

TABLE 1
SWMU DESCRIPTION SUMMARY
XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK, ROCHESTER, NEW YORK

Unit ID	Building	Unit Type	Unit Description	Status
X-061	B-202	RS	H-42 Locomotive Fueling Area Release Site	■
X-004	B-202	OB/OD	Former Open Burn/Refuse Area	■
X-005	B-202	PMR	Former Silver Recovery Burner	■
X-017	B-210	CS	Former Drum Storage Area	■
X-018	B-210	I	Former B-210 Drum Decontaminator	■
X-042	B-202	TS	Former Sewering Station TS #202-326	□
X-002	B-201	CS	Former 90-Day Container Storage Area	■
X-020	B-212	CS	Container Storage Area	□
X-022	B-212	CS	Container Storage Area	□
X-023	B-212	WP	Salvage Yard	■
X-024	B-213	SI	Former Truck Wash Station (unlined)	■
X-025	B-213	MA	Former Marshalling Area	□
X-057	B-213	CS	Former Container Crushing Area	□
X-059	B-213	TS	Former Wash Pad (Concrete Structure)	■
X-071	B-213	CS	90-Day Bulk Container Storage Area	□

Key:

- Further Action
- No Further Action

RS: Release Site
 OB/OD: Open Burn/Open Detonation area
 PMR: Precious Metals Recovery system
 CS: Container Storage area
 I: Incinerator
 TS: Transfer Station
 WP: Waste Pile
 SI: Surface Impoundment
 MA: Marshalling Area

TABLE D-1
XIA-202/208 CMS
KODAK PARK, ROCHESTER, NEW YORK

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
**ALTERNATIVE NO. 1 - Maintain Existing Hydraulic Control/Protective Asphalt Covering of the B-208 Salvage Yard Area/
Protective Asphalt Covering of Current 90-day Storage Area**

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Protective Covering of B-208 Area Soils						
Asphalt Cover with Stone Base (1)	\$ 21.60	SY	11500	1	\$ 248,400	\$ 248,400
Protective Covering of 90-Day Storage Area Soils						
Asphalt Cover with Stone Base (1)	\$ 21.60	SY	6500	1	\$ 140,400	\$ 140,400
Subtotal, Direct Capital Costs					\$ 388,800	\$ 388,800

Indirect Capital Costs (\$)

Item	Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	\$ 38,880	\$ 38,880
Engineering/Administration	\$ 58,320	\$ 58,320
Legal/Deed Restrictions	\$ 2,500	\$ 2,500
Startup	\$ 38,880	\$ 38,880
Contingencies	\$ 58,320	\$ 58,320
Subtotal, Indirect Capital Costs		\$ 196,900
Total Capital Costs (Direct and Indirect)		\$ 585,700

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 2,000	Year	1	30	\$ 2,000	\$ 30,304
Groundwater Monitoring (2)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 well, once/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost (3)					\$ 3,912	
Subtotal, Direct O&M Costs (30 Years)					\$ 117,360	\$ 59,275

Annual Operation & Maintenance Cost, Indirect (\$)

Item	Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	\$ 587	\$ 8,891
Legal	\$ 196	\$ 2,964
Contingencies	\$ 587	\$ 8,891
Subtotal, Indirect O&M Costs		\$ 1,369
Total Annual O&M Cost (Direct and Indirect)		\$ 5,281
Total O&M Costs (Direct and Indirect)		\$ 158,436

Total Costs (\$)

Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 744,136
	\$ 665,722

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

(1) Costs for asphalt cover includes a 6-inch stone base, 4-inch asphalt binder, and a 2-inch asphalt top.

(2) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
ALTERNATIVE NO. 2 - Maintain Existing Hydraulic Control/Protective Geosynthetic Cap and Cover System in B-208 Salvage Yard Area/
Protective Asphalt Covering of Current 90-Day Storage Area

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Geosynthetic Covering of B-208 Area Soils						
Site Preparation (Dozer and smooth drum compactor)	\$ 3,000	Day	1	1	\$ 3,000	\$ 3,000
Geotextile (10 ounce/square yard)	\$ 1.80	SY	11500	1	\$ 20,700	\$ 20,700
40-mil HDPE Geomembrane	\$ 4.00	SY	11500	1	\$ 46,000	\$ 46,000
Geocomposite (bonded on both sides with geotextile)	\$ 4.50	SY	11500	1	\$ 51,750	\$ 51,750
24-inches Cover Soil with Compaction	\$ 17	CY	7700	1	\$ 130,900	\$ 130,900
6-inches Topsoil	\$ 21	CY	1920	1	\$ 40,320	\$ 40,320
Seed and Mulch	\$ 1,400	Acre	2.5	1	\$ 3,500	\$ 3,500
Protective Covering of 90-Day Storage Area Soils						
Asphalt Cover with Stone Base (1)	\$ 21.60	SY	6500	1	\$ 140,400	\$ 140,400
Subtotal, Direct Capital Costs					\$ 436,570	\$ 436,570

Indirect Capital Costs (\$)

Item	Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	\$ 43,657	\$ 43,657
Engineering/Administration	\$ 65,486	\$ 65,486
Legal/Deed Restrictions	\$ 2,500	\$ 2,500
Startup	\$ 43,657	\$ 43,657
Contingencies	\$ 65,486	\$ 65,486
Subtotal, Indirect Capital Costs		\$ 220,785
Total Capital Costs (Direct and Indirect)		\$ 657,355

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 1,000	Year	1	30	\$ 1,000	\$ 15,152
Lawn Maintenance	\$ 1,500	Year	1	30	\$ 1,500	\$ 22,728
Groundwater Monitoring (2)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 well, once/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost (3)					\$ 4,412	
Subtotal, Direct O&M Costs (30 Years)					\$ 132,360	\$ 66,852

Annual Operation & Maintenance Cost, Indirect (\$)

Item	Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	\$ 662	\$ 10,028
Legal	\$ 221	\$ 3,343
Contingencies	\$ 662	\$ 10,028
Subtotal, Indirect O&M Costs		\$ 23,398
Total Annual O&M Cost (Direct and Indirect)		\$ 5,956
Total O&M Costs (Direct and Indirect)		\$ 178,686

Total Costs (\$)

Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 836,041
	\$ 747,605

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

(1) Costs for asphalt cover includes a 6-inch stone base, 4-inch asphalt binder, and a 2-inch asphalt top.

(2) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.

TABLE D-3
XIA-202/208 CMS
KODAK PARK, ROCHESTER, NEW YORK

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
**ALTERNATIVE NO. 3 - Maintain Existing Hydraulic Control/Excavation and Disposal of Soils in B-208 Salvage Yard Area/
Protective Asphalt Covering of Current 90-Day Storage Area**

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Excavation, Disposal, and Backfill of B-208 Area Soils (1)						
Soil Excavation and Loading	\$ 1.50	Ton	13700	1	\$ 20,550	\$ 20,550
Soil Trucking and Disposal	\$ 38.50	Ton	13700	1	\$ 527,450	\$ 527,450
Soil Backfill and Compaction	\$ 12.35	Ton	13700	1	\$ 169,195	\$ 169,195
Soil Sampling and Analysis for PCBs and PAHs (2)	\$ 275.00	Each	20	1	\$ 5,500	\$ 5,500
Protective Covering of 90-Day Storage Area Soils						
Asphalt Cover with Stone Base (3)	\$ 21.60	SY	6500	1	\$ 140,400	\$ 140,400
Subtotal, Direct Capital Costs					\$ 863,095	\$ 863,095

Indirect Capital Costs (\$)

Item	Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	10% of Capital Costs \$ 86,310	\$ 86,310
Engineering/Administration	15% of Capital Costs \$ 129,464	\$ 129,464
Legal/Deed Restrictions	Lump Sum \$ 2,500	\$ 2,500
Startup	10% of Capital Costs \$ 86,310	\$ 86,310
Contingencies	15% of Capital Costs \$ 129,464	\$ 129,464
Subtotal, Indirect Capital Costs		\$ 434,048
Total Capital Costs (Direct and Indirect)		\$ 1,297,143

