



**Handex**<sup>®</sup>

Handex of Michigan

# WELL LOG: MW-2

Permit #:

Drill Date: *November 20, 1996*

Use: *Monitoring Well*

Location: *Livernols @ Hazelton Street*

Owner Loc #: *N/A*

Owner: *Sun Company, Inc.*

Handex Loc #: *108562-01*

Owner Address: *5733 Butler Street, Pittsburgh, PA*

BORING - Depth: *7 ft.*

Diameter: *6 in.*

Drilling Method: *Hand Auger*

CASING - Length: *2 ft.*

Diameter: *2 in.*

Sampling Method: *Discrete*

SCREEN - Length: *5 ft.*

Diameter: *2 in.*

Static Water Level: *N/A*

WELL - Depth: *7 ft.*

Depth (ft.)	Sample ID	Sample Depth	Blows/6 in.	OVA ppm	Graphic Log	Geologic Description	Well Diagram
5	SB-2 2-3'					Sand: Silty, Some Clay, Brown, Moist.	
3	SB-2 6-7'					Clay: Silty, Brown, Very Moist.	
10						Bottom of Boring at 7'	

Geologist: Randy Glass

Driller: Mark Riggle



Handex of Michigan

# WELL LOG: MW-3

Permit #:	Drill Date: <i>November 20, 1996</i>	Use: <i>Monitoring Well</i>
Location: <i>Livernois @ Hazelton Street</i>		Owner Loc #: <i>N/A</i>
Owner: <i>Sun Company, Inc.</i>		Handex Loc #: <i>108562-01</i>
Owner Address: <i>5733 Butler Street, Pittsburgh, PA</i>	BORING - Depth: <i>6 ft.</i>	Diameter: <i>6 in.</i>
Drilling Method: <i>Hand Auger</i>	CASING - Length: <i>1 ft.</i>	Diameter: <i>2 in.</i>
Sampling Method: <i>Discrete</i>	SCREEN - Length: <i>5 ft.</i>	Diameter: <i>2 in.</i>
Static Water Level: <i>N/A</i>	WELL - Depth: <i>7 ft.</i>	

Depth (ft.)	Sample ID	Sample Depth	Blows/6 in.	OVA ppm	Graphic Log	Geologic Description	Well Diagram
	SB-3 1'					Silt: Clayey, Very Fine Sand, Brown, Moist.	<p>2" Sched. 40 PVC</p> <p>2" Sched. 40 PVC (0.010 slot)</p> <p>Bentonite</p> <p>Cement</p> <p>Sand</p>
5	SB-3 5-8'					Sand: Medium to Coarse, Brown, Wet.	
10						Bottom of Boring at 8'	

Geologist: Randy Glass      Driller: Mark Riggle



LOG OF BORING IT-SB-101

33101 Schoolcraft Rd. - Livonia, MI 48150

PROJECT NAME:	Sunoco Pipeline	DATE:	6/12/00
PROJECT NUMBER:	103182/05000000	DEPTH TO WATER:	NA
LOCATION:	Livornois and Hazelton	TOTAL DEPTH:	16 Feet
LOGGED BY:	FAB	METHOD:	Geoprobe
DRILLING CONTRACTOR	TerraProbe	DRILLER:	John Migrate

DEPTH feet	SAMPLE NUMBER	SAMPLE INTERVAL feet	RECOVERY (%)	GEOLOGIC DESCRIPTION	SOIL CLASS	PID READINGS ppm	EQUIPMENT INSTALLED	REMARKS
	S-1	0-4	100	0'-4' FILL material, Brown, Clay/Sand/Rock mixture, dry, med. stiff, no odors or staining		2.1		solid 1" PVC Riser
						2.0		.010 Slot Screen
5	S-2	4-8	100	4'-7' SAND, fine grained, poorly sorted, saturated, trace pebbles, no odor or staining.		2.5		Sample collected @ 7 BGS
						6.3		Groundwater sampled collected from well
10	S-3	8-12	100	7'-16' CLAY, brown, med stiff, wet at interface, trace sand and pebbles, no odor or staining		1.8		
						2.0		
	S-4	12-16	30			1.2		
15						1.2		Boring Terminated at 16' BGS
								PID results from PHOTOVAC 2020



LOG OF BORING IT-SB-102

33101 Schoolcraft Rd. - Livonia, MI 48150

PROJECT NAME: Sunoco Pipeline

DATE: 6/12/00

PROJECT NUMBER: 103182/05000000

DEPTH TO WATER: NA

LOCATION: Livernois and Hazelton

TOTAL DEPTH: 16 Feet

LOGGED BY: FAB

METHOD: Geoprobe

DRILLING CONTRACTOR TerraProbe

DRILLER: John Migrate

DEPTH feet	SAMPLE NUMBER	SAMPLE INTERVAL feet	RECOVERY (%)	GEOLOGIC DESCRIPTION	SOIL CLASS	PID READINGS ppm	EQUIPMENT INSTALLED	REMARKS
	S-1	0-4	100	0'-4' FILL material, Brown, Clay/Sand/Rock mixture, dry, med. stiff, no odors or staining		1.4		solid 1" PVC Riser
						2.3		.010 Slot Screen
5	S-2	4-8	100	4'-7' SAND, fine grained, poorly sorted, saturated, trace pebbles, no odor or staining.		13.0		Sample collected @ 5' BGS Groundwater sampled collected from well
						1.0		
10	S-3	8-12	100	7'-12' CLAY, brown, med stiff, wet at interface, trace sand and pebbles, no odor or staining		1.2		
						1.1		Boring Terminated at 12' BGS
15								PID results from PHOTVAC 2020



LOG OF BORING IT-SB-103







33101 Schoolcraft Rd. - Livonia, MI 48150

PROJECT NAME: Sunoco Pipeline	DATE: 6/12/00
PROJECT NUMBER: 103182/05000000	DEPTH TO WATER: NA
LOCATION: Livernois and Hazelton	TOTAL DEPTH: 16 Feet
LOGGED BY: FAB	METHOD: Geoprobe
DRILLING CONTRACTOR TerraProbe	DRILLER: John Migrate

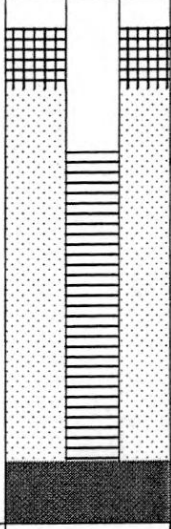
DEPTH feet	SAMPLE NUMBER	SAMPLE INTERVAL feet	RECOVERY (%)	GEOLOGIC DESCRIPTION	SOIL CLASS	PID READINGS ppm	EQUIPMENT INSTALLED	REMARKS
	S-1	0-4	100	0'-4' FILL material, Brown, Clay/Sand/Rock mixture, dry, med. stiff, no odors or staining		0.8		solid 1" PVC Riser
5	S-2	4-8	100	4'-7' SAND, fine grained, poorly sorted, saturated, trace pebbles, no odor or staining.		0.7		.010 Slot Screen
						1.2		Sample collected @ 5' BGS Groundwater sampled collected from well
						0.2		
10	S-3	8-12	100	7'-12' CLAY, brown, med stiff, wet at interface, trace sand and pebbles, no odor or staining		0.0		Boring Terminated at 12' BGS
15						0.0		PID results from PHOTOVAC 2020







Project Name: <b>Rochester Hills</b> Location: <b>Rochester Hills, Michigan</b> Logged By: <b>T. Tackett</b> Drilling/Sampling Method: <b>Geoprobe/4.25 Hollow Stem Auger</b> Driller/Drilling Company: <b>Terraprobe/Steve Bischoff</b>	Date Completed: <b>4/22/2004</b> Casing Diameter (inch): <b>1</b> Total Depth (ft): <b>12</b> Top-of-Casing Elev (ft): Ground Elevation (ft): Boring Diameter (inch): <b>6</b> Initial Depth to Water (ft b.s.): <b>4</b>
COMMENTS: HA= Hand Auger	

DEPTH feet	SAMPLE ID	Recovery (ft)	Moisture Content	Blow Counts	PID READINGS (ppmv)	GEOLOGIC DESCRIPTION	SOIL CLASS	Graphic Log: Lithology	WELL CONSTRUCTION	REMARKS
0		HA	M		0	Medium brown, fine sand and silt				
					0					
5		4	S		0	Medium brown/grey, soft, medium plasticity, silty clay				
					0					
10		4			0	Coarse sand and fine gravel				
			M		0	medium brown, low plasticity, stiff, silty clay				
						EOB 12'				

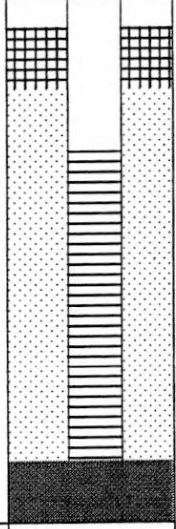
-  - concrete
-  - sand
-  - bentonite
-  - riser
-  - screen
-  - cave in







Project Name: <u>Rochester Hills</u> Location: <u>Rochester Hills, Michigan</u> Logged By: <u>T. Tackett</u> Drilling/Sampling Method: <u>Geoprobe/4.25 Hollow Stem Auger</u> Driller/Drilling Company: <u>Terraprobe/Steve Bischoff</u>	Date Completed: <u>4/22/2004</u> Casing Diameter (inch): <u>1</u> Total Depth (ft): <u>8</u> Top-of-Casing Elev (ft): Ground Elevation (ft): Boring Diameter (inch): <u>6</u> Initial Depth to Water (ft b.s.): <u>3</u>
COMMENTS: HA= Hand Auger	

DEPTH feet	SAMPLE ID	Recovery (ft)	Moisture Content	Blow Counts	PID READINGS (ppmv)	GEOLOGIC DESCRIPTION	SOIL CLASS	Graphic Log: Lithology	WELL CONSTRUCTION	REMARKS
0		HA	M		0	Medium brown, loose, fine sand	SM			
					5					
5		4	S		133	Medium grey, medium sand	SM			
			M		96.1	Medium grey/brown, stiff, low plasticity, silty clay	CL			
						EOB 8'				
10										
15										
20										

-  - concrete
-  - sand
-  - bentonite
-  - riser
-  - screen
-  - cave in

Project Name: <b>Rochester Hills</b>	Date Completed: <b>4/22/2004</b>
Location: <b>Rochester Hills, Michigan</b>	Casing Diameter (inch): <b>1</b>
Logged By: <b>T. Tackett</b>	Total Depth (ft): <b>8</b>
Drilling/Sampling Method: <b>Geoprobe/4.25 Hollow Stem Auger</b>	Top-of-Casing Elev (ft):
Driller/Drilling Company: <b>Terraprobe/Steve Bischoff</b>	Ground Elevation (ft):
	Boring Diameter (inch): <b>6</b>
	Initial Depth to Water (ft b.s.): <b>3</b>
COMMENTS: HA= Hand Auger	

DEPTH feet	SAMPLE ID	Recovery (ft)	Moisture Content	Blow Counts	PID READINGS (ppmv)	GEOLOGIC DESCRIPTION	SOIL CLASS	Graphic Log: Lithology	WELL CONSTRUCTION	REMARKS
0		HA	M		0	Medium brown fine, loose, fine sand with some gravel	SM			
			W		0					
5		4	S		0	Medium brown, very loose, fine sand and silt	SM			
			M		0	Medium brown/grey, stiff, low plasticity, silty clay	CL			
						EOB 8'				
10										
15										
20										

-  - concrete
-  - sand
-  - bentonite
-  - riser
-  - screen
-  - cave in





**SECOR**

27280 Haggerty Rd.  
Farmington Hills, MI 48331

# LOG OF BORING: MW-6

PAGE: 1 of 1

Project Name: Rochester Hills  
Location: Rochester Hills, Michigan  
Logged By: T. Tackett  
Drilling/Sampling Method: Geoprobe/4.25 Hollow Stem Auger  
Driller/Drilling Company: Terraprobe/Steve Bischoff

Date Completed: 4/22/2004  
Casing Diameter (inch): 1  
Total Depth (ft): 8  
Top-of-Casing Elev (ft):  
Ground Elevation (ft):  
Boring Diameter (inch): 6  
Initial Depth to Water (ft b.s.): 3.5

COMMENTS: HA= Hand Auger

DEPTH feet	SAMPLE ID	Recovery (ft)	Moisture Content	Blow Counts	PID READINGS (ppmv)	GEOLOGIC DESCRIPTION	SOIL CLASS	Graphic Log: Lithology	WELL CONSTRUCTION	REMARKS
0					0	Medium brown fine, loose, fine sand and silt	SM			
		HA	M		0					
					0					
5		4	W		0	Medium brown/grey, soft, medium plasticity silty clay with sand	CL			
					0	Medium brown, medium dense, sandy wilt with clay				
						EOB 8'				
10										
15										
20										

- concrete
- sand
- bentonite
- riser
- screen
- cave in

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SECOR  
INTERNATIONAL  
INCORPORATED



**APPENDIX B**  
**HISTORICAL SOIL AND GROUNDWATER TABLES**

**Appendix B**  
**Table 1**  
**Historical Soil Analytical Results - BTEX and TMBs**  
Sunoco Inc.  
Livernois and Hazelton Roads Pipeline Project  
Rochester Hills, Michigan

Sample ID	Sampling Date	Extraction Date	Analysis Date	Sample Depth (feet below surface)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	1,2,4-TMB (ug/kg)	1,3,5 - TMB (ug/kg)
<b>Groundwater/Surface Water Interface Protection Criteria</b>					<b>4,000</b>	<b>2,800</b>	<b>360</b>	<b>700</b>	<b>570</b>	<b>1,100</b>
<b>Generic Residential Volatilization to Indoor Air Criteria</b>					<b>1,600</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Direct Contact Criteria</b>					<b>180,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Groundwater Contact Protection Criteria</b>					<b>220,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Ambient Air Inhalation Criteria</b>					<b>13,000</b>	<b>2,800,000</b>	<b>720,000</b>	<b>46,000,000</b>	<b>21,000,000</b>	<b>16,000,000</b>
SB-B	NA	NA	NA	4'-6'	ND	ND	ND	ND	NA	NA
	NA	NA	NA	6'-8'	ND	ND	ND	ND	NA	NA
SB-C	NA	NA	NA	6'-8'	ND	11	180	52	NA	NA
SB-E	NA	NA	NA	8'-10'	ND	ND	ND	ND	NA	NA
SB-I	NA	NA	NA	4'-6'	ND	ND	ND	ND	NA	NA
SB-K	09/27/94	10/06/94	10/06/94	4'-6'	ND	ND	ND	ND	NA	NA
SB-L	09/27/94	10/06/94	10/06/94	4'-6'	ND	ND	ND	ND	NA	NA
SB-M	09/27/94	10/06/94	10/06/94	4'-6'	ND	ND	ND	ND	NA	NA
SB-N	09/27/94	09/29/94	09/29/94	6'-8'	ND	ND	ND	ND	NA	NA
SB-O	09/27/94	09/29/94	09/29/94	0'-2'	ND	ND	ND	ND	NA	NA
SB-P	09/27/94	09/29/94	09/29/94	6'-8'	ND	ND	ND	ND	NA	NA
SB-Q	09/27/94	10/06/94	10/06/94	6'-8'	ND	ND	ND	ND	NA	NA
IT-SB-101	06/12/00	NA	NA	7'	ND	ND	ND	ND	NA	NA
IT-SB-102	05/10/99	NA	NA	6-8'	ND	ND	ND	ND	NA	NA
IT-SB-103	05/10/99	NA	NA	6-8'	ND	ND	ND	ND	NA	NA
SB-1	09/26/94	10/05/94	10/05/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-2	09/26/94	10/05/94	10/05/94	0'-2'	ND	ND	ND	ND	NA	NA
	09/26/94	10/05/94	10/05/94	6-8'	ND	ND	ND	ND	NA	NA
SB-3	09/26/94	10/05/94	10/05/94	4'-6'	160	1,600	740	4,700	NA	NA
SB-4*	09/26/94	10/05/94	10/05/94	4'-6'	27,000	1,700	6,200	31,000	NA	NA
SB-4	09/26/94	10/05/94	10/05/94	8'-10'	ND	16	ND	ND	NA	NA
SB-5*	09/26/94	10/05/94	10/05/94	6'-8'	38	18	39	370	NA	NA
SB-6*	09/26/94	10/05/94	10/05/94	6-8'	ND	ND	ND	ND	NA	NA
SB-7*	09/26/94	10/05/94	10/05/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-8*	09/26/94	10/06/94	10/06/94	4'-6'	23	21	12	96	NA	NA
SB-9	09/27/94	09/29/94	09/29/94	3'-5'	ND	ND	ND	ND	NA	NA

**Appendix B**  
**Table 1**  
**Historical Soil Analytical Results - BTEX and TMBs**  
Sunoco Inc.  
Livernois and Hazelton Roads Pipeline Project  
Rochester Hills, Michigan

Sample ID	Sampling Date	Extraction Date	Analysis Date	Sample Depth feet below surfac	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	1,2,4-TMB (ug/kg)	1,3,5 - TMB (ug/kg)
<b>Groundwater/Surface Water Interface Protection Criteria</b>					<b>4,000</b>	<b>2,800</b>	<b>360</b>	<b>700</b>	<b>570</b>	<b>1,100</b>
<b>Generic Residential Volitalization to Indoor Air Criteria</b>					<b>1,600</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Direct Contact Criteria</b>					<b>180,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Groundwater Contact Protection Criteria</b>					<b>220,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Ambient Air Inhalation Criteria</b>					<b>13,000</b>	<b>2,800,000</b>	<b>720,000</b>	<b>46,000,000</b>	<b>21,000,000</b>	<b>16,000,000</b>
SB-10	09/26/94	10/05/94	10/05/94	4-8'	ND	ND	ND	ND	NA	NA
SB-11	09/26/94	09/29/94	09/29/94	6'-8'	ND	ND	ND	ND	NA	NA
	09/26/94	09/29/94	09/29/94	8'-10'	ND	ND	ND	ND	NA	NA
SB-12	09/26/94	10/05/94	10/05/94	2-4'	ND	ND	ND	ND	NA	NA
SB-16	09/26/94	10/05/94	10/05/94	4-8'	ND	ND	ND	ND	NA	NA
SB-17	09/26/94	10/05/94	10/05/94	6-8'	ND	ND	ND	ND	NA	NA
SB-18	09/26/94	10/05/94	10/05/94	6-8'	ND	ND	ND	ND	NA	NA
SB-18	09/26/94	10/05/94	10/05/94	8-10'	ND	ND	ND	ND	NA	NA
SB-23	09/26/94	09/29/94	09/29/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-24*	09/26/94	10/05/94	10/05/94	4-6'	ND	ND	ND	ND	NA	NA
SB-25	09/26/94	10/04/94	10/04/94	2'-4'	13	12	14	160	NA	NA
SB-26	09/27/94	10/05/94	10/05/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-27	09/27/94	10/05/94	10/05/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-28	09/27/94	10/05/94	10/05/94	4-6'	ND	ND	ND	ND	NA	NA
SB-29	09/27/94	10/05/94	10/05/94	2-4'	ND	ND	ND	ND	NA	NA
SB-30	09/27/94	10/06/94	10/06/94	4-6'	ND	ND	ND	ND	NA	NA
SB-31*	09/27/94	09/29/94	09/29/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-32	09/27/94	10/06/94	10/06/94	4-6'	ND	ND	ND	ND	NA	NA
SB-33	09/27/94	10/06/94	10/06/94	2'-4'	ND	ND	ND	ND	NA	NA
SB-34	09/27/94	09/29/94	09/29/94	4'-6'	ND	ND	ND	ND	NA	NA
SB-35	09/27/94	10/06/94	10/06/94	4'-6'	ND	84	20	150	NA	NA
SB-36	09/27/94	10/06/94	10/06/94	2'-4'	ND	39	18	120	NA	NA
	09/27/94	10/06/94	10/06/94	8'-10'	ND	ND	ND	ND	NA	NA
SB-37	09/27/94	10/06/94	10/06/94	4'-6'	ND	ND	ND	ND	NA	NA
SB-39	NA	NA	NA	5'-7'	ND	ND	ND	ND	NA	NA

**Appendix B**  
**Table 1**  
**Historical Soil Analytical Results - BTEX and TMBs**  
Sunoco Inc.  
Livernois and Hazelton Roads Pipeline Project  
Rochester Hills, Michigan

Sample ID	Sampling Date	Extraction Date	Analysis Date	Sample Depth (feet below surface)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	1,2,4-TMB (ug/kg)	1,3,5 - TMB (ug/kg)
<b>Groundwater/Surface Water Interface Protection Criteria</b>					<b>4,000</b>	<b>2,800</b>	<b>360</b>	<b>700</b>	<b>570</b>	<b>1,100</b>
<b>Generic Residential Volatilization to Indoor Air Criteria</b>					<b>1,600</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Direct Contact Criteria</b>					<b>180,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Groundwater Contact Protection Criteria</b>					<b>220,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Ambient Air Inhalation Criteria</b>					<b>13,000</b>	<b>2,800,000</b>	<b>720,000</b>	<b>46,000,000</b>	<b>21,000,000</b>	<b>16,000,000</b>
HB-1	09/26/94	10/05/94	10/05/94	1'	ND	ND	14	141	NA	NA
HB-2	09/26/94	10/05/04	10/05/94	1'	ND	ND	ND	ND	NA	NA
HB-3	09/26/94	10/05/94	10/05/94	1'	ND	ND	ND	ND	NA	NA
HB-4	09/27/94	10/03/94	10/03/94	NA	ND	ND	ND	ND	NA	NA
1B	11/08/94	11/09/94	11/09/94	8'	ND	ND	ND	ND	NA	NA
1E*	11/08/94	11/09/94	11/09/94	5'	1,600	7,700	4,400	24,000	NA	NA
1W	11/08/94	11/09/94	11/09/94	5'	4,300	19,000	63,000	34,000	NA	NA
2B	11/08/94	11/09/94	11/09/94	8'	ND	ND	ND	ND	NA	NA
2E	11/08/94	11/09/94	11/09/94	5'	ND	ND	ND	ND	NA	NA
2W	11/08/94	11/09/94	11/09/94	5'	47	43	ND	11	NA	NA
3B	11/08/94	11/09/94	11/09/94	8'	9	8	ND	ND	NA	NA
3E	11/08/94	11/09/94	11/09/94	5'	ND	ND	ND	ND	NA	NA
3W	11/08/94	11/09/94	11/09/94	5'	ND	ND	ND	ND	NA	NA
4B*	11/09/94	11/11/94	11/11/94	8'	140	21	10	87	NA	NA
4W	11/09/94	11/11/94	11/11/94	5'	75	150	45	250	NA	NA
5B*	11/09/94	11/11/94	11/11/94	8'	300	27	17	20	NA	NA
5W	11/09/94	11/11/94	11/11/94	5'	730	960	330	1,200	NA	NA
6B*	11/11/94	11/14/94	11/14/94	8'	900	930	130	560	NA	NA
6W	11/11/94	11/14/94	11/14/94	5'	310	580	290	1,400	NA	NA
7B*	11/15/94	11/16/94	11/16/94	8'	330	240	14	60	NA	NA
7E*	11/15/94	11/16/94	11/16/94	5'	590	1,400	420	2,300	NA	NA
7W	11/15/94	11/16/94	11/16/94	5'	390	1,300	510	2,900	NA	NA
8B	11/15/94	11/17/94	11/17/94	8'	88	58	13	48	NA	NA
8E	11/15/94	11/17/94	11/17/94	5'	17	22	5	21	NA	NA
8W	11/15/94	11/17/94	11/17/94	5'	8	ND	ND	ND	NA	NA
9B	11/16/94	11/17/94	11/17/94	8'	ND	ND	ND	ND	NA	NA
9E	11/16/94	11/17/94	11/17/94	5'	ND	ND	ND	ND	NA	NA

