.959		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.32	Lilliefors Test Statistic	0.0801
Lilliefors Critical Value	0.0961	Lilliefors Critical Value	0.0961
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	662.9	95% H-UCL	745.3
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	910.2
95% Adjusted-CLT UCL (Chen-1995)	710.9	97.5% Chebyshev (MVUE) UCL	1106
95% Modified-t UCL (Johnson-1978)	670.7	99% Chebyshev (MVUE) UCL	1489

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.529	**Data appear Lognormal at 5% Significance Level**
Theta Star	909.5	
MLE of Mean	481.6	
MLE of Standard Deviation	661.8	
nu star	90.01	
Approximate Chi Square Value (.05)	69.14	**Nonparametric Statistics**
Adjusted Level of Significance	0.0472	95% CLT UCL 660.9
Adjusted Chi Square Value	68.82	95% Jackknife UCL 662.9
		95% Standard Bootstrap UCL 659.6
Anderson-Darling Test Statistic	2.999	95% Bootstrap-t UCL 768.5
Anderson-Darling 5% Critical Value	0.815	95% Hall's Bootstrap UCL 700
Kolmogorov-Smirnov Test Statistic	0.128	95% Percentile Bootstrap UCL 678
Kolmogorov-Smirnov 5% Critical Value	0.102	95% BCA Bootstrap UCL 739.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 956.7
		97.5% Chebyshev(Mean, Sd) UCL 1162
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1566
95% Approximate Gamma UCL (Use when n >= 40)	627	
95% Adjusted Gamma UCL (Use when n < 40)	629.9	

Potential UCL to Use	
Use 95% H-UCL	745.3

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - South Ditch A (Post-Remediation)

User Selected Options

From File	SDitch Area A.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	72	Number of Distinct Observations	69
Number of Missing Values	8		

Raw Statistics		**Log-transformed Statistics**	
Minimum	6	Minimum of Log Data	1.792
Maximum	2460	Maximum of Log Data	7.808
Mean	290.9	Mean of log Data	4.471
Geometric Mean	87.49	SD of log Data	1.696
Median	96.1		
SD	483.5		
Std. Error of Mean	56.98		
Coefficient of Variation	1.662		
Skewness	2.858		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.278	Lilliefors Test Statistic	0.101
Lilliefors Critical Value	0.104	Lilliefors Critical Value	0.104
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	385.9	95% H-UCL	678.2
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	790.7
95% Adjusted-CLT UCL (Chen-1995)	405.1	97.5% Chebyshev (MVUE) UCL	980.5
95% Modified-t UCL (Johnson-1978)	389.1	99% Chebyshev (MVUE) UCL	1353

Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.512	**Data appear Lognormal at 5% Significance Level**	
Theta Star	568		
MLE of Mean	290.9		
MLE of Standard Deviation	406.5		
nu star	73.75		
Approximate Chi Square Value (.05)	54.97	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0467	95% CLT UCL	384.6
Adjusted Chi Square Value	54.64	95% Jackknife UCL	385.9
		95% Standard Bootstrap UCL	383.6
Anderson-Darling Test Statistic	1.623	95% Bootstrap-t UCL	418.2
Anderson-Darling 5% Critical Value	0.815	95% Hall's Bootstrap UCL	405.3
Kolmogorov-Smirnov Test Statistic	0.114	95% Percentile Bootstrap UCL	391.8
Kolmogorov-Smirnov 5% Critical Value	0.111	95% BCA Bootstrap UCL	406.1
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	539.3
		97.5% Chebyshev(Mean, Sd) UCL	646.7
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	857.8
95% Approximate Gamma UCL (Use when n >= 40)	390.3		
95% Adjusted Gamma UCL (Use when n < 40)	392.6		

Potential UCL to Use		Use 95% H-UCL	678.2

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - South Ditch B (Post-Remediation)

User Selected Options

From File	SDitch Area B.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	72	Number of Distinct Observations	69
Number of Missing Values	5		

Raw Statistics		Log-transformed Statistics	
Minimum	2.45	Minimum of Log Data	0.896
Maximum	2470	Maximum of Log Data	7.812
Mean	384.7	Mean of log Data	4.468
Geometric Mean	87.15	SD of log Data	1.903
Median	73.2		
SD	615.6		
Std. Error of Mean	72.55		
Coefficient of Variation	1.6		
Skewness	2.002		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.267	Lilliefors Test Statistic	0.138
Lilliefors Critical Value	0.104	Lilliefors Critical Value	0.104
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	505.6	95% H-UCL	1117
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1227
95% Adjusted-CLT UCL (Chen-1995)	522.3	97.5% Chebyshev (MVUE) UCL	1543
95% Modified-t UCL (Johnson-1978)	508.5	99% Chebyshev (MVUE) UCL	2163

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.428	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	898.8	
MLE of Mean	384.7	
MLE of Standard Deviation	588	
nu star	61.63	
Approximate Chi Square Value (.05)	44.58	**Nonparametric Statistics**
Adjusted Level of Significance	0.0467	95% CLT UCL 504
Adjusted Chi Square Value	44.28	95% Jackknife UCL 505.6
		95% Standard Bootstrap UCL 503.7
Anderson-Darling Test Statistic	2.827	95% Bootstrap-t UCL 528.5
Anderson-Darling 5% Critical Value	0.832	95% Hall's Bootstrap UCL 523.4
Kolmogorov-Smirnov Test Statistic	0.172	95% Percentile Bootstrap UCL 507.2
Kolmogorov-Smirnov 5% Critical Value	0.112	95% BCA Bootstrap UCL 521.9
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 700.9
		97.5% Chebyshev(Mean, Sd) UCL 837.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 1107
95% Approximate Gamma UCL (Use when n >= 40)	531.9	
95% Adjusted Gamma UCL (Use when n < 40)	535.4	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 700.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 3 (Post-Remediation)

User Selected Options

From File	Data with 2007 Highlights.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	122	Number of Distinct Observations	114
Number of Missing Values	20		

Raw Statistics		**Log-transformed Statistics**	
Minimum	4.3	Minimum of Log Data	1.459
Maximum	1960	Maximum of Log Data	7.581
Mean	224.5	Mean of log Data	4.05
Geometric Mean	57.41	SD of log Data	1.648
Median	35.25		
SD	419.6		
Std. Error of Mean	37.99		
Coefficient of Variation	1.869		
Skewness	2.688		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.3	Lilliefors Test Statistic	0.148
Lilliefors Critical Value	0.0802	Lilliefors Critical Value	0.0802
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	287.5	95% H-UCL	342
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	424.3
95% Adjusted-CLT UCL (Chen-1995)	296.9	97.5% Chebyshev (MVUE) UCL	513.7
95% Modified-t UCL (Johnson-1978)	289.1	99% Chebyshev (MVUE) UCL	689.3

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.464	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	483.8	
MLE of Mean	224.5	
MLE of Standard Deviation	329.6	
nu star	113.2	
Approximate Chi Square Value (.05)	89.68	**Nonparametric Statistics**
Adjusted Level of Significance	0.048	95% CLT UCL 287
Adjusted Chi Square Value	89.43	95% Jackknife UCL 287.5
		95% Standard Bootstrap UCL 287.7
Anderson-Darling Test Statistic	6.71	95% Bootstrap-t UCL 300
Anderson-Darling 5% Critical Value	0.826	95% Hall's Bootstrap UCL 293.5
Kolmogorov-Smirnov Test Statistic	0.184	95% Percentile Bootstrap UCL 290.9
Kolmogorov-Smirnov 5% Critical Value	0.089	95% BCA Bootstrap UCL 300.2
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 390.1
		97.5% Chebyshev(Mean, Sd) UCL 461.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 602.5
95% Approximate Gamma UCL (Use when n >= 40)	283.6	
95% Adjusted Gamma UCL (Use when n < 40)	284.3	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 390.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6A (Post-Remediation)

User Selected Options

From File	6 B.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	77	Number of Distinct Observations	76
Number of Missing Values	10		

Raw Statistics		**Log-transformed Statistics**	
Minimum	5.1	Minimum of Log Data	1.629
Maximum	7200	Maximum of Log Data	8.882
Mean	699.5	Mean of log Data	4.511
Geometric Mean	91.01	SD of log Data	2.12
Median	37.8		
SD	1502		
Std. Error of Mean	171.2		
Coefficient of Variation	2.147		
Skewness	3.006		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.322	Lilliefors Test Statistic	0.168
Lilliefors Critical Value	0.101	Lilliefors Critical Value	0.101
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	984.5	95% H-UCL	2059
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	2096
95% Adjusted-CLT UCL (Chen-1995)	1044	97.5% Chebyshev (MVUE) UCL	2662
95% Modified-t UCL (Johnson-1978)	994.3	99% Chebyshev (MVUE) UCL	3774

Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.328	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	2131		
MLE of Mean	699.5		
MLE of Standard Deviation	1221		
nu star	50.54		
Approximate Chi Square Value (.05)	35.22	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0469	95% CLT UCL	981
Adjusted Chi Square Value	34.97	95% Jackknife UCL	984.5
		95% Standard Bootstrap UCL	972.7
Anderson-Darling Test Statistic	5.055	95% Bootstrap-t UCL	1091
Anderson-Darling 5% Critical Value	0.858	95% Hall's Bootstrap UCL	1020
Kolmogorov-Smirnov Test Statistic	0.214	95% Percentile Bootstrap UCL	985.8
Kolmogorov-Smirnov 5% Critical Value	0.11	95% BCA Bootstrap UCL	1048
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	1446
		97.5% Chebyshev(Mean, Sd) UCL	1768
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	2403
95% Approximate Gamma UCL (Use when n >= 40)	1004		
95% Adjusted Gamma UCL (Use when n < 40)	1011		

Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	1446

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6B (Post-Remediation)

User Selected Options

From File	6 A.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	86	Number of Distinct Observations	80
Number of Missing Values	13		

Raw Statistics		Log-transformed Statistics	
Minimum	10.3	Minimum of Log Data	2.332
Maximum	7740	Maximum of Log Data	8.954
Mean	781.2	Mean of log Data	4.816
Geometric Mean	123.5	SD of log Data	1.965
Median	53.25		
SD	1511		
Std. Error of Mean	163		
Coefficient of Variation	1.935		
Skewness	2.445		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.316	Lilliefors Test Statistic	0.176
Lilliefors Critical Value	0.0955	Lilliefors Critical Value	0.0955
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	1052	95% H-UCL	1734
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1943
95% Adjusted-CLT UCL (Chen-1995)	1095	97.5% Chebyshev (MVUE) UCL	2437
95% Modified-t UCL (Johnson-1978)	1059	99% Chebyshev (MVUE) UCL	3408

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.358	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	2184	
MLE of Mean	781.2	
MLE of Standard Deviation	1306	
nu star	61.51	
Approximate Chi Square Value (.05)	44.47	**Nonparametric Statistics**
Adjusted Level of Significance	0.0472	95% CLT UCL 1049
Adjusted Chi Square Value	44.22	95% Jackknife UCL 1052
		95% Standard Bootstrap UCL 1049
Anderson-Darling Test Statistic	6.596	95% Bootstrap-t UCL 1115
Anderson-Darling 5% Critical Value	0.852	95% Hall's Bootstrap UCL 1089
Kolmogorov-Smirnov Test Statistic	0.214	95% Percentile Bootstrap UCL 1063
Kolmogorov-Smirnov 5% Critical Value	0.104	95% BCA Bootstrap UCL 1089
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 1492
		97.5% Chebyshev(Mean, Sd) UCL 1799
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 2403
95% Approximate Gamma UCL (Use when n >= 40)	1080	
95% Adjusted Gamma UCL (Use when n < 40)	1086	

Potential UCL to Use		
	Use 95% Chebyshev (Mean, Sd) UCL	1492

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Full Data Sets - Area 6C (Post-Remediation)

User Selected Options

From File	6C.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead (mg/kg)

General Statistics

Number of Valid Observations	98	Number of Distinct Observations	94
Number of Missing Values	10		