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 1,000	Year	1	30	\$ 1,000	\$ 15,152
Groundwater Monitoring (4)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 wells, twice/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost (9)					\$ 2,912	
Subtotal, Direct O&M Costs (30 Years)					\$ 87,360	\$ 44,123

Annual Operation & Maintenance Cost, Indirect (\$)

	Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	15% of O&M Costs \$ 437	\$ 6,618
Legal	5% of O&M Costs \$ 146	\$ 2,206
Contingencies	15% of O&M Costs \$ 437	\$ 6,618
Subtotal, Indirect O&M Costs		\$ 15,443
Total Annual O&M Cost (Direct and Indirect)		\$ 3,931
Total O&M Costs (Direct and Indirect)		\$ 59,566

Total Costs (\$)

	Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 1,415,079	\$ 1,356,709

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

(1) Vendor Quote. Assumes trucking and disposal by Waste Management at Mill Seat Landfill, Riga, NY as Non-TSCA Soil <25 ppm PCBs.

(2) Costs include field technician for sampling @ \$25 per sample and analysis at \$50 per sample for PCBs and \$200 per sample for PAHs.

(3) Costs for asphalt cover includes a 6-inch stone base, 4-inch asphalt binder, and a 2-inch asphalt top.

(4) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
ALTERNATIVE NO. 4 - Maintain Existing Hydraulic Control/Protective Asphalt Covering of the B-208 Salvage Yard Area/
Protective Soil Covering with Geotextile of Current 90-day Storage Area

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Protective Covering of B-208 Area Soils						
Asphalt Cover with Stone Base (1)	\$ 21.60	SY	11500	1	\$ 248,400	\$ 248,400
Geotextile & Soil Covering of 90-Day Storage Area Soils						
Site Preparation (Dozer and smooth drum compactor)	\$ 3,000	Day	1	1	\$ 3,000	\$ 3,000
Geotextile (10 ounce/square yard)	\$ 1.80	SY	6500	1	\$ 11,700	\$ 11,700
12-inches Cover Soil with Compaction	\$ 17	CY	2200	1	\$ 37,400	\$ 37,400
6-inches Topsoil	\$ 21	CY	1100	1	\$ 23,100	\$ 23,100
Seed and Mulch	\$ 1,400	Acre	1.5	1	\$ 2,100	\$ 2,100
Subtotal, Direct Capital Costs					\$ 325,700	\$ 325,700

Indirect Capital Costs (\$)

		Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	10% of Capital Costs	\$ 32,570	\$ 32,570
Engineering/Administration	15% of Capital Costs	\$ 48,855	\$ 48,855
Legal/Deed Restrictions	Lump Sum	\$ 2,500	\$ 2,500
Startup	10% of Capital Costs	\$ 32,570	\$ 32,570
Contingencies	15% of Capital Costs	\$ 48,855	\$ 48,855
Subtotal, Indirect Capital Costs		\$ 165,350	\$ 165,350
Total Capital Costs (Direct and Indirect)		\$ 491,050	\$ 491,050

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 1,500	Year	1	30	\$ 1,500	\$ 22,728
Lawn Maintenance	\$ 1,000	Year	1	30	\$ 1,000	\$ 15,152
Groundwater Monitoring (2)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 well, once/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost					\$ 4,412	
Subtotal, Direct O&M Costs (30 Years)					\$ 132,360	\$ 44,123

Annual Operation & Maintenance Cost, Indirect (\$)

		Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	15% of O&M Costs	\$ 662	\$ 10,028
Legal	5% of O&M Costs	\$ 221	\$ 3,343
Contingencies	15% of O&M Costs	\$ 662	\$ 10,028
Subtotal, Indirect O&M Costs		\$ 1,544	\$ 23,398
Total Annual O&M Cost (Direct and Indirect) (9)		\$ 5,956	
Total O&M Costs (Direct and Indirect)		\$ 178,686	\$ 67,521

Total Costs (\$)

	Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 669,736	\$ 558,571

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

- (1) Costs for asphalt cover includes a 6-inch stone base, 4-inch asphalt binder, and a 2-inch asphalt top.
(2) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.

TABLE D-5
XIA-202/208 CMS
KODAK PARK, ROCHESTER, NEW YORK

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
**ALTERNATIVE NO. 5 - Maintain Existing Hydraulic Control/Protective Geosynthetic Cap and Cover System in B-208 Salvage Yard Area/
Protective Soil Covering with Geotextile of Current 90-day Storage Area**

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Geosynthetic Covering of B-208 Area Soils						
Site Preparation (Dozer and smooth drum compactor)	\$ 3,000	Day	1	1	\$ 3,000	\$ 3,000
Geotextile (10 ounce/square yard)	\$ 1.80	SY	11500	1	\$ 20,700	\$ 20,700
40-mil HDPE Geomembrane	\$ 4.00	SY	11500	1	\$ 46,000	\$ 46,000
Geocomposite (bonded on both sides with geotextile)	\$ 4.50	SY	11500	1	\$ 51,750	\$ 51,750
24-inches Cover Soil with Compaction	\$ 17	CY	7700	1	\$ 130,900	\$ 130,900
6-inches Topsoil	\$ 21	CY	1920	1	\$ 40,320	\$ 40,320
Seed and Mulch	\$ 1,400	Acre	2.5	1	\$ 3,500	\$ 3,500
Geotextile & Soil Covering of 90-Day Storage Area Soils						
Site Preparation (Dozer and smooth drum compactor)	\$ 3,000	Day	1	1	\$ 3,000	\$ 3,000
Geotextile (10 ounce/square yard)	\$ 1.80	SY	6500	1	\$ 11,700	\$ 11,700
12-inches Cover Soil with Compaction	\$ 17	CY	2200	1	\$ 37,400	\$ 37,400
6-inches Topsoil	\$ 21	CY	1100	1	\$ 23,100	\$ 23,100
Seed and Mulch	\$ 1,400	Acre	1.5	1	\$ 2,100	\$ 2,100
Subtotal, Direct Capital Costs					\$ 373,470	\$ 373,470

Indirect Capital Costs (\$)

		Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	10% of Capital Costs	\$ 37,347	\$ 37,347
Engineering/Administration	15% of Capital Costs	\$ 56,021	\$ 56,021
Legal/Deed Restrictions	Lump Sum	\$ 2,500	\$ 2,500
Startup	10% of Capital Costs	\$ 37,347	\$ 37,347
Contingencies	15% of Capital Costs	\$ 56,021	\$ 56,021
Subtotal, Indirect Capital Costs		\$ 189,235	\$ 189,235
Total Capital Costs (Direct and Indirect)		\$ 562,705	\$ 562,705

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 500	Year	1	30	\$ 500	\$ 7,576
Lawn Maintenance	\$ 1,500	Year	1	30	\$ 1,500	\$ 22,728
Groundwater Monitoring (2)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 well, once/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost					\$ 3,912	
Subtotal, Direct O&M Costs (30 Years)					\$ 117,360	\$ 51,699

Annual Operation & Maintenance Cost, Indirect (\$)

		Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	15% of O&M Costs	\$ 587	\$ 8,891
Legal	5% of O&M Costs	\$ 196	\$ 2,964
Contingencies	15% of O&M Costs	\$ 587	\$ 8,891
Subtotal, Indirect O&M Costs		\$ 1,369	\$ 20,746
Total Annual O&M Cost (Direct and Indirect) (9)		\$ 5,281	
Total O&M Costs (Direct and Indirect)		\$ 158,436	\$ 72,446

Total Costs (\$)

	Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 721,141	\$ 635,151

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

- (1) Costs for asphalt cover includes a 6-inch stone base, 4-inch asphalt binder, and a 2-inch asphalt top.
(2) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.