**Appendix B**  
**Table 1**  
**Historical Soil Analytical Results - BTEX and TMBs**  
Sunoco Inc.  
Livernois and Hazelton Roads Pipeline Project  
Rochester Hills, Michigan

Sample ID	Sampling Date	Extraction Date	Analysis Date	Sample Depth feet below surface	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	1,2,4-TMB (ug/kg)	1,3,5 - TMB (ug/kg)
<b>Groundwater/Surface Water Interface Protection Criteria</b>					<b>4,000</b>	<b>2,800</b>	<b>360</b>	<b>700</b>	<b>570</b>	<b>1,100</b>
<b>Generic Residential Volatilization to Indoor Air Criteria</b>					<b>1,600</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Direct Contact Criteria</b>					<b>180,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Groundwater Contact Protection Criteria</b>					<b>220,000</b>	<b>250,000</b>	<b>140,000</b>	<b>150,000</b>	<b>110,000</b>	<b>94,000</b>
<b>Generic Residential Ambient Air Inhalation Criteria</b>					<b>13,000</b>	<b>2,800,000</b>	<b>720,000</b>	<b>46,000,000</b>	<b>21,000,000</b>	<b>16,000,000</b>
9W	11/16/94	11/17/94	11/17/94	5'	ND	ND	ND	ND	NA	NA
10B	11/16/94	11/17/94	11/17/94	8'	ND	ND	ND	ND	NA	NA
10E	11/16/94	11/17/94	11/17/94	5'	ND	ND	ND	ND	NA	NA
10W	11/16/94	11/21/94	11/21/94	5'	ND	ND	ND	ND	NA	NA
11B	11/16/94	11/17/94	11/17/94	8'	ND	ND	ND	ND	NA	NA
11E	11/16/94	11/17/94	11/17/94	5'	ND	ND	ND	ND	NA	NA
11W	11/16/94	11/17/94	11/17/94	5'	ND	ND	ND	ND	NA	NA
12B	11/16/94	11/18/94	11/18/94	8'	ND	ND	ND	ND	NA	NA
13B	NA	NA	NA	8'	ND	ND	ND	ND	NA	NA
13E	11/17/94	11/18/94	11/18/94	5'	ND	ND	ND	ND	NA	NA
14B	11/17/94	11/18/94	11/18/94	8'	ND	ND	ND	ND	NA	NA
14E	11/17/94	11/18/94	11/18/94	5'	ND	ND	ND	ND	NA	NA
15B	11/18/94	11/20/94	11/20/94	5'	ND	ND	ND	ND	NA	NA
15E	11/18/94	11/19/94	11/19/94	8'	290	6	ND	100	NA	NA
16B	11/18/94	11/20/94	11/20/94	8'	ND	ND	ND	ND	NA	NA
16E	11/18/94	11/19/94	11/19/94	5'	140	ND	ND	61	NA	NA
17B	11/21/94	11/22/94	11/22/94	9'	35	10	ND	ND	NA	NA
17E	11/21/94	11/22/94	11/22/94	5'	ND	ND	ND	ND	NA	NA
17S	11/21/94	11/22/94	11/22/94	5'	ND	ND	ND	ND	NA	NA
18B	11/22/94	11/29/94	11/29/94	8'	ND	ND	ND	ND	NA	NA
18E	11/22/94	11/29/94	11/29/94	5'	ND	ND	ND	ND	NA	NA
19B	11/22/94	11/29/94	11/29/94	8'	ND	ND	ND	ND	NA	NA
19E	11/22/94	11/29/94	11/29/94	5'	ND	ND	ND	ND	NA	NA
S25	11/22/94	11/29/94	11/29/94	0.5'	ND	ND	ND	ND	NA	NA
S50	11/22/94	11/29/94	11/29/94	0.5'	ND	ND	ND	ND	NA	NA
S75	11/22/94	11/29/94	11/29/94	0.5'	ND	ND	ND	ND	NA	NA
S100	11/22/94	11/29/94	11/29/94	0.5'	ND	ND	ND	ND	NA	NA

**Additional Comments:**

\*- Soil sample removed during widening of excavation

ID - Insufficient Data

NA - Not Available

ND - Not Detected

**Appendix B  
Table 2  
Historical Soil Analytical Results - Polynuclear Aromatic Compounds**  
Sunoco Inc.  
Livernois and Hazelton Roads Pipeline Project  
Rochester Hills, Michigan

Sample ID	Date Sampled	Extraction Date	Analysis Date	Sample Depth (feet below surface)	Naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Chrysene	Dibenzo (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	Phenanthrene	Pyrene	
					(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Groundwater/Surface Water Interface Protection Criteria					870	ID	4,400	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	2,300	ID	
Generic Residential Volatilization to Indoor Air Criteria					250,000	ID	190,000,000	1,600,000	1,000,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	1,000,000,000	580,000,000	NLV	1,800,000	1,000,000,000	
Generic Residential Direct Contact Criteria					16,000,000	8,100,000	41,000,000	1,600,000	230,000,000	20,000	20,000	200,000	2,000	2,500,000	2,000,000	2,000	46,000,000	27,000,000	20,000	1,600,000	29,000,000	
Generic Residential Groundwater Contact Protection Criteria					2,100,000	5,500,000	970,000	440,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	NLL	730,000	890,000	NLL	1,100,000	480,000
Generic Residential Ambient Air Inhalation Criteria					300,000	ID	81,000,000	2,200,000	1,400,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	740,000,000	130,000,000	NLV	160,000	650,000,000	
SB-B	NA	NA	NA	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	NA	NA	NA	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-E	NA	NA	NA	8'-10"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-I	NA	NA	NA	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-K	09/27/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-L	09/27/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-M	09/27/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-N	09/27/94	09/29/94	09/29/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-O	09/27/94	09/29/94	09/29/94	0'-2"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP-P	09/27/94	09/29/94	09/29/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP-Q	09/27/94	10/04/94	10/04/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
IT-SB-101	06/12/00	NA	NA	7'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
IT-SB-102	05/10/99	NA	NA	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
IT-SB-103	05/10/99	NA	NA	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-1	09/26/94	10/05/94	10/05/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-2	09/26/94	10/05/94	10/05/94	0'-2"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	400	990	
	09/26/94	10/04/94	10/04/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-3	09/26/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-4*	09/26/94	09/29/94	09/29/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	09/26/94	09/29/94	09/29/94	8'-10"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-5*	09/26/94	10/05/94	10/05/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-6*	09/26/94	10/04/94	10/04/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-7*	09/26/94	10/05/94	10/05/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	590	
SB-8*	09/26/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-9	09/27/94	09/29/94	09/29/94	3'-5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-10	09/26/94	10/05/94	10/05/94	4'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-11	09/26/94	09/29/94	09/29/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	09/26/94	09/29/94	09/29/94	8'-10"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-12	09/26/94	10/04/94	10/04/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-16	09/26/94	10/05/94	10/05/94	4'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-17	09/26/94	10/05/94	10/05/94	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-18	09/26/94	10/04/94	10/04/95	6'-8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	09/26/94	10/04/94	10/04/94	8'-10"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-23	09/26/94	09/29/94	09/29/94	2'-4"	ND	NS	ND	ND	530	910	860	530	820	390	550	560	2,600	ND	840	1,600	3,600	
SB-24*	09/26/94	10/04/94	10/04/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-25	09/26/94	10/04/94	10/04/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-26	09/27/94	10/05/94	10/05/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	490	
SB-27	09/27/94	10/05/94	10/05/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	440	620	
SB-28	09/27/94	10/05/94	10/05/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,200	1,300	
SB-29	09/27/94	10/04/94	10/04/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-30	09/27/94	10/04/94	10/04/94	4'-6"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-31*	09/27/94	09/29/94	09/29/94	2'-4"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	ND	ND	ND	480	



**Appendix B**  
**Table 2**  
**Historical Soil Analytical Results - Polynuclear Aromatic Compounds**  
 Sunoco Inc.  
 Livernois and Hazelton Roads Pipeline Project  
 Rochester Hills, Michigan

Sample ID	Date Sampled	Extraction Date	Analysis Date	Sample Depth (feet below surface)	Naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Chrysene	Dibenzo (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	Phenanthrene	Pyrene	
					(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Groundwater/Surface Water Interface Protection Criteria					870	ID	4,400	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	2,300	ID	
Generic Residential Volatilization to Indoor Air Criteria					250,000	ID	190,000,000	1,600,000	1,000,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	1,000,000,000	580,000,000	NLV	1,800,000	1,000,000,000	
Generic Residential Direct Contact Criteria					16,000,000	8,100,000	41,000,000	1,600,000	230,000,000	20,000	20,000	200,000	2,000	2,500,000	2,000,000	2,000	46,000,000	27,000,000	20,000	1,600,000	29,000,000	
Generic Residential Groundwater Contact Protection Criteria					2,100,000	5,500,000	970,000	440,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	NLL	730,000	890,000	NLL	1,100,000	480,000
Generic Residential Ambient Air Inhalation Criteria					300,000	ID	81,000,000	2,200,000	1,400,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	740,000,000	130,000,000	NLV	160,000	650,000,000	
SB-32	09/27/94	10/04/94	10/04/94	4-6'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-33	08/27/94	10/05/94	10/04/94	2-4'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-34	08/27/94	09/29/94	09/29/94	4-6'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-35	08/27/94	10/05/94	10/05/94	4-6'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-36	08/27/94	10/04/94	10/04/94	2-4'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	09/27/94	10/04/94	10/04/94	8-10'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-37	09/27/94	10/05/94	10/05/94	4-6'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SB-39	NA	NA	NA	5-7'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
HB-1	09/26/94	10/05/94	10/05/94	1'	3,400	NS	3,600	4,500	690	3,400	1,200	950	400	680	1,200	750	2,200	7,600	1,100	1,800	2,600	
HB-2	09/26/94	10/04/94	10/04/94	1'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
HB-3	09/26/94	10/05/94	10/05/94	1'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	450	ND	ND	ND	560	
HB-4	09/27/94	09/29/94	09/29/94	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1B	11/08/94	11/09/94	11/10/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1E*	11/08/94	11/09/94	11/11/94	5"	7,800	NS	5,300	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1W	11/08/94	11/09/94	11/11/94	5"	24,000	NS	14,000	ND	1,700	ND	ND	ND	ND	ND	ND	ND	2,100	ND	ND	5,000	ND	
2B	11/08/94	11/09/94	11/11/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2E	11/08/94	11/09/94	11/11/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2W	11/08/94	11/09/94	11/11/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3B	11/08/94	11/09/94	11/11/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3E	11/08/94	11/09/94	11/11/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3W	11/08/94	11/09/94	11/12/94	5"	ND	NS	ND	ND	ND	360	ND	ND	ND	ND	ND	ND	460	ND	ND	ND	400	
4B*	11/08/94	11/14/94	11/14/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4W	11/09/94	11/14/94	11/14/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
5B*	11/08/94	11/14/94	11/14/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
5W	11/09/94	11/14/94	11/14/94	5"	450	NS	ND	370	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600	ND	
6B*	11/11/94	11/14/94	11/15/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
6W	11/11/94	11/14/94	11/15/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7B*	11/15/94	11/16/94	11/17/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7E*	11/15/94	11/16/94	11/17/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7W	11/15/94	11/16/94	11/17/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
8B	11/15/94	11/16/94	11/17/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
8E	11/15/94	11/16/94	11/18/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
8W	11/15/94	11/16/94	11/18/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9B	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9E	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9W	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
10B	11/16/94	11/16/94	11/20/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
10E	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	470	350	ND	ND	ND	ND	ND	660	ND	ND	350	520	
10W	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
11B	11/16/94	11/16/94	11/20/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
11E	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
11W	11/16/94	11/16/94	11/20/94	5"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
12B	11/16/94	11/16/94	11/20/94	8"	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

**Appendix B**  
**Table 2**  
**Historical Soil Analytical Results - Polynuclear Aromatic Compounds**  
 Sunoco Inc.  
 Livernois and Hazelton Roads Pipeline Project  
 Rochester Hills, Michigan

Sample ID	Date Sampled	Extraction Date	Analysis Date	Sample Depth (feet below surface)	Naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Chrysene	Dibenzo (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	Phenanthrene	Pyrene	
					(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Groundwater/Surface Water Interface Protection Criteria					870	ID	4,400	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	2,300	ID	
Generic Residential Volatilization to Indoor Air Criteria					250,000	ID	190,000,000	1,600,000	1,000,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	1,000,000,000	580,000,000	NLV	1,800,000	1,000,000,000	
Generic Residential Direct Contact Criteria					16,000,000	8,100,000	41,000,000	1,600,000	230,000,000	20,000	20,000	200,000	2,000	2,500,000	2,000,000	2,000	46,000,000	27,000,000	20,000	1,600,000	29,000,000	
Generic Residential Groundwater Contact Protection Criteria					2,100,000	5,500,000	970,000	440,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	NLL	730,000	890,000	NLL	1,100,000	480,000
Generic Residential Ambient Air Inhalation Criteria					300,000	ID	81,000,000	2,200,000	1,400,000,000	NLV	ID	NLV	NLV	NLV	ID	NLV	740,000,000	130,000,000	NLV	160,000	650,000,000	
13B	NA	NA	NA	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13E	11/17/94	11/18/94	11/20/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14B	11/17/94	11/18/94	11/20/94	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14E	11/17/94	11/18/94	11/20/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15B	11/18/94	11/21/94	11/21/94	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15E	11/18/94	11/21/94	11/21/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16B	11/18/94	11/21/94	11/21/94	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16E	11/18/94	11/21/94	11/21/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17B	11/21/94	11/22/94	11/22/94	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17E	11/21/94	11/22/94	11/22/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17S	11/21/94	11/22/94	11/22/94	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18B	11/22/94	11/23/94	11/25/01	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18E	11/22/94	11/23/94	11/25/01	5'	ND	NS	ND	ND	380	ND	720	ND	470	950	780	1,100	1,700	ND	1,500	690	1,300	
19B	11/22/94	11/23/94	11/25/01	8'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19E	11/22/94	11/23/94	11/25/01	5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S25	11/22/94	11/23/94	11/25/01	0.5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	320	ND	ND	ND	ND	ND	ND	ND	ND
S50	11/22/94	11/23/94	11/25/01	0.5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	440	ND	400	310	ND	500	ND	ND	ND
S75	11/22/94	11/23/94	11/25/01	0.5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S100	11/22/94	11/23/94	11/25/01	0.5'	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Additional Comments:**  
 \* - Soil Sample excavated during excavation widening (Handex, 1995).  
 ID - Insufficient Data  
 NLL - Not Likely to Leach  
 NLV - Not Likely to Volatilize  
 NA = Not Available  
 NS = Not Sampled  
 ND = Below Method Detection Limit

**Appendix B**  
**Table 3**  
**Historical Groundwater Analytical Results - BTEX, MTBE, TMBs, Naphthalene, 2-methylnaphthalene**  
 Sunoco, Inc.  
 Livernois and Hazelton Roads Pipeline  
 Rochester Hills, Michigan

Well ID	Sample Date	Analysis Date	Screen Interval	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	2-methylnaphth (ug/l)	Naphth (ug/l)	1,2,4 TMBs (ug/l)	1,3,5 TMBs (ug/l)
<b>Groundwater/Surface Water Interface Criteria</b>				200	140	18	35	730	ID	13	17	45
<b>Generic Residential Volitalization to Indoor Air Inhalation Criteria</b>				5600	530000	170000	190000	47,000,000	ID	31,000	56,000	61,000
<b>Generic Residential Groundwater Contact Criteria</b>				11,000	530000	170000	190000	47,000,000	25,000	31,000	56,000	61,000
SB-1	09/26/94	10/04/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-4	09/26/94	09/29/94	NA	5,100	4,800	1,000	4,800	NA	NA	NA	NA	NA
SB-9	09/27/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-12	09/26/94	10/06/04	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-29	09/27/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-31	09/27/94	09/29/94	NA	650	290	5	23	NA	NA	NA	NA	NA
SB-32	09/27/94	10/05/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-39	09/27/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-A	09/26/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-B	09/26/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-C	09/26/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-G	09/27/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-J	09/27/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-K	09/27/94	10/06/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-N	09/27/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-O	09/27/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
SB-P	09/27/94	09/29/94	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
HA-4	09/27/94	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA
MW-1	11/26/96	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	05/23/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	09/15/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	12/10/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	03/17/98	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	05/11/98	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
MW-2	11/26/96	NA	2-7'	24	29	110	37	NA	NA	NA	NA	NA
	05/23/97	NA	2-7'	860	<1	64	<3	NA	NA	NA	NA	NA
	09/15/97	NA	2-7'	500	19	140	<3	NA	NA	NA	NA	NA
	12/10/97	NA	2-7'	500	29	200	12	NA	NA	NA	NA	NA
	03/17/98	NA	2-7'	<5	1	<1	<3	NA	NA	NA	NA	NA
	05/11/98	NA	2-7'	<5	2	2	14	NA	NA	NA	NA	NA
	06/12/00	NA	2-7'	<5	<5	<5	<5	NA	NA	NA	NA	NA

**Appendix B**  
**Table 3**  
**Historical Groundwater Analytical Results - BTEX, MTBE, TMBs, Naphthalene, 2-methylnaphthalene**  
 Sunoco, Inc.  
 Livernois and Hazelton Roads Pipeline  
 Rochester Hills, Michigan

Well ID	Sample Date	Analysis Date	Screen Interval	Benzene (ug/l)	Toluene (ug/l)	Ethyl-Benzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	2-methylnaphth (ug/l)	Naphth (ug/l)	1,2,4 TMBs (ug/l)	1,3,5 TMBs (ug/l)
<b>Groundwater/Surface Water Interface Criteria</b>				200	140	18	35	730	ID	13	17	45
<b>Generic Residential Volitalization to Indoor Air Inhalation Criteria</b>				5600	530000	170000	190000	47,000,000	ID	31,000	56,000	61,000
<b>Generic Residential Groundwater Contact Criteria</b>				11,000	530000	170000	190000	47,000,000	25,000	31,000	56,000	61,000
<b>MW-3</b>	11/26/96	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	05/23/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	09/15/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	12/10/97	NA	2-7'	<5	<1	<1	<3	NA	NA	NA	NA	NA
	03/17/98	NA	2-7'	9	7	4	13	NA	NA	NA	NA	NA
	05/11/98	NA	2-7'	<5	<1	<1	7	NA	NA	NA	NA	NA
	06/12/00	NA	2-7'	<5	<5	<5	<5	NA	NA	NA	NA	NA
<b>MW-101</b>	06/12/00	NA	2-7'	<5	<5	<5	<5	NA	NA	NA	NA	NA
<b>MW-102</b>	06/12/00	NA	1-6'	<5	<5	<5	<5	NA	NA	NA	NA	NA
<b>MW-103</b>	06/12/00	NA	1-6'	<5	<5	<5	<5	NA	NA	NA	NA	NA

**Additional Comments:**

ID - Insufficient Data

ND = Not Detected

NA = Not Available

Shading - Exceeds Part 201 Criteria

**Appendix B**  
**Table 4**  
**Historical Groundwater Analytical Results - PNAs**  
 Sunoco, Inc.  
 Livernois and Hazelton Roads Pipeline  
 Rochester Hills, Michigan

Sample ID	Sample Date	Screen Interval	Naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Chrysene	Dibenzo (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	Phenanthrene	Pyrene
			(micrograms per liter)																
Groundwater/Surface Water Interface Criteria			13	ID	19	ID	ID	NA	ID	NA	ID	NA	ID	ID	2	12	ID	5	ID
Generic Residential Volatilization to Indoor Air Inhalation Criteria			31,000	ID	4,200	3,900	43	NLV	NLV	NLV	NLV	NLV	ID	NLV	210	2,000	NLV	1,000	140
Generic Residential Groundwater Contact Criteria			31,000	25,000	4,200	3,900	43	9	2	5	5	5	5	5	210	2,000	5	1,000	140
SB-4	9/26/1994	NA	1,300	NS	ND	220	65	180	25	57	ND	ND	34	ND	580	91	ND	260	1,100
SB-29	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-31	9/27/1994	NA	8	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-32	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-39	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-A	9/26/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-K	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-N	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-P	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA-4	9/27/1994	NA	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1	11/26/1996	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	3/17/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	5/11/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-2	11/26/1996	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	3/17/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	5/11/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	6/12/2000	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-3	11/26/1996	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	3/17/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	5/11/1998	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	6/12/2000	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-101	6/12/2000	2-7'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-102	6/12/2000	1-6'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-103	6/12/2000	1-6'	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

**Additional Comments:**  
 NS = Not Sampled  
 ND = Not Detected  
 NA = Not Available  
 ID - Insufficient Data  
 NLV = Not Likely to Volatilize

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SECOR  
INTERNATIONAL  
INCORPORATED