Raw Statistics		**Log-transformed Statistics**	
Minimum	13	Minimum of Log Data	2.565
Maximum	6930	Maximum of Log Data	8.844
Mean	762.5	Mean of log Data	4.719
Geometric Mean	112	SD of log Data	1.984
Median	48.85		
SD	1546		
Std. Error of Mean	156.1		
Coefficient of Variation	2.027		
Skewness	2.639		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.314	Lilliefors Test Statistic	0.187
Lilliefors Critical Value	0.0895	Lilliefors Critical Value	0.0895
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

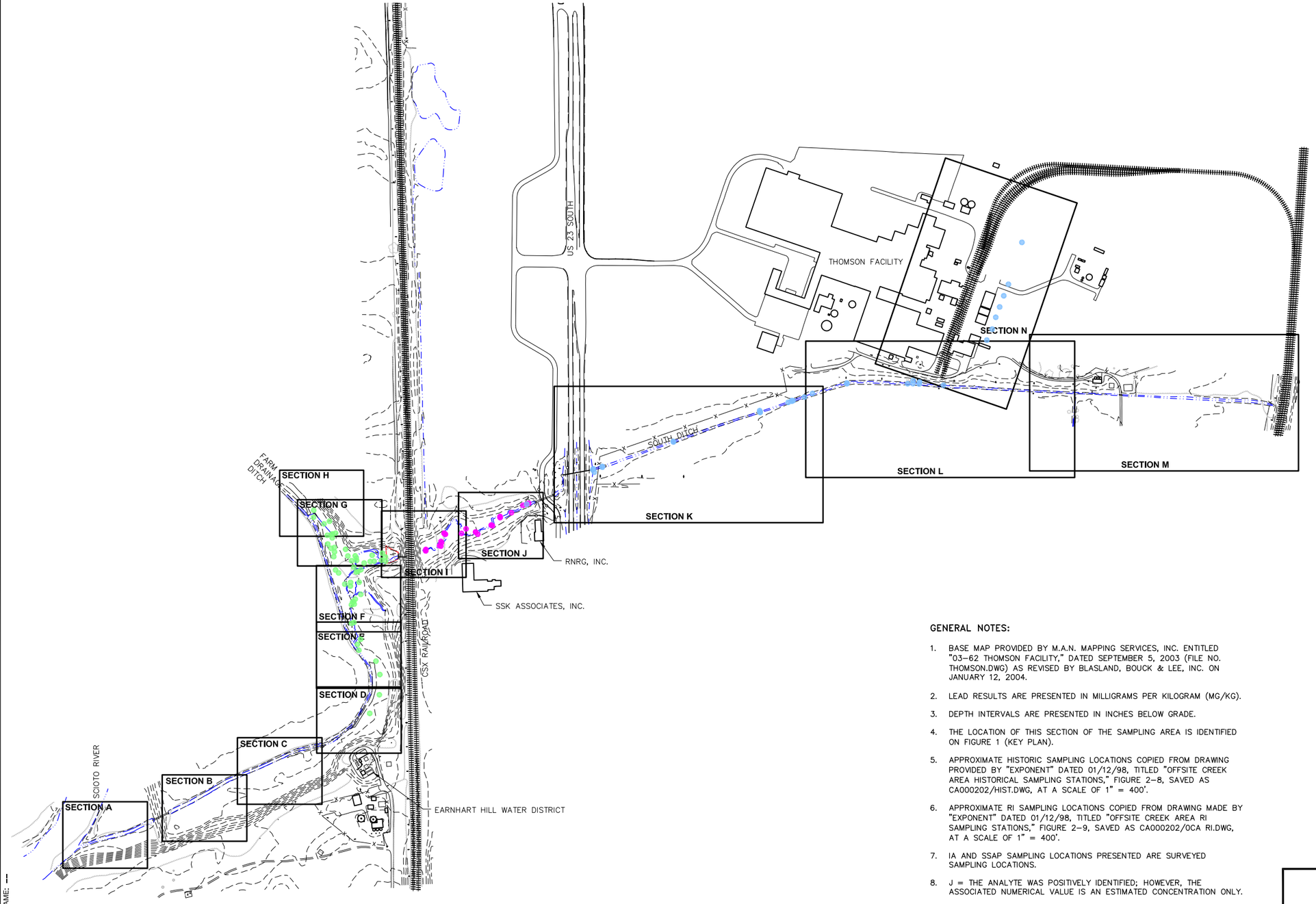
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1022	95% H-UCL	1588
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1795
95% Adjusted-CLT UCL (Chen-1995)	1064	97.5% Chebyshev (MVUE) UCL	2244
95% Modified-t UCL (Johnson-1978)	1029	99% Chebyshev (MVUE) UCL	3126

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	0.347	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	2200	
MLE of Mean	762.5	
MLE of Standard Deviation	1295	
nu star	67.94	
Approximate Chi Square Value (.05)	49.97	**Nonparametric Statistics**
Adjusted Level of Significance	0.0476	95% CLT UCL 1019
Adjusted Chi Square Value	49.74	95% Jackknife UCL 1022
		95% Standard Bootstrap UCL 1022
Anderson-Darling Test Statistic	8.579	95% Bootstrap-t UCL 1096
Anderson-Darling 5% Critical Value	0.855	95% Hall's Bootstrap UCL 1060
Kolmogorov-Smirnov Test Statistic	0.261	95% Percentile Bootstrap UCL 1027
Kolmogorov-Smirnov 5% Critical Value	0.0975	95% BCA Bootstrap UCL 1066
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 1443
		97.5% Chebyshev(Mean, Sd) UCL 1737
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 2316
95% Approximate Gamma UCL (Use when n >= 40)	1037	
95% Adjusted Gamma UCL (Use when n < 40)	1041	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 1443

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Data Summary Figures



LEGEND:

- SOUTH DITCH AND OFFSITE CREEK AREA SUPPLEMENTAL SAMPLING PLAN (SSAP) TRANSECT SAMPLING LOCATION
- SSAP CORE SAMPLING LOCATION
- HISTORICAL GRAB SAMPLE OR CORE STATION
- HISTORICAL TRANSECT LOCATION
- REMEDIAL INVESTIGATION (RI) CORE STATION
- RI TRANSECT STATION
- INTERIM ACTION (IA) SAMPLING POINTS
- EXISTING CONTOUR
- EDGE OF WATER
- TREELINE
- EXISTING GUARD RAIL
- EXISTING FENCE
- EXISTING UTILITY POLE
- A — SAMPLE AT CENTER OF THE STREAM CHANNEL FROM THE 0 TO 6–INCH INTERVAL BELOW GRADE
- B — CORE SAMPLE BELOW LOCATION A BEGINNING FROM THE 6 TO 12–INCH INTERVAL BELOW GRADE
- C1 (L OR R) — CORE SAMPLES ON BOTH SIDES OF THE STREAM CHANNEL (RIGHT OR LEFT, FACING UPSTREAM) AT THE SEDIMENT CONTACT WITH SLOPE OF THE STREAM CHANNEL
- C2 (L OR R) — CORE SAMPLES ON BOTH SIDES OF THE STREAM CHANNEL (RIGHT OR LEFT, FACING UPSTREAM) NEAR THE FIRST SIGNIFICANT BREAK IN SLOPE OUT OF THE STREAM CHANNEL (TOP OF BANK)
- HW (L) — CORE SAMPLES ON THE LEFT SIDE OF THE STREAM CHANNEL (FACING UPSTREAM) AT THE HIGH WATER MARK (HW) BETWEEN THE C1L AND C2L LOCATIONS
- OB (L OR R) — CORE SAMPLES ON BOTH SIDES OF THE STREAM CHANNEL (RIGHT OR LEFT, FACING UPSTREAM) SPACED AT 50–FOOT INTERVALS WITH THE FIRST OB (OVERBANK) SAMPLE LOCATION STARTING AT 50 FEET FROM THE CENTER OF THE STREAM CHANNEL. THE OB LOCATIONS WILL BE NUMBERED CONSECUTIVELY OUTWARD AWAY FROM THE CENTER OF THE STREAM CHANNEL ON EACH SIDE (E.G., OB1, OB2, AND OB3).
- SAMPLE LOCATION/RESULT WITH LEAD CONCENTRATION >400 PPM
- SAMPLE LOCATION/RESULT WITH LEAD CONCENTRATION >750 PPM
- SAMPLE LOCATION/RESULT WITH LEAD CONCENTRATION >1,505 PPM
- SAMPLE RESULT WITH ANTIMONY OR ARSENIC CONCENTRATION ABOVE APPLICATION PRG
- AREA OF 2002 IRM

0 300' 600'
GRAPHIC SCALE

GENERAL NOTES:

1. BASE MAP PROVIDED BY M.A.N. MAPPING SERVICES, INC. ENTITLED "03–62 THOMSON FACILITY," DATED SEPTEMBER 5, 2003 (FILE NO. THOMSON.DWG) AS REVISED BY BLASLAND, BOUCK & LEE, INC. ON JANUARY 12, 2004.
2. LEAD RESULTS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM (MG/KG).
3. DEPTH INTERVALS ARE PRESENTED IN INCHES BELOW GRADE.
4. THE LOCATION OF THIS SECTION OF THE SAMPLING AREA IS IDENTIFIED ON FIGURE 1 (KEY PLAN).
5. APPROXIMATE HISTORIC SAMPLING LOCATIONS COPIED FROM DRAWING PROVIDED BY "EXPONENT" DATED 01/12/98, TITLED "OFFSITE CREEK AREA HISTORICAL SAMPLING STATIONS," FIGURE 2–8, SAVED AS CA000202/HIST.DWG, AT A SCALE OF 1" = 400'.
6. APPROXIMATE RI SAMPLING LOCATIONS COPIED FROM DRAWING MADE BY "EXPONENT" DATED 01/12/98, TITLED "OFFSITE CREEK AREA RI SAMPLING STATIONS," FIGURE 2–9, SAVED AS CA000202/0CA RI.DWG, AT A SCALE OF 1" = 400'.
7. IA AND SSAP SAMPLING LOCATIONS PRESENTED ARE SURVEYED SAMPLING LOCATIONS.
8. J = THE ANALYTE WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. L = ACTUAL CONCENTRATION IS LESS THAN THE REPORTED CONCENTRATION.
10. U = NOT DETECTED.
11. ARC = THE SAMPLE IS CURRENTLY BEING ARCHIVED BY THE LABORATORY FOR POTENTIAL FUTURE TOTAL LEAD ANALYSIS.
12. DOES NOT INCLUDE SAMPLES WITHIN THE IA REMOVAL AREA.