TABLE D-6
XIA-202/208 CMS
KODAK PARK, ROCHESTER, NEW YORK

CAPITAL AND OPERATIONS & MAINTENANCE COST ESTIMATE
**ALTERNATIVE NO. 6 - Maintain Existing Hydraulic Control/Excavation and Disposal of Soils in B-208 Salvage Yard Area/
Protective Soil Covering with Geotextile of Current 90-day Storage Area**

Direct Capital Cost (\$)

Item	Unit Cost	Unit	Quantity	Years Incurred	Total Cost	Present Value Cost @ 5%
Excavation, Disposal, and Backfill of B-208 Area Soils (1)						
Soil Excavation and Loading	\$ 1.50	Ton	13700	1	\$ 20,550	\$ 20,550
Soil Trucking and Disposal	\$ 38.50	Ton	13700	1	\$ 527,450	\$ 527,450
Soil Backfill and Compaction	\$ 12.35	Ton	13700	1	\$ 169,195	\$ 169,195
Soil Sampling and Analysis for PCBs and PAHs (2)	\$ 275.00	Each	20	1	\$ 5,500	\$ 5,500
Geotextile & Soil Covering of 90-Day Storage Area Soils						
Site Preparation (Dozer and smooth drum compactor)	\$ 3,000	Day	1	1	\$ 3,000	\$ 3,000
Geotextile (10 ounce/square yard)	\$ 1.80	SY	6500	1	\$ 11,700	\$ 11,700
12-inches Cover Soil with Compaction	\$ 17	CY	2200	1	\$ 37,400	\$ 37,400
6-inches Topsoil	\$ 21	CY	1100	1	\$ 23,100	\$ 23,100
Seed and Mulch	\$ 1,400	Acre	1.5	1	\$ 2,100	\$ 2,100
Subtotal, Direct Capital Costs					\$ 799,995	\$ 799,995

Indirect Capital Costs (\$)

Item	Total Cost	Present Value Cost @ 5%
Mobilization/Demobilization	\$ 80,000	\$ 80,000
Engineering/Administration	\$ 119,999	\$ 119,999
Legal/Deed Restrictions	\$ 2,500	\$ 2,500
Startup	\$ 80,000	\$ 80,000
Contingencies	\$ 119,999	\$ 119,999
Subtotal, Indirect Capital Costs		\$ 402,498
Total Capital Costs (Direct and Indirect)		\$ 1,202,493

Annual Operations and Maintenance Costs (\$), Direct

Item	Unit Cost	Unit	Quantity	Years Incurred	Annual Cost	30 Yr. Present Value Cost @ 5%
Asphalt Cover Maintenance	\$ 500	Year	1	30	\$ 500	\$ 7,576
Lawn Maintenance	\$ 1,500	Year	1	30	\$ 1,500	\$ 22,728
Groundwater Monitoring (3)						
Water Level Monitoring (17 wells, twice/year)	\$ 18	Well	34	30	\$ 612	\$ 9,273
Groundwater Monitoring (1 wells, twice/year)	\$ 1,300	Well	1	30	\$ 1,300	\$ 19,698
Total Annual Cost (9)					\$ 3,912	
Subtotal, Direct O&M Costs (30 Years)					\$ 117,360	\$ 51,699

Annual Operation & Maintenance Cost, Indirect (\$)

	Annual Cost	30 Yr. Present Value Cost @ 5%
Engineering/Administration	\$ 587	\$ 8,891
Legal	\$ 196	\$ 2,964
Contingencies	\$ 587	\$ 8,891
Subtotal, Indirect O&M Costs		\$ 1,369
Total Annual O&M Cost (Direct and Indirect)		\$ 5,281
Total O&M Costs (Direct and Indirect)		\$ 158,436

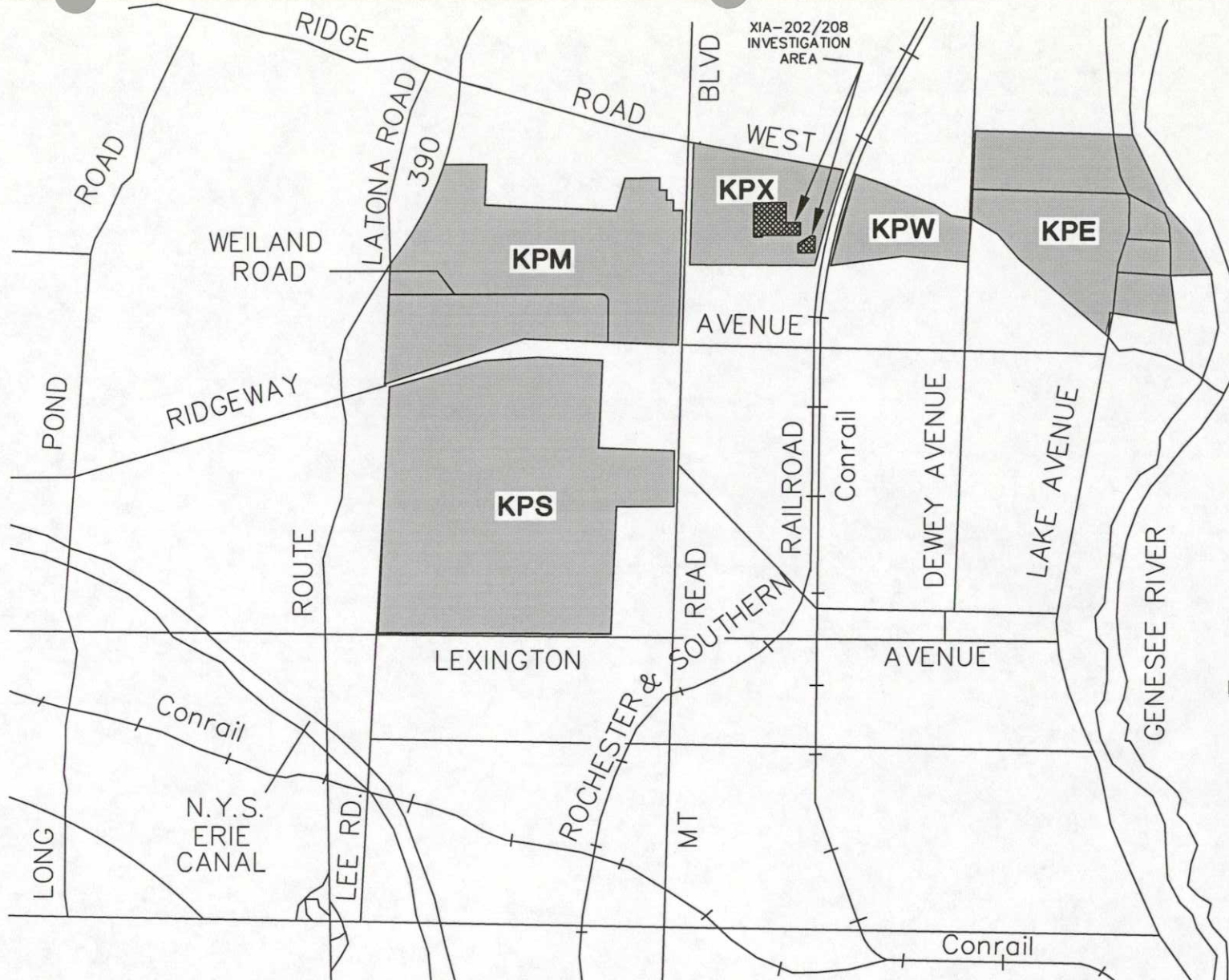
Total Costs (\$)

	Total 30 Year Cost	30 Yr. Present Value Cost @ 5%
Total Cost of Alternative	\$ 1,360,929	\$ 1,274,938

Notes/Assumptions:

A 5% rate of return was used for calculating present value costs.