**APPENDIX C  
ZONING DOCUMENTATION**



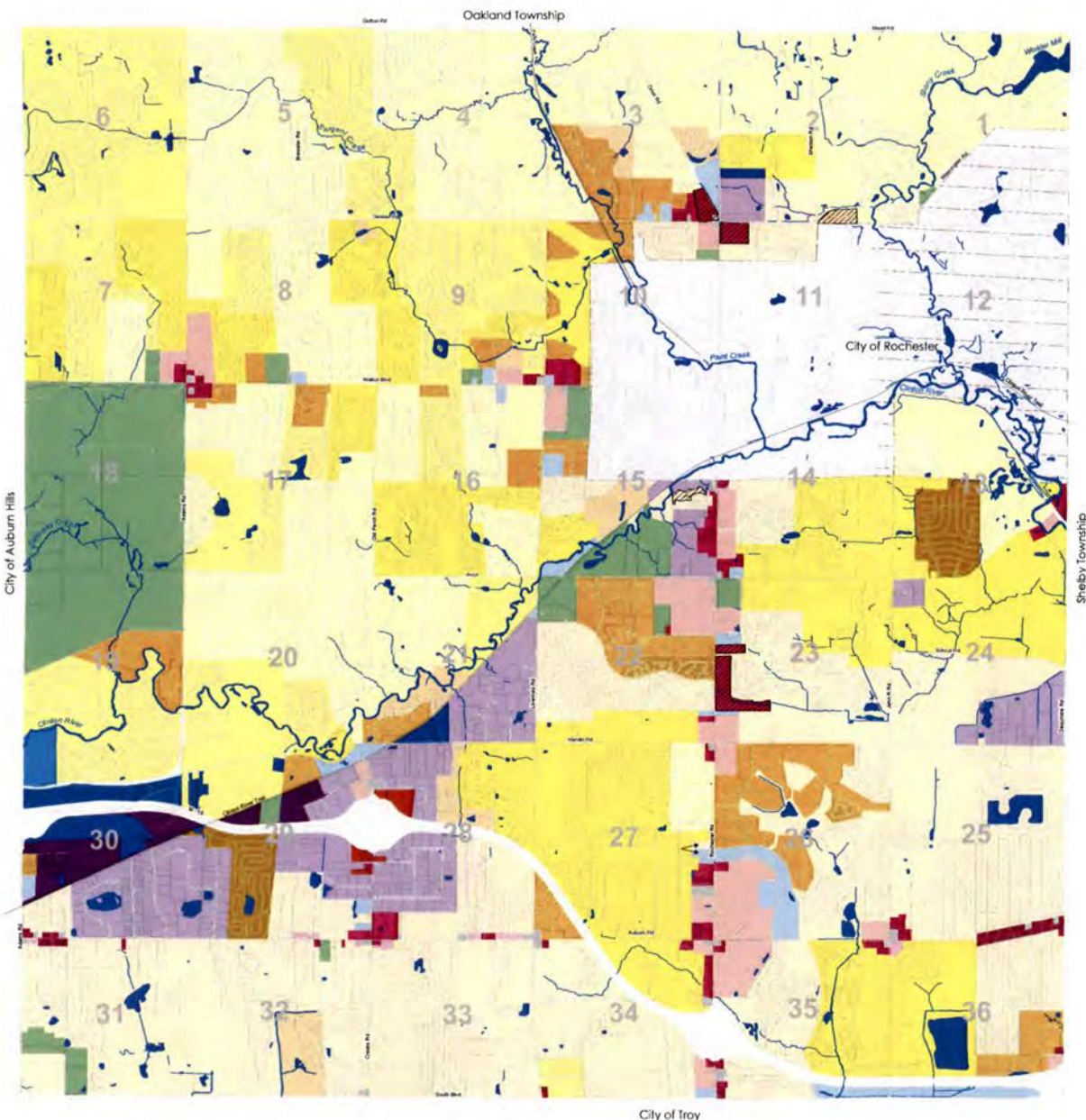
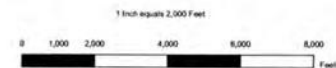
## ZONING DISTRICTS

- R-1: One Family Residential
- R-2: One Family Residential
- R-3: One Family Residential
- R-4: One Family Residential
- RCD: One Family Cluster
- RM-1: Multiple Family Residential
- MH: Mobile Home Park
- B-1: Local Business
- B-2: General Business
- B-3: Shopping Center Business
- B-4: Freeway Service Business
- B-5: Automotive Business
- C-1: Commercial Improvement
- O-1: Office Business
- RO: Research Office
- ORT: Office - Research - Technology
- I-1: Light Industrial
- I-2: Heavy Industrial
- SP: Special Purpose
- With PUD

\*\* Zoning is pursuant to a Consent Judgment

4 Township Section Number

This map is for informational purposes only. A certified copy of the city's zoning map and subsequent zoning amendments are available at the City Clerk's office.





## Katherine Young

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**From:** Oakland County Record Center <oaklandcountymi@mycusthelp.net>  
**Sent:** Wednesday, November 8, 2023 3:53 PM  
**To:** FOIA  
**Subject:** Freedom of Information Act (FOIA) Request :: F006783-110123

--- Please respond above this line ---



OAKLAND COUNTY EXECUTIVE DAVID COULTER

**Leigh-Anne Stafford, Health Officer**  
(248) 858-1280 | [health@oakgov.com](mailto:health@oakgov.com)

November 8, 2023

FOIA Coordinator  
ASTI Environmental

10448 Citation Drive Suite 100  
Brighton MI 48116  
[foia@asti-env.com](mailto:foia@asti-env.com)

**RE: FOIA REQUEST(S)**  
**3514 S. LIVERNOIS**  
**ROCHESTER HILLS, OAKLAND COUNTY, MI**  
**PARCEL #(S):15-33-426-025**  
**REFERENCE NUMBER: F006783-110123**

Dear FOIA Coordinator:

Per your request and a review of our records, the Oakland County Health Division (OCHD) does not maintain files for LUSTs, ASTs or USTs for this site.

The OCHD has denied your request because for information regarding "...environmental concerns..." does not describe a public record sufficiently to enable the public body to find the public record. No information regarding landfills, on-site sewage disposal permits, water well permits, or well logs were found for the captioned property. OCHD is not conducting ongoing monitoring of any groundwater pollutants for the property, nor are there files for historical monitoring on this site.

If you wish to modify your request by providing a complete list of specific concerns and properties, with date ranges for the information you desire, OCHD will provide available information in compliance with the FOIA.

It is recommended that you contact the Michigan Department of Licensing and Regulatory Affairs and the Michigan Department of Environmental Quality as those agencies have regulatory authority over certain environmental pollutants and monitoring activities. It is advised that you contact the local water supply and sewer agencies as they may have authority over certain aspects of the captioned property. If you have any questions, please contact this Division at (248) 858-1312.

### **YOUR FURTHER LEGAL RIGHTS**

To the extent that this response, in your opinion, constitutes a denial of your Freedom of Information Act (FOIA) rights, your statutory remedies are as follows:

For FOIA denials, you may submit to the head of the public body a written appeal that specifically states the word "appeal" and identifies the reason or reasons for reversal of the denial. Within 10 business days after the head of the public body receives a written appeal he or she will do one of the following:

1. Reverse the denial.
2. Issue a written notice to you upholding the denial.
3. Reverse the denial in part and issue a written notice to you upholding the denial in part.
4. Under unusual circumstances, issue a notice extending for not more than 10 business days the time to respond.

You may begin a civil action in circuit court to compel the public body's disclosure of the public records within 180 days after a public body's final determination to deny a request.

You have the right to receive attorneys' fees and damages as provided in MCL 15.240 if, after judicial review, the court determines that the public body has not complied with MCL 15.235 and orders disclosure of all or a portion of a public record.

For fee appeals, if the public body requires a fee that, in your opinion, exceeds the amount permitted under its procedures and guidelines or MCL 15.234, you may submit to the head of the public body a written fee appeal for a fee reduction that specifically states the word "appeal" and identifies how the required fee exceeds the amount permitted. Within 10 business days after the head of the public body receives a written fee appeal, he or she will do one of the following:

1. Waive the fee.
2. Reduce the fee and issue a written determination to the requesting person indicating the basis for the remaining fee.
3. Uphold the fee and issue a written determination to the requesting person indicating the basis for upholding the fee.
4. If necessary, issue a notice extending for not more than 10 business days the time to respond.

Within 45 days after the head of the public body issues a written determination on the fee appeal or if the head of the public body failed to respond to the fee appeal, you may begin a civil action in circuit court.

Oakland County's FOIA Procedures and Guidelines, and its Public Summary, can be found at <https://www.oakgov.com/government/FOIA>.

Sincerely,

**OAKLAND COUNTY HEALTH DIVISION**  
**Department of Health and Human Services**

Amy Plevinski  
Public Health Sanitarian Senior

To monitor the progress or update this request please log into the [FOIA Record Center](#).



## ZONING DISTRICTS

\* PUD Overlay

\*\* Land Use is pursuant to Consent Judgment

### Zoning

#### ZONE

- RE: Residential Estate
- R-1: One Family Residential
- R-2: One Family Residential
- R-3: One Family Residential
- R-4: One Family Residential
- RCD: One Family Cluster
- RM-1: Multiple Family Residential
- MH: Mobile Home Park
- B-1: Local Business
- B-2: General Business
- B-3: Shopping Center Business
- B-4: Freeway Service Business
- B-5: Automotive Business
- CI: Commercial Improvement
- O-1: Office Business
- ORT: Office - Research - Technology
- I: Industrial
- SP: Special Purpose

FB-1: Flexible Business Overlay

FB-2: Flexible Business Overlay

FB-3: Flexible Business Overlay

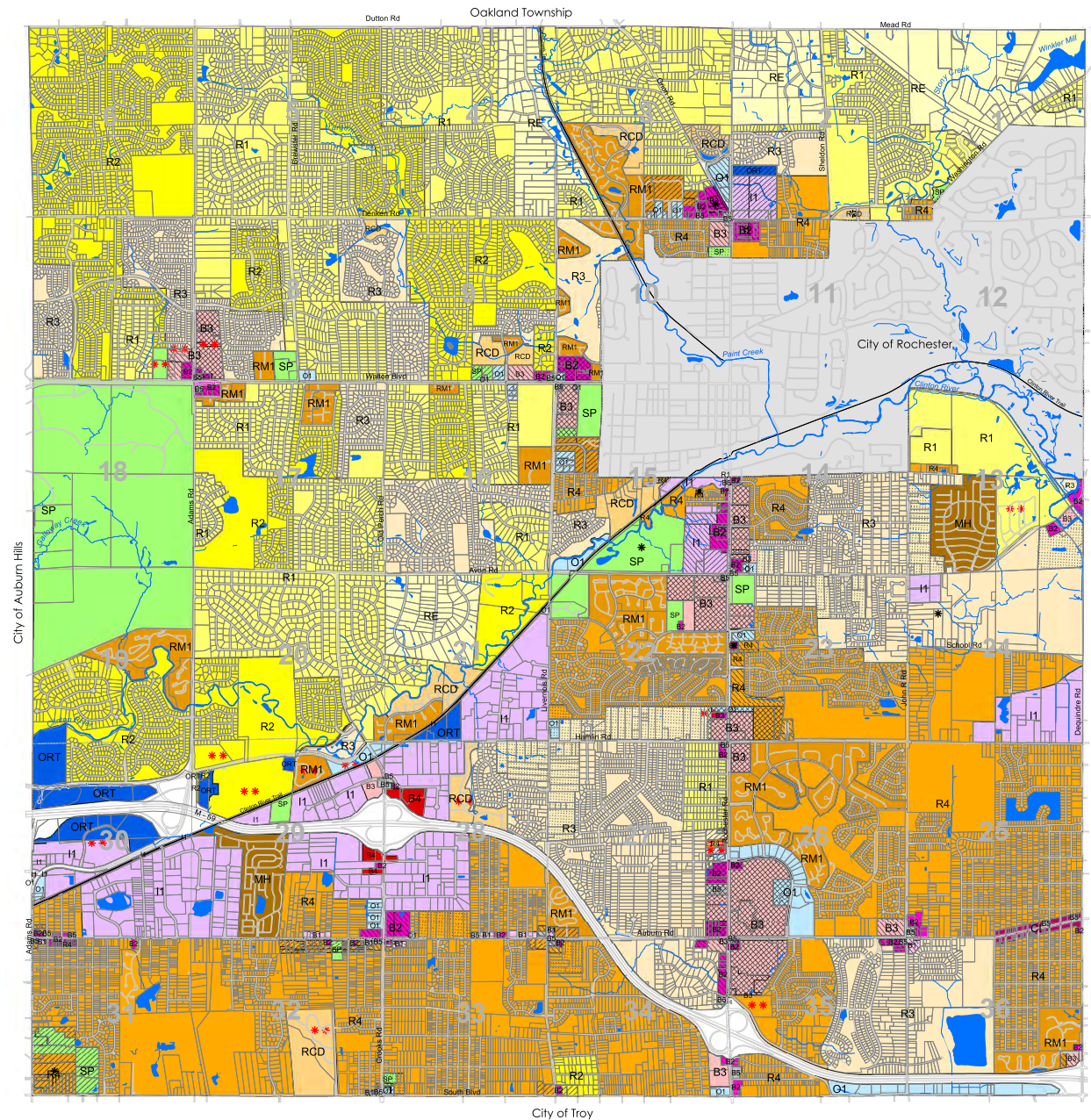
MR: Mixed Residential Overlay

4

Township Section Number

This map is for informational purposes only. A certified copy of the city's zoning map and subsequent zoning amendments are available at the City Clerk's office.

1 Inch = 2,000 Feet



## **APPENDIX E**

### **Historical Research Documentation**

EDR Aerial Photo Decade Package

EDR Sanborn Report

EDR City Directory Image Report

EDR Historical Topo Map Report



**3514 S Livernois**

3514 S Livernois

Rochester, MI 48309

Inquiry Number: 7486636.8

November 01, 2023

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# EDR Aerial Photo Decade Package

11/01/23

**Site Name:**

3514 S Livernois  
3514 S Livernois  
Rochester, MI 48309  
EDR Inquiry # 7486636.8

**Client Name:**

Applied Science & Technology  
10448 Citation Drive  
Brighton, MI 48116  
Contact: Aliya Spotts



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2020	1"=500'	Flight Year: 2020	USDA/NAIP
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1999	1"=500'	Acquisition Date: March 28, 1999	USGS/DOQQ
1997	1"=500'	Flight Date: May 04, 1997	DTE
1987	1"=500'	Flight Date: June 17, 1987	USDA
1983	1"=500'	Flight Date: May 05, 1983	USDA
1976	1"=500'	Flight Date: March 25, 1976	USDA
1972	1"=500'	Flight Date: July 01, 1972	USDA
1967	1"=500'	Flight Date: May 12, 1967	DTE
1956	1"=500'	Flight Date: May 07, 1956	DTE
1952	1"=500'	Flight Date: April 25, 1952	DTE
1949	1"=500'	Flight Date: May 03, 1949	DTE
1940	1"=500'	Flight Date: September 20, 1940	USDA
1937	1"=500'	Flight Date: October 06, 1937	USDA

**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

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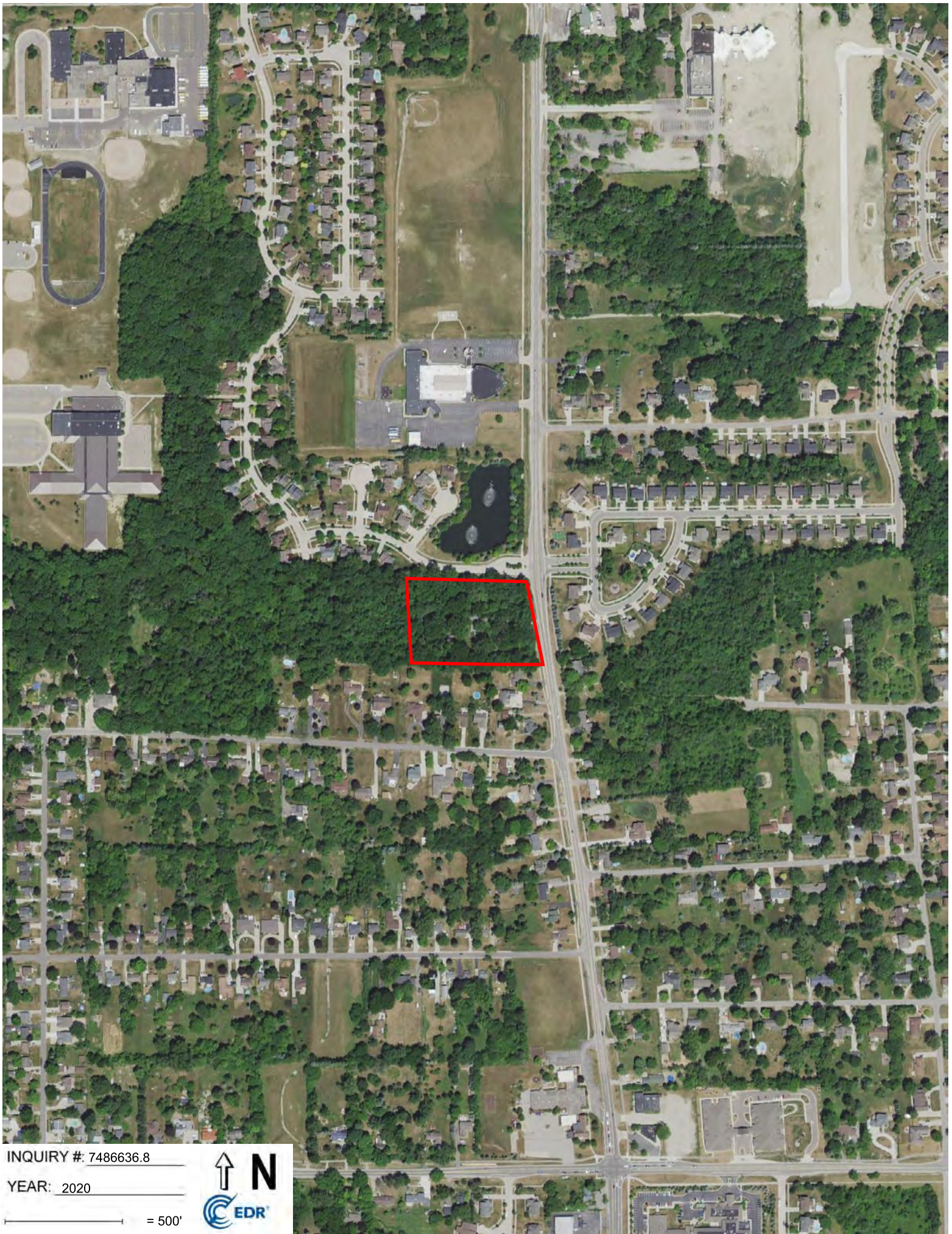
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INQUIRY #: 7486636.8

YEAR: 2020

— = 500'







INQUIRY #: 7486636.8

YEAR: 2016

— = 500'



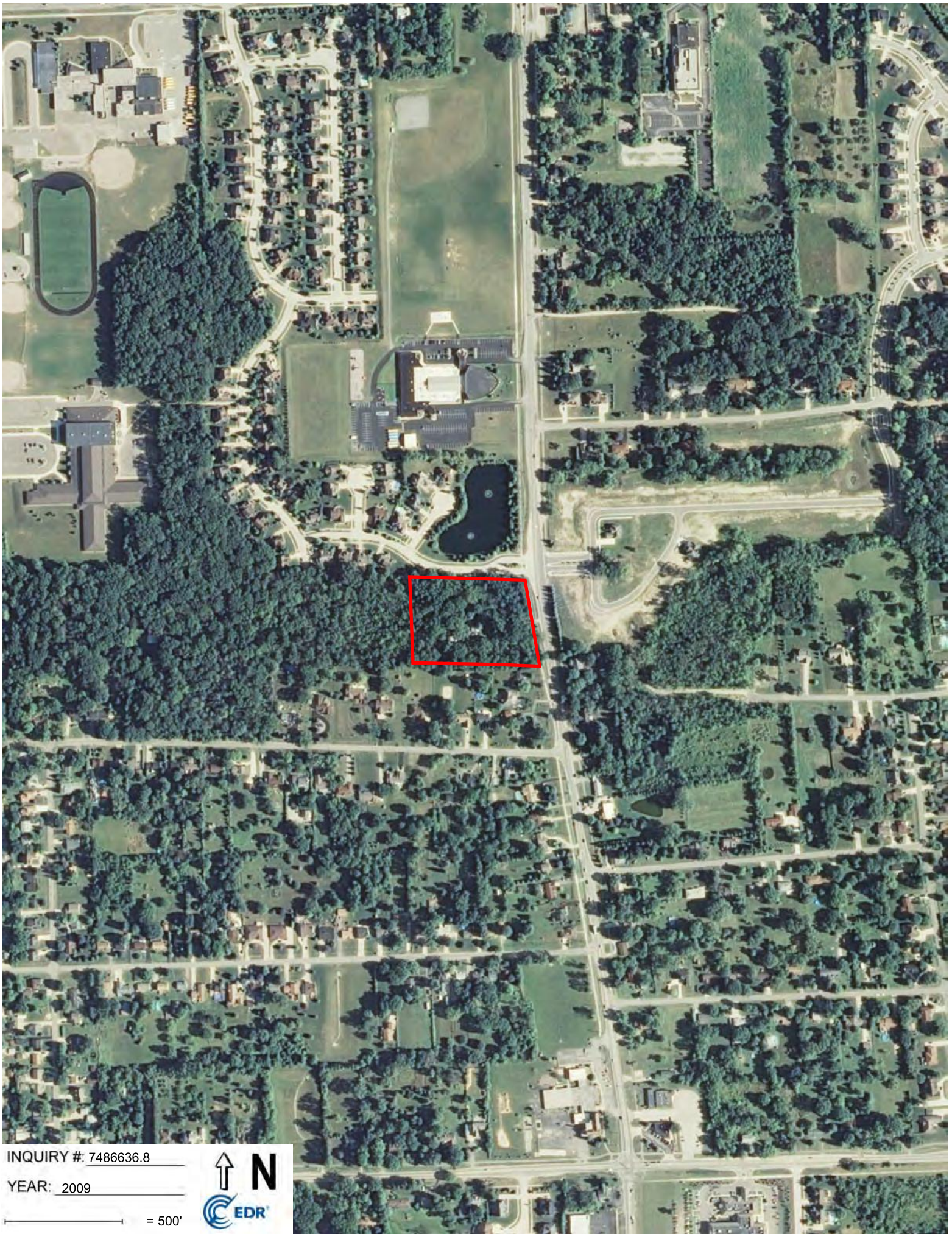


INQUIRY #: 7486636.8

YEAR: 2012

— = 500'