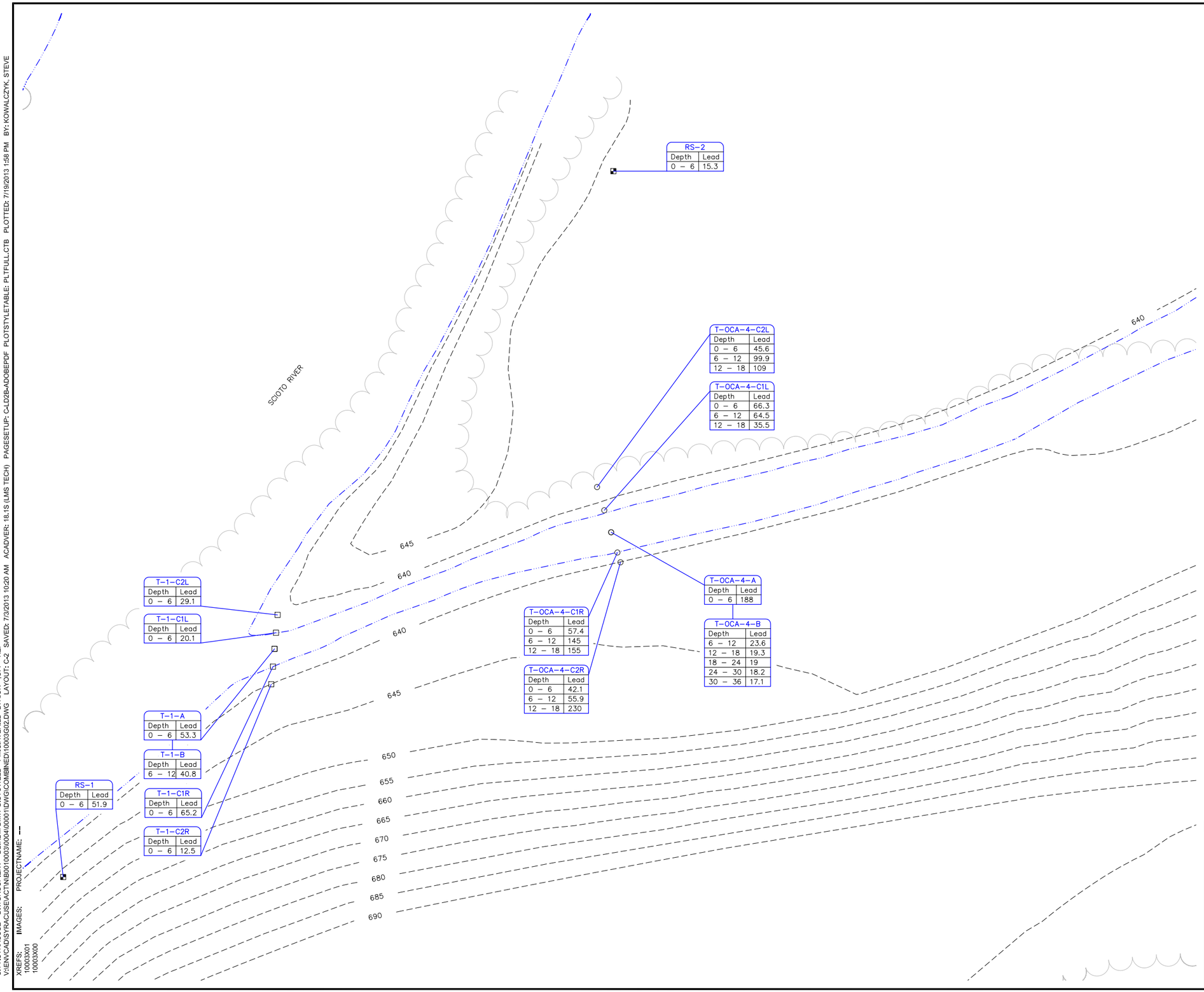
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

KEY PLAN

ARCADIS

FIGURE
C-1

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\0004\00001\DWG\COMBINED\10003G01.DWG LAYOUT: C-1 SAVED: 7/19/2013 1:42 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
XREFS: 10003X01 10003X00 IMAGES: PROJECTNAME: ---



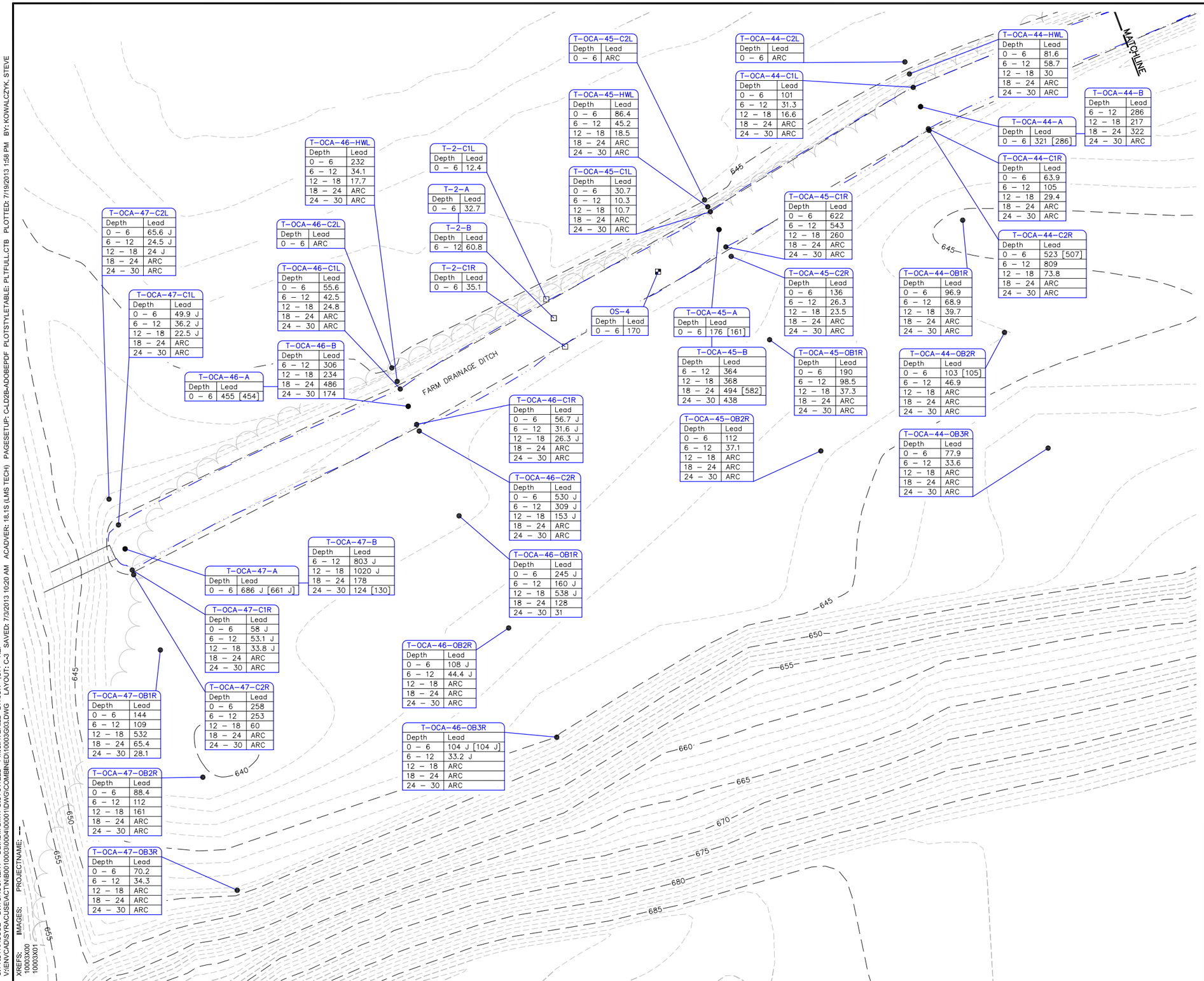
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION A)

ARCADIS

FIGURE
C-2

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G:STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF
V:\ENVCAD\SYRACUSE\ACTIVE\B0010003\00400001\DWG\COMBINED\10003G02.DWG LAYOUT: C-2 SAVED: 7/3/2013 10:20 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
XREFS: 10003X01 10003X00 IMAGES: PROJECTNAME: ---



T-OCA-45-C2L	
Depth	Lead
0 – 6	ARC

T-OCA-44-C2L	
Depth	Lead
0 – 6	ARC

T-OCA-44-HWL	
Depth	Lead
0 – 6	81.6
6 – 12	58.7
12 – 18	30
18 – 24	ARC
24 – 30	ARC

T-OCA-44-C1L	
Depth	Lead
0 – 6	101
6 – 12	31.3
12 – 18	16.6
18 – 24	ARC
24 – 30	ARC

T-OCA-45-HWL	
Depth	Lead
0 – 6	86.4
6 – 12	45.2
12 – 18	18.5
18 – 24	ARC
24 – 30	ARC

T-OCA-44-B	
Depth	Lead
6 – 12	286
12 – 18	217
18 – 24	322
24 – 30	ARC

T-OCA-44-A	
Depth	Lead
0 – 6	321 [286]

T-OCA-44-C1R	
Depth	Lead
0 – 6	63.9
6 – 12	105
12 – 18	29.4
18 – 24	ARC
24 – 30	ARC

T-OCA-46-HWL	
Depth	Lead
0 – 6	232
6 – 12	34.1
12 – 18	17.7
18 – 24	ARC
24 – 30	ARC

T-2-C1L	
Depth	Lead
0 – 6	12.4

T-2-A	
Depth	Lead
0 – 6	32.7

T-OCA-45-C1L	
Depth	Lead
0 – 6	30.7
6 – 12	10.3
12 – 18	10.7
18 – 24	ARC
24 – 30	ARC

T-OCA-45-C1R	
Depth	Lead
0 – 6	622
6 – 12	543
12 – 18	260
18 – 24	ARC
24 – 30	ARC

T-OCA-44-C2R	
Depth	Lead
0 – 6	523 [507]
6 – 12	809
12 – 18	73.8
18 – 24	ARC
24 – 30	ARC

T-OCA-47-C2L	
Depth	Lead
0 – 6	65.6 J
6 – 12	24.5 J
12 – 18	24 J
18 – 24	ARC
24 – 30	ARC

T-OCA-46-C2L	
Depth	Lead
0 – 6	ARC

T-2-B	
Depth	Lead
6 – 12	60.8

T-OCA-46-C1L	
Depth	Lead
0 – 6	55.6
6 – 12	42.5
12 – 18	24.8
18 – 24	ARC
24 – 30	ARC

T-2-C1R	
Depth	Lead
0 – 6	35.1

T-OCA-45-C2R	
Depth	Lead
0 – 6	136
6 – 12	26.3
12 – 18	23.5
18 – 24	ARC
24 – 30	ARC

T-OCA-44-OB1R	
Depth	Lead
0 – 6	96.9
6 – 12	68.9
12 – 18	39.7
18 – 24	ARC
24 – 30	ARC

OS-4	
Depth	Lead
0 – 6	170

T-OCA-47-C1L	
Depth	Lead
0 – 6	49.9 J
6 – 12	36.2 J
12 – 18	22.5 J
18 – 24	ARC
24 – 30	ARC

T-OCA-45-A	
Depth	Lead
0 – 6	176 [161]

T-OCA-46-B	
Depth	Lead
6 – 12	306
12 – 18	234
18 – 24	486
24 – 30	174

T-OCA-45-B	
Depth	Lead
6 – 12	364
12 – 18	368
18 – 24	494 [582]
24 – 30	438

T-OCA-45-OB1R	
Depth	Lead
0 – 6	190
6 – 12	98.5
12 – 18	37.3
18 – 24	ARC
24 – 30	ARC

T-OCA-44-OB2R	
Depth	Lead
0 – 6	103 [105]
6 – 12	46.9
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

T-OCA-46-A	
Depth	Lead
0 – 6	455 [454]

T-OCA-46-C1R	
Depth	Lead
0 – 6	56.7 J
6 – 12	31.6 J
12 – 18	26.3 J
18 – 24	ARC
24 – 30	ARC

T-OCA-45-OB2R	
Depth	Lead
0 – 6	112
6 – 12	37.1
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

T-OCA-44-OB3R	
Depth	Lead
0 – 6	77.9
6 – 12	33.6
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

T-OCA-46-C2R	
Depth	Lead
0 – 6	530 J
6 – 12	309 J
12 – 18	153 J
18 – 24	ARC
24 – 30	ARC

T-OCA-47-B	
Depth	Lead
6 – 12	803 J
12 – 18	1020 J
18 – 24	178
24 – 30	124 [130]

T-OCA-47-A	
Depth	Lead
0 – 6	686 J [661 J]

T-OCA-46-OB1R	
Depth	Lead
0 – 6	245 J
6 – 12	160 J
12 – 18	538 J
18 – 24	128
24 – 30	31

T-OCA-47-C1R	
Depth	Lead
0 – 6	58 J
6 – 12	53.1 J
12 – 18	33.8 J
18 – 24	ARC
24 – 30	ARC

T-OCA-46-OB2R	
Depth	Lead
0 – 6	108 J
6 – 12	44.4 J
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