- (1) Vendor Quote. Assumes trucking and disposal by Waste Management at Mill Seat Landfill, Riga, NY as Non-TSCA Soil <25 ppm PCBs.
- (2) Costs include field technician for sampling @ \$25 per sample and analysis at \$50 per sample for PCBs and \$200 per sample for PAHs.
- (4) Costs for implementation of groundwater monitoring are based on actual current costs incurred by Kodak.



LEGEND

 INVESTIGATION AREA

NOTE:
SHADED AREAS DENOTE KODAK
PARK FACILITY

CLIENT/PROJECT  XIA-202/208 CORRECTIVE MEASURES STUDY KODAK PARK CORRECTIVE ACTION PROGRAM EASTMAN KODAK COMPANY ROCHESTER, NEW YORK			 Buffalo, New York			TITLE SITE LOCATION MAP		
DRAWN	CHECKED	REVIEWED	DATE	SCALE	FILE NO.	JOB NO.	DWG NO.	FIGURE
RGA	DCW	EMM	3/19/04	NA	033-9368	033-9368	0339368A402	1

INVESTIGATION AREA
XIA-208

B-214

LEGEND

- INVESTIGATION AREA BOUNDARIES
- STRUCTURE DEMOLISHED
- E-042 SWMU - OF LESSER AREAL EXTENT
- M-045 SWMU - OF GREATER AREAL EXTENT
- PROPERTY LINE

200 0 200
scale feet

PB218N

B-206

48-INCH STORM SEWER

H-3 H-45

H-47 H-30
H-14

H-46

B-212

X-022

X-023

X-023

H-24

X-023
SB208NE

B-208

X-023

H-13 H-15

H-22

H-20

B-218

H-25

B-219

H-18

H-44

X-002

B-201

B-201

H-49 H-12

B-213

X-025

X-059

X-024

X-057

H-17

X-071

INVESTIGATION AREA
XIA-202

X-017

X-018

X-004

X-005

B-217

X-042

B-215

X-061

H-42

H-10

H-16

48-INCH STORM SEWER

CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Golder
Associates

Buffalo, New York

TITLE

INVESTIGATION AREA
LOCATION MAP

DRAWN

RGA

CHECKED

EMM

REVIEWED

Dr

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

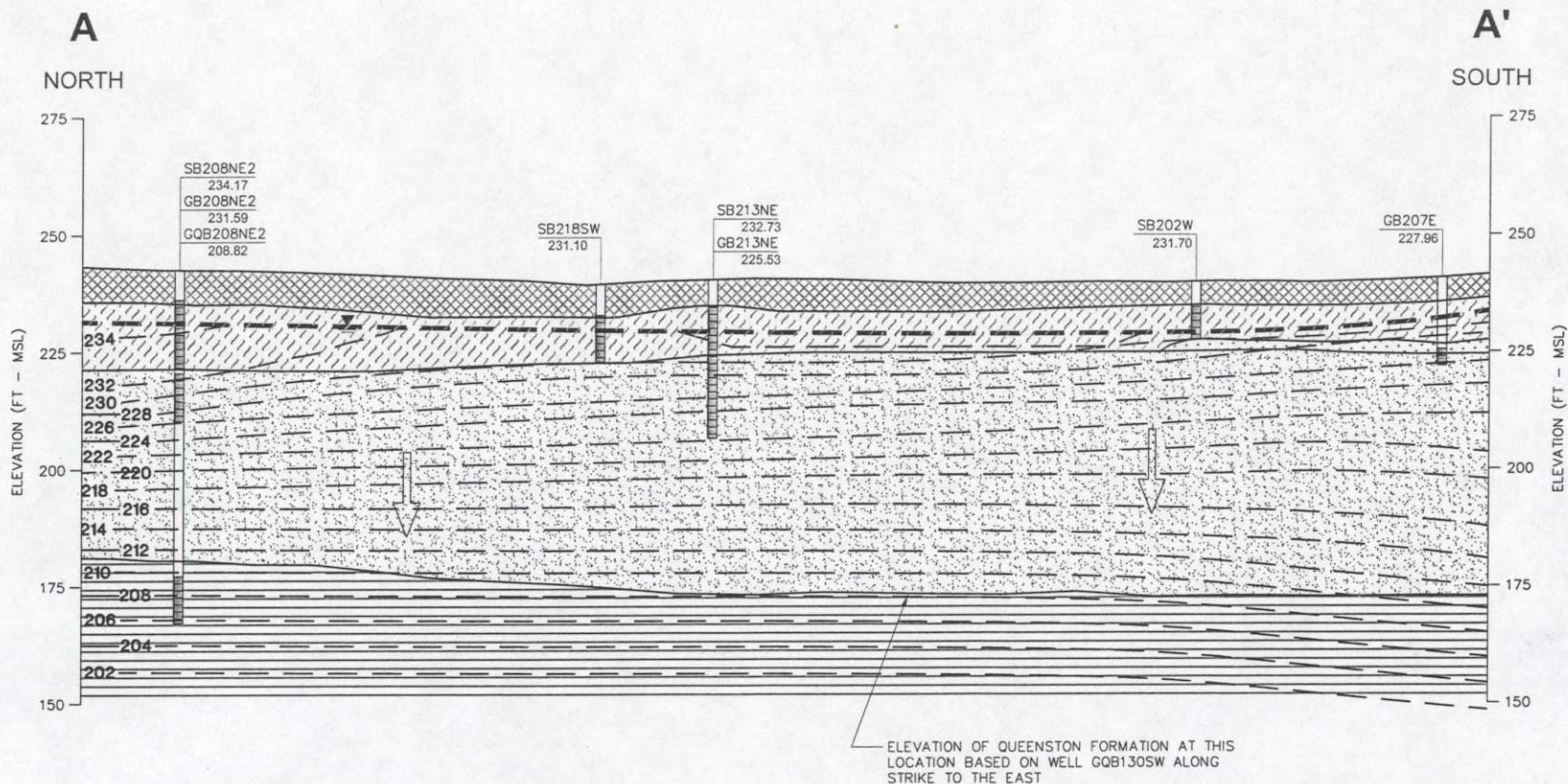
033-9368

DWG NO.

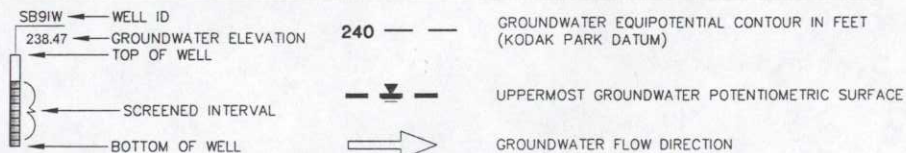
0339368A403

FIGURE

2

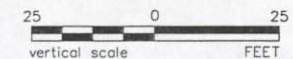
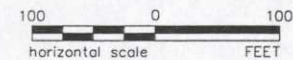


LEGEND



NOTES

- 1.) WATER ELEVATIONS MEASURED ON FEBRUARY 25 AND MARCH 5, 2002.
- 2.) RESULTS OF RGFM MODELING USED AS GUIDANCE FOR EQUIPOTENTIAL LOCATIONS.



FILE No. 0339368A404
PROJECT No. 033-9368 REV. 0

SCALE AS SHOWN
DATE 3/19/04
DESIGN DRW
CADD MRM
CHECK EMM
REVIEW DCL

GEOLOGIC CROSS-SECTION OF XIA-202/208

KODAK - XIA-202/208 CMS

FIGURE 3

INVESTIGATION AREA
XIA-208

B-214

LEGEND

-  EXISTING MONITORING WELL
-  RFI-INSTALLED MONITORING WELL
-  ABANDONED MONITORING WELL
-  236 GROUNDWATER EQUIPOTENTIAL CONTOUR (FT - KODAK DATUM)
-  INVESTIGATION AREA BOUNDARIES
-  STRUCTURE DEMOLISHED
-  E-042 SWMU - OF LESSER AREAL EXTENT
-  M-045 SWMU - OF GREATER AREAL EXTENT
-  PROPERTY LINE

200 0 200
scale feet

INDUSTRIAL/
SANITARY
SEWER
CORRIDOR

48-INCH STORM SEWER

INDUSTRIAL/SANITARY SEWER CORRIDOR

INVESTIGATION AREA
XIA-202

CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Buffalo, New York

TITLE

XIA-202/208 OVERBURDEN
GROUNDWATER ELEVATION
CONTOUR MAP - FEB. 25, 2002

DRAWN

RGA

CHECKED

DCW

REVIEWED

EMM

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

033-9368

DWG NO.