INQUIRY #: 7486636.8

YEAR: 2009

— = 500'





INQUIRY #: 7486636.8

YEAR: 2006

— = 500'





INQUIRY #: 7486636.8

YEAR: 1999

— = 500'





INQUIRY #: 7486636.8

YEAR: 1997

— = 500'





INQUIRY #: 7486636.8

YEAR: 1987

— = 500'





INQUIRY #: 7486636.8

YEAR: 1983

— = 500'







INQUIRY #: 7486636.8

YEAR: 1976

— = 500'





INQUIRY #: 7486636.8

YEAR: 1972

— = 500'





INQUIRY #: 7486636.8

YEAR: 1967

— = 500'





INQUIRY #: 7486636.8

YEAR: 1956

— = 500'



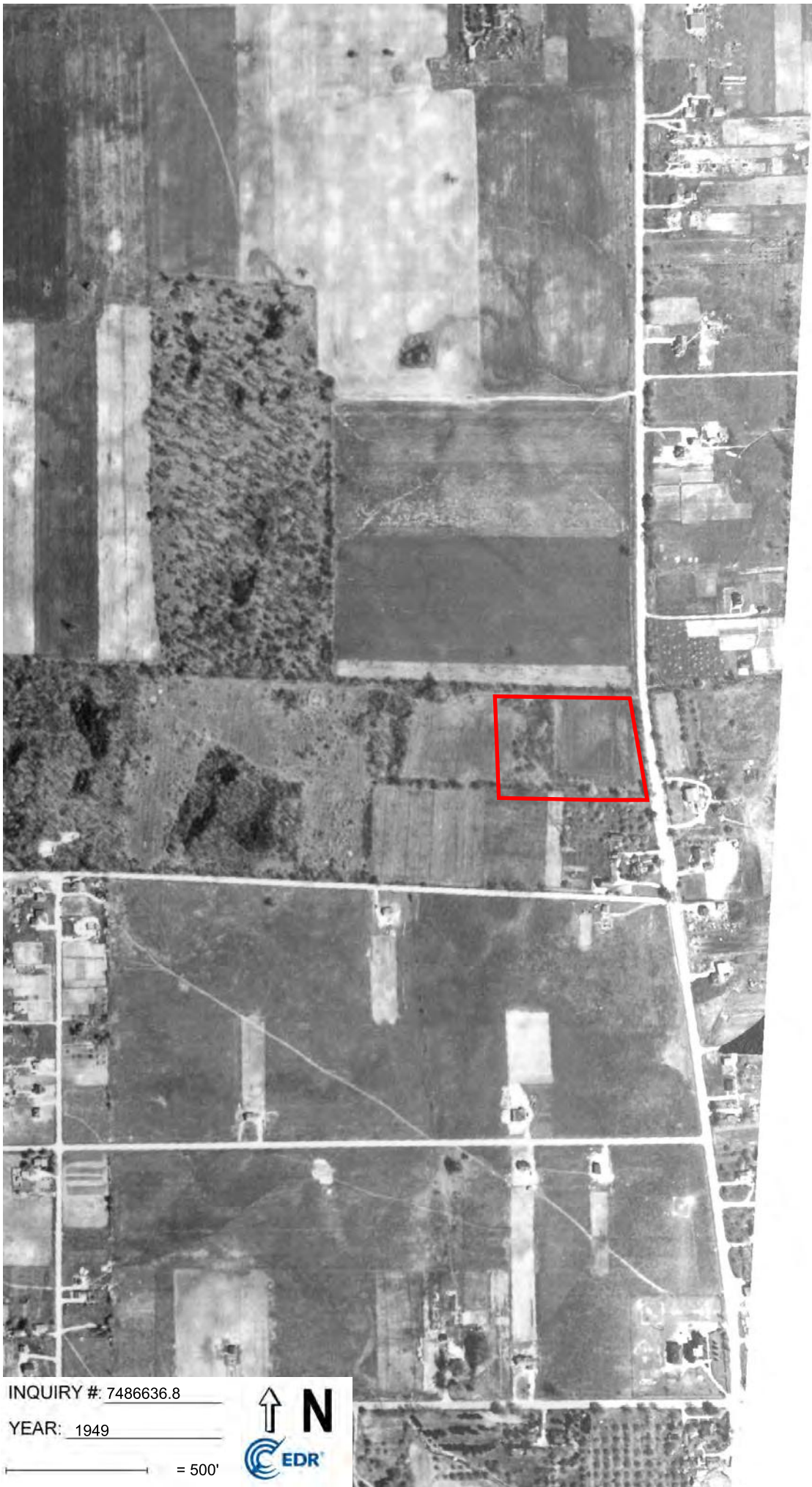


INQUIRY #: 7486636.8

YEAR: 1952

— = 500'

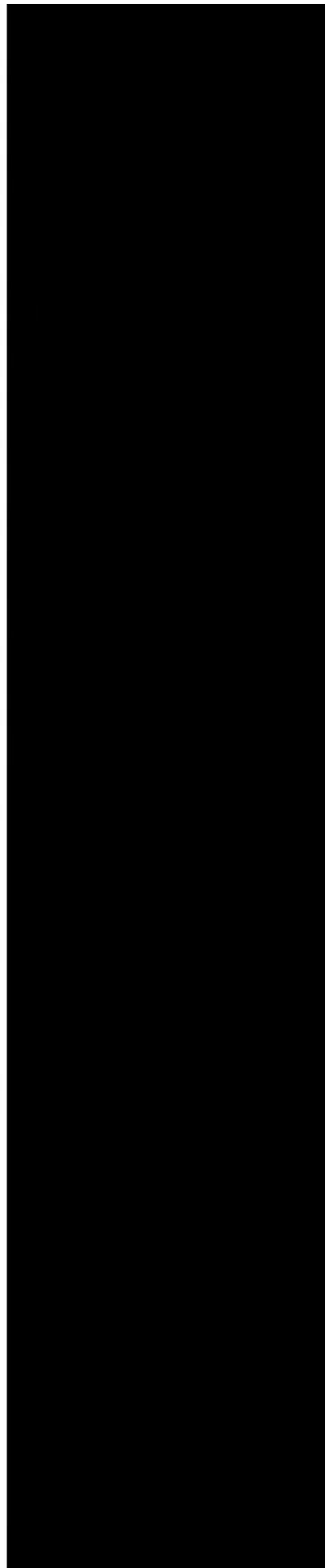




INQUIRY #: 7486636.8

YEAR: 1949

— = 500'





INQUIRY #: 7486636.8

YEAR: 1940

— = 500'





INQUIRY #: 7486636.8

YEAR: 1937

— = 500'





3514 S Livernois  
3514 S Livernois  
Rochester, MI 48309

Inquiry Number: 7486636.3

November 01, 2023

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

11/01/23

**Site Name:**

3514 S Livernois  
3514 S Livernois  
Rochester, MI 48309  
EDR Inquiry # 7486636.3

**Client Name:**

Applied Science & Technology  
10448 Citation Drive  
Brighton, MI 48116  
Contact: Aliya Spotts



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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

## Certified Sanborn Results:

**Certification #** C943-49D7-9DD5

**PO #** NA

**Project** 11482-64

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This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: C943-49D7-9DD5

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- Library of Congress
- University Publications of America
- EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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**3514 S Livernois**

3514 S Livernois  
Rochester, MI 48309

Inquiry Number: 7486636.5

November 06, 2023

# The EDR-City Directory Image Report

# TABLE OF CONTENTS

## SECTION

Executive Summary

Findings

City Directory Images

*Thank you for your business.*

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

### RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer.

### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2020	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2017	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1988	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1983	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1978	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1973	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1963	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1958	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company

## FINDINGS

### TARGET PROPERTY STREET

3514 S Livernois  
Rochester, MI 48309

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

### S LIVERNOIS RD

2020	pg A2	EDR Digital Archive
2017	pg A3	Cole Information
2014	pg A5	Cole Information
2010	pg A7	Cole Information
2005	pg A8	Cole Information
2000	pg A9	Cole Information
1995	pg A10	Cole Information
1992	pg A11	Cole Information
1988	pg A12	Bresser's Cross-Index Directory Company
1988	pg A13	Bresser's Cross-Index Directory Company
1983	pg A14	Bresser's Cross-Index Directory Company
1978	pg A15	Bresser's Cross-Index Directory Company
1973	pg A16	Bresser's Cross-Index Directory Company
1968	pg A17	Bresser's Cross-Index Directory Company
1963	pg A18	Bresser's Cross-Index Directory Company
1958	pg A19	Bresser's Cross-Index Directory Company

## FINDINGS

### CROSS STREETS

Year                      CD Image                      Source

### COLUMBIA DR

2020	pg. A1	EDR Digital Archive	
2017	-	Cole Information	Target and Adjoining not listed in Source
2014	pg. A4	Cole Information	
2010	pg. A6	Cole Information	
2005	-	Cole Information	Target and Adjoining not listed in Source
2000	-	Cole Information	Target and Adjoining not listed in Source
1995	-	Cole Information	Target and Adjoining not listed in Source
1992	-	Cole Information	Target and Adjoining not listed in Source
1988	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1983	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1978	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1973	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1968	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1963	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1958	-	Bresser's Cross-Index Directory Company	Street not listed in Source

## **City Directory Images**



**COLUMBIA DR 2020**

3471	Ajay Chadha Sagar Chadha
3483	Ashley Shounia Majid Shounia Siobhan Shounia
3495	Edward Yung Ella Yung King Yung
3507	Ajay Mehrotra
3519	Muneeb Shajjuddin Rasheeda Daanyal Salwa Daanyal Shaji Daanyal Sufia Shajjuddin

**S LIVERNOIS RD**

**2020**

3514	Mollie Meyer
3555	Beverly Cornell
	Carl McGlynn
	Carol McGlynn
	Colleen McGlynn
	Jennifer McGlynn
	Patrick McGlynn
	Robert McGlynn
3580	Jorge Arrendondo
3594	Artur Akchurin
	Dena Lafnear
	Jose Montes
	Suzan Asmar
3609	Bonnie Broadhead
	Nelson Broadhead
3610	Indigo Buikema
	Jarrett Buikema
	Jeffrey Buikema

**S LIVERNOIS RD**

**2017**

3300 ROCHESTER HILLS BAPTIST CHURCH  
3309 BURCH, MATTHEW C  
3514 MEYER, MOLLIE L  
3555 MCGLYNN, ROBERT J  
3580 ARREDONDO, JORGE  
3609 BROADHEAD, BONNIE L  
3610 BUIKEMA, JEFFREY C  
3671 ELKINS, TERRY L  
3674 MORROW, HELEN C  
3682 KWIKKLEAN INC  
WOITA, MARC R  
3691 A A SEWER PLUMBING & SEPTIC  
3700 BISHOP, GARY L  
3742 MARCELLA, JOSEPH

**COLUMBIA DR 2014**

3411 PRCEVSKI, PETAR P  
3423 HSIEH, H  
3430 ZARKIS, GREGORY R  
3435 SZLESZYNSKI, GRZEGORZ P  
3447 DAVIES, RICHARD  
3459 SYED, HUSSAIN  
3483 MAJID, SHOUNIA  
3495 YUNG, YUK L  
3507 MEHROTRA, AKSHAY  
3519 DAANYAL, SHAJI U

**S LIVERNOIS RD**

**2014**

3300 ROCHESTER HILLS BAPTIST CHURCH  
3309 BURCH, MATTHEW C  
LOWE, JOHN H  
3514 MEYER, MOLLIE L  
3535 MARGULSKI, RICHARD  
3555 MCGLYNN, ROBERT J  
3580 HOPE, SCOTT  
3594 FRANKO, GABBARA  
3609 BROADHEAD, WAYNE W  
3610 BUIKEMA, JEFFREY C  
3671 ELKINS, TERRY L  
3674 MESSIEHA, MICHAEL E  
3682 WOITA, MARC R  
3700 BISHOP, GARY L  
3742 MARCELLA, JOSEPH

Target Street

Cross Street

Source

-

✓

Cole Information

**COLUMBIA DR 2010**

3411 PRCEVSKI, PETAR P

**S LIVERNOIS RD**

**2010**

3300 ROCHESTER HILLS BAPTIST CHURCH  
SONSHINE ACADEMY  
3309 BURCH, MATTHEW C  
3514 MEYER, MOLLIE L  
3555 MCGLYNN, PATRICK J  
3580 HOPE, RONALD S  
3594 GABBARA, FRANKO  
3609 BROADHEAD, WAYNE W  
3610 BUIKEMA, JEFFREY C  
3671 ELKINS, TERRY L  
3682 KWIKKLEAN INC  
WOITA, MARC R  
3691 LOCKHART, LOWELL R  
3700 BISHOP, GARY L  
3712 JOHNSON, DONALD A  
3742 MARCELLA, JOSEPH

**S LIVERNOIS RD**

**2005**

3300 ROCHESTER HILLS CHRISTIAN SCHOOLS  
3309 HYKE, STUART  
3475 JANISZEWSKI, ARTHUR G  
3514 MEYER, MOLLIE L  
3580 BREAULT, WILLIAM J  
3609 BROADHEAD, WAYNE W  
3651 LILLEY, ERIC J  
3671 ELKINS, TERRY L  
JERSEYS N MORE  
3682 WAITA, MARC R  
3691 LOCKHART, LOWELL  
3700 BISHOP, GARY L  
3712 BISHOP, GARY L  
3742 MARCELLA, JOSEPH



**S LIVERNOIS RD****2000**

3300 ROCHESTER HILLS BAPTIST CHURCH  
3309 BURCH, CHARLES  
MAYO, G  
3421 ZELENAK, PAUL  
3475 JANISZEWSKI, ARTHUR G  
3495 CULLEN JOSEPH C DO  
3514 MEYER, MOLLIE L  
3535 ZORN, DONALD D  
3555 MCGLYNN, PATRICK J  
3580 BREault, WILLIAM  
3609 BROAKHEAD, SARA B  
3610 ZOBair, TALHA A  
3651 MCMURRAY, RAYMOND  
3671 ELKINS, TERRY  
JUST HOCKEY MAGAZINE  
3682 WOITA, MARC R  
3691 A A SEWER PLUMBING & SEPTIC  
A A SEWER PLUMBING &SEPTIC  
LOWELL, L  
3700 BISHOP, GARY  
3712 BIBBS, OLA C  
3742 MARCELLA, JOSEPH

**S LIVERNOIS RD****1995**

3300	ROCHESTER HILLS BAPTIST CHURCH ROCHESTER HILLS CHRISTIAN SCHL ROCHESTER HILLS KIDDIE ACADEMY
3309	BURCH, CHARLES MAYO, GARY L STEGG, GARY
3421	ZELENAK, PAUL
3475	JANISZEWSKI, ARTHUR G
3495	CULLEN, JOSEPH C
3514	MEYER, MOLLIE L
3535	ZORN, DONALD D
3555	OCCUPANT UNKNOWNN
3580	BREAULT, WILLIAM
3609	BROADHEAD, WAYNE
3610	INGRAM, STEVEN L
3651	OCCUPANT UNKNOWNN
3671	ELKINS, TERRY
3674	OCCUPANT UNKNOWNN
3682	BETZ, JOEL P
3691	A A HTG&SEWER A A SWR PLMBG&SPTC LOCKHART, LOWELL MI DISPOSAL SERVCE
3700	JORDAN, CAROL
3712	LAZAREVICH, ROBERT R
3742	MARCELLA, JOSEPH



-

**S LIVERNOIS RD**

**1992**

3300 RH CHRISTIN SCHLS  
ROCH HILLS BAPT CH  
ROCH HLS CHRSTN SC  
ROCH HLS KTY ACDY  
3309 MAYO, GARY L  
STOCCO, C  
TRAXLER, LEE  
3475 JANISZEWSKI, ARTHUR G  
3495 CULLEN, JOSEPH C  
3514 MEYER, GORDON J  
3535 ZORN, DONALD D  
3555 MCGLYNN, PATRICK J  
3580 BREault, WILLIAM  
3609 BROADHEAD, WAYNE  
3674 BAKER, FRANK A  
3682 BETZ, JOEL P  
3691 A A HTG&SEWER  
A A SWR PLMBG&SPTC  
MI DISPOSAL SERV  
MI DISPOSAL SERVCE  
3712 LAZAREVICH, ROBERT R  
3742 MARCELLA, JOSEPH

## S LIVERNOIS RD 1988

	*ROCHESTER SKTG CTR	6513031
1800	*BROOKS&ASSOCS	□6562908
	*ELECTRO-MECHNL PRD	-6562722
	*ELECTRO WIRE PRDCT	□6562800
	*JBW ASSOCIATES	□6561664
1921		NP
1940	*CLYDE CORPORATION	-6512900
2040		NP
2111	FLOYD O MEAN	6517974
2130	ALFRED L HILL	5 6512567
2131	GERARD VANHUYSSE	□6518954
2170	DELMON BARTLEY JR	6514435
2171	ANTHONY O BONACCI	6520603
2182	KENNETH A BRUSSEAU9	6512164
2183	ALFRED E BONE	6513673
2194	JOHN A DIETRICH	6517777
2213	JOSEPH A GENTLE	6516341
2284	JAMES MELLET	5 6524806
2285		NP
2330	RINALDO F BOREO	8 6513470
2350	P EISENBERGER	5 6519562
2370	ERNEST F STIEVE	6510696
2371	LOUIS W BERKLICH	6510035
2372	2400	NP
2440	8 L HIGHLEN	6524075
2525	ADOLF KIPPER	8521495
	*OAKLAND TREE SERV	8522550
2535	JAMES A MCMILLAN	6 8527548
2550	CHRIS CHAMBO	8521297
2555	DANIEL E MCDONALD	8521261
2638		NP
2816	GLYNN PIERSON	8522485
2840	DAVID BOWMAN	0 8527919
2860		NP
2870	GARY ARNDT	□8525704
2880	MARK HENDERSON	6 8526169
2886	2912	NP
2926	WILLIAM R RAY	8524938
3081	T A ROSE	0 8528382
	TRUDY THOMPSON	□8536292
3111	EDGAR RUSSELL	□8533495
3131	DAVID A KLEVE	6 8535145
3153	CARL HARLAN	8525928
3171	THEODORE BATCHELOR	8523596
3193	3239	NP
3249	JAMES J FRATIES	8520875
3271	ALESSIO MUSCAT	8 8520789
3300	*ROCH HILLS BAPT CH	8520585
	*ROCH HLS CHRSTN SC	8520585
	*RCH HLS KIDDIE ACD	8520585
3309	P BELL	6 8536892
	GARY L MAYO	8527639
3421		NP
3475	ARTH G JANISZEWSKI	□8523824
3495	*DR JOSEPH C CULLEN	8520148
3514	GORDON J MEYER	8524514
	M L MEYER	8524514
3535	DONALD D ZORN	8524907
3555	PATRICK J MCGLYNN	1 8526754
3580	WM L STROCHSCHEIN	8520928
3609	LAWRENCE R SCHULTZ1	8528453
3610	VICKI GALLOWAY	8522247
3651	L D SANTERINI	□8526819
3671	CLINTON WARREN	8521893
3674	FRANK A BAKER	8526081
3682	JOEL P BETZ	□8534005
3691	*A A ELCTRC SW&STG	6526565
	*A A ELCTRC SWR&STG	8522240
	*A A HEATING&SEWER	3347561
	*A A SWR PLMBNG&HTG	3347561

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## S LIVERNOIS RD 1983

2370	ERNEST F STIEVE		6510696
2371	LOUIS W BERKLICH	7	6510035
2372	2400	NP	
2440	B L HIGHLEN	4	6524075
2525	ADOLF KIPPER		8521495
	*OAKLAND TREE SERV		8522550
2535	JAMES A MCMILLAN		8525124
2550	CHRIS CHAMBO		8521297
2555	DANIEL E MCDONALD		8521261
2638		NP	
2816	GLYNN PIERSON		8522485
2840	DAVID BOWMAN	0	8527919
2860	JOHN E OWEN	9	8527166
2870	RALPH E ATWELL	8	8528265
2880	RICK SOUTHERN	□	8534174
2886	CARL SEMBLE	2	8520076
2912		NP	
2926	WILLIAM R RAY		8524938
3081	T A ROSE	0	8528382
3111	3131	NP	
3153	CARL HARLAN		8525928
3171	THEODORE BATCHELOR		8523596
3193		NP	
3239	C KORTAS	1	8525933
3249	JAMES J FRATIES	6	8520875
3271	ALESSIO MUSCAT	8	8520789
3300	*ROCH HILLS BAPT CH		8520585
	*ROCH HLS CHRSTN SC		8520585
	*ROCH HL KIDDIE ACY		8520585
3309	C GROTH	□	8526208
	GARY L MAYO	6	8527639
	CHRIS SPEER	□	8536154
3421		NP	
3495	*DR JOSEPH C CULLEN		8520148
3514	GORDON J MEYER		8524514
	M L MEYER		8524514
3535	DONALD D ZORN	7	8524907
3555	PATRICK J MCGLYNN	1	8526754
3580	WM L STROCHSCHEIN	7	8520928
3609	LAWRENCE R SCHULTZ	1	8528453
3610	THOMAS GALLOWAY		8522247
3651	MONTY OLMSTEAD	□	8535032
3671	CLINTON WARREN		8521893
3674	FRANK A BAKER	5	8526081
3682	DALE J EKSTROM	0	8529584
3691	*A A HEATING&SEWER	□	6448839
	*MICHIGAN DISPOSAL	□	6448839
	*A A HEATING&SEWER		-3347561
	*A EXCAVATING&SEWER		-3347561
	*A SOFTWARE CO	□	3347561
	*A A ELECTRC SEWER		-6526565
	*A A ELCTRC SWR&STG		-8522240
	*A A SWR PLMBG&HTNG	□	3347561
	LOWELL LOCKHART		-8527806
	SIDNEY LOCKHART		-8522240
	*MI DISPOSAL SERVICE		-6526565
	*MI DISPOSAL SERVICE		-6526595
	*MI DISPOSAL SERVICE		-8522242
	*MI DISPOSAL SERVICE		-6252178
3712	DAVID W HEARN	5	8524733
3742	JOSEPH MARCELLA	8	8526470
3803	JOHN E ANGUS		8521573
3821	JAMES H ANGUS		8523893
3835		NP	
3875	FLOYD L COBB JR		8521194
3911	VICTOR B CAMP		8522416
3967	*LOYAL ORDER MOOSE		8524090
	*LOYAL ORDR MOOSE		8524090
3976	*ASD PSYCHOLOGIST		8522295
	*STILES ELEMENTARY		8521600
	189 RESIDENCE	90	BUSINESS