T-OCA-47-C2R	
Depth	Lead
0 – 6	258
6 – 12	253
12 – 18	60
18 – 24	ARC
24 – 30	ARC

T-OCA-47-OB1R	
Depth	Lead
0 – 6	144
6 – 12	109
12 – 18	532
18 – 24	65.4
24 – 30	28.1

T-OCA-46-OB3R	
Depth	Lead
0 – 6	104 J [104 J]
6 – 12	33.2 J
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

T-OCA-47-OB2R	
Depth	Lead
0 – 6	88.4
6 – 12	112
12 – 18	161
18 – 24	ARC
24 – 30	ARC

T-OCA-47-OB3R	
Depth	Lead
0 – 6	70.2
6 – 12	34.3
12 – 18	ARC
18 – 24	ARC
24 – 30	ARC

0 20' 40'
GRAPHIC SCALE

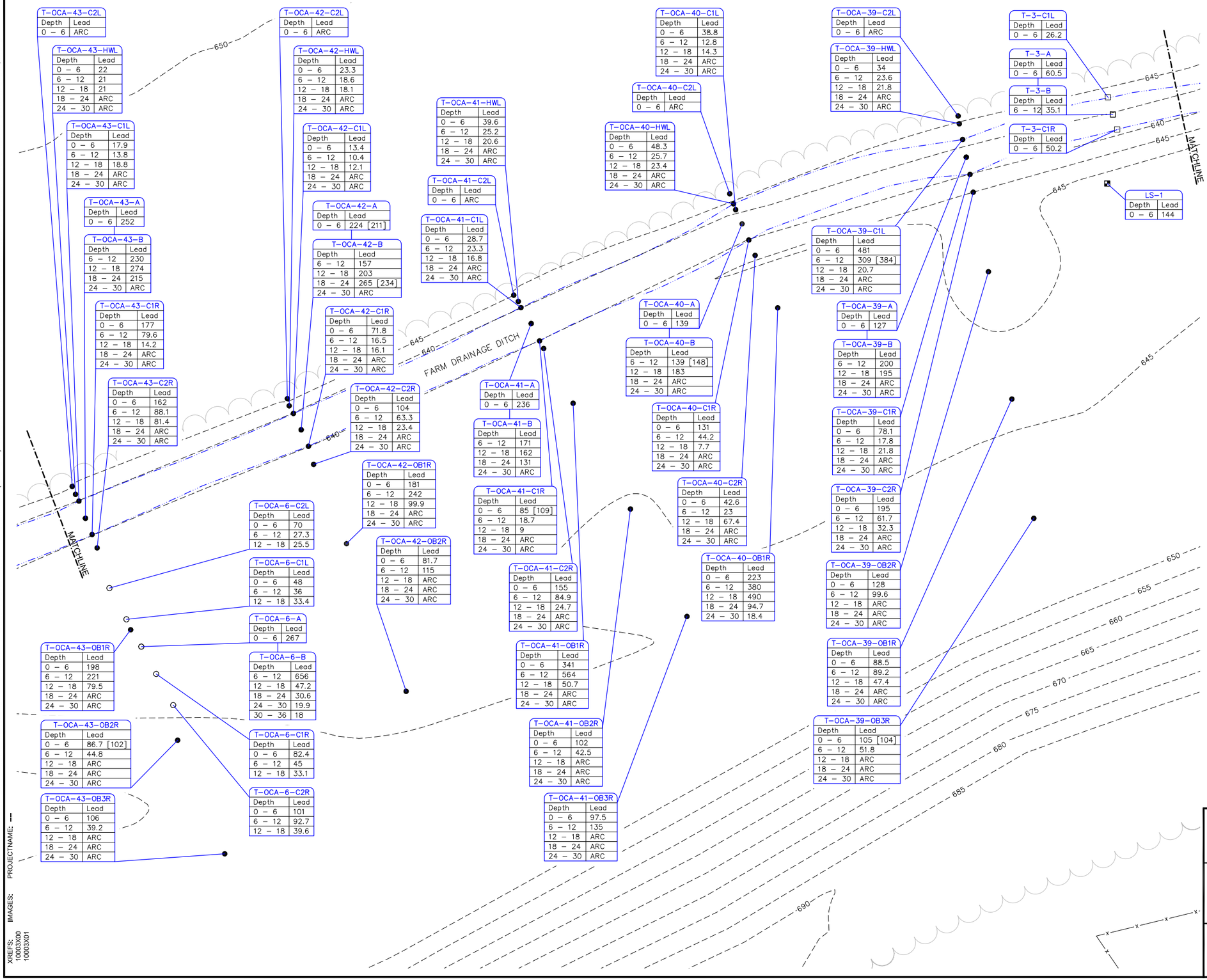
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION B)

ARCADIS

FIGURE
C-3

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\0004\00001\DWG\COMBINED\10003G03.DWG LAYOUT: C-3 SAVED: 7/3/2013 10:20 AM
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



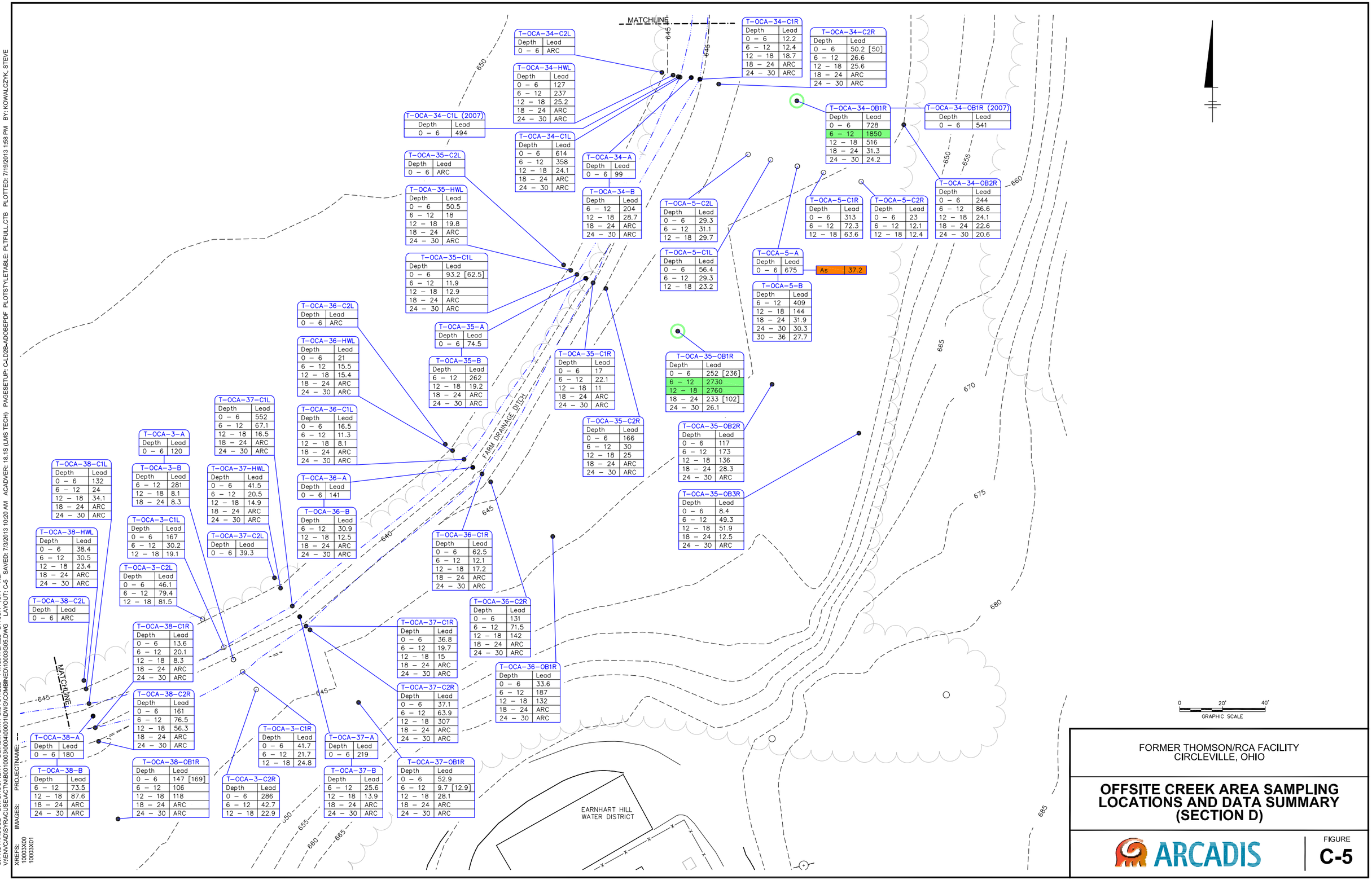
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION C)

ARCADIS

FIGURE
C-4

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB001000300040000\1\DWG\COMBINED\10003G04.DWG LAYOUT: C-4 SAVED: 7/3/2013 10:20 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



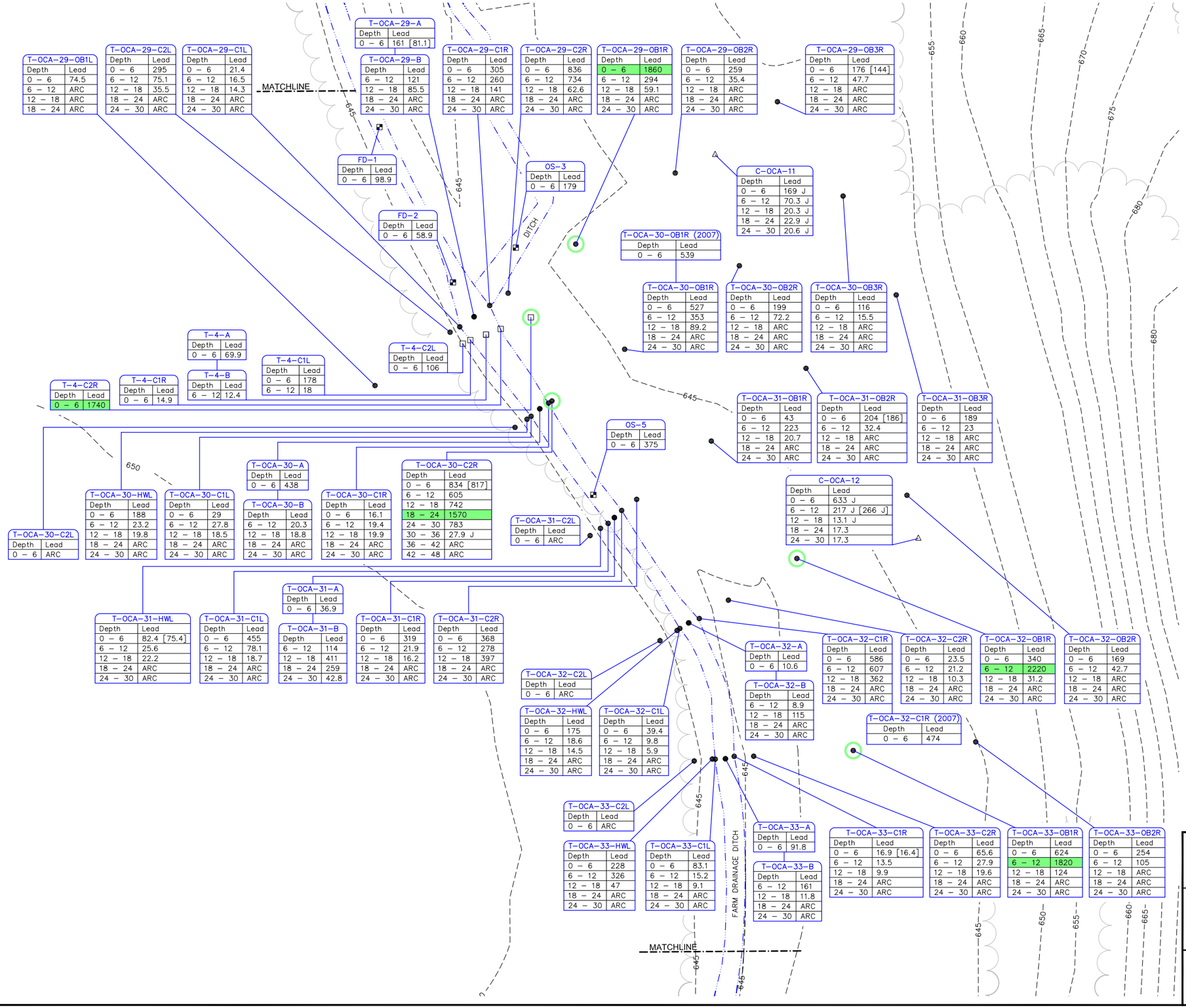
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION D)