0339368A405

FIGURE

4

FLOW BUDGET AREA
INVESTIGATION AREA
XIA-208

PB218N

35

48-INCH STORM SEWER

B-212

X-022

X-023

X-023

15 INCH
INDUSTRIAL
SEWER
X-023

B-208

B-218

15-INCH
INDUSTRIAL
SEWER

8-INCH
INDUSTRIAL
SEWER

102

B-214

60

IN FROM RECHARGE 1,390
OUT TO SEWERS 309
OUT TO TOR 1,011

B-219

B-213

CSOAP TUNNEL
X-002

X-056

X-057

X-071

FLOW BUDGET AREA -
INVESTIGATION AREA
XIA-202

20

LEGEND

FLOW BUDGET AREA
BOUNDARIES

STRUCTURE DEMOLISHED

X-042

SWMU

M-045

R

PROPERTY LINE

60

NET FLOW AND DIRECTION
ACROSS BOUNDARY (CU.
FT./DAY)

200

0

200

scale

feet

INDUSTRIAL/
SANITARY
SEWER
CORRIDOR

64

19

B-201

B-201

IN FROM RECHARGE
398
OUT TO SOUTHERN
SEWERS 422
OUT TO TOR 243

X-017

X-018

X-005

4

B-217

B-215

231

INDUSTRIAL/SANITARY SEWER CORRIDOR - "SOUTHERN SEWERS"

CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Golder
Associates

Buffalo, New York

TITLE

GROUNDWATER FLOW BUDGET
FOR THE OVERBURDEN LAYER

DRAWN

AM

CHECKED

ACK

REVIEWED

Dev

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

033-9368

DWG NO.

0339368A411

FIGURE

7

FLOW BUDGET AREA
INVESTIGATION AREA
XIA-208

PB218N

327

48-INCH STORM SEWER

B-212

X-022

X-020

X-023

X-023

X-023

15 INCH
INDUSTRIAL
SEWER
X-023

B-208

B-218

8-INCH
INDUSTRIAL
SEWER

574

B-219

IN FROM OVERBURDEN: 1,011
OUT TO BELOW: 2

B-213

CSOAP TUNNEL
X-002

X-057

X-071

FLOW BUDGET AREA -
INVESTIGATION AREA
XIA-202

418

IN FROM OVERBURDEN:
243
OUT TO BELOW: 44
OUT TO SOUTHERN
SEWERS: 886

X-017

X-018

X-061

X-004

X-005

X-042

93

B-217

B-215

1,135

294

B-201

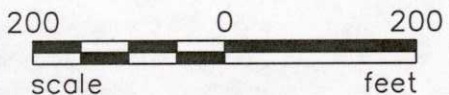
48-INCH STORM SEWER

INDUSTRIAL/SANITARY SEWER CORRIDOR - "SOUTHERN SEWERS"

68

B-214

374



LEGEND

- FLOW BUDGET AREA BOUNDARIES
- STRUCTURE DEMOLISHED
- X-042
- M-045 SWMU
- PROPERTY LINE
- 374 NET FLOW AND DIRECTION ACROSS BOUNDARY (CU. FT./DAY)

CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Golder
Associates

Buffalo, New York

TITLE

GROUNDWATER FLOW BUDGET
FOR THE TOR LAYER

DRAWN AM CHECKED ACK REVIEWED *gcu*

DATE 3/19/04 SCALE AS SHOWN FILE NO. 033-9368

JOB NO. 033-9368 DWG NO. 0339368A412 FIGURE 8

FLOW BUDGET AREA
INVESTIGATION AREA
XIA-208

PB218N

23.8

48-INCH STORM SEWER

B-212

X-022

X-023

X-023

X-023

15 INCH INDUSTRIAL SEWER
X-023

B-208

B-218

15-INCH INDUSTRIAL SEWER

8-INCH INDUSTRIAL SEWER

37.1

B-219

B-213

X-054

X-057

X-071

FLOW BUDGET AREA -
INVESTIGATION AREA
XIA-202

6.6

LEGEND

- FLOW BUDGET AREA BOUNDARIES
- STRUCTURE DEMOLISHED
- X-042
- SWMU
- PROPERTY LINE



M-045

PROPERTY LINE

60
NET FLOW AND DIRECTION
ACROSS BOUNDARY (CU.
FT./DAY)

200 0 200

scale

feet

INDUSTRIAL/
SANITARY SEWER
CORRIDOR

CSOAP TUNNEL
X-002

B-201

B-201

8.6

6.8

IN FROM ABOVE 46.3
OUT TO BELOW 6.5

X-061

X-004

X-017

X-018

X-005

25.9

B-217

B-215

48-INCH STORM SEWER

INDUSTRIAL/SANITARY SEWER CORRIDOR - "SOUTHERN SEWERS"