● LOCKMOORE

ROCH PO

S LIVERNOIS RD 1978

ROCHESTER		1978-1979 F
.....		48063
475	RICHARD E MCAOAMS	7 6521393
535	JOHN SPRDGIS	6516307
595	JULIUS SCHLINK	6510346
846	CHARLES LEYMAN	6511321
882	GUY JARVIS	7 6518747
1100	R F HUBNER	6517485
1150	JAMES W FIFIELD	6511029
1200	MARTIN F GERLOFF	-6518005
1271	NP	
1700	*ROCH SPORTS ARENA	6524221
1720	*ROCHESTER ATHLETIC	6522110
1940	*TURNMILL INC	6526624
2040	MARTIN J DAVIS	2 6510192
2111	FLOYD O MEAN	6517974
2130	EDWARD HILL	0 6514124
2131	O FEATHERSTON	6511354
2170	DELMON BARTLEY JR	9 6514435
2171	ANTHONY O BONACCI	2 6520603
2182	WOLFGANG ABDURAMAN	6527906
2183	ALFREDO E BONE	6513673
2194	JOHN A DIETRICH	6517777
2213	JOSEPH A GENTLE	6516341
2284	NP	
2285	JAMES E THOMAS	7 6520355
2330	RINALDO F BORED	6513470
2350	NP	
2370	ERNEST F STIEVE	6510696
2371	LOUIS W BERKLICH	7 6510035
2372	GEORGE ROTT	0 6511880
2400	NP	
2409	*L BERKLICH ARCHT	6514480
2440	B L HIGHLEN	4 6524075
2525	AOLDF KIPPER	8521495
	*OAKLAND TREE SERV	8522550
2535	JAMES A MCMILLAN	8525124
2550	CHRIS CHAMBO	8521297
2555	DANIEL E MCOONALO	UL21261
2638	NP	
2816	GLYNN PIERSON	1 8522485
2840	D L HALE	6521735
2860	NP	
2870	RALPH E ATWELL	-8528265
2880	BLAINE HERRICK	8524197
2886	ANNE SEMBLE	2 8520076
2912	DELMAR HDLIOAY	3 8522366
2926	WILLIAM R RAY	UL24938
3081	WENOELL ROSE	8525112
3111	NP	
3131	TEO J MAJEWSKI	7 8527339
3153	CARL HARLAN	0 8525928
3171	THEODORE BACHELDR	8523596
3193	NP	
3239	RANDALL MALOPOISKI	8528127
3249	JAMES J FRATIES	6 8520875
3271	ALESSIO MUSCAT	8520789
3300	*RDCH HILLS BAPT CH	8520585
	*ROCH HLS CHRSTN SC	8520585
	*ROCH HL KIOOIE ACY	8520585
3309	GARY L MAYO	6 8527639
3421	NP	
3495	*OR JOSEPH C CULLEN	8520148
3514	GROON J MEYER	3 8524514
	M L MEYER	8524514
3535	DONALD O ZORN	7 8524907
3555	NP	
3580	WM L STRDCHSCHEIN	7 8520928
3609	JOHN R ARMSTRONG	8522136
3610	THOMAS GALLOWAY	UL22247
3651	BRUCE CUSHMAN	8528742
3671	CLINTON WARREN	UL21893
3674	FRANK A BAKER	5 8526081
3691	J J FRITZ	-8528633
3700	NP	
3712	DAVID W HEARN	5 8524733
3742	JOSEPH MARCELLA	-8526470
3803	JOHN E ANGUS	UL21573
3821	JAMES H ANGUS	8523893
3835	GRACE L ANGUS	8523235
3875	FLOYD L COBB JR	8521194
3911	VICTOR B CAMP	8522416
3967	*LDYAL ORDER MOOSE	8524090
	*LDYAL DROER MOOSE	8524090
3976	*STILES ELEMENTARY	UL21600
NO #5	SAMS COLLISION	8526968
	73 RESIDENCE	38 BUSINESS

LOMOND LN

ROCH PO

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5	3249 DAVID LEITZ	9	8525786
1	3271 ALEX RDWEN	9	8525715
5	3309 JOSEPH JANOSCHKA		UL25027
	MARK D VANDERBRDEK	2	8520927
0	3421	NP	
	3514 GDRON J MEYER		8524514
3	M L MEYER	4	8524514
7	3555 PETER M COLLINS	2	8523327
4	3609 JOHN R ARMSTRONG	5	8522136
7	3610 THDMAS GALLDWAY		UL22247
7	3651 J K HANNA	2	8522704
	3671 CLINTON WARREN		UL21893
	3674	NP	
0	3691 JAMES E SMITH	6	8525714
	3803 JOHN E ANGUS		UL21573
3	3821 JAMES H ANGUS		8523893
7	3835 GRACE L ANGUS		8523235
5	3875 FLDYD L CD8B JR		8521194
5	3911 VICTOR 8 CAMP		8522416
7	3976*STILES ELEMENTARY		UL21600
5	68 RESIDENCE	S	BUSINESS
3	LOMOND LN		RDCH PD



S LIVERNOIS RD 1968

322 NEIL E SHEPPARD 7 6511926	3309 JOSEPH JANOSCHKA NP UL25027
323 R W KNELL NP 7 6514237	3421 M L MEYER NP UL24323
326 ARVID B NELSON NP -6517566	3514 GORDON J MEYER 4 8524514
332 EDWARD K ZOELLNER 6515175	3555 ROBERT G ALDRIDGE #8524741
336 HARM DREWES 6510710	3609 JOHN R ARMSTRONG 5 8522136
337 L S SHUELLER 6 6517281	3610 THOMAS GALLOWAY UL22247
342 EARL DEAN NP 6511112	3651 CLINTON WARREN NP 2 UL21893
343 I E THOMAS 7 6511023	3674 DIANE WARREN NP 3 UL21893
347 ROBERT A FISHER 6513558	3691 JAMES E SMITH 6 8524105
352 GLADYS BUSHEY 6517201	3803 JOHN E ANGUS UL21573
353 CLARE HAYWALD 6510196	3821 JAMES H ANGUS UL23893
356 CHARLES J HARVEY 6517543	3835 GRACE L ANGUS 2 8522235
357 EDWARD PFLUGI 6517267	3875 FLOYD L COBB JR 8521194
363 ROBERT J BURR 6513811	3911 VICTOR B CAMP 65 RESIDENCE 4 BUSINESS
366 JACK HELLAWELL 6515891	
367 MRS J M WITSOE 6514886	
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6281 NORMAN A HUNSTAD 6510097	
6330 THOMAS SWEGLES 6518477	
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71 FELLOWSHIP CHRIST 6513558	
471 CHARLES B AMAZEEN7 6514766	
1100 EDWARD HANDYSIDE 6510580	
1121 OTTO H BUCHHOLZ #6514172	
1137 DARL Z ACKERMAN 6516451	
1151 RAYMOND E DUNN 6516722	
1160 E A HARDY 6511986	
1250 CLARENCE LA FORGE6 6510559	
1300 NORMAN C GAUBATZ 6 6518085	
1301 JACOB MACKLEY 6516338	
1320* STANLEY BABIUK NP 6511922	
1385 JAMES L KNIGHT 6516760	
1420 SIDNEY H TEAGUE 6510634	
1430 PAUL L DRINKARD NP 6510880	
1450 CHARLES REYNOLDS 6510475	
1457 GUST HEADBLOOM JR4 6515663	
1487 DAVID C BEARDSLEE3 6515394	
1600 JAMES B WHATELEY 6510796	
1607 JOHN T BROWN 7 6517316	
1651 RICHARD HENSON 3 6517446	
1707 H J SCULTHORPE 6 6518002	
1720 DONNARD L CASTLE 7 6517317	
1730 WILLIAM A MORRIS 6516620	
1780 DONALD S BARNES 6516440	
1795 NEIL WASSERBERGER -6519387	
1820 IAN FYFE 6516636	
1850 WALTER H ZIMMERMAN 2 6518793	
1880 JOHN J CLARK 7 6510866	
1899 WILLIAM MARZION 6510689	
1910 L A CROSSMAN 3 6514784	
1921 JOHN W CHASTAIN #6516685	
1925 EDWARD C LEE 7 6519127	
33 RESIDENCE 2 BUSINESS	
<b>LIVEROIS RD S ROCH PO</b>	
..... 48063	
..... 1- 1999 T26082 \$A..K17	
180*SENOIR HIGH SCHOOL 6515590	
365 ROCH BUSS GARAGE 6514040	
463 ROBERT SKIBOWSKI 6516682	
475 LORAN D HIBLER -6511558	
535 JOHN SPROGIS 6516307	
595 JULIUS SCHLINK 6510346	
846 CHARLES LEYMAN 6511321	
1100 R F HUBNER 6517485	
1150 JAMES W FIFIELD 4 6511029	
1200 CLAYTON ECKERT 6516794	
..... 2000- 3999 T26081 \$D..K15	
2040 MARTIN J DAVIS 2 6510192	
CLAYTON S MATTICE2 6510192	
FLOYD O MEAN 7 6517974	
2111 D FEATHERSTON NP 2 6511354	
2130 L E SMITH #6519626	
2183 ALFRED E BONE 3 6513673	
2194 JOHN A DIETRICH 7 6517777	
2213 JOSEPH A GENTLE 6516341	
2284 WILFRED PINEAU 2 6514958	
2285 ROBERT A CAMPBELL6 6518634	
2330 DAN H JONES -6515107	
2368 ERNEST F STIEVE NP 6510696	
2370 GEORGE ROTT NP 6511880	
2400 LOUIS W BERKLICH 6510035	
2440 RAYMOND BABB 6510628	
2525 ADOLF KIPPER UL21495	
*OAKLAND TREE SERV 8522550	
2535 JAMES A MCMILLAN 7 8525124	
2550 CHRIS CHAMBO 6 8521297	
2555 DANIEL E MCDONALD UL21261	
2816 D L HALE 8521735	
2860 L C ZELLERS UL21286	
2870 NP	
2880 NP	
2886 NP	
2912 DELMAR HOLIDAY 3 8522854	
2926 WILLIAM R RAY UL24938	
3081 WENDELL ROSE UL25112	
3111 MRS JOHNSON NEWELL NP 8525151	
3153 THEODORE BATCHELOR 8523596	
3171 JOSEPH C KLUSS 5 8521223	
3239 RICHARD A DIONNE #8524096	
3249 THADDES L JOHNSON UL24537	
3271 FRED ARCHAMBEAULT #8523579	
3309 JOSEPH JANOSCHKA NP UL25027	
3421 M L MEYER NP UL24323	
3514 GORDON J MEYER 4 8524514	
3555 ROBERT G ALDRIDGE #8524741	
3609 JOHN R ARMSTRONG 5 8522136	
3610 THOMAS GALLOWAY UL22247	
3651 CLINTON WARREN NP 2 UL21893	
3674 DIANE WARREN NP 3 UL21893	
3691 JAMES E SMITH 6 8524105	
3803 JOHN E ANGUS UL21573	
3821 JAMES H ANGUS UL23893	
3835 GRACE L ANGUS 2 8522235	
3875 FLOYD L COBB JR 8521194	
3911 VICTOR B CAMP 65 RESIDENCE 4 BUSINESS	
<b>LOMOND LN ROCH PO</b>	
.....R R 3..... 48063	
..... 1600- 1699 T26082 \$A..115	
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<b>LONGFORD ROCH PO</b>	
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..... 500- 799 T26082 \$A..115	
501 DONALD R KEMP 7 6519246	
*DONALD R KEMP INS 6516590	
521 RICHARD A GOIN NP 6511590	
621 WILLIAM H LEHMANN NP 6511978	
626 BERNARD L SHORT #6517054	
641 CARL W BEHRENDT 6510070	
650 FRANK D TREVILLIAN 6 6518205	
661 ALLAN MARSHALL 6510533	
685 VAL BARAN 6518251	
712 JAMES E PRIOR 6516515	
10 RESIDENCE 1 BUSINESS	
<b>LONGVIEW ROCH PO</b>	
..... 48063	
..... 2300- 3699 T26080 \$B..K17	
2321 PAUL SCOTT 6 8523487	
JAMES C LEBOW JR NP 8522929	
2333 RICHARD J GOODWILL 4 8524483	
2345 CHARLIE G PERRY -8524396	
2354 JAMES T DOAN 6 8523064	
2382 CURTIS WILSON NP UL24678	
2400 LEIMAN HUNTINGTON5 8521264	
2486 R A NELSON UL25457	
2495 GEORGE H JOHNSON UL21274	
2500 RAY YEARGAN -UL25472	
2520 STUART R STOUT #8525414	
2540 MARION POWELL UL24692	
2541 KYLE E MCCORMICK 6 8525422	
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2568 JOHN RATTEE NP UL25383	
2635 JACK FETTERLY NP 8524386	
2660 C M TRAVIS 7 8525353	
2690 ANTHONY ZWARK 4 8524525	
2693 HERBERT ZWARK 4 8524525	
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2745 BENJAMIN ALFEO NP UL22694	
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2864 VERNON OSBORN NP UL25168	
2865 NP	
2889 ISAAC DALE 6 8525110	
2936 ARTHUR E KERN 5 8522393	
2955 CHARLES M STADLER7 8521234	
2970 JERRY K TICE 7 8523237	
2972 FRANK DANIELS UL25129	
3000 NP	
3003 NP	
3006 NP	
3011 NP	
3012 NP	
3024 NP	
3031 GEORGE SCHWARTZ 7 8522662	
3036 NP	
3053 NP	
3073 NP	
3074 OLGA HOPE UL23954	
3125 JOHN WALFORD NP UL24955	
3158 *HAROLD R TODD NP UL24444	
3220 *TODD SAND&GRAVEL UL24444	
3254 GERALD VERSELLIE 5 8524794	
3259 EDISON JESSEE 3 8522054	
3274 ALFRED NELSON NP UL24996	
3303 REV J A LYLES 7 8522170	
3315 CLAYTON CUSICK UL23926	
3318 GEORGE HATCHER 3 8524980	
3330 JOHN C HARRIS NP UL21144	
3356 ROBERT J THOMPSON7 8524316	
3359 NP	
3371 REV JAMES INNES NP UL25149	
3378 KENNETH GRIFFIN NP UL25223	
3400 HOWARD J GRIMMETT7 8522947	
3407 NP	
3439 HENRY J METHNER 7 8522905	
3446 CLARENCE PAINTER 8524880	
3474 ANTHONY ZERLA 2 8524217	
3485 FRANK J GOSS 5 8522192	

**S LIVERNOIS RD 1963**

**LIVERNOIS RD S ROCH PO**

ZIP CODE 48063

..... TO- 1999 TZ6082 \$A..K17  
 180\*SENIOR HIGH SCHOOL OL19871  
 463 ROBERT SKIBOWSKI OL16682  
 475 JOHN GRIFFIN OL11212  
 DAVID BILLIG -6517041  
 ROBERT L WAGGONER -6524256  
 535 JOHN SPROGIS OL16307  
 595 JULIUS SCHLINK OL10346  
 707 K O DAVIS OL16530  
 846 CHARLES LEYMAN OL11321  
 1100 F H HUBNER OL27491  
 1200 CLAYTON ECKERT OL16794  
 1271 WILLIAM HAWKINS OL17151  
 ..... 2000- 3999 TZ6081 \$D..K15  
 2040 CLAYTON S MATTICE OL10192  
 MARTIN J DAVIS OL10192  
 2130 EDWARD HILL OL10688  
 2131 D FEATHERSTON 6511354  
 2170 DONALD HARRIS OL61931  
 2182 V JACK RALPH OL61408  
 2183 ALFRED E BONE OL61406  
 2194 EDWARD J GOOLEY OL62171  
 2213 JOSEPH A GENTLE OL16341  
 2284 WILFRED PINEAU 6561407  
 2330 E W ARFT -6562176  
 2370 ERNEST F STIEVE OL10696  
 2372 GEORGE ROTT OL11880  
 2400 ARTHUR C FIELD 6510970  
 2409 LOUIS W BERKLICH OL10035  
 2440 RAYMOND BABB OL10628  
 2525 ADOLF KIPPER UL21495  
 2550 DORIS R LOWERY UL22292  
 2555 DANIEL E MCDONALD UL21261  
 2581\*HILLSDE TRN MX DV FE28039  
 2840 D L HALE UL21735  
 2860 L C ZELLERS UL21286  
 2880 C E DRUMHELLER UL21165  
 2886 ROBERT A GARRISON -8522540  
 2912 DELMAR HOLIDAY -8522854  
 2926 WILLIAM R RAY UL24938  
 3081 WENDELL ROSE UL25112  
 3111 DONALD RUFFNER UL24714  
 SANDRA RUFFNER UL24714  
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 3131 JOHNSON R NEWELL UL25151  
 3171 THEADORE BATCHELOR UL23596  
 3239 RONALD F JOHNSON 8524696  
 WILBURN JOHNSON UL23446  
 3249 THADDES L JOHNSON UL24537  
 3309 JOSEPH JANOSCHKA UL25027  
 3421 NP  
 3514\*GORDON J MEYER UL24323  
 3555 GRAYCE ASHBAUGH UL25082  
 3609 NORMAN ROSEMAN -8521542  
 3610 THOMAS GALLOWAY UL22247  
 3671 DIANE WARREN -UL21893  
 CLINTON WARREN UL21893  
 3674 NP  
 3691 T MINER UL24428  
 3875 FLOYD L COBB JR UL21194  
 3803 JOHN E ANGUS UL21573  
 3821 MRS JAMES H ANGUS UL23893  
 3835 GRACE L ANGUS 8523235  
 3911 VICTOR B CAMP UL22416  
 3967\*REDWOOD LMBR&SPPLY UL21720  
 3976\*STILES ELEM SCHL UL21600  
 59 RESIDENCE 5 BUSINESS

**L OMOND ROCH PO**

ZIP CODE 48063

**S LIVERNOIS RD 1958**

3 13 DETROIT NEWS AGENCY OL1 6675  
 3 13 PALMER JAMES H OL1 6675  
 3 17 SUTHERLAND K G OL1 7971  
 3 18 MICHALKA AL OL1 0886  
 3 22 SHEPPARD N E OL6 2881  
 3 23 MC INNES RALPH OL2 6497  
 3 32 SARGEANT G F OL2 4356  
 3 33 ZOELLNER E K OL2 2616  
 3 36 DREWES HARM OL2 1471  
 3 37 CASEY H J OL1 3366  
 3 43 SARGENT FRANK OL2 2551  
 3 46 THOMAS IDA OL2 1472  
 3 47 FISHER R A OL2 5292  
 3 53 HAYWALD CLARE OL1 4882  
 3 56 HARVEY C J OL2 7641  
 3 57 PFLUGI EDWARD OL2 5291  
 3 60 BROWN LOIS OL1 7202  
 3 63 SCHLUCHTER J W MRS OL1 4887  
 3 66 HELLAWEILL JACK OL1 5891  
 3 67 WITSOE J M MRS OL1 4886

FR 1300 PONTIAC RD SOUTH TO W SOUTH BLVD  
 475 SIKKEMA ELMER OL2 5386  
 475 SKIBOWSKI ROBT OL1 6682  
 535 SPROGIS JOHN OL2 5380  
 595 SCHLINK JULIUS OL1 0346  
 1100 HUBNER F H OL2 7491  
 1200 ECKERT CLAYTON OL1 6794  
 1271 HAWKINS WILLIAM OL1 7151  
 2040 DAVIS M J OL1 0192  
 2040 MATTICE C S OL1 0192  
 2130 HILL EDWARD OL1 0688  
 2170 HARRIS DONALD OL6 1931  
 2182 RALPH V J OL6 1408  
 2194 GOOLEY E J OL6 2171  
 2213 GENTLE JOSEPH A OL6 1404  
 2284 PENEAU WILFRED OL6 1407  
 2330 ARFT E W OL1 1435  
 2370 STIEVE ERNEST F OL1 0696  
 2372 ROTT GEORGE OL2 3300  
 2400 HENRY THOMAS OL1 0606  
 2409 BERKLICH LOUIS W OL1 0035

**LITTLE CREEK RD**  
 ROCHESTER RT 1

AVON TWP  
 FR 6200 BLUE BEACH NORTHEAST AND SOUTHWEST  
 5281 HUNSTAD NORMAN A OL1 0097

2525 KIPPER ADOLF OL1 0551  
 2550 LOWERY ASA RES OL6 2176  
 2555 MYATT CHARLIE OL1 0396  
 2816 BARKER HERSHELL FE4 0922  
 2840 HALE D L FE4 9067  
 2860 ZELLERS L C FE4 0049  
 2880 DRUMHELLER CLIFFORD E FE4 0997

**LIVERNOIS RD N**  
 ROCHESTER

AVON TWP  
 FR 1300 PONTIAC RD NORTH TO DUTTON RD  
 71 LUCAS EARLINE OL1 5021  
 1100 HANDYSIDE EDWARD OL1 0580  
 1151 WALKER JACK OL1 6557  
 1250 HAZEN WM J OL1 6310  
 1300 ROSEGART CHARLES OL1 1795  
 1301 MACKLEY JACOB OL1 6338  
 1405 KNIGHT JAMES L OL1 6760  
 1420 TEAGUE SIDNEY H OL1 0634  
 1457 PAPKE LESTER OL1 6410  
 1511 COLLEY LLOYD C OL1 6538  
 1600 WHATELEY JAS B OL1 0796  
 1607 VON TOBEL FRED E OL1 6540  
 1651 SCHMITT JOHN L OL1 6630  
 1707 DAVIS K O OL1 6530  
 1720 HUGHES ALLAN OL1 6358  
 1730 MORRIS WM A OL1 6620  
 1780 BARNES DONALD S OL1 6440  
 1820 HEIL GLEN OL1 6550  
 1880 HARRIS W W OL1 6359  
 1899 MARZION WM A OL1 6638  
 1921 CHASTAIN JOHN WM OL1 6685