ARCADIS

FIGURE
C-5

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB0010003\0040\00011\DWG\COMBINED\10003G05.DWG LAYOUT: C-5 SAVED: 7/3/2013 10:20 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: --



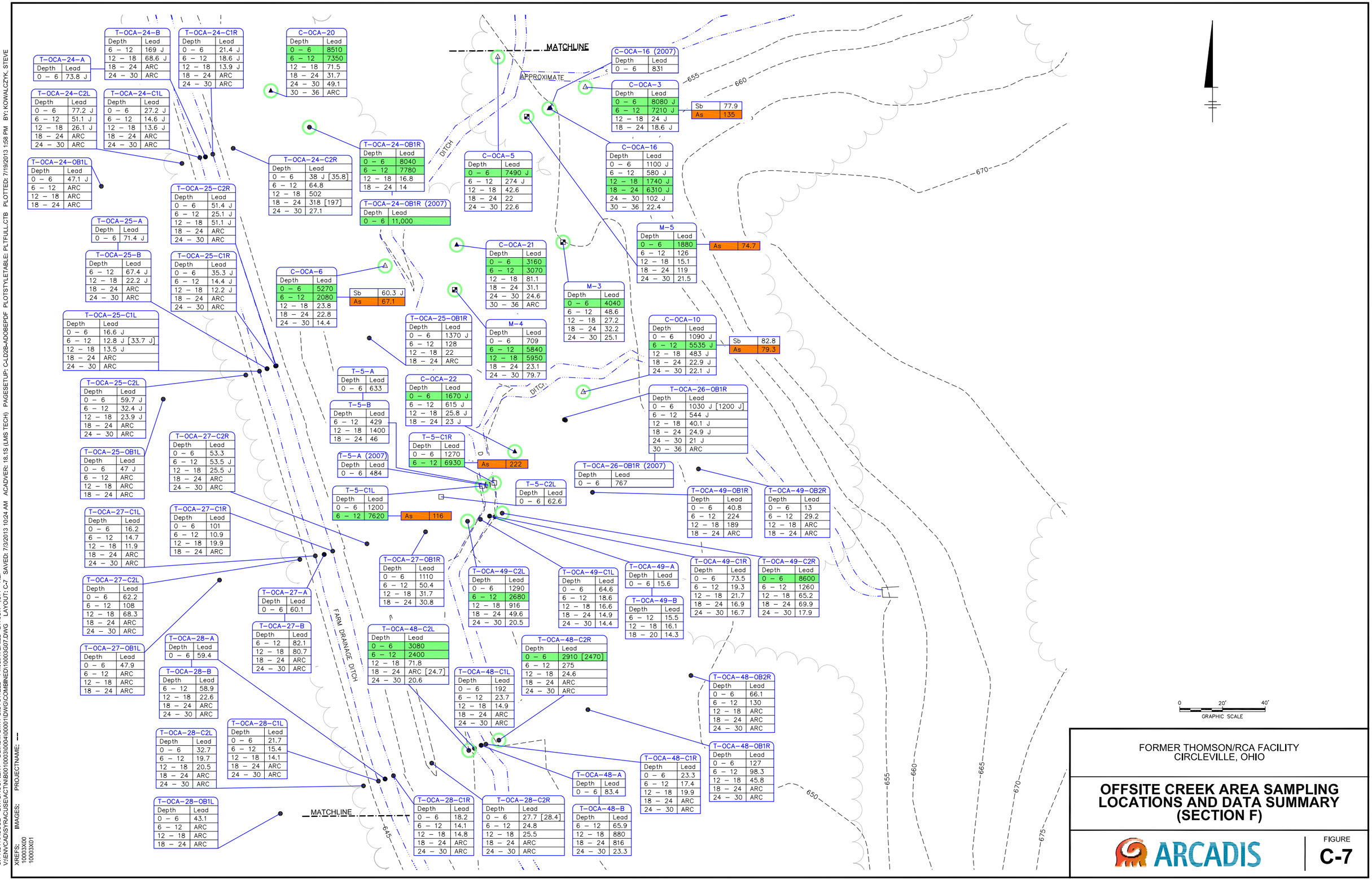
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION E)

ARCADIS

FIGURE
C-6

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB0010003\00040\00001\DWG\COMBINED\10003G06.DWG LAYOUT: C-6 SAVED: 7/3/2013 10:24 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



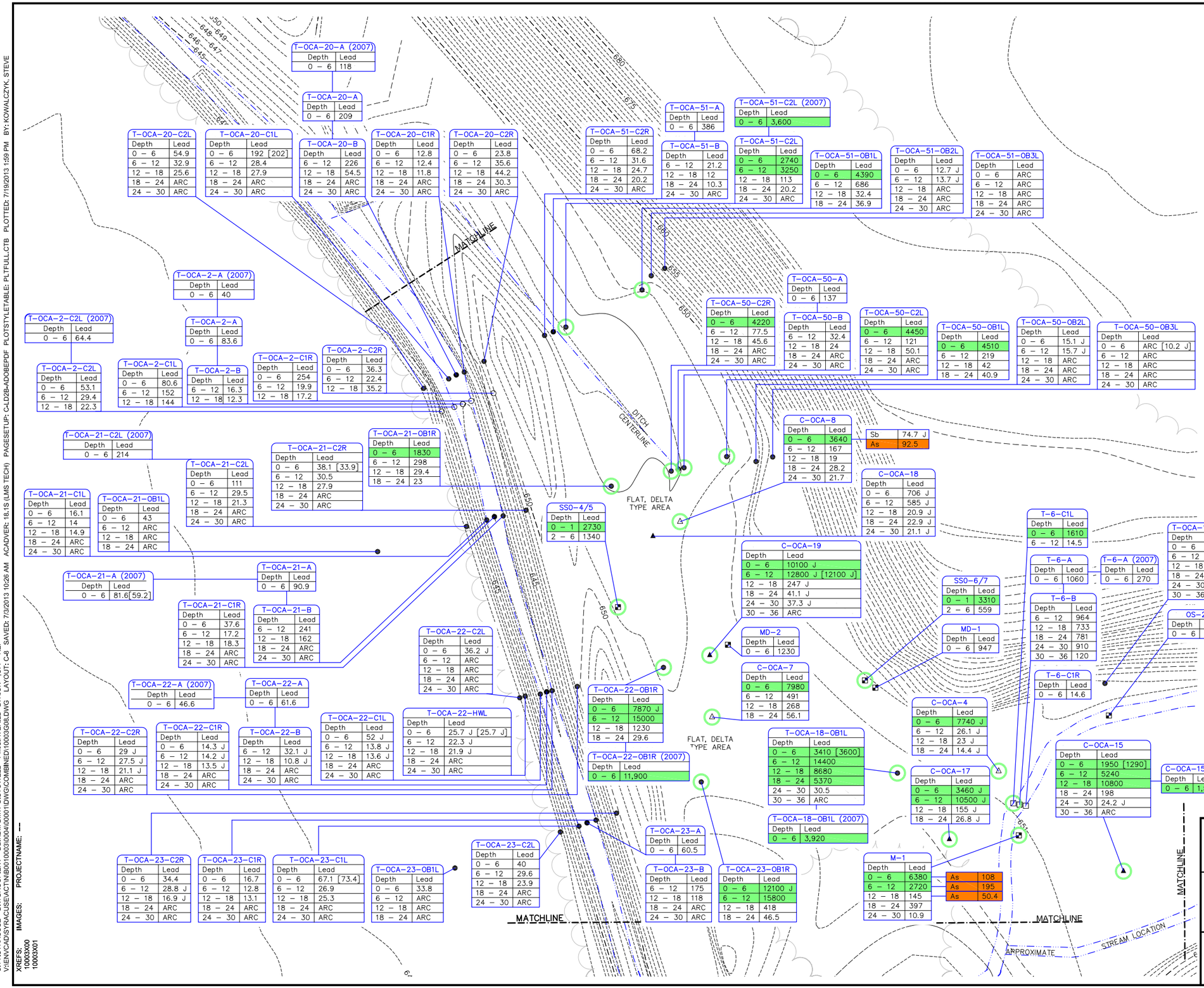
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION F)

ARCADIS

FIGURE
C-7

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:58 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\00040\00001\DWG\COMBINED\10003G07.DWG LAYOUT: C-7 SAVED: 7/3/2013 10:24 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

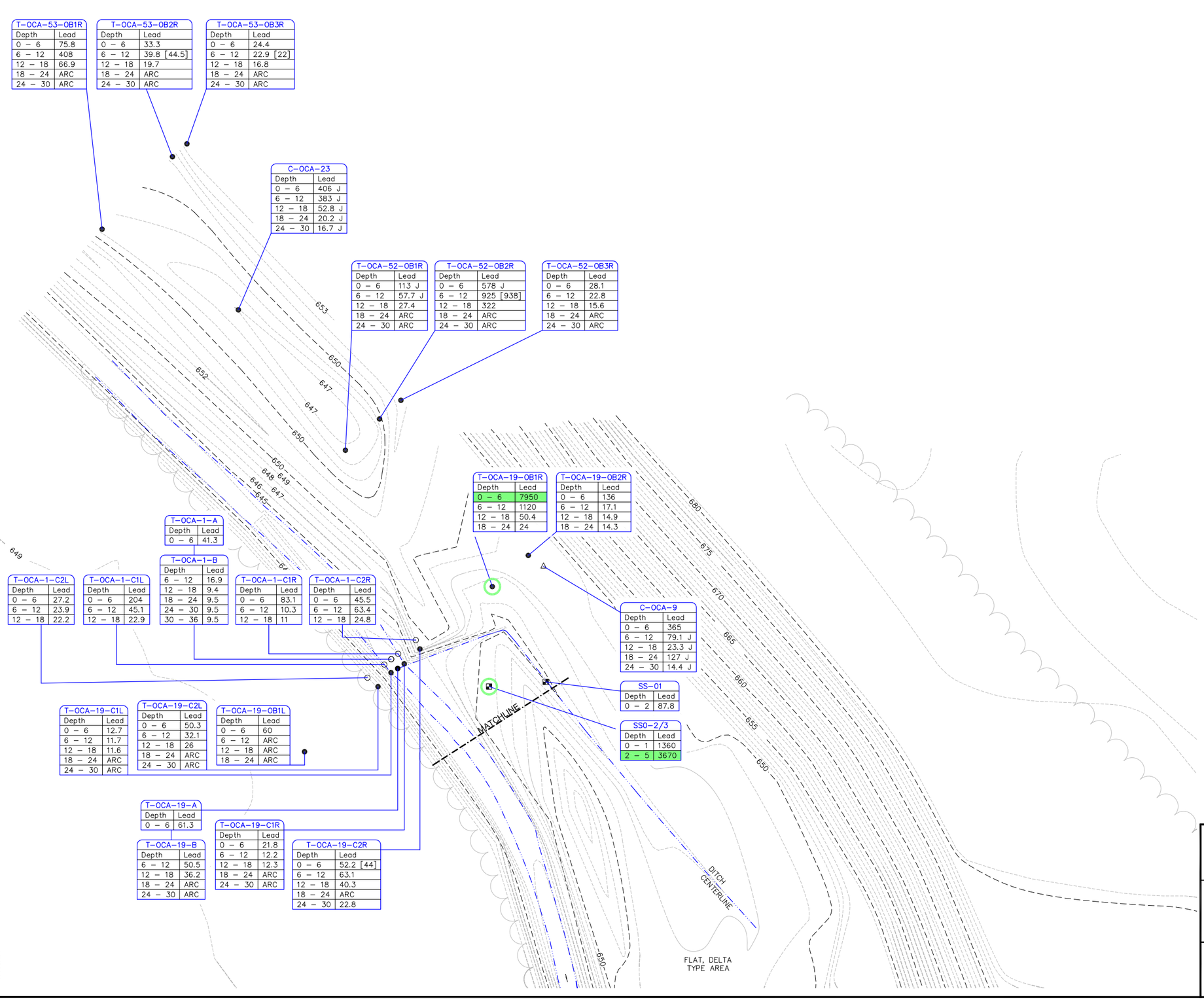
OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION G)