0.5

CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



**Golder
Associates**

Buffalo, New York

TITLE

GROUNDWATER FLOW BUDGET
FOR THE GQ LAYER

DRAWN

RG

CHECKED

DCW

REVIEWED

EMM

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

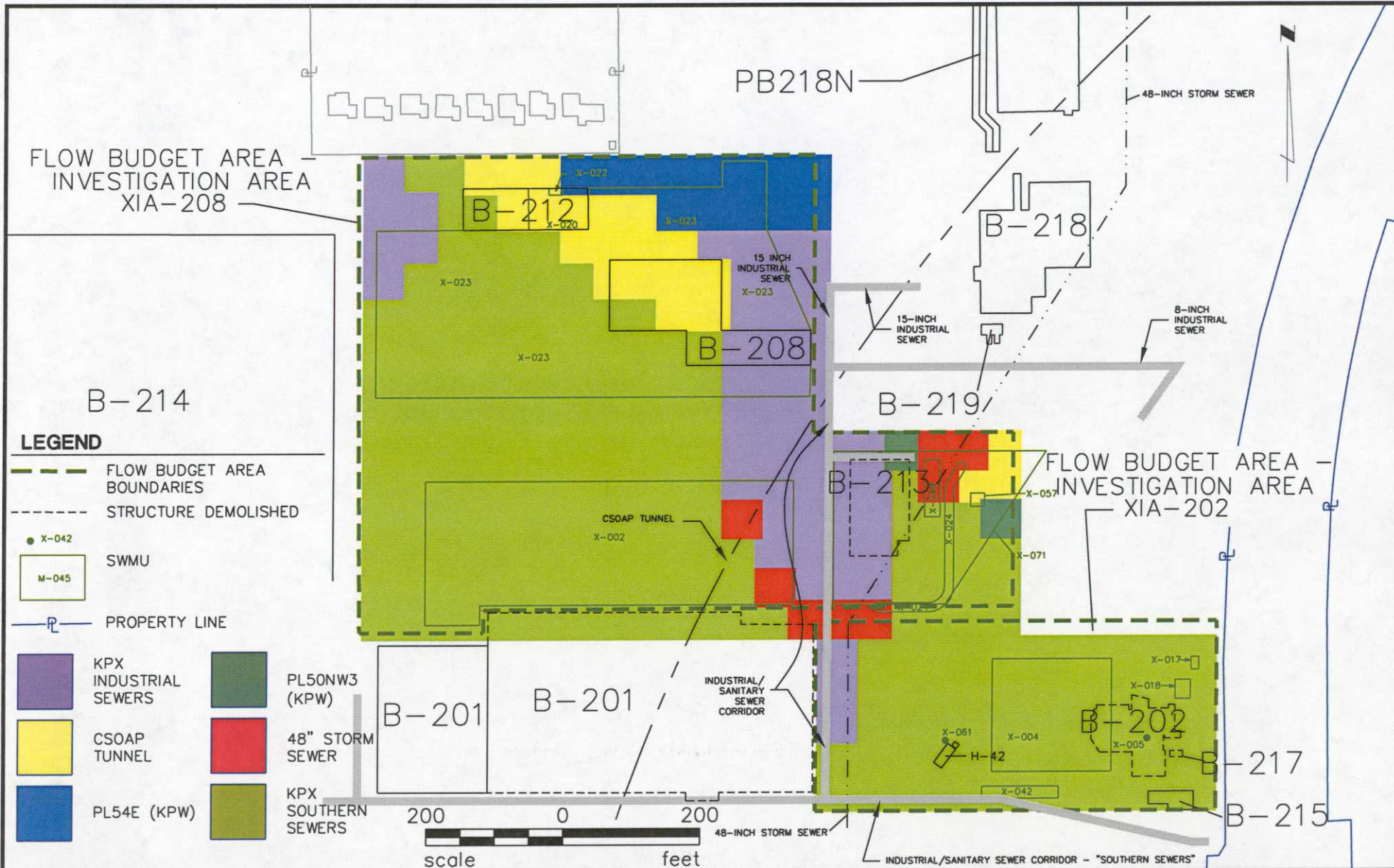
033-9368

DWG NO.

0339368A420

FIGURE

9



CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Golder Associates

Buffalo, New York

TITLE

FATE DIAGRAM FOR THE
OVERBURDEN LAYER

DRAWN

RGA

CHECKED

DCW

REVIEWED

ETM

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

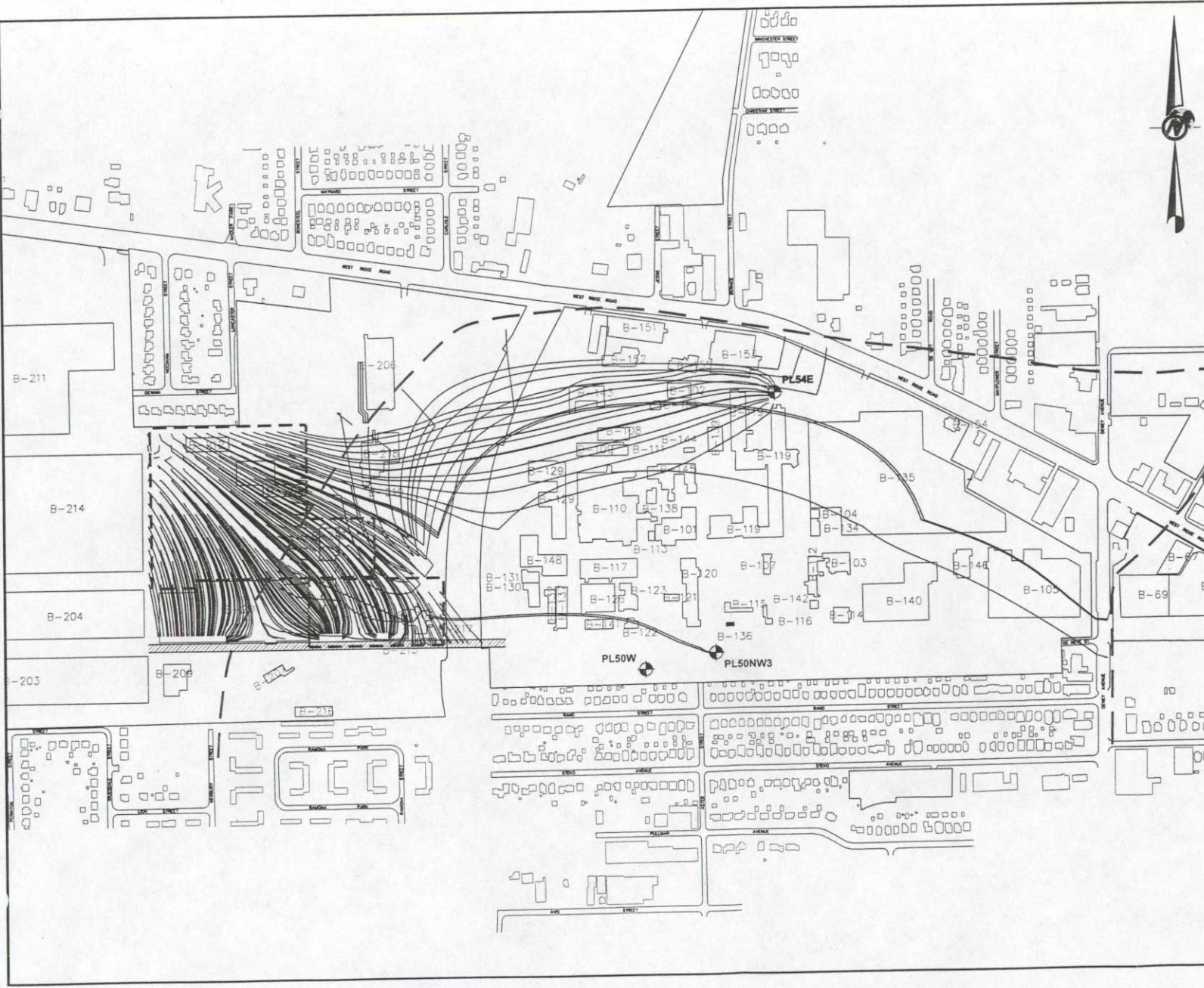
033-9368

DWG NO.

0339368A413

FIGURE

10



LEGEND

- PARTICLE PATHLINE
- CSOAP TUNNEL
- PL50NW3
- EXTRACTION WELL
- APPROXIMATE LOCATION OF SOUTHERN SEWERS

Golder Associates Philadelphia, USA	GROUNDWATER PARTICLE PATHLINES FOR THE OVERBURDEN LAYER	FIGURE 11
	PROJECT XIA-202/208 CORRECTIVE MEASURES STUDY EASTMAN KODAK COMPANY ROCHESTER, NEW YORK	
TITLE PROJECT No. 033-9368 FILE No. 0339368A418 REV. 01 SCALE AS SHOWN DESIGN ACK 01/26/04 CADD AM 02/05/04 CHECK <i>TC</i> 3/3/04 REVIEW <i>EMM</i> 3/3/04		

FLOW BUDGET AREA
INVESTIGATION AREA
XIA-208

PB218N

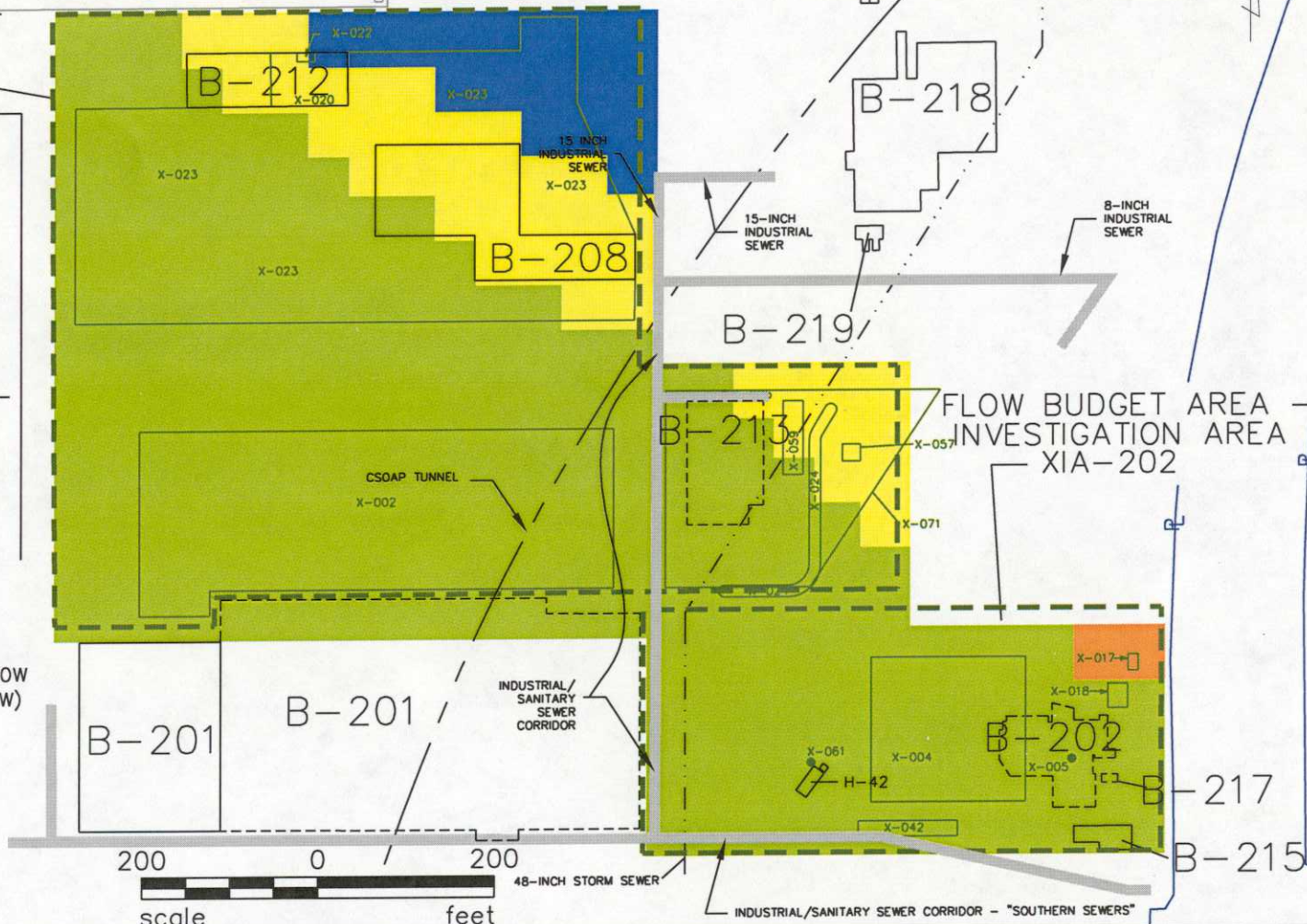
48-INCH STORM SEWER

LEGEND

- FLOW BUDGET AREA BOUNDARIES
- STRUCTURE DEMOLISHED

- X-042
- SWMU
- M-045
- PROPERTY LINE

- KPX SOUTHERN SEWERS
- PL50W (KPW)
- CSOAP TUNNEL
- PL54E (KPW)



CLIENT/PROJECT



XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK



Golder Associates

Buffalo, New York

TITLE

FATE DIAGRAM
FOR THE TOR LAYER

DRAWN

RGA

CHECKED

DCW

REVIEWED

EMM

DATE

3/19/04

SCALE

AS SHOWN

FILE NO.

033-9368

JOB NO.

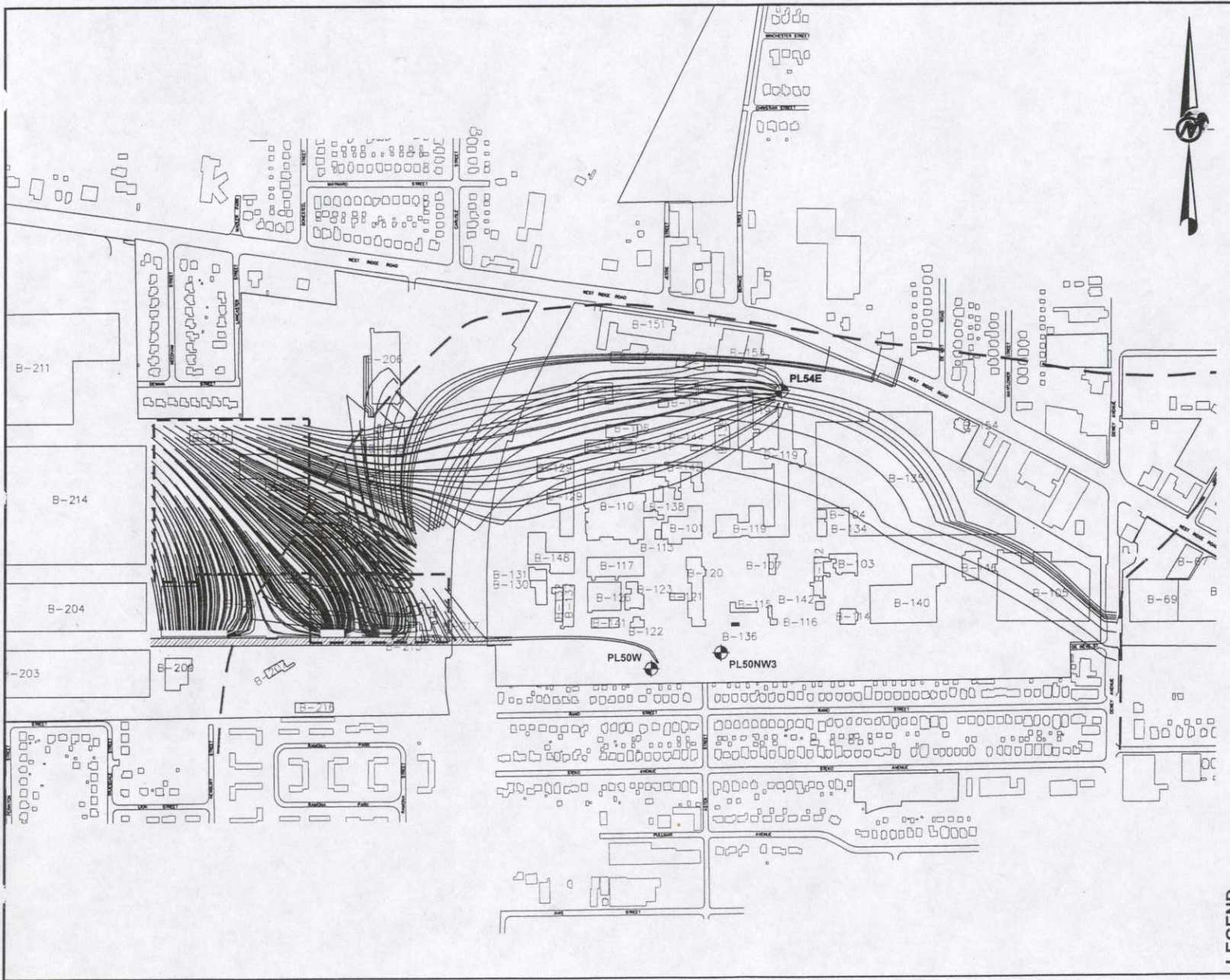
033-9368

DWG NO.

0339368A414

FIGURE

12



LEGEND

- PARTICLE PATHLINE
- CSOAP TUNNEL
- PL50NW3 EXTRACTION WELL
- APPROXIMATE LOCATION OF SOUTHERN SEWERS



	XIA-202/208 CORRECTIVE MEASURES STUDY EASTMAN KODAK COMPANY ROCHESTER, NEW YORK
	PROJECT
TITLE GROUNDWATER PARTICLE PATHLINES FOR THE TOR LAYER	
PROJECT No. 033-9368 FILE No. 0339368A419 REV. 0 SCALE AS SHOWN DESIGN ACK 01/26/04 CADD AM 02/05/04 CHECK <i>DM</i> 3/31/04 REVIEW <i>EMM</i> 3/31/04	
FIGURE 13	



SB212NW	01/25/02
VOCs	N/A
TVOCs	0.38
SVOCs	N/A

GB212NW	01/25/02
VOCs	
Acetone	0.064
Ethylene Glycol	1.3 J
TVOCs	1.364
SVOCs	
Naphthalene	0.028 D
Phenol	0.0036 JD

GB212NE	07/09/90
VOCs	
Ethylene Glycol	1 J
TVOCs	1.026
SVOCs	N/A

SB218W2	06/05/91
VOCs	
Benzene	0.083
Chloroethane	0.007
Chlorobenzene	0.006 J
1,1-Dichloroethane	0.0020
1,2-Dichloroethane	0.0009 J
Ethyl benzene	0.11
1,1,2-Trichloroethane	0.004 J
Toluene	0.012
Vinyl Chloride	0.003 J
Xylene, total	0.12
TVOCs	0.5299
SVOCs	
Bis(2-EthylHexyl)phthalate	0.0093 JB
Chloroaniline, p-	0.0068 J
1,4-Dioxane	0.098

SB218W3	01/23/02
VOCs	N/A
TVOCs	0.0085
SVOCs	N/A

SB218W	3/25/02
VOCs	
Benzene	0.0048 J
Carbon Disulfide	0.01
1,1-Dichloroethylene	0.01
Ethylene Glycol	1.6 J
TVOCs	1.6398
SVOCs	N/A

GB208NE2	01/24/02
VOCs	N/A
TVOCs	0
SVOCs	
Bis(2-EthylHexyl)phthalate	0.0055 J

GB208NE2	01/28/02
VOCs	N/A
TVOCs	0.0016
SVOCs	N/A

SB208NE2	01/28/02
VOCs	
Ethylene Glycol	N/A *
TVOCs	1.0013
SVOCs	N/A

GB201NW	01/23/02
VOCs	N/A
TVOCs	0
SVOCs	
Bis(2-EthylHexyl)phthalate	0.0062 J

SB208NE	10/21/92
VOCs	
Benzene	0.0061
Chloroethane	0.017
1,1-Dichloroethane	0.023
1,1-Dichloroethylene	0.001 J
1,2-Dichloroethylene, Total	0.012
1,1,1-Trichloroethane	0.0087
Trichloroethylene	0.0075
Vinyl Chloride	0.0071 J
TVOCs	0.1077
SVOCs	
1,2,4-Trichlorobenzene	0.0052 J

SB202W	01/24/02
VOCs	
Benzene	0.013
Ethyl Benzene	0.016
Xylene, m&p-	0.11
TVOCs	0.1441
SVOCs	
2-Methylnaphthalene	0.19 D
Naphthalene	0.12

SB202N	01/22/02
VOCs	
1,2-Dichloroethane	0.0024 J
TVOCs	0.0054
SVOCs	N/A

GB213NE	01/22/02
VOCs	N/A
TVOCs	0.0011
SVOCs	
Bis(2-EthylHexyl)phthalate	0.03

SB213E	01/24/02
VOCs	N/A
TVOCs	0
SVOCs	
Bis(2-EthylHexyl)phthalate	0.021

GB202NE	1/22/02
VOCs	
1,2-Dichloroethane	0.0011 J
TVOCs	0.0011
SVOCs	N/A

SB202NE	01/22/02
VOCs	
1,2-Dichloroethane	0.0012 J
TVOCs	0.0012
SVOCs	
1,4-Dioxane	0.059

SB202E	10/09/03
VOCs	
1,2-Dichloroethane	0.003 J
1,2-Dichloroethylene	0.029
TVOCs	0.0363

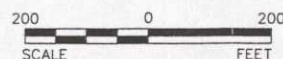
NOTES

- 1.) HISTORICAL DATA INCLUDED. MOST RECENT WELL SAMPLING EVENT FOR EACH MONITORING WELL USED ON FIGURE.
- 2.) FIGURE DERIVED FROM TABLE 6 (GROUNDWATER ANALYTICAL RESULTS).
- 3.) NO SUMMARY BOX FOR WELL ON FIGURE INDICATES NO EXCEEDANCES AND TVOC=ZERO.
- 4.) ALL VALUES IN mg/L. VOCs = Volatile Organic Compounds. SVOCs = Semi-VOCs. TVOCs = Total VOCs. N/A = NO EXCEEDANCE.

* Resampled for Ethylene Glycol only, on 3/25/02

LEGEND

- EXISTING MONITORING WELL
- RFI-INSTALLED MONITORING WELL
- PRE-CMS SUPPLEMENTAL INVESTIGATION WELL
- ABANDONED MONITORING WELL
- INVESTIGATION AREA BOUNDARIES
- STRUCTURE DEMOLISHED
- WMU - OF LESSER AREAL EXTENT
- WMU - OF GREATER AREAL EXTENT



FILE No. 0339368A424
PROJECT No. 033-9368 REV. 0

SCALE AS SHOWN
DATE 2/9/04
DESIGN DCW
CADD AM
CHECK DCW
REVIEW EMM

EXCEEDANCES OF GROUNDWATER ORGANIC STANDARDS AND TOTAL VOCs - XIA 202/208 CMS

KODAK/XIA-202/208 CMS

FIGURE 14

L01B208N071592	07/15/92
PCBs	
Aroclor-1260	4.8
Metals	
Arsenic	21.2

B01B208NE12032001	12/03/01
PCBs	
Aroclor-1254	4:0
Metals	
Arsenic	54.7

INVESTIGATION AREA
XIA-208

4531-01-01	10/28/99
SVOCs	
Benzo(a)pyrene	4.7
Metals	
Arsenic	7.97

4531-02-01	10/28/99
SVOCs	
Benzo(a)pyrene	4.0
Metals	
Arsenic	5.85

SS01B213SE12032001	12/3/01
SVOCs	
Benzo(a)anthracene	20.0
Benzo(b)fluoranthene	18.0
Benzo(a)pyrene	18.0
Dibenzo(a,h)anthracene	6.0
Indeno(1,2,3-cd)pyrene	12.0
Metals	
Arsenic	16.2

LEGEND

- EXPOSED SOIL SAMPLE LOCATION WITH I/C RBL EXCEEDANCE
- - - INVESTIGATION AREA BOUNDARIES
- - - - STRUCTURE DEMOLISHED
- - - - PROPERTY LINE
- AREAS OF POTENTIALLY EXPOSED SOILS TO BE COVERED
- AREAS OF POTENTIALLY EXPOSED SOILS TO BE COVERED OR REMOVED

NOTES

- ONLY EXPOSED SAMPLE LOCATIONS WITH I/C RBL EXCEEDANCES ARE SHOWN.
- SAMPLE LOCATIONS WITH ONLY CONCENTRATIONS OF ARSENIC IN EXCEEDANCE OF THE I/C RBL BUT BELOW THE EASTERN U.S. BACKGROUND CONCENTRATIONS (3-12 mg/kg) ARE NOT SHOWN.
- ALL CONCENTRATIONS REPORTED IN mg/kg.



Golder Associates
Buffalo, New York

CLIENT/PROJECT

XIA-202/208 CORRECTIVE MEASURES STUDY
KODAK PARK CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

TITLE AREAS DESIGNATED FOR PROTECTIVE COVERING OR SOIL REMOVAL IN XIA-202/208 WHERE SUBSTANCES IN SOIL EXCEEDED I/C RBLs AND WERE NOT ELIMINATED BY INSTITUTIONAL CONTROLS			
DRAWN	AJN	DATE	1/27/04
CHECKED	EMM	SCALE	AS SHOWN
REVIEWED	Dev	FILE NO.	033-9368
JOB NO.	033-9368	DWG. NO.	0339368A401
		FIGURE NO.	15