2912 HOLIDAY DELMAR FE4 0996  
 2926 RAY WM R OL1 0330  
 2975 SPEZIA FRANK FE7 0743  
 3081 ROSE WENDELL OL1 0543  
 3111 CHARTIER FRANCIS OL1 0170  
 3131 NEWELL J R OL1 0533  
 3153 RATHKA ANNA FE7 8314  
 3171 BATCHELOR THEO FE7 0742  
 3239 BALL CLARENCE E OL1 0290  
 3239 JOHNSON WILBURN OL1 0255  
 3249 JOHNSON T L OL1 0280  
 3271 EVANS BLISS OL2 1766  
 3309 JANOSCHKA JOSEPH OL1 0480  
 3421 BATTEN EDWARD FE2 9821  
 3555 ASHBAUGH GRAYCE OL1 0433  
 3609 CONGER MAYNARD OL1 0633  
 3610 GALLOWAY THOS FE5 0038  
 3651 OFFERMAN JOHN OL1 0484  
 3674 HAYES CLABURN W FE5 0803  
 3691 MINER THEADORE OL1 0109  
 3803 ANGUS J E OL1 0190  
 3821 ANGUS JAMES H FE7 0744  
 3875 COBB FLOYD JR FE8 8885  
 3911 CAMP VICTOR B FE7 0741  
 3967 BAKER LUMBER CO FE4 1060  
 3976 STILES SCHOOL FE2 9096

**LIVERNOIS RD N CONTD**  
 ROCHESTER RT 1

OAKLAND TWP  
 FR 1000 DUTTON RD NORTH TO ORION RD  
 5990 NIVISON JOHN OL1 0624  
 5935 STIER L W OL1 0273  
 5880 BECKER CHAS C OL1 6745  
 5680 DORST C L OL1 0546  
 5660 JOUPE ARVID L OL1 0134  
 5621 PATERSON JANET OL6 1309

**LIVERNOIS RD S CONTD**  
 ROCHESTER  
 UNLESS OTHERWISE SHOWN

TROY TWP  
 FR 1000 W SOUTH BLVD SOUTH TO SQUARE LAKE RD  
 6995 FRITZ JOSEPH H FE4 7516  
 6975 MILLERIS GROC OL6 9451  
 6965 CHOVANEC SADIE FE5 0908  
 6907 DIBBLE ROBERT FE5 1217  
 6903 RAPER FRED OL1 6574  
 6898 MOULIS EDWARD FE4 6587  
 6839 SUN PIPE LINE CO FE5 7212  
 6814 HOLLOWAY LAURA FE4 7527  
 6811 CAGNON EUGENE FE5 2083  
 6811 MIHALKO JOHN FE4 1861  
 6791 SHOOK M KEITH FE5 1872  
 6731 JONES JOSEPH R FE5 1951  
 TROY

**LIVERNOIS RD S**  
 ROCHESTER

AVON TWP

3514 S Livernois  
3514 S Livernois  
Rochester, MI 48309

Inquiry Number: 7486636.4

November 01, 2023

# EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# EDR Historical Topo Map Report

11/01/23

**Site Name:**

3514 S Livernois  
3514 S Livernois  
Rochester, MI 48309  
EDR Inquiry # 7486636.4

**Client Name:**

Applied Science & Technology  
10448 Citation Drive  
Brighton, MI 48116  
Contact: Aliya Spotts



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Applied Science & Technology were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:**

**Coordinates:**

<b>P.O.#</b>	NA	<b>Latitude:</b>	42.628571 42° 37' 43" North
<b>Project:</b>	11482-64	<b>Longitude:</b>	-83.152811 -83° 9' 10" West
		<b>UTM Zone:</b>	Zone 17 North
		<b>UTM X Meters:</b>	323471.18
		<b>UTM Y Meters:</b>	4721816.15
		<b>Elevation:</b>	810.26' above sea level

**Maps Provided:**

2019	1945, 1946
2017	1936
2014	1908
1997	
1980, 1981, 1983	
1973	
1968	
1952	

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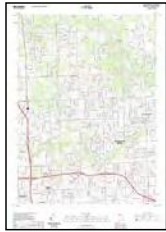
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## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2019 Source Sheets



Rochester  
2019  
7.5-minute, 24000



Birmingham  
2019  
7.5-minute, 24000



Utica  
2019  
7.5-minute, 24000

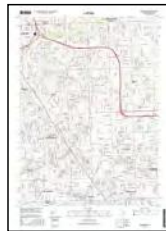


Warren  
2019  
7.5-minute, 24000

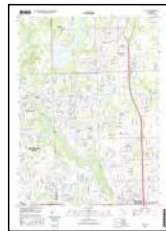
### 2017 Source Sheets



Rochester  
2017  
7.5-minute, 24000



Birmingham  
2017  
7.5-minute, 24000

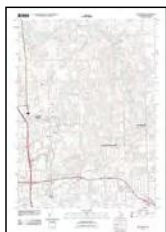


Utica  
2017  
7.5-minute, 24000



Warren  
2017  
7.5-minute, 24000

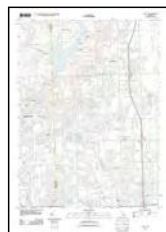
### 2014 Source Sheets



Rochester  
2014  
7.5-minute, 24000



Birmingham  
2014  
7.5-minute, 24000



Utica  
2014  
7.5-minute, 24000



Warren  
2014  
7.5-minute, 24000

### 1997 Source Sheets



Rochester  
1997  
7.5-minute, 24000  
Aerial Photo Revised 1997

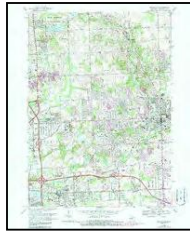
## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1980, 1981, 1983 Source Sheets



Warren  
1980  
7.5-minute, 24000  
Aerial Photo Revised 1978



Rochester  
1981  
7.5-minute, 24000  
Aerial Photo Revised 1981



Birmingham  
1981  
7.5-minute, 24000  
Aerial Photo Revised 1981



Utica  
1983  
7.5-minute, 24000  
Aerial Photo Revised 1982

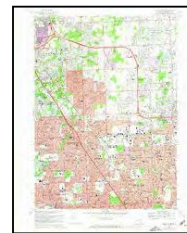
### 1973 Source Sheets



Rochester  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973



Utica  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

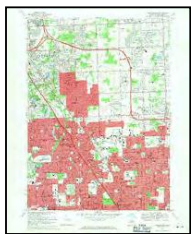


Birmingham  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

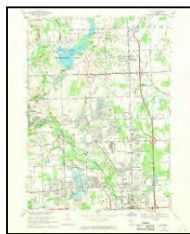


Warren  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

### 1968 Source Sheets



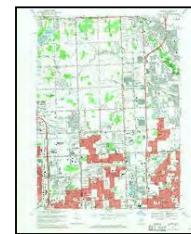
Birmingham  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1967



Utica  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1967

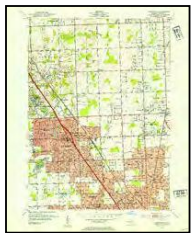


Rochester  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1967



Warren  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1967

### 1952 Source Sheets



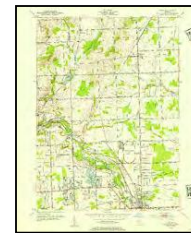
Birmingham  
1952  
7.5-minute, 24000



Rochester  
1952  
7.5-minute, 24000



Warren  
1952  
7.5-minute, 24000

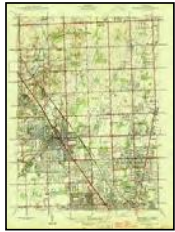


Utica  
1952  
7.5-minute, 24000

## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

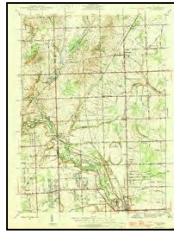
### 1945, 1946 Source Sheets



Birmingham  
1945  
7.5-minute, 24000



Rochester  
1945  
7.5-minute, 24000



Utica  
1946  
7.5-minute, 24000



Warren  
1946  
7.5-minute, 24000

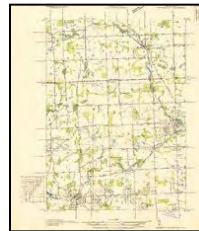
### 1936 Source Sheets



Warren  
1936  
7.5-minute, 31680

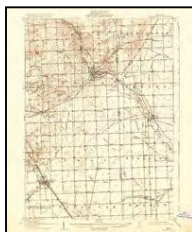


Birmingham  
1936  
7.5-minute, 31680



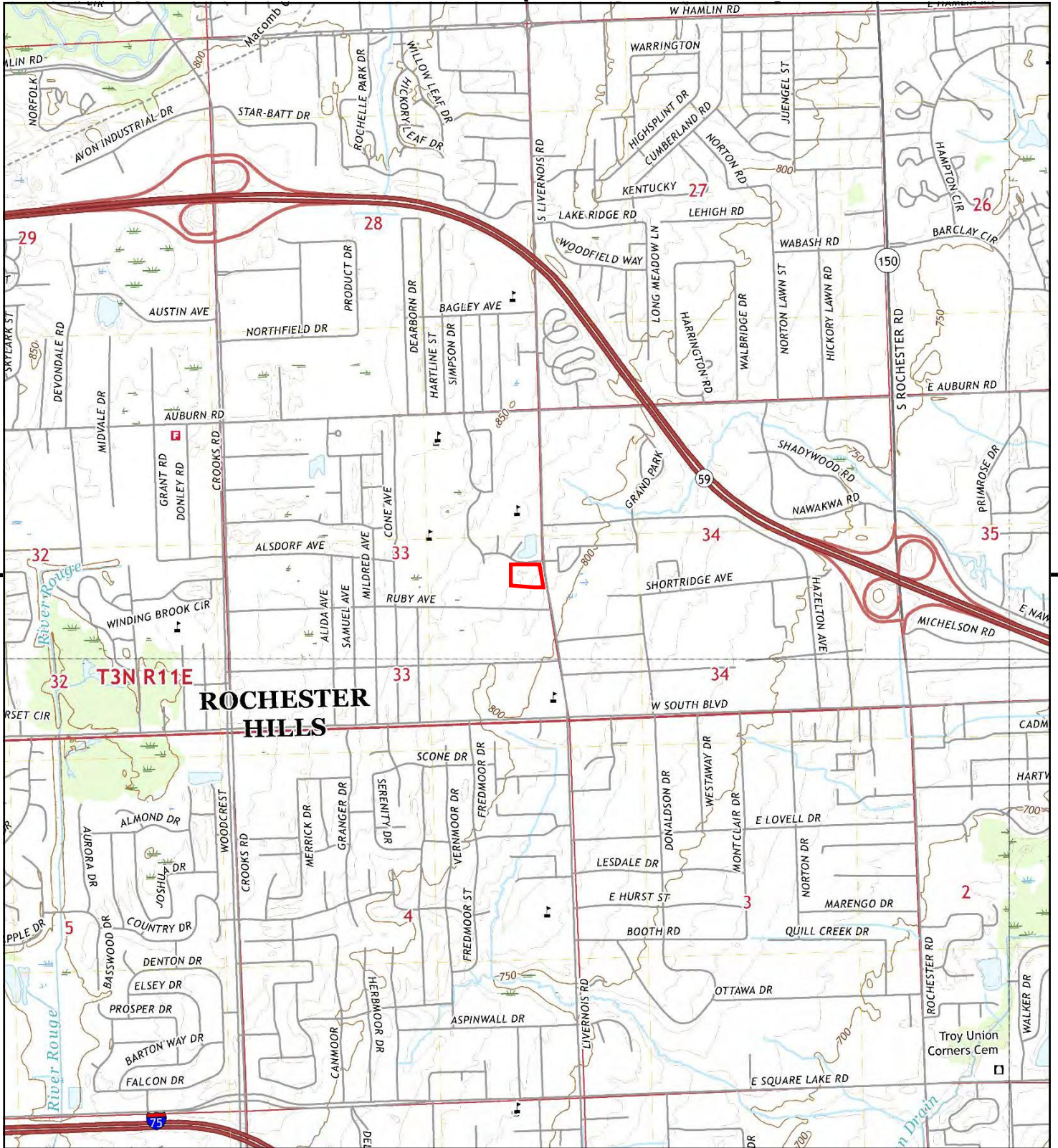
Rochester  
1936  
7.5-minute, 31680

### 1908 Source Sheets

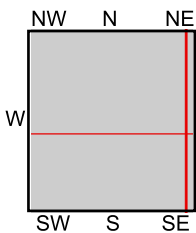
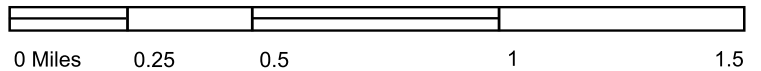


Rochester  
1908  
15-minute, 62500





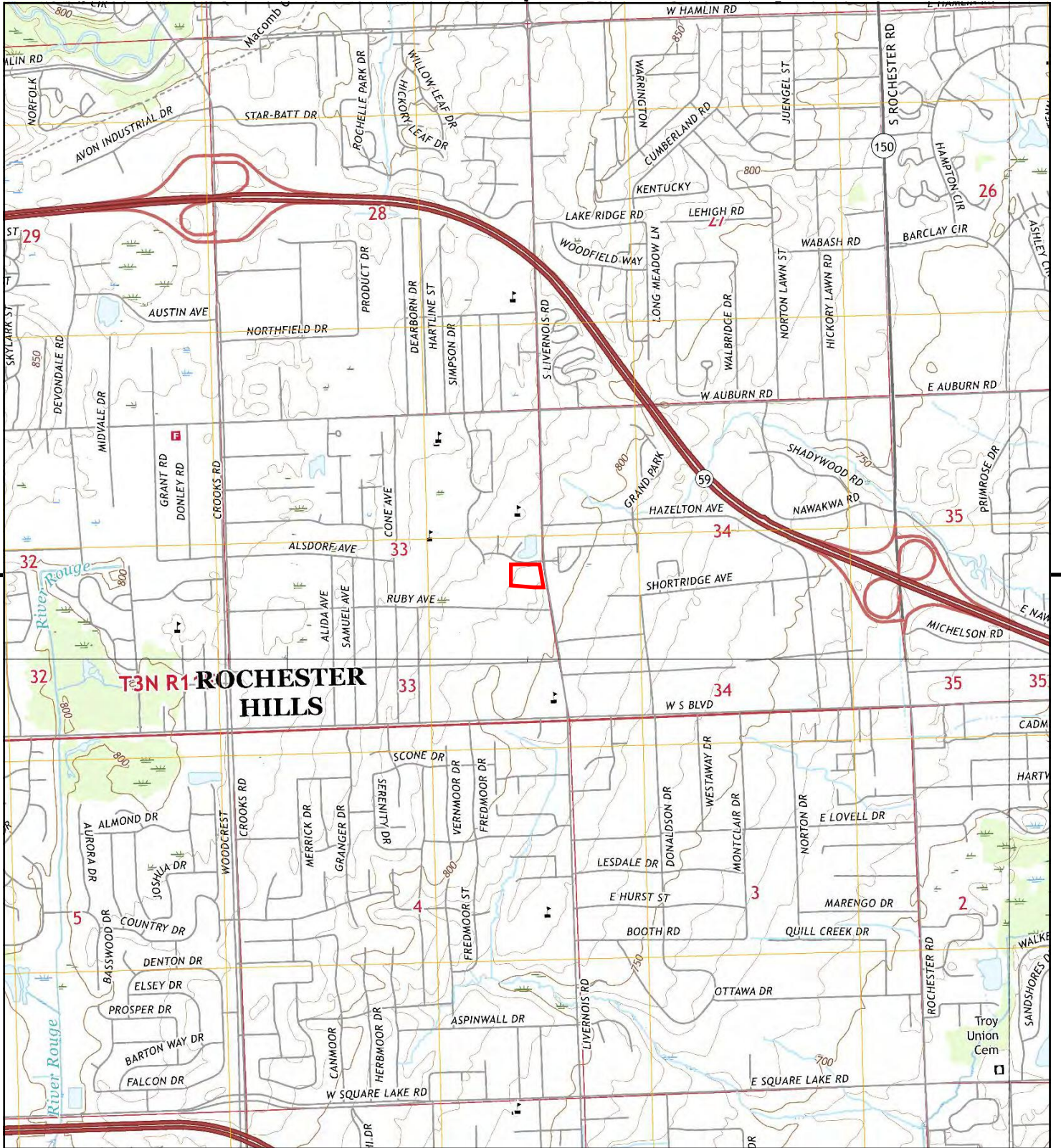
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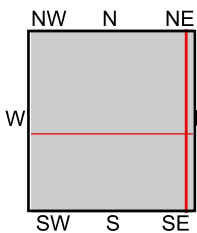
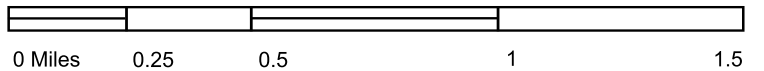
TP, Rochester, 2019, 7.5-minute  
 NE, Utica, 2019, 7.5-minute  
 SE, Warren, 2019, 7.5-minute  
 S, Birmingham, 2019, 7.5-minute

SITE NAME: 3514 S Livernois  
 ADDRESS: 3514 S Livernois  
 Rochester, MI 48309  
 CLIENT: Applied Science & Technology