ARCADIS

FIGURE
C-8

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB0010003\0004\0000011\DWG\COMBINED\10003G08.DWG LAYOUT: C-8 SAVED: 7/3/2013 10:26 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF
V:\ENVCAD\SYRACUSE\ACT\NB001000300040000\DWG\COMBINED\10003G09.DWG LAYOUT: C-9 SAVED: 7/3/2013 10:25 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



T-OCA-53-OB1R

Depth	Lead
0 – 6	75.8
6 – 12	408
12 – 18	66.9
18 – 24	ARC
24 – 30	ARC

T-OCA-53-OB2R

Depth	Lead
0 – 6	33.3
6 – 12	39.8 [44.5]
12 – 18	19.7
18 – 24	ARC
24 – 30	ARC

T-OCA-53-OB3R

Depth	Lead
0 – 6	24.4
6 – 12	22.9 [22]
12 – 18	16.8
18 – 24	ARC
24 – 30	ARC

C-OCA-23

Depth	Lead
0 – 6	406 J
6 – 12	383 J
12 – 18	52.8 J
18 – 24	20.2 J
24 – 30	16.7 J

T-OCA-52-OB1R

Depth	Lead
0 – 6	113 J
6 – 12	57.7 J
12 – 18	27.4
18 – 24	ARC
24 – 30	ARC

T-OCA-52-OB2R

Depth	Lead
0 – 6	578 J
6 – 12	925 [938]
12 – 18	322
18 – 24	ARC
24 – 30	ARC

T-OCA-52-OB3R

Depth	Lead
0 – 6	28.1
6 – 12	22.8
12 – 18	15.6
18 – 24	ARC
24 – 30	ARC

T-OCA-19-OB1R

Depth	Lead
0 – 6	7950
6 – 12	1120
12 – 18	50.4
18 – 24	24

T-OCA-19-OB2R

Depth	Lead
0 – 6	136
6 – 12	17.1
12 – 18	14.9
18 – 24	14.3

T-OCA-1-A

Depth	Lead
0 – 6	41.3

T-OCA-1-B

Depth	Lead
6 – 12	16.9
12 – 18	9.4
18 – 24	9.5
24 – 30	9.5
30 – 36	9.5

T-OCA-1-C2L

Depth	Lead
0 – 6	27.2
6 – 12	23.9
12 – 18	22.2

T-OCA-1-C1L

Depth	Lead
0 – 6	204
6 – 12	45.1
12 – 18	22.9

T-OCA-1-C1R

Depth	Lead
0 – 6	83.1
6 – 12	10.3
12 – 18	11

T-OCA-1-C2R

Depth	Lead
0 – 6	45.5
6 – 12	63.4
12 – 18	24.8

C-OCA-9

Depth	Lead
0 – 6	365
6 – 12	79.1 J
12 – 18	23.3 J
18 – 24	127 J
24 – 30	14.4 J

SS-01

Depth	Lead
0 – 2	87.8

SS0-2/3

Depth	Lead
0 – 1	1360
2 – 5	3670

T-OCA-19-C1L

Depth	Lead
0 – 6	12.7
6 – 12	11.7
12 – 18	11.6
18 – 24	ARC
24 – 30	ARC

T-OCA-19-C2L

Depth	Lead
0 – 6	50.3
6 – 12	32.1
12 – 18	26
18 – 24	ARC
24 – 30	ARC

T-OCA-19-OB1L

Depth	Lead
0 – 6	60
6 – 12	ARC
12 – 18	ARC
18 – 24	ARC

T-OCA-19-A

Depth	Lead
0 – 6	61.3

T-OCA-19-B

Depth	Lead
6 – 12	50.5
12 – 18	36.2
18 – 24	ARC
24 – 30	ARC

T-OCA-19-C1R

Depth	Lead
0 – 6	21.8
6 – 12	12.2
12 – 18	12.3
18 – 24	ARC
24 – 30	ARC

T-OCA-19-C2R

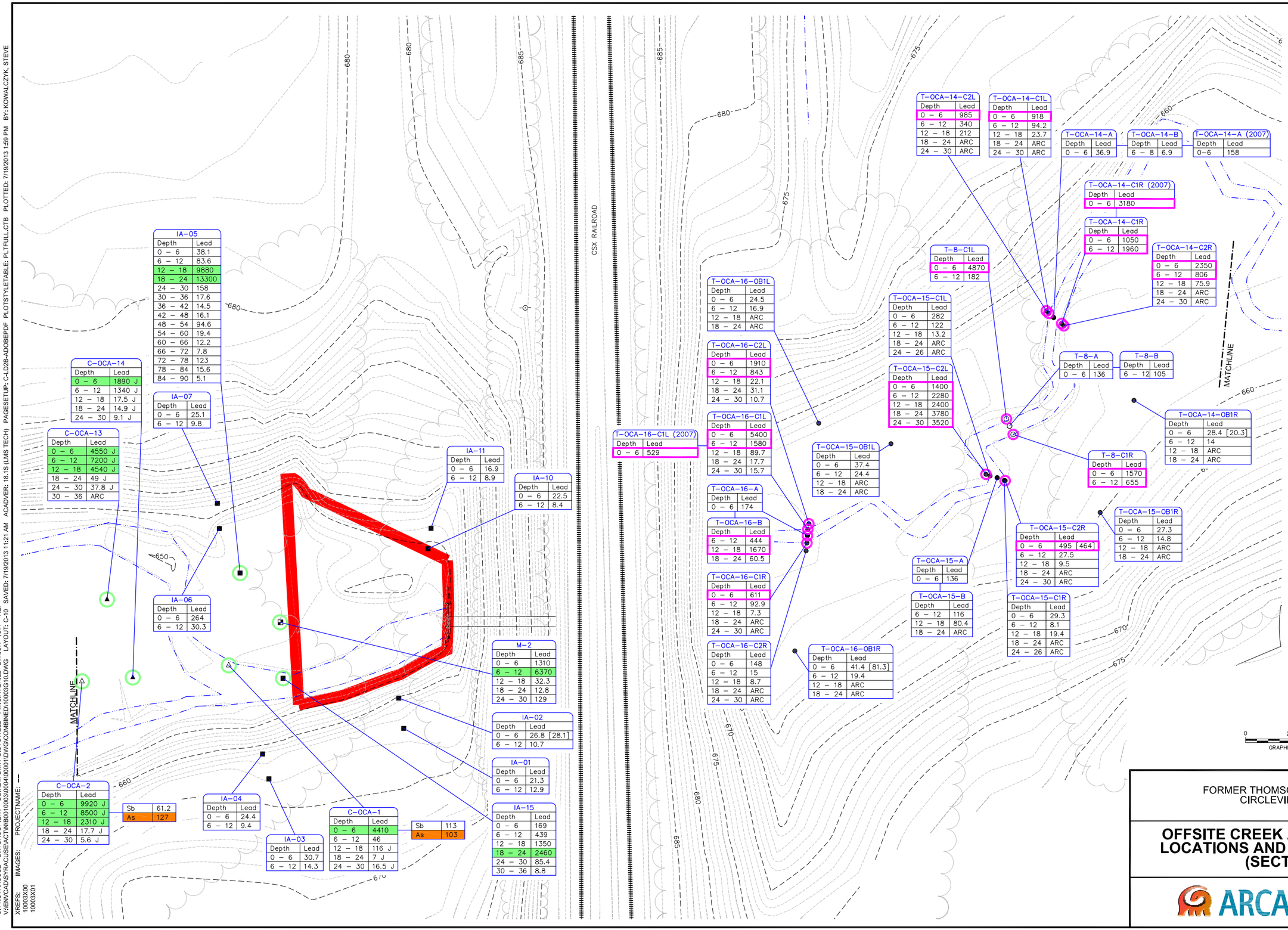
Depth	Lead
0 – 6	52.2 [44]
6 – 12	63.1
12 – 18	40.3
18 – 24	ARC
24 – 30	22.8

FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION H)

ARCADIS

FIGURE
C-9



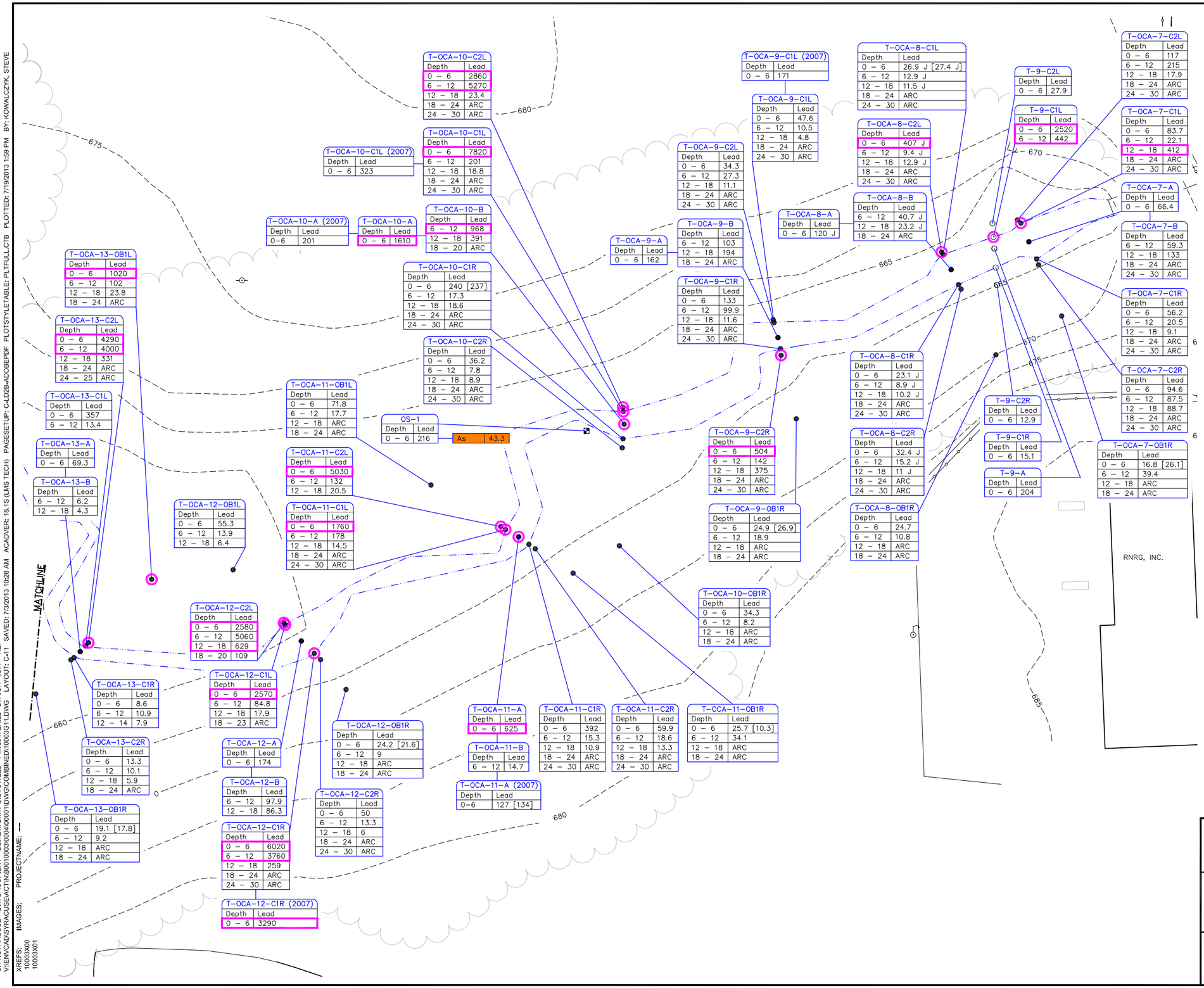
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION I)

ARCADIS

FIGURE
C-10

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DM:V G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\00400001\DWG\COMBINED\10003G10.DWG LAYOUT: C-10 SAVED: 7/19/2013 11:21 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



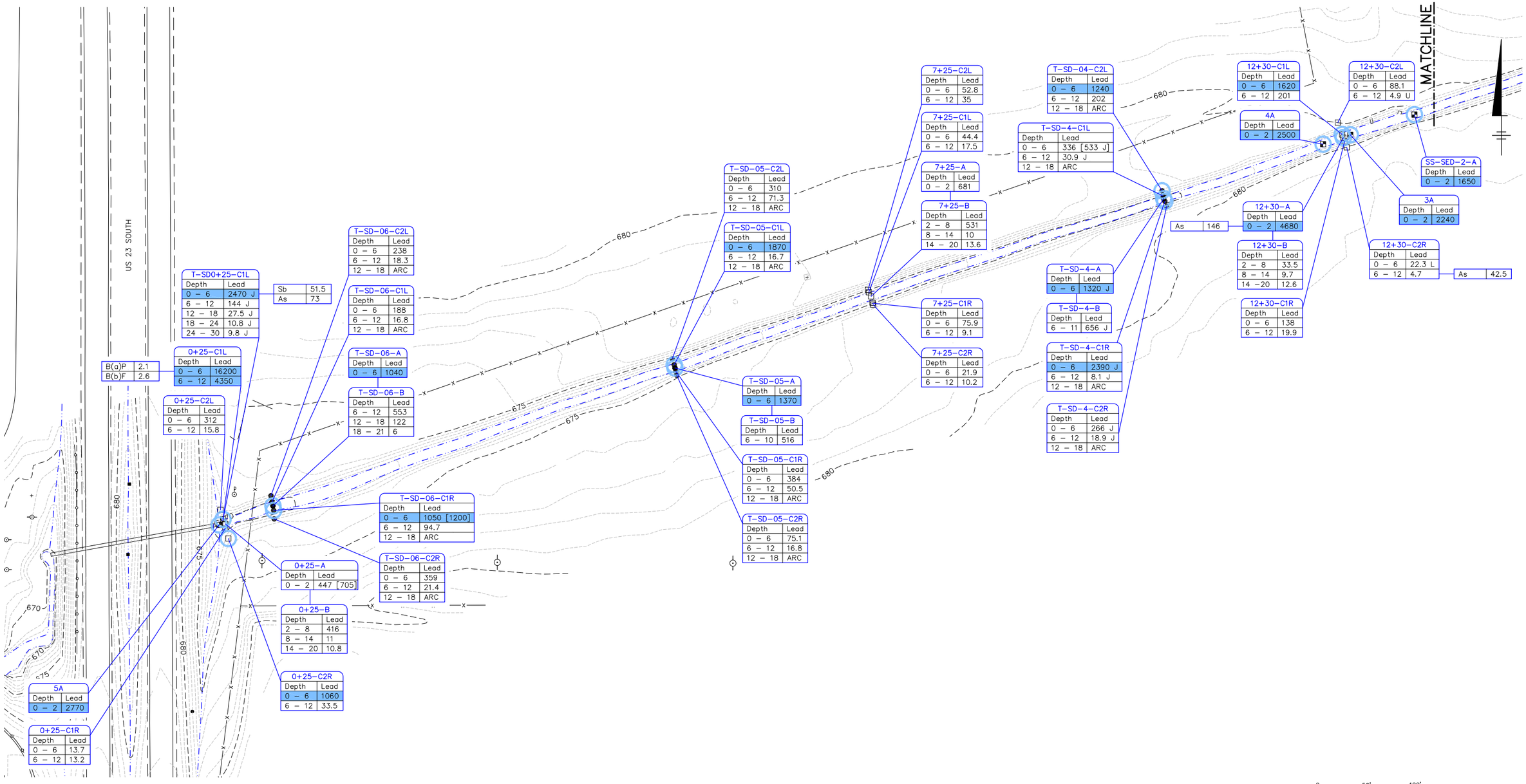
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION J)

ARCADIS

FIGURE
C-11

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF
V:\ENVCAD\SYRACUSE\ACT\NB0010003\0004\00001\DWG\COMBINED\10003G11.DWG LAYOUT: C-11 SAVED: 7/3/2013 10:28 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



0 50' 100'
GRAPHIC SCALE

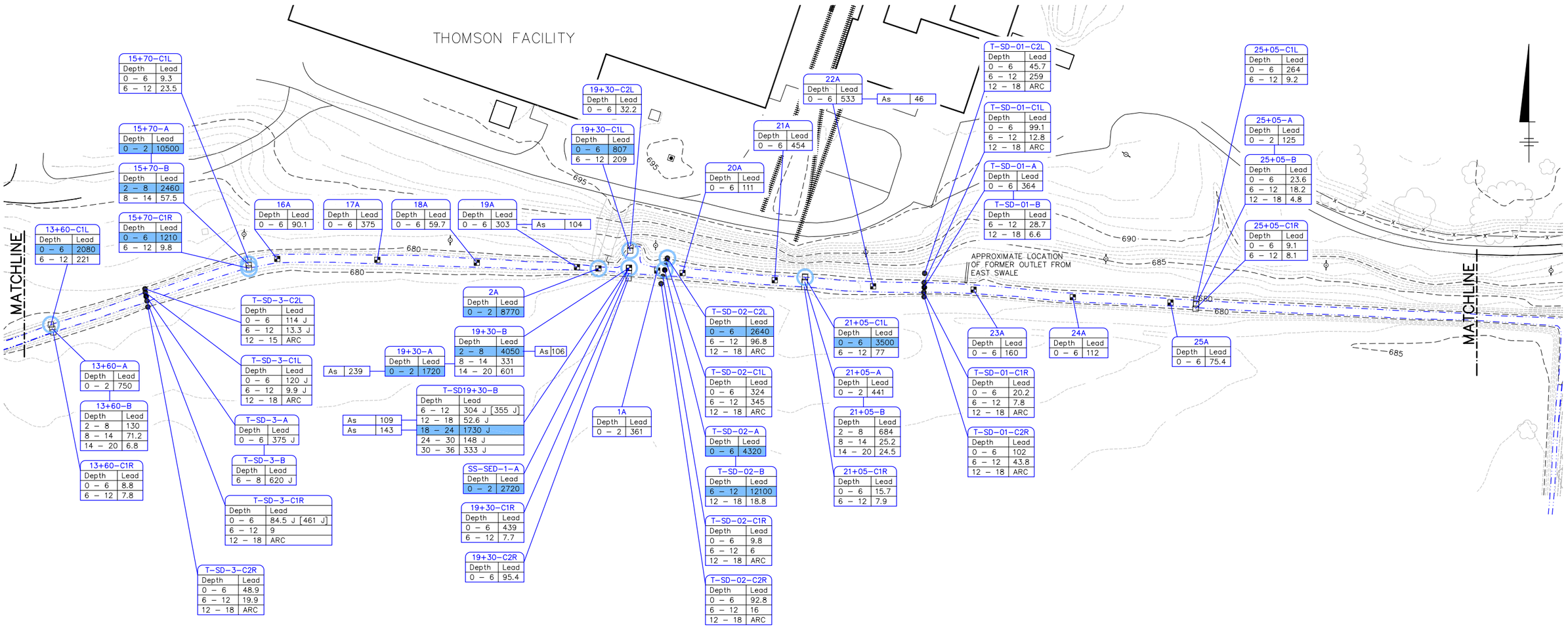
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION K)

ARCADIS

FIGURE
C-12

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB0010003\0004\00001\DWG\COMBINED\10003G12.DWG LAYOUT: C-12 SAVED: 7/19/2013 11:22 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



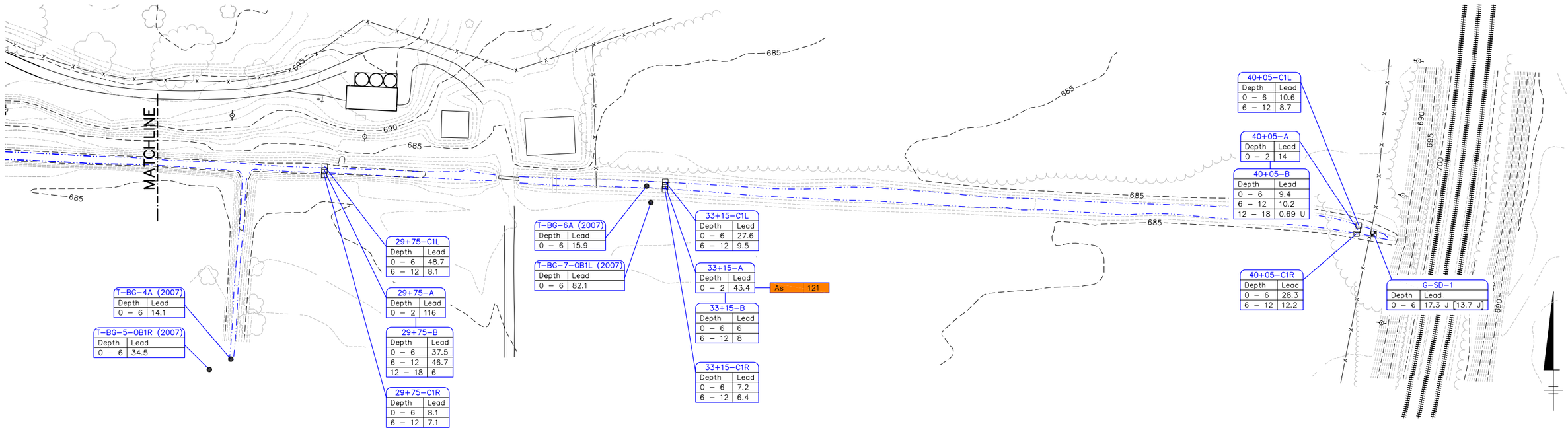
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION L)

ARCADIS

FIGURE
C-13

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\00040\00001\DWG\COMBINED\10003G13.DWG LAYOUT: C-13 SAVED: 7/19/2013 11:22 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
XREFS: IMAGES: PROJECTNAME: ---
10003X00
10003X01



0 50' 100'
GRAPHIC SCALE

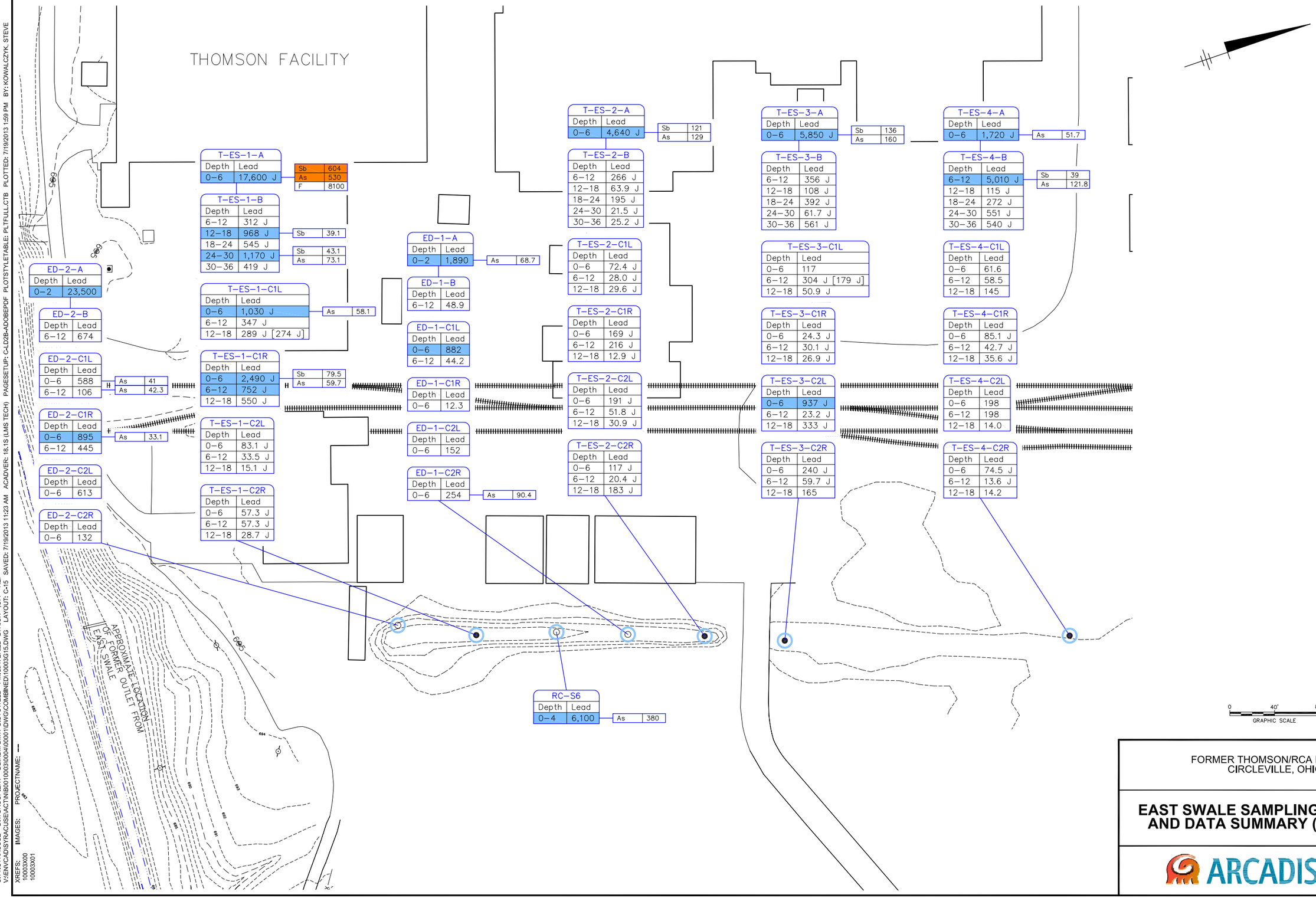
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

OFFSITE CREEK AREA SAMPLING LOCATIONS AND DATA SUMMARY (SECTION M)

ARCADIS

FIGURE
C-14

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\0004\00001\DWG\COMBINED\10003G14.DWG LAYOUT: C-14 SAVED: 7/19/2013 11:23 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLE: ---
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



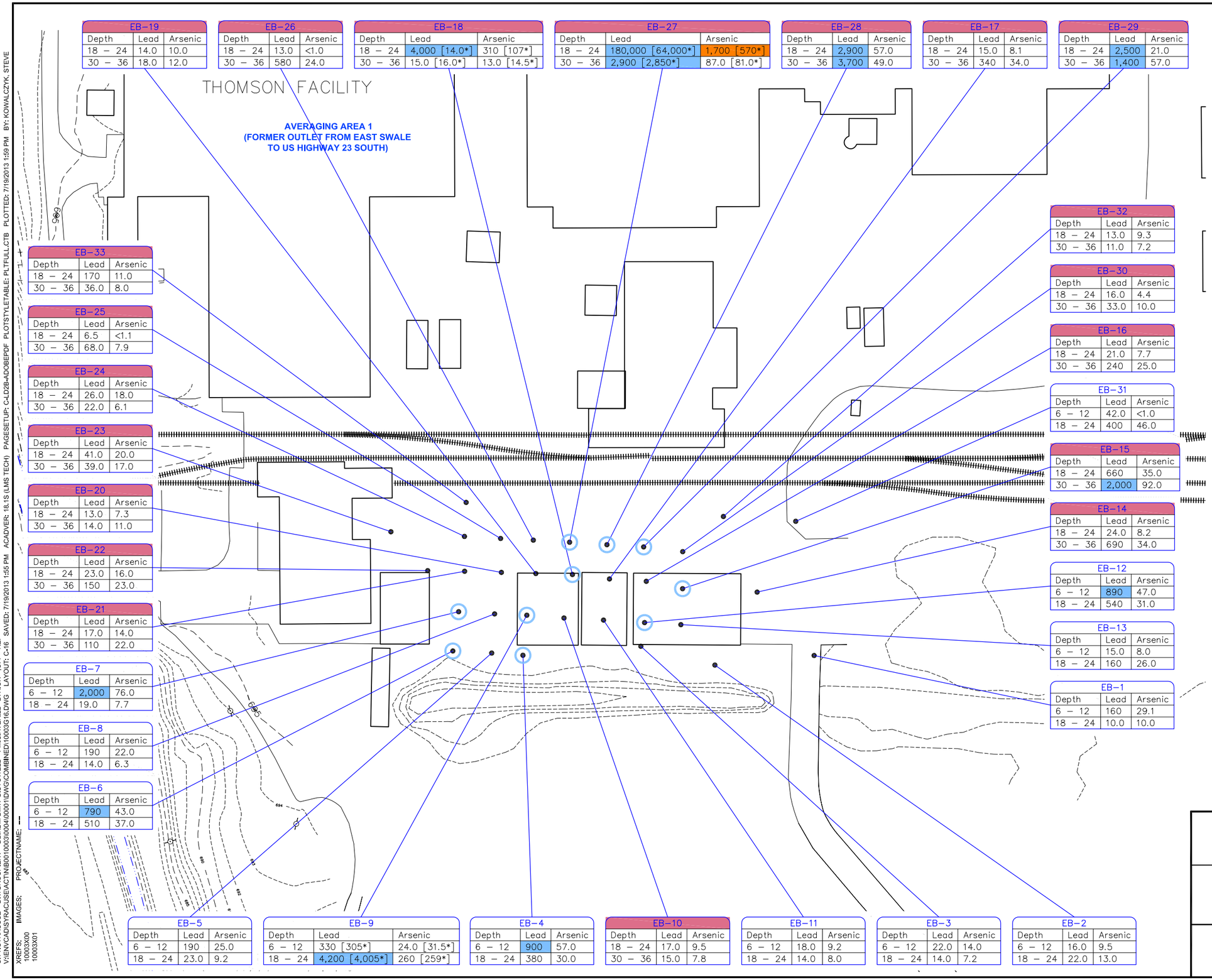
FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

EAST SWALE SAMPLING LOCATIONS AND DATA SUMMARY (SECTION N)

ARCADIS

FIGURE
C-15

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G.STOWELL PM:C.AVERILL LYR:ON=*;OFF=REF PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACT\NB001003\0004\00001\DWG\COMBINED\10003G15.DWG LAYOUT: C-15 SAVED: 7/19/2013 11:23 AM ACADVER: 18.1S (LMS TECH)
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---



EB-19		
Depth	Lead	Arsenic
18 – 24	14.0	10.0
30 – 36	18.0	12.0

EB-26		
Depth	Lead	Arsenic
18 – 24	13.0	<1.0
30 – 36	580	24.0

EB-18		
Depth	Lead	Arsenic
18 – 24	4,000 [14.0*]	310 [107*]
30 – 36	15.0 [16.0*]	13.0 [14.5*]

EB-27		
Depth	Lead	Arsenic
18 – 24	180,000 [64,000*]	1,700 [570*]
30 – 36	2,900 [2,850*]	87.0 [81.0*]

EB-28		
Depth	Lead	Arsenic
18 – 24	2,900	57.0
30 – 36	3,700	49.0

EB-17		
Depth	Lead	Arsenic
18 – 24	15.0	8.1
30 – 36	340	34.0

EB-29		
Depth	Lead	Arsenic
18 – 24	2,500	21.0
30 – 36	1,400	57.0

EB-32		
Depth	Lead	Arsenic
18 – 24	13.0	9.3
30 – 36	11.0	7.2

EB-30		
Depth	Lead	Arsenic
18 – 24	16.0	4.4
30 – 36	33.0	10.0

EB-16		
Depth	Lead	Arsenic
18 – 24	21.0	7.7
30 – 36	240	25.0

EB-31		
Depth	Lead	Arsenic
6 – 12	42.0	<1.0
18 – 24	400	46.0

EB-15		
Depth	Lead	Arsenic
18 – 24	660	35.0
30 – 36	2,000	92.0

EB-14		
Depth	Lead	Arsenic
18 – 24	24.0	8.2
30 – 36	690	34.0

EB-12		
Depth	Lead	Arsenic
6 – 12	890	47.0
18 – 24	540	31.0

EB-13		
Depth	Lead	Arsenic
6 – 12	15.0	8.0
18 – 24	160	26.0

EB-1		
Depth	Lead	Arsenic
6 – 12	160	29.1
18 – 24	10.0	10.0

EB-33		
Depth	Lead	Arsenic
18 – 24	170	11.0
30 – 36	36.0	8.0

EB-25		
Depth	Lead	Arsenic
18 – 24	6.5	<1.1
30 – 36	68.0	7.9

EB-24		
Depth	Lead	Arsenic
18 – 24	26.0	18.0
30 – 36	22.0	6.1

EB-23		
Depth	Lead	Arsenic
18 – 24	41.0	20.0
30 – 36	39.0	17.0

EB-20		
Depth	Lead	Arsenic
18 – 24	13.0	7.3
30 – 36	14.0	11.0

EB-22		
Depth	Lead	Arsenic
18 – 24	23.0	16.0
30 – 36	150	23.0

EB-21		
Depth	Lead	Arsenic
18 – 24	17.0	14.0
30 – 36	110	22.0

EB-7		
Depth	Lead	Arsenic
6 – 12	2,000	76.0
18 – 24	19.0	7.7

EB-8		
Depth	Lead	Arsenic
6 – 12	190	22.0
18 – 24	14.0	6.3

EB-6		
Depth	Lead	Arsenic
6 – 12	790	43.0
18 – 24	510	37.0

EB-5		
Depth	Lead	Arsenic
6 – 12	190	25.0
18 – 24	23.0	9.2

EB-9		
Depth	Lead	Arsenic
6 – 12	330 [305*]	24.0 [31.5*]
18 – 24	4,200 [4,005*]	260 [259*]

EB-4		
Depth	Lead	Arsenic
6 – 12	900	57.0
18 – 24	380	30.0

EB-10		
Depth	Lead	Arsenic
18 – 24	17.0	9.5
30 – 36	15.0	7.8

EB-11		
Depth	Lead	Arsenic
6 – 12	18.0	9.2
18 – 24	14.0	8.0

EB-3		
Depth	Lead	Arsenic
6 – 12	22.0	14.0
18 – 24	14.0	7.2

EB-2		
Depth	Lead	Arsenic
6 – 12	16.0	9.5
18 – 24	22.0	13.0

NOTE:

1. SHADED SAMPLE IDs INDICATE SAMPLES COLLECTED FROM PAVED AREAS.

0 40' 80'
GRAPHIC SCALE

FORMER THOMSON/RCA FACILITY
CIRCLEVILLE, OHIO

SAMPLING LOCATIONS AND DATA SUMMARY (SECTION N)

ARCADIS

FIGURE
C-16

CITY:SYRACUSE DIV/GROUP:ENV DB:KDM DMW G:STOWELL PM:C.AVERILL LYR:ON=*;OFF=*REF ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-ADOBEPDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/19/2013 1:59 PM BY: KOWALCZYK, STEVE
V:\ENVCAD\SYRACUSE\ACTIN\B0010003\00040000\1\DWG\COMBINED\10003G16.DWG LAYOUT: C-16 SAVED: 7/19/2013 1:55 PM
XREFS: 10003X00 10003X01 IMAGES: PROJECTNAME: ---