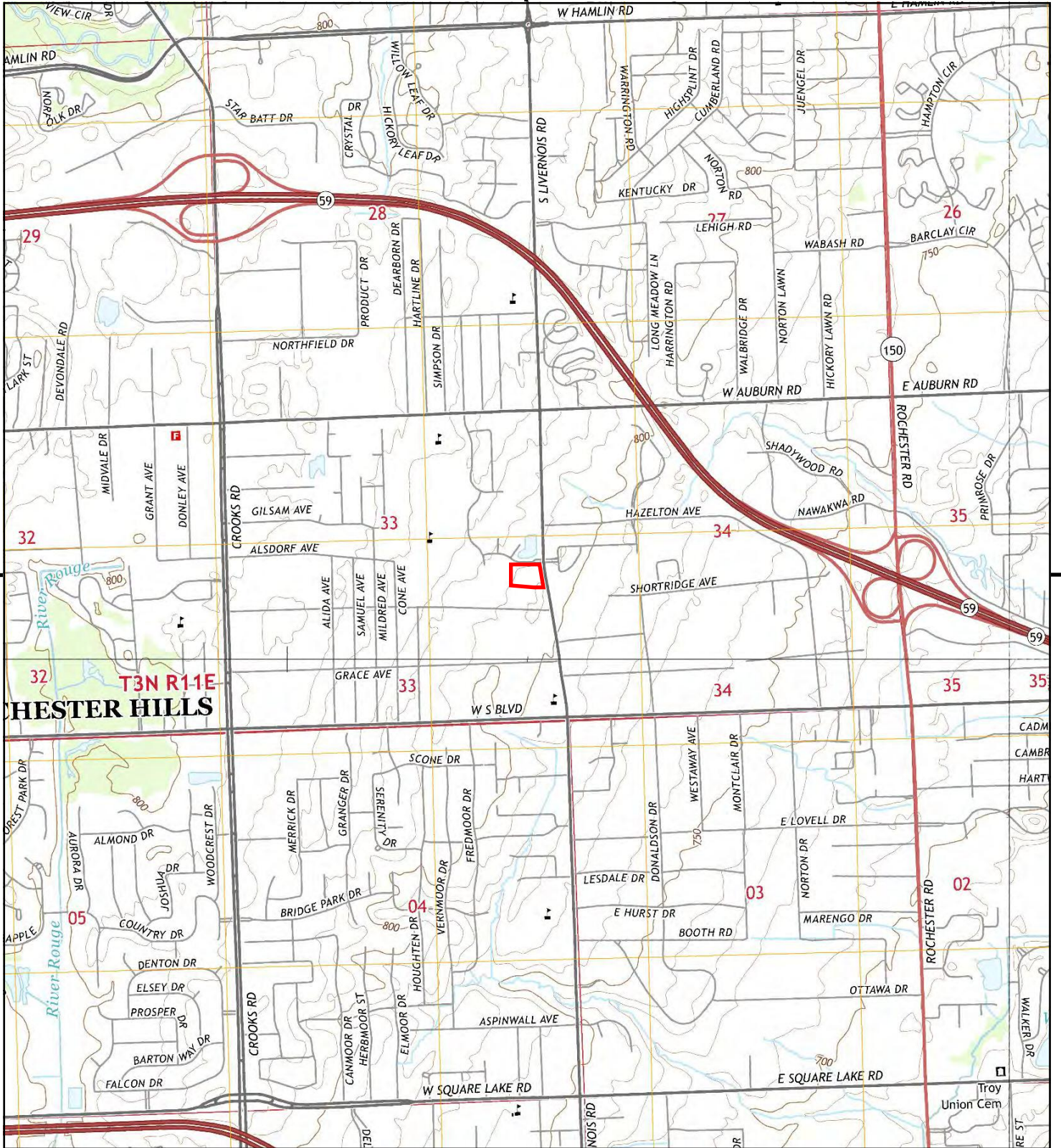
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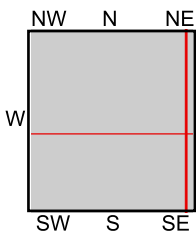
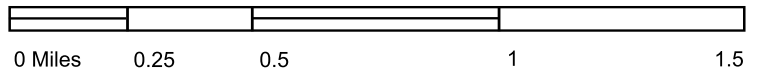
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SITE NAME: 3514 S Livernois  
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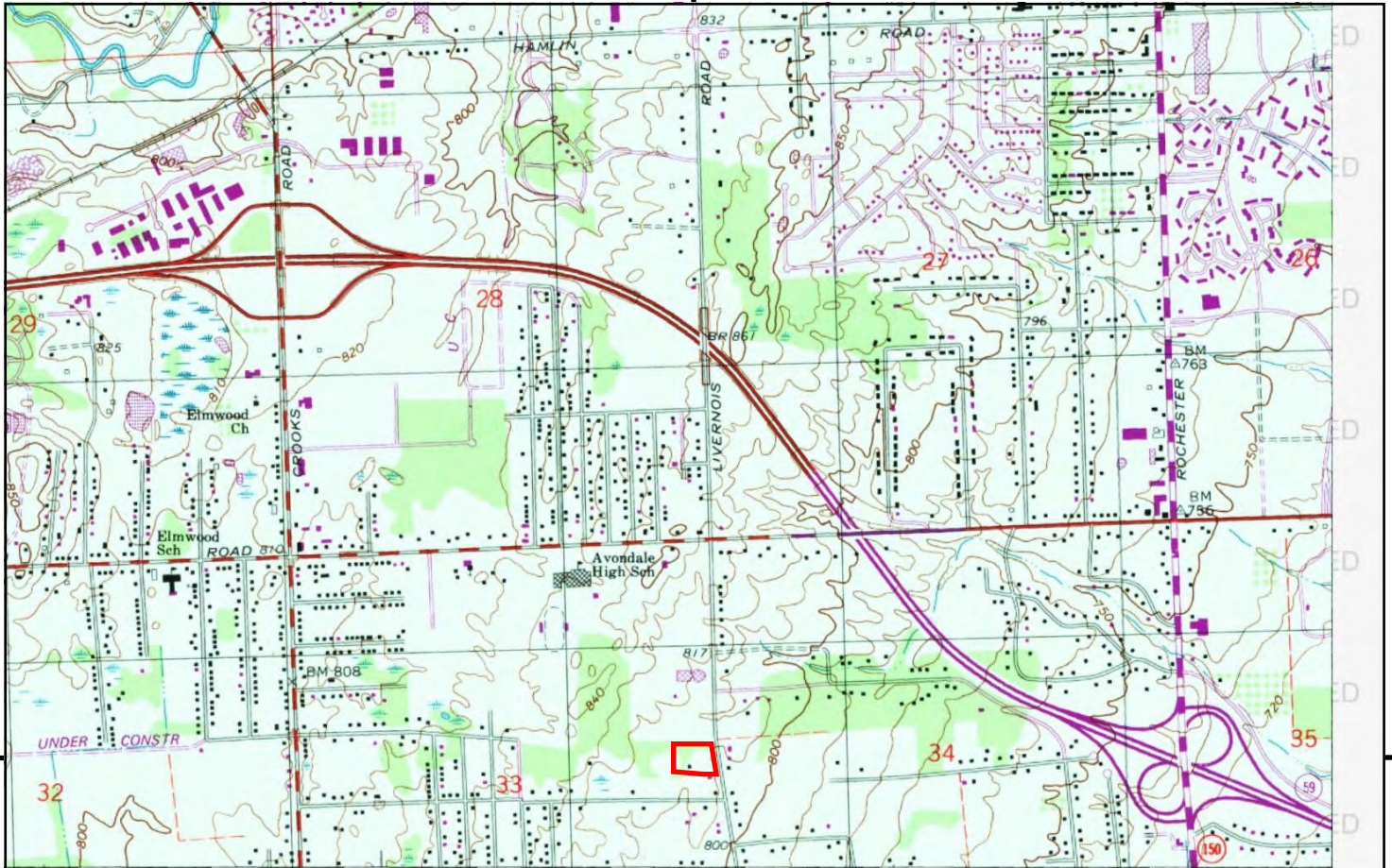
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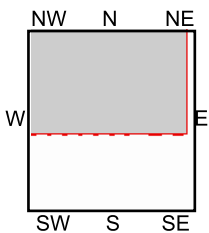
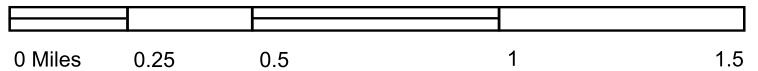
TP, Rochester, 2014, 7.5-minute  
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 SE, Warren, 2014, 7.5-minute  
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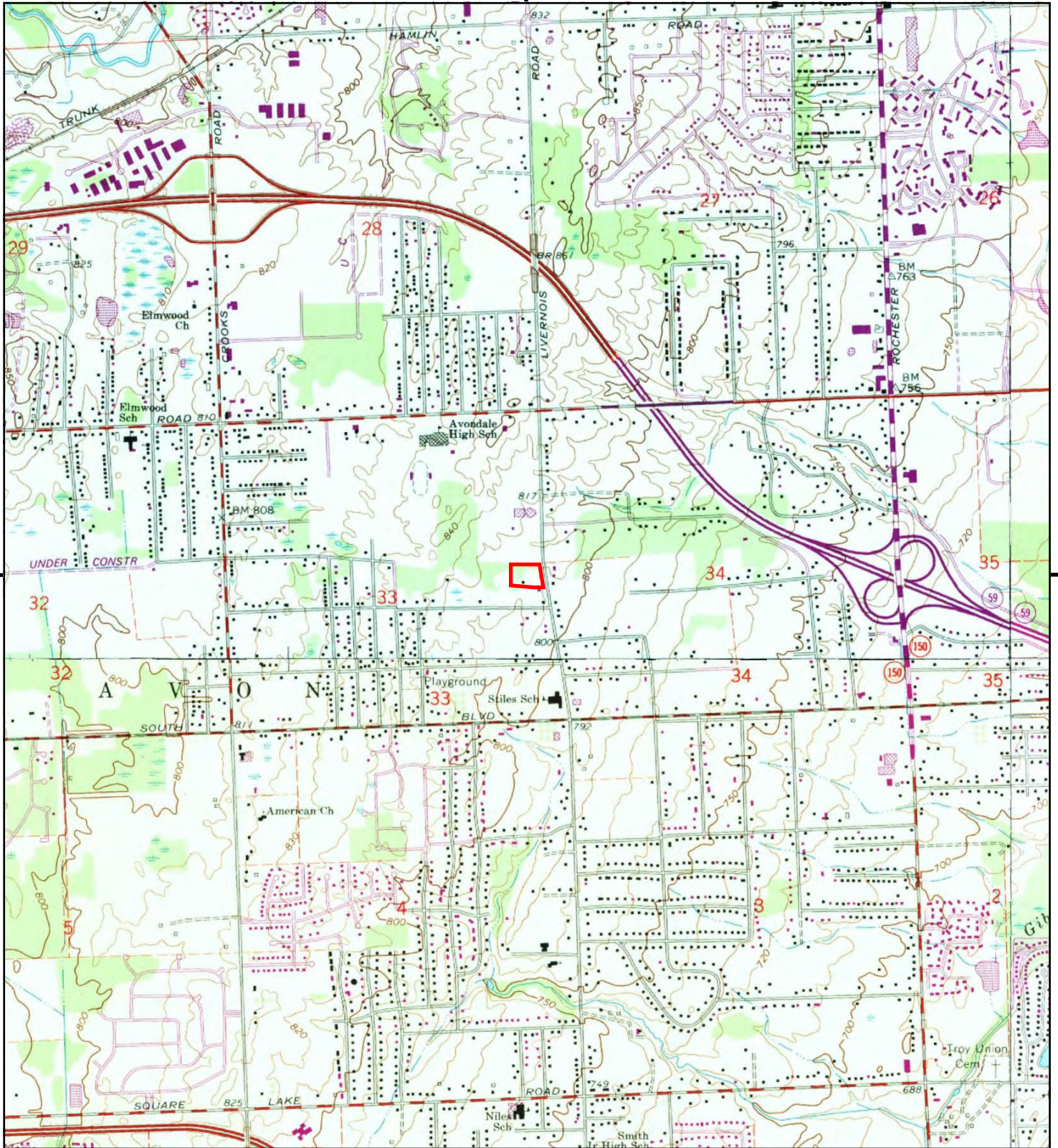
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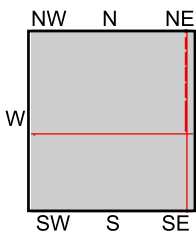
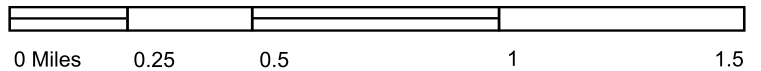
TP, Rochester, 1997, 7.5-minute

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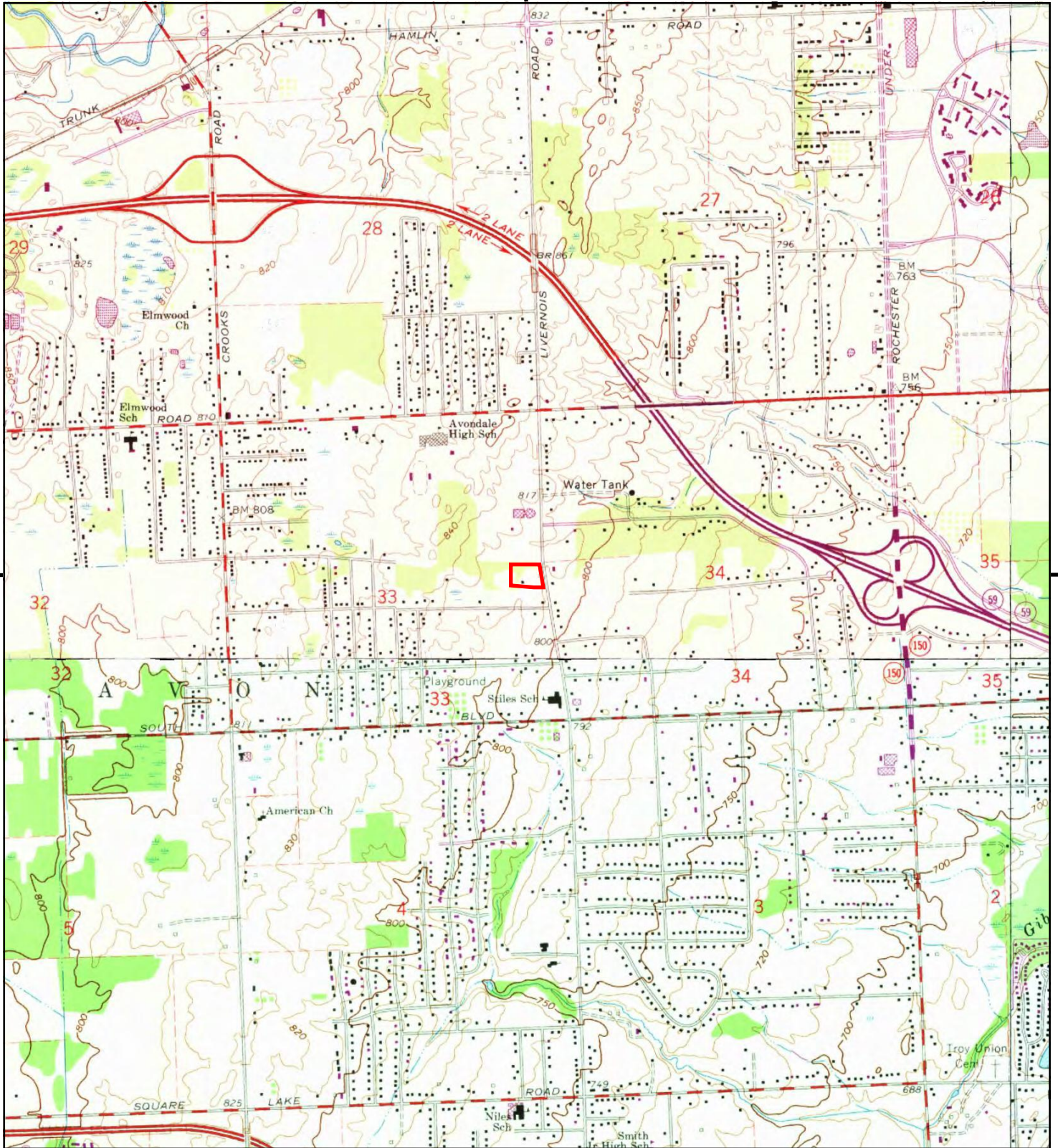
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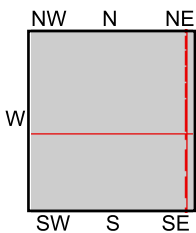
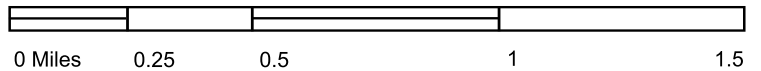
TP, Rochester, 1981, 7.5-minute  
 NE, Utica, 1983, 7.5-minute  
 SE, Warren, 1980, 7.5-minute  
 S, Birmingham, 1981, 7.5-minute

**SITE NAME:** 3514 S Livernois  
**ADDRESS:** 3514 S Livernois  
 Rochester, MI 48309  
**CLIENT:** Applied Science & Technology





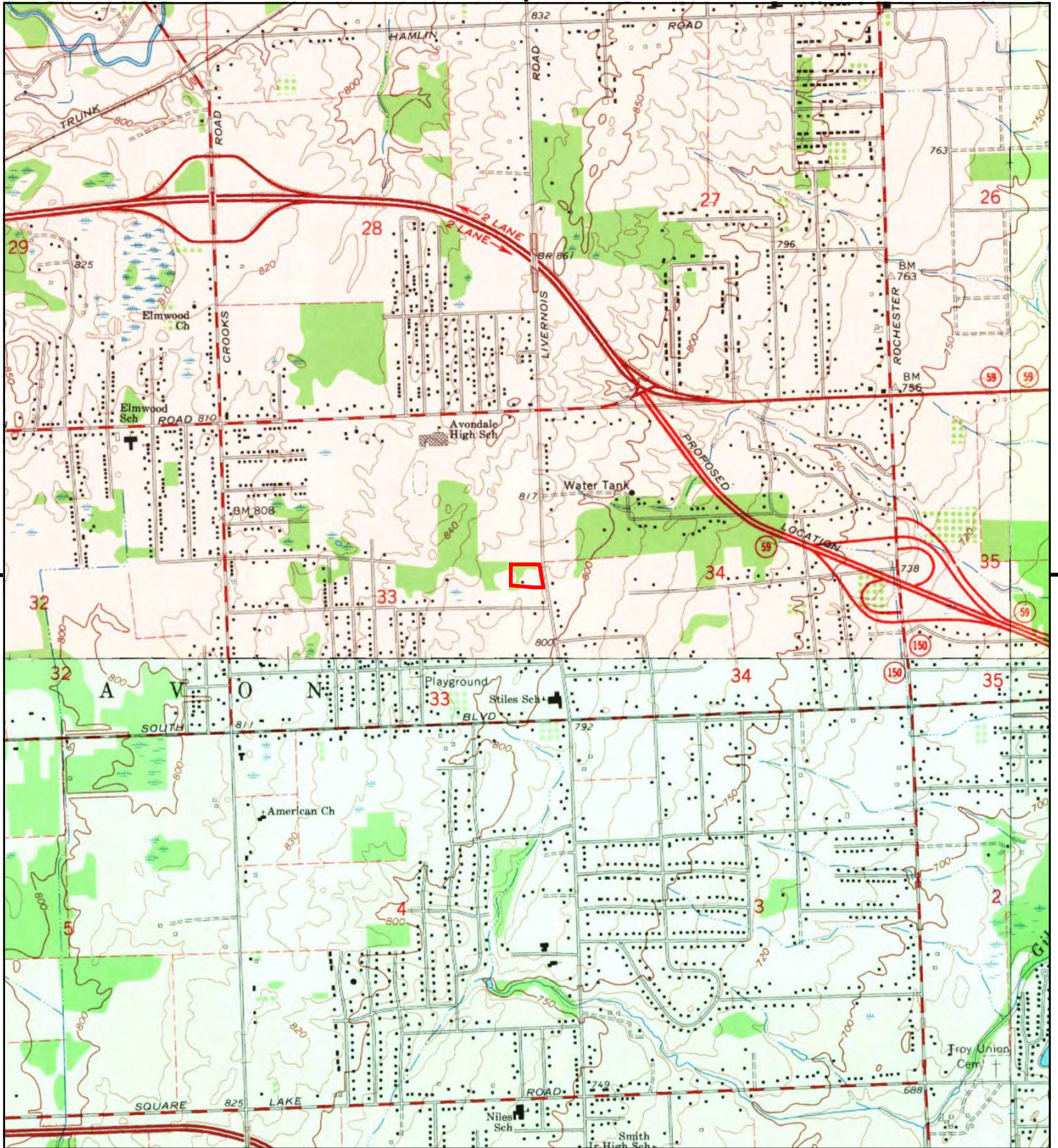
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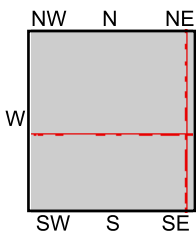
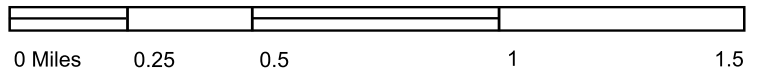
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SITE NAME: 3514 S Livernois  
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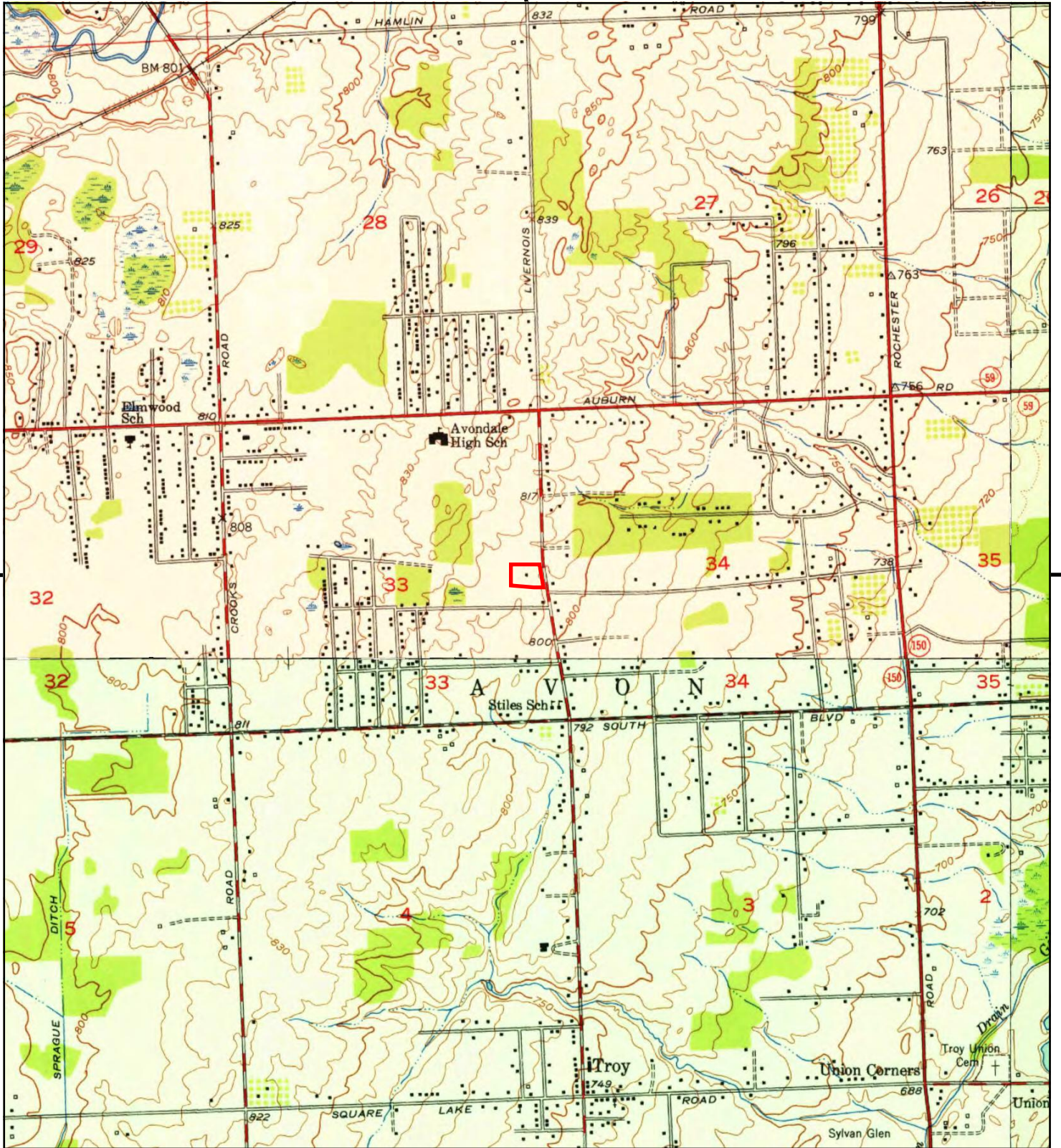
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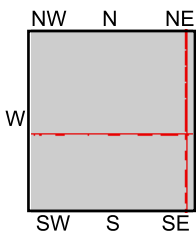
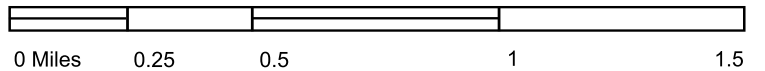
TP, Rochester, 1968, 7.5-minute  
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 S, Birmingham, 1968, 7.5-minute

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 Rochester, MI 48309  
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This report includes information from the following map sheet(s).

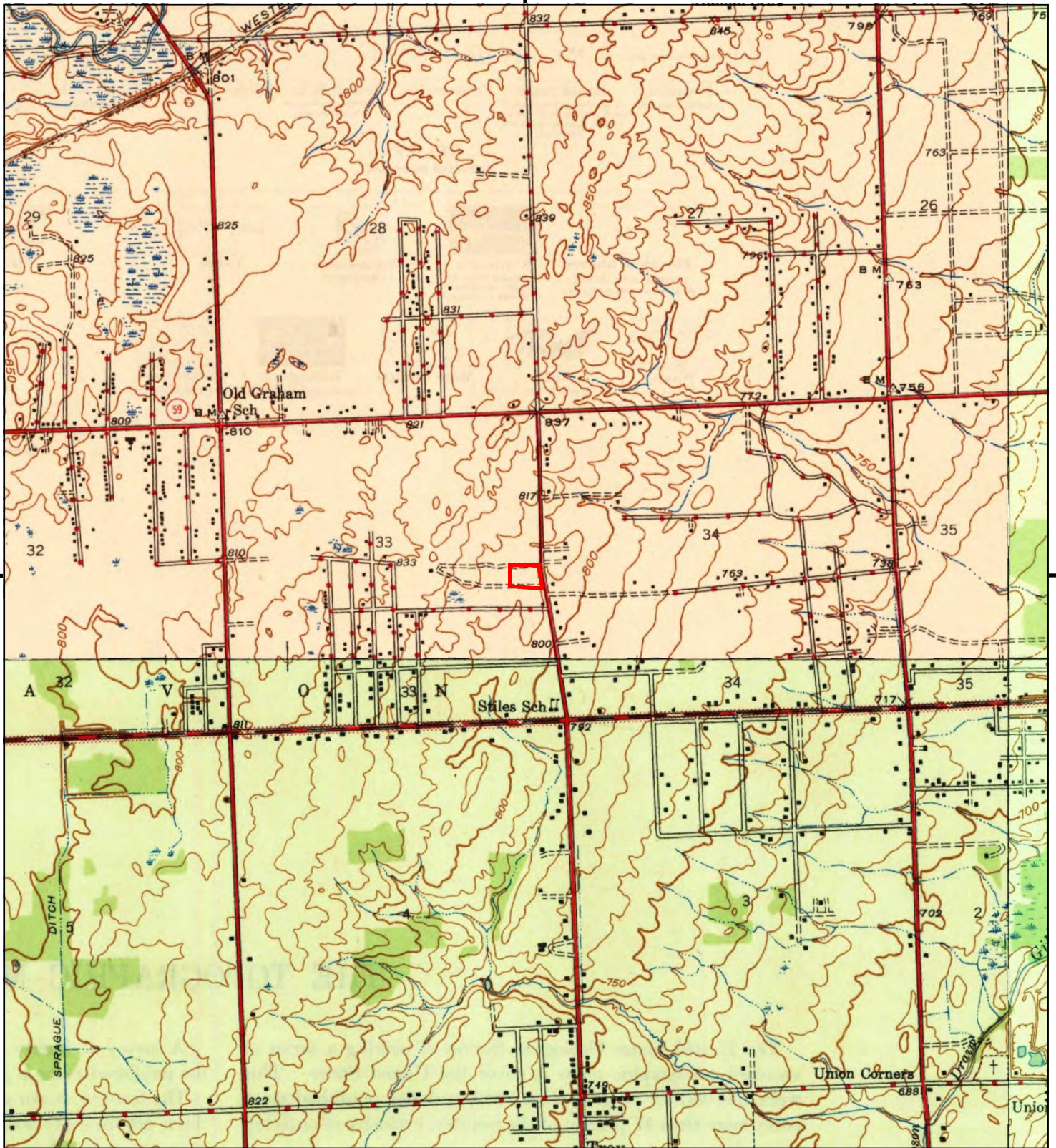


TP, Rochester, 1952, 7.5-minute  
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 SE, Warren, 1952, 7.5-minute  
 S, Birmingham, 1952, 7.5-minute

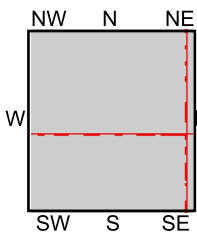
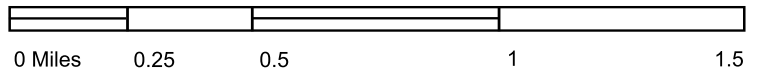
SITE NAME: 3514 S Livernois  
 ADDRESS: 3514 S Livernois  
 Rochester, MI 48309  
 CLIENT: Applied Science & Technology







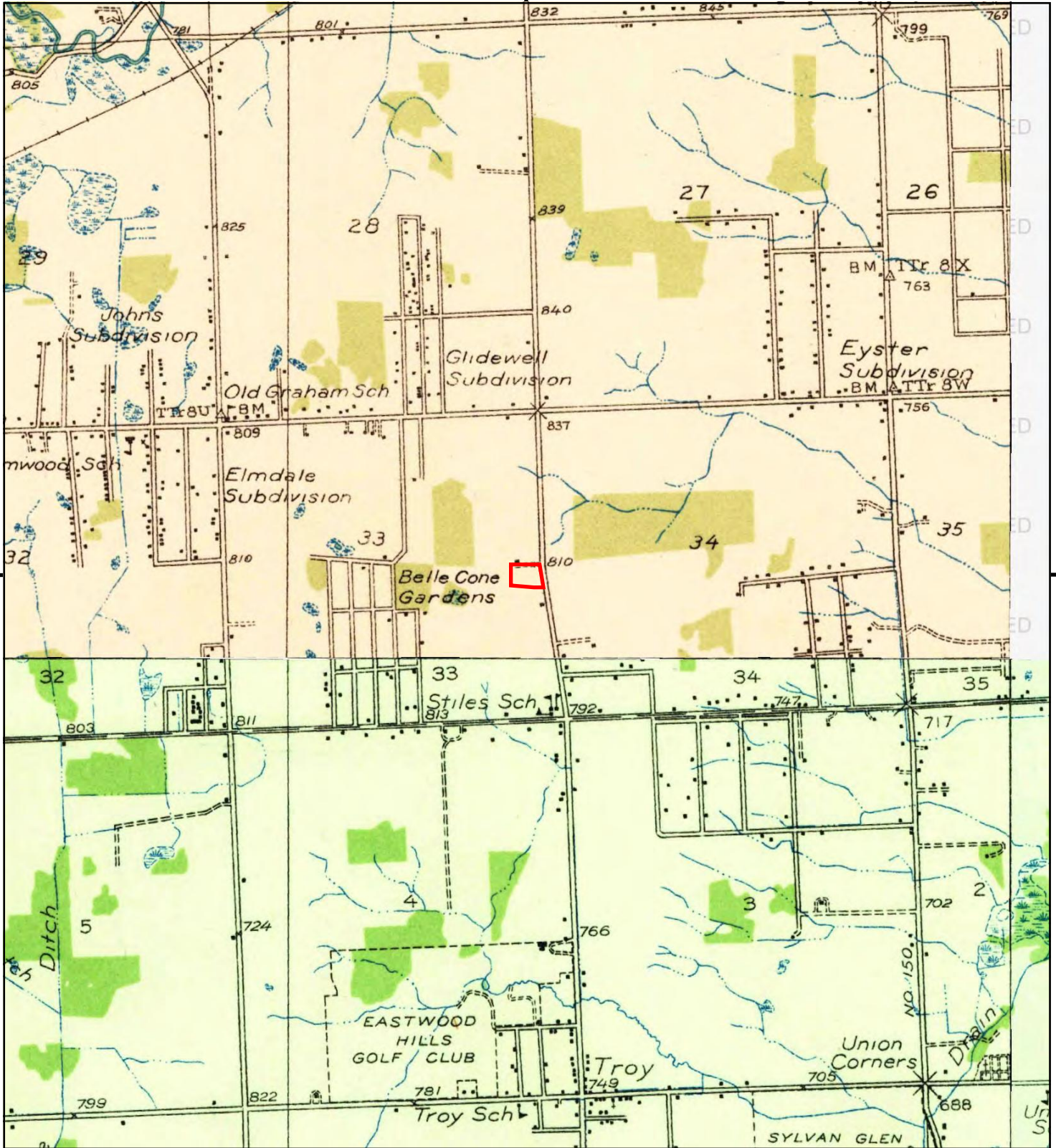
This report includes information from the following map sheet(s).



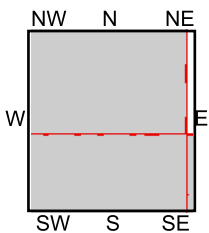
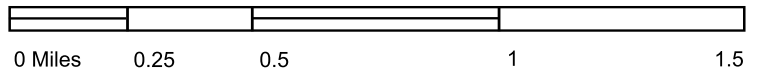
TP, Rochester, 1945, 7.5-minute  
 NE, Utica, 1946, 7.5-minute  
 SE, Warren, 1946, 7.5-minute  
 S, Birmingham, 1945, 7.5-minute

SITE NAME: 3514 S Livernois  
 ADDRESS: 3514 S Livernois  
 Rochester, MI 48309  
 CLIENT: Applied Science & Technology





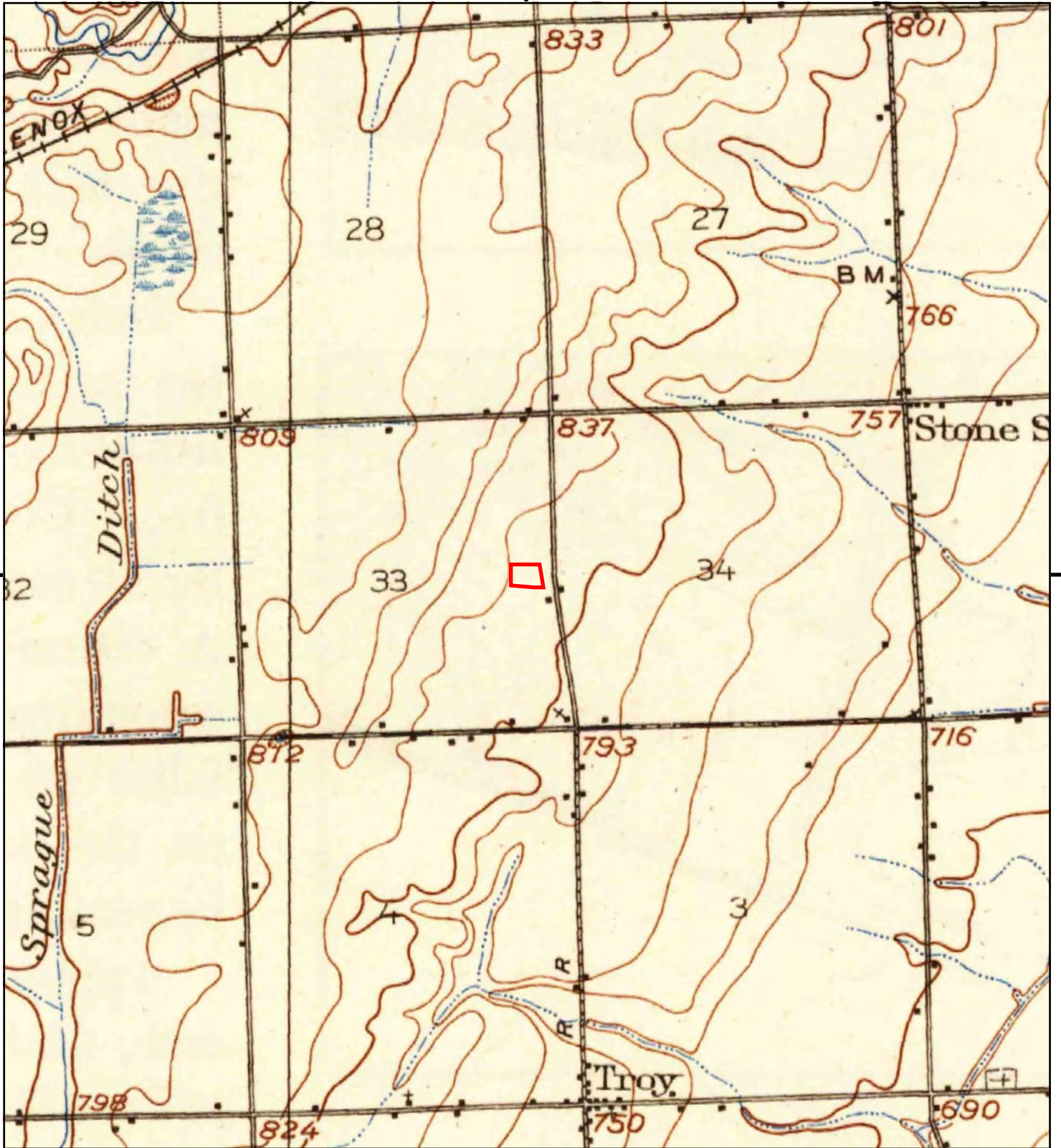
This report includes information from the following map sheet(s).



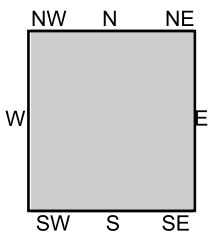
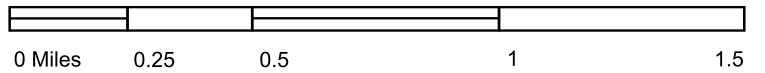
TP, Rochester, 1936, 7.5-minute  
 SE, Warren, 1936, 7.5-minute  
 S, Birmingham, 1936, 7.5-minute

SITE NAME: 3514 S Livernois  
 ADDRESS: 3514 S Livernois  
 Rochester, MI 48309  
 CLIENT: Applied Science & Technology





This report includes information from the following map sheet(s).



TP, Rochester, 1908, 15-minute

SITE NAME: 3514 S Livernois  
 ADDRESS: 3514 S Livernois  
 Rochester, MI 48309  
 CLIENT: Applied Science & Technology



**APPENDIX F**

**Qualifications  
Resumes**



**KATE YOUNG**  
Associate II

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## PROFILE

### Certifications

40-Hour OSHA HAZWOPER Training  
Texas Air Quality Construction Permitting, September 2011  
Hazcom Standard- GHS Update for Manager, September 2013  
Clean Air Act Training, September 2011

### Education

Texas A&M University, B.S., 2003, Rangeland Ecology and Management, Minor, Geology

### Experience History

Associate II, Property Service Group, ASTI Environmental  
Senior Environmental Engineer; Lockheed Martin Missiles and Fire Control  
Environmental Engineer, Lockheed Martin Aeronautics  
Staff Scientist, ATC Associates

### Professional Memberships

Society of Wetland Scientists  
Michigan Wetlands Association

### Professional Background

Ms. Young specializes in Phase I Environmental Site Assessments (ESAs). She has completed ESAs for residential, commercial, and industrial sites. She has experience working in Michigan, Texas, Oklahoma, Arkansas, Missouri, and Louisiana. Project work has included vacant land, apartment complexes, residential lots, commercial properties, and industrial buildings. Experience with evaluations include site inspections and historical research. Ms. Young also has experience assisting with Phase II ESA soil sample investigations, performing air sampling and monitoring, and mold sampling as well as dry cleaner audits.

### Years' Experience:

1—ASTI ENVIRONMENTAL  
8—other firms, government

## **PHASE I ENVIRONMENTAL ASSESSMENTS**

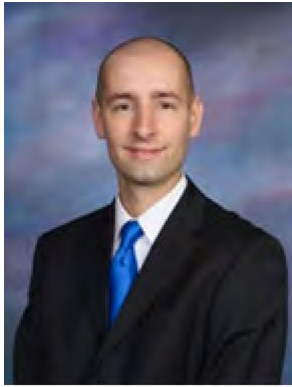
Manages projects and conducted environmental site assessments (ESAs) throughout the states of Michigan, Texas, Oklahoma, Arkansas, Louisiana, and Missouri, for a variety of projects (dry cleaners, retail strip centers, commercial properties, industrial facilities, vacant land, distribution centers, and multi-family residential properties) to determine environmental condition of sites for real estate transactions and remediation activities. Responsibilities included preparation and peer review of ASTM (and limited Non-ASTM) Phase I ESAs and desktop reviews (ERRs).

## **MOLD AND IAQ INVESTIGATIONS**

Assisted numerous clients with the evaluation of indoor air quality concerns and mold in office spaces, call centers, banks, multi-family residential properties, and hotels in Texas, Oklahoma, and Arkansas.

## **INDUSTRIAL COMPLAICE AUDITS FOR DRY CLEANER FACILITIES**

Completed audits in Texas and Oklahoma that are designed to determine how well a particular dry-cleaning facility is following the recommended practices for the use of particular dry cleaning solvents that they are using. The audits also determine the likelihood of a major environmental impact to the site where the facility is located. Included in these audits are interviews with the facility owner/operator and their employees, a survey of the site conditions and status of the equipment and supplies stored on site, a review of the facility's records to ensure an understanding of record keeping procedures and to establish a "track record" of proper solvent and waste handling procedures, and a review of dry cleaning solvent purchasing and use records to determine if there are any anomalous records that may indicate a chronic or catastrophic release of dry cleaning solvent.



**ANTHONY LLOYD SPENCER**  
Environmental Professional

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## PROFILE

### Certifications

Environmental Professional (AAI)  
HAZWOPER Certification and 8 Hour Refresher

### Education

Wayne State University, B.S., 2011, Environmental Science, Minor, Geology

### Experience History

Environmental Professional, Property Service Group, ASTI ENVIRONMENTAL  
Research Assistant, Ohio State University, School of Environment and Natural Resources  
Research Assistant, Wayne State University, Department of Biology

### Professional Background

Mr. Spencer specializes in Phase I Environmental Site Assessments (ESAs). He has completed ESAs for residential, commercial, and industrial sites. He has experience working in Michigan, Ohio, Kentucky, Oklahoma, Pennsylvania, and North Carolina. Work has included vacant land, apartment complexes, residential scattered lots, former plating facilities, print shops, landfills, auto garages, gasoline stations, and schools. The property evaluations have included site inspections; historical research; and contact with federal, state, and local agencies. Mr. Spencer also has experience assisting with Phase II ESA sampling and report preparation, noise assessments, NEPA reporting, HUD narratives, and SHPO consultation. Mr. Spencer has also conducted tree identification and timber cruising for the U.S. Fish & Wildlife Service in Michigan's Upper Peninsula.

### **Years' Experience:**

11—ASTI ENVIRONMENTAL  
2— other firms

## PHASE I ESA PROJECTS

### Detroit, MI

Conducted a Phase I ESA on land containing an apartment building that resulted in the identification and closure of an abandoned underground storage tank.

### Warren, MI

Conducted a Phase I ESA on a coil wire plant, including file review of a former underground storage tank, inspection of heat-treating ovens and acid wash tanks, and interviews with key site managers.

### Madison Heights, MI

Conducted a Phase I ESA on a metal stamping plant, including file review of previous subsurface investigations and inspection of metal working areas.

### Boyne City, MI

Conducted a Phase I ESA on a marina, including file review of a former underground storage tank and inspection of the current fuel system and service areas.

## PHASE II ESA PROJECTS

### Detroit, MI

Conducted a Phase II ESA on a mixed-use site, including scope of work development, geophysical survey, and soil sampling.

### Marshall, MI

Conducted a Phase II ESA on a commercial site, including scope of work development, managing field staff, identified and oversaw the closure of an orphaned underground storage tank, and prepared a Baseline Environmental Assessment, Due Care Plan, and Tank Closure Report.

### Pontiac, MI

Conducted a Phase II ESA on a commercial site, including scope of work development and soil and groundwater sampling.

### Detroit, MI

Conducted a Phase II ESA on a residential site, including scope of work development, vapor pin installation, and soil and soil gas sampling.

### Oakland County, MI

Assisted in the collection of samples from 24 sewer manholes, along with influent sources, effluent sources, biosolids, biosolids cake filtrate, and sludge digester supernatant in order to investigate potential sources of PFAS impacts to the sanitary system effluent for the Oakland County Water Resources Commission.



## **APPENDIX G**

### **Additional Records**

No additional records were obtained for this assessment

## **Description of Landowner Liability Protections for All Appropriate Inquiry and User Continuing Obligations**

In order to maintain a LLP, landowners must also comply with pre-acquisition and post-acquisition requirements under CERCLA and All Appropriate Inquiry. A summary of each LLP is provided below.

**Innocent Landowner Defense (ILO):** The defendant did not know and had no reason to know of the hazardous substance with respect to the Subject Property and must show that All Appropriate Inquiries into the past ownership and uses of the property in accordance with generally good commercial and customary standards and practices. All Appropriate Inquiries cannot result in knowledge of contamination.

### **Post- Acquisition Obligations**

1. Cooperate, assist, and provide access to persons that are authorized to conduct response actions or natural resource restoration at the property.
2. Comply with any land use restrictions established or relied on in connection with the response action at a vessel or facility.
3. Must not impede on the effectiveness or integrity of any institutional control employed at the vessel or facility in connection with a response action.
4. Take reasonable steps to 1) stop any continuing release, 2) prevent any threatened future release, and 3) prevent or limit any human, environmental, or natural resources exposure to any previously released hazardous substance.

**Bona Fide Prospective Purchaser (BFPP):** Allows a purchaser to acquire a property with knowledge that it is contaminated. This applies to purchasers (and their tenants) that acquire ownership of a facility after January 11, 2002. To qualify, prior to acquiring title, a person must show 1) that all disposal of hazardous substances at the facility occurred before the person acquired the facility, 2) conducted All Appropriate Inquiry, and 3) the person is not a Potentially Responsible Party (PRP) or affiliated with any other PRP for the property through any direct or indirect familial relationship, any contractual, corporate or financial relationship or as a result of a reorganization of a business entity that was a PRP.

### **Post- Acquisition Obligations**

1. Provide all legally required notices with respect to the discovery or release of any hazardous substances at the facility.
2. Exercise appropriate care with respect to hazardous substances by taking reasonable steps to stop any continuing release; prevent any threatened future release; and prevent or limit human, environmental, or natural resource exposure to any previously released hazardous substance.
3. Provide full cooperation, assistance, and access to persons who are authorized to conduct response actions or natural resource restoration (including the cooperation and access necessary for the installation, integrity, and maintenance of any complete or partial response actions or natural resource restoration).
4. Comply with any land use restrictions established or relied on in connection with the response action, and not impede the effectiveness or integrity of any institutional control employed at the vessel or facility in connection with a response action.
5. Comply with any request for information or administrative subpoena issues under CERCLA.

## **Explanation of LLPs and User Continuing Obligations Continued**

Contiguous Property Owner (CPO): A CPO must not know or have reason to know following performance of All Appropriate Inquiries that their property was or could be contaminated by the adjacent or contiguous real property. The property owner must show that they did not cause, contribute, or consent to the release and is not a PRP or affiliated with any other PRP, and conducted All Appropriate Inquiries.

### Post- Acquisition Obligations

1. Take reasonable steps to 1) stop any continuing release, 2) prevent any threatened future release, and 3) prevent or limit any human, environmental, or natural resources exposure to any previously released hazardous substance.
2. Provide full cooperation, assistance, and access to persons who are authorized to conduct response actions or natural resource restoration (including the cooperation and access necessary for the installation, integrity, and maintenance of any complete or partial response actions or natural resource restoration).
3. Comply with any land use restrictions established or relied on in connection with the response action at the facility.
4. Not impede the effectiveness or integrity of any institutional control employed in connection with a response action.
5. Comply with any request for information or administrative subpoena issues under CERCLA.
6. Provide all legally required notices with respect to the discovery or release of any hazardous substances at the facility.

**ASTI ENVIRONMENTAL**  
**ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND**  
**RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.**

**OUR SERVICES INCLUDE:**

- **ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS**
- **BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE**
- **DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT**
- **ECOLOGICAL ASSESSMENTS AND RESTORATION**
- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
- **ENVIRONMENTAL OPPORTUNITIES ASSESSMENT**
- **GIS MAPPING**
- **HAZARD MITIGATION PLANNING**
- **MINING AND RECLAMATION ASSISTANCE**
- **REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE**
- **PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS**
- **REGULATORY COMPLIANCE AND PERMITTING**
- **SOIL AND GROUNDWATER ASSESSMENTS**
- **SOIL AND GROUNDWATER REMEDIATION**
- **STORAGE TANK COMPLIANCE AND CLOSURE**
- **THREATENED AND ENDANGERED SPECIES SURVEYS**
- **WATERSHED AND STORMWATER MANAGEMENT PROGRAMS**
- **WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING**