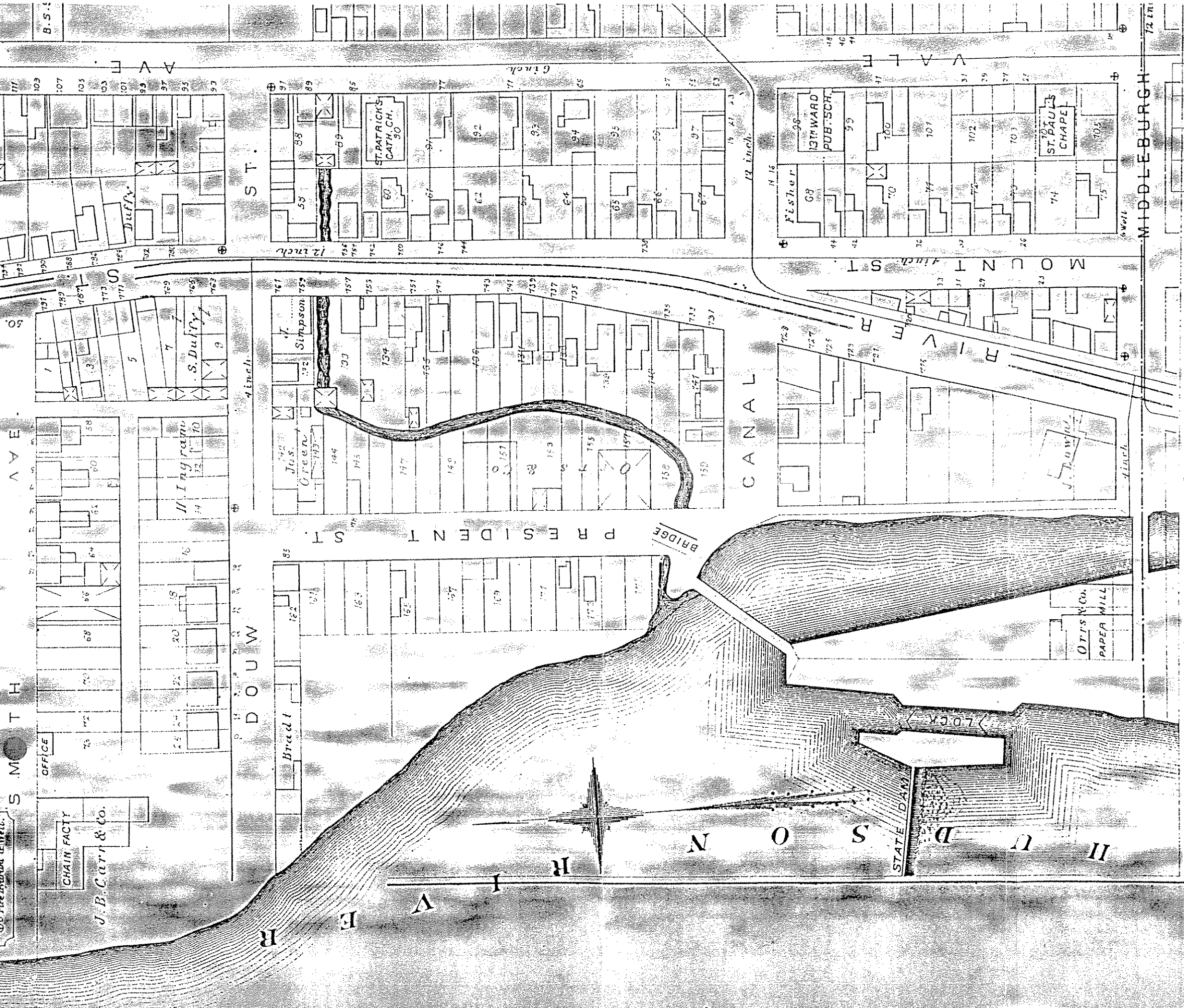


PART OF WARD 13 CITY OF TROY N.Y.

Scale 100 feet to the inch.



- EXPLANATIONS.**
- Brick or Stone building
 - Frame building
 - Brick or Stone Stable
 - Frame Stable or Shed
 - Sewer
 - Gas, Water, or Gas Pipe
 - Horse Railway
 - Fire Hydrant & Well



Environmental Risk Information & Imaging Services

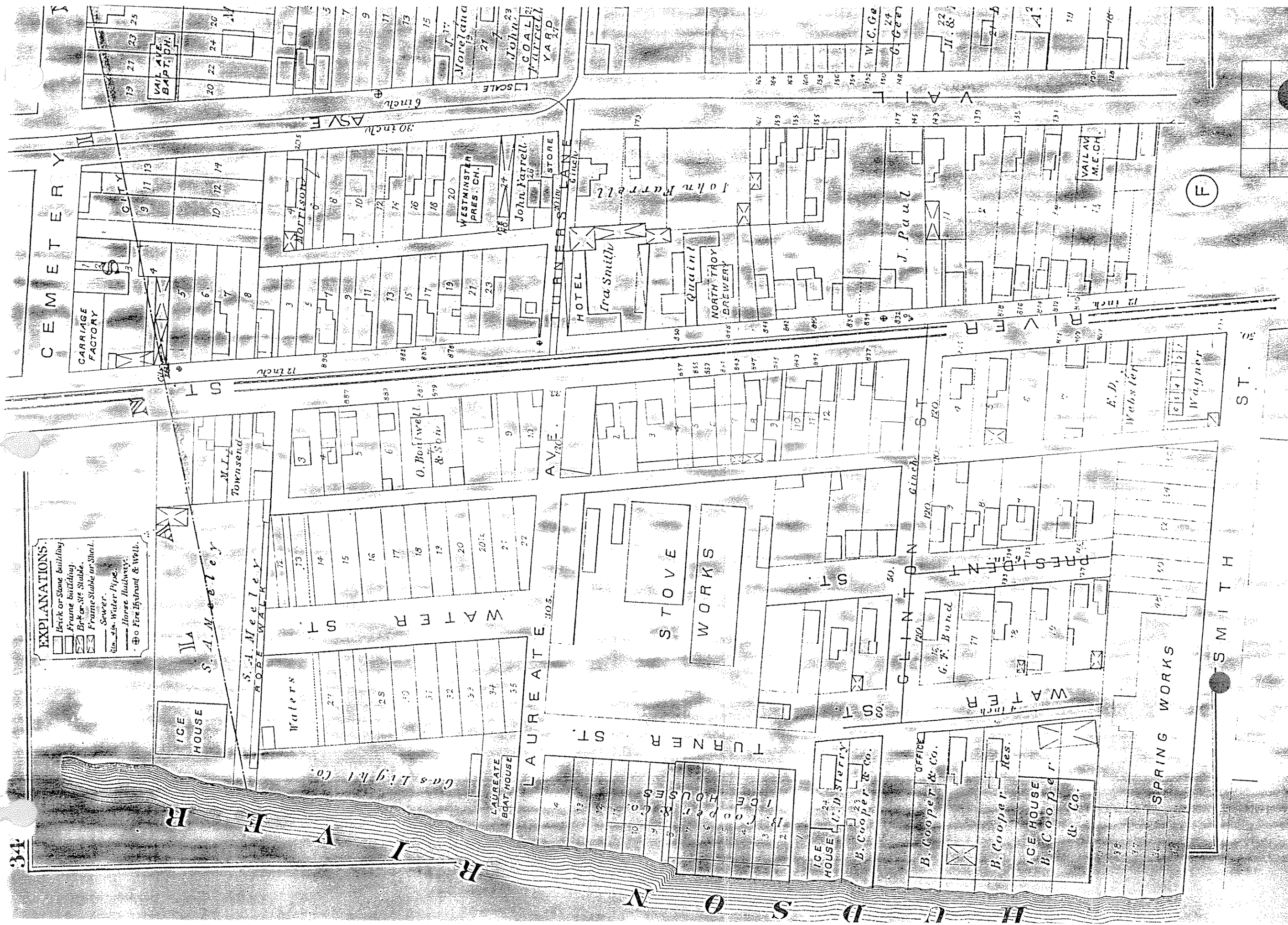
505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

ERIS

The reproduction of the SanbornSM fire insurance maps has been made by permission of EDR Sanborn, Inc. the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

EXPLANATIONS.
 [Symbol] Brick or Stone building
 [Symbol] Frame building
 [Symbol] Brick or SF Stable
 [Symbol] Frame Stable or Shell
 [Symbol] Sewer
 [Symbol] Horse Alleyway
 [Symbol] Fire Hydrant & Well



Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN INC MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

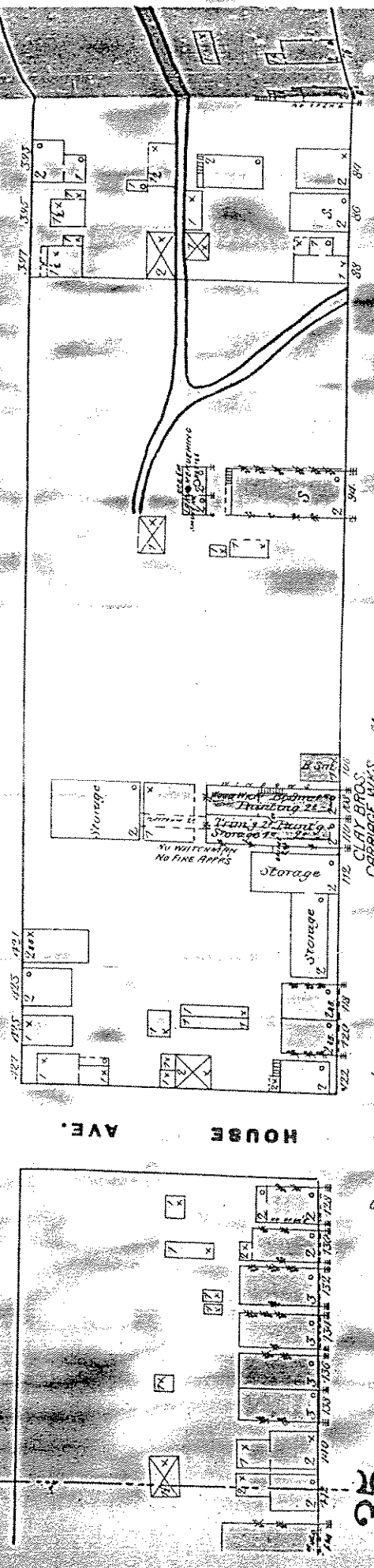
HOPKIN (881)

ERIS

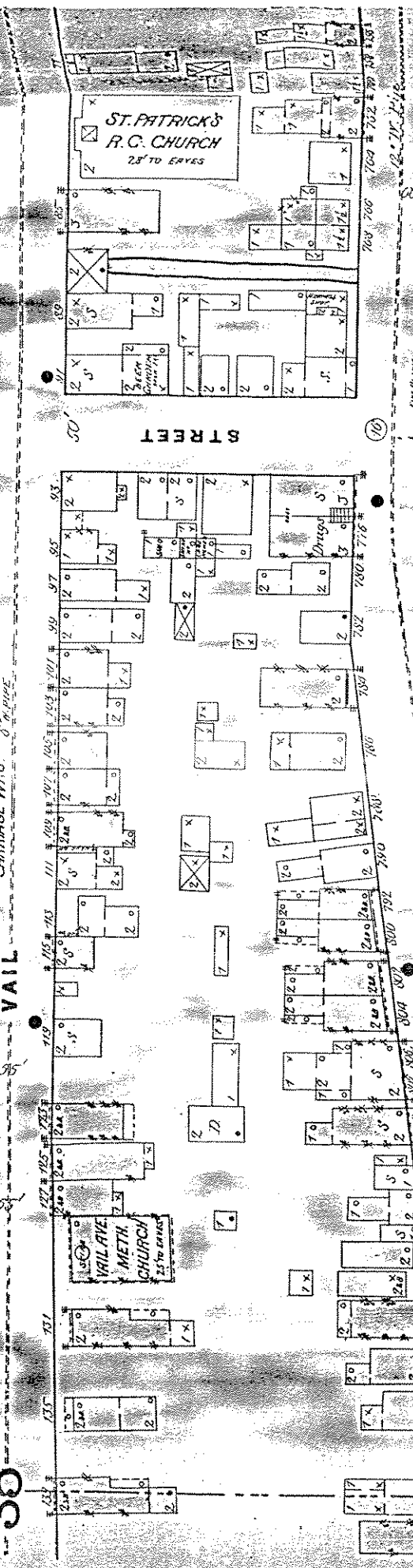
36

36

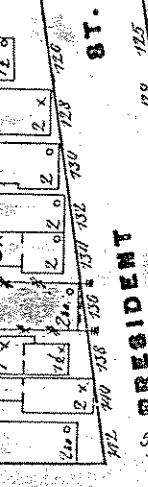
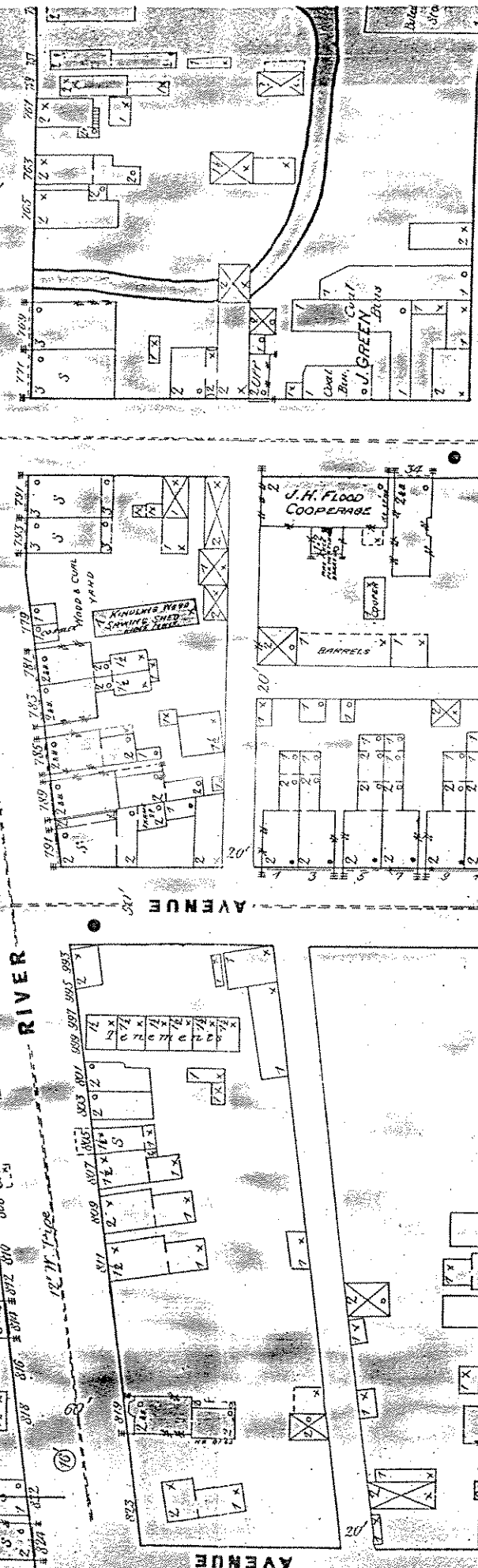
N. FOURTH



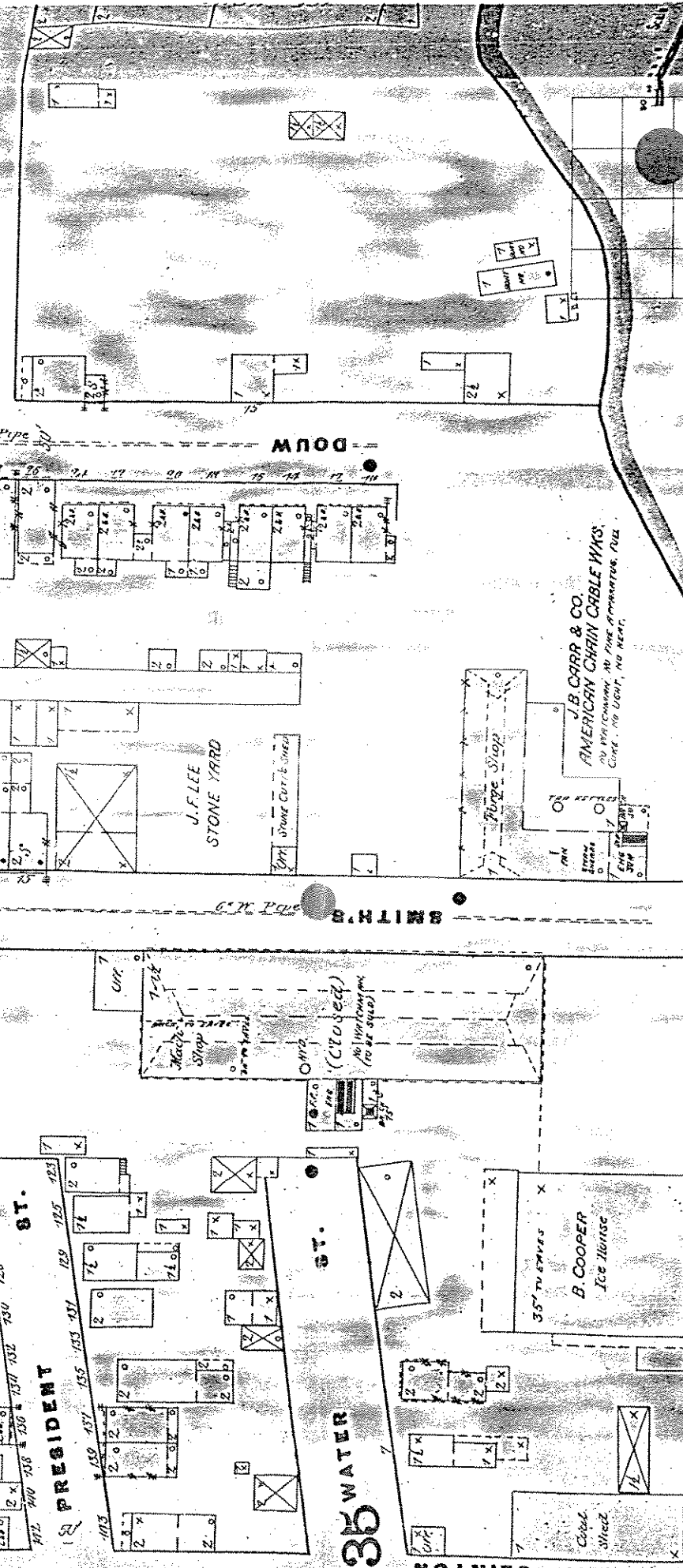
35



RIVER



PRESIDENT



35 WATER

Environmental Risk Information & Imaging Services

505 Hunter Park Drive, Suite 200, Henderson, VA 20170 (703) 824-0600 (200) 980-0403 FAX (703) 824-0606

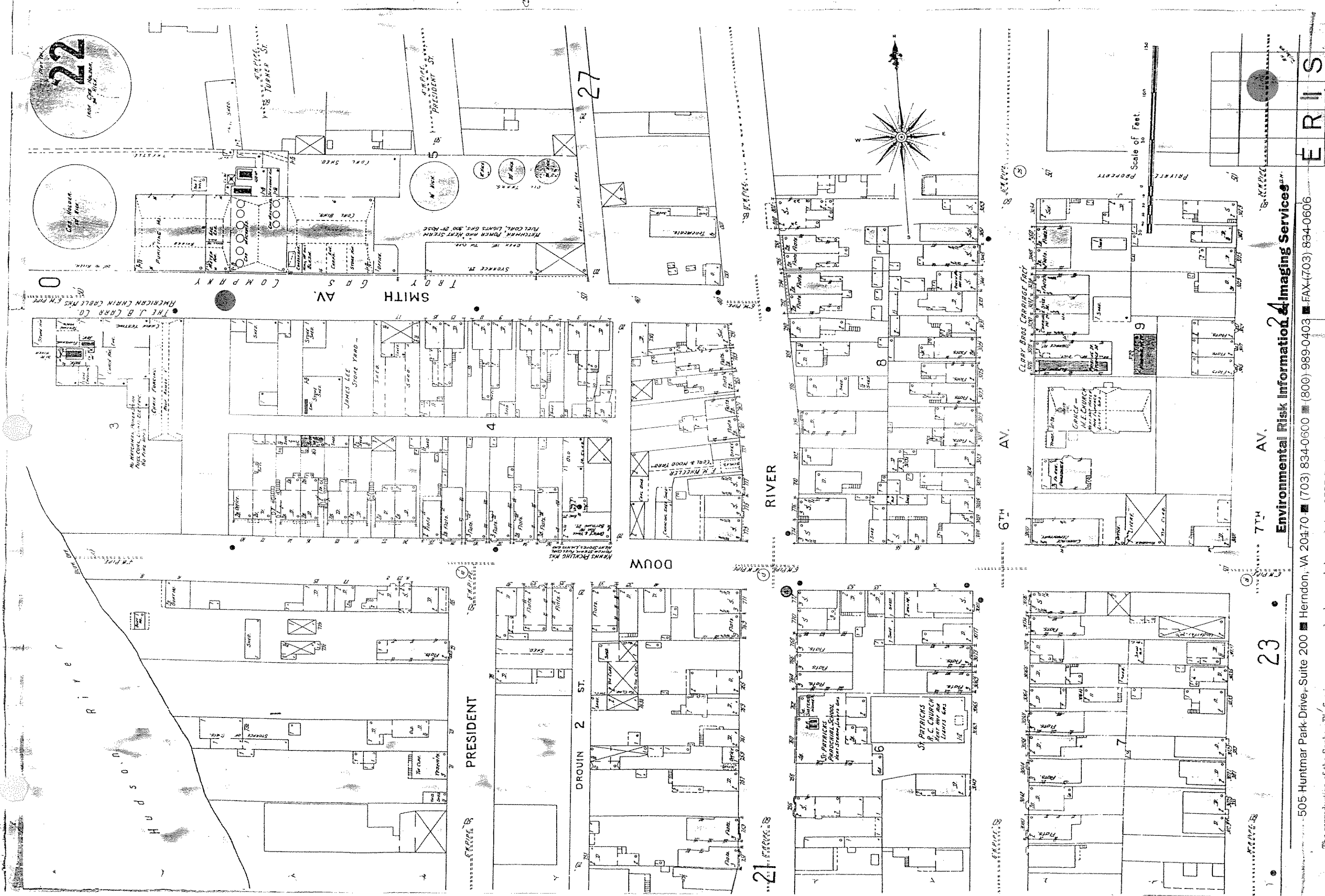
ERIS

This map and any data contained herein are the property of EDR Sanborn, Inc. and its agents. This map is provided to you for your use only and is not to be used for any other purpose. EDR Sanborn, Inc. and its agents are not responsible for any errors or omissions in this map. This map is provided to you as a service and is not a warranty of any kind. EDR Sanborn, Inc. and its agents are not responsible for any damages, including consequential damages, arising from the use of this map. This map is provided to you as a service and is not a warranty of any kind. EDR Sanborn, Inc. and its agents are not responsible for any damages, including consequential damages, arising from the use of this map.

SANBORN

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

1885



22
1942 City of Houston
1942 City of Houston

Cas. Holder
1942 City of Houston

THE J. B. CARR CO.
AMERICAN CHAIN CABLE MFG. CO.
PUNTING M.

SMITH AV.
TROY G.B.S. COMPANY

PRESIDENT

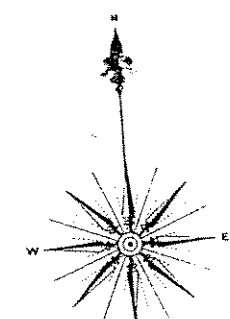
DROUIN 2 ST.

21
1942 City of Houston

RIVER

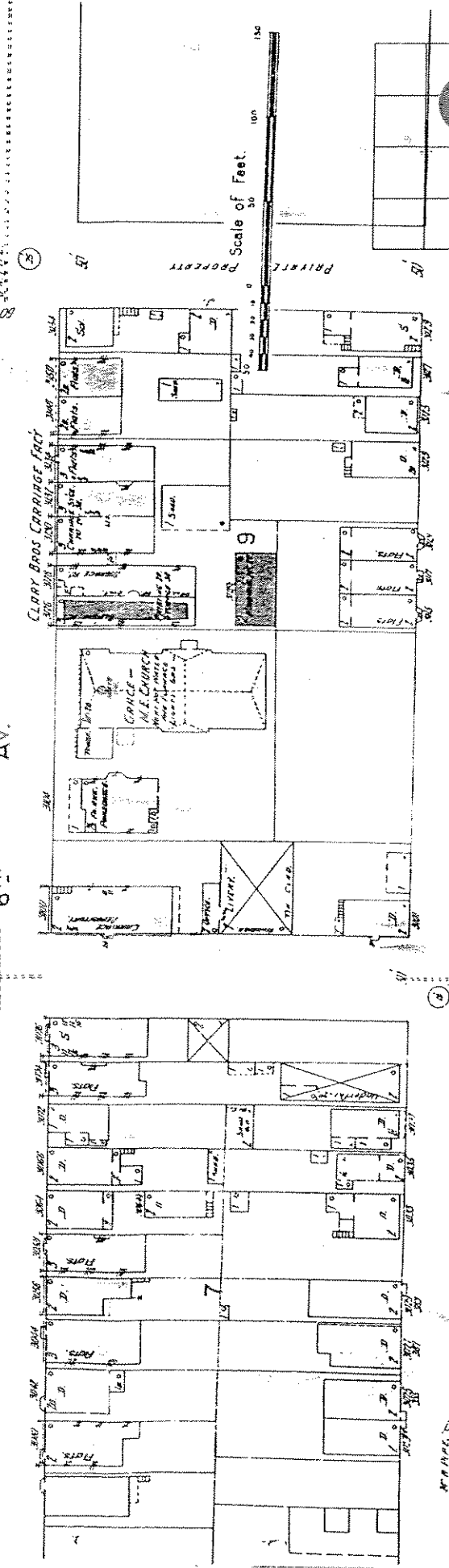
DROUIN 1 ST.

1942 City of Houston



6TH AV.

1942 City of Houston



23
1942 City of Houston

7TH AV.

1942 City of Houston

Environmental Risk Information & Imaging Services™

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20470 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX: (703) 834-0606

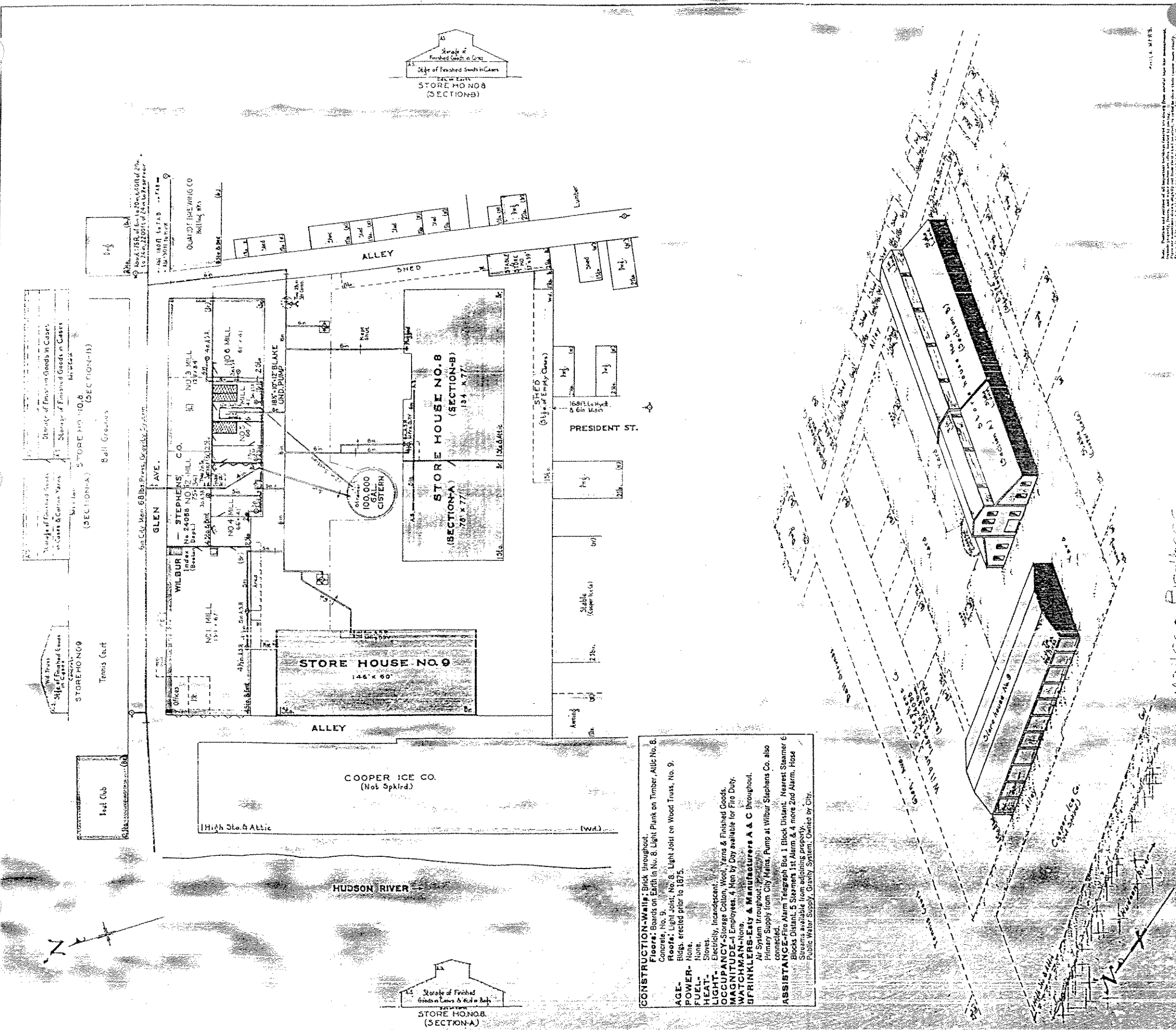
ERIS

The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between EDR Sanborn, Inc. and the copyright holder. EDR Sanborn, Inc. makes no representation or warranty, express or implied, as to the accuracy, completeness, or suitability of the information contained in the maps. THE SANBORN MAPS INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc. and their agents with EDR Sanborn, Inc.'s copyright policy, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

SANBORN

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

1903



Materials of which walls of building are constructed: Brick, Concrete, Cast Iron, Steel, Wood, etc.

Roofing: Asph. Flt. Shingles, Slate, etc.

Finishes: Plaster, Paint, etc.

Other features: Fire Alarm, Sprinkler System, etc.

CONSTRUCTION-WALLS: Brick throughout. Floors: Boards on EARTH in No. 8. Light Plank on Timber, Allie No. 8. Concrete, No. 9. Stairs: Light Joint, No. 8. Light Joint on Wood Truss, No. 9. Sills, erected prior to 1875.

AGE: No. 8. No. 9.

POWER: No. 8. No. 9.

FUEL: No. 8. No. 9.

HEAT: No. 8. No. 9.

LIGHT: Electricity, Incandescent.

OCCUPANCY: Storage Cotton, Wool, Yarns & Finished Goods.

MAGNITUDE: 4 Employees, 4 Men by Day available for Fire Duty.

WATCHMAN: None.

FRANKLERS-EATS & MANUFACTURERS: A & C throughout.

Air System: Throughout.

Primary Supply: From City Water, Pump at Wilbur Stephens Co. also connected.

ASSISTANCE: Fire Alarm Telegraph Box 1 Block Distant. Nearest Steamer 6 Blocks Distant. 5 Steamers 1st Alarm & 4 more 2nd Alarm. Hose Streams available from adjoining property. Public Water Supply, Gravity System. Owned by City.

WRIGHT'S HEATH-UNDERWEAR CO.
STOREHOUSE BLDGS. NO. 8 & 9
Troy, N. Y.

Scale 1/4" = 1'-0"

Surveyed Dec 12, 1912

Surveyed by M.W. Jones Drawn by J.J. Brennan

DEPT. OF FIRE & POLICE - BOSTON
SERIAL NUMBER 3260
INDEX NUMBER 1468
24056

WATER TANKS for fire purposes:
Fire water tank with 1000 gal. capacity.
Fire water tank with 1000 gal. capacity.
Fire water tank with 1000 gal. capacity.

ERIS

Environmental Risk Information & Imaging Services

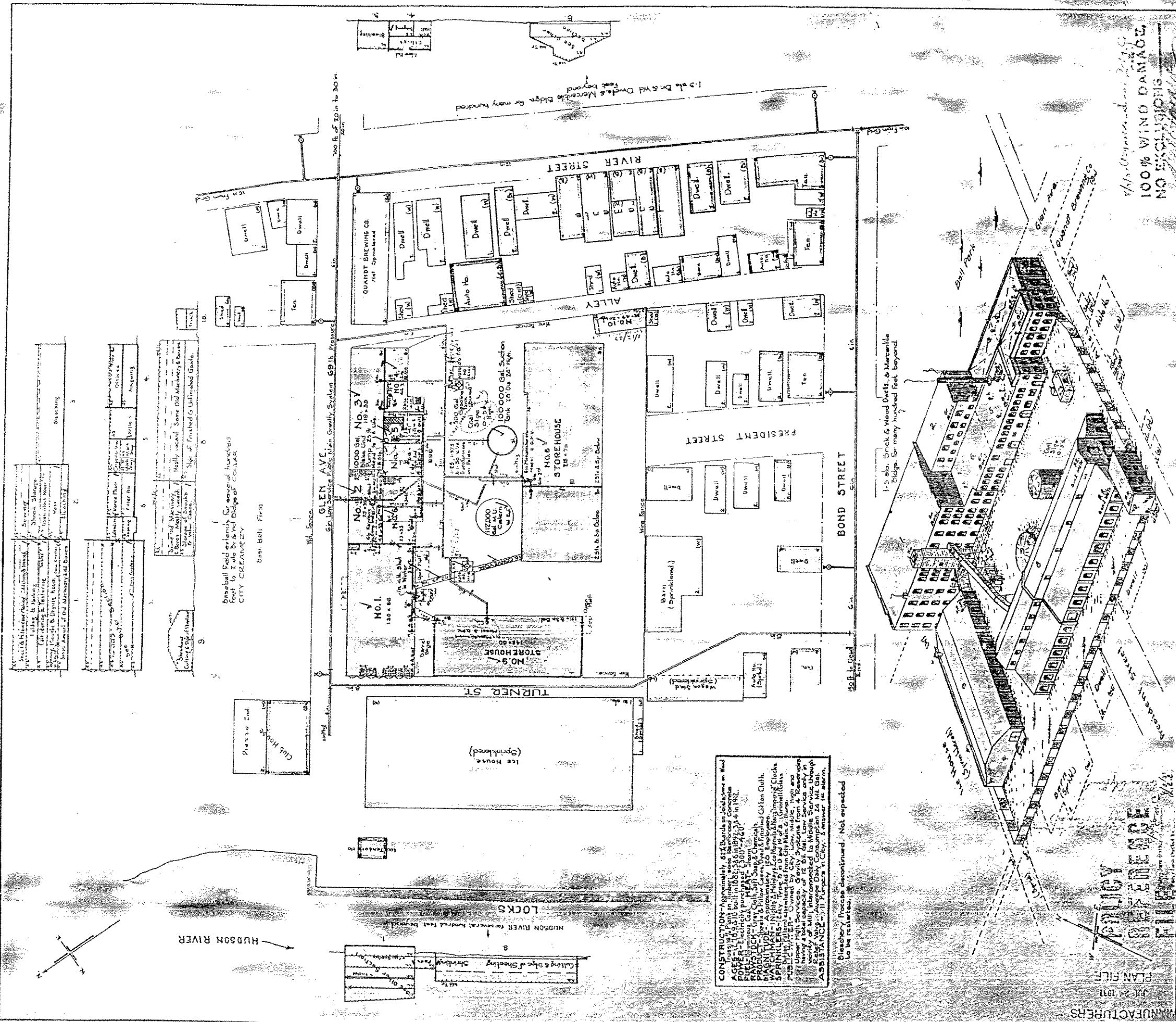
505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc., dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc. LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client with the terms and conditions of the client's purchase order with EDR Sanborn, Inc.'s copyright policy; a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

MANUFACTURERS MUTUAL

1912



CONSTRUCTION: Approximately 675,000 sq. ft. building built on bed rock in 1917. Plan and subject were inspected and approved by the Fire Dept. in 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939. 1940. 1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980. 1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100.

Discharge process discontinued. Not expected to be restarted.

100% WIND DAMAGE, NO EXCLUSIONS

COLLAR CITY FINISHING CO.
(CLOTH WORKING)
Troy, N. Y.

Scale 1/4" = 50'

Tracing No. 18688

Surveyed April 27, 1991.
Surveyed by H.W. Bunting

INDEX NUMBER
24058
DEC 9 1987

Environmental Risk Information & Imaging Services

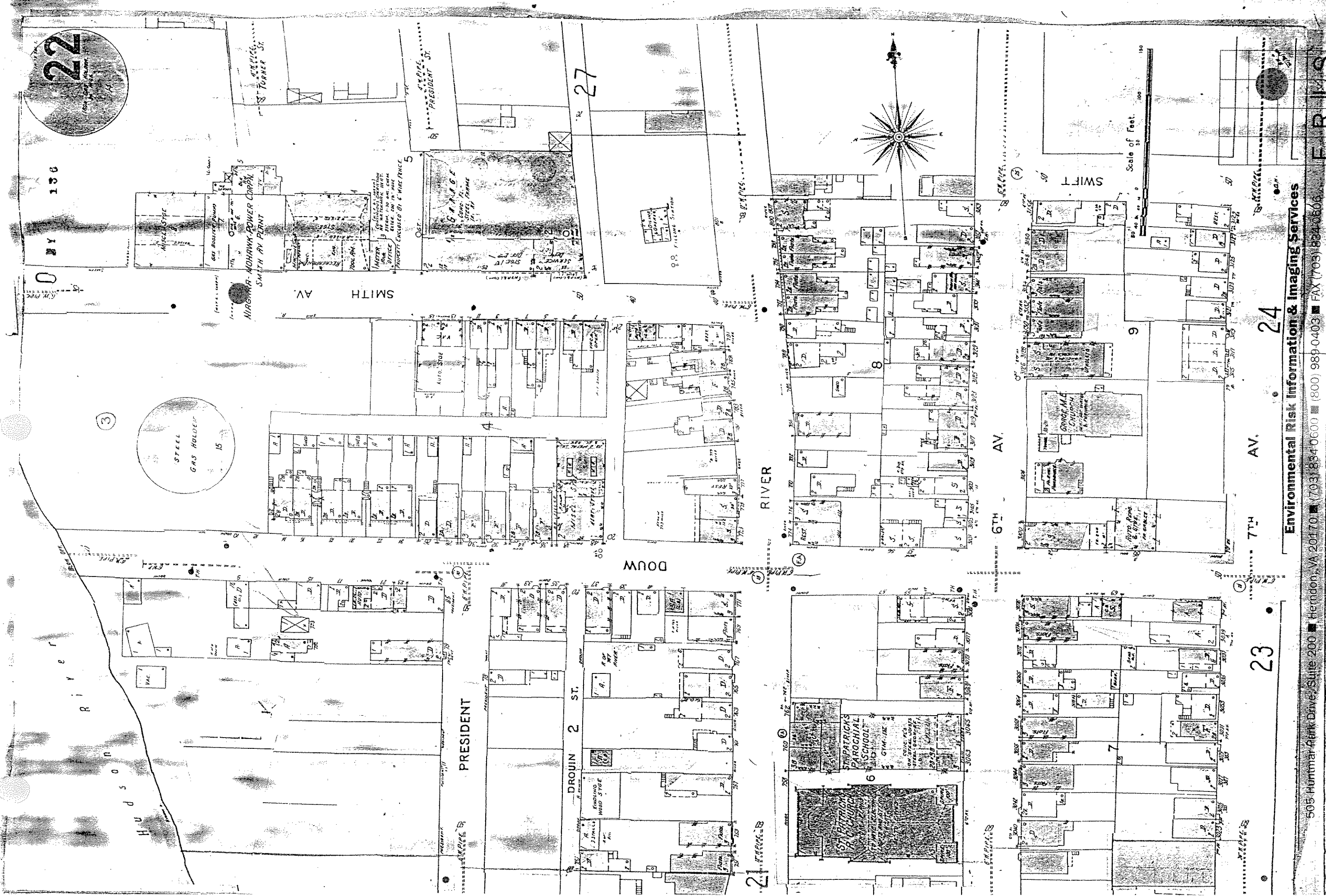
505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

ERIS

The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

The Manufacturers Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.



505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 884-0600 ■ (800) 989-0403 ■ FAX (703) 884-0666

Environmental Risk Information & Imaging Services

ERIS

The reproduction of the SanbornSM fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

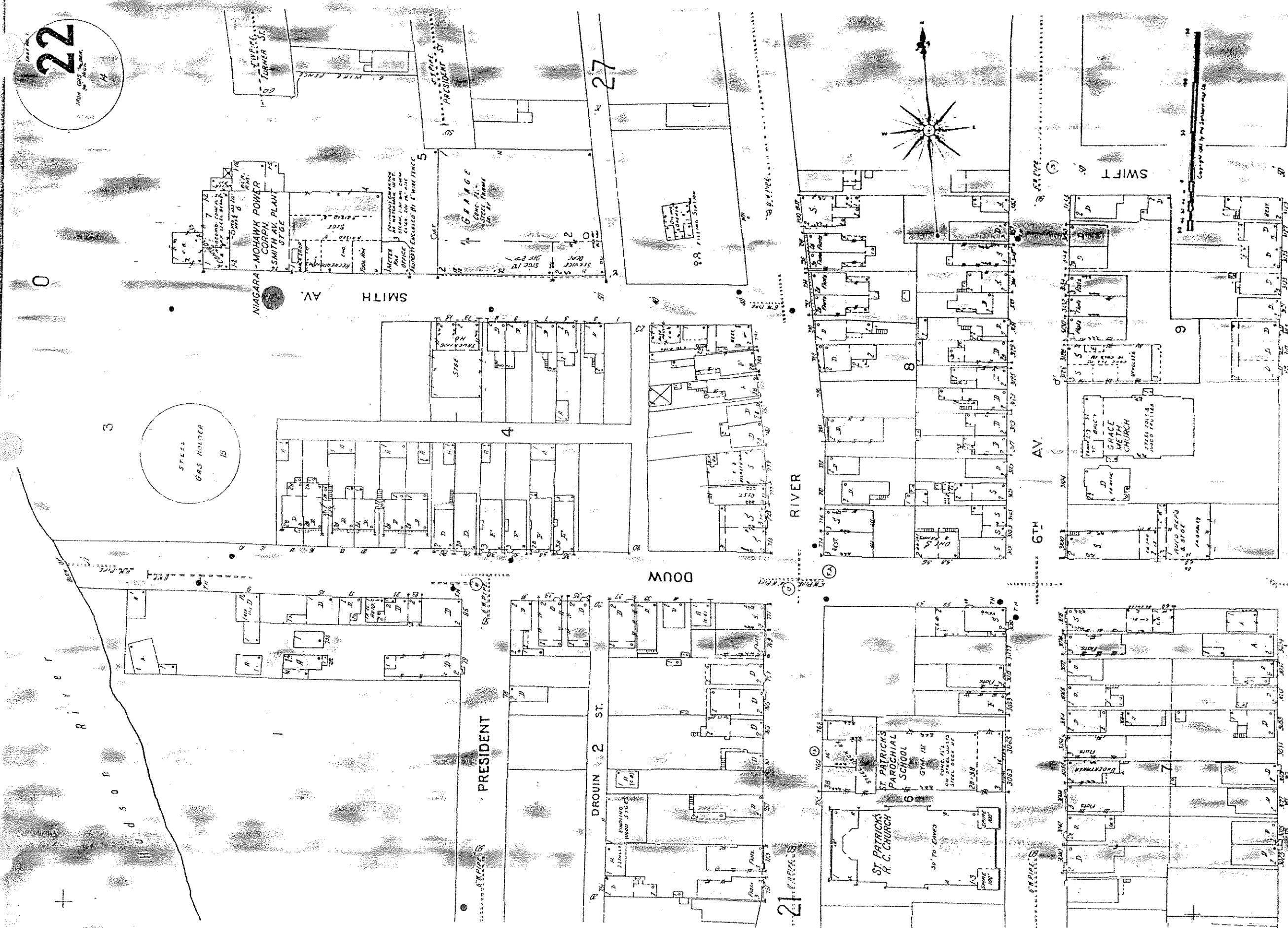
LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

SANBORN

1951

22
FROM GUYTON, MISSOURI



23

24

27

Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

ERIS

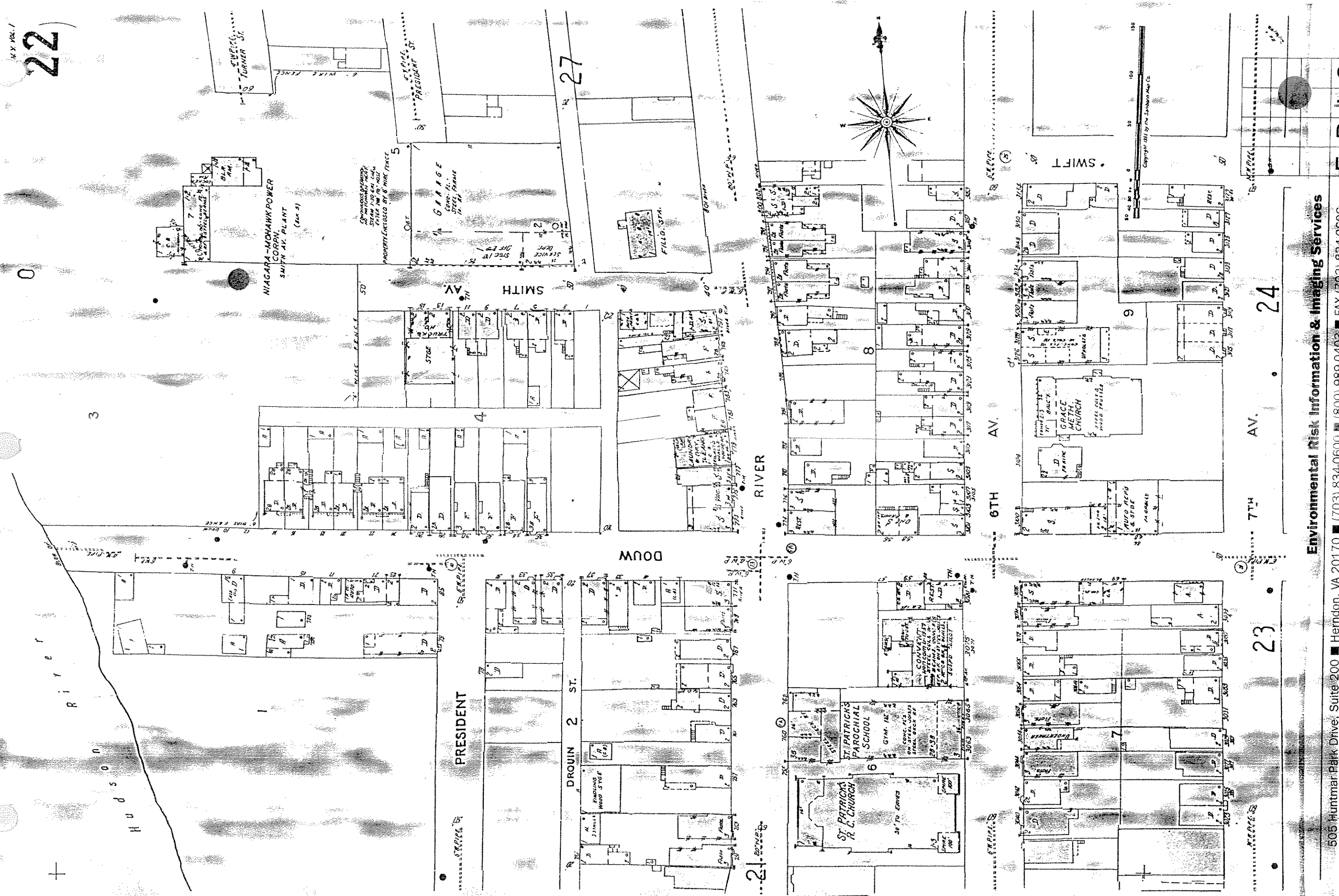
The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc. LIMITED PERMISSION TO PHOTOCOPIY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy; a copy of which is available upon request.

SANBORN

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

1955

22



Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

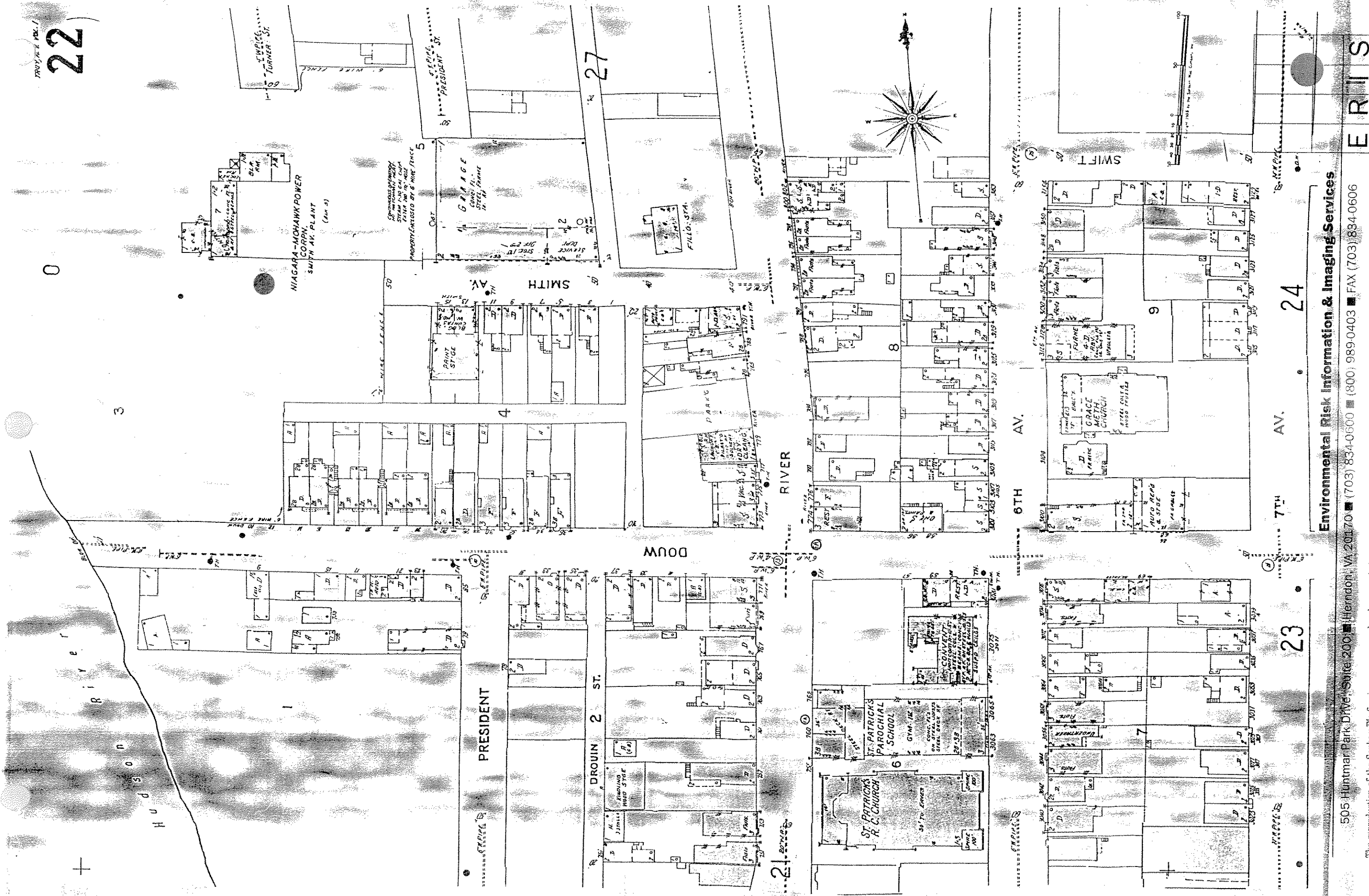
EDRIS

The reproduction of this Sanborn fire insurance map has been made by permission of EDR Sanborn, Inc., the copyright holder in the maps and conditions of use set forth herein. Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDRIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy, a copy of which is available upon request.

The Manufacturers Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

SANBORN 1962



Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200, Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

ERIS

This map and its data were prepared by Sanborn Maps, Inc. and its subsidiaries. Sanborn Maps, Inc. and its subsidiaries are not liable for any errors or omissions in this map. Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. are trademarks of EDR Sanborn, Inc. REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy; a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

SANBORN

1963



Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

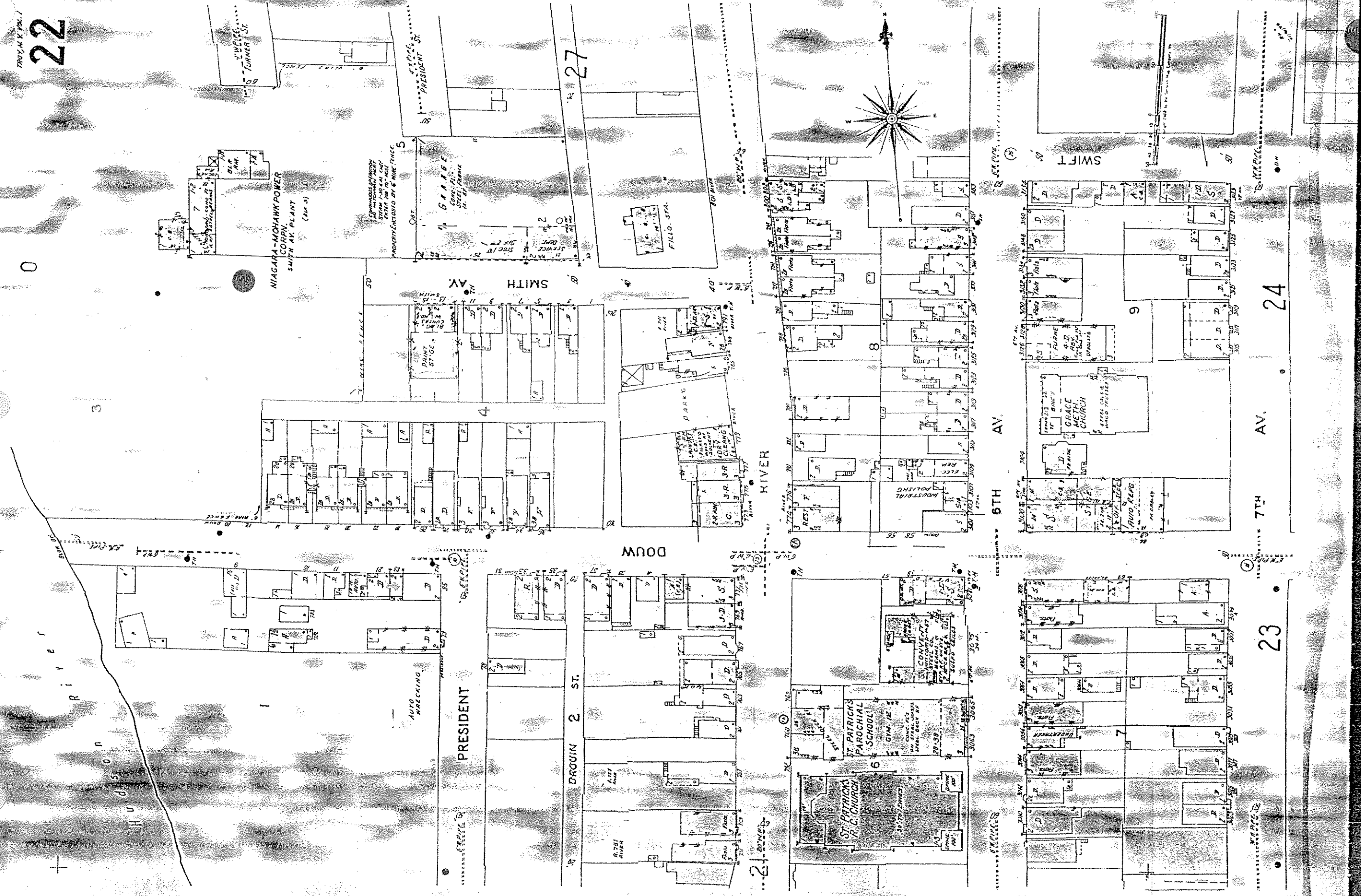
ERIS

The reproduction of this Sanborn fire insurance map has been made by permission of EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc. LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance with the client's customer and their agents with EDR Sanborn, Inc.'s copyright policy; a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

SANBORN

1964



Environmental Risk Information & Imaging Services

505 Huntmar Park Drive, Suite 200 ■ Herndon, VA 20170 ■ (703) 834-0600 ■ (800) 989-0403 ■ FAX (703) 834-0606

ERIS

The reproduction of the Sanborn™ fire insurance maps has been made by permission of EDR Sanborn, Inc., the copyright holder, in accordance with the terms and conditions of an agreement between Environmental Risk Information & Imaging Services and EDR Sanborn, Inc. dated August 1, 1991. EDR SANBORN, INC. MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE SANBORN MAPS, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sanborn and Sanborn Maps are trademarks of EDR Sanborn, Inc.

LIMITED PERMISSION TO PHOTOCOPY: The client is permitted to make up to THREE photocopies of each Sanborn fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an ERIS representative, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR Sanborn, Inc.'s copyright policy; a copy of which is available upon request.

The Manufacturers' Mutual Maps are the property of the Edison Institute, Dearborn, Michigan, and may not be further reproduced without permission.

SANBORN 1971

LOG OF BORING

PROJECT: Niagara Mohawk Smith Ave Loch/Dan BORING NUMBER: SB-1
 PROJECT NO: DATE STARTED: 10/12/95
 LOCATION: Troy, NY DATE COMPLETED: 10/13/95
 GEOLOGIST: D. Felton GROUNDWATER DEPTH: 27 ft. (est.)
 DRILLER: M. Lenigan, SJB Drilling ELEVATION:
 DRILLING/SAMPLING METHOD: Hollow Stem Auger, 4.25" ID

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS I.A. of spoon OBSERVATIONS
							Time	Date		
S1	0	1	6/24		SP-ML	Dk brn wf SAND and SILT, little clay, rooted (FILL)	1250	10/12/95	NAB NAB	1 3/8" spoon
	1	1								
	2	2								
S2	3	3	8/24		SP-SM	Med brn wf-c SAND, some silt and gravel, little clay (FILL)	1255	10/12/95	NAB NAB	1 3/8" spoon
	3	3								
	4	3								
S3	5	10	7/24		SW-SM	Lt-med brn f-m SAND, some silt, tr clay, dry (FILL)	1306	10/12/95	NAB NAB	1 3/8" spoon
	6	7								
	6	9								
S4	7	10	4/24		SW	Dk brn f-m SAND, some gravel, little silt (FILL)	1310	10/12/95	NAB NAB	1 3/8" spoon
	7	7								
	8	10								
S5	9	25	8/24		GW-SW	Gray to light brown fc angular GRAVEL, some f-m sand, tr silt (FILL)	1325	10/12/95	NAB NAB	1 3/8" spoon
	10	14								
	10	14								
S6	11	12	12/24		GW-SW	Lt brn f-m SAND and GRAVEL, tr. silt slightly moist (FILL)	1348	10/12/95	NAB 30	1 3/8" spoon Suspect methanol in hole. NO dors
	11	10								
	12	7								
S7	13	18	6/24		SW	Dk brn f-m SAND, little silt, gravel (FILL)	1355	10/12/95	NAB 12	1 3/8" spoon
	13	15								
	14	16								
S8	15	10	8/24		SW-GW	Med brn wf-c SAND and fc GRAVEL, little silt	1415	10/12/95	1/10	1 3/8" spoon
	15	15								

NOTES:

LOG OF BORING

PROJECT: <i>Niagara Mohawk Smith Ave lock/Down</i>	BORING NUMBER: <i>SBI</i>
PROJECT NO:	DATE STARTED: <i>10/12/95</i>
LOCATION: <i>Troy, NY</i>	DATE COMPLETED: <i>10/13/95</i>
GEOLOGIST: <i>D. Felton</i>	GROUNDWATER DEPTH: <i>27 ft (est)</i>
DRILLER: <i>McLoughlin, SJB Drilling</i>	ELEVATION:
DRILLING/SAMPLING METHOD: <i>Hollow Stem Auger, 4.25" ID</i>	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS
							Time	Date		
<i>S8 (Cont)</i>	<i>15</i>	<i>10</i>	<i>8/24</i>		<i>sw-GW</i>	<i>med brn f-c SAND and f-c GRAVEL, little silt, mottled CFILL</i>	<i>1415</i>	<i>10/12/95</i>	<i>4/10</i>	<i>No odors</i>
	<i>15</i>	<i>12</i>								
<i>S9</i>	<i>17</i>	<i>16</i>	<i>6/24</i>		<i>sw-GW</i>	<i>dk brn f-c SAND, some f-c subangular GRAVEL, tr silt, clay, dry CFILL</i>	<i>1430</i>	<i>10/12/95</i>	<i>NAB / 4</i>	<i>1 7/8" spoon CGI 5% LEL in hole</i>
	<i>18</i>	<i>20</i>								
	<i>18</i>	<i>35</i>								
<i>S10</i>	<i>19</i>	<i>15</i>	<i>7/24</i>		<i>sw-GW</i>	<i>As above</i>	<i>1454</i>	<i>10/12/95</i>	<i>NAB / 4</i>	<i>1 3/8" spoon</i>
	<i>19</i>	<i>21</i>								
	<i>20</i>	<i>60</i>								
<i>S11</i>	<i>21</i>	<i>19</i>	<i>12/24</i>		<i>sw-GW</i>	<i>As above</i>	<i>1506</i>	<i>10/12/95</i>	<i>NAB / 1.5</i>	<i>1 3/8" spoon</i>
	<i>21</i>	<i>23</i>								
	<i>22</i>	<i>23</i>								
<i>S12</i>	<i>23</i>	<i>49</i>	<i>16/24</i>		<i>sw-GW</i>	<i>As above</i>	<i>1512</i>	<i>10/12/95</i>	<i>NAB / 10</i>	<i>1 3/8" spoon CGI: 4% LEL in hole</i>
	<i>23</i>	<i>22</i>								
	<i>24</i>	<i>24</i>								
<i>S13</i>	<i>25</i>	<i>19</i>	<i>12/24</i>		<i>sw</i>	<i>dk brn f-c SAND, some f-c subangular gravel, little silt, clay, tr slag, dry CFILL</i>	<i>1530</i>	<i>10/12/95</i>	<i>0.2 / 12</i>	<i>1 3/8" spoon</i>
	<i>25</i>	<i>18</i>								
	<i>25</i>	<i>12</i>								
<i>S14</i>	<i>27</i>	<i>22</i>	<i>18/24</i>	<i>sw</i>	<i>As above, saturated below 27 ft (approx)</i>	<i>1535</i>	<i>10/12/95</i>	<i>NAB / 1.5</i>	<i>1 3/8" spoon CGI: 0 LEL</i>	
	<i>27</i>	<i>34</i>								
	<i>27</i>	<i>32</i>								
<i>S15</i>	<i>29</i>	<i>36</i>	<i>18/24</i>		<i>sw-GW</i>	<i>dk brn f-c SAND and f-c GRAVEL, little silt, tr clay, wet CFILL</i>	<i>1535</i>	<i>10/12/95</i>	<i>NAB / 15</i>	<i>2 7/8" spoon No odor, chem sample</i>
	<i>29</i>	<i>26</i>								
	<i>30</i>	<i>26</i>								
	<i>30</i>	<i>23</i>								

NOTES: *Chem sample NMT-SBI 28-30' taken from 28-30' spoon.*

LOG OF BORING

PROJECT: *Wrayora Mohawk Smith Ave Lock / Dam* BORING NUMBER: *SB-1*
 PROJECT NO: DATE STARTED: *10/12/95*
 LOCATION: *Troy, NY* DATE COMPLETED: *10/13/95*
 GEOLOGIST: *D. Felton* GROUNDWATER DEPTH: *27 ft (est.)*
 DRILLER: *McCartigan, SSB Drilling* ELEVATION:
 DRILLING/SAMPLING METHOD: *ollow stem Auger, 4.25" I.D.*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW/OVA ppm	COMMENTS
							Time	Date		
S16	30	9	7/24		SW-GW	Dk brn f-c SAND and f-c GRAVEL little silt, tr clay, wet	1615	10/12/95	NAB	1.3/8" spoon
	31	8								
	32	6								
S17	33	17	8/24		SW-GW	As above (FILL)	1630	10/12/95	0.2	4.3/8" spoon
	34	12								
	35	10								
S18 Chem Sample taken	36	4	12/24		SW	Lt brn v-f-m SAND, tr silt, product visible, strong stinky wet. Native soil.	0735	10/13/95	10	1.3/8" spoon HNW not operational. Strong odor
	37	7								
	38	5								
S19	39	4	20/24		SW	As above	0740	10/13/95	5-8	1.3/8" spoon Moderate to strong odor.
	40	3								
	41	3								
S20 Geotech Sample	42	32	8/24		SW	Med brn to dk gray v-f-c SAND, little v-f gravel, soupy, wet.	0800	10/13/95	1-2	2.7/8" spoon Moderate odor.
	43	44								
	44	32								
S21	45	15	9/24		SW	Dk brn f-c SAND, tr f-a gravel, silt, clay minor staining	0810	10/13/95	0.2 0.5	Slight odor. 1.3/8" spoon
	46	1								
	47	2								
S22	48	1	10/24		SW	As above	0815	10/13/95	8-10	Moderate odor 1.3/8" spoon
	49	5								
	50	9								
S23	51	9	10/24		SW	Dk gray f-c SAND, some f-m subrounded gravel.	0825	10/13/95	4-5	1.3/8" spoon Slight odor
	52	12								

NOTES: sample NMT-SB1-34-36 taken from 34-36' spoon.
 Geotech sample NMT-SB1-38-40 taken from 38-40' spoon.

LOG OF BORING

PROJECT: Niagara Mohawk Smith Ave Lock/Don
 BORING NUMBER: SB-1
 PROJECT NO: DATE STARTED: 10/12/95
 LOCATION: Troy, NY DATE COMPLETED: 10/13/95
 GEOLOGIST: D. Felton GROUNDWATER DEPTH: 27 ft (est.)
 DRILLER: M. Lentyan, SJB Drilling ELEVATION:
 DRILLING/SAMPLING METHOD: Hollow Stem Auger, 4.25" I.D.

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW/ OVA ppm	COMMENTS
							Time	Date		
S23 (cont)	45'	11	10/24		SW	Dk gray f-c sand, some fine subangular gravel, dense, hard - glacial till.	0825	10/13/95	4-5	Slight odor.
S24 Chem Sample Taken	46'	11	14/24		SW	As above	0835	10/13/95	8	Slight odor 1 3/8" spoon
	47'	15								
	48'	15								
S25	49'	8	5/24		SP	Dk gray v-f sand, some silt, tr clay	0850	10/13/95	1	Very slight odor. 1 3/8" spoon
	50'	28								
	51'	16								
S26	52'	10	10/24		SP	As above	0910	10/13/95	0.4-0.8	1 3/8" spoon very slight odor.
	51'	5								
	52'	10								
S27	53'	1	18/24		SP	As above. Central section of spoon siltier.	0915	10/13/95	0.2-0.8	1 3/8" spoon very slight odor.
	54'	11								
	55'	15								
S28	56'	2	7/24		SP	Dk gray to blacke f-m sand and shale fragments, little silt, tr clay	0935	10/13/95	0-1	1 3/8" spoon no odor.
	57'	3								
	58'	10								
S29	57'	8	18/24		SP bedrock	Very dk gray v-f sand and shale fragments (weathered bedrock)	0945	10/13/95	0.2-0.4	No odor
	58'	15								
	59'	10								
S30	59'	58	9/9			Dk gray SHALE frags (weathered bedrock)	0948	10/13/95	0.2	No odor
	60'	50/3"				SHALE bedrock Boring terminated; 58', 9" B.G.				

NOTES: Chem Sample UMT-SB1-46-48 taken from 46-48' spoon.

LOG OF BORING

PROJECT: *Niagra Mohawk*

BORING NUMBER: *SB-2*

PROJECT NO:

DATE STARTED: *8/18/94*

LOCATION: *Troy, NY*

DATE COMPLETED: *8/18/94*

GEOLOGIST: *K. Maloney*

GROUNDWATER DEPTH:

DRILLER: *SJB*

ELEVATION:

DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon Steel Split Spoons*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
		<i>7-12-14-14</i>	<i>6"</i>		<i>SP-ML</i>	<i>0-6" Med brn f. SAND, some clay, little f-m grvl. Moist</i>	<i>1238</i>	<i>8/18/94</i>	<i>NAB</i>	
	<i>2</i>									
		<i>7-8-9-6</i>	<i>5"</i>		<i>SP-ML</i>	<i>0-3": as above 3-5": Black f. SAND, little clay, very compact. Moist</i>	<i>1243</i>	<i>8/18/94</i>	<i>4ppm</i>	
	<i>4</i>									
		<i>13-7-5-9</i>	<i>6"</i>		<i>SP-ML</i>	<i>0-6": Med brn. sandy clayey SAND, some f-m grvl, tr. sil. A few chunks of concrete. Moist</i>	<i>1255</i>	<i>8/18/94</i>	<i>NAB</i>	
	<i>6</i>									
<i>SB-2</i>	<i>6-8'</i>	<i>9-5-20-41</i>	<i>7"</i>		<i>SP-ML</i>	<i>0-5": Med brn. clayey SAND, little f-grvl, mixed with black silty f. SAND, black material crumbly. Moist. 5-7": Med grey grvly SAND, dry. Looks similar to concrete.</i>	<i>1258</i>	<i>8/18/94</i>	<i>6ppm</i>	<i>- reading off black material</i>
	<i>8</i>									
		<i>14-7-11-100/4</i>	<i>11"</i>		<i>SP-GM</i>	<i>0-5": Med brn f. gravelly clay, saturated 5-11": as above, mixed with black asphalt-like material. Very dense near base.</i>	<i>1312</i>	<i>8/18/94</i>	<i>1ppm</i>	<i>- when put excess soil in vial, water gets an oil sheen on it.</i>
	<i>10</i>									
		<i>100/1'</i>	<i>0"</i>			<i>NO recovery - spoon is bouncing off bottom Boring terminated at 10.1'</i>	<i>1327</i>	<i>8/18/94</i>	<i>-</i>	<i>3" spoon</i>

NOTES:

LOG OF BORING

PROJECT: *Niagara-Mohawk Smith Ave Lock/Dam* BORING NUMBER: *SB-3*
 PROJECT NO: _____ DATE STARTED: *10/11/95*
 LOCATION: *Troy, NY* DATE COMPLETED: *10/12/95*
 GEOLOGIST: *D. Felton* GROUNDWATER DEPTH: *13. #ft (est.)*
 DRILLER: *M. Lanigan, SJB Drilling* ELEVATION: _____
 DRILLING/SAMPLING METHOD: *Hollow Stem Auger, 4.25" ID*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS
							Time	Date		
S1	0	3	12/24		SP-SM	Dark brown w/ SAND and SILT, little gravel, trace clay (FILL)	1306	10/11/95	NAB NAB	
	1	6								
	2	10								
S2		9	12/24		SP-SM	As above (FILL)	1306	10/11/95	NAB NAB	
	3	9								
	4	9								
S3		15	7/24		SP	Lt-med brown w/ SAND, some gravel, little silt, tr clay (FILL)	1325	10/11/95	NAB NAB	
	5	8								
	6	9								
S4		9	5/24		GP-SP	Brown angular GRAVEL and w/ SAND, little silt, clay (FILL)	1335	10/11/95	NAB 2	No odor
	7	9								
	8	11								
S5		12	13/24		SW	Dark brown w/ SAND, some gravel, little silt, clay (FILL)	1350	10/11/95	0.5 25	sample NMT-SB3-08-10 + Duplicate. No odor
	9	10								
	10	10								
S6		15	14/24		SW	As above (FILL)	1355	10/11/95	10 NAB	No odor
	11	12								
	12	7								
S7		9	6/24		SP	Dk brn w/ SAND, some angular gravel, little silt, tr. clay based spoon wet (FILL)	1400	10/11/95	10 NAB	No odor
	13	8								
	14	9								
S8	15	9	5/24		SP-GW	Dk brn w/ SAND, GRAVEL, SILT, (spoon wet) tr. clay, wet	1415	10/11/95	8 NAB	sample NMT-SB3-14-16.

NOTES:

LOG OF BORING

PROJECT: <i>Niagara Mohawk Smith Ave Coke (Dom)</i>	BORING NUMBER: <i>SB-3</i>
PROJECT NO:	DATE STARTED: <i>10/11/95</i>
LOCATION: <i>Troy, NY</i>	DATE COMPLETED: <i>10/12/95</i>
GEOLOGIST: <i>D. Felton</i>	GROUNDWATER DEPTH: <i>13.8 ft (est.)</i>
DRILLER: <i>M. Conigan, SJB Drilling</i>	ELEVATION:
DRILLING/SAMPLING METHOD: <i>Hollow Stem Auger, 4.25" ID</i>	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU/OVA ppm	COMMENTS
							Time	Date		
<i>S8 (cont)</i>	<i>15'</i>	<i>8</i>	<i>5/24</i>		<i>SP-GW</i>	<i>DK brn v-f SAND, GRAVEL SICT (20 ft each), tr clay, wet. (CFILL)</i>	<i>7415</i>	<i>10/11/95</i>	<i>87/NAE</i>	<i>Red iron SW spoon for max recovery.</i>
	<i>16'</i>	<i>7</i>								
<i>S9</i>	<i>17'</i>	<i>4</i>	<i>7/24</i>		<i>SP-GW</i>	<i>DK brn v-f-m SAND and f-c GRAVEL, sub rounded, wet, soupy (CFILL)</i>			<i>NAE/2</i>	<i>Very slight odor</i>
	<i>18'</i>	<i>7</i>								
	<i>18'</i>	<i>5</i>								
<i>S10</i>	<i>19'</i>	<i>7</i>	<i>14/24</i>		<i>SP-GW</i>	<i>0-3" As above (CFILL)</i>	<i>1435</i>	<i>10/11/95</i>	<i>NAE/2</i>	<i>sample NMT-SB-3-18-20. Strong odor - visible product</i>
	<i>19'</i>	<i>4</i>		<i>ML-CL</i>	<i>3-7" DK brn silty CLAY</i>					
	<i>20'</i>	<i>6</i>		<i>SP</i>	<i>7-14" Black v-f SAND, some silty, heavily stained, wet. native soil</i>					
<i>S11</i>	<i>21'</i>	<i>6</i>	<i>14/24</i>		<i>SP-SM</i>	<i>Dark gray v-f SAND, some silty, trace clay</i>	<i>1450</i>	<i>10/11/95</i>	<i>NAE/1</i>	<i>Moderate PAH odor</i>
	<i>21'</i>	<i>5</i>								
	<i>22'</i>	<i>6</i>								
<i>S12</i>	<i>23'</i>	<i>5</i>	<i>10/24</i>		<i>SP-SM</i>	<i>As above, less product visible.</i>	<i>1455</i>	<i>10/11/95</i>	<i>NAE/5</i>	<i>Moderate PAH odor</i>
	<i>23'</i>	<i>6</i>								
	<i>24'</i>	<i>9</i>								
<i>S13</i>	<i>25'</i>	<i>2</i>	<i>12/24</i>		<i>SP-SM</i>	<i>As above, trace product</i>	<i>1505</i>	<i>10/11/95</i>	<i>0.2/4</i>	<i>Moderate PAH odor</i>
	<i>25'</i>	<i>3</i>								
	<i>26'</i>	<i>5</i>								
<i>S14</i>	<i>27'</i>	<i>2</i>	<i>10/24</i>		<i>SP-SM</i>	<i>As above. staining, no visible products</i>	<i>1510</i>	<i>10/11/95</i>	<i>NAE/0.5-2.0</i>	<i>Slight odor.</i>
	<i>27'</i>	<i>3</i>								
	<i>28'</i>	<i>9</i>								
<i>S15</i>	<i>29'</i>	<i>6</i>	<i>18/24</i>		<i>SW-SM</i>	<i>Black f-c SAND, little silty trace clay.</i>	<i>1520</i>	<i>10/11/95</i>	<i>1/2</i>	<i>Dark brown product visible. very slight odor</i>
	<i>29'</i>	<i>6</i>								
	<i>30'</i>	<i>11</i>								

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk Smith Ave Lock/Dam BORING NUMBER: SB-3
 PROJECT NO: DATE STARTED: 10/11/95
 LOCATION: Troy, NY DATE COMPLETED: 10/12/95
 GEOLOGIST: D. Felton GROUNDWATER DEPTH: 13.8 ft (est.)
 DRILLER: M. Lenigan, SJB Drilling ELEVATION:
 DRILLING/SAMPLING METHOD: Hollow Stem Auger, 4.25" ID

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS
							Time	Date		
	30									
S16		9			SW	Black f-c SAND, some fine subangular to subrounded gravel, little silt, product stain	1538	10/11/95	NAB 0.4	Very slight odor
	31	11	20/24							
		15								
	32	19								
S17		10			SW	As above, gravel coarsening down section.	1542	10/11/95	NAB 1.5-2.0	Very slight odor
	33	10	24							
		12								
	34	19								
S18		11			SW	Dark gray f-c SAND, some f-m gravel, vidense	1555	10/11/95	NAB 2.0	v. slight odor sample not fully representative due to running sands.
	35	11	9/24							
		15								
	36	19								
S19		4				Dark gray to black f-c SAND, some f-m subrounded gravel, trace silt.	0720	10/12/95	NAB 2.0	Cleanout hole prior to 36-38' sample moderate odor.
	37	5	8/24							
		5								
	38	9								
S20		5				0-6" dk gray f-c SAND, tr. gravel	0734	10/12/95	NAB 2	
	39	1	11/24							
		1								
	40	30				6-11" dk gray f-m SAND, some gravel, little silt, clay, shale fragments - glacial till.	0755	10/12/95	NAB 1	As above
	41	29	9/9							
		100/3"								
	42					Boring terminated, 40' 9" B.G. -				
	43					Shale Bedrock.				
	44									
	45									

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk BORING NUMBER: SB-4
 PROJECT NO: _____ DATE STARTED: 8/24/94
 LOCATION: Thoy, NY DATE COMPLETED: 8/24/94
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: _____
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoon

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		COMMENTS
							Time	Date	
	5					asphalt	1028	8/24/94	augered
	19-10-9	9"			SM	0-4": Lt. brn-grey silty f. SAND little f-m gravel, dry 4-9": Black to dk. brn SILT, little clay & f-m sand, tr. f. gravel, few brick red shreds sl. moist	1029	8/24/94	NAB
	11-8-12-10	5"			SC	0-3": as above 3-5": Orangy clayey SAND little f.c. gravel, sl. moist.	1033	8/24/94	NAB
	6-4-14-19	11"			SP	0-11": Orangy-brn grvly SAND, some f.c. gravel, little - fr. silt, sl. moist	1045	8/24/94	NAB
	24-17-100-4'	6"			SP	0-5": Med brn f-m SAND, little silt and f-c gravel fragments (broken up), dry 5-6": Orange f-m SAND, little silt and f. grvl, moist	1049	8/24/94	NAB
	12-24-30-18	15"			GP	0-15": Med orangy-brn f-m SAND, some f-c gravel, little clay and silt to trace silt & clay, dry.	1117	8/24/94	4 ppm - no dry peak at 15 ppm
SB-4 10-12'	19-40-40-32	21"			GP	0-21": as above, a few coarse	1136	8/24/94	1 ppm - large rock in spoon shoe - 10' as DP - Ind. caton. 3" spoon
	14-23-26-30	12"			SP GP	0-12": Med brn f-m SAND, some f-c grvl, little fr. silt and clay, dry to sl. moist	1141	8/24/94	1 ppm - no odors

NOTES:

LOG OF BORING

PROJECT: *Niagara Mohawk*
 PROJECT NO:
 LOCATION: *Tray, NY*
 GEOLOGIST: *K MacGregor*
 DRILLER: *SJB*
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" carbon steel split spoons*

BORING NUMBER: *SB-4*
 DATE STARTED: *8/24/94*
 DATE COMPLETED:
 GROUNDWATER DEPTH:
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		CONC. ppm	COMMENTS
							Time	Date		
	<i>14</i>	<i>24-48-95-63</i>	<i>19"</i>		<i>ML SM</i>	<i>0-2": med brn dry silt, little f-c sand and f-c gravel 2-19": Dk brn f-c SAND, some to little silt and f-c gravel. trace orange silty sand</i>	<i>1351</i>	<i>8/24/94</i>	<i>2 ppm</i>	<i>- large rock fragments.</i>
	<i>16</i>	<i>100/.3'</i>	<i>0"</i>		<i>SM-SP</i>	<i>no recovery</i>	<i>1400</i>	<i>8/24/94</i>	<i>-</i>	
	<i>18</i>									
		<i>38-75-77-50</i>	<i>20"</i>			<i>0-20": as above, many large rock sections.</i>	<i>1429</i>	<i>8/24/94</i>	<i>2 ppm</i>	
	<i>20</i>									
		<i>26-43-52-42</i>	<i>21"</i>		<i>SP GP</i>	<i>0-21" Dk brn f-c SAND, some f-c gravel, little to tr. silt, clay and orange silty sand, dry</i>	<i>1440</i>	<i>8/24/94</i>	<i>2 ppm, peak at 10 ppm</i>	<i>- wood shavings</i>
	<i>22</i>									
		<i>44-68-55-28</i>	<i>20"</i>		<i>SP GP</i>	<i>0-20" as above, dry</i>	<i>1455</i>	<i>8/24/94</i>	<i>NAB</i>	
	<i>24</i>									
		<i>100/.3'</i>	<i>3"</i>		<i>GP SP</i>	<i>0-3": Lt. brn dry f-m SAND and f-c gravel, little silt.</i>	<i>1617</i>	<i>8/24/94</i>	<i>NAB</i>	
	<i>26</i>									
						<i>Boring terminated at 25.0' refusal of auger - auger to 28' through material</i>				
	<i>28</i>									

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk BORING NUMBER: SB-4
 PROJECT NO: _____ DATE STARTED: 8/24/94
 LOCATION: TROY, NY DATE COMPLETED: _____
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: _____
 DRILLER: STB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel split spoon

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		COMMENTS
							Time	Date	
SB-4 28-30	28	52-55- 55-51	7"		GC	0-3": Dk brn. clayey GRAVEL, little f-m sand, saturated	1023	8/25/94	2ppm -indicators
	30				GP	3-7": Dk brn sandy f-m GRAVEL, little clay saturated			
		2-7- 10-10	20"		SP	0-4": Dk brn f.c SAND, little fgr and silt	1037	8/25/94	3ppm
					SC	4-6": Dk brn clayey f. SAND, little silt			
		32			SP	6-20": Dk brn f. SAND, little fr. silt and fr. clay			
		34	22"		SP	0-15": as above	1041	8/25/94	NAB
					SP	15-22": Dk orangey-brn f SAND, fr. m. sand and silt.			
		36	23"		SP	0-23": Dk greenish-brn f-m SAND, fr. f. gravel and silt.	1052	8/25/94	NAB
		38	21"		SP	0-21": as above	1055	8/25/94	NAB
SB-4 38-40, SB-14, 38-40		1-2- 5-7	15"		SP	0-15": Med brnish-grey f-m SAND, little c. sand, fr. silt	1108	8/25/94	NAB -blind duplicate SB-14 38-40
		42	21"		SP	0-11": as above 11-21": Med grey f.c SAND, little f. gravel and clay.	1112	8/25/94	2ppm -no odor -OVA reading off grey material

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk* BORING NUMBER: *SB-4*
 PROJECT NO: DATE STARTED: *8/24/94*
 LOCATION: *Troy, NY* DATE COMPLETED:
 GEOLOGIST: *L. MacGregor* GROUNDWATER DEPTH:
 DRILLER: *SJB* ELEVATION:
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon Steel Sp. Loggers*

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TINu ppm	COMMENTS
							Time	Date		
	<i>42</i>	<i>20-17-17-17</i>	<i>20"</i>		<i>SP-6P</i>	<i>0-20": Med grey m-c SAND and f GRAVEL, little-tr. clay and mgrvl.</i>	<i>1118</i>	<i>8/25/94</i>	<i>6ppm</i>	<i>- no odor</i>
	<i>44</i>	<i>12-22-30-21</i>	<i>16"</i>		<i>SP-6P</i>	<i>0-16": Med grey m-c SAND and f-c GRAVEL, little clay.</i>	<i>1128</i>	<i>8/25/94</i>	<i>2ppm</i>	<i>- no odors</i>
	<i>48</i>	<i>8-11-12-13</i>	<i>24"</i>		<i>SP</i>	<i>0-24" Med grey f-c SAND, little-tr. clay, tr. f gravel</i>	<i>1200</i>	<i>8/25/94</i>	<i>NAD</i>	
	<i>50</i>	<i>8-7-11-19</i>	<i>24"</i>		<i>SP</i>	<i>0-24": Med grey f-vc. SAND, tr. clay and f. gravel</i>	<i>1212</i>	<i>8/25/94</i>	<i>NAD</i>	
<i>SB-4 50-52</i>	<i>52</i>	<i>7-16-28-32</i>	<i>24"</i>		<i>SC</i>	<i>0-17": as above 17-24" Med grey clayey f-c SAND, little f-m gravel, some shale fragments</i>	<i>1224</i>	<i>8/25/94</i>	<i>1ppm</i>	<i>- no odor</i>
	<i>54</i>	<i>48-100/5'</i>	<i>24"</i>		<i>GC</i>	<i>0-19": runny grey sand 19-24": med grey graveley CLAY, mostly shale chunks and fragments</i>	<i>1234</i>	<i>8/25/94</i>	<i>NAD</i>	
						<i>Boring terminated at 53'</i>				

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk* BORING NUMBER: *SB-6*
 PROJECT NO: DATE STARTED: *8/23/94*
 LOCATION: *Troy, NY* DATE COMPLETED: *8/28/94*
 GEOLOGIST: *L. MacGregor* GROUNDWATER DEPTH:
 DRILLER: *SJB* ELEVATION:
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon Steel Split Sporn*

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TINNO ppm	COMMENTS
							Time	Date		
	0									
	.05					<i>asphalt</i>	1328	8/23/94		
		15-14-14	18"		SP-SP	0-2": <i>Blk. SAND and f-m GRAVEL, tr. silt, dry</i> 2-18": <i>Med brn f-m SAND little f-m gravel and silt, dry</i>	1329	8/23/94	NAB	
	2									
		19-10-10-10	12"		SP	0-12": <i>Med. orangy-brown f-m SAND, little f-m gravel, tr. silt and clay.</i>	1331	8/23/94	NAB	
	4									
		8-7-7-5	5"		SP	0-5": <i>as above, dry to sl. moist</i>	1351	8/23/94	4 ppm peaked 20 ppm	- no odor
	6									
		14-10-12-15	6"		SP	0-6": <i>Med brn f-c SAND, little f-gravel, tr. silt, sl. moist.</i>	1353	8/23/94	2 ppm	- no odor
	8									
		13-10-13-42	12"		SC-SP	0-5": <i>Med. rusty-brn f-m SAND, some little clay, little m-c gravel, sl. moist</i> 5-12": <i>Med brn f-c SAND, little to some f-c gravel, tr. silt, dry.</i>	1410	8/23/94	4 ppm on top 5" NAB below	- large clasts in bottom of sporn.
	10									
		54-1001.3'	4"		SP	0-4": <i>lt. brn silty f-m SAND, little f-m gravel, tr. cobbles & c-gravel, dry</i>	1431	8/23/94	NAB	3" spoon - large cobble in shoe.
	12									
SB-6 12-14	14'	35-109 1/4	7"		SP	0-3": <i>as above</i> 3-7": <i>Med brn f-c SAND, little f-c gravel, tr. silt, sl. moist</i>	1458	8/23/94	2 ppm	3" spoon - 1 indicators

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk
 PROJECT NO:
 LOCATION: Troy, NY
 GEOLOGIST: K. MacGregor
 DRILLER: STB
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoon

BORING NUMBER: SB-6
 DATE STARTED: 8/23/94
 DATE COMPLETED:
 GROUNDWATER DEPTH:
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		AVG CHLOR ppm	COMMENTS
							Time	Date		
	14	26-36 31-41	16"		SP	0-2": Lt. brn dry silty f. SAND, tr. m-c gravel 2-16": Med brn f-c SAND, some f-c gravel, tr. clay, sl. moist	1520	8/23/94	4 ppm peak at 20 ppm	- no odor
	16				SP					
	18	38-43 100/3'	11"		SP GP	0-11": Med-lt. brn f-c SAND, some f-c gravel, tr. silt and clay, dry to sl. moist	1527	8/23/94	1 ppm	
	20					allger to 20'				- grindings on very hard material with auger
SB-6 20- 24'	22	11-7- 10-10	14"		SM	0-2": as above, dry 2-14": Med brn silty f- SAND, tr. clay, moist to saturated	1630	8/23/94	NAB	- geotech of SILT SAND and clay.
SB-6 22-24'	24	9-9- 10-13	20"		SM ML	0-4" as above 4-20": grading from above into Med brn SILT, some - little clay, little to tr. f. sand, saturated	1635	8/23/94	NAB	- indicators
	26	3-5- 10-13	15"		SP SP SM SP	0-5": Med brn f-m SAND, tr. silt & clay, saturated 5-11": DK brn to black f- m SAND, some orange colored clay/silt. 11-15": Med brn f-c SAND, some rf gravel, little clay, saturated	1651	8/23/94	NAB	- no odor
	28	10-10- 13-12	24"		SP	0-24": Med brn m-c SAND, some gravel, little clay and m-c gravel, tr. silt, saturated	1657	8/23/94	1 ppm, peak at 4 ppm	

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk BORING NUMBER: SB-6
 PROJECT NO: _____ DATE STARTED: 8/23/94
 LOCATION: Troy, NY DATE COMPLETED: _____
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: _____
 DRILLER: 3JB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoon.

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TNRU ppm	COMMENTS
							Time	Date		
	28	4-13-14-14	17"		SP	0-17": Med brn f-c SAND, some f-m gravel, tr. clay, saturated	1708	8/23/94	5 ppm	- no odors
	30									
SB-6 SB-32		36-69-57-38	18"		SP	0-4": Med brn f-m SAND, tr. silt and clay. 4-18": above, grading into Med brn. f-c SAND, some f-m gravel, little clay. 2 cobbles in spoon	1719	8/23/94	NAB	3" spoon
	32									
SB-6 32-34		15-13-15-17	24"		SP	0-10": Med. dk. brn f-c SAND, little f. gravel, tr. silt. 10-24": above grading into Med brn. f-c SAND, some f-m gravel, some little clay.	1724	8/23/94	NAB	
	34									
	36	28-31-28-18	13"		SP-CP	0-13": Med brn f-m grvly f-c SAND, little clay.	1736	8/23/94	NAB, peak 1 ppm	- some shale fragments mixed in.
	38	43-51-100/4'	24"		SP-SC	0-6": M-C SAND, run in 6-24": Med brn clayey f-c SAND, little f-c gravel, compact.	1741	8/23/94	1 ppm	- piece of grv in spoon shoe.
	40	14-43-27-29	16"		SC-BC	0-16": as above, with many shale fragments and chunks. some clay is orange in color.	1759	8/23/94	1 ppm	
	42	25-27-54-38	0"			no recovery - some f-c sand inside shoe.	1814	8/23/94		

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
 BORING NUMBER: SB-6
 PROJECT NO:
 DATE STARTED: 8/23/94
 LOCATION: Troy, NY
 DATE COMPLETED:
 GEOLOGIST: K. MacGregor
 GROUNDWATER DEPTH:
 DRILLER: STB
 ELEVATION:
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel split spoon.

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TIME ppm	COMMENTS
							Time	Date		
	42	29-28 50-100/4'	7"		SP- GP	0-7": Med brn M-C SAND and f-m GRAVEL, little clay and c. gravel. Few shale fragments	1822	8/23/94	NAB	
SB-6 44-45	44	40-69- 51-74	24"		SP- GP	0-24": Med brn f-c SAND and f-c GRAVEL, tr. silt	1843	8/23/94	2 ppm	3" spoon
	46	27-21- 20-20	8"		SP	0-8": DK brn f-c SAND, little f-m gravel, tr. silt	1857	8/23/94	1 ppm	
	48	23-21- 20-20	20"		SP SP	0-14": as above 14-20": Med grey f-c SAND, tr. f. gravel, little-tr. silt.	1910	8/23/94	NAB	
	50	23-16- 100/2'	16"		SP SM	0-6": as above 6-16": Med grey silty f. SAND, tr. c sand, many shale fragments, little clay	1925	8/23/94	NAB	
	52					Boring terminated at 51.2'				

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk BORING NUMBER: SB-7
 PROJECT NO: _____ DATE STARTED: 8/17/94
 LOCATION: Troy, NY DATE COMPLETED: 8/17/94
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: ~25'
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoons.

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	0									
	.5					asphalt	0842	8/17		augered.
		23-35 24	14"		SM	0-6": Med brn silty f. SAND, dry, little f-m grvl, some red clay chunks	0847	8/17/94	NAB	
		10-10 9-8			SP	6-9": Solid red stone/brick; 9-14": Med brn f. SAND, little f-m grvl, tr. silt, dry				
		10-10 9-8	5"		SP	0-5": as above, orangey-brn	0849	8/17/94	NAB	
		5-3- 3-3	11"		SP	0-11": Med orangey-brn f-m SAND, little to some f-m grvl., tr. silt, sl. moist	0901	8/17/94	NAB	
		4-2- 2-3	9"		SP	0-9": Med brn f-m SAND, little f-grvl and silt, sl. moist	0907	8/17/94	1 ppm	
		3-3- 7-13	10"		SC SP	0-1": Med. brn clayey SAND, sand f-m, moist 1-10": Med brn, f-m SAND, tr. silt and f-grvl., moist	0915	8/17/94	2 ppm, Peak 12 ppm	
SB-7 10-12'		12-16- 13-32	10"		SP SP	0-5": Med brn. f-c SAND, some f-m grvl, little clay, moist 5-10": Med brn f-c SAND, some f-m grvl, moist	0928	8/17/94	NAB	3" spoon
		8-9- 7-12	13"		SP SP	0-2": as above 2-13": f-m SAND, med. brn, tr. f-grvl & silt, moist	0933	8/17/94	30 ppm	- no odor

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk BORING NUMBER: SB-7
 PROJECT NO: _____ DATE STARTED: 8/17/94
 LOCATION: Troy, NY DATE COMPLETED: 8/17/94
 GEOLOGIST: K MacGregor GROUNDWATER DEPTH: ~25'
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoons

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
SB-7 14-16'	14	14-26-	15"		SL	0-6": Med brn clayey SAND, little f-m grvl, moist 6-15": Med brn. f-m SAND, some f-m grvl, little clay, sl. moist.	1004	8/17/94	6 ppm	green discoloration at 14" crystalline form
	16	26-64								
	18	38-65 26-46	9"		SP-6P	0-9" Lt brn. grvly SAND, grvly f-m, sand f., little silt, dry. sl. moist at base	1009	8/17/94	1 ppm	
	20	31-18- 18-17	11"		SP-6P	0-7": Med-lt. brn SAND (f-m) some f-c grvl, little silt, dry 7-11": Med dk brn. gravelly SAND sand f-c, grvly f-m, sl. moist.	1035	8/17/94	10 ppm	No odors
	22	14-100/5	4"		SP	0-4": Med brn f-m SAND, little silt and f-m grvl., sl. moist.	1100	8/17/94	1 ppm	3" spoon.
	24	50-86 66-36	6"		SP-6P	0-6": Med brn f-m SAND and f-c GRAVEL, little to trace clay, dry to sl. moist. large cobble in spoon base	1125	8/17/94	N/A	3" spoon
	26	22-14- 13-12	5"		SP-6P	0-2": as above 2-5": Med brn. f-m SAND and f-m GRAVEL, little clay, saturated.	1160	8/17/94	1 ppm, peak 5 ppm	
SB-7 26-28'	28	4-9- 7-7	22"		ML-CL SP	0-5": as above 5-12": Med brn. silty CLAY, 12-22": Med brn. f-m SAND, tr. silt, saturated	1147	8/17/94	1 ppm	

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk
 PROJECT NO:
 LOCATION: Troy, NY
 GEOLOGIST: K. MacGregor
 DRILLER: SJB
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel split spoons

BORING NUMBER: SB-7
 DATE STARTED: 8/17/94
 DATE COMPLETED: 8/17/94
 GROUNDWATER DEPTH: ~25'
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	28	0-11- 15-14	24"		ML SM	0-24" Med. brn sandy SILT, little f. grvl, saturated - very liquid.	1350	8/17/94	NAB	-0 means wt. of hammer.
	30	5-14- 23-24	16"		SM SM	0-14": Med brn silty f. SAND, little f. grvl, saturated, thicker than dense than 28-30' 14-16": Med brn silty f. SAND, some f-m grvl.	1355	8/17/94	NAB	
	32	20-24 30-32	21"		GP ML SM	0-8": Med brn. f-m SAND, tr. silt 8-21": Lt. orange brn SILT, grading into vf-f SAND, little silt.	1403	8/17/94	NAB	
SB-7 34-36	34	22-31 34-41	14"		GP GP	0-11": Med brn. f-c SAND and f-m GRAVEL, some to little clay, shale fragments at 10"	1471	8/17/94	1 ppm	
	36	60-48 48-34	24"		SP GC	0-24": Med brn f-c SAND and f-c GRAVEL, some to little clay. Many sections of shale fragments - gray.	1432	8/17/94	1 ppm	
	38	8-19- 46-52	24"		GM GC	0-10": Med. brn. silty f-m GRAVEL, little sand, fr. clay. 10-24": Med brn clayey f. SAND and c. GRAVEL, a few cobbles. No shale.	1500	8/17/94	1 ppm	3" spoon. peak at 8 ppm
	40	24-30 25-17	14"		SM SP GP	0-6": Med brn silty f-c SAND, some f-m grvl. 6-14": Med-dk grey gravelly SAND sand f-c, grvl f-m, tr. silt.	1518	8/17/94	7 ppm	peak at 8 ppm.
	42									

NOTES:

LOG OF BORING

PROJECT: *Niagara Mohawk* BORING NUMBER: *SB-7*
 PROJECT NO: DATE STARTED: *8/17/94*
 LOCATION: *Troy, NY* DATE COMPLETED: *8/17/94*
 GEOLOGIST: *L MacGregor* GROUNDWATER DEPTH: *~25*
 DRILLER: *STB* ELEVATION:
 DRILLING/SAMPLING METHOD: *4/4" HSA / 2" carbon steel split spoons*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
<i>SB-7 42-44</i>	<i>42</i>	<i>20-24</i>	<i>24"</i>		<i>SP</i>	<i>0-5": Med brn f-n SAND, tr. silt. 5-24": Med-dk grey f-c SAND and f-m GRAVEL, tr. clay.</i>	<i>1522</i>	<i>8/17/94</i>	<i>NAB</i>	
		<i>25-33</i>								
		<i>44</i>								
<i>SB-7</i> <i>44-46</i>	<i>44.5'</i>	<i>100/4'</i>	<i>0"</i>		<i>No recovery. shoe had grey f-c sand ign. tr. shale frag. shale frag. and sand in base</i>	<i>1545</i>	<i>8/17/94</i>	<i>NAB</i>	<i>3" spoon - drive another spoon</i>	
		<i>100/2'</i>	<i>0"</i>			<i>Boring terminated at 44.5'</i>	<i>1555</i>	<i>8/17/94</i>		<i>NAB</i>

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk BORING NUMBER: SB-8
 PROJECT NO: _____ DATE STARTED: 8/18/94
 LOCATION: Troy, NY DATE COMPLETED: 8/18/94
 GEOLOGIST: L. Macgregor GROUNDWATER DEPTH: _____
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 3" Carbon Steel split spoon 1/4" HSA

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	0									
	.6'					asphalt, 0-.6'				
	1-2'	10-19-10	6"		SP-6P	0-5": Med brn. clayey SAND and GRAVEL, sand f-m, grv f-m. sl. moist. 5-6": chunk of concrete	0952	8/18/94	NAB	3" spoon
SB-8 2-3'	2-3'	15-11-100/0.2	14"		SP-SC-GC	0-6": AS & wire 6-10": Med brn M-C SAND, some clay, mixed with black asphalt-like material 10-11": Brick chunk 11-14": Med brn. clayey GRAVEL, some sand, grv f-c.	1004	8/18/94	NAB	3" spoon
						Boring terminated at 3.3'.				

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk* BORING NUMBER: *SB-9*
 PROJECT NO: _____ DATE STARTED: *8/19/94*
 LOCATION: *Troy, NY* DATE COMPLETED: *8/22/94*
 GEOLOGIST: *L. MacGregor* GROUNDWATER DEPTH: _____
 DRILLER: *STB* ELEVATION: _____
 DRILLING/SAMPLING METHOD: *4 1/4" HSA/2" Carbon Steel Split Sporn*

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	0									
	.5					asphalt	0757	8/19/94	-	augured
		19-40-37	7"		SP	0-6": Med brn f-m SAND, tr. silt and f. gravel, sl. moist.	0800	8/19/94	NAB	
	2				SC	6-8.5": Med brn. clayey SAND 6.5-7": Rock fragments				
		10-14-11-15	12"		SP	6-12": Med brn f-m SAND, some f-m gravel, little clay. At 9" a black organic-like layer.	0805	8/19/94	NAB	
	4									
		22-12-7-5	24"		SC GM	0-2": Med brn clayey f-m SAND 2-6": DK. brn silty SAND and m-c GRAVEL, dry	0823	8/19/94	NAB	
	6				SC	6-13": Orangey-brn clayey f-m SAND, little f-c gravel, sl. moist.				
		5-5-5-15	12"		SP	13-24": Med brn f-m SAND, tr. f-gravel, sl. moist	0827	8/19/94	NAB	
	8									
		19-17-18-19	16"		SC	0-6": Med brn/grey clayey f-m SAND, little f-m gravel, sl. moist.	0849	8/19/94	1 ppm	- no odors
	10				GP SP	6-16": Med brn f-c SAND and f-m GRAVEL, little clay, moist.				

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk BORING NUMBER: SB-9
 PROJECT NO: _____ DATE STARTED: 8/19/94
 LOCATION: Thoy, NY DATE COMPLETED: 8/22/94
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: _____
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" carbon steel Split Spoon

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		H2O ppm	COMMENTS
							Time	Date		
SB-9 10-12'	10	49-45 70 f 100% 1/3	18"		SP	0-18": Med brn f-c SAND and m-c GRAVEL, little silt a few cobbles sl. moist	0910	8/19/94	NAB	take NSI/MSD indicators -3" spoon
	12	100/3'	0"			no recovery	0928	8/19/94	-	
	14	21-16 24-28	4"		SM	0-4": Med-lf. brn silty f. GRAVEL, little f-m sand dry to sl. moist. tr. clay	0949	8/19/94	3 ppm	- no odors
	16	31-26 27-51	7"		SP	0-7": Med brn silty f-m GRAVEL and f-m SAND, sl. moist to dry	0955	8/19/94	NAB	
	18	100/35'	0"			NO recovery - rock fragments in shoe	1020	8/19/94	-	
	20	100/5'	7"		SM	0-7": lf. brn silty f. SAND, little to some f-c gravel, dry, tr. clay	1034	8/19/94	2 ppm, peak 10	- no odors
SB-9 22-24'	22	21-15 14-14	14"		SM	0-4": as above	1047	8/19/94	NAB	-TCL/DL
	24				SP	4-12": Med brn f. SAND, little silt and clay, very moist. 12-24": Med brn f-m SAND saturated.				

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk BORING NUMBER: SB-9
 PROJECT NO: _____ DATE STARTED: 8/19/94
 LOCATION: Troy NY DATE COMPLETED: 8/22/94
 GEOLOGIST: K Macbregov GROUNDWATER DEPTH: _____
 DRILLER: SJB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel split spoons.

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	24									
		40-40 50-58	11"		SC	0-11": Med brn. clayey f-m SAND, some f-c gravel, saturated	1058	8/19/94	NAB	3" spoon
		20								
		12-22 17-17	23"		SP SP	0-9": Dk brn f-c SAND. 9-23": Dk brn. f-c SAND, some to little f-m gravel, tr. clay, saturated	1107	8/19/94	NAB	
		28								
SB-9 30-34'		18-21- 26-25	16"		SP- GP SC- GP	0-3": Dk brn c. SAND and f. GRAVEL, little silt f-m sand, saturated 3-16": Dk brn. f-m SAND, some - little clay and f-m gravel, tr. silt, saturated	1417	8/22/94	1 ppm	composite sample of 30-32 and 32 to 34' for
		30								
		24-32- 31-22	21"		SP	0-21": Dk brn. f-c SAND, some f-m gravel, little silt, tr. clay, saturated.	1425	8/22/94	NAB	Indicator analyses.
		32								
SB-9 32-34'		23-19- 30-34	24"		SP- SC- GP	0-4": as above 4-23": Med-dk brn. clayey f-m SAND, some f-c gravel, very dense / compact 23-24": large shale chunk	1437	8/22/94	NAB	geotek at fill-like material
		34								
		100 / .1'	22"			- run in from above ~ material is loose m. brn. f-c SAND and f-m GRAVEL	1501	8/22/94	NAB	3" spoon
		36								
SB-9 36-38'		17-10 .4	24"		SP- GP	0-17": run in from above 17-24": Med grey f GRAVEL and f-c SAND, tr. silt, saturated.	1518	8/22/94	1 ppm	sample grey med sand (do not send it)
		38								

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk BORING NUMBER: SB-9
 PROJECT NO: _____ DATE STARTED: 8/19/94
 LOCATION: TROY, NY DATE COMPLETED: 8/22/94
 GEOLOGIST: K. MacGregor GROUNDWATER DEPTH: _____
 DRILLER: SSB ELEVATION: _____
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Splitspoon

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	38	100/.1'	20"		GP-SP	0-15": run in brown sand 15-20": med grey f. gravelly f-c SAND, tr. silt.	1533	8/22/94	NMB	
	39	58-75-100/.3'	16"		GP-SP	0-16": Med-H grey f-c SAND and f-m GRAVEL, tr. silt, saturated	1551	8/22/94	NMB	
SB-9 40-41	40	100/.4'	24"		SP	0-20": run in brn f-c sand 20-24": Med-H grey f. SAND, little f gravel and m-c sand, tr. silt.	1600	8/22/94	NMB	-sample from spoon & shoe.
	42	77-100/.3'	24"		SM	0-19": run in brn sands 19-24": Med-H grey f SAND, some silt, tr. clay and f. gravel	1632	8/22/94	NMB	-no shale
	44	100/.5'	8"		SM	0-2": as above 2-8": Med-H grey f. sandy SILT, little clay and f gravel very compact.	1657	8/22/94	NMB	-no shale
	46	100/.3'	5"		GM	0-5": Med grey. gravelly SILT, little - tr. clay and f. sand, very compact. gravel f-c.	1725	8/22/94	5ppm	-no shale
SB-9 48-50	48	37-32-100/.3'	14"		SP	0-14": Med grey f. SAND little silt and f-m gravel. shale fragments in shoe	1740	8/22/94	NMB	-shale fragments in shoe
	50	100/.3'	3"		CU	0-3": Med grey clayey SILT and shale.	1757	8/22/94	2ppm	
	52					Boring terminated at				

NOTES: 50.3'

LOG OF BORING

PROJECT: *Niagara Mohawk Smith Ave Lock/Dam* BORING NUMBER: *SB-10*
 PROJECT NO: DATE STARTED: *10/16/95*
 LOCATION: *Troy, NY* DATE COMPLETED: *10/16/95*
 GEOLOGIST: *D. Felton* GROUNDWATER DEPTH: *4.0 ft (est) - perched.*
 DRILLER: *M. Lentz, SJB Drilling* ELEVATION:
 DRILLING/SAMPLING METHOD: *Hollow Stem Auger, 4.25" ID*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS
							Time	Date		
S1	0	3	5/24		SP- SM	Dk brn v f SAND and SILT, fr clay, f gravel, rooted, moist.	1000	10/16/95	NAB NAB	1.3/8" spoon No odor.
	1	7								
	2	7								
S2	3	3	3/24		SP	Dk brown v f SAND, little silt, some fine angular gravel, stained from 3' depth	1002	10/16/95	6/15	1.3/8" spoon Moderate odor.
	4	4								
	5	6								
S3 chem sample	6	7	6/24		SW	Black fine sand, some fine gravel. Coal tar abundant - saturated	1010	10/16/95	12/50	2.7/8" spoon Strong odor
	7	3								
	8	2								
S4 chem sample	9	8	24/24		SW	As above, soupy	1015	10/16/95	20/300	2.7/8" spoon Very strong odor. COI: 0.6 LEL
	10	4								
	11	1								
S5 chem sample	12	1	15/24			Black fine SAND, some fine gravel, little silt, saturated with coal tar product.	1040	10/16/95	50/120	2.7/8" spoon Very strong odor.
	13	1								
	14	2								
S6 chem sample	15	w/lt	19/24			As above, weathered concrete at base. (2")	1055	10/16/95	40/85	2.7/8" spoon strong odor
	16	w/lt								
	17	3								
S7	18	30	4/6			weathered concrete/gravel.	1100	10/16/95		1.3/8" spoon
	19					Boring terminated				slight odor
	20					12.5 ft B.G.				

NOTES: chemical sample NMT-SB10-4-6 ft taken for indicators (4-6' spoon)
 chemical sample NMT-SB10-6-8 ft taken for TCL/TAL/CN analysis (6-8' spoon) + dup
 chemical sample NMT-SB10-8-10 ft taken for waste characterization (8-10' spoon)
 chemical sample NMT-SB10-10-12 ft taken for indicators (10-12' spoon)

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **SB-11**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 08/20/1997
 LOCATION: NW quadrant of former gas distribution holder location DATE COMPLETED: 08/21/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 29 ft below grade on 8/21/97
 DRILLER: Michael Lenigan, SJB ELEVATION: 29.6 ft. MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test
 3" OD split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu/OVA ppm	COMMENTS		
						Time	Date				
	0										
	1	2 - 8	12	N/A	0.3 ft. Asphalt	1400	08/20/1997	0.8			
	2	7 - 7		SW/GW							
SB-11 02-04	3	7 - 7	14	SW/GW		1410	08/20/1997	0.3	3" spoon		
	4	9 - 50/0.1'			3.5 ft.						
	5	23 - 8	16	N/A	4.75 ft. 1.25' thick cement slab	1435	08/20/1997	0.1	3" spoon		
	6	8 - 5		SP							
SB-11 06-08	7	5 - 5	15	SP	Brown m SAND, little f Gravel, loose, dry	1445	08/20/1997	0.1	3" spoon		
	8	5 - 5									
	9	6 - 5	12	SP			1450	08/20/1997	0.2		
	10	10 - 10									
	11	4 - 7	10	SP			1500	08/20/1997	0.2		
	12	8 - 10									
	13	7 - 14	12	SP/GP		Brown f SAND AND cf GRAVEL, little Silt trace bituminous material, occasional Cobbles, dry, dense	1510	08/20/1997	0.2		
	14	16 - 27									
	15	10 - 8	16	SP/GP				1525	08/20/1997	0.2	
	16	12 - 16									
	17	20 - 37	12	SP/GP			1540	08/20/1997	1.2		
	18	34 - 22									
	19	28 - 25	12	SP/GP			1554	08/20/1997	0.4		
	20	12 - 30									
	21	30 - 50/0.2	7	SP/GP			1605	08/20/1997	0.7		
	22										
	23	14 - 15	1	SP/GP		1631	08/20/1997	5			
	24	15 - 15			FILL						
	25	5 - 6	20	ML	Brown f SAND, little Silt, loose, becomes wet at approximately 29 ft	0805	08/21/1997	2			
	26	10 - 10									
	27	2 - 4	12	SP			0815	08/21/1997	>10		
	28	5 - 9									
	29	2 - 2	12	SP			0822	08/21/1997	2		
	30	5 - 5									

NOTES: N/A - Not Applicable
 ND - No Data
 Samples SB-11-06-08 and SB-11-46-48 analyzed for BTEX, PAH, CN, TOC, and Grain Size.
 Samples SB-11-02-04 and SB-11-40-42 analyzed for Full TCL organics, Full TAL inorganics, and TOC.
 HNu used from 0 to 24 ft. OVA used from 25 to 50 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-11
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/20/1997
LOCATION: NW quadrant of former gas distribution holder location	DATE COMPLETED: 08/21/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 29 ft below grade on 8/21/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 29.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	30								
	31	2 - 3	12	SP	Brown f SAND, trace Silt, wet, medium dense	0830	08/21/1997	1	3" spoon
	32	7 - 8							
	33	3 - 4	15	SP		0843	08/21/1997	7	
	34	9 - 11							
	35	4 - 5	12	SP		0930	08/21/1997	0.5	
	36	6 - 7							
	37	2 - 4	18	SP		0940	08/21/1997	1.5	
	38	4 - 8							
	39	6 - 9	18	SP		0950	08/21/1997	4.5	
	40	16 - 14							
SB-14	41	9 - 16	13	SP	Brown cm SAND, little f Gravel, wet, dense becomes gray at 44 ft.	1000	08/21/1997	25	3" spoon
40-42	42	25 - 27							
	43	9 - 20	16	SP		1013	08/21/1997	>10	3" spoon
	44	22 - 17							
	45	20 - 28	ND	SP		1028	08/21/1997	10	3" spoon
	46	27 - 22							
SB-14	47	5 - 14	18	SP	Gray f SAND, little Silt, little Clay, little f Gravel - some Shaley, wet, dense	1045	08/21/1997	1	3" spoon
46-48	48	18 - 32							
	49	16 - 50/0.1'	2	ML	Gray Clayey SILT, little f Gravel, wet	1100	08/21/1997	10	3" spoon
	50				48.5 ft.: Weathered Shale				
	51	50/0.3'	1		END OF BORING: 50.3 FT	1125	08/21/1997	ND	3" spoon
	52								

NOTES: N/A - Not Applicable
 ND - No Data
 Samples SB-11-06-08 and SB-11-46-48 analyzed for BTEX, PAH, CN, TOC, and Grain Size.
 Samples SB-11-02-04 and SB-11-40-42 analyzed for Full TCL organics, Full TAL inorganics, and TOC.
 HNu used from 0 to 24 ft. OVA used from 25 to 50 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-13
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/30/1997
LOCATION: NW corner of NMPC garage	DATE COMPLETED: 09/30/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.9 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	X - 5	12	N/A	0.4 ft. Asphalt	0819	09/30/1997	1.3	2" spoon
	2	8 - 6		SP	Brown mf SAND AND f GRAVEL, dry, medium dense				
SB-13 02-04	3	8 - 10	14	SP/GP		0825	09/30/1997	1.4	3" spoon
	4	15 - 16							
	5	5 - 10	16	SP/GP		0832	09/30/1997	1.2	3" spoon
	6	9 - 6							
SB-13 06-08	7	7 - 12	12	SP/GP	7 ft.	0842	09/30/1997	6.0	3" spoon
	8	11 - 16		SP	Rd-Br. f SAND, little c Gravel, dry FILL				

END OF BORING: 8 FT

NOTES: N/A - Not Available
 Sample SB-13-02-04 analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-13-06-08 analyzed for Full TCL organics, Full TAL inorganics, and TOC.
 Sample SB-13-06-08 also MS/MSD.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-14
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/29/1997
LOCATION: West of NMPC fuel island	DATE COMPLETED: 09/29/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 28 ft below grade on 9/29/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.5 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	ND	10	N/A	0.3 ft. Asphalt	0802	09/29/1997	0.75	
	2			SP					
SB-14 02-04	3	7 - 11	20	SP	Brown cm ⁺ SAND, little ⁺ cf Gravel, dry, medium dense	0810	09/29/1997	1.5	3" spoon
	4	14 - 12							
	5	8 - 7	14	SP		0817	09/29/1997	0.6	3" spoon
	6	4 - 4							
SB-14 06-08	7	4 - 10	9	SP		0830	09/29/1997	1.0	3" spoon
	8	15 - 26							
	9	26 - 17	4	SP		0840	09/29/1997	57	
	10	12 - 10							
	11	10 - 12	10	SP		0848	09/29/1997	7	
	12	12 - 10							
	13	18 - 24	8	SP		0905	09/29/1997	3.5	
	14	22 - 20							
	15	38 - 52	10	SP		1000	09/29/1997	2.5	
	16	46 - 40							
	17	28 - 30	12	GP	1015	09/29/1997	4.5		
	18	57 - 50/0.1'							
	19	84 - 61	16	SP	1025	09/29/1997	13	3" spoon	
	20	46 - 48							
	21	52 - 100/0.4'	12	GP	1035	09/29/1997	10	3" spoon	
	22								
	23	46 - 46	16	SP	1048	09/29/1997	3	3" spoon	
	24	28 - 20							
	25	46 - 77	3	GP	1105	09/29/1997	ND	3" spoon	
	26	62 - 31							
	27	ND	ND	ND		N/A	N/A	ND	No sample collected
	28				FILL				
	29	14 - 16	2	SP	Brown f SAND, little Silt, saturated, medium dense	1300	09/29/1997	5	3" spoon, hydro-carbon odor
	30	14 - 20							

NOTES: N/A - Not Applicable
 ND - No Data
 NR - No Recovery
 All samples analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-14-02-04 also analyzed for Grain Size.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-14
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/29/1997
LOCATION: West of NMPC fuel island	DATE COMPLETED: 09/29/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 28 ft below grade on 9/29/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.5 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	30								
	31	2 - 8	13	SP	Brown mf SANDS, saturated, medium dense	1311	09/29/1997	3	3" spoon
	32	11 - 16							
	33	4 - 7	21	SP	Running Sands	1325	09/29/1997	4	3" spoon
	34	11 - 14							
	35	9 - 9	18	SP	Gray mf SAND, little f Gravel, saturated, medium dense	1337	09/29/1997	6	3" spoon
	36	12 - 16							
	37	3 - 5	12	SP					
	38	8 - 14							
SB-14 38-40	39	5 - 11	11	SP	39 ft.	1406	09/29/1997	30	3" spoon
	40	17 - 18			Gray c'mf SAND, trace Silt, trace f Gravel saturated, medium dense	1417	09/29/1997	8	3" spoon
	41	8 - 14	15	SP					
	42	15 - 15							
	43	8 - 16	14	SP					
	44	21 - 22			Gray cf Shaley GRAVEL, little cmf Sand, saturated, medium dense	1436	09/29/1997	24	3" spoon
SB-14 44-46	45	3 - 19	8	GP			1448	09/29/1997	47
	46	28 - 24			Black f GRAVEL, little Clay, trace Silt				
	47	50/0.3'	1	GP		1500	09/29/1997	ND	3" spoon
	48								

END OF BORING: 47.5 FT

NOTES: N/A - Not Applicable
 ND - No Data
 NR - No Recovery
 All samples analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-14-02-04 also analyzed for Grain Size.

PAGE 2 OF 2

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-15
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/30/1997
LOCATION: SW corner of NMPC fuel island	DATE COMPLETED: 09/30/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.3 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	X - 4	8	N/A	0.4 ft. Asphalt	0911	09/30/1997	2.5	2" spoon
	2	10 - 7		SP/GP	Brown mf SAND AND f GRAVEL dry, medium dense				
SB-15 02-04	3	12 - 17	16	SP/GP		0918	09/30/1997	0.2	3" spoon
	4	12 - 11			4 ft.				
	5	6 - 7	14	SP	Brown m SAND, trace f Gravel dry, medium dense	0926	09/30/1997	0.2	3" spoon
	6	7 - 8							
SB-15 06-08	7	10 - 9	12	SP		0935	09/30/1997	1.6	3" spoon
	8	8 - 6			FILL				

END OF BORING: 8 FT

NOTES: N/A - Not Applicable
All samples analyzed for BTEX, PAH, CN, and TOC.
Sample SB-15-02-04 is MS/MSD.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-16
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/26/1997
LOCATION: East of Lockmaster's House on ACOE property	DATE COMPLETED: 09/26/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 31.2 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	1 - 2	8	OL	Brown Organic SILT, trace f Sand, trace bituminous material and brick, moist, loose	1114	09/26/1997	NAB	2" spoon
	2	2 - 5							
	3	35 - 27	11	GP	c GRAVEL, some Silt, trace f Sand, brick and bituminous material present, occasional cobbles, moist to dry, dense FILL	1126	09/26/1997	1.0	3" spoon
	4	20 - 19							
SB-16 04-06	5	25 - 30	7	GP		1136	09/26/1997	3.0	3" spoon
	6	25 - 26							
SB-16 06-08	7	11 - 30	11	GP	1144	09/26/1997	2.5	3" spoon	
	8	20 - 30							

END OF BORING: 8 FT

NOTES: NAB - Not Above Background
 Sample SB-16-04-06 analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-16-06-08 analyzed for BTEX, PAH, CN, TOC, and Grain Size.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-17
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/26/1997
LOCATION: West side of NMPC's open, three bay storage building	DATE COMPLETED: 09/26/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 31.7 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	3 - 10	9	ML	Brown SILT, trace f Sand, little cf Gravel	1312	09/26/1997	3.5	2" spoon
	2	5 - 4							
SB-17 02-04	3	8 - 9	17	SP/ML	Grading to	1318	09/26/1997	7.0	3" spoon
	4	9 - 9			Brown mf SAND, little Clay, some cf Gravel,				
	5	6 - 6	17	SP	bituminous material present,	1328	09/26/1997	0.5	3" spoon
	6	6 - 5			moist, medium dense				
SB-17 06-08	7	7 - 6	13	SP	FILL	1335	09/26/1997	24	3" spoon
	8	8 - 8							

END OF BORING: 8 FT

NOTES: Sample SB-17-02-04 analyzed for BTEX, PAH, CN, TOC, and Grain Size.
 Sample SB-17-06-08 analyzed for Full TCL organics, Full TAL inorganics, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-18
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/25/1997
LOCATION: Eastern edge of lock discharge canal, ACOE property	DATE COMPLETED: 09/25/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 15.8 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	6 - 11	18	SP	0.5 ft. Topsoil	1311	09/25/1997	3.5	2" spoon
	2	12 - 12		GP	Brown cf GRAVEL, little Sand, slag				
SB-18 02-04	3 4	8 - 12 12 - 11	7	SP	Black to Brown c mf SAND, little cf GRAVEL, little Silt, trace brick and bituminous material, dry, medium dense FILL	1318	09/25/1997	7.5	3" spoon
SB-18 04-06	5 6	8 - 9 6 - 8	3	SP		1330	09/25/1997	11	3" spoon
	7	15 - 15	13	SW		1342	09/25/1997	12	3" spoon
	8	21 - 17							

END OF BORING: 8 FT

NOTES: All samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-19
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/30/1997
LOCATION: SE corner of NMPC Crew Facilities Building	DATE COMPLETED: 09/30/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 31.2 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	4 - 8	9	N/A	0.2 ft. Asphalt	1203	09/30/1997	2.0	2" spoon
	2	8 - 9		SP	Brown mf ^t SAND, little of Gravel, trace Silt, cement and brick present, dry, medium dense				3" spoon
SB-19 02-04	3	11 - 12	20	SP		1208	09/30/1997	1.0	
	4	15 - 15							
	5	10 - 5	14	SP	Brown m SAND, little f Gravel, moist, loose	1216	09/30/1997	0.5	3" spoon
	6	5 - 5							
SB-19 06-08	7	4 - 5	12	SP		1222	09/30/1997	2.0	3" spoon
	8	5 - 4			FILL				

END OF BORING: 8 FT

NOTES: N/A - Not Applicable
All samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-20
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/30/1997
LOCATION: SE corner of NMPC property	DATE COMPLETED: 09/30/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: Not Encountered
DRILLER: Michael Lenigan, SJB	ELEVATION: 28.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	X - 5	12	N/A	0.4 ft. Asphalt	1050	09/30/1997	1.0	2" spoon
	2	12 - 12		SP					
SB-20 02-04	3	16 - 16	20	SP	Brown mf SAND, some cf Gravel grading to trace f Gravel, dry, medium dense	1100	09/30/1997	0.9	3" spoon
	4	16 - 15							
	5	8 - 12	12	SP	Brick and bituminous material present in upper three feet.	1111	09/30/1997	0.5	3" spoon
	6	9 - 6							
SB-20 06-08	7	5 - 8	12	SP	FILL	1121	09/30/1997	3.5	3" spoon
	8	5 - 4							

END OF BORING: 8 FT

NOTES: N/A - Not Applicable
All samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-21
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/24/1997
LOCATION: Eastern edge of lock discharge canal, ACOE property	DATE COMPLETED: 09/25/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 16 ft. below grade on 9/24/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 16.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	0								
	1	7 - 5	7	SP	Brown mf SAND, little to some of Gravel, trace Silt, medium dense, dry	1258	09/24/1997	NAB	3" spoon
	2	5 - 7							
SB-21	3	5 - 5	7	SP		1315	09/24/1997	0.5	
02-04	4	5 - 5							
	5	4 - 4	3	SP		1324	09/24/1997	10	
SB-21	6	8 - 12							
04-08	7	23 - 18	6	SP		1337	09/24/1997	1.5	
	8	18 - 18							
	9	37 - 27	4	SP		1352	09/24/1997	16	
	10	28 - 23							
	11	5 - 14	9	SP		1403	09/24/1997	0.5	
	12	15 - 18							
	13	25 - 25	5	SP-GP		1420	09/24/1997	5	
	14	14 - 12							
	15	29 - 35	6	SP		1438	09/24/1997	4	
	16	11 - 7							
	17	22 - 17	6	SP		1459	09/24/1997	4	
	18	11 - 10							
	19	32 - 45	4	SP	1514	09/24/1997	6		
	20	50 - 52							
	21	11 - 23	14	SW	1535	09/24/1997	15		
	22	29 - 17							
	23	45 - 40	10	SP	1554	09/24/1997	1		
	24	41 - 36							
	25	ND	ND	ND	Grading to:	N/A	N/A	N/A	
	26								
	27	6 - 6	21	SP	0728	09/25/1997	22	3" spoon	
	28	9 - 16						product and sheen	
	29	21 - 23	ND	SP	0755	09/25/1997	ND	3" spoon	
	30							product and sheen	

NOTES: NAB - Not Above Background N/A - Not Applicable
 ND - No Data
 Samples SB-21-02-04, SB-21-04-06, and SB-21-34-36 analyzed for BTEX, PAH, CN, and TOC.
 SB-21-34-36 is MS/MSD.
 Sample SB-21-42-44 analyzed for Full TCL organics, Full TAL inorganics, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-21
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/24/1997
LOCATION: Eastern edge of lock discharge canal, ACOE property	DATE COMPLETED: 09/25/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 16 ft. below grade on 9/24/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 16.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	30								
	31	5 - 23	7	SP-GP	Gray cmf ⁺ SAND AND cf GRAVEL wet, dense, product and sheen present	0808	09/25/1997	35	3" spoon product and sheen
	32	35 - 25							
	33	7 - 23	15	SP		0824	09/25/1997	20	3" spoon sheen
	34	20 - 18							
SB-21	35	12 - 22	12	GP		0840	09/25/1997	34	3" spoon sheen
34-36	36	28 - 28							
	37	6 - 21	6	GP		0855	09/25/1997	4	3" spoon sheen
	38	26 - 25							
	39	7 - 20	9	GP		0913	09/25/1997	16	3" spoon, trace product on Silt
	40	15 - 18		ML					
	41	23 - 27	10	ML/SW/	0938	09/25/1997	6	3" spoon trace tar and sheen	
	42	25 - 29		GW					
SB-21-	43	42 - 45	9	GP	Gray c+f GRAVEL, little Silt, little f Sand, some of the Gravel is Shaley	0955	09/25/1997	100	3" spoon
42-44	44	50/0.3'							

END OF BORING: 43.3 FT

NOTES: NAB - Not Above Background
 ND - No Data
 Samples SB-21-02-04, SB-21-04-06, and SB-21-34-36 analyzed for BTEX, PAH, CN, and TOC.
 SB-21-34-36 is MS/MSD.
 Sample SB-21-42-44 analyzed for Full TCL organics, Full TAL inorganics, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-22
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/23/1997
LOCATION: SW corner of ACOE property	DATE COMPLETED: 09/24/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 14 ft. below grade on 9/23/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 16.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS	
						Time	Date			
	1	1 - 1	15	OL	0.75 ft. Brown Organic Silt, little f Sand, dry	1255	09/23/1997	NAB		
	2	3 - 4		SP	Brown f SAND, little Silt, little f Gravel, loose					
SB-22 02-04	3	14 - 24	4	GP	cf Gravel, some brown Silt, little f Sand, trace clay, dry, dense	1310	09/23/1997	1	3" spoon	
	4	29 - 36								
	5	10 - 8	1	GP			1321	09/23/1997	4.5	3" spoon
	6	10 - 11								
	7	15 - 19	1	GP		1335	09/23/1997	5	3" spoon	
	8	15 - 15								
SB-22 08-10	9	5 - 4	8	SP	Brown mf SAND, little f Gravel, dry, loose	1348	09/23/1997	4		
	10	3 - 3								
	11	1 - 10	5	SP	14ft.: 0.25" Black bituminous layer	1354	09/23/1997	14		
	12	3 - 4								
	13	6 - 4	7	SP			1401	09/23/1997	6	
	14	2 - 2								
	15	14 - 19	8	GP			1408	09/23/1997	16	sheen
	16	14 - 10								
	17	32 - 32	2	GP		Brown cf ⁺ GRAVEL, some cm Sand, dense, wet	1448	09/23/1997	12	3" spoon, product and sheen
	18	34 - 37								
	19	27 - 23	7	SP			1502	09/23/1997	8	3" spoon, product and sheen
	20	10 - 8								
	21	2 - 5	3	GP			1510	09/23/1997	35	3" spoon, product and sheen
	22	2 - 3			FILL					
SB-22 22-24	23	8 - 10	15	SP	Brown cmf SAND, trace Silt, little cf Gravel grading to trace f Gravel, dense, wet	1525	09/23/1997	57	3" spoon, product and sheen	
	24	17 - 20								
SB-22 24-26	25	47 - 51	15	SP			1540	09/23/1997	78	3" spoon, product and sheen
	26	36 - 25								
	27	17 - 20	11	SW		1559	09/23/1997	62	3" spoon, product and sheen	
	28	24 - 37								
	29	17 - 42	2	SW		1615	09/23/1997	33	3" spoon, product and sheen	
	30	41 - 32								

NOTES: NAB - Not Above Background
 Samples SB-22-02-04, SB-22-08-10, and SB-22-38-40 analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-22-22-24 analyzed for TCLP and Grain Size.
 Sample SB-22-24-26 analyzed for Full TCL organics, Full TAL inorganics, and TOC.
 OVA used from 0 to 32 ft. OVM used from 32 to 42 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: SB-22
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/23/1997
LOCATION: SW corner of ACOE property	DATE COMPLETED: 09/24/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 14 ft. below grade on 9-23-97
DRILLER: Michael Lenigan, SJB	ELEVATION: 16.6 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA/OVM ppm	COMMENTS
						Time	Date		
	30								
	31	6 - 25	11	SP-GP	becomes gray at ~ 31 ft	1632	09/23/1997	37	3" spoon, sheen
	32	27 - 12		SP	Running Sands				
	33	16 - 14	1	SW		0733	09/24/1997	40	3" spoon, sheen
	34	12 - 17							
	35	24 - 23	10	SW		0747	09/24/1997	23	3" spoon
	36	23 - 14							
	37	11 - 11	12	SW		0816	09/24/1997	10	3" spoon, coal tar odor
	38	22 - 30							
SB-22 38-40	39 40	12 - 27 30 - 47	12	SW		Gray cmf SAND, little f Gravel, little Silt, wet, dense, coal tar odor	0833	09/24/1997	10
	41	50/0.3'	4	SW		0858	09/24/1997	10	3" spoon, coal tar odor

END OF BORING: 40.3 FT

NOTES: NAB - Not Above Background
 Samples SB-22-02-04, SB-22-08-10, and SB-22-38-40 analyzed for BTEX, PAH, CN, and TOC.
 Sample SB-22-22-24 analyzed for TCLP and Grain Size.
 Sample SB-22-24-26 analyzed for Full TCL organics, Full TAL inorganics, and TOC.
 OVA used from 0 to 32 ft. OVM used from 32 to 42 ft.

LOG OF BORING

PROJECT: NMPC
 PROJECT NO:
 LOCATION: Troy Smith Ave
 GEOLOGIST: DelMastro
 DRILLER: Parrott-Wolff
 DRILLING/SAMPLING METHOD: 4 1/4 HSA

BORING NUMBER: MW-1
 DATE STARTED: 7-11-94
 DATE COMPLETED: 7-12-94
 GROUNDWATER DEPTH: ≈ 20'
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
		25			SP	Br + SAND tr mica	550			moist
		23	11"				750	7-11-94	0	
		12								
	16	10			CL	Br CLAY in tip of spoon				dry
		19								
		20								
		29	NR				600	"	0	
	18	19								
		4								
		5			SP	Very fine-fine Br SAND, tr silt, tr mica				moist/wet
		9	14				610	"	0	moist/wet
	20	13								moist/wet
		6								
		8			SP	SAME				moist/wet
		11	22"				740	7-12-94	0	TCL/TAL cym
	22	9								NM-MW-1-2022
		12								no odor
		9			SP	SAME				moist to wet
		12	24				745	7-12-94	≈ 250	no odor (MCP)
	24	17								small of petroleum at 23'
		8			SP	11" SAME				wet/saturated
		10			SM	13" Grey vt silty SAND	805	"	0	no odor
		10	24							
	26	13			CL	Grey Silty Clay (tip of spoon)				
		8								
		9			SP	Blk f-cs SAND, tr silt, tr gravel				wet
		16	19"				815	"	0	
	28	20								

NOTES:

LOG OF BORING

PROJECT: *NMPC* BORING NUMBER: *MW-1*
 PROJECT NO: DATE STARTED: *7-11-94*
 LOCATION: *Troy Smith Ave* DATE COMPLETED: *7-12-94*
 GEOLOGIST: *DeLmastro* GROUNDWATER DEPTH: *≈ 20 ft*
 DRILLER: *Parrott-W, LFF* ELEVATION:
 DRILLING/SAMPLING METHOD: *4 1/4 HSA 2" ss*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
		10			AMM	Br fine-CS Sand, trace silt, trace gravel	0840	7-12-94	0	wet No Odor No Readings
		12	24"		SP	15" Black + Brown CS Sand				
		25								
	30	29								
		9			SP	same	850	"	≈ 300 hardness	Incl sample NM-MW-1-3032 wet no odor
		10	12"							
		19								
	32	21								
		22			SP	SAME, tr gravel md-CS SAND	905	"	0	wet no odor
		20	24"							
		21								
	34	24								
		9			SP	4" SAME	925	"	0	wet no odor
		15	12"							
		31								
	36	32			CL	8" f Grey SAND, tr rk frags Grey Silty CLAY tip of spoon				
		15			SP	6" f med Grey SAND, little silt, tr gravel	945	"	0	moist/wet no odor
		21	24"							
		27								
	38	70			CL	11" f Grey SAND, little silt, little gravel 7" Grey silty CLAY, little rk frags				
		50 1/2"		NR		Grey Shale	1010	"	0	
	40									
		100 1/2"		6"		Grey Shale, (groundup) little silt.	1040	"	0	NM-MW-1-4042 Incl.
	42									
Bottom of Hole Terminated										

NOTES:

LOG OF BORING

PROJECT: *NMPC* BORING NUMBER: *MW-1*
 PROJECT NO: DATE STARTED: *7-11-94*
 LOCATION: *Troy Smith Ave* DATE COMPLETED: *7-12-94*
 GEOLOGIST: *DeMastro* GROUNDWATER DEPTH: *≈ 20'*
 DRILLER: *Parrott-Wolff* ELEVATION:
 DRILLING/SAMPLING METHOD: *4 1/4" HSA 2" SS*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
		4				7" Br-DK Brown Topsoil, little org mat, tr gravel.				
		13	18"		SM	Brown SILT, little sand (6-m) tr gravel, tr coal	445	7-11-94	0	Dry no odor
		13								
	2	13								
		9			SP	Brown-DK Org m-cs SAND, little gravel, tr silt.	450	"	0	Dry no odor
		10	14"							
		9								
	4	10								
		6			SP	Brown m-cs SAND, tr silt, tr gravel	452	"	0	Dry no odor
		5	12"							
		4								
	6	4								
		3			SP	SAME	453	"	0	Dry no odor
		3	13"							End sample. MW-1-68
		3								
	8	6								
		12			SP	SAME	505	"	0	No odor moist at tip
		11	12"							
		10								
	10	10								
		48			SP	SAME, little gravel		"	2-3	3" spoon
		41								large gravel in spoon
		23	13				520	"	0	moist
		33								
	12									
		17			SP	SAME tr gravel	530	"	≈ 10	moist no odor
		22	8"							
		19								
	14	17								

NOTES:

LOG OF BORING

PROJECT: NMPc Troy
 PROJECT NO:
 LOCATION: Troy Smith AVE
 GEOLOGIST: D Fulton
 DRILLER: Parrot-wolff
 DRILLING/SAMPLING METHOD: 1 1/4 Auger 2" Spl. 1 Spoons

BORING NUMBER: MW 2
 DATE STARTED: 7/13/94
 DATE COMPLETED: Grouted on 7/14/94
 GROUNDWATER DEPTH:
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
MW2		4668	8"		ML	Br Silt w/little vF sand w/trace gravel	0930	7/13/94	0	dry No odor
	2	7999	15"		SP- SM	intermixed Brown + Black fm Sand w/little silt trace gravel trace slag	0955	7/13/94	0	dry No odor
	4	4443	11"		SP	Black mc Sand with trace silt w/trace gravel	1005	7/13/94	0	dry No odor
	6	3443	12"		SP	same	1010	7/13/94	0	dry No odor
	8	4595	16"		SP	Blank + orange c sand w/little slag	1015	7/13/94	0	Last 4" moist No odor
	10	3479	12"		SP	Black c Sand w/some gravel and slag	1025	7/17/94	400ppm	Wet sample TLL/TAL Cyant
	12	13999	15"		SP	Brown mc Sand w/little gravel	1030	7/13/94	0	wet No odor
	14									

NOTES:

LOG OF BORING

PROJECT: NMPC "Troy" BORING NUMBER: MW2
 PROJECT NO: DATE STARTED: 7/13/94
 LOCATION: Troy Smith AVE DATE COMPLETED: Grouted on 7/14/94
 GEOLOGIST: D. Fulton GROUNDWATER DEPTH:
 DRILLER: PGroot-wolff ELEVATION:
 DRILLING/SAMPLING METHOD:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
	6	9	12"		SP	Brownish grey Fmc Sand little gravel	1040	7/13/94		wet No odor
	9	25								
	16	29								
	20	SP 3	—			No Recovery	1645	7/13/94	—	—
	18									
	16	16	10"		SP	Brown mc Sand w/ little # gravel trace silt	1125	7/13/94		moist No odor
	18									
	16									
	20	26								
	18	48				No Recovery	1135	7/13/94		
	22	48 32 44								
	43	16	16"		SP	Brown Fm Sand with little Fc gravel		7/13/94	1 ppm	Dry 1081.6d No odor 20 ppm DH
	28									
	28									
	24	34								
	2									
	26									
	28									

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk K-Troy BORING NUMBER: MW-2A
 PROJECT NO: 1107--00001 DATE STARTED: 7/25/94
 LOCATION: Troy, NY DATE COMPLETED: 7/27-94
 GEOLOGIST: K MacGregor GROUNDWATER DEPTH: ~24.8
 DRILLER: Ritchie Comfort/John Hutchinson, Empire ELEVATION: N/A
 DRILLING/SAMPLING METHOD: 1 1/4" HSA, 2" Carbon Steel split spoon

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		COMMENTS
							Time	Date	
						Auger to 4'			
MW-2A 4-6'	4	10-3-4-7	10"		SP	0-9": Black and rusty f-c SAND - appears very stained, brittle clumps 9-10": plywood from drilling	0912	7/25	1 ppm no odor *sample not sent for analysis
						Auger to 20'		7/25	*at 15', drilling rod is <u>not wet</u> 1105 *at 20' rod is <u>not wet</u>
	20-22	79-29-29-65	8"		GP	0-8": Grey to brown granular SAND, little clay sand m., gravel m. At 4", flaky shale found in spoon, dk. grey in color. Slightly moist today.	1203	7/26/94	0 ppm slightly moist to dry
	24	57-170-100/1"	0			large rock in base of spoon - <u>not a sedimentary rock/shale</u>	1355	7/25	N/A 3" spoon

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawk
 PROJECT NO: 1107 - - 00001
 LOCATION: Troy, NY
 GEOLOGIST: K. MacGregor
 DRILLER: Richie Comfort, John Hutchison, Empire
 DRILLING/SAMPLING METHOD: 4 1/4" HSA, 2" Carbon Steel Split Spoon

BORING NUMBER: MW - 2A
 DATE STARTED: 7/25/94
 DATE COMPLETED:
 GROUNDWATER DEPTH: ~ 24.8
 ELEVATION: N/A

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TINU ppm	COMMENTS
							Time	Date		
	24	75-28 225-120	0			no recovery; bottom 6" of spoon were wet. Bottom plug had lt. brn. f. sand and f. gravel - very small amt.	1455	7/25	N/A	3" spoon
MW-2A 26-28	26	134-17 13-12	12"		SP	0-12": Med brn. f. SAND, very moist to wet saturated, tr. silt. At 3", ^{kn} one m. gravel clast	1540	7/26/94	NAB	2" spoon.
	28	98-94 96-96	10"		SP	0-10": Med brn. f. SAND, saturated, tr. clay.	1620	7/26/94	NAB	2" spoon. driller's jar
	30	8-4- 6-9	18"		SP	0-16": as above 16-18": Med. brn. f - M SAND, saturated,	1640	7/25	NAB	2" spoon
	32	3-4- 5-14	24"		SP	0-24": Med brn. f - c SAND, saturated	1655	7/25	NAB	2" spoon
MW-2A 34-36	34	3-4- 4-13	15"		SP	0-15": Med brn. f - c SAND, saturated	1725	7/25	NAB	3" spoon, geotech sample here
	36	15-28 37-41	24"		SP	0-24": Med brn. f - m SAND, tr. silt, saturated. Top 2" some c. sand.	0950	7/27	NAB	kin spoon plug, 4 1/2" of grey silt, litte clay.
	38									

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk - Troy
 PROJECT NO: 1107 - - 0001
 LOCATION: Troy, NY
 GEOLOGIST: L. MacGregor
 DRILLER: Empire Drilling
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoon

BORING NUMBER: MW-2A
 DATE STARTED: 7/25/94
 DATE COMPLETED:
 GROUNDWATER DEPTH: ~ 24.8
 ELEVATION: N/A

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU-pptr.	COMMENTS
							Time	Date		
	38									
		7-8-9-11	24%		SP 0-2": As above CL 12-16": Med grey silty CLAY SP 16-20": Med grey f. SAND SP little silt. 20-24": Med brown f. SAND.	1053	7/27	N/A	drillers jar of grey material	
	40									
		2-8-21-27	24%		SP 0-21": Med brn. f. SAND little tr. silt, saturated. SP 21-24": Med grey m-c SAND and f. GRAVEL, little clay, very compact	1110	7/27	N/A	drillers jar of material from 21-24"	
	42									
MW-2A 42-44 42-46		10-11-17-14	20%		SP 0-6": Med grey brn f-m SAND, tr. silt. SP 6-12": Med grey m-c SAND and f-c GRAVEL. SP 12-20": Orange brn f-c SAND and f-c GRAVEL, tr. silt. creosote/oily sheen on soil and spoon. Odors, black color	1145	7/27	10ppm up to 20ppm peak	3" spoon duplicate here.	
	44									
MW-2A 44-46		10-12-12-11	24%		SP 0-16": Med brn. sand (run in from above) SP 16-24": Dk. brn f-c SAND and f-m GRAVEL, tr. clay. creosote/oily sheen on soil and spoon, odors.	1157	7/27	5ppm	2 drillers jars. - waste characteristics	
	46									
		8-18-28-58	24%		SP 0-14" f-m SAND, silver sheen/oily. SP 14-24" f-c SAND & GRAVEL little clay, silver and brown oily sheen.	1543	7/27	4ppm PID=5ppm	*photo of sample.	
	48									

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
 PROJECT NO: 1107 - - 00001
 LOCATION: Troy, NY
 GEOLOGIST: E. MacGregor
 DRILLER: Empire Drilling
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoons

BORING NUMBER: MW - 2A
 DATE STARTED: 7/26/14
 DATE COMPLETED:
 GROUNDWATER DEPTH: ~24.8
 ELEVATION: N/A

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	48	8-4 6-7	24"		SP SM SC ML	0-3": M-f SAND, dk. grey 3-5": F SAND and SILT, grey. 5-20": dk grey clayey SILT. 7-24": Dk grey SILT, little clay and f sand	1635	7/27	AMB	rsaturated, oily sheen on outside of material, possibly from sheen water, not in material
	50	35-150 /3	16"		SP SM	0-2" m-f grey SAND, little silt. 2-8": F SAND and SILT, dk. grey, little str. clay 8-16": Dk grey STALB, very weathered, broken, flaky. Oily sheen on inside of spoon and in shale. Borehole terminated 51 ft.	1705	7/27	UAB	drill core for sample of bedrock in drillers jar.

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk*

BORING NUMBER: *MW-3*

PROJECT NO:

DATE STARTED: *8/16/94*

LOCATION: *TROY, NY*

DATE COMPLETED: *8/16/94*

GEOLOGIST: *K. MacGregor*

GROUNDWATER DEPTH: *~25'*

DRILLER: *SJB*

ELEVATION:

DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon Steel Split Spoons*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
	0									
	14					<i>Auger to 14'</i>				
<i>MW 3 14-16'</i>		<i>28-36 42-58</i>	<i>17"</i>			<i>SP 0-17": Med brn. f-m SAND, little silt, little to some f-c grvl., sl. moist.</i>	<i>0900</i>	<i>8/16/94</i>	<i>1ppm</i>	<i>3' spoon - geo tech.</i>
	16									
	34					<i>Auger to 34'</i>				
<i>MW 3 34-36'</i>		<i>25-22 22-27</i>	<i>24"</i>			<i>SP-6P 0-24": Med brn f-c SAND and f-M GRAVEL, little clay, saturated. A few stringers of black oily material.</i>	<i>1100</i>	<i>8/16/94</i>	<i>1ppm</i>	<i>3' spoon - TCL/TAL & MS/MSD - slight hydrocarbon odor, spoon has oily sheen.</i>
						<i>Auger to 40' Boring terminated at 40.0'</i>				

NOTES:

LOG OF BORING

PROJECT: *Niagara Mohawk* BORING NUMBER: *MW4*
 PROJECT NO: DATE STARTED: *7/14/94*
 LOCATION: *MW4* DATE COMPLETED:
 GEOLOGIST: *D. Fulton* GROUNDWATER DEPTH:
 DRILLER: *Parrot-wolff* ELEVATION:
 DRILLING/SAMPLING METHOD: *2" split spoon*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
		42	15'		SP	8" Grey vfm Sand w/ little fgravel	0925	7/14/94	0	Dry No odor
		54								
		18			SP	Brown fm sand w/ little fgravel trace brick fragments				
	2	10								
		78	16'		SP	Brown fm sand w/ little fgravel	0930	7/14/94	0	moist No odor
		7								
		12								
	4									
	6									
	8									
	10									
	12									
	14									

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk - Troy BORING NUMBER: MW-4
 PROJECT NO: _____ DATE STARTED: 7/29/94
 LOCATION: Troy, NY DATE COMPLETED: _____
 GEOLOGIST: K MacGregor GROUNDWATER DEPTH: _____
 DRILLER: Empire Soils ELEVATION: N/A
 DRILLING/SAMPLING METHOD: 4 1/4" HSA, 2" Carbon Steel split spoons

OVA

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		TINU ppm	COMMENTS
							Time	Date		
2	0	35+10x	4"		SP	0-4" f-c SAND, some gravel, tr. silt	1108	7/29		above to 2' red powder spoon 7/29/94
		7-8-6-5	12"		SP	0-1" as above			N/A	
					SM	1-4" Red f-sand & silt - dry, crushed brick				
					SP	4-8": Lt. brn f-m SAND, little silt and f. gravel, dry				
					SP	8-12": Black f-m SAND, tr. f. gravel. Contains some black glassy, fragmented material				
		11-9-9-9	9"		SM	0-2": Red f-SAND & SILT,	1121	7/29	8ppm, peak of 14ppm	-no odors.
					GP	2-4": f-c SAND & f. GRVL, black, dry.				
					SP	4-55": Single clast 55-9": Med. brn. f-m SAND, little clay, dry.				
		20-11-20-12	12"		SM	0-7" Crushed brick	1152	7/29	2ppm, peak at 8ppm	
					SP	1-3": Mustard brn. SILT and f. SAND, moist				
					SP	3-11": Med-dk brn f-m SAND, little silt, sl. moist.				
					SP	11-12": Orange f SAND, little clay & silt, compact, dry				
		72-75-27-29	6"		ML	0-2": silty, moist med. brn SILT, some clay & f. sand.	7/29		4ppm, peak at 8ppm	Vadose zone sample
					SP	2-3": rock fragments				
					SP	3-4": dk brn moist m-c SAND				
					SP	4-6": rock frag, f m SAND, grey, dry.				

NOTES:

LOG OF BORING

PROJECT: Niagra Mohawks - Troy BORING NUMBER: MW-4
 PROJECT NO: _____ DATE STARTED: 7/29/94
 LOCATION: Troy, NY DATE COMPLETED: _____
 GEOLOGIST: K MacBregor GROUNDWATER DEPTH: _____
 DRILLER: Empire Soils ELEVATION: N/A
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Sporn

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
MW-4 10-12'	10	44-33 25-33	9"		SM SP	0-6": Med-H. brn SILT and f SAND, tr. f. gravel, dry 6-9" Dk brn clayey SAND, tr. silt, moist. A few small bluish-green flecks.	1402	7/29	2ppm	large clast at 6"
	12	13-17 12-17	5"		GP-ML SP	0-2": SILT and f gravel, Med brn, little sand, dry 2-3.5": rock, crystalline 3.5-5": Dk orangey-brn. f. SAND, little silt, moist	1500	7/29	10ppm, peak at 40ppm	
	14	16-56 35-56	9"		SM ML SP	0-4": Med-H. brn SILT and f. SAND, dry 4-6": PINKISH rock 6-9": Dk brown and orange clayey SAND, st. moist, very compact - some green staining	1525	7/29	NAB	
	16	200/31	0"			no recovery	1245	8/1		
	18	188-92 62-75	21"		ML SP	0-12": Dk brn SILT, little to some clay, little f. sand and f-c gravel, st moist. 6-8" and 10-12" are solid rock clasts, dk very dense, hard 12-21": Dk brn. f SAND, little silt and clay little to some gravel. 14-18" and 20-21" are solid rock fragments - very dense	1355	8/1	peak at 6ppm	- few green and rust-colored flecks at 17"
	20									

NOTES:

LOG OF BORING

PROJECT: Wagner Manawak BORING NUMBER: MW-4
 PROJECT NO: _____ DATE STARTED: 7/29/94
 LOCATION: TROY, NY DATE COMPLETED: _____
 GEOLOGIST: L MacGregor GROUNDWATER DEPTH: _____
 DRILLER: Empire Drilling ELEVATION: NA
 DRILLING/SAMPLING METHOD: 7/4" HSA/2" Carbon Steel Split Spoon

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
MW-4	20'	32-25	18"		SP	0-8": saturated med. brn. gravelly SAND, some clay - run in from above	1432	8/1/94	3ppm	some odors
	20-22'	150/4"			SP	8-18": Med. brn. f.-c SAND, little clay and silt, little in gravel, staining green, black, reddish and yellow. dry to sl. moist				
	22'	200/3"	0"			NO recovery Terminate boring 22' ground hole	1535			*attempt 2nd spoon, 21-22' 3" spoon

NOTES:

LOG OF BORING

PROJECT: *Niagara Mohawk* BORING NUMBER: *MW-4A*
 PROJECT NO: DATE STARTED: *8/9/94*
 LOCATION: *Troy, NY* DATE COMPLETED: *8/16/94*
 GEOLOGIST: *K. MacBorg* GROUNDWATER DEPTH: *~27'*
 DRILLER: *SS B drilling* ELEVATION:
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" carbon steel split spoon*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		FINU ppm	COMMENTS
							Time	Date		
	22					Auger to 22:0"	1407	8/9/94		
		68-100/5"	12"		GM	0-6" Lt. brn gravelly SILT, little sand (f) and clay, gravel-c. Top 2" moist (from added water), 2-6" very dry.	1407	8/9/94	6ppm	3" spoon. Peak at top
	24				GP-SP	6-12" Med. brn gravelly F. SAND, little silt and clay. Slightly moist, loose.				
	26	100/11"	.5"			0-.5": As above, sl. moist to dry	1425	8/9/94	NAB	3" spoon
	27					Auger to 27'				Material still very dense
MW-4A 27-29		27-16-11-12	24k		SP-6P-CL-SP	0-6": As above. 6-9": Lt. brn gravelly SAND, sand f-m, gravel m-c. tr. silt. 9-9.5": silty CLAY, sl. moist 9.5-24": Med grey-brn. SAND, saturated, tr. silt and clay. Slight hydrocarbon odor off spoon.	1454	8/9/94	10ppm	3" spoon
	31	0-2-7-9	11"		SP	0-11": Dk. grey f-m SAND, tr. silt, saturated. Top 3" more brn. in color.	1550	8/9/94	NAB	0 blows = wt. of rod. -> slightly greenish tint
	32					auger to 32' - doo much auger stuck up				
	34	1-3-7-10	8"		SP	0-8": As above.	1610	8/9/94	NAB	
MW-4A 34-36		4-8-15-21	24k		SP-SP-6P	0-12": as above 12-24": Dk. brn. gravelly SAND, sand m-c, gravel f, tr. silt	1628	8/9/94	5ppm	3" spoon - peak at top

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk*
 PROJECT NO:
 LOCATION: *Troy, NY*
 GEOLOGIST: *K. MacGregor*
 DRILLER: *SJB Drilling*
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon steel split spoon.*

BORING NUMBER: *MW-4A*
 DATE STARTED: *8/9/94*
 DATE COMPLETED: *8/10/94*
 GROUNDWATER DEPTH: *~27'*
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU ppm	COMMENTS
							Time	Date		
	36	3-11-9-11	20"		SP	0-9": Med grey-brn. f-m SAND, saturated, tr. silt.	1635	8/9/94	1 ppm	
	38				SP	9-20": Med brn. m-c SAND, little f. gravel, saturated				
		2-4-10-14	17"		SP	0-17": Dk brn. f-c SAND, tr. silt and f. gravel, saturated	0853	8/10/94	NAB	
	40									
		5-12-30-48	24"		SP	0-18": as above	0906	8/10/94	NAB	
	42				SP	18-24": Dk brn. gravelly SAND, little clay, gravel, SAND f-c very tight				
MW 4A 42-44		20-27-25-31	24"		SP	0-10": Dk brn f-c SAND - run in from above	0938	8/10/94	NAB	3" spoon. geotech sample.
					SP	10-18": Dk brn. gravelly SAND, little - some clay, gravel f-c, sand f-c.				
	44				CL	18-19" Med grey silty CLAY				
					SP	19-24": Med grey med. SAND, tr. silt, saturated				
		4-5-12-32	24"		SP	0-10": Med brn f-m SAND, saturated - run in?	0958	8/10/94	NAB	
	46				SP	10-22": Med grey med-c SAND, tr. silt, saturated				
					SP	22-24": Med grey gravelly SAND, tr. fragments of shale, saturated				
	48	22-42-24-21	24"			0-18": run in sand, med brn	1022	8/10/94	NAB	
						18-24": Med grey fragmented shale, some clay and silt				

NOTES:

Boring terminated at 48'.

LOG OF BORING

PROJECT: *Niagara Mohawk Smith Ave Lock/Dam* BORING NUMBER: *MW-5*
 PROJECT NO: DATE STARTED: *10/9/95*
 LOCATION: *Troy, NY* DATE COMPLETED: *10/10/95*
 GEOLOGIST: *D. Ke ltn* GROUNDWATER DEPTH: *23.9 ft. (est.)*
 DRILLER: *M. Canigan, SJB Drilling* ELEVATION:
 DRILLING/SAMPLING METHOD: *Hollow stem Auger, 4.25" ID*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS I.D. of Spm OBSERVATIONS
							Time	Date		
S1	0	W04				Dark brown silt and of SAND, rooted, moist (FILL)	1345	10-9-95	NAB	1.3/8" spoon
	1	2	17/24	SM-ML						
		2								
	2	3								
S2		1			Lt brown m. SAND, some f-m gravel, dry (FILL)	1348	10-9-95	NAB	1.3/8" spoon	
	3	3	3/24	SP						
	4	4								
S3		5			Med-dk brn f-m SAND, some f-m gravel and brick fragments, trace black slag. (FILL)	1406	10-9-95	NAB	1.3/8" spoon CGL NAB in borehole No odor.	
	5	4	18/24	SW						
	6	21								
S4		21			same as above, slightly moist. (FILL)	1415	10-9-95	NAB	1.3/8" spoon No odor.	
	7	15	24/24	SW						
	8	10								
S5		5			same as above (FILL)	1430	10-9-95	NAB	1.3/8" spoon Gravel in tip reduced recovery.	
	9	4	2/24	SW						
	10	5								
S6		8			Light brown f-c SAND, some f-m gravel, subrounded, m. dense, very moist (FILL)	1440	10-9-95	NAB	1.3/8" spoon	
	11	6	7/24	SW						
	12	12								
S7		8			Lt-med brn f-c SAND, some f-m gravel, little silt, clay, medium, v. moist (FILL)	1445	10-9-95	NAB	1.3/8" spoon	
	13	8	11/24	SW						
	14	3								
S8*	15	41 19	10/24		SW-GW Lt-med brn f-c SAND and f-c GRAVEL	1500	10-9-95	NAB	1.3/8" 2.7/8" redrive	

NOTES: *Chemical sample NMT-MW5-14-15 taken 14-16 ft B.G., 2" spoon redriven over interval to obtain additional recovery for sample.
 NAB: Not Above Background
 B.G.: Below Grade

LOG OF BORING

PROJECT: *Niagara-Mohawk Smith Ave Lock/Dam* BORING NUMBER: *MW-5*
 PROJECT NO: _____ DATE STARTED: *10/9/95*
 LOCATION: *Troy, NY* DATE COMPLETED: *10/10/95*
 GEOLOGIST: *D. Felton* GROUNDWATER DEPTH: *23.9 ft. (est)*
 DRILLER: *M. Lenigon, STB Drilling* ELEVATION: _____
 DRILLING/SAMPLING METHOD: *Hollow Stem Auger, 4.25" ID*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS I.D. of Spoon OBSERVATIONS
							Time	Date		
<i>58 (cont)</i>	<i>15 0</i>	<i>11</i>	<i>10/24</i>		<i>SW-GW</i>	<i>lt med brn SAND, f-c and GRAVEL, f-c trace SILT (FILL)</i>	<i>1500</i>	<i>10-9-95</i>	<i>NAB / 5</i>	<i>CGI borohole NAB</i>
	<i>16 1</i>	<i>11</i>								
<i>59</i>	<i>17 2</i>	<i>31</i>	<i>12/24</i>		<i>SW-GW</i>	<i>Med-dk brn f-c SAND and f-c GRAVEL, tr SILT (FILL) very dense, moist</i>	<i>156</i>	<i>10-9-95</i>	<i>NAB / 5</i>	<i>1 3/8" spoon</i>
	<i>18 3</i>	<i>45</i>								
		<i>29</i>								
<i>510</i>	<i>19 4</i>	<i>21</i>	<i>17/24</i>		<i>SW-GW</i>	<i>As above, dry (FILL)</i>	<i>1522</i>	<i>10-9-95</i>	<i>NAB / 5</i>	<i>1 3/8" spoon</i>
		<i>27</i>								
	<i>20 5</i>	<i>22</i>								
<i>511</i>	<i>21 6</i>	<i>22</i>	<i>10/24</i>		<i>SW-GW</i>	<i>As above, dry (FILL)</i>	<i>1540</i>	<i>10-9-95</i>	<i>NAB / NAB</i>	<i>1 3/8" spoon</i>
		<i>25</i>								
	<i>22 7</i>	<i>15</i>								
<i>512</i>	<i>23 8</i>	<i>25</i>	<i>8/24</i>		<i>SW</i>	<i>Med-dk brown f-c SAND, some f-c gravel (30-40%) little silt, moist to saturated at base. (FILL)</i>	<i>1545</i>	<i>10-9-95</i>	<i>NAB / 4</i>	<i>1 3/8" spoon</i>
		<i>19</i>								
	<i>24 9</i>	<i>11</i>								
<i>513X Sample NMT MW 5 24-28</i>	<i>25 10</i>	<i>26</i>	<i>4/24</i>		<i>SW-GW</i>	<i>As above, saturated. FILL</i>	<i>1605</i>	<i>10-9-95</i>	<i>NAB / NAB</i>	<i>2 7/8" spoon</i>
		<i>12</i>								
	<i>26 11</i>	<i>10</i>								
<i>514X As above</i>	<i>27 12</i>	<i>8</i>	<i>16/24</i>		<i>SW-GW</i>	<i>0-14" As above 14-16" lt brn v-f SAND, some silt, trace clay, saturated, native soil</i>	<i>1622</i>	<i>10-9-95</i>	<i>NAB / NAB</i>	<i>2 7/8" spoon</i>
		<i>14</i>								
	<i>28 13</i>	<i>7</i>								
<i>515</i>	<i>29 14</i>	<i>1</i>	<i>24/29</i>		<i>SP-SM</i>	<i>Med dk brn v-f SAND, some silt, little clay</i>	<i>0735</i>	<i>10/10/95</i>	<i>NAB / NAB</i>	<i>1 3/8" spoon</i>
		<i>3</i>								
	<i>30 15</i>	<i>6</i>								

NOTES: *PAH/cyanide portion of NMT MW 5 24-26 taken from 24-26 and 24-28 ft spoons due to poor recovery of 24-26 ft spoon. BTEX sample from 24-26 ft interval only.*

LOG OF BORING

PROJECT: Niagara - Mohawk Smith Ave Leck/Don BORING NUMBER: MW-5
 PROJECT NO: DATE STARTED: 10/9/95
 LOCATION: Troy, NY DATE COMPLETED: 10/10/95
 GEOLOGIST: D. Felton GROUNDWATER DEPTH: 23.9 ft (est.)
 DRILLER: M. Benigay, SJP Drilling ELEVATION:
 DRILLING/SAMPLING METHOD: Hollow Stem Auger, 4.25" ID

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNW OVA ppm	COMMENTS
							Time	Date		
S16	30									
	31	WOR	16		SP-Sm	Med dk brn v-f SAND, some silt, little clay,	0755	10/10/95	NAB/NAB	1 3/8" spoon
	32	24	24							
S17 Sample Chan	33	1	24		SP-SM	As above, coarsening to f-c SAND near base	0800	10/10/95	NAB/NAB	1 3/8" spoon
	34	8	24		SW-SM					Running sand conditions.
	35	9	24							
S18	35	2	16		SW	light med brn f-c SAND, little silt, fine down section	0818	10/10/95	NAB/NAB	1 3/8" spoon
	36	10	24							
	37	10	24							
S19	37	7	24		SW	medium brown f-c SAND, little f-m sub rounded gravel, v. dense	0825	10/10/95	NAB/NAB	1 3/8" spoon
	38	9	24							
	39	9	24							
S20 Sample Chan	39	19	22		SW	38-39' As above	0900	10/10/95	25/5-10	1 3/8" spoon
	40	37	24			39-40' Gray f-c SAND with f-m gravel, product (etc) present, heavy staining				strong odor
	41	22	24							
S21 Geotech Sample	41	8	24		SW	lt med brn f-c SAND, some gravel, f-m sub rounded, tr. silt. Brown-black stain from 40-41 ft.	0907	10/10/95	12/10	2 7/8" spoon
	42	22	24							strong odor
	43	19	24							
S22	43	8	24		SW	As above, trace oil staining - dk brown - near top	0920	10/10/95	NAB/2	1 3/8" spoon
	44	14	24							slight odor
	45	9	24							
S23	45	3	20		SW	0-12" of brn f-c SAND, as above	0930	10/10/95	15/2	1 3/8" spoon
	46	6	24							

NOTES: Chemical sample NMT - MW 5 - 39-40 taken from 38-40' spoon,
 Geotechnical sample taken from 40-42 ft spoon. (40-41)
 Chemical sample NMT - MW 5 - 32-34 taken from 32-34' spoon

LOG OF BORING

PROJECT: Niagara Mohawk Smith Ave Lock/Dam
 PROJECT NO:
 LOCATION: Troy, NY
 GEOLOGIST: D. Felton
 DRILLER: M. Leighton, SJB Drilling
 DRILLING/SAMPLING METHOD: Hollow Stem Auger, 4.25" ID
 BORING NUMBER: MW-5
 DATE STARTED: 10/9/95
 DATE COMPLETED: 10/10/95
 GROUNDWATER DEPTH: 23.9 ft (est.)
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNU/OVA ppm	COMMENTS
							Time	Date		
523 (cont)	45.0	11	20/24		SW	12-20" Gray f-c SAND some f-m subrounded gravel tr silt. Product visible	0930	10/10/95	1 1/2	Slight odor chem. sample taken
524	46.1	20	15/24		SW	Med-dark gray f-c SAND some f-m subrounded gravel gravel. Slight staining.	0940	10/10/95	NAB 1/15	very slight odor 1 3/8" spoon
	47.2	20								
	48.3	19								
525	49.4	9	12/24		SW	Gray v-f-m SAND, some silt, some clay, Dark brown product at base, but no odor	0952	10/10/95	NAB NAB	1 3/8" spoon No odor
		14								
	50.5	12								
526 chem sample	51.6	4	9/24		SP- SM	Dk gray f-f SAND, some silt, little clay, Heavily stained, dark brown product visible	1000	10/10/95	NAB 1/6	1 3/8" spoon very strong odor.
		3								
	527	9								
527	53.8	10	11/24		SM SM	Dk brn-black v-f-c SAND, some silt, little clay. Product present as above.	1020	10/10/95	10/8	1 3/8" spoon Moderate odor
		12								
	54.9	10								
	55.10					Boring Terminated, 54 ft B. A.				
	56.11									
	57.12									
	58.13									
	59.14									
	60.15									

NOTES: PAH, CN⁻ sample taken from 44-46' spoon. NMT-MW5-44-46.
 sample taken from 50-52' spoon. NMT-MW5-50-52.

LOG OF BORING

PROJECT: *Niagra Mohawk*
 PROJECT NO:
 LOCATION: *TROY, NY*
 GEOLOGIST: *K. MacGregor*
 DRILLER: *STB*
 DRILLING/SAMPLING METHOD: *4 1/4" USA 1/2" Carbon steel split spoon*

BORING NUMBER: *MW-6*
 DATE STARTED: *8/11/94*
 DATE COMPLETED: *8/15/94*
 GROUNDWATER DEPTH: *25 feet*
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		COMMENTS
							Time	Date	
	0	2-6-9 19	14"		SP	0-14": Med brn f-c SAND, some f. gravel, tr. clay, sl. moist	0831	8/11/94	NAB
	2								
		23-31- 13-12	4"		SC	0-4": dk. brn. clayey m-c SAND, little f-m gravel, sl. moist.	0848	8/11/94	4 ppm, peak at 10 ppm
	4								
		3-3-3 6	7"		SC	0-7": Dk. brn to blk. clayey m-c SAND, some m-c grvl, moist. A few wood chips and hard flaky chunks, brown edges, metallic.	0905	8/11/94	2 ppm, peak at 12 ppm
	6								
		12-8 9-6	4"		SC	0-4": as above.	0907	8/11/94	
	8								
		2-1-2 2	12"		SP	0-6" Med. brn f sand, little clay and f. grvl, moist, some dk. red chunks.	0920	8/14/94	20 ppm, peak at 70 ppm
	10				SP	6-12": Blk f-m SAND, tr. f. grvl, some white flecks			
NW-6 10-12'		8-9- 22-11	9"		CL	0-3": Dk brn. silty clay, some f. sand, moist	0923	8/14/94	4 ppm
	12				SP	3-4": Brick-colored chunk			
					SP	4-9" Med. brn f-m SAND, some f-c grvl.			
		42-10- 12-21	5"		SP	0-5": Med brn. f-m SAND, little f-m grvl, sl. moist.	0929	8/11/94	10 ppm - fish-like odor, prob. from river.
	14								

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
 PROJECT NO:
 LOCATION: Troy, NY
 GEOLOGIST: K. MacCregor
 DRILLER: SJB
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon steel split spoon

BORING NUMBER: MW-6
 DATE STARTED: 8/11/94
 DATE COMPLETED: 8/15/94
 GROUNDWATER DEPTH: 25 feet
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		CONC. ppm	COMMENTS
							Time	Date		
	14	26-52-35-27	19"		SP	0-4": Blk SAND, very moist, some f-m, brick flakes at base little clay 4-12": Med brn f-m SAND, tr. silt and f. grvl, dry. 12-18": white crystalline rock 18-19": Med brn. f-c SAND, little f. grvl, sl. moist	0950	8/11/94	100 ppm on top 4", 2 ppm on rest. - no odors	
	16	41-28-53-33	16"		SP-6P	0-16": Med. orangy-brn. gravelly SAND, grvl f-c, sand f-c, tr. clay, dry.	0957	8/11/94	NAB	
	18	51-23-16-16	15"		SC	0-3": Blk clayey SAND and red brick, sl. moist. 3-15": Lt.-med. brn f-c SAND, little f-c grvl, tr. clay. Dry 3-10", 10-15" sl. moist.	1024	8/11/94	Peak low ppm on top 3", NAB on rest	
	20	11-24-32-28	9"		SP	0-9": Med brn f-m SAND, little clay and f-c grvl, dry.	1044	8/11/94	20 ppm, - inside of peak 30. spoon initially moist	
	22	14-16-13-16	5"		SP-SC	0-5": Med. brn f-c SAND, some to little clay, little f-c gravel, sl. moist.	1252	8/11/94	14 ppm	
	24	33-14-12-13	8"		SP-SC	0-8": As above. 7-8" very moist	1320	8/11/94	3 ppm	
	26									

NOTES:

LOG OF BORING

PROJECT: *Niagra Mohawk*
 PROJECT NO:
 LOCATION: *Troy, NY*
 GEOLOGIST: *K MacGregor*
 DRILLER: *STB*
 DRILLING/SAMPLING METHOD: *4 1/4" HSA / 2" Carbon Steel Split Spoon*

BORING NUMBER: *MW-6*
 DATE STARTED: *8/11/94*
 DATE COMPLETED: *8/15/94*
 GROUNDWATER DEPTH: *25 feet*
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECO-VERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		GWA +H ₂ O ppm	COMMENTS
							Time	Date		
MW-6 26-28	26	11-9- 10-7	8"		SP	0-6": As above, saturated	1333	8/11/94	NAB	
						6-8": As above, with shale fragments.				
	28	5-16- 45-26	10"		SP GP	0-10": Coarsely SAND, some clay, saturated. Black oily clots on material, sheen on water.	1529	8/11/94	NAB	hydrocarbon odor - few shale frag. mostly rounded gravel
	30									
		17-28 17-17	8"		SP	0-8": Med. brn f-c SAND, little f-c gravel and clay, saturated. Slight sheen	1619	8/11/94	NAB	-very slight hydrocarbon odor.
	32									
		14-14 76-15	24"		SP SP	0-5": as above, slight sheen	1626	8/11/94	NAB	-very slight hydroc. odor - only sheen on top 5"
	34					5-12": Lt brn-grey f. SAND, little silt, saturated.				
		6-10- 11-11	24"		SP SP	12-15": Greenish-grey m. SAND	1646	8/11/94	.5 ppm	slight sheen on inside of spoon, slight odor.
	36					15-24": Med brn. f-c SAND, tr. f gravel & clay				
		11-13- 15-18	24"		SP SP	0-13": Med brn f-c SAND, some f-m gravel, saturated, base	1659	8/11/94	NAB	-no odor
MV-6 36-38	38					13-24": Med-dk. brn f-c SAND, tr. f gravel and clay				
		11-13- 14-18	24"		SP	0-14": as above	1734	8/11/94	NAB	
	40					14-24": Med grey f-m SAND, tr. f gravel and c. sand				

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
 PROJECT NO:
 LOCATION: Troy NY
 GEOLOGIST: L. MacGregor
 DRILLER: SJB
 DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel split spoon

BORING NUMBER: MW-6
 DATE STARTED: 8/11/94
 DATE COMPLETED: 8/15/94
 GROUNDWATER DEPTH: 25 feet
 ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 5'	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		COMMENTS
							Time	Date	
	40	9-11- 10-12	24"		SP	0-13": Med brn. m-c SAND, tr. clay and f-grvl, saturated	0826	8/12/94	NAB - slight sheen on top of spoon, which from above? - no odor.
	42				SP	13-24": Med grey f-m SAND, tr. silt, saturated			
MW-6 42-44		12-18- 22-23	24"		SP	0-14": Med brn f-c SAND, some f-m grvl, little tr. clay 14-16": as above, saturated with black oily material, shiny. 16-18": f. SAND, black. 18-24": Med brn. f-c SAND, little f-grvl, silvery sheen.	0855	8/12/94	1 ppm - hydrocarbon odor.
	44				SP				
	46	17-18- 20-22	24"		SP	0-22": Med brn. f-c SAND, little to some f-m grvl, little clay. 22-24": Med. brn. f-m SAND, tr. silt. At 22, 1/2" band of black shiny material.	0855	8/12/94	NAB - slight hydrocarbon odor, no sheen.
	48	18-20- 19-22	24"		SP	0-16": Med brn. m-c SAND, tr. - little clay. 16-24": Med br. f-m SAND, little - some clay, dense.	0935	8/14/94	NAB - a few areas have small oily impregnations, black - hydrocarbon odors
	50	16-20- 24-24	24"		SP	0-14": Med. brn f-c SAND, tr. clay & f-grvl, silver sheen 14-24": Med brn. clayey SAND, little f-grvl., silver sheen very compact, dense.	0958	8/12/94	3 ppm - hydrocarbon odor - oily sheen on material
	52	20-24 31-36	20"		SC	0-8": run in sand from about 014 8-20": Med. brn clayey SAND, little f-grvl., very compact.		8/12/94	2 ppm - oily sheen on entire spoon, odors.

NOTES:

LOG OF BORING

PROJECT: *Wagva Mohawk*

BORING NUMBER: *MW-6*

PROJECT NO:

DATE STARTED: *8/11/94*

LOCATION: *Troy, NY*

DATE COMPLETED: *8/15/94*

GEOLOGIST: *R. McCubregon*

GROUNDWATER DEPTH: *25 feet*

DRILLER: *SJB*

ELEVATION:

DRILLING/SAMPLING METHOD: *4 1/4" HSA 2" carbon steel split spoon*

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PRO-FILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
							Time	Date		
	<i>52</i>									
		<i>100/4"</i>	<i>24"</i>			<i>0-24": med-dk brn coarse SAND, tr-silt and f. grvl.</i>	<i>420</i>	<i>8/12/94</i>	<i>20 pp</i>	<i>3" spoon - slight shear, hydrocarbon odor</i>
	<i>53.5</i>									
		<i>100/1"</i>	<i>24"</i>			<i>0-24": as above - run in. # bottom of spoon has shale fragments.</i>	<i>1143</i>	<i>8/12/94</i>	<i>MAB</i>	<i>shear on entire spoon, strong hydrocarbon odor</i>
						<i>Boring terminated at 53.5 feet.</i>				

NOTES:

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-7D/7S**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 08/14/1997
 LOCATION: Western fenceline of NMPC property DATE COMPLETED: 08/15/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 7S: 25.8 ft , 7D: 25.3 ft. below grade on 9/30/97
 DRILLER: Michael Lenigan, SJB ELEVATION: MW-7S: 28.4 ft MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test MW-7D: 28.5 ft MSL

3" OD split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS	
						Time	Date			
	0									
	1	1 - 3	11	SP	Brown mf SAND, some cf Gravel and Cobbles, little Silt, dry to moist; slag, brick, and bituminous material present	1505	08/14/1997	NAB	3" spoon	
	2	3 - 3				1514	08/14/1997	NAB		
	3	7 - 5	12	SP						
	4	5 - 5								
MW-7D-04-06	5	4 - 4	8	SP			1523	08/14/1997	NAB	3" spoon
	6	6 - 5								
MW-7D-06-08	7	1 - 2	18	SP			1535	08/14/1997	0.5	3" spoon
	8	2 - 2								
	9	1 - 1	ND	SP			1540	08/14/1997	NAB	
	10	1 - 1								
	11	1 - 1	12	SP			1545	08/14/1997	NAB	
	12	3 - 1								
	13	8 - 8	18	SP			1602	08/14/1997	1.5	
	14	11-12								
	15	5 - 6	19	SP	14.0-14.5: Brick	1607	08/14/1997	NAB		
	16	16 - 20								
	17	23 - 10	12	SP	Gray to Brown cmf SAND, some cf subangular to subrounded Gravel, moist	0745	08/15/1997	NAB		
	18	6 - 6								
	19	19 - 14	12	SP			0757	08/15/1997	0.02	
	20	19 - 20								
	21	17 - 8	6	SP			0810	08/15/1997	NAB	
	22	8 - 9				22 ft: becomes wet				
	23	18 - 14	4	SP			0822	08/15/1997	NAB	
	24	10 - 14				FILL				
	25	3 - 8	14	SP		Brown mf SAND, trace silt, wet	0833	08/15/1997	NAB	
	26	8 - 9								
	27	4 - 4	16	SP			0846	08/15/1997	NAB	
	28	6 - 8								
	29	1 - 3	16	SP			0904	08/15/1997	NAB	
	30	4 - 7								

NOTES: NAB - Not Above Background
 ND - No Data
 Samples MW-7D-04-06, MW-7D-06-08, and MW-7D-50-52 analyzed for BTEX, PAH, CN, and TOC.
 Sample MW-7D-42-44 analyzed for Full TCL Organics, Full TAL Inorganics, TOC, and Grain Size.
 MW-7S boring was advanced to 35 ft on 8-22-97. No samples were collected from MW-7S.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-7D/7S
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/14/1997
LOCATION: Western fenceline of NMPC property	DATE COMPLETED: 08/15/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 7S: 25.8 ft , 7D: 25.3 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: MW-7S: 28.4 ft MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	MW-7D: 28.5 ft MSL

3" OD split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS	
						Time	Date			
	30									
	31	2 - 3	24	SP	Gray mf SAND, little Silt	0912	08/15/1997	NAB		
	32	5 - 5			32 ft: f subrounded, flat GRAVEL lamination					
	33	2 - 4	16	SP	Lt Brown mf SAND, little Silt grading to some Silt	0924	08/15/1997	NAB		
	34	7 - 9								
	35	2 - 4	11	SP			0933	08/15/1997	NAB	
	36	6 - 6								
	37	2 - 6	12	ML		Lt Brown SILT, some Clay with 1/8" gray Clay laminations	0947	08/15/1997	NAB	
	38	6 - 10								
	39	10 - 12	18	ML	Brown c'mf SAND	1006	08/15/1997	NAB	3" spoon	
	40	12 - 15		SP						
	41	5 - 7	17	SP			1017	08/15/1997	NAB	3" spoon
	42	7 - 12								
MW-7D-42-44	43	14 - 14	14	SP	43-43.5 ft: Black Staining (coal tar odor)	1031	08/15/1997	NAB	3" spoon	
	44	17 - 19		SP						
	45	10 - 14	15	SP	Brown c'mf SAND	1052	08/15/1997	30	3" spoon, coal tar odor	
	46	17 - 17		ML	Gray Silt, some f Sand 46 - 48 ft: 1/16" diameter pockets of product					
	47	5 - 10	12	ML			1108	08/15/1997	NAB	3" spoon, coal tar odor
	48	15 - 15								
	49	5 - 7	5	ML			1123	08/15/1997	NAB	3" spoon, coal tar odor
	50	11 - 14								
MW-7D-50-52	51	9 - 9	15	SP	Gray f SAND, trace Silt	1133	08/15/1997	NAB	3" spoon, coal tar odor	
	52	11 - 17								
	53	39 - 50/0.1	0.6		Gray weathered Shale, little Clay	1152	08/15/1997	NAB	3" spoon	

END OF BORING: 52.6 FT

NOTES: NAB - Not Above Background
 ND - No Data
 Samples MW-7D-04-06, MW-7D-06-08, and MW-7D-50-52 analyzed for BTEX, PAH, CN, and TOC.
 Sample MW-7D-42-44 analyzed for Full TCL organics, Full TAL inorganics, TOC, and Grain Size.
 MW-7S boring was advanced to 35 ft on 8-22-97. No samples were collected from MW-7S.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-8
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/07/1997
LOCATION: Between ACOE maintenance building and lock	DATE COMPLETED: 08/07/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 16.3 ft. below grade on 9/30/97
DRILLER: Tom Farrell, SJB	ELEVATION: 24.2 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	
3" OD split-spoons used where noted	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	0								
	1	4 - 9	15.5	SP	Light brown f SAND, little Silt, little f Gravel sized shale pieces, trace bituminous material, dry, medium dense	0915	08/07/1997	NAB	3" spoon
	2	8 - 9							
MW-08 02-04	3	6 - 6	19	SP		0922	08/07/1997	NAB	3" spoon
	4	6 - 6							
	5	4 - 6	15	GP		0930	08/07/1997	NAB	3" spoon
	6	4 - 4							
MW-08 06-08	7	6 - 8	13	GP		0945	08/07/1997	NAB	3" spoon
	8	10 - 8							
	9	2 - 3	11	GP	Light gray cf ⁺ Shaley GRAVEL, dry, loose to medium dense	0950	08/07/1997	NAB	
	10	7 - 5							
	11	2 - 4	13	GP		0955	08/07/1997	NAB	
	12	2 - 3							
	13	4 - 4	10	GP/SP		1011	08/07/1997	NAB	
	14	4 - 5							
	15	1 - 5	8	SP	Brown cm SAND, little Silt, some cf GRAVEL, loose to medium dense, moist - becoming wet at 16 ft	1022	08/07/1997	NAB	
	16	5 - 5							
	17	8 - 4	5	SP		1034	08/07/1997	NAB	
	18	4 - 4							
	19	2 - 2	12	GP		1050	08/07/1997	NAB	
	20	3 - 3							
	21	2 - 2	12	GP		1100	08/07/1997	NAB	
	22	4 - 5							
	23	2 - 2	10	GP	Gray cf ⁺ elongate and thin Shaley GRAVEL, some c sand sized shale pieces, wet, loose to medium dense	1110	08/07/1997	4	3" spoon
	24	2 - 4							
MW-08 24-26	25	2 - 3	20	GP	FILL	1115	08/07/1997	96	3" spoon wood present
	26	8 - 24							
	27	4 - 7	13	GP		1125	08/07/1997	16	3" spoon
	28	8 - 19							
	29	42 - 23	16	GP		1135	08/07/1997	20	3" spoon
	30	21 - 22							

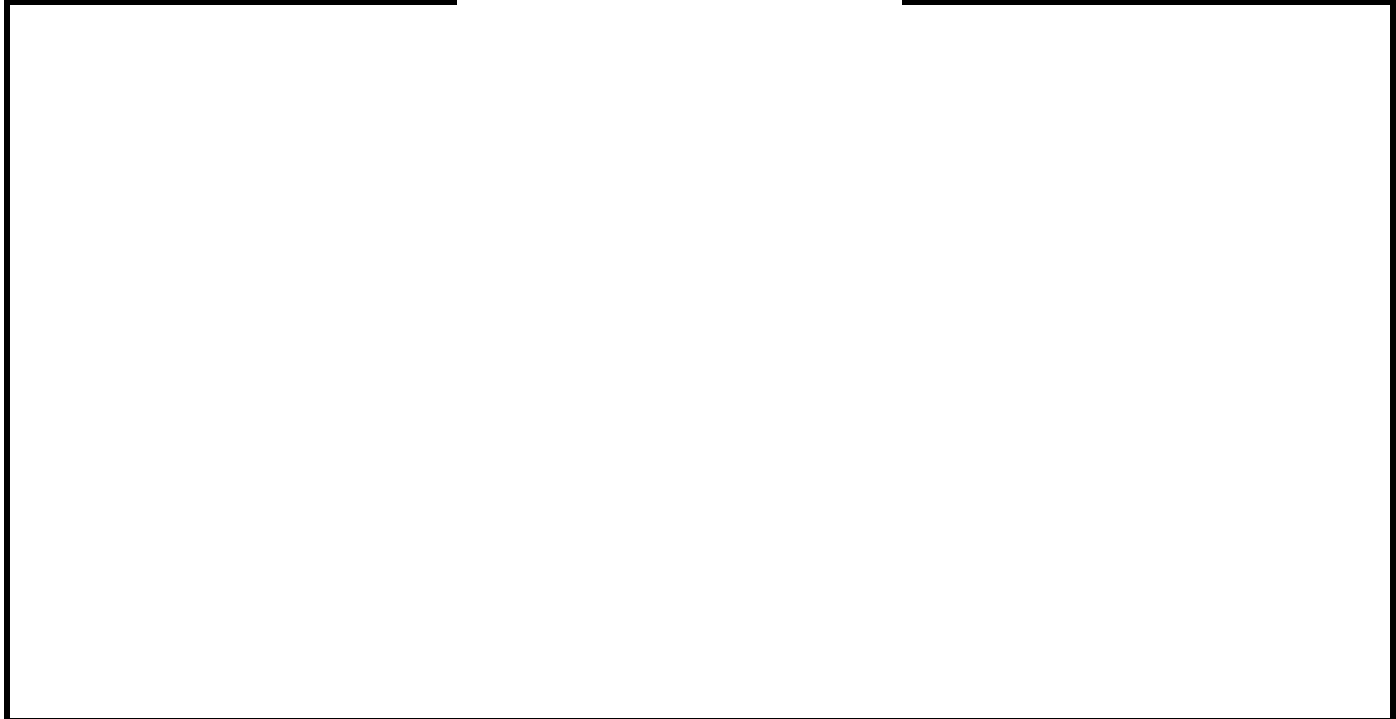
NOTES: NAB - Not Above Background NR - No Recovery
 N/A - Not Applicable
 ND - No Data
 All Samples analyzed for BTEX, PAH, CN, and TOC.
 Sample MW-08-06-08 also MS/MSD.

PAGE 1 OF 2

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-8**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 08/07/1997
 LOCATION: Between ACOE maintenance building and lock DATE COMPLETED: 08/07/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 16.3 ft. below grade on 9/30/97
 DRILLER: Tom Farrell, SJB ELEVATION: 24.2 ft. MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test
 3" OD split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO- (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
MW-08	31	23 -50/0.3'	10	GP	30.8 Shaley GRAVEL as above, see p. 1	1250	08/07/1997	13	3" spoon
30-32	32								
	33	50/0'	NR	N/A	Saprolitic Shale	1305	08/07/1997	NAB	
	34								
	35	50/0'	NR	N/A		ND	08/07/1997	NAB	
	36								
	37	50/0'	NR	N/A		ND	08/07/1997	NAB	
	38				END OF BORING: 36.0 FT				



NOTES: NAB - Not Above Background NR - No Recovery
 N/A - Not Applicable
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.
 Sample MW-08-06-08 also MS/MSD

PAGE 2 OF 2

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-9D/9S
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/11/1997
LOCATION: Western end of Douw Street	DATE COMPLETED: 08/12/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 9S: 23.4 ft. & 9D: 23.6 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: MW-9S: 24.4 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	MW-9D: 24.7 ft. MSL

3" OD Split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNU/ OVA ppm	COMMENTS
						Time	Date		
	0								
	1	9 - 5	2.5	SP/GP	Brown mf SAND AND cf GRAVEL, trace bituminous material, moist, medium dense. Gravel is composed of brick, concrete, and stone	0900	08/11/1997	NAB	3" spoon
	2	7 - 10							
MW-9D-02-04	3	11 - 7	18	SP/GP		0910	08/11/1997	NAB	
	4	5 - 5				0920	08/11/1997	NAB	
	5	9 - 7	24	SP/GP		0940	08/11/1997	ND	
MW-9D-06-08	7	5 - 5	14	SP/GP		1035	08/11/1997	2	
	8	6 - 4				1040	08/11/1997	2	
	9	2 - 3	7	SP/GP		1049	08/11/1997	3	
	10	3 - 3				1055	08/11/1997	NAB	
	11	2 - 3	4	SP/GP		1105	08/11/1997	NAB	
	12	11 - 18				1112	08/11/1997	5	
	13	41 - 10	10	SP/GP		1120	08/11/1997	>100	
	14	4 - 3		SP		1137	08/11/1997	70	
	15	11 - 6	15	SP		1145	08/11/1997	N/A	
	16	4 - 3				1155	08/11/1997	1	
	17	6 - 3	22	SP		1255	08/11/1997	1.5	
	18	3 - 3							
	19	1 - 1	24	SP					
	20	1 - 1							
	21	1 - 1	21	SP					
	22	3 - 2							
	23	3 - 6	8	SP					
	24	8 - 10							
	25	2 - 4	NR	SP					
	26	6 - 8							
	27	4 - 7	21	SP					
	28	7 - 9							
	29	1 - 1	24	SP					
	30	4 - 9							

NOTES:	NAB - Not Above Background NR - No Recovery ND - No Data HNU used from 0 to 8 ft., OVA used from 8 to 51 ft. N/A - Not Applicable	All samples analyzed for BTEX, PAH, CN, and TOC. MW-9S advanced to 36 ft. on 8-14-97. No samples were collected from MW-9S.
--------	-----------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------

PAGE 1 OF 2

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-9D/9S
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/11/1997
LOCATION: Western end of Douw Street	DATE COMPLETED: 08/12/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 9S: 23.4 ft. & 9D: 23.6 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: MW-9S: 24.4 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	MW-9D: 24.7 ft. MSL

3" OD Split-spoons used where noted

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS	
						Time	Date			
	30									
	31	1 - 4	24	SP	Brown f SAND, trace Silt, trace Clay, wet, medium dense	1302	08/11/1997	4		
	32	8 - 8								
	33	1 - 1	16	SP	33.5 ft	1312	08/11/1997	NAB		
	34	7 - 15		GP						
	35	4 - 15	11	GP	Brown cf GRAVEL, little Sand, wet, dense	1320	08/11/1997	NAB		
	36	22 - 18								
	37	6 - 16	12	SP	Brown mf SAND, little c Gravel, loose, wet	1337	08/11/1997	0.5		
	38	16 - 14								
	39	17 - 16	18	SP		1412	08/11/1997	2		
	40	17 - 16								
	41	19 - 15	17	SP	Gray cmf+ SAND, little Silt, little f Gravel,	1430	08/11/1997	4		
	42	15 - 10								
	43	7 - 12	14	SP		1510	08/11/1997	4		
	44	9 - 14								
MW-9D 44-46	45	1 - 4	15	SP	Heavily Stained, 1" free product layer on Silt	1523	08/11/1997	380	Coal tar odor	
	46	4 - 8		ML	45.5 ft					
	47	ND	12	ML	Gray SILT, little Clay, trace f Sand	1555	08/11/1997	ND	3" spoon	
	48									
	49	ND	5	ML			1605	08/11/1997	ND	3" spoon
	50									
MW-9D- 50-52	51	12 - 50/0.3	15	SP		0730	08/12/1997	20	3" spoon, coal tar odor	
END OF BORING: 51.0 FT										

NOTES:	NAB - Not Above Background NR - No Recovery ND - No Data HNu used from 0 to 8 ft.; OVA used from 8 to 51 ft. N/A - Not Applicable	All samples analyzed for BTEX, PAH, CN, and TOC. MW-9S advanced to 36 ft. on 8-14-97. No samples were collected from MW-9S.
--------	-----------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------

PAGE 2 OF 2

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-12
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/12/1997
LOCATION: South Side of Lockmaster's House on ACOE Property	DATE COMPLETED: 09/15/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 55.1 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 27.9 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers, 8.25" ID Hollow-stem Augers, and 6" Spin Casing/ 2" & 3" OD split-spoons driven by 140 lb hammer dropped 30 inches, and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS	
						Time	Date			
	0									
	1	1 - 3	14	SP	Brown f SAND AND SILT, little cf Gravel, trace bituminous material, dry, loose	1537	08/12/1997	NAB	2" spoon	
	2	2 - 1								
	3	2 - 2	15	ML		1544	08/12/1997	NAB	3" spoon	
	4	2 - 3								
MW-12 04-06	5	7 - 5	ND	SP	Dk Brown to Black c mf SAND, some cf Gravel, little silt, dry, loose	1550	08/12/1997	0.2	3" spoon	
	6	5 - 7								
MW-12 06-08	7	27 - 21	ND	GP	Brick fragments, Slag, and Bituminous material, dry dense	1602	08/12/1997	>10	3" spoon	
	8	35 - 17								
	9				(See MW-5 boring log for sample descriptions from 8 to 54 ft. No) sampling was performed in MW-12 through this interval.) SANDS, GRAVELS, AND COBBLES					
	10									
	11									
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									
	26									
	27									
	28									
	29									
	30				FILL					
----- Approximate depth of strata change										

NOTES: NAB - Not Above Background
 ND - No Data
 All Samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-12**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 08/12/1997
 LOCATION: South Side of Lockmaster's House on ACOE Property DATE COMPLETED: 09/15/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 55.1 ft. below grade on 9/30/97
 DRILLER: Michael Lenigan, SJB ELEVATION: 27.9 ft. MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers, 8.25" ID Hollow-stem Augers, and 6" Spin Casing/
 2" & 3" OD split-spoons driven by 140 lb hammer dropped 30 inches, and HQ rock core

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	30								
	31								
	32								
	33								
	34								34 ft.: Begin Spin Casing Drilling
	35								
	36								
	37								
	38								37 ft.: Product appears in mud tub.
	39								Coal tar odor. Product present to bedrock.
	40								
	41								
	42								
	43				Running Sands				
	44								
	45								
	46								
	47								
	48								
	49								
	50								
	51								
	52								
	53								
	54								
	55								
	56								
	57				57 ft.				
	58								
Run 1	59				Black Shale: see page 3 for description				
	60								

NOTES: NAB - Not Above Background
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-12
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/12/1997
LOCATION: South Side of Lockmaster's House on ACOE Property	DATE COMPLETED: 09/15/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 55.1 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 27.9 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers, 8.25" ID Hollow Stem Augers, and 6" Spin Casing/ 2" & 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
Run 1	60	N/A	60	N/A	Black Shale: medium hard with micro-laminated (<1/16") bedding planes at > or = 45 degrees to the horizontal, little to no weathering, broken	0930	09/12/1997	ND	RQD: 47
	61								
	62								
Run 2	63	N/A	48	N/A		0836	09/15/1997	ND	RQD: 65
	64								
	65								
	66								
Run 3	67	N/A	12	N/A		0853	09/15/1997	ND	RQD: 108
	68								
Run 3	69	N/A	12	N/A					

END OF BORING: 69 FT

NOTES: NAB - Not Above Background
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-13**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 09/03/1997
 LOCATION: West Side of NMPC Property, by Gate to ACOE Property DATE COMPLETED: 09/09/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 25.9 ft below grade on 9/30/97
 DRILLER: Michael Lenigan, SJB ELEVATION: 29.9 ft MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/
 2" and 3" OD Split spoons driven by 140 lb hammer dropped 30 inches and HQ rock core

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	1 - 3	15	SP	Brown mf SAND, some cf angular to well rounded Gravel, trace Silt, moist, loose	750	09/03/1997	1	2" spoon
	2	5 - 10							
MW-13-02-04	3	3 - 19	20	SP	4.5	0810	09/03/1997	2.5	3" spoon
	4	16 - 16							
MW-13-04-06	5	17 - 12	18	GP	5.5 BRICK AND ROCK	0817	09/03/1997	5.5	3" spoon
	6	12 - 6			SLAG				
	7	10 - 21	1	GP	cf GRAVEL, some brown mf Sand, little red-brown Silt and Clay	0832	09/03/1997	15	3" spoon
	8	32 - 26			FILL				
	9								
	10				(See MW-6 boring log for sample descriptions from 8 feet to bedrock.)				10 ft.: Begin Spin Casing Drilling
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20				SANDS, GRAVELS, AND COBBLES				
	21								
	22								
	23								
	24								
	25								
	26								
	27								
	28								
	29								
	30								

NOTES: NAB - Not Above Background
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.
 OVA used from 0 to 27 ft. HNu used from 27 to 69 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-13
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 09/03/1997
LOCATION: West Side of NMPC Property, by Gate to ACOE Property	DATE COMPLETED: 09/09/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 25.9 ft below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 29.9 ft MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/ 2" and 3" OD split spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	30								
	31				(See MW-6 boring log for soil descriptions.)				44 ft.: Product begins to appear in drilling water. Coal tar odor. Product remains present in drilling water into bedrock.
	32								
	33								
	34								
	35								
	36								
	37								
	38								
	39								
	40								
	41								
	42								
	43								
	44								
	45								
	46								
	47								
	48								
	49								
	50								
	51			51 ft.					
	52								
	53								
	54				Black Shale: heavily weathered and fractured.				
	55								
	56								
	57				57 ft.				
	58								
Run 1	59				Black Shale: see page 3 for description				
	60								

NOTES: NAB - Not Above Background
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.
 OVA used from 0 to 27 ft. HNu used from 27 to 69 ft.

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-13**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 09/03/1997
 LOCATION: West Side of NMPC Property, by Gate to ACOE Property DATE COMPLETED: 09/09/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 25.9 ft below grade on 9/30/97
 DRILLER: Michael Lenigan, SJB ELEVATION: 29.9 ft MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/
 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
Run 1	60	N/A	58	N/A	Black Shale: medium hard with micro-laminated (<1/16") bedding planes at > or = 45 degrees to the horizontal, little to no weathering, pyritic, occasional white (possibly calcareous) bedding, blocky	0855	09/05/1997	ND	RQD: 97
	61								
	62								
Run 2	63	N/A	48	N/A		1503	09/09/1997	ND	RQD: 76
	64								
	65								
	66								
67.5 ft.	67	N/A	17	N/A	1535	09/09/1997	ND	RQD: 67	
68									
Run 3	69	N/A	17	N/A					

END OF BORING: 69 FT

NOTES: NAB - Not Above Background
 ND - No Data
 All samples analyzed for BTEX, PAH, CN, and TOC.
 OVA used from 0 to 27 ft. HNu used from 27 to 69 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-14
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/28/1997
LOCATION: Southwest Corner of NMPC Property	DATE COMPLETED: 09/09/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 26.4 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 28.0 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		OVA ppm	COMMENTS
						Time	Date		
	0								
	1	5 - 5	6	SP	Brown to Black c'mf SAND, some cf rounded to angular Gravel; bituminous material, slag, concrete; dry, loose	1037	08/28/1997	3.5	2" spoon
	2	9 - 11							
	3	29 - 38	4	SP		1047	08/28/1997	1.2	3" spoon
	4	32 - 19							
MW-14 04-06	5	14 - 9	16	SP		1058	08/28/1997	2.5	3" spoon
	6	7 - 5							
MW-14 06-08	7	6 - 5	5	SP		1109	08/28/1997	3	3" spoon
	8	3 - 4							
	9				(See MW-2A boring log for soil descriptions below 8 feet)				
	10								
	11								
	12								
	13								
	14								
	15								coal tar odor
	16								
	17								augers grinding
	18								
	19								
	20								creosol odor
	21								
	22								
	23								
	24								
	25								25 ft.: Begin Spin Casing Drilling
	26					----- FILL -----			26 ft.: Approximate vertical extent of gravely/cobbly fill
	27								
	28				brown SAND				
	29								
	30								

NOTES: N/A - Not Applicable
 ND - No Data
 Sample MW-14-04-06 analyzed for BTEX, PAH, CN, TOC, and Grain Size
 Sample MW-14-06-08 analyzed for Full TCL Organics, Full TAL Inorganics, and TOC
 OVA used from 0 to 57.5 ft. HNu used from 57.5 to 64 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-14
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/28/1997
LOCATION: Southwest Corner of NMPC Property	DATE COMPLETED: 09/09/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 26.4 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 28.0 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA/HNu ppm	COMMENTS
						Time	Date		
52.5	30				brown SAND				
	31								
	32								
	33								
	34								
	35								
	36								
	37								
	38								
	39								
	40								
	41								
	42								
	43								
44									
56.5	45			45 ft.	gray SAND				slight coal tar odor
	46								
	47								
	48								
	49								
	50								
	51								
	52								
	53								
	54								
55									
Run 1	56	N/A	42	N/A	Black Shale: medium hard with micro-laminated (<1/16") bedding planes at 45 to 60 degrees to the horizontal, little to no weathering, blocky, occasional white (possibly carbonaceous bedding	0830	09/02/1997	ND	RQD: 47
	57					N/A	N/A	ND	Drilled with roller bit
Run 2	58	N/A	N/A	N/A					see page 3 for data
	59								
	60								

NOTES: N/A - Not Applicable
 ND - No Data
 Sample MW-14-04-06 analyzed for BTEX, PAH, CN, TOC, and Grain Size
 Sample MW-14-06-08 analyzed for Full TCL Organics, Full TAL Inorganics, and TOC
 OVA used from 0 to 57.5 ft. HNu used from 57.5 to 64 ft.

LOG OF BORING

PROJECT: **NMPC-Troy, Smith Ave** BORING NUMBER: **MW-14**
 PROJECT NO: 1824.0000.0000.00005 DATE STARTED: 08/28/1997
 LOCATION: Southwest Corner of NMPC Property DATE COMPLETED: 09/09/1997
 GEOLOGIST: Donald Campbell GROUNDWATER DEPTH: 26.4 ft. below grade on 9/30/97
 DRILLER: Michael Lenigan, SJB ELEVATION: 28.0 ft. MSL
 DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/
 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
Run 2	60	N/A	55	N/A	Black Shale: see description on p.2	0903	09/09/1997	ND	RQD: 84
	61								
	62								
Run 3	63	N/A	10	N/A		0935	09/09/1997	ND	RQD: 83
	64								

END OF BORING: 64 FT

NOTES: N/A - Not Applicable
 ND - No Data
 Sample MW-14-04-06 analyzed for BTEX, PAH, CN, TOC, and Grain Size.
 Sample MW-14-06-08 analyzed for Full TCL Organics, Full TAL Inorganics, and TOC.
 OVA used from 0 to 57.5 ft. HNu used from 57.5 to 64 ft.

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-15
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/26/1997
LOCATION: SE Corner of NMPC Garage	DATE COMPLETED: 09/08/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 21.6 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.8 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION		HNu/OVA ppm	COMMENTS
						Time	Date		
	0								
	1	2 - 11	20	SM	0-1ft: Brown f SAND, some Silt, roots, dry	1303	08/26/1997	2.5	2" spoon
	2	15 - 17		SP/GP	Brown to Dk Brown c'm*f, SAND				
MW-15-02-04	3	8 - 14	16	SP/GP	AND cf subrounded to angular GRAVEL; cement, brick fragments,	1316	08/26/1997	3.5	3" spoon
	4	11 - 15			bituminous material; dry, loose				
MW-15-04-06	5	10 - 8	15	SP/GP		1333	08/26/1997	4	3" spoon
	6	5 - 5							
	7	8 - 22	13	GP	cf GRAVEL, some Cobbles, little dark brown cm Sand	1349	08/26/1997	2	3" spoon
	8	36 - 51							
	9								
	10				(see MW-1 boring log for soil descriptions from 8 ft to bedrock.)				
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								tar odor: 25 ppm in borehole
	24								
	25								
	26								
	27								
	28								
	29								
	30								

NOTES: ND - No Data
 N/A - Not Applicable
 Sample MW-15-02-04 analyzed for BTEX, PAH, CN, and TOC
 Sample MW-15-04-06 analyzed for TCL organics, TAL inorganics, TOC, and Grain Size
 HNu used from 0 to 27 ft. and 43.5 to 50 ft. OVA used from 27 feet to 43.5 feet

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-15
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/26/1997
LOCATION: SE Corner of NMPC Garage	DATE COMPLETED: 09/08/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 21.6 ft. below grade on 9/30/97
DRILLER: Michael Lenigan, SJB	ELEVATION: 32.8 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers and 6" Spin Casing/ 2" and 3" OD split-spoons driven by 140 lb hammer dropped 30 inches and HQ rock core	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		OVA/HNu ppm	COMMENTS	
						Time	Date			
	30									
	31				37.5 ft.				32 ft.: 70 ppm in borehole	
	32									
	33									
	34									
	35									
	36									
	37									
	38									
38.5 ft.	39									
Run 1	40	N/A	51	N/A	Black Shale: medium hard with micro-laminated (<1/16") bedding planes at > or = 45 degrees to the horizontal, little to no weathering, blocky	1130	08/27/1997	ND	RQD: 55	
	41									
	42									
	43									
43.5 ft.	44									
Run 2	45	N/A	55	N/A			1047	09/08/1997	ND	RQD: 92
	46									
	47									
	48									
	49									
Run 3	50	N/A	17	N/A		1107	09/08/1997	ND	RQD: 113	

END OF BORING: 50 FT

NOTES: ND - No Data
 N/A - Not Applicable
 Sample MW-15-02-04 analyzed for BTEX, PAH, CN, and TOC
 Sample MW-15-04-06 analyzed for TCL organics, TAL inorganics, TOC, and Grain Size
 HNu used from 0 to 27 ft. and 43.5 to 50 ft. OVA used from 27 feet to 43.5 feet

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-16
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/08/1997
LOCATION: SE corner of NMPC Garage	DATE COMPLETED: 08/08/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 21.7 ft. below grade on 9/30/97
DRILLER: Tom Farrell, SJB	ELEVATION: 32.7 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	0								
	1				(See MW-1 boring log for soil descriptions.)				
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								
	23								
	24								
	25								
	26								
	27								
	28								
	29								
	30								

NOTES: NAB - Not Above Background
 No sampling performed until 38 ft. below grade.

PAGE 1 OF 2

LOG OF BORING

PROJECT: NMPC-Troy, Smith Ave	BORING NUMBER: MW-16
PROJECT NO: 1824.0000.0000.00005	DATE STARTED: 08/08/1997
LOCATION: SE corner of NMPC Garage	DATE COMPLETED: 08/08/1997
GEOLOGIST: Donald Campbell	GROUNDWATER DEPTH: 21.7 ft. below grade on 9/30/97
DRILLER: Tom Farrell, SJB	ELEVATION: 32.7 ft. MSL
DRILLING/SAMPLING METHOD: 4.25" ID Hollow-stem Augers/standard penetration test	

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECO-VERY (inches)	USCS CLASS.	MATERIAL DESCRIPTION	COLLECTION		HNu ppm	COMMENTS
						Time	Date		
	30								
	31				(See MW-1 boring log for soil descriptions.)				
	32								
	33								
	34								
	35								
	36								
	37								
	38								
	39	50/0.2'	2.5	N/A	END OF BORING: 38 FT	1155	08/08/1997	NAB	
	40								

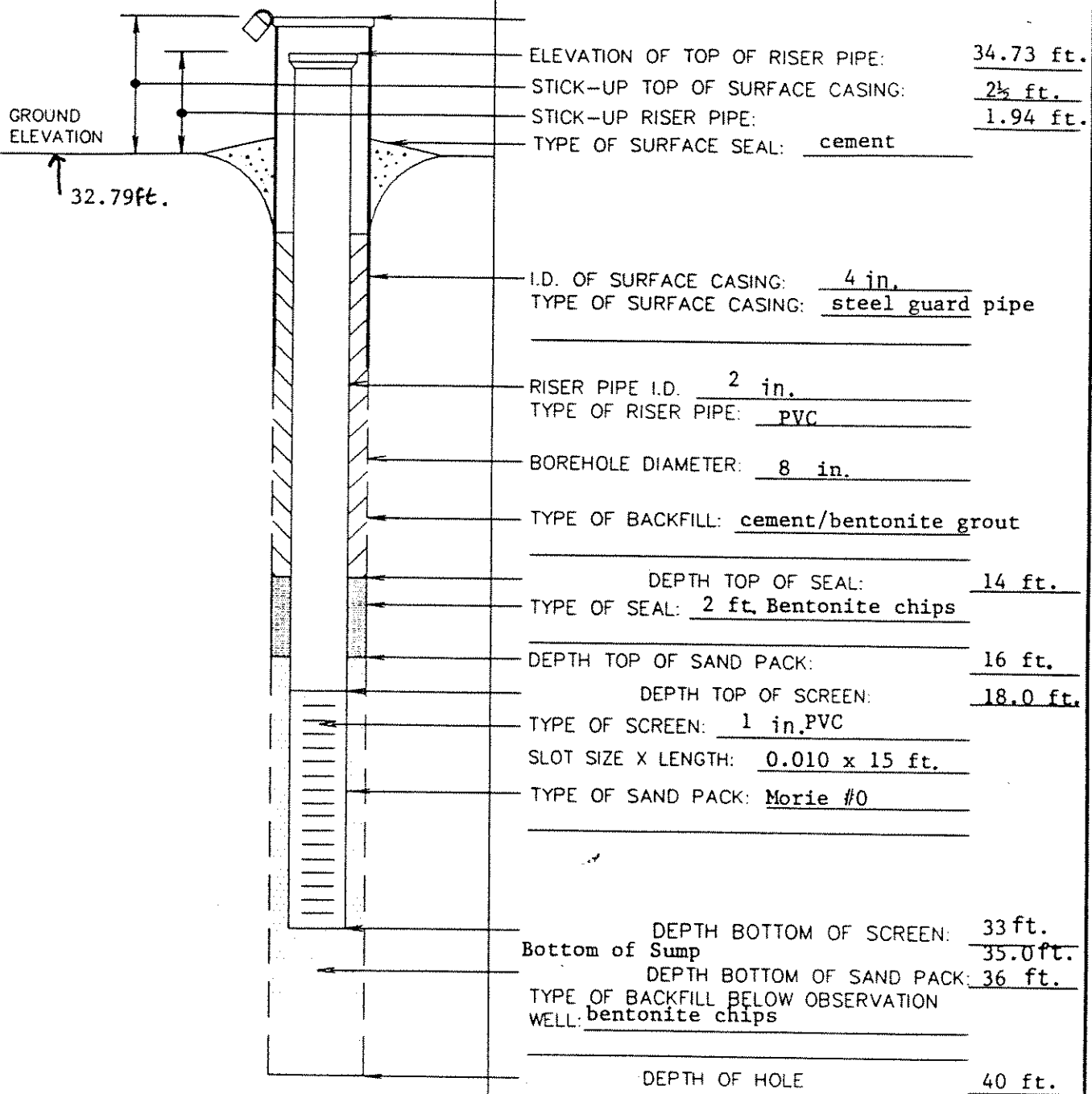
NOTES: NAB - Not Above Background
No sampling performed until 38 ft. below grade.

APPENDIX C
MONITORING WELL AND PIEZOMETER CONSTRUCTION
DIAGRAMS

OVERBURDEN MONITORING WELL SHEET

WELL NO. MW-1

PROJECT <u>Niagara Mohawk - Troy, New York</u>	DRILLER <u>Parratt Wolff</u>
PROJECT NO. <u>1107</u> BORING NO. <u>MW-1</u>	DRILLING METHOD <u>4 1/2" HSA</u>
ELEVATION _____ DATE _____	DEVELOPMENT METHOD <u>Pump and Surge</u>
FIELD GEOLOGIST <u>G. DelMastro</u>	



ELEVATION OF TOP OF RISER PIPE:	<u>34.73 ft.</u>
STICK-UP TOP OF SURFACE CASING:	<u>2 1/2 ft.</u>
STICK-UP RISER PIPE:	<u>1.94 ft.</u>
TYPE OF SURFACE SEAL:	<u>cement</u>
I.D. OF SURFACE CASING:	<u>4 in.</u>
TYPE OF SURFACE CASING:	<u>steel guard pipe</u>
RISER PIPE I.D.:	<u>2 in.</u>
TYPE OF RISER PIPE:	<u>PVC</u>
BOREHOLE DIAMETER:	<u>8 in.</u>
TYPE OF BACKFILL:	<u>cement/bentonite grout</u>
DEPTH TOP OF SEAL:	<u>14 ft.</u>
TYPE OF SEAL:	<u>2 ft, Bentonite chips</u>
DEPTH TOP OF SAND PACK:	<u>16 ft.</u>
DEPTH TOP OF SCREEN:	<u>18.0 ft.</u>
TYPE OF SCREEN:	<u>1 in. PVC</u>
SLOT SIZE X LENGTH:	<u>0.010 x 15 ft.</u>
TYPE OF SAND PACK:	<u>Morie #0</u>
DEPTH BOTTOM OF SCREEN:	<u>33 ft.</u>
Bottom of Sump:	<u>35.0 ft.</u>
DEPTH BOTTOM OF SAND PACK:	<u>36 ft.</u>
TYPE OF BACKFILL BELOW OBSERVATION WELL:	<u>bentonite chips</u>
DEPTH OF HOLE:	<u>40 ft.</u>

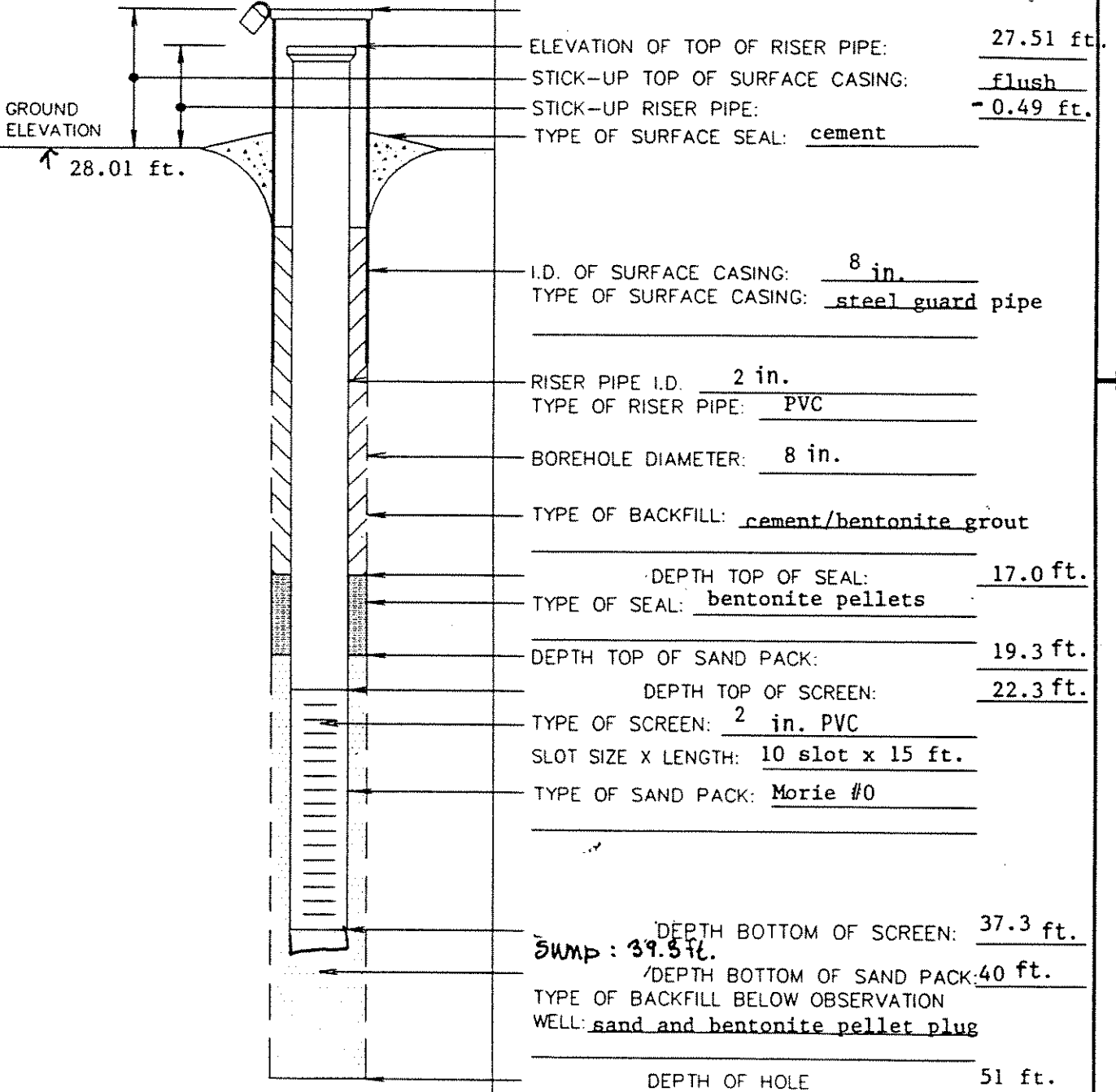
NOT TO SCALE

OVERBURDEN MONITORING WELL SHEET

WELL NO. MW-2A

PROJECT Niagara Mohawk - Troy, New York
 PROJECT NO. 1107 BORING NO. MW-2A
 ELEVATION _____ DATE 7/28/94
 FIELD GEOLOGIST K. MacGregor

DRILLER Empire Soils
 DRILLING METHOD 4 1/2" HSA
 DEVELOPMENT METHOD pump and surge



NOT TO SCALE

OVERBURDEN MONITORING WELL SHEET

WELL NO. MW-3

PROJECT Niagara Mohawk - Troy, New York

DRILLER SJB

PROJECT NO. 1107

BORING NO. MW-3

DRILLING 4 1/2" HSA

ELEVATION _____

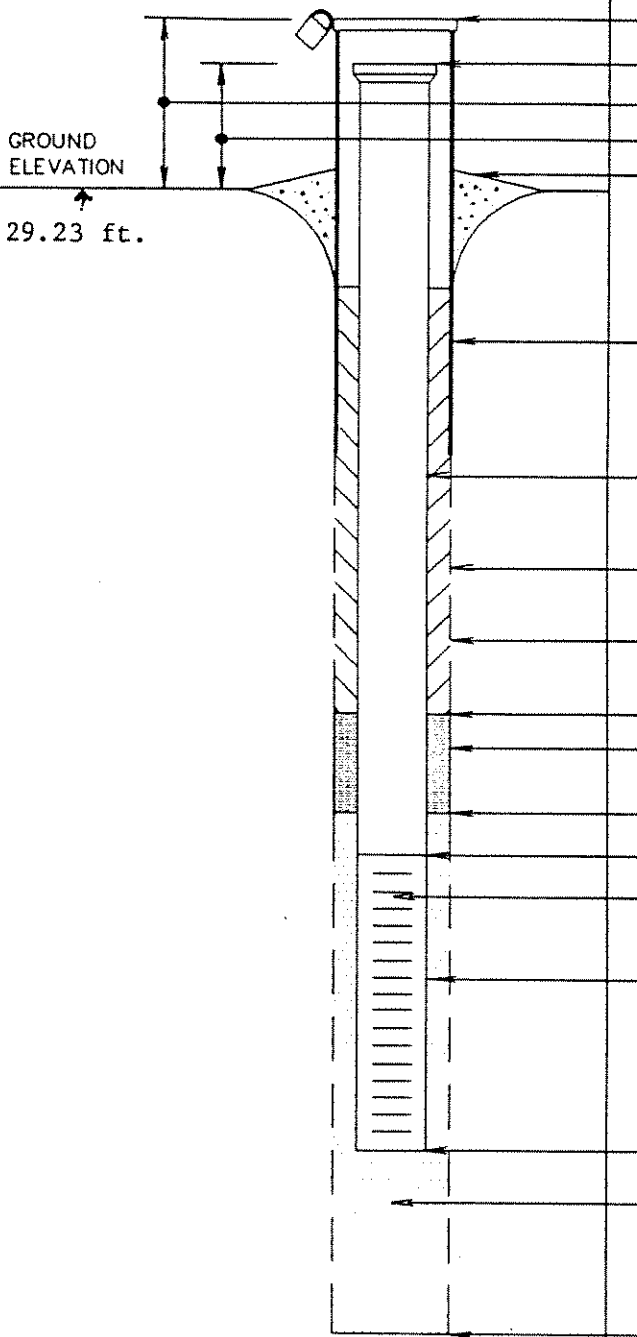
DATE 8/16/94

METHOD _____

FIELD GEOLOGIST K. MacGregor

DEVELOPMENT _____

METHOD Pump and Surge



ELEVATION OF TOP OF RISER PIPE:	<u>31.43 ft</u>
STICK-UP TOP OF SURFACE CASING:	<u>2.20 ft</u>
STICK-UP RISER PIPE:	<u>2.5 ft.</u>
TYPE OF SURFACE SEAL:	<u>cement</u>
I.D. OF SURFACE CASING:	<u>4 in. square</u>
TYPE OF SURFACE CASING:	<u>steel</u>
<u>protective casing</u>	
RISER PIPE I.D.	<u>2 in. PVC</u>
TYPE OF RISER PIPE:	<u>PVC</u>
BOREHOLE DIAMETER:	<u>8 in.</u>
TYPE OF BACKFILL:	<u>cement/bentonite grout</u>
/DEPTH TOP OF SEAL:	<u>19 ft.</u>
TYPE OF SEAL:	<u>bentonite pellets</u>
DEPTH TOP OF SAND PACK:	<u>21 ft.</u>
/DEPTH TOP OF SCREEN:	<u>23 ft.</u>
TYPE OF SCREEN:	<u>2 in. PVC</u>
SLOT SIZE X LENGTH:	<u>.010 x 15 feet</u>
TYPE OF SAND PACK:	<u>Morie #0</u>
DEPTH BOTTOM OF SCREEN:	<u>38 ft.</u>
DEPTH BOTTOM OF SAND PACK:	<u>40 ft.</u>
TYPE OF BACKFILL BELOW OBSERVATION WELL:	_____
DEPTH OF HOLE	<u>40 ft.</u>

NOT TO SCALE

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MW-4A

PROJECT Niagara Mohawk - Troy, New York

PROJECT NO. 1107

BORING NO. MW-4A

ELEVATION _____

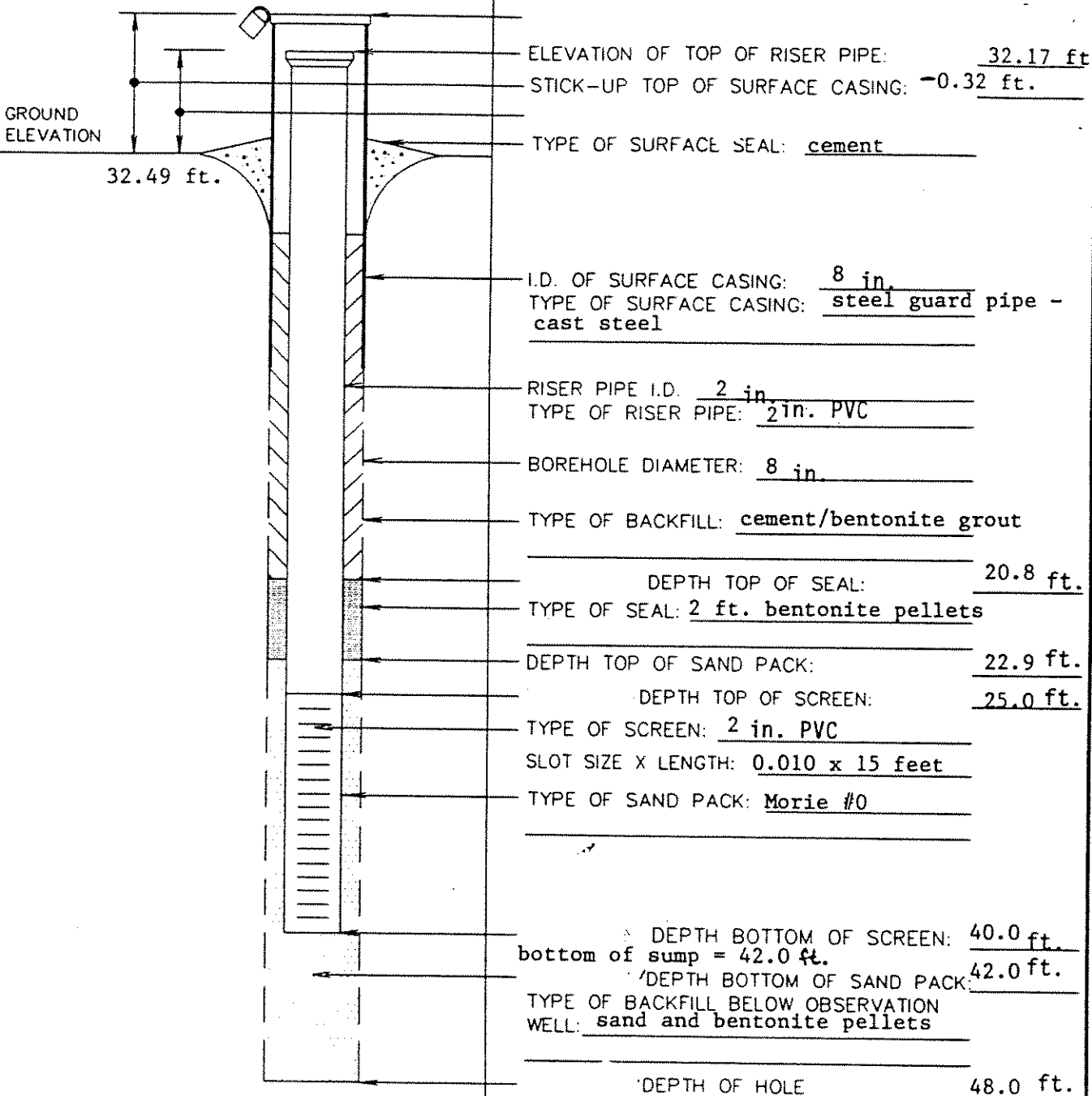
DATE _____

FIELD GEOLOGIST K. MacGregor

DRILLER SJB Drilling

DRILLING METHOD 4 1/2" HSA

DEVELOPMENT METHOD Pump and Surge



ELEVATION OF TOP OF RISER PIPE: 32.17 ft
 STICK-UP TOP OF SURFACE CASING: -0.32 ft.
 TYPE OF SURFACE SEAL: cement
 I.D. OF SURFACE CASING: 8 in.
 TYPE OF SURFACE CASING: steel guard pipe - cast steel
 RISER PIPE I.D.: 2 in.
 TYPE OF RISER PIPE: 2 in. PVC
 BOREHOLE DIAMETER: 8 in.
 TYPE OF BACKFILL: cement/bentonite grout
 DEPTH TOP OF SEAL: 20.8 ft.
 TYPE OF SEAL: 2 ft. bentonite pellets
 DEPTH TOP OF SAND PACK: 22.9 ft.
 DEPTH TOP OF SCREEN: 25.0 ft.
 TYPE OF SCREEN: 2 in. PVC
 SLOT SIZE X LENGTH: 0.010 x 15 feet
 TYPE OF SAND PACK: Morie #0
 DEPTH BOTTOM OF SCREEN: 40.0 ft.
 bottom of sump = 42.0 ft.
 DEPTH BOTTOM OF SAND PACK: 42.0 ft.
 TYPE OF BACKFILL BELOW OBSERVATION WELL: sand and bentonite pellets
 DEPTH OF HOLE 48.0 ft.

NOT TO SCALE

UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-5S

PROJECT Niagara Mohawk - Troy, N.Y.

PROJECT NO. 1107

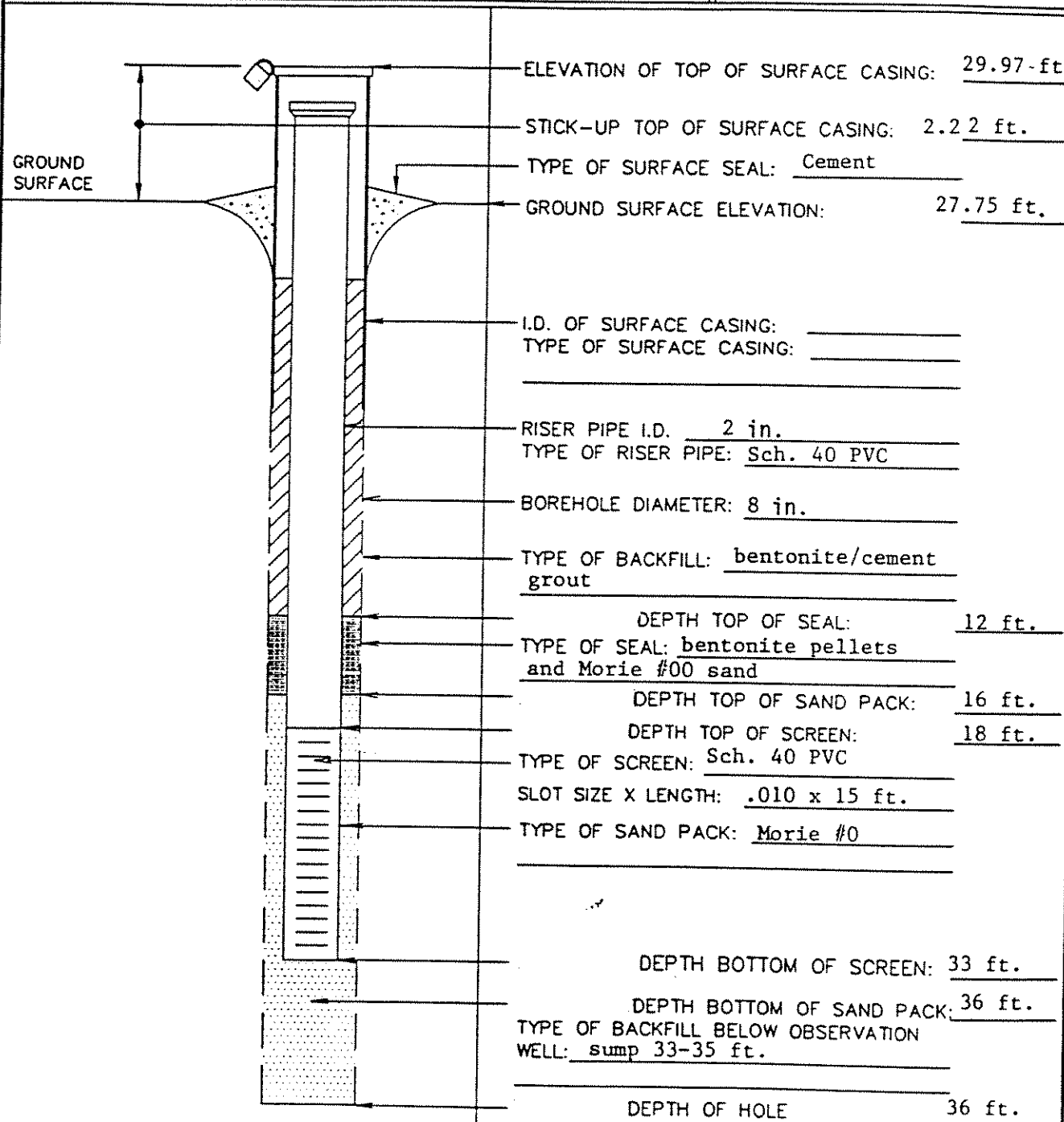
ELEVATION _____ DATE 10/13/95

FIELD GEOLOGIST Dave Felton

DRILLER SJB

DRILLING METHOD 4 1/2" ID HSA

DEVELOPMENT METHOD Pump & Surge



ELEVATION OF TOP OF SURFACE CASING: 29.97-ft

STICK-UP TOP OF SURFACE CASING: 2.22 ft.

TYPE OF SURFACE SEAL: Cement

GROUND SURFACE ELEVATION: 27.75 ft.

I.D. OF SURFACE CASING: _____
TYPE OF SURFACE CASING: _____

RISER PIPE I.D. 2 in.
TYPE OF RISER PIPE: Sch. 40 PVC

BOREHOLE DIAMETER: 8 in.

TYPE OF BACKFILL: bentonite/cement grout

DEPTH TOP OF SEAL: 12 ft.

TYPE OF SEAL: bentonite pellets and Morie #00 sand

DEPTH TOP OF SAND PACK: 16 ft.

DEPTH TOP OF SCREEN: 18 ft.

TYPE OF SCREEN: Sch. 40 PVC

SLOT SIZE X LENGTH: .010 x 15 ft.

TYPE OF SAND PACK: Morie #0

DEPTH BOTTOM OF SCREEN: 33 ft.

DEPTH BOTTOM OF SAND PACK: 36 ft.

TYPE OF BACKFILL BELOW OBSERVATION WELL: sump 33-35 ft.

DEPTH OF HOLE 36 ft.

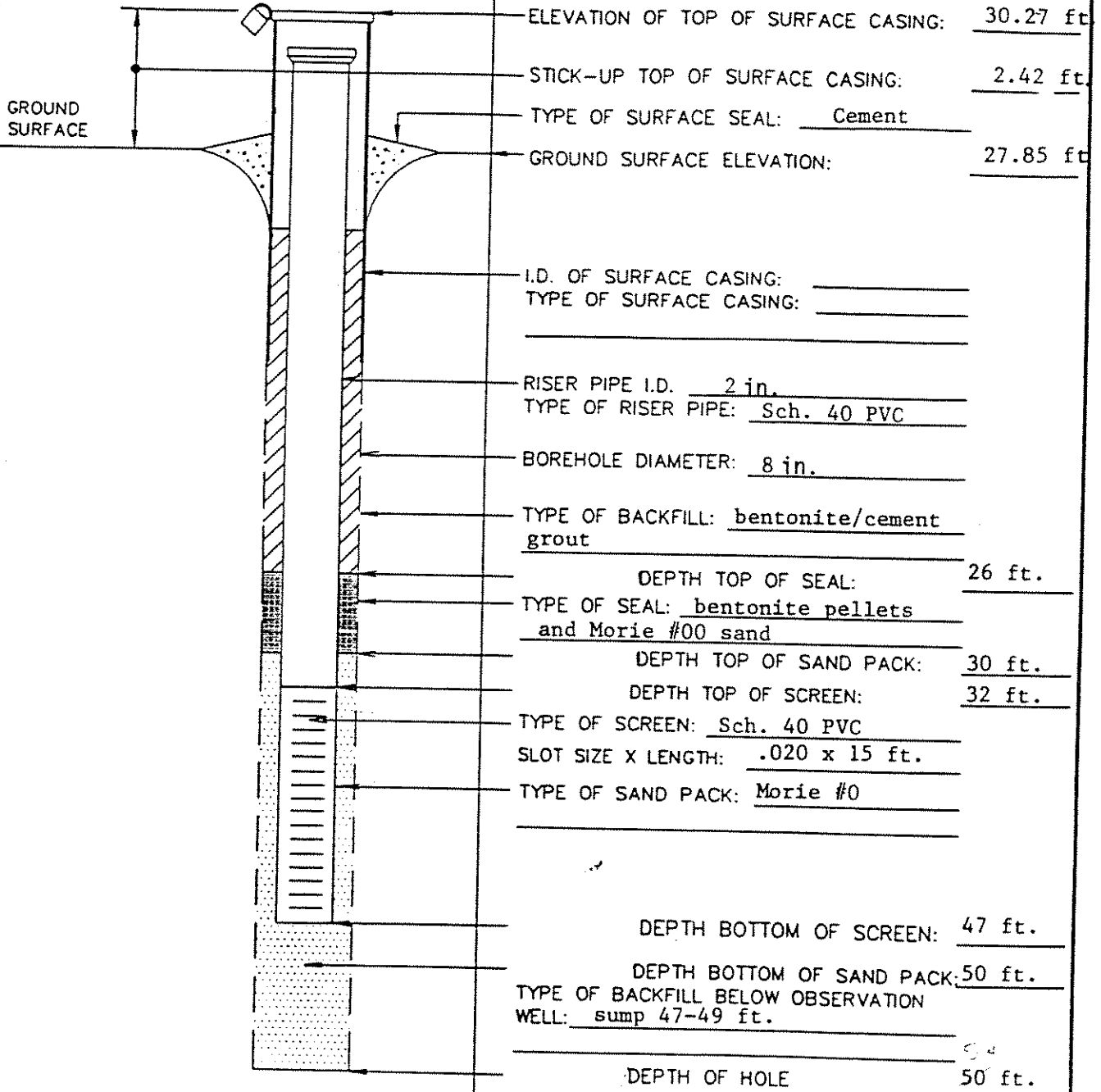
NOT TO SCALE

UNCONSOLIDATED MONITORING WELL CONSTRUCTION DIAGRAM

WELL NO. MW-5D

PROJECT Niagara Mohawk - Troy, N.Y.
 PROJECT NO. 1107
 ELEVATION _____ DATE 10/10/95
 FIELD GEOLOGIST Dave Felton

DRILLER SJB
 DRILLING METHOD 4 1/2" ID HSA
 DEVELOPMENT METHOD Pump & Surge



ELEVATION OF TOP OF SURFACE CASING: 30.27 ft
 STICK-UP TOP OF SURFACE CASING: 2.42 ft
 TYPE OF SURFACE SEAL: Cement
 GROUND SURFACE ELEVATION: 27.85 ft
 I.D. OF SURFACE CASING: _____
 TYPE OF SURFACE CASING: _____
 RISER PIPE I.D. 2 in.
 TYPE OF RISER PIPE: Sch. 40 PVC
 BOREHOLE DIAMETER: 8 in.
 TYPE OF BACKFILL: bentonite/cement grout
 DEPTH TOP OF SEAL: 26 ft.
 TYPE OF SEAL: bentonite pellets and Morie #00 sand
 DEPTH TOP OF SAND PACK: 30 ft.
 DEPTH TOP OF SCREEN: 32 ft.
 TYPE OF SCREEN: Sch. 40 PVC
 SLOT SIZE X LENGTH: .020 x 15 ft.
 TYPE OF SAND PACK: Morie #0
 DEPTH BOTTOM OF SCREEN: 47 ft.
 DEPTH BOTTOM OF SAND PACK: 50 ft.
 TYPE OF BACKFILL BELOW OBSERVATION WELL: sump 47-49 ft.
 DEPTH OF HOLE 50 ft.

NOT TO SCALE

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MW-6

PROJECT Niagara Mohawk - Troy, New York

PROJECT NO. 1107

BORING NO. MW-6

ELEVATION _____

DATE _____

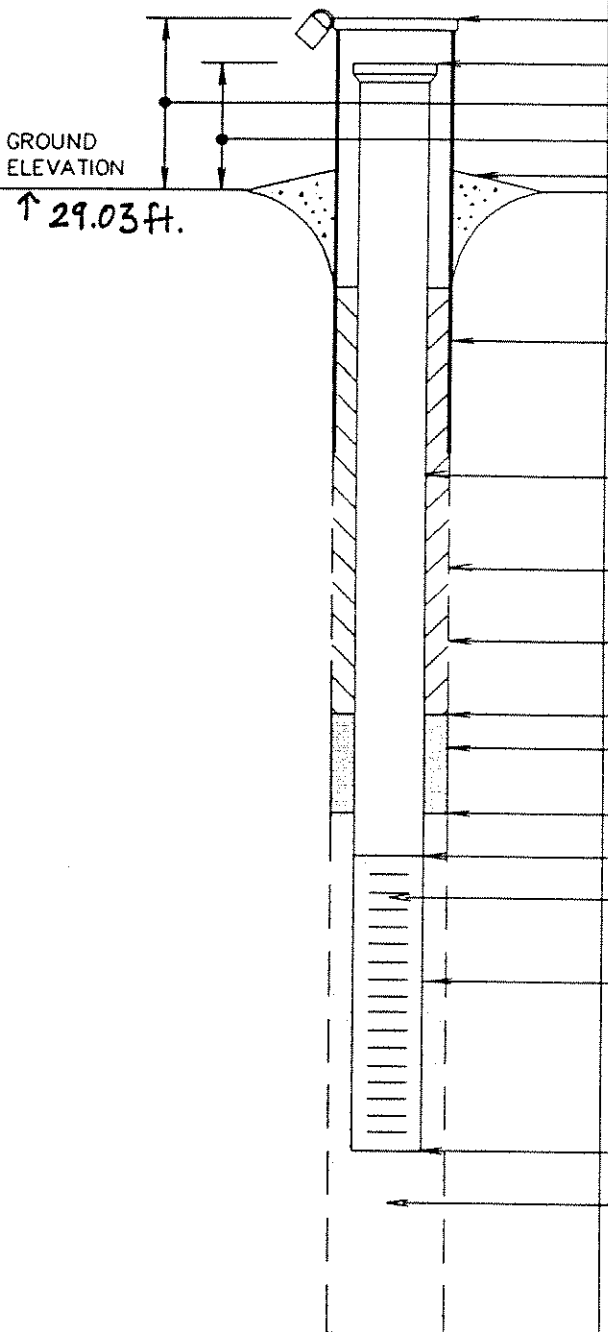
FIELD GEOLOGIST K. MacGregor

DRILLER SJB

DRILLING METHOD 4 1/2" HSA

DEVELOPMENT METHOD _____

Pump and Surge



ELEVATION OF TOP OF RISER PIPE: 31.11 ft.

STICK-UP TOP OF SURFACE CASING: 2.08 ft.

TYPE OF SURFACE SEAL: cement

I.D. OF SURFACE CASING: 4 in. square

TYPE OF SURFACE CASING: steel

protective casing, 4 in. square

RISER PIPE I.D.: 2 in. PVC

TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 8 in.

TYPE OF BACKFILL: cement/bentonite grout

/DEPTH TOP OF SEAL: 34.5 ft.

TYPE OF SEAL: bentonite

DEPTH TOP OF SAND PACK: 37.5 ft.

/DEPTH TOP OF SCREEN: 41.4 ft.

TYPE OF SCREEN: 2 in. PVC

SLOT SIZE X LENGTH: .010 x 10 feet

TYPE OF SAND PACK: Morie #0

DEPTH BOTTOM OF SCREEN: 51.4 ft.
sump bottom - 53 ft.

DEPTH BOTTOM OF SAND PACK: 53.5 ft.

TYPE OF BACKFILL BELOW OBSERVATION WELL: none

DEPTH OF HOLE 53.5 ft.

NOT TO SCALE

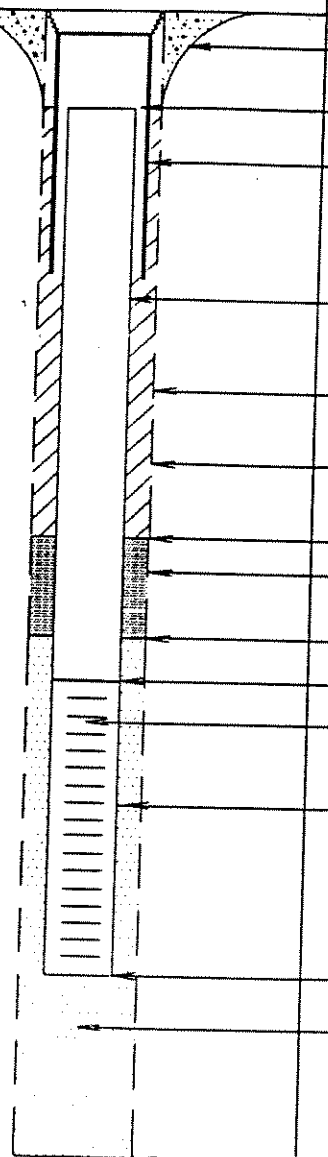
UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-7S

PROJECT Niagara Mohawk - Troy, Smith Ave
PROJECT NO. 1824.0000.0000.00005
ELEVATION 28.44 ft above MSL DATE 08-22-97
FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SJB
DRILLING METHOD Hollow - Stem Augers
DEVELOPMENT METHOD Pump and surge

GROUND SURFACE



- ELEVATION OF TOP OF SURFACE CASING: 28.44 ft
- TYPE OF SURFACE SEAL: Concrete
- GROUND SURFACE ELEVATION: 28.44 ft
- ELEVATION OF TOP OF RISER: 28.01 ft
- I.D. OF SURFACE CASING: 8"
- TYPE OF SURFACE CASING: Steel
- RISER PIPE I.D. 2 - inch
- TYPE OF RISER PIPE: Schedule 40 PVC
- BOREHOLE DIAMETER: 8-inch
- TYPE OF BACKFILL: #00 Sand from 13ft to 12ft.
cement-bentonite grout from 12ft to 1ft.
- ELEVATION/DEPTH TOP OF SEAL: 13ft.
- TYPE OF SEAL: Hydrated 3/8-inch
bentonite Pellets
- ELEVATION/DEPTH TOP OF SAND PACK: 15ft.
- ELEVATION/DEPTH TOP OF SCREEN: 18ft.
- TYPE OF SCREEN: slotted PVC
- SLOT SIZE X LENGTH: 0.010 in. X 0.1 ft
- TYPE OF SAND PACK: #1 Sand from 35ft to
16ft. #00 Sand from 16ft to 15ft.
- ELEVATION/DEPTH BOTTOM OF SCREEN: 33ft.
- Sump from 35ft to 33ft.
- ELEVATION/DEPTH BOTTOM OF SAND PACK: 35ft.
- TYPE OF BACKFILL BELOW OBSERVATION WELL: #1 Sand
- ELEVATION/DEPTH OF HOLE 35ft.

NOT TO SCALE

UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-7D

PROJECT Niagara Mohawk - Troy, Smith Ave

DRILLER M. Lenigan - SJB

PROJECT NO. 1824.0000.0000.00005

DRILLING

METHOD Hollow-Stem Augers

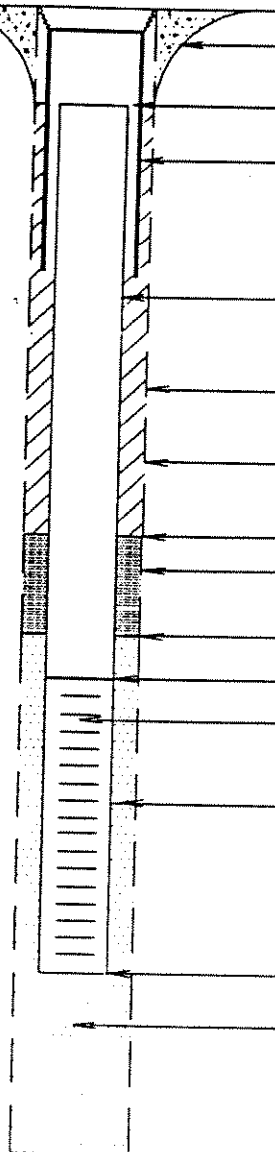
ELEVATION 28.50 ft above MSI DATE 08-15-97

DEVELOPMENT

METHOD pump and surge

FIELD GEOLOGIST Donald Campbell

GROUND
SURFACE



ELEVATION OF TOP OF SURFACE CASING: 28.50 ft

TYPE OF SURFACE SEAL: Concrete

GROUND SURFACE ELEVATION: 28.50 ft

ELEVATION OF TOP OF RISER: 28.27 ft

I.D. OF SURFACE CASING: 8"

TYPE OF SURFACE CASING: Steel

RISER PIPE I.D. 2"

TYPE OF RISER PIPE: Schedule 40, PVC

BOREHOLE DIAMETER: 8"

TYPE OF BACKFILL: Cement - bentonite grout

35.5 to 34.5 #00 Sand

ELEVATION/DEPTH TOP OF SEAL: 35.5ft

TYPE OF SEAL: Bentonite Pellets

38.5 to 37.5 #00 Sand

ELEVATION/DEPTH TOP OF SAND PACK: 38.5ft

40.5ft

ELEVATION/DEPTH TOP OF SCREEN: 38.5ft

TYPE OF SCREEN: Slotted PVC

SLOT SIZE X LENGTH: 0.010 in 0.1ft

TYPE OF SAND PACK: #1 Sand

from 53ft to 38.5 ft

ELEVATION/DEPTH BOTTOM OF SCREEN: 50.5ft

Sump 52.5 to 50.5

ELEVATION/DEPTH BOTTOM OF SAND PACK: 53ft

TYPE OF BACKFILL BELOW OBSERVATION

WELL: #1 Sand

ELEVATION/DEPTH OF HOLE 53ft

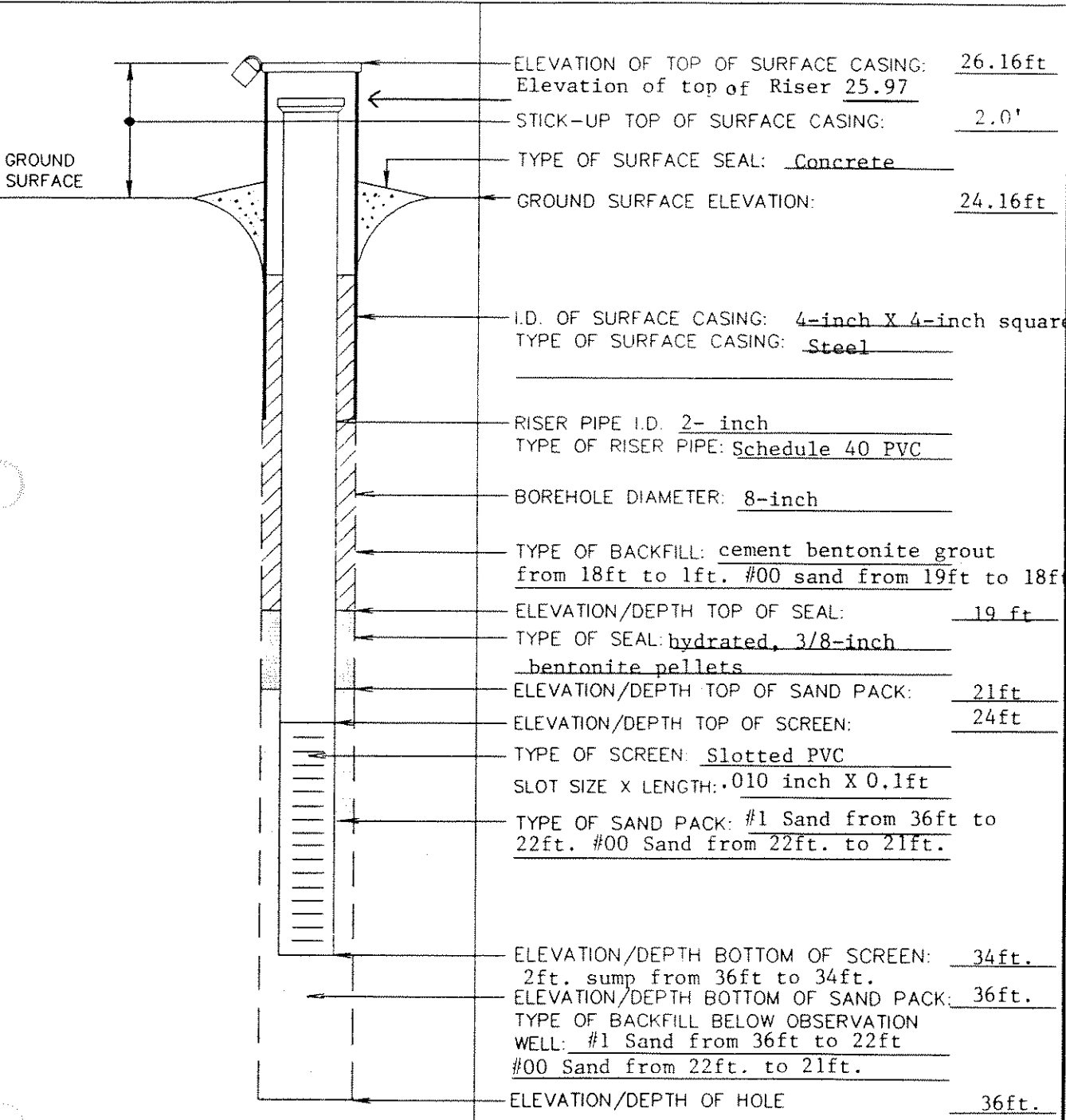
NOT TO SCALE

UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-8

PROJECT Niagara Mohawk - Troy, Smith Ave
 PROJECT NO. 1824.0000.0000.00005
 ELEVATION 24.16 ft above MSL DATE 08-08-97
 FIELD GEOLOGIST Donald Campbell

DRILLER T. Farrell -SJB
 DRILLING METHOD Hollow Stem Augers
 DEVELOPMENT METHOD Pump and surge



- ELEVATION OF TOP OF SURFACE CASING: 26.16ft
- Elevation of top of Riser 25.97
- STICK-UP TOP OF SURFACE CASING: 2.0'
- TYPE OF SURFACE SEAL: Concrete
- GROUND SURFACE ELEVATION: 24.16ft
- I.D. OF SURFACE CASING: 4-inch X 4-inch square
- TYPE OF SURFACE CASING: Steel
- RISER PIPE I.D. 2- inch
- TYPE OF RISER PIPE: Schedule 40 PVC
- BOREHOLE DIAMETER: 8-inch
- TYPE OF BACKFILL: cement bentonite grout from 18ft to 1ft. #00 sand from 19ft to 18ft
- ELEVATION/DEPTH TOP OF SEAL: 19 ft
- TYPE OF SEAL: hydrated, 3/8-inch bentonite pellets
- ELEVATION/DEPTH TOP OF SAND PACK: 21ft
- ELEVATION/DEPTH TOP OF SCREEN: 24ft
- TYPE OF SCREEN: Slotted PVC
- SLOT SIZE X LENGTH: .010 inch X 0.1ft
- TYPE OF SAND PACK: #1 Sand from 36ft to 22ft. #00 Sand from 22ft. to 21ft.
- ELEVATION/DEPTH BOTTOM OF SCREEN: 34ft.
- 2ft. sump from 36ft to 34ft.
- ELEVATION/DEPTH BOTTOM OF SAND PACK: 36ft.
- TYPE OF BACKFILL BELOW OBSERVATION WELL: #1 Sand from 36ft to 22ft #00 Sand from 22ft. to 21ft.
- ELEVATION/DEPTH OF HOLE 36ft.

NOT TO SCALE

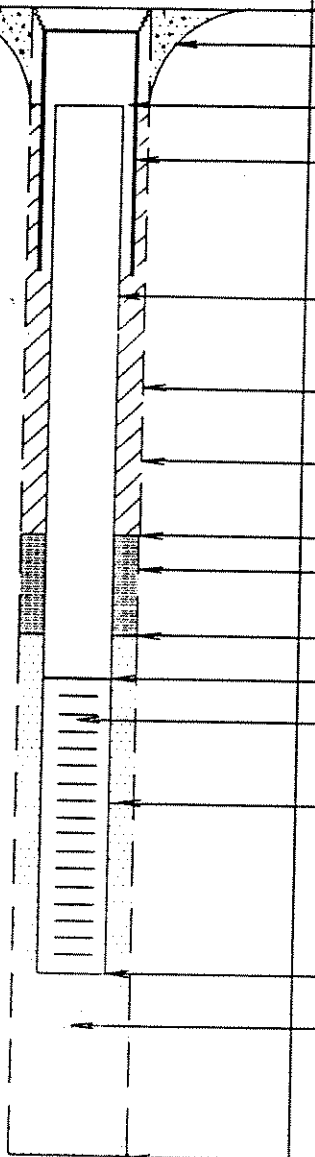
UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-9S

PROJECT Niagara Mohawk - Troy, Smith Ave
 PROJECT NO. 1824.0000.0000.00005
 ELEVATION 24.44ft above MSL DATE 08-14-97
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SJB
 DRILLING METHOD Hollow - Stem Augers
 DEVELOPMENT METHOD pump and surge

GROUND SURFACE



ELEVATION OF TOP OF SURFACE CASING: 24.44ft
 TYPE OF SURFACE SEAL: Concrete
 GROUND SURFACE ELEVATION: 24.44ft
 ELEVATION OF TOP OF RISER: 24.23ft
 I.D. OF SURFACE CASING: 8-inch
 TYPE OF SURFACE CASING: steel
 RISER PIPE I.D. 2-inch
 TYPE OF RISER PIPE: Schedule 40 PVC
 BOREHOLE DIAMETER: 8-inch
 TYPE OF BACKFILL: #00 Sand from 10ft to 9ft
cement bentonite grout from 9ft to 1ft
 ELEVATION/DEPTH TOP OF SEAL: 10ft
 TYPE OF SEAL: Hydrated 3/8-inch
bentonite pellets
 ELEVATION/DEPTH TOP OF SAND PACK: 12ft.
 ELEVATION/DEPTH TOP OF SCREEN: 15ft.
 TYPE OF SCREEN: slotted PVC
 SLOT SIZE X LENGTH: .010 in 0.1ft
 TYPE OF SAND PACK: #1 Sand from 36ft to
13ft. #00 Sand form 13ft to 12ft.
 ELEVATION/DEPTH BOTTOM OF SCREEN: 30ft.
2ft. Sumo 32ft to 30ft.
 ELEVATION/DEPTH BOTTOM OF SAND PACK: 36ft.
 TYPE OF BACKFILL BELOW OBSERVATION
 WELL: #1 Sand
 ELEVATION/DEPTH OF HOLE 36ft.

NOT TO SCALE

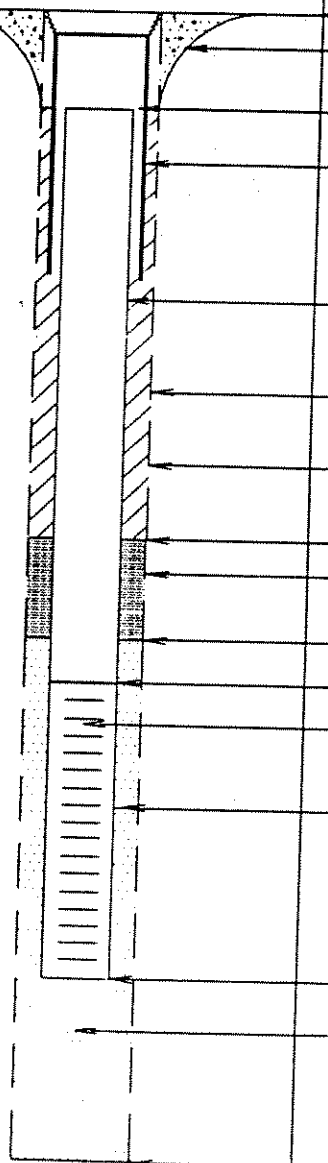
UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-9D

PROJECT Niagara Mohawk - Troy, Smith Ave
 PROJECT NO. 1824.0000.0000.00005
 ELEVATION 24.70ft above MSL DATE 08-12-97
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SJB
 DRILLING METHOD Hollow - Stem Augers
 DEVELOPMENT METHOD pump and surge

GROUND SURFACE



- ELEVATION OF TOP OF SURFACE CASING: 24.70ft
- TYPE OF SURFACE SEAL: Concrete
- GROUND SURFACE ELEVATION: 24.70ft
- ELEVATION OF TOP OF RISER: 24.32ft
- I.D. OF SURFACE CASING: 8"
- TYPE OF SURFACE CASING: Steel
- RISER PIPE I.D. 2"
- TYPE OF RISER PIPE: Schedule 40 PVC
- BOREHOLE DIAMETER: 8"
- TYPE OF BACKFILL: Cement-bentonite grout
#00 Sand to 33 ft
- ELEVATION/DEPTH TOP OF SEAL: 34 ft
- TYPE OF SEAL: Bentonite Pellets
#00 Sand from 35ft to 36ft
- ELEVATION/DEPTH TOP OF SAND PACK: 37 ft
- ELEVATION/DEPTH TOP OF SCREEN: 39 ft
- TYPE OF SCREEN: Slotted PVC
- SLOT SIZE X LENGTH: 0.010 in 0.1ft
- TYPE OF SAND PACK: #1 Sand
from 51.5ft to 35ft
- ELEVATION/DEPTH BOTTOM OF SCREEN: 49 ft
2ft Sump from 51ft to 49ft.
- ELEVATION/DEPTH BOTTOM OF SAND PACK: 51ft
- TYPE OF BACKFILL BELOW OBSERVATION WELL: #1 Sand
51.5 to 49
51.5 to 51.00 Bentonite
- ELEVATION/DEPTH OF HOLE: 51.5ft

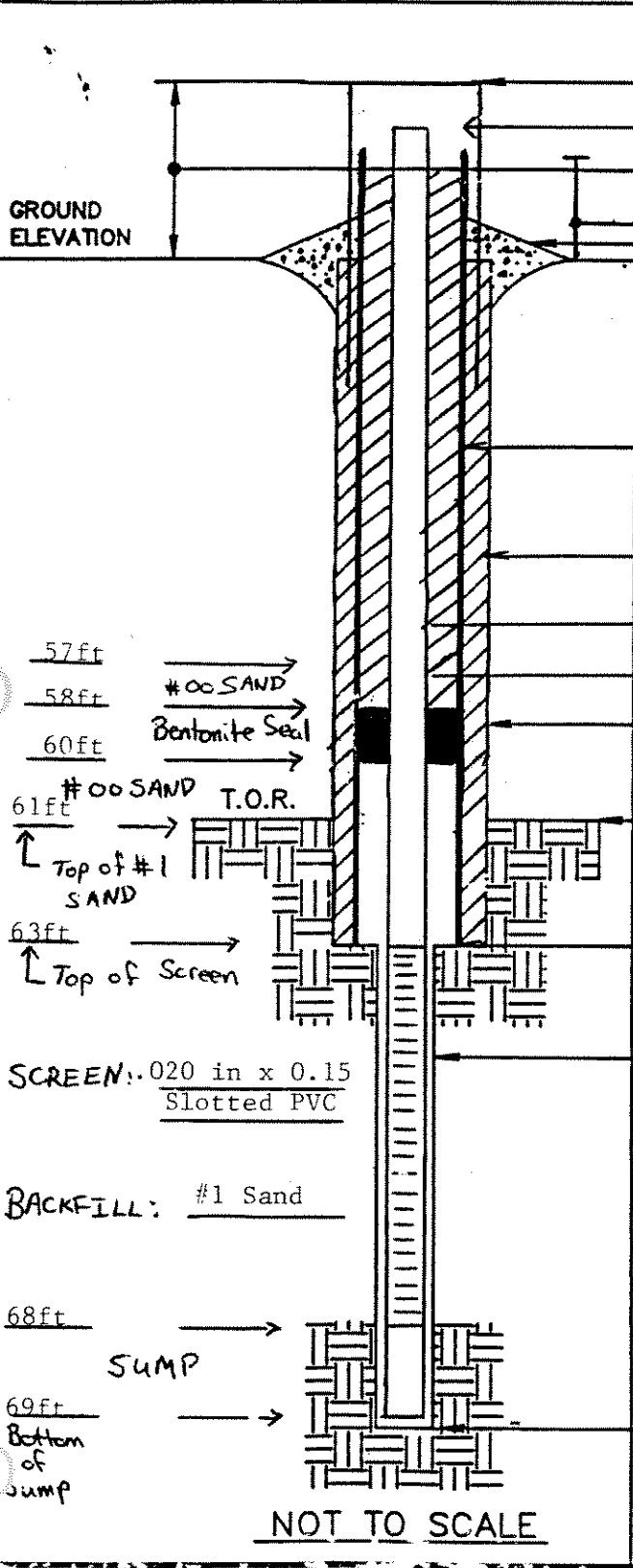
NOT TO SCALE

BEDROCK SCREENED WELL MONITORING WELL SHEET

WELL NO. MW-12

PROJECT Niagara Mohawk - Troy Smith Ave
 PROJECT NO. 1824.0000.0000.00005 BORING NO. MW-12
 ELEVATION 27.92ft above MSL DATE 09-15-97
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SIR
 DRILLING METHOD 6 spin casing HQ core
 DEVELOPMENT METHOD Hand Bail



PROTECTIVE
 ELEVATION OF TOP OF CASING: 31.01ft
 Elevation of top of Riser
PROTECTIVE
 STICK-UP OF CASING ABOVE GROUND SURFACE:
 STICK-UP OF CASING ABOVE G.S.
 TYPE OF SURFACE SEAL: Concrete

I.D. OF CASING: 4"
 TYPE OF CASING: Steel

BOREHOLE DIAMETER: 6"

I.D. OF RISER: 2"

TYPE OF RISER: Schedule 40 PVC

TYPE OF CASING SEAL: Hydrate 3/8" Bentonite chips

DEPTH TO TOP OF ROCK: 57ft

DEPTH TO BOTTOM CASING: 63ft

DIAMETER OF HOLE IN BEDROCK: 4"

DESCRIPTION OF BEDROCK:
Medium-hard, black shale; micro-laminated bedding at 45°; weathering: fresh; fracturing broken, average spacing between fractures is 2" to 1 foot.

ELEVATION/DEPTH OF HOLE: 69ft

57ft →
 58ft → #00 SAND
 60ft → Bentonite Seal

61ft → #00 SAND T.O.R.
 ↑ Top of #1 SAND

63ft → Top of Screen

SCREEN: .020 in x 0.15 Slotted PVC

BACKFILL: #1 Sand

68ft → SUMP

69ft → Bottom of Sump

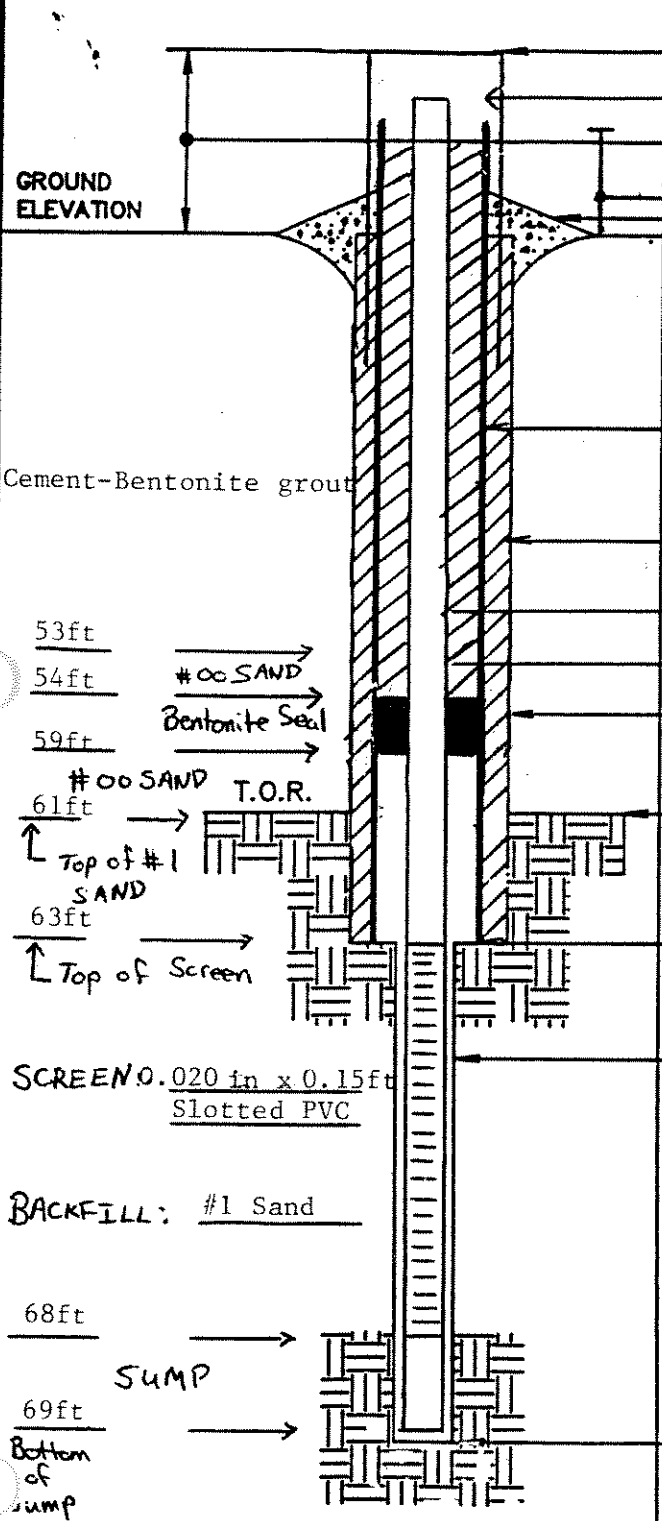
BEDROCK SCREENED WELL MONITORING WELL SHEET

WELL NO. MW-13

PROJECT Niagara Mohawk - Troy, Smith Ave
 PROJECT NO. 1824.0000.0000.00005
 ELEVATION 29.92ft above MSL
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SJB
 DRILLING METHOD HSA spin casing HO core
 DEVELOPMENT METHOD Hand Bail

BORING NO. MW-13
 DATE 09-10-97



PROTECTIVE

ELEVATION OF TOP OF CASING: 33.12ft
 Elevation of top of Riser 32.35ft

PROTECTIVE

STICK-UP OF CASING ABOVE GROUND SURFACE: 3.2ft
 STICK-UP OF CASING ABOVE G.S. 0.5ft
 TYPE OF SURFACE SEAL: Concrete

I.D. OF CASING: 4"
 TYPE OF CASING: Steel

BOREHOLE DIAMETER: 6"

ID OF RISER: 2"
 TYPE OF RISER: Schedule 40 PVC

TYPE OF CASING SEAL: Hydrated 3/8" Bentonite Chips

DEPTH TO TOP OF ROCK: 51ft

DEPTH TO BOTTOM CASING: 63ft

DIAMETER OF HOLE IN BEDROCK: 4"

DESCRIPTION OF BEDROCK:
Medium-hard black shale; Micro-Laminated bedding at 45°, Occasional white bedding, Blocky little or no weathering; Pyrite present

ELEVATION/DEPTH OF HOLE: 69ft

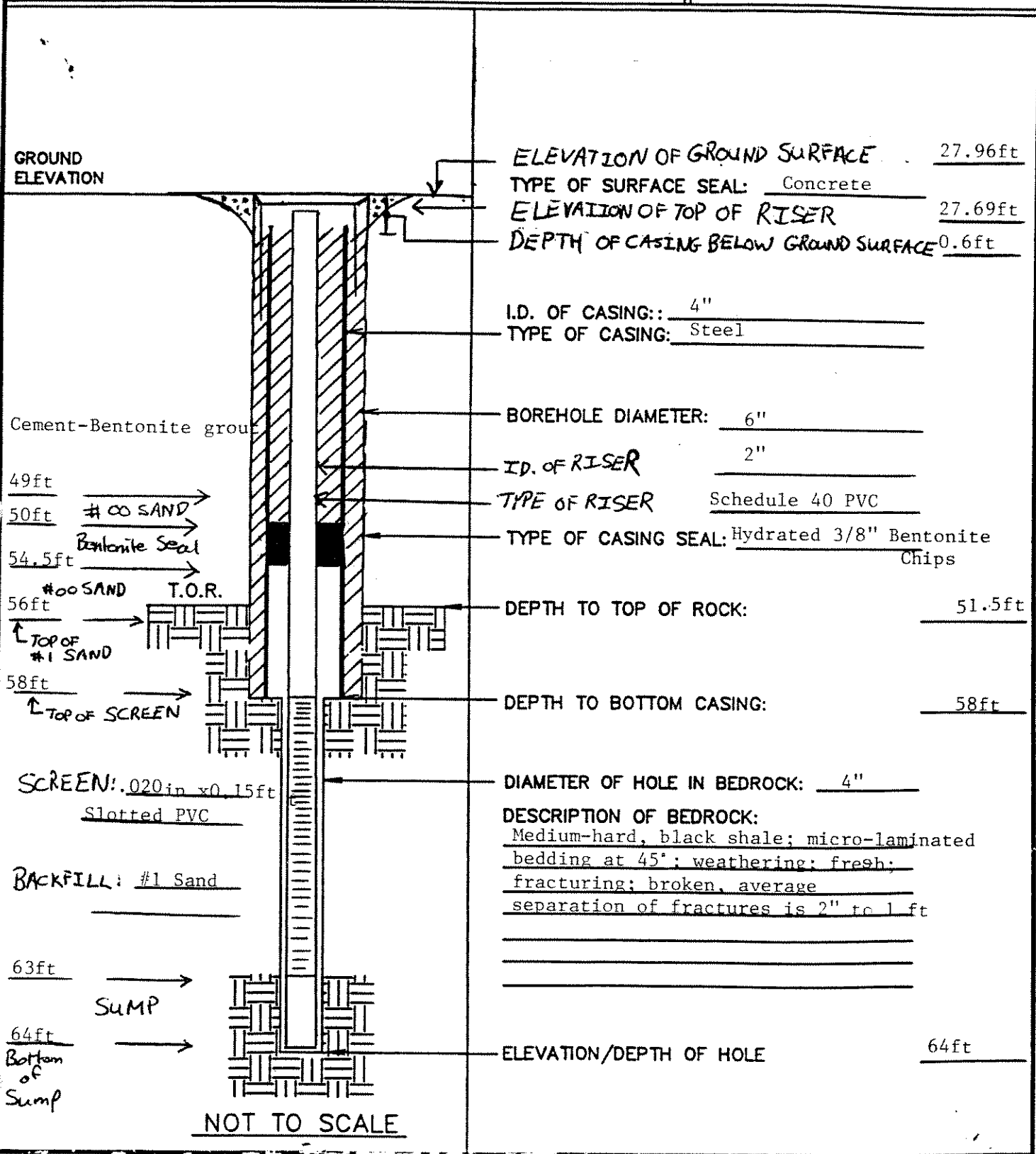
NOT TO SCALE

BEDROCK SCREENED WELL MONITORING WELL SHEET

WELL NO. MW-14

PROJECT Niagara Mohawk - Troy Smith Ave
 PROJECT NO. 1824.0000.0000.00005 BORING NO. MW-14
 ELEVATION 27.96ft above MSL DATE 09-09-97
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SIR
 DRILLING METHOD Spin casing HQ core
 DEVELOPMENT METHOD Hand Bail

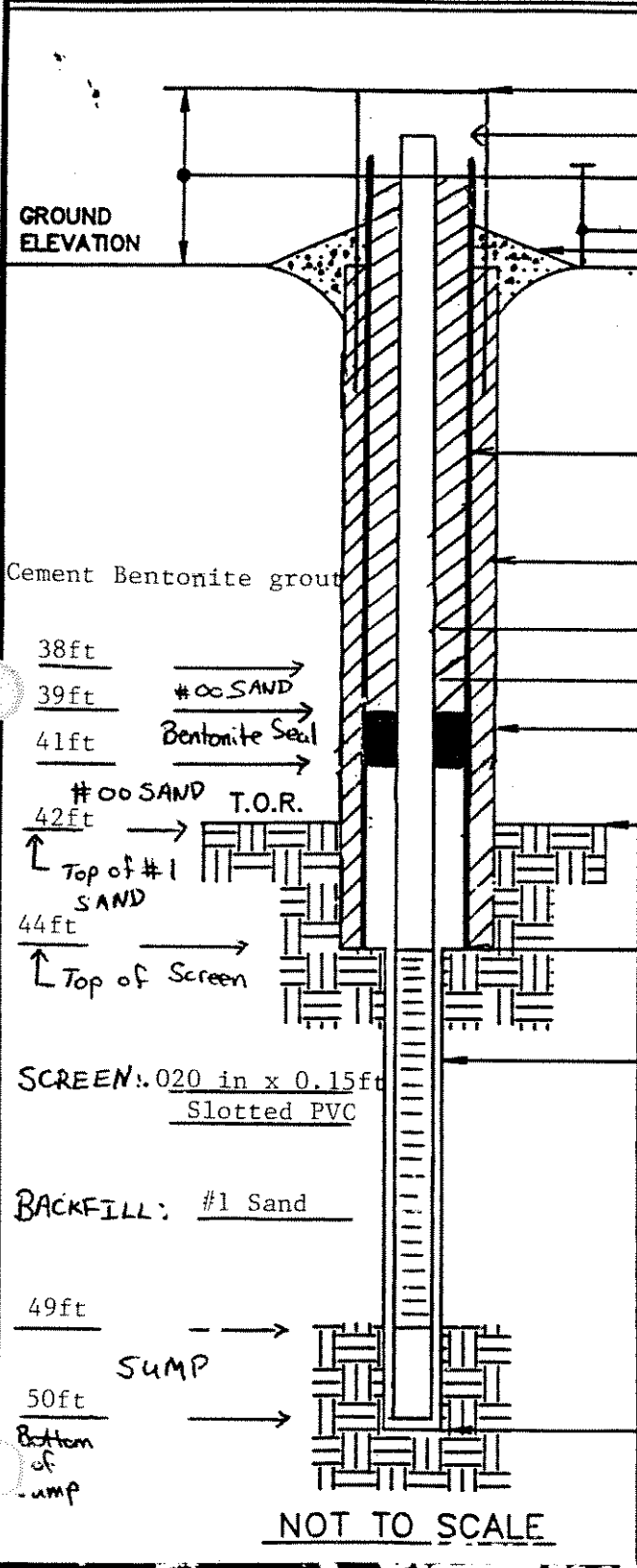


BEDROCK SCREENED WELL MONITORING WELL SHEET

WELL NO. MW-15

PROJECT Niagara Mohawk - Troy Smith Ave
 PROJECT NO. 1824 0000 0000 00005 BORING NO. MW-15
 ELEVATION 32.75ft above MSI DATE 09-08-97
 FIELD GEOLOGIST Donald Campbell

DRILLER M. Lenigan - SJB
 DRILLING METHOD Spin casing, HO core
 DEVELOPMENT METHOD Hand Bail



PROTECTIVE

ELEVATION OF TOP OF CASING: 32.20ft
 Elevation of top of Riser _____

PROTECTIVE

STICK-UP OF CASING ABOVE GROUND SURFACE: _____
 STICK-UP OF CASING ABOVE G.S. _____
 TYPE OF SURFACE SEAL: Concrete

I.D. OF CASING: 4"
 TYPE OF CASING: Steel

BOREHOLE DIAMETER: 6"

I.D. OF RISER: 2"
 TYPE OF RISER: Schedule 40 PVC

TYPE OF CASING SEAL: Hydrsted 3/8" bentonite Pellets

DEPTH TO TOP OF ROCK: 37.5ft

DEPTH TO BOTTOM CASING: 44ft

DIAMETER OF HOLE IN BEDROCK: 4"

DESCRIPTION OF BEDROCK:
Medium-hard, black shale;
Micro-liminated bedding at approximately
45°; weathering: Fresh; fracturing;
broken, average spacing between fractures
is 2" to 1 ft

ELEVATION/DEPTH OF HOLE 50ft

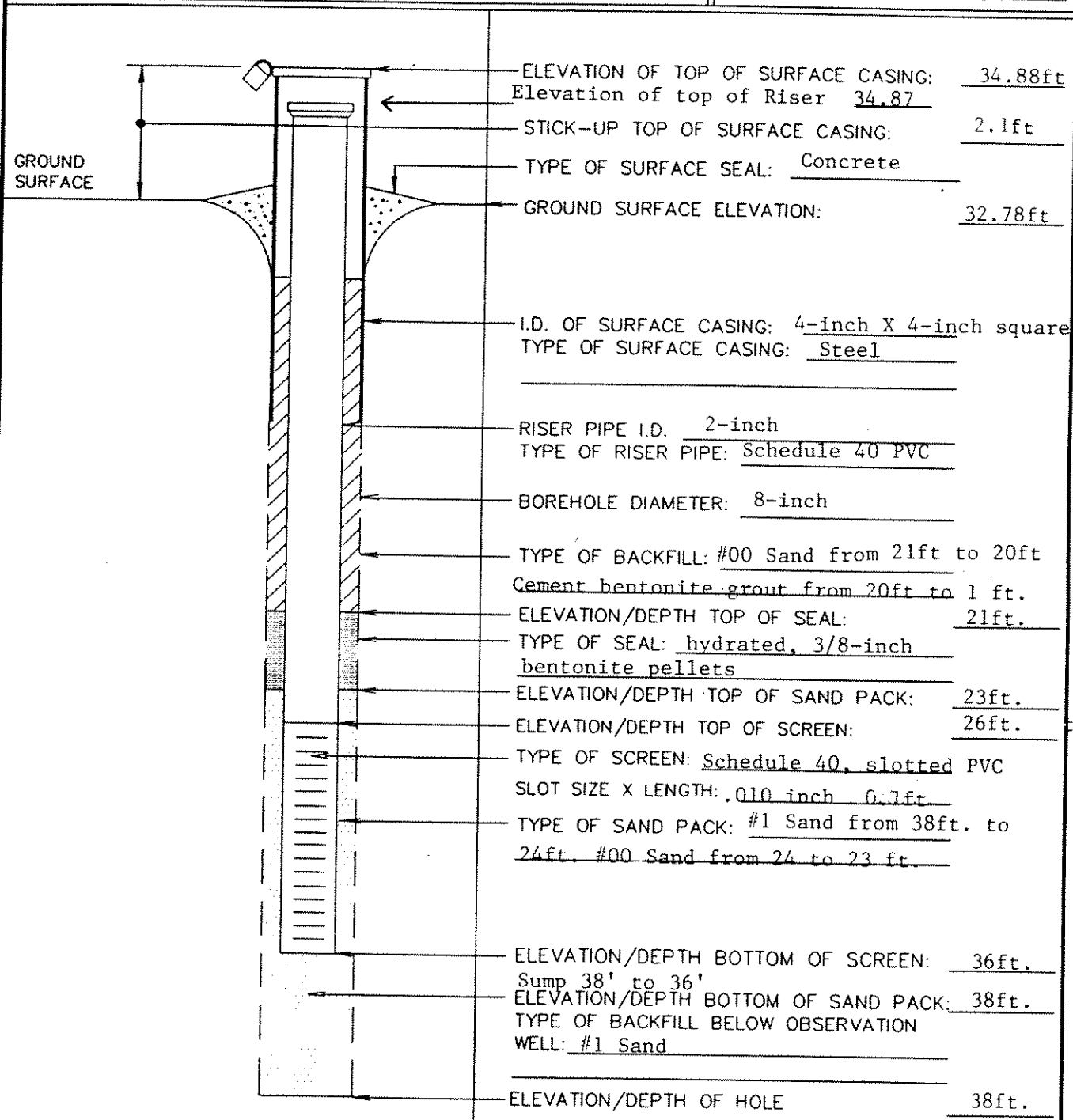
NOT TO SCALE

UNCONSOLIDATED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. MW-16

PROJECT Niagara Mowhawk - Troy, Smith Ave
 PROJECT NO. 1824.0000.0000.00005
 ELEVATION 32.78ft above MSL DATE 08-08-97
 FIELD GEOLOGIST Donald Campbell

DRILLER T. Farrell -SJB
 DRILLING METHOD Hollow- Stem Augers
 DEVELOPMENT METHOD Pump & Surge

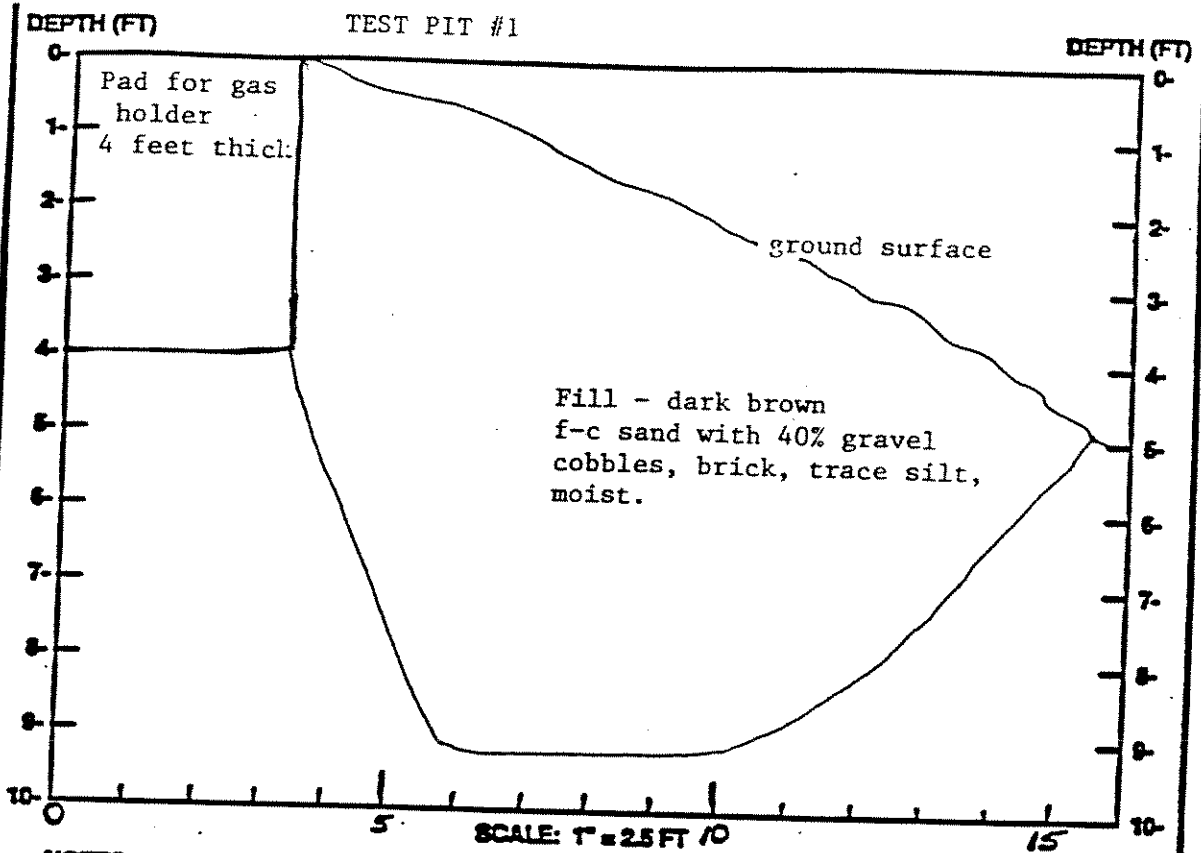


- ELEVATION OF TOP OF SURFACE CASING: 34.88ft
- Elevation of top of Riser 34.87
- STICK-UP TOP OF SURFACE CASING: 2.1ft
- TYPE OF SURFACE SEAL: Concrete
- GROUND SURFACE ELEVATION: 32.78ft
- I.D. OF SURFACE CASING: 4-inch X 4-inch square
- TYPE OF SURFACE CASING: Steel
- RISER PIPE I.D. 2-inch
- TYPE OF RISER PIPE: Schedule 40 PVC
- BOREHOLE DIAMETER: 8-inch
- TYPE OF BACKFILL: #00 Sand from 21ft to 20ft
Cement bentonite grout from 20ft to 1 ft.
- ELEVATION/DEPTH TOP OF SEAL: 21ft.
- TYPE OF SEAL: hydrated, 3/8-inch bentonite pellets
- ELEVATION/DEPTH TOP OF SAND PACK: 23ft.
- ELEVATION/DEPTH TOP OF SCREEN: 26ft.
- TYPE OF SCREEN: Schedule 40, slotted PVC
SLOT SIZE X LENGTH: .010 inch 0.1ft
- TYPE OF SAND PACK: #1 Sand from 38ft. to 24ft. #00 Sand from 24 to 23 ft.
- ELEVATION/DEPTH BOTTOM OF SCREEN: 36ft.
Sump 38' to 36'
- ELEVATION/DEPTH BOTTOM OF SAND PACK: 38ft.
- TYPE OF BACKFILL BELOW OBSERVATION WELL: #1 Sand
- ELEVATION/DEPTH OF HOLE 38ft.

NOT TO SCALE

APPENDIX D
TEST PIT EXCAVATION RECORDS

Test Pit Record



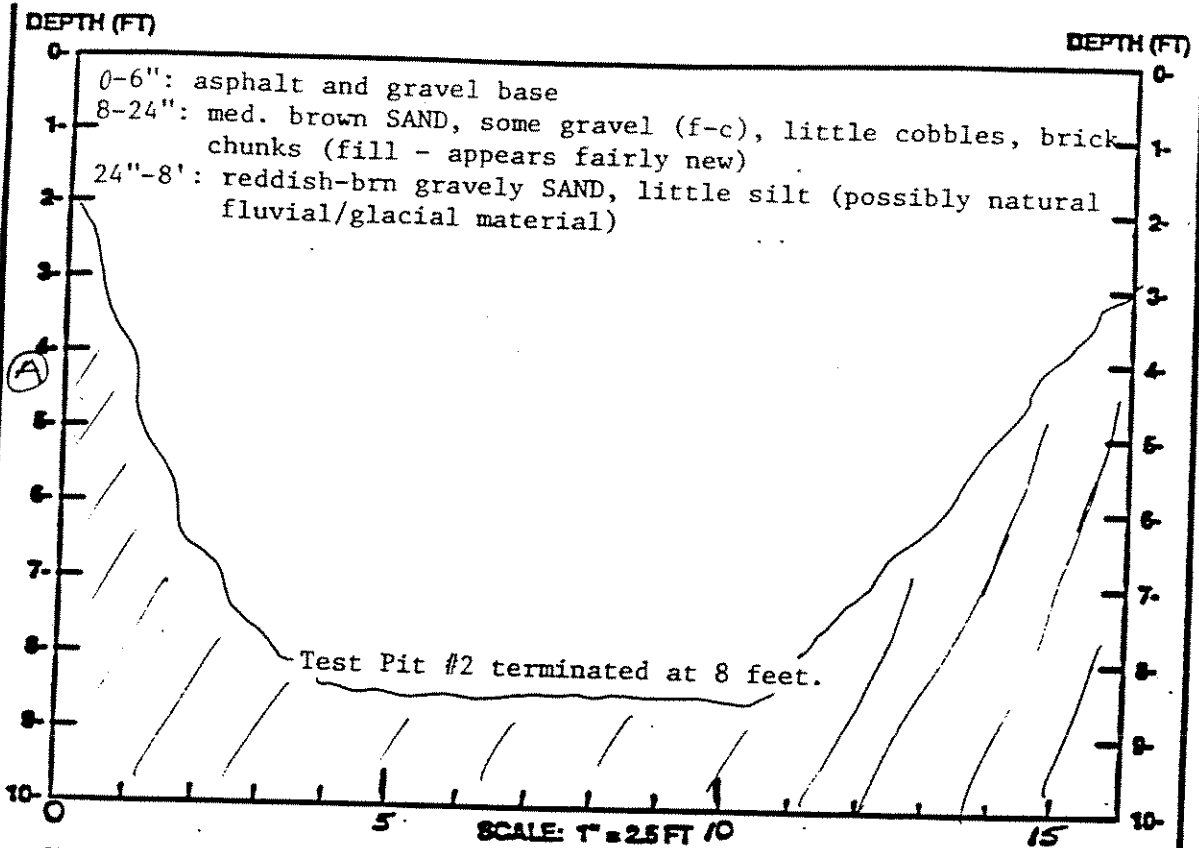
NOTES:

Test pit to 9.5 feet below highest surface elevation on hill.

DEPTH (FT)	SOIL TYPE	HNu (ppm)
	0	ppm

DEPT _____	APPROVED _____	TEST PIT RECORD PROFILE ALONG TEST PIT -
DATE _____		
SCALE AS NOTED		

Test Pit Record #2



NOTES:

1317: take sample TP-2A, 4" into red-brn material PID = 0 ppm

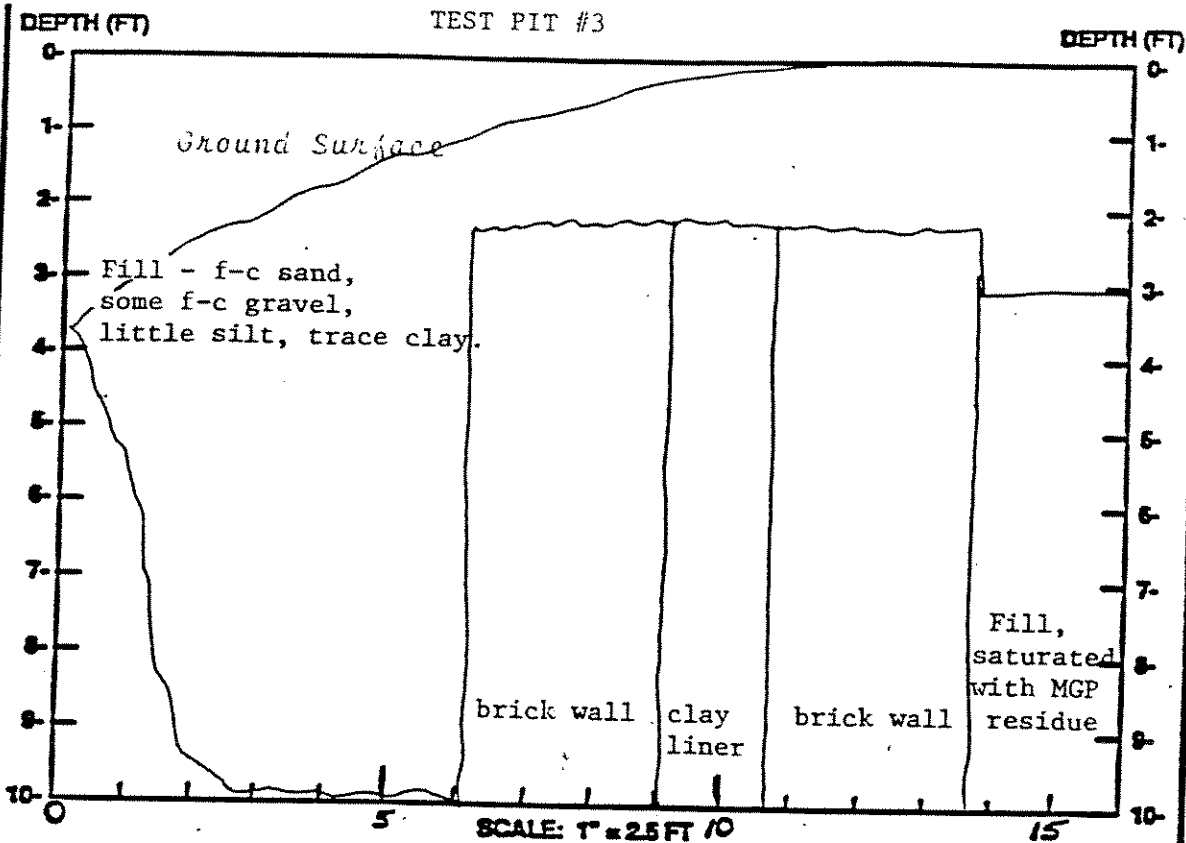
no OVA hits in hole.

Bill Jones on site, suggests TP-2 be terminated at 8' since natural material has been reached (TP is upgradient of former scrubber/purifier)

DEPTH (FT)	SOIL TYPE	HNu (ppm)

DEPT	APPROVED	TEST PIT RECORD PROFILE ALONG TEST PIT -
DATE 7/8/94		
SCALE AS NOTED		

Test Pit Record



NOTES:

Fill (left) - clean, no odors, 0ppm

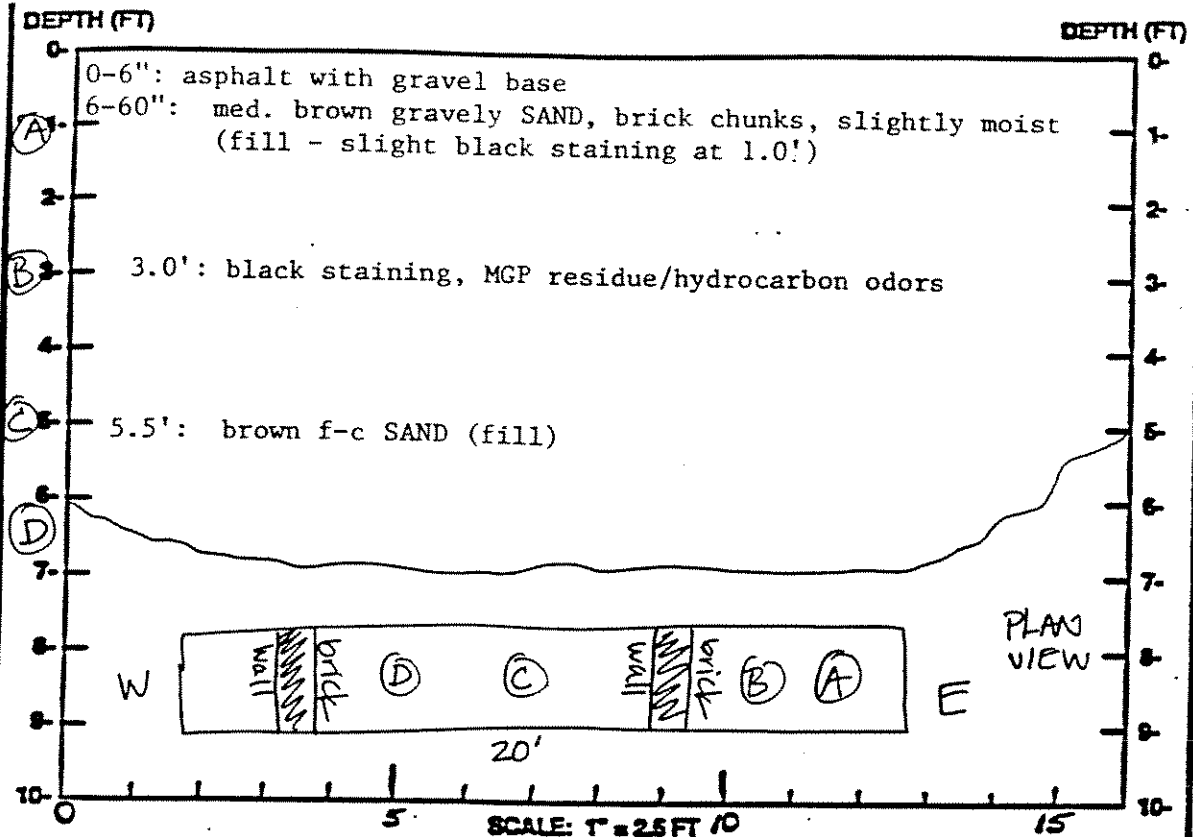
containment wall 7.5 feet thick, appears intact

inside holder, excavation to 3 ft, 8 ft. long. Also, visible staining, strong MGP odors.

DEPTH (FT)	SOIL TYPE	HNU (ppm)
		OVA
		3-15ppm
		in bz
		40-50ppm
		in bucket
		60-800ppm
		HNU

DEPT _____	APPROVED _____	
DATE _____		
SCALE AS NOTED		TEST PIT RECORD PROFILE ALONG TEST PIT -

Test Pit Record #4



NOTES:

1017: sample TP-4A and TP-4A DUP.
 OVA = 0.3 ppm in bz, 1.0 ppm
 in hole, 3.0 ppm in sample

*north side wall is 6" thick brick
 1022: TP-4B OVA = 1.0 ppm in hole, NAB b
 1.5 ppm in sample

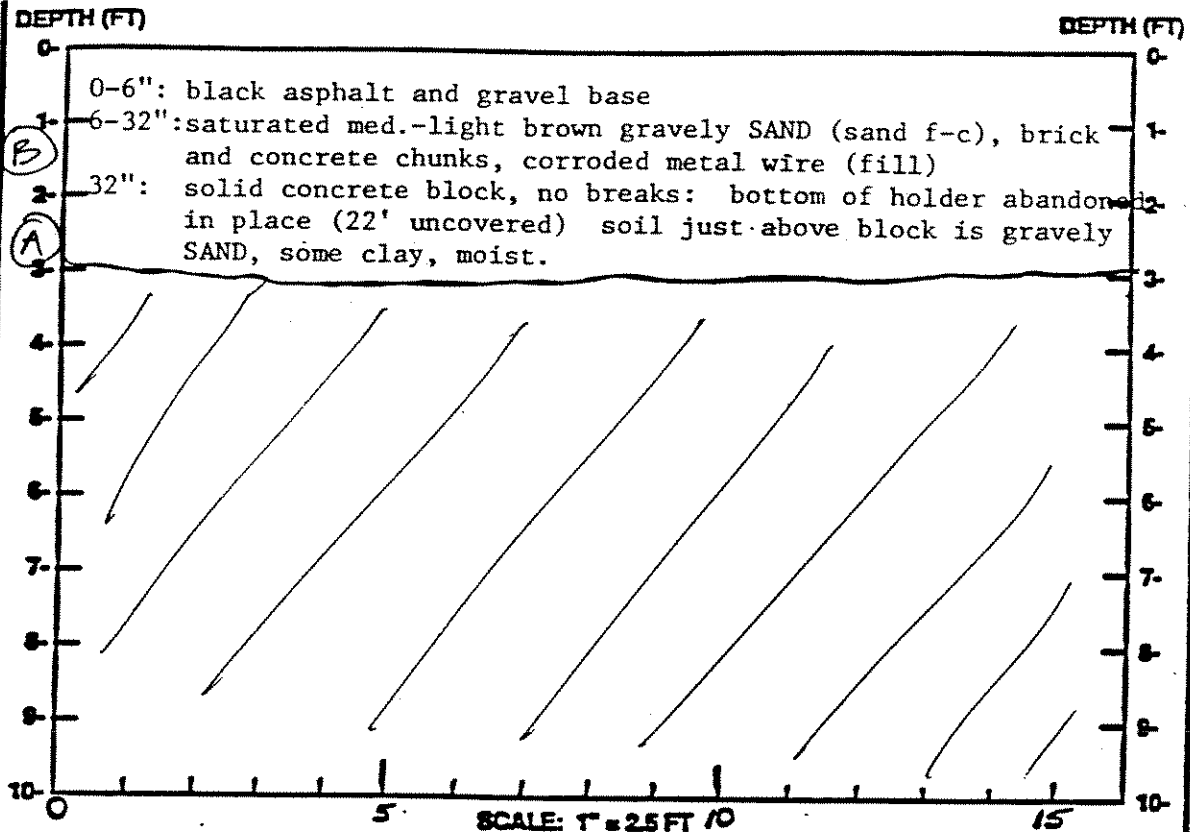
1045: sample TP-4C

1050: sample TP-4D
 *trench is approximately 10' long

DEPTH (FT)	SOIL TYPE	HNu (ppm)

DEPT	APPROVED	TEST PIT RECORD PROFILE ALONG TEST PIT -
DATE 7/8/94		
SCALE AS NOTED		

Test Pit Record #5



NOTES:

1845: sample TP-5A, OVA 2 ppm sample
OVA 1.5 ppm in pit, 0 ppm in bz

sample A at 3'

1910: sample TP-5B (1.5 ft.)

OVA in sample 3 ppm

PID in sample 0.5 ppm

1915: TP-5 completed

DEPTH (FT)	SOIL TYPE	HNu (ppm)

DEPT DATE <u>7/7/94</u> SCALE <u>AS NOTED</u>	APPROVED		TEST PIT RECORD PROFILE ALONG TEST PIT - 5

APPENDIX E
ANALYTICAL AND GEOTECHNICAL DATA

APPENDIX E - LIST OF ANALYTICAL RESULT TABLES

Table	Title
E-1	Abbreviations and Qualifiers Utilized in Result Tables
E-2	TCL Volatile Organic Compounds - Surface Soils
E-3	BTEX Compounds - Surface Soils
E-4	TCL Semi-volatile Organic Compounds - Surface Soils
E-5	PAH Compounds - Surface Soils
E-6	TCL Pesticide/PCB Compounds - Surface Soils
E-7	TAL Metals - Surface Soils
E-8	Cyanide - Surface Soils
E-9	Total Organic Carbon - Surface Soils
E-10	TCL Volatile Organic Compounds - Subsurface Soils
E-11	BTEX Compounds - Subsurface Soils
E-12	TCL Semi-volatile Organic Compounds - Subsurface Soils
E-13	PAH Compounds - Subsurface Soils
E-14	TCL Pesticide/PCB Compounds - Subsurface Soils
E-15	TAL Metals - Subsurface Soils
E-16	Cyanide - Subsurface Soils
E-17	Total Organic Carbon - Subsurface Soils
E-18	TCLP Volatile Organic Compounds - Subsurface Soils
E-19	TCLP Semi-volatile Organic Compounds - Subsurface Soils
E-20	TCLP Pesticide and Herbicide Compounds - Subsurface Soils
E-21	TCLP Metals - Subsurface Soils
E-22	RCRA Characteristics - Subsurface Soils
E-23	TCL Volatile Organic Compounds - Sediments
E-24	TCL Semi-volatile Organic Compounds - Sediments
E-25	TCL Pesticide/PCB Compounds - Sediments
E-26	TAL Metals - Sediments
E-27	Cyanide - Sediments
E-28	Total Organic Carbon - Sediments
E-29	TCL Volatile Organic Compounds - Surface Water
E-30	TCL Semi-volatile Organic Compounds - Surface Water
E-31	TCL Pesticide/PCB Compounds - Surface Water
E-32	TAL Metals - Surface Water
E-33	Cyanide - Surface Water
E-34	Hardness - Surface Water

APPENDIX E - LIST OF ANALYTICAL RESULT TABLES (cont'd)

Table	Title
E-35	TCL Volatile Organic Compounds - Groundwater [Round I - October 1995]
E-36	TCL Semi-volatile Organic Compounds - Groundwater [Round I - October 1995]
E-37	TCL Pesticide/PCB Compounds - Groundwater [Round I - October 1995]
E-38	TAL Metals - Groundwater [Round I - October 1995]
E-39	Cyanide - Groundwater [Round I - October 1995]
E-40	Conventional Water Quality Parameters - Groundwater [Round I - October 1995]
E-41	TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
E-42	TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
E-43	TCL Pesticide/PCB Compounds - Groundwater [Round II - December 1995]
E-44	TAL Metals - Groundwater [Round II - December 1995]
E-45	Cyanide - Groundwater [Round II - December 1995]
E-46	Conventional Water Quality Parameters - Groundwater [Round II - December 1995]
E-47	TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
E-48	TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
E-49	TCL Pesticide/PCB Compounds - Groundwater [Round III - October 1997]
E-50	TAL Metals - Groundwater [Round III - October 1997]
E-51	Cyanide - Groundwater [Round III - October 1997]
E-52	Conventional Water Quality Parameters - Groundwater [Round III - October 1997]
E-53	BTEX Compounds - Air Samples
E-54	PAH Compounds - Air Samples

TABLE E-1
ABBREVIATIONS AND QUALIFIERS UTILIZED IN RESULT TABLES

Abbreviation	Definition
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes.
FB	Field Blank.
mg/kg	milligrams per kilogram.
mg/L	milligrams per liter.
MW	Monitoring Well Location.
NC	No criteria and/or guidance value available.
ND	Non-detectable concentration by an approved analytical method.
NYSDEC	New York State Department of Environmental Conservation.
PAHs	Polycyclic Aromatic Hydrocarbons.
ppb	parts per billion (ug/kg or ug/L).
ppm	parts per million (mg/kg or mg/L).
SB	Soil Boring Location.
SS	Shallow Soil Location.
TAL	Target Analyte List.
TB	Trip Blank.
TCL	Target Compound List.
TCLP	Toxicity Characteristic Leaching Procedure.
TICs	Tentatively Identified Compounds.
ug/kg	micrograms per kilogram.
ug/L	micrograms per liter.
<div style="border: 1px solid black; width: 100px; height: 15px; display: inline-block;"></div>	Compound concentration is above the criteria and/or guidance value provided on the table (see Section 4.0 for selection rationale). To be used for comparison and reference purposes only.
Qualifier	Definition
U	Compound not detected at detection limits.
--	No Tentatively Identified Compounds (TICs) identified in sample.
J	Compound value is estimated.
R	Compound value is rejected and deemed unusable.
B (organics)	Compound was also present in an associated blank sample.
B (inorganics)	Analyte value is less than the required method detection limit but greater than the instrument detection limit.
E	Compound concentration exceeds the calibration range.
D	Compound value reported is from a dilution analysis.
X	Sample concentration may be a false positive due to interferences by co-eluting PCB congeners (pesticides only).
N	Presumptive evidence exists for the presence of compound.
NA	Not analyzed/not available.

TABLE E-2
TCL Volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-1	SS-8	SS-9	SS-10	SS-10D Duplicate of SS-10	SS-17	SS-21
Laboratory ID		2529701	2128108	2128109	2128112	2128113	3204802	3212803
Depth		00"-06"	00"-06"	00"-06"	00"-06"	00"-06"	00"-02"	00"-02"
Date Sampled		10/10/95	07/08/94	07/08/94	07/08/94	07/08/94	08/18/97	08/25/97
Tetrachloroethene	4,340	12 U	20	11 U	12 U	11 U	12 U	10 U
1,1,2,2-Tetrachloroethane	1,860	12 U	11 U	11 U	12 U	11 U	12 U	10 U
Toluene	4,650	12 U	5 J	11 U	12 U	11 U	12 U	10 U
Chlorobenzene	5,270	12 U	11 U	11 U	12 U	11 U	12 U	10 U
Ethylbenzene	17,050	12 U	11 U	11 U	12 U	11 U	12 U	10 U
Styrene	NC	12 U	11 U	11 U	12 U	11 U	12 U	10 U
Xylene (total)	3,720	12 U	11 U	11 U	12 U	11 U	12 U	10 U
Volatile TICs	NC	28 JN	7 J	R	R	R	R	R

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-2
TCL Volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 3 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0708 Field Blank 2128120 -- 07/08/94	FB-0818 Field Blank 3204806 -- 08/18/97
Chloromethane	NC	10 U	10 U
Bromomethane	NC	10 U	10 U
Vinyl Chloride	620	10 U	10 U
Chloroethane	5,890	10 U	10 U
Methylene Chloride	310	4 JB	5 J
Acetone	620	10 UJ	10 U
Carbon Disulfide	8,370	13	10 U
1,1-Dichloroethene	1240	10 U	10 U
1,1-Dichloroethane	620	10 U	10 U
1,2-Dichloroethene (total)	930	10 U	10 U
Chloroform	930	10 U	10 U
1,2-Dichloroethane	310	10 U	10 U
2-Butanone	930	10 U	10 U
1,1,1-Trichloroethane	2,480	10 U	10 U
Carbon Tetrachloride	1,860	10 U	10 U
Bromodichloromethane	NC	10 U	10 U
1,2-Dichloropropane	NC	10 U	10 U
cis-1,3-Dichloropropene	930	10 U	10 U
Trichloroethene	2,170	10 U	10 U
Dibromochloromethane	NC	10 U	10 U
1,1,2-Trichloroethane	NC	10 U	10 U
Benzene	186	10 U	10 U
trans-1,3-Dichloropropene	930	10 U	10 U
Bromoform	NC	10 U	10 U
4-Methyl-2-Pentanone	3,100	10 U	10 U
2-Hexanone	NC	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-2
TCL Volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 4 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0708 Field Blank 2128120 --	FB-0818 Field Blank 3204806 --
Laboratory ID			
Depth			
Date Sampled		07/08/94	08/18/97
Tetrachloroethene	4,340	10 U	10 U
1,1,2,2-Tetrachloroethane	1,860	10 U	10 U
Toluene	4,650	10 U	10 U
Chlorobenzene	5,270	10 U	10 U
Ethylbenzene	17,050	10 U	10 U
Styrene	NC	10 U	10 U
Xylene (total)	3,720	10 U	10 U
Volatiles TICs	NC	28 J	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-3
BTEX Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 3

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-2	SS-3	SS-4	SS-14 Duplicate of SS-4	SS-5	SS-5D Duplicate of SS-5	SS-6	SS-7
Laboratory ID	Soil Clean-up Objectives	2529802	2529803	2529804	2529805	2128114	2128115	2128116	2128117
Depth	Objectives	00"-06"	00"-06"	00"-06"	00"-06"	Beneath Asphalt	Beneath Asphalt	Beneath Asphalt	00"-06"
Date Sampled	(ug/kg)	10/10/95	10/10/95	10/10/95	10/10/95	07/08/94	07/08/94	07/08/94	07/08/94
Benzene	186	12 U	12 U	11 U	11 U	11 U	11 U	11 U	12 U
Toluene	4,650	12 U	12 U	11 U	11 U	2 J	1 J	2 J	12 U
Ethylbenzene	17,050	12 U	12 U	11 U	11 U	11 U	11 U	11 U	12 U
Xylene (total)	3,720	12 U	12 U	11 U	11 U	11 U	11 U	11 U	12 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-3
BTEX Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 3

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16	SS-18	SS-38
Laboratory ID		3218708	3218707	3218706	3218705	3218701	3198801	3204701	Duplicate of SB-18
Depth		00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	3204702
Date Sampled		09/03/97	09/03/97	09/03/97	09/03/97	09/02/97	08/12/97	08/18/97	00"-02"
	186	12 U	13 U	13 U	14 U	11 U	13 U	11 U	08/18/97
Benzene	4,650	12 U	13 U	13 U	14 U	11 U	13 U	11 U	
Toluene	17,050	12 U	13 U	13 U	14 U	11 U	13 U	11 U	
Ethylbenzene	3,720	12 U	13 U	13 U	14 U	11 U	13 U	11 U	
Xylene (total)		12 U	13 U	13 U	14 U	11 U	13 U	11 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-3
BTEX Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 3 of 3

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-19	SS-20	SS-22	FB-1010 Field Blank	FB-0825 Field Blank	FB-0826 Field Blank
Laboratory ID Depth Date Sampled		3212701 00"-02" 08/25/97	3218704 00"-02" 09/03/97	3209201 Beneath Asphalt 08/20/97	2529801 -- 10/10/95	3212705 -- 08/25/97	3212706 -- 08/25/97
Benzene	186	11 U	12 U	11 U	10 U	10 U	10 U
Toluene	4,650	1 J	12 U	11 U	10 U	10 U	10 U
Ethylbenzene	17,050	11 U	12 U	11 U	10 U	10 U	10 U
Xylene (total)	3,720	11 U	12 U	11 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-1	SS-8	SS-9	SS-10	SS-10D Duplicate of SS-10	SS-17	SS-21
Laboratory ID Depth Date Sampled								
Phenol	93	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
bis(2-Chloroethyl)Ether	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2-Chlorophenol	2,480	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
1,3-Dichlorobenzene	4,960	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
1,4-Dichlorobenzene	26,350	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
1,2-Dichlorobenzene	24,490	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2-Methylphenol	310	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2,2'-oxybis(1-Chloropropane)	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
4-Methylphenol	2,790	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
N-Nitroso-di-n-propylamine	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Hexachloroethane	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Nitrobenzene	620	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Isophorone	13,640	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2-Nitrophenol	1,023	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2,4-Dimethylphenol	1,240	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2,4-Dichlorophenol	1,240	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
1,2,4-Trichlorobenzene	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Naphthalene	40,300	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
4-Chloroaniline	682	420 U	1900 U	370 U	390 U	130 J	390 U	350 U
Hexachlorobutadiene	NC	420 U	1900 U	370 U	390 U	380 U	390 UJJ	350 UJ
bis(2-Chloroethoxy)methane	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
4-Chloro-3-Methylphenol	744	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2-Methylnaphthalene	50,000	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Hexachlorocyclopentadiene	NC	420 U	1900 U	370 U	390 U	61 J	390 U	350 U
2,4,6-Trichlorophenol	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2,4,5-Trichlorophenol	310	1000 U	4500 U	890 U	930 U	380 U	390 U	350 U
						920 U	940 U	830 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-1	SS-8	SS-9	SS-10	SS-10D Duplicate of SS-10	SS-17	SS-21
Laboratory ID Depth Date Sampled								
2-Chloronaphthalene	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2-Nitroaniline	1,333	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
Dimethylphthalate	6,200	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Acenaphthylene	50,000	63 J	1900 U	370 U	66 J	64 J	390 U	350 U
2,6-Dinitrotoluene	1,030	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
3-Nitroaniline	1,550	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
Acenaphthene	50,000	420 U	1900 U	370 U	390 U	57 J	390 U	350 U
2,4-Dinitrophenol	620	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
4-Nitrophenol	310	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
Dibenzofuran	19,220	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
2,4-Dinitrotoluene	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Diethylphthalate	22,010	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
4-Chlorophenyl-phenylether	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Fluorene	50,000	420 U	1900 U	47 J	390 U	62 J	390 U	350 U
4-Nitroaniline	NC	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
4,6-Dinitro-2-methylphenol	NC	1000 U	4500 U	890 U	930 U	920 U	940 U	830 U
N-Nitrosodiphenylamine	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
4-Bromophenyl-phenylether	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Hexachlorobenzene	410	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Pentachlorophenol	3,100	1000 U	4500 U	890 U	930 U	920 U	39 J	830 U
Phenanthrene	50,000	430	920 J	640	420	680	180 J	270 J
Anthracene	50,000	420 U	1900 U	110 J	74 J	110 J	390 U	66 J
Carbazole	NC	420 U	1900 U	370 U	390 U	380 U	390 U	41 J
Di-n-butylphthalate	25,110	420 U	1900 U	67 J	1100	56 J	66 J	350 U
Fluoranthene	50,000	450	1800 J	990	380 J	550	470	730
Pyrene	50,000	580	1600 J	890 J	390 J	740	420	350

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 3 of 6

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-1	SS-8	SS-9	SS-10	SS-10D Duplicate of SS-10	SS-17	SS-21
Laboratory ID Depth Date Sampled								
Butylbenzylphthalate	50,000	420 U	1900 U	120 J	1500	190 J	110 J	350 U
3,3'-Dichlorobenzidine	NC	420 U	1900 U	370 U	390 U	380 U	390 U	350 U
Benzo(a)anthracene	224	140 J	760 J	640	390	420	190 J	290 J
Chrysene	1,240	290 J	940 J	790	440	430	260 J	340 J
bis(2-Ethylhexyl)phthalate	50,000	180 J	390 J	1900	2100	1500	230 J	72 J
Di-n-octylphthalate	50,000	420 U	1900 U	49 J	53 J	50 J	390 U	350 U
Benzo(b)fluoranthene	3,410	200 J	800 J	660	300 J	330 J	190 J	290 J
Benzo(k)fluoranthene	3,410	200 J	540 J	530	340 J	380 J	210 J	380
Benzo(a)pyrene	61	170 J	660 J	540	300 J	320 J	220 J	340 J
Indeno(1,2,3-cd)pyrene	9,920	170 J	1900 U	440	250 J	280 J	180 J	79 J
Dibenz(a,h)anthracene	14	420 U	1900 U	110 J	390 U	66 J	390 U	350 U
Benzo(g,h,i)perylene	50,000	220 J	1900 U	290 J	200 J	200 J	220 J	44 J
Semi-volatile TICs	NC	7050 JN	1480 J	723 J	847 J	658 J	9942 JN	8391 JN

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 4 of 6

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0708 Field Blank 2128120 -- 07/08/94	FB-0818 Field Blank 3204806 -- 08/18/97
Phenol	93	10 U	10 U
bis(2-Chloroethyl)Ether	NC	10 U	10 U
2-Chlorophenol	2,480	10 U	10 U
1,3-Dichlorobenzene	4,960	10 U	10 U
1,4-Dichlorobenzene	26,350	10 U	10 U
1,2-Dichlorobenzene	24,490	10 U	10 U
2-Methylphenol	310	10 U	10 U
2,2'-oxybis(1-Chloropropane)	NC	10 U	10 U
4-Methylphenol	2,790	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U
Hexachloroethane	NC	10 U	10 U
Nitrobenzene	620	10 U	10 U
Isophorone	13,640	10 U	10 U
2-Nitrophenol	1,023	10 U	10 U
2,4-Dimethylphenol	1,240	10 U	10 U
2,4-Dichlorophenol	1,240	10 U	10 U
1,2,4-Trichlorobenzene	NC	10 U	10 U
Naphthalene	40,300	10 U	10 U
4-Chloroaniline	682	10 U	10 U
Hexachlorobutadiene	NC	10 U	10 U
bis(2-Chloroethoxy)methane	NC	10 U	10 U
4-Chloro-3-Methylphenol	744	10 U	10 U
2-Methylnaphthalene	50,000	10 U	10 U
Hexachlorocyclopentadiene	NC	10 U	10 U
2,4,6-Trichlorophenol	NC	10 U	10 U
2,4,5-Trichlorophenol	310	25 U	25 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
 Page 5 of 6

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0708 Field Blank 2128120	FB-0818 Field Blank 3204806
Laboratory ID		--	--
Depth		07/08/94	08/18/97
Date Sampled			
2-Chloronaphthalene	NC	10 U	10 U
2-Nitroaniline	1,333	25 U	25 U
Dimethylphthalate	6,200	10 U	10 U
Acenaphthylene	50,000	10 U	10 U
2,6-Dinitrotoluene	1,030	10 U	10 U
3-Nitroaniline	1,550	25 U	25 U
Acenaphthene	50,000	10 U	10 U
2,4-Dinitrophenol	620	25 UJ	25 U
4-Nitrophenol	310	25 U	25 U
Dibenzofuran	19,220	10 U	10 U
2,4-Dinitrotoluene	NC	10 U	10 U
Diethylphthalate	22,010	10 U	10 U
4-Chlorophenyl-phenylether	NC	10 U	10 U
Fluorene	50,000	10 U	10 U
4-Nitroaniline	NC	25 U	25 U
4,6-Dinitro-2-methylphenol	NC	25 U	25 U
N-Nitrosodiphenylamine	NC	10 U	10 U
4-Bromophenyl-phenylether	NC	10 U	10 U
Hexachlorobenzene	410	10 U	10 U
Pentachlorophenol	3,100	25 U	25 U
Phenanthrene	50,000	10 U	10 U
Anthracene	50,000	10 U	10 U
Carbazole	NC	10 U	10 U
Di-n-butylphthalate	25,110	10 U	10 U
Fluoranthene	50,000	10 U	10 U
Pyrene	50,000	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-4
TCL Semi-volatile Organic Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0708 Field Blank 2128120 --	FB-0818 Field Blank 3204806 --
Laboratory ID			
Depth			
Date Sampled		07/08/94	08/18/97
Butylbenzylphthalate	50,000	10 U	10 U
3,3'-Dichlorobenzidine	NC	10 U	10 U
Benzo(a)anthracene	224	10 U	10 U
Chrysene	1,240	10 U	10 U
bis(2-Ethylhexyl)phthalate	50,000	10 U	10 U
Di-n-octylphthalate	50,000	10 U	10 U
Benzo(b)fluoranthene	3,410	10 U	10 U
Benzo(k)fluoranthene	3,410	10 U	10 U
Benzo(a)pyrene	61	10 U	10 U
Indeno(1,2,3-cd)pyrene	9,920	10 U	10 U
Dibenz(a,h)anthracene	14	10 U	10 U
Benzo(g,h,i)perylene	50,000	10 U	10 U
Semi-volatile TICs	NC	--	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-5
PAH Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-2	SS-3	SS-4	SS-14 Duplicate of SS-4	SS-5	SS-5D Duplicate of SS-5	SS-6
Laboratory ID Depth Date Sampled								
Naphthalene	40,300	420 U	390 U	380 U	370 U	1400 U	1500 U	3700 U
Acenaphthylene	50,000	95 J	1100	230 J	250 J	300 J	290 J	420 J
Acenaphthene	50,000	420 U	390 U	380 U	370 U	1400 U	1500 U	3700 U
Fluorene	50,000	420 U	390 U	380 U	370 U	1400 U	1500 U	3700 U
Phenanthrene	50,000	320 J	540	44 J	51 J	950 J	730 J	1200 J
Anthracene	50,000	53 J	370 J	64 J	72 J	220 J	180 J	3700 U
Fluoranthene	50,000	580	1700	250 J	300 J	1500	1300 J	2500 J
Pyrene	50,000	600	2500	460	510	2400	2200	2600 J
Benzo(a)anthracene	224	280 J	1400	280 J	320 J	1000 J	830 J	2000 J
Chrysene	1,240	370 J	1600	310 J	360 J	940 J	790 J	1600 J
Benzo(b)fluoranthene	3,410	320 J	1100	160 J	170 J	1100 J	720 J	1400 J
Benzo(k)fluoranthene	3,410	310 J	1000	190 J	210 J	400 J	580 J	1100 J
Benzo(a)pyrene	61	280 J	1500	270 J	290 J	830 J	710 J	1300 J
Indeno(1,2,3-cd)pyrene	9,920	230 J	830	110 J	110 J	570 J	500 J	750 J
Dibenz(a,h)anthracene	14	420 U	87 J	380 U	370 U	1400 U	1500 U	3700 U
Benzo(g,h,i)perylene	50,000	260 J	960	110 J	120 J	590 J	1500 U	3700 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-5
PAH Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-7	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16
Laboratory ID Depth Date Sampled								
Naphthalene	40,300	1600 U	430 U	4300 U	1800 U	990 J	350 U	440 U
Acenaphthylene	50,000	1600 U	57 J	3800 J	3700	4100 J	350 U	440 U
Acenaphthene	50,000	1600 U	430 U	4300 U	1800 U	9400 U	350 U	440 U
Fluorene	50,000	1600 U	430 U	4300 U	270 J	1000 J	350 U	440 U
Phenanthrene	50,000	1600 U	140 J	3400 J	1800	8800 J	49 J	180 J
Anthracene	50,000	1600 U	430 U	1600 J	1200 J	2800 J	350 U	44 J
Fluoranthene	50,000	1600 U	370 J	10000	7300	17000	86 J	390 J
Pyrene	50,000	1600 U	280 J	12000	8900	20000	68 J	120 J
Benzo(a)anthracene	224	1600 U	160 J	6900	5200	10000	38 J	120 J
Chrysene	1,240	1600 U	220 J	8300	6800	13000	48 J	140 J
Benzo(b)fluoranthene	3,410	1600 U	190 J	5000	4100 J	7700 J	38 J	240 J
Benzo(k)fluoranthene	3,410	1600 U	190 J	5400	5200 J	8100 J	350 U	190 J
Benzo(a)pyrene	61	1600 U	200 J	9100	6800 J	13000	42 J	170 J
Indeno(1,2,3-cd)pyrene	9,920	1600 U	83 J	4400	2400 J	9100 J	350 U	440 U
Dibenz(a,h)anthracene	14	1600 U	430 U	4300 U	190 J	9400 U	350 U	440 U
Benzo(g,h,i)perylene	50,000	1600 U	80 J	5400	2600 J	10000	41 J	440 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-5
PAH Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 3 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-18	SS-38 Duplicate of SB-18	SS-19	SS-20	SS-22	FB-0708 Field Blank	FB-1010 Field Blank
Laboratory ID Depth Date Sampled		3204701 00"-02" 08/18/97	3204702 00"-02" 08/18/97	3212701 00"-02" 08/25/97	3218704 00"-02" 09/03/97	3209201 Beneath Asphalt 08/20/97	2128122 -- 07/08/94	2529801 -- 10/10/95
Naphthalene	40,300	360 J	340 J	360 U	370 U	350 U	10 U	11 U
Acenaphthylene	50,000	39 J	41 J	360 U	57 J	350 U	10 U	11 UJ
Acenaphthene	50,000	270 J	350 J	360 U	370 U	350 U	10 U	11 UJ
Fluorene	50,000	350 J	460	360 U	370 U	350 U	10 U	11 UJ
Phenanthrene	50,000	3700 D	4700 D	660	130 J	350 U	10 U	11 U
Anthracene	50,000	740	1000	58 J	43 J	350 U	10 U	11 U
Fluoranthene	50,000	4200 D	5200 D	1400	260 J	350 U	10 U	11 U
Pyrene	50,000	2300	4400 D	760	250 J	350 U	10 U	11 U
Benzo(a)anthracene	224	1900	2400	410	160 J	350 U	10 U	11 U
Chrysene	1,240	2000	2400	700	170 J	350 U	10 U	11 U
Benzo(b)fluoranthene	3,410	2800	1900 JD	900 J	140 J	350 U	10 U	11 U
Benzo(k)fluoranthene	3,410	1600 JD	2000 JD	830 J	100 J	350 U	10 U	11 U
Benzo(a)pyrene	61	1900	2200	530 J	160 J	350 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	9,920	190 J	250 J	72 J	94 J	350 U	10 U	11 U
Dibenz(a,h)anthracene	14	370 U	370 U	R	370 U	350 U	10 U	11 U
Benzo(g,h,i)perylene	50,000	160 J	210 J	60 J	110 J	350 U	10 U	11 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-5
PAH Compounds - Surface Soils
Troy (Smith Avenue) Site
Page 4 of 4

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0825 Field Blank 3212705 --	FB-0826 Field Blank 3212706 --
Laboratory ID			
Depth			
Date Sampled		08/25/97	08/26/97
Naphthalene	40,300	10 U	10 U
Acenaphthylene	50,000	10 U	10 U
Acenaphthene	50,000	10 U	10 U
Fluorene	50,000	10 U	10 U
Phenanthrene	50,000	10 U	10 U
Anthracene	50,000	10 U	10 U
Fluoranthene	50,000	10 U	10 U
Pyrene	50,000	10 U	10 U
Benzo(a)anthracene	224	10 U	10 U
Chrysene	1,240	10 U	10 U
Benzo(b)fluoranthene	3,410	10 U	10 U
Benzo(k)fluoranthene	3,410	10 U	10 U
Benzo(a)pyrene	61	10 U	10 U
Indeno(1,2,3-cd)pyrene	9,920	10 UJ	10 UJ
Dibenz(a,h)anthracene	14	10 UJ	10 UJ
Benzo(g,h,i)perylene	50,000	10 UJ	10 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-6
TCL Pesticide/PCB Compounds - Surface Soils
Troy (Smith Avenue) Site
 Page 1 of 2

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-1 RE	SS-8	SS-9	SS-10	SS-10D Duplicate of SS-10	SS-17	SS-21
Laboratory ID Depth Date Sampled								
alpha-BHC	110	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
beta-BHC	620	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
delta-BHC	930	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
gamma-BHC (Lindane)	186	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
Heptachlor	310	2.4 UJ	3.8 UJ	1.9 UJ	2 UJ	2 UJ	2 U	1.8 U
Aldrin	41	2.4 UJ	3.8 U	1.9 U	2 U	2 U	1.3 J	1.8 U
Heptachlor epoxide	62	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
Endosulfan I	2,790	2.4 UJ	3.8 U	1.9 U	2 U	2 U	2 U	1.8 U
Dieldrin	44	4.6 UJ	7.4 U	3.7 U	3.8 U	3.8 U	2.6 JPN	3.4 U
4,4'-DDE	2,100	4.6 UJ	7.4 U	3.6 JP	7.4	7	9.6	2.4 J
Endrin	310	4.6 UJ	7.4 U	3.7 U	3.8 U	9.4	3.9 U	3.3 JPN
Endosulfan II	2,790	4.6 UJ	7.4 U	3.7 U	3.8 U	5.9 JP	2.5 JPN	3.4 U
4,4'-DDD	2,900	4.6 UJ	22 JP	3.7 U	3.8 U	3.8 U	2.6 JPN	3.4 U
Endosulfan sulfate	3,100	4.6 UJ	7.4 U	3.7 U	3.8 U	3.8 U	3.9 U	3.4 U
4,4'-DDT	2,100	4.6 UJ	7.4 UJ	13	3.8 UJ	66	21	8.6 JP
Methoxychlor	NC	24 UJ	38 U	19 U	20 U	20 U	20 U	18 U
Endrin ketone	NC	4.6 UJ	7.4 U	3.7 U	3.8 U	3.8 U	3.9 U	3.4 U
Endrin aldehyde	NC	4.6 UJ	36 JP	3.7 U	3.8 U	3.8 U	3.9 U	3.4 U
alpha-Chlordane	NC	2.4 U	6.1	1.9 U	4.4 JP	3.7 JP	2 U	1.4 J
gamma-Chlordane	540	2.4 UJ	3.8 U	1.9 U	4.6 JP	2 U	2 U	1.8 U
Toxaphene	NC	240 UJ	380 U	190 U	200 U	200 U	200 U	180 U
Aroclor-1016	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U
Aroclor-1221	1,000	94 UJ	150 U	75 U	78 U	77 U	79 U	70 U
Aroclor-1232	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U
Aroclor-1242	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U
Aroclor-1248	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U
Aroclor-1254	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U
Aroclor-1260	1,000	46 UJ	74 U	37 U	38 U	38 U	39 U	34 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-6
 TCL Pesticide/PCB Compounds - Surface Soils
 Troy (Smith Avenue) Site
 Page 2 of 2

Sample ID	FB2-0708 Field Blank 2128120	FB-0818 Field Blank 3204806
Laboratory ID	--	--
Depth	--	--
Date Sampled	07/08/94	08/18/97
alpha-BHC	0.05 U	0.05 UJ
beta-BHC	0.05 U	0.05 UJ
delta-BHC	0.05 U	0.05 UJ
gamma-BHC (Lindane)	0.05 U	0.05 UJ
Heptachlor	0.05 U	0.05 UJ
Aldrin	0.05 U	0.05 UJ
Heptachlor epoxide	0.05 U	0.05 UJ
Endosulfan I	0.05 U	0.05 UJ
Dieldrin	0.1 U	0.1 UJ
4,4'-DDE	0.1 U	0.1 UJ
Endrin	0.1 U	0.1 UJ
Endosulfan II	0.1 U	0.1 UJ
4,4'-DDD	0.1 U	0.1 UJ
Endosulfan sulfate	0.1 U	0.1 UJ
4,4'-DDT	0.1 U	0.1 UJ
Methoxychlor	0.5 U	0.5 UJ
Endrin ketone	0.1 U	0.1 UJ
Endrin aldehyde	0.1 U	0.1 UJ
alpha-Chlordane	0.05 U	0.05 UJ
gamma-Chlordane	0.05 U	0.05 UJ
Toxaphene	5 U	5 UJ
Aroclor-1016	1 U	1 UJ
Aroclor-1221	2 U	2 UJ
Aroclor-1232	1 U	1 UJ
Aroclor-1242	1 U	1 UJ
Aroclor-1248	1 U	1 UJ
Aroclor-1254	1 U	1 UJ
Aroclor-1260	1 U	1 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-7
TCL Metals - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SS-1	SS-8	SS-9	SS-10	SS-10D
Laboratory ID				2529701	2128108	2128109	2128112	Duplicate of SS-10
Depth Sampled				00"-06"	00"-06"	00"-06"	00"-06"	00"-06"
Date Sampled				10/10/95	07/08/94	07/08/94	07/08/94	07/08/94
Aluminum	SB	12,100	12,100	7270	7130	11000	10600	12100
Antimony	SB	8.7	8.7	1.3 UJ	6.5 U	8 B	7.1 U	8.7 B
Arsenic	7.5 or SB	6.7	7.5	4.4 J	4.2 J	6.7 J	6.1 J	6.4 J
Barium	300 or SB	202	300	56.1	202	100	186	186
Beryllium	0.16 or SB	0.86	0.86	0.35 B	0.84 U	0.86 B	0.92 U	0.91 U
Cadmium	1 or SB	0.48	1	0.17 U	0.42 U	0.41 U	0.48 JB	0.48 JB
Calcium	SB	19200	19,200	2300	19200	2340	3920	3930
Chromium	10 or SB	21.5	21.5	11.3	15.7 J	16.4 J	21.5 J	19 J
Cobalt	30 or SB	9.7	30	7.3 B	6.9 B	9.4 B	9.7 B	9.6 B
Copper	25 or SB	587	587	19.2	56.9 J	34 J	587 J	74.2 J
Iron	2,000 or SB	26,500	26,500	17000	15900	26000	25800	26500
Lead	SB	910	910	81.9	227 J	143	910 J	751 J
Magnesium	SB	4740	4,740	2920	3800	4740	4250	4740
Manganese	SB	755	755	317	551	673	755	739
Mercury	0.1	0.57	0.1	0.13 U	0.42	0.24	0.55	0.57
Nickel	13 or SB	25.5	25.5	17.6	17.2 J	25.5 J	22.3	16.4 J
Potassium	SB	1110	1,110	1290	1040 B	1090	1020 B	1110 B
Selenium	2 or SB	0	2	2.7 J	1.1 U	1.1 U	1.1 U	1.1 U
Silver	SB	3,900	3.9	0.37 UJ	1.9 JB	3.9 J	1.6 UJ	1.9 JB
Sodium	SB	637	637	161 U	637 B	580 U	650 U	645 U
Thallium	SB	ND	ND	1.5 B	1.1 U	1.1 U	1.1 U	1.1 U
Vanadium	150 or SB	29.5	150	18.1	15.1	24.7	26.9	29.5
Zinc	20 or SB	424	424	88.3	207	129	424	405

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-7
TCL Metals - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SS-17	SS-21	FB2-0708 Field Blank	FB-0818 Field Blank
Laboratory ID				3204802	3212803	2128120	3204806
Depth				00"-02"	00"-02"	--	--
Date Sampled				08/18/97	08/25/97	07/08/94	08/18/97
Aluminum	SB	12100	12,100	9360	8340	84 U	34.8 U
Antimony	SB	8.7	8.7	2.4 JB	1.2 JB	31 U	4.6 U
Arsenic	7.5 or SB	6.7	7.5	6 J	5.1 J	5 U	2.7 U
Barium	300 or SB	202	300	68.8	58.3	55 U	5.3 U
Beryllium	0.16 or SB	0.86	0.86	0.34 B	0.34 B	4 U	0.08 U
Cadmium	1 or SB	0.48	1	0.45 B	0.44 B	2.3 JB	0.5 U
Calcium	SB	19200	19,200	2530	28700	4000 U	127 U
Chromium	10 or SB	21.5	21.5	12.2	13.1	4 UJ	1 U
Cobalt	30 or SB	9.7	30	7.3	7.3	23 U	1.8 U
Copper	25 or SB	587	587	21.7	16.5	10 U	2 U
Iron	2,000 or SB	26500	26,500	18500	18100	73 U	22.4 U
Lead	SB	910	910	141	25	3 U	1.6 U
Magnesium	SB	4740	4,740	3290	6100	3320 U	160 U
Manganese	SB	755	755	491	420	5 U	0.4 U
Mercury	0.1	0.57	0.1	0.16	0.06 B	0.2 U	0.08 B
Nickel	13 or SB	25.5	25.5	16.1	14.8	38 U	1.6 U
Potassium	SB	1110	1,110	847	1380	1690 U	173 U
Selenium	2 or SB	0	2	0.85 J	0.29 U	5 U	2.8 U
Silver	SB	3,900	3,900	0.14 UJ	0.12 UJ	7 U	1.2 UJ
Sodium	SB	637	637	117 B	96.1 B	2840 U	458 U
Thallium	SB	ND	ND	4	0.84 B	5 U	3.9 U
Vanadium	150 or SB	29.5	150	19.4	16.2	22 U	1.7 U
Zinc	20 or SB	424	424	156	60.9	12 U	4.1 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-8
Cyanide - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 5

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SS-01	SS-02	SS-03	SS-04	SS-14	SS-05	SS-05D
Laboratory ID Depth Date Sampled		2529701 00"-06" 10/10/95	2529802 00"-06" 10/10/95	2529803 00"-06" 10/10/95	2529804 00"-06" 10/10/95	Duplicate of SS-4 2529805 00"-06" 10/10/95	2128114 Beneath Asphalt 07/08/94	Duplicate of SS-5 2128115 Beneath Asphalt 07/08/94
Cyanide	NC	0.56 UJ	0.63 U	0.69 U	0.57 U	0.9 J	0.48 U	0.5 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-8
Cyanide - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 5

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SS-06	SS-07	SS-08	SS-09	SS-10	SS-10D	SS-11
Laboratory ID		2128116	2128117	2128108	2128109	2128112	Duplicate of SS-10 2128113	3218708
Depth		Beneath Asphalt	00"-06"	00"-06"	00"-06"	00"-06"	00"-06"	00"-02"
Date Sampled		07/08/94	07/08/94	07/08/94	07/08/94	07/08/94	07/08/94	09/03/97
Cyanide	NC	0.48 U	0.6 U	0.44 U	0.42 U	0.57 U	0.66 U	0.61 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-8
Cyanide - Surface Soils
Troy (Smith Avenue) Site
Page 3 of 5

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18
Laboratory ID Depth Date Sampled		3218707 00"-02" 09/03/97	3218706 00"-02" 09/03/97	3218705 00"-02" 09/03/97	3218701 00"-02" 09/02/97	3198801 00"-02" 08/12/97	3204802 00"-02" 08/18/97	3204701 00"-02" 08/18/97
Cyanide	NC	0.64 U	0.65 U	0.7 U	0.53 U	0.66 U	1.05	0.55 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-8
Cyanide - Surface Soils
Troy (Smith Avenue) Site
Page 4 of 5

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SS-38 Duplicate of SS-18 3204702 00"-02" 08/18/97	SS-19 3212701 00"-02" 08/25/97	SS-20 3218704 00"-02" 09/03/97	SS-21 3212803 00"-02" 08/25/97	SS-22 3209201 Beneath Asphalt 08/20/97	FB-0708 Field Blank 2128122 -- 07/08/94	FB2-0708 Field Blank 2128120 -- 07/08/94
Cyanide	NC	0.56 U	0.54 U	0.59 U	0.52 U	0.53 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-8
 Cyanide - Surface Soils
 Troy (Smith Avenue) Site
 Page 5 of 5

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	FB-1010 Field Blank 2529801 -- 10/10/95	FB-0818 Field Blank 3204806 -- 08/18/97	FB-0825 Field Blank 3212705 -- 08/25/97	FB-0826 Field Blank 3212706 -- 08/26/97
Cyanide	NC	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-9
Total Organic Carbon - Surface Soils
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17
Laboratory ID	3218708	3218707	3218706	3218705	3218701	3198801	3204802
Depth	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"
Date Sampled	09/03/97	09/03/97	09/03/97	09/03/97	09/02/97	08/12/97	08/18/97
Total Organic Carbon	22000	49100	30800	96500	8120	36100	30700

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-9
Total Organic Carbon - Surface Soils
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	SS-18	SS-38	SB-19	SS-20	SS-21	SS-22
Laboratory ID	3204701	Duplicate of SS-18 3204702	3212701	3218704	3212803	3209201
Depth	00"-02"	00"-02"	00"-02"	00"-02"	00"-02"	Beneath Asphalt
Date Sampled	08/18/97	08/18/97	08/28/97	09/03/97	08/25/97	08/20/97
Total Organic Carbon	22500	54200	30500	10200	2500	9500

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39 Duplicate of SS-19	SB-2	SB-3	SB-6
Laboratory ID Depth Date Sampled		3204805 01'-02' 08/18/97	3204801 02'-03' 08/18/97	3212801 02'-03' 08/25/97	3212802 02'-03' 08/25/97	2171501 06'-08' 08/18/94	2532301 18'-20' 10/11/95	2179401 32'-34' 08/23/94
Chloromethane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Bromomethane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Vinyl Chloride	560	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Chloroethane	5,320	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Methylene Chloride	280	11 U	11 U	10 U	10 U	11 U	15 UJ	9 JB
Acetone	560	11 UJ	11 UJ	10 U	10 U	36 J	12 UJ	17 B
Carbon Disulfide	7,560	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,1-Dichloroethene	1,120	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,1-Dichloroethane	560	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,2-Dichloroethene (total)	840	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Chloroform	840	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,2-Dichloroethane	280	11 U	11 U	10 U	10 U	11 U	12 U	12 U
2-Butanone	840	11 U	11 U	10 U	10 U	11 U	23 UJ	12 U
1,1,1-Trichloroethane	2,240	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Carbon Tetrachloride	1,680	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Bromodichloromethane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,2-Dichloropropane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
cis-1,3-Dichloropropene	840	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Trichloroethene	1,960	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Dibromochloromethane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,1,2-Trichloroethane	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Benzene	168	11 U	11 U	10 U	10 U	11 U	2 J	12 U
trans-1,3-Dichloropropene	840	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Bromoform	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U
4-Methyl-2-Pentanone	2,800	11 U	11 U	10 U	10 U	11 U	12 U	12 U
2-Hexanone	NC	11 U	11 U	10 U	10 U	11 U	12 U	12 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 2 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39 Duplicate of SS-19	SB-2	SB-3	SB-6
Laboratory ID		3204805	3204801	3212801	3212802	2171501	2532301	2179401
Depth		01'-02'	02'-03'	02'-03'	02'-03'	06'-08'	18'-20'	32'-34'
Date Sampled		08/18/97	08/18/97	08/25/97	08/25/97	08/18/94	10/11/95	08/23/94
Tetrachloroethene	3,920	11 U	11 U	10 U	10 U	11 U	12 U	12 U
1,1,2,2-Tetrachloroethane	1,680	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Toluene	4,200	11 U	11 U	10 U	10 U	11 U	2 J	12 U
Chlorobenzene	4,760	11 U	11 U	10 U	10 U	11 U	12 U	12 U
Ethylbenzene	15,400	11 U	11 U	10 U	10 U	11 U	44	12 U
Styrene	NC	11 U	11 U	10 U	10 U	11 U	1 J	12 U
Xylene (total)	3,360	11 U	11 U	10 U	10 U	11 U	31	12 U
Volatile TICs	NC	R	R	--	--	R	197 JN	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-7	SB-9	SB-10	SB-20 Duplicate of SB-10	SB-11	SB-11	SB-11	SB-13
Laboratory ID Depth Date Sampled									
Chloromethane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Bromomethane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Vinyl Chloride	560	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Chloroethane	5,320	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Methylene Chloride	280	12 U	18 U	10000 UJ	46000 UJ	11 UJ	11 UJ	11 UJ	10 UJ
Acetone	560	35 J	37 J	3600 U	19000 U	11 U	11 U	5 J	10 UJ
Carbon Disulfide	7,560	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,1-Dichloroethene	1,120	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,1-Dichloroethane	560	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,2-Dichloroethene (total)	840	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Chloroform	840	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,2-Dichloroethane	280	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
2-Butanone	840	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,1,1-Trichloroethane	2,240	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Carbon Tetrachloride	1,680	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Bromodichloromethane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,2-Dichloropropane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
cis-1,3-Dichloropropene	840	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Trichloroethene	1,960	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Dibromochloromethane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
1,1,2-Trichloroethane	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Benzene	168	12 U	12 U	570000 D	380000 D	2 J	11 U	11 U	10 U
trans-1,3-Dichloropropene	840	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Bromoform	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
4-Methyl-2-Pentanone	2,800	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
2-Hexanone	NC	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-7	SB-9	SB-10	SB-20 Duplicate of SB-10	SB-11	SB-11	SB-11	SB-13
Laboratory ID Depth Date Sampled									
Tetrachloroethene	3,920	12 U	23	3600 U	19000 U	11 U	11 U	11 U	10 U
1,1,2,2-Tetrachloroethane	1,680	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Toluene	4,200	12 U	12 U	100000 D	730000 D	11 U	11 U	11 U	10 U
Chlorobenzene	4,760	12 U	12 U	3600 U	19000 U	11 U	11 U	11 U	10 U
Ethylbenzene	15,400	12 U	12 U	810000 D	600000 D	11 U	11 U	11 U	10 U
Styrene	NC	12 U	12 U	120000 D	140000	11 U	11 U	11 U	10 U
Xylene (total)	3,360	12 U	12 U	1100000 D	810000 D	11 U	11 U	11 U	10 U
Volatile TICs	NC	1162 J	--	4100000 JN	6780000 JN	--	--	--	R

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-17	SB-21	SB-22	MW-1	MW-2	MW-3	MW-4A
Laboratory ID Depth Date Sampled		3247503 06'-08' 09/22/97	3247501 42'-44' 09/22/97	3241501 24'-26' 09/23/97	2129804 20'-22' 07/12/94	2133001 10'-12' 07/13/94	2168501 34'-36' 08/16/94	2159402 27'-29' 08/09/94
Chloromethane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Bromomethane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Vinyl Chloride	560	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Chloroethane	5,320	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Methylene Chloride	280	11 U	11 UJ	15 U	12 U	2 J	12 U	12 U
Acetone	560	11 UJ	11 UJ	6 J	12 UJ	63 B	12 UJ	13 UJ
Carbon Disulfide	7,560	11 U	11 U	1 J	12 U	11 U	12 U	12 U
1,1-Dichloroethene	1,120	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,1-Dichloroethane	560	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,2-Dichloroethene (total)	840	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Chloroform	840	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,2-Dichloroethane	280	11 U	11 U	10 U	12 U	11 U	12 U	12 U
2-Butanone	840	11 UJ	11 UJ	10 U	12 U	11 U	12 U	12 U
1,1,1-Trichloroethane	2,240	11 U	11 U	10 U	12 U	28	12 U	12 U
Carbon Tetrachloride	1,680	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Bromodichloromethane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,2-Dichloropropane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
cis-1,3-Dichloropropene	840	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Trichloroethene	1,960	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Dibromochloromethane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,1,2-Trichloroethane	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Benzene	168	11 U	14	3 J	12 U	11 U	12 U	28
trans-1,3-Dichloropropene	840	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Bromoform	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U
4-Methyl-2-Pentanone	2,800	11 U	11 U	10 U	12 U	11 U	12 U	12 U
2-Hexanone	NC	11 U	11 U	10 U	12 U	11 U	12 U	12 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-17	SB-21	SB-22	MW-1	MW-2	MW-3	MW-4A
Laboratory ID		3247503	3247501	3241501	2129804	2133001	2168501	2159402
Depth		06'-08"	42'-44"	24'-26"	20'-22"	10'-12"	34'-36"	27'-29"
Date Sampled		09/22/97	09/22/97	09/23/97	07/12/94	07/13/94	08/16/94	08/09/94
Tetrachloroethene	3,920	11 U	11 U	10 U	12 U	11 U	12 U	12 U
1,1,2,2-Tetrachloroethane	1,680	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Toluene	4,200	11 U	11 U	2 J	12 U	1 J	12 U	9 J
Chlorobenzene	4,760	11 U	11 U	10 U	12 U	11 U	12 U	12 U
Ethylbenzene	15,400	11 U	7 J	12	12 U	11 U	12 U	10 J
Styrene	NC	11 U	11 U	3 J	12 U	11 U	12 U	12 U
Xyrene (total)	3,360	11 U	4 J	28	12 U	11 U	12 U	40
Volatiles TICs	NC	--	14 J	2220 J	--	99 J	238 J	984 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 7 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-5	MW-5	MW-6	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14
Laboratory ID		2529702	2529703	2162901	3203101	3203102	3247502	3216101
Depth		32'-34'	50'-52'	42'-44'	42'-44'	42'-44'	24'-26'	06'-08'
Date Sampled		10/10/95	10/10/95	08/12/94	08/15/97	08/15/97	09/22/97	08/28/97
Chloromethane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Bromomethane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Vinyl Chloride	560	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Chloroethane	5,320	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Methylene Chloride	280	13 UJ	58 UJ	1400 U	11 U	12 U	11 U	11 U
Acetone	560	16 J	58 U	1400 UJ	7 J	6 J	11 UJ	11 U
Carbon Disulfide	7,560	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,1-Dichloroethene	1,120	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,1-Dichloroethane	560	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,2-Dichloroethene (total)	840	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Chloroform	840	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,2-Dichloroethane	280	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
2-Butanone	840	18 J	58 U	1400 U	11 U	12 U	11 U	11 U
1,1,1-Trichloroethane	2,240	13 U	58 U	1400 U	11 U	12 U	11 UJ	11 U
Carbon Tetrachloride	1,680	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Bromodichloromethane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,2-Dichloropropane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
cis-1,3-Dichloropropene	840	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Trichloroethene	1,960	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Dibromochloromethane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,1,2-Trichloroethane	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Benzene	168	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
trans-1,3-Dichloropropene	840	13 U	58 U	3500	11 U	12 U	11 U	11 U
Bromoform	NC	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
4-Methyl-2-Pentanone	2,800	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
2-Hexanone	NC	13 U	58 U	1400 UJ	11 U	12 U	11 U	11 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-5	MW-5	MW-6	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14
Laboratory ID		2529702	2529703	2162901	3203101	3203102	3247502	3216101
Depth		32'-34'	50'-52'	42'-44'	42'-44'	42'-44'	24'-26'	06'-08'
Date Sampled		10/10/95	10/10/95	08/12/94	08/15/97	08/15/97	09/22/97	08/28/97
Tetrachloroethene	3,920	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
1,1,2,2-Tetrachloroethane	1,680	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Toluene	4,200	13 U	14 J	12000	11 U	12 U	11 U	11 U
Chlorobenzene	4,760	13 U	58 U	1400 U	11 U	12 U	11 U	11 U
Ethylbenzene	15,400	13 U	12 J	4900	11 U	12 U	11 U	11 U
Styrene	NC	13 U	58 U	870 J	11 U	12 U	11 U	11 U
Xylene (total)	3,360	13 U	11 J	14000	11 U	12 U	11 U	11 U
Volatile TICs	NC	R	4170 JN	63700 J	R	118 JN	5 J	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 9 of 14

Sample ID Laboratory ID Depth Date Sampled	MW-15	TP-1	TP-2	TP-3	TP-3	TP-3	TP-4	TP-4D
	3212804 04'-06' 08/25/97	2536101 04'-08' 10/17/95	2128107 04' 07/08/94	2536102 02'-03' 10/17/95	2536103 06'-08' 10/17/95	2128103 01' 07/08/94	Duplicate of TP-4 2128106 01' 07/08/94	
Chloromethane	10 U	11 U	11 UJ	16000 U	11 U	12 UJ	11 UJ	
Bromomethane	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	
Vinyl Chloride	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	
Chloroethane	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	
Methylene Chloride	10 UJ	13 UJ	11 U	40000 U	12 UJ	12 U	11 U	
Acetone	10 U	11 U	11 UJ	16000 UJ	11 U	12 UJ	11 UJ	
Carbon Disulfide	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,1-Dichloroethene	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,1-Dichloroethane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,2-Dichloroethene (total)	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
Chloroform	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,2-Dichloroethane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
2-Butanone	10 U	11 U	11 UJ	16000 UJ	11 U	12 UJ	11 UJ	
1,1,1-Trichloroethane	10 U	11 U	11 U	16000 UJ	2 J	12 U	11 U	
Carbon Tetrachloride	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
Bromodichloromethane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,2-Dichloropropane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
cis-1,3-Dichloropropene	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
Trichloroethene	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
Dibromochloromethane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
1,1,2-Trichloroethane	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
Benzene	10 U	11 U	11 U	16000 UJ	11 U	12 U	11 U	
trans-1,3-Dichloropropene	10 U	11 U	11 U	76000	11 U	12 U	11 U	
Bromoform	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	
4-methyl-2-Pentanone	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	
2-Hexanone	10 U	11 U	11 U	16000 U	11 U	12 U	11 U	

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 10 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-15	TP-1	TP-2	TP-3	TP-3	TP-3	TP-4	TP-4D
Laboratory ID		3212804	2536101	2128107	2536102		2536103	2128103	Duplicate of TP-4
Depth		04'-06'	04'-08'	04'	02'-03'		06'-08'	01'	2128106
Date Sampled		08/25/97	10/17/95	07/08/94	10/17/95		10/17/95	07/08/94	07/08/94
Tetrachloroethene	3,920	10 U	11 U	11 U	16000 U		11 U	12 U	11 U
1,1,2,2-Tetrachloroethane	1,680	10 U	11 U	11 U	16000 U		11 U	12 U	11 U
Toluene	4,200	10 U	11 U	11 U	160000		11 U	4 J	4 J
Chlorobenzene	4,760	10 U	11 U	11 U	16000 U		11 U	12 U	11 U
Ethylbenzene	15,400	10 U	11 U	11 U	310000 D		11 U	12 U	11 U
Styrene	NC	10 U	11 U	11 U	16000 U		11 U	12 U	11 U
Xylene (total)	3,360	10 U	11 U	11 U	490000		11 U	12 U	11 U
Volatiles TICs	NC	R	--	R	3357000 JN		--	16 J	7 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 11 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-4	TP-5	TP-5	TP-5	FB-0707 Field Blank 2128121	FB2-0708 Field Blank 2128120	FB-0712 Field Blank 2129805
Laboratory ID		2128104	2128105	2128102	2128101				
Depth		03'	06'-06.5'	01.5'	03'				
Date Sampled		07/08/94	07/08/94	07/08/94	07/08/94		07/07/94	07/08/94	07/12/94
Chloromethane	NC	12 UJ	11 UJ	11 UJ	12 UJ		10 U	10 U	10 U
Bromomethane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Vinyl Chloride	560	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Chloroethane	5,320	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Methylene Chloride	280	12 U	11 U	11 U	12 U		4 JB	4 JB	15 B
Acetone	560	12 UJ	11 UJ	11 UJ	12 UJ		10 UJ	10 UJ	7 J
Carbon Disulfide	7,560	12 U	11 U	11 U	12 U		7 J	13	36
1,1-Dichloroethene	1,120	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,1-Dichloroethane	560	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,2-Dichloroethene (total)	840	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Chloroform	840	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,2-Dichloroethane	280	12 U	11 U	11 U	12 U		10 U	10 U	10 U
2-Butanone	840	12 UJ	11 UJ	11 UJ	12 UJ		10 U	10 U	10 U
1,1,1-Trichloroethane	2,240	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Carbon Tetrachloride	1,680	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Bromodichloromethane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,2-Dichloropropane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
cis-1,3-Dichloropropene	840	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Trichloroethene	1,960	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Dibromochloromethane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,1,2-Trichloroethane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Benzene	168	12 U	11 U	11 U	12 U		10 U	10 U	10 U
trans-1,3-Dichloropropene	840	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Bromoform	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
4-Methyl-2-Pentanone	2,800	12 U	11 U	11 U	12 U		10 U	10 U	10 U
2,2,4,4-Tetramethylpentane	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 12 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-4	TP-5	TP-5	TP-5	FB-0707 Field Blank 2128121 --	FB2-0708 Field Blank 2128120 --	FB-0712 Field Blank 2129805 --
Laboratory ID Depth Date Sampled		2128104 03' 07/08/94	2128105 06'-06.5' 07/08/94	2128102 01.5' 07/08/94	2128101 03' 07/08/94		07/07/94	07/08/94	07/12/94
Tetrachloroethene	3,920	12 U	11 U	11 U	12 U		10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	1,680	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Toluene	4,200	2 J	4 J	11 U	2 J		10 U	10 U	10 U
Chlorobenzene	4,760	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Ethylbenzene	15,400	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Styrene	NC	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Xylene (total)	3,360	12 U	11 U	11 U	12 U		10 U	10 U	10 U
Volatiles TICs	NC	11 J	13 J	16 J	22 J		14 J	28 J	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 13 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503	FB-1012 Field Blank 2532302	FB-0818 Field Blank 3204806	FB-0820B Field Blank 3209103	TAP-1 Drilling Water 2159401
Laboratory ID		--	--	--	--	--
Depth		08/18/94	10/11/95	08/18/97	08/20/97	08/09/94
Date Sampled						
Chloromethane	NC	10 U	10 U	10 U	10 U	10 U
Bromomethane	NC	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	560	10 U	10 U	10 U	10 U	10 U
Chloroethane	5,320	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	280	3 JB	14 JB	5 J	6 JB	4 J
Acetone	560	10 UJ	5 J	10 U	10 U	12 J
Carbon Disulfide	7,560	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	1,120	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	560	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	840	10 U	10 U	10 U	10 U	10 U
Chloroform	840	10 U	10 U	10 U	10 U	120
1,2-Dichloroethane	280	10 U	10 U	10 U	10 U	10 U
2-Butanone	840	10 U	10 UJ	10 U	10 U	10 U
1,1,1-Trichloroethane	2,240	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	1,680	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	NC	10 U	10 U	10 U	10 U	8 J
1,2-Dichloropropane	NC	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	840	10 U	10 U	10 U	10 U	10 U
Trichloroethene	1,960	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	NC	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	NC	10 U	10 U	10 U	10 U	10 U
Benzene	168	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	840	10 U	10 U	10 U	10 U	10 U
Bromoform	NC	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	2,800	10 U	10 U	10 U	10 U	10 U
2-Hexanone	NC	10 UJ	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-10
TCL Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 14 of 14

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503 08/18/94	FB-1012 Field Blank 2532302 --	FB-0818 Field Blank 3204806 08/18/97	FB-0820B Field Blank 3209103 --	TAP-1 Drilling Water 2159401 08/09/94
Tetrachloroethene	3,920	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	1,680	10 U	10 U	10 U	10 U	10 U
Toluene	4,200	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	4,760	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	15,400	10 U	10 U	10 U	10 U	10 U
Styrene	NC	10 U	10 U	10 U	10 U	10 U
Xylene (total)	3,360	10 U	10 U	10 U	10 U	10 U
Volatiles TICs	NC	48 J	--	--	--	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-1	SB-1	SB-1	SB-1	SB-3	SB-3	SB-3	SB-4	SB-4
Laboratory ID	2529803	2529806	2529807	2529801	2529802	2179305	2179308			
Depth	28'-30'	34'-36'	46'-48'	08'-10'	14'-16'	10'-12'	28'-30'			
Date Sampled	10/12/95	10/13/95	10/13/95	10/11/95	10/11/95	08/24/94	08/25/94			
Benzene	168	12 U	11 U	10 U	7 J	11 U	11 U			
Toluene	4,200	12 U	11 U	10 U	4 J	11 U	11 U			
Ethylbenzene	15,400	12 U	11 U	10 U	11 U	11 U	11 U			
Xylene (total)	3,360	2 J	11 U	10 U	11 U	11 U	11 U			

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 2 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-4	SB-14 Duplicate of SB-4	SB-4	SB-6	SB-6	SB-6	SB-6	SB-6	SB-7
Laboratory ID Depth Date Sampled										
Benzene	168	2179309 38'-40' 08/25/94	2179310 38'-40' 08/25/94	2179311 50'-52' 08/25/94	2179302 12'-14' 08/23/94	2179303 22'-24' 08/23/94	2179304 44'-46' 08/24/94	2168602 26'-28' 08/16/94		
Toluene	4,200	12 U	12 U	R	11 U	12 U	11 U	12 U	11 U	12 U
Ethylbenzene	15,400	12 U	12 U	R	11 U	12 U	11 U	12 U	11 U	12 U
Xylyene (total)	3,360	12 U	12 U	R	11 U	12 U	11 U	12 U	11 U	12 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
 BTEX Compounds - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 3 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-7	SB-7	SB-8	SB-9	SB-9	SB-9	SB-9	SB-10
Laboratory ID		2171601	2171602	2171603	2171604	2174701	2174702	2534501	
Depth		34'-36'	42'-44'	02'-03'	10'-12'	30'-34'	48'-50'	04'-06'	
Date Sampled		08/17/94	08/17/94	08/18/94	08/19/94	08/22/94	08/22/94	10/16/95	
Benzene	168	4 J	12 UJ	11 U	11 U	11 U	11 UJ	390000 D	
Toluene	4,200	5 J	12 UJ	11 U	11 U	11 U	11 UJ	760000 D	
Ethylbenzene	15,400	12 U	12 UJ	11 U	11 U	11 U	11 UJ	560000 D	
Xylene (total)	3,360	12 U	12 UJ	11 U	11 U	11 U	11 UJ	840000 D	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-10	SB-11	SB-11 Duplicate of SB-11	SB-11	SB-13	SB-14	SB-14
Laboratory ID		2534502	3209203	3209202	3209204	3251101	3248501	3248502
Depth		10'-12'	06'-08'	06'-08'	46'-48'	02'-04'	02'-04'	06'-08'
Date Sampled		10/16/95	08/20/97	08/20/97	08/21/97	09/30/97	09/29/97	09/29/97
Benzene	168	300000 D	11 U	10 U	4 J	11 U	11 U	11 U
Toluene	4,200	630000 D	11 U	10 U	12 U	11 U	11 U	11 U
Ethylbenzene	15,400	230000 D	11 U	10 U	12 U	11 U	11 U	11 U
Xylene (total)	3,360	700000 D	11 U	10 U	12 U	11 U	11 U	11 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-16	SB-17
Laboratory ID		3248503	3248504	3251102	3251105	3247612	3247613	3247614	
Depth		38'-40'	44'-46'	02'-04'	06'-08'	04'-06'	06'-08'	02'-04'	
Date Sampled		09/29/97	09/29/97	09/30/97	09/30/97	09/26/97	09/26/97	09/26/97	
Benzene	168	11 U	11 UJ	11 U	10 U	12 U	11 U	11 U	11 U
Toluene	4,200	11 U	11 UJ	11 U	10 U	12 U	11 U	11 U	11 U
Ethylbenzene	15,400	11 U	11 UJ	11 U	10 U	12 U	11 U	11 U	11 U
Xylene (total)	3,360	11 U	11 UJ	11 U	10 U	12 U	11 U	11 U	11 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-18	SB-18	SB-18	SB-18	SB-19	SB-19	SB-19	SB-20	SB-20
Laboratory ID		3247606	3247607	3247608	Duplicate of SB-18	3251106	3251107	3251108	3251109	
Depth		02'-04'	04'-08'	04'-08'	09/25/97	02'-04'	06'-08'	02'-04'	06'-08'	
Date Sampled		09/25/97	09/25/97	09/25/97	09/30/97	09/30/97	09/30/97	09/30/97	09/30/97	
Benzene	168	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	10 U
Toluene	4,200	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	10 U
Ethylbenzene	15,400	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	10 U
Xylene (total)	3,360	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 7 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-21	SB-21	SB-21	SB-21	SB-21	SB-21	SB-22	SB-22	SB-22	SB-22	MW-1
Laboratory ID		3247601	3247602	3247603	3247603	3241601	3241602	3241603				2129801
Depth		02'-04'	04'-08'	34'-36'	02'-04'	08'-10'	38'-40'					06'-08'
Date Sampled		09/24/97	09/24/97	09/25/97	09/23/97	09/23/97	09/23/97	09/23/97				07/12/94
Benzene	168	12 U	11 U	11 U	12 U	12 U	11 U	12 U	11 U	20	12 U	12 U
Toluene	4,200	12 U	11 U	4 J	12 U	12 U	11 U	12 U	11 U	20	12 U	12 U
Ethylbenzene	15,400	12 U	11 U	2 J	12 U	12 U	11 U	12 U	11 U	35	12 U	12 U
Xylene (total)	3,360	12 U	11 U	3 J	12 U	12 U	11 U	12 U	11 U	24	12 U	12 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-1	MW-1	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-2AD Duplicate of MW-2A	MW-2A
Laboratory ID		2129802	2129803	2146401	2146402	2146403	2146404	2146404	2146405	
Depth		30'-32'	40'-42'	26'-28'	34'-36'	42'-44'	42'-44'	42'-44'	44'-46'	
Date Sampled		07/12/94	07/12/94	07/26/94	07/26/94	07/27/94	07/27/94	07/27/94	07/27/94	
Benzene	168	11 U	12 UJ	12 UJ	13 UJ	11 U	11 U	11 U	11 U	
Toluene	4,200	11 U	R	12 UJ	13 UJ	11 U	11 U	11 U	6 J	
Ethylbenzene	15,400	11 U	R	12 UJ	13 UJ	11 U	11 U	11 U	4500 D	
Xylene (total)	3,360	11 U	R	12 UJ	13 UJ	11 U	11 U	11 U	3700 D	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 9 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-4	MW-4	MW-4A	MW-4A	MW-4A	MW-5	MW-5	MW-5
Laboratory ID		2151101	2151102	2158303	2158306	2529806	2529807	2529808	
Depth		10'-12'	20'-22'	34'-36'	42'-44'	14'-16'	39'-40'	44'-45'	
Date Sampled		07/29/94	07/27/94	08/09/94	08/09/94	10/10/95	10/10/95	10/10/95	
Benzene	168	3 J	11 U	12 U	11 U	10 U	7 J	11 U	
Toluene	4,200	2 J	11 U	12 U	11 U	10 U	32	5 J	
Ethylbenzene	15,400	1 J	2 J	12 U	11 U	10 U	6 J	11 U	
Xylene (total)	3,360	7 J	11 U	19	11 U	10 U	40	11 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 10 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-6	MW-6	MW-6	MW-6	MW-7D	MW-7D	MW-7D	MW-7D	MW-8
Laboratory ID	Soil Clean-up Objectives (ug/kg)	2162801	2162802	2162803	2162803	3203201	3203202	3203202	3203205	3247609
Depth	Objectives (ug/kg)	10'-12'	26'-28'	36'-38'	36'-38'	04'-06'	06'-08'	06'-08'	50'-52'	02'-04'
Date Sampled	(ug/kg)	08/11/94	08/11/94	08/09/94	08/09/94	08/14/97	08/14/97	08/14/97	08/15/97	09/25/97
Benzene	168	11 U	5 J	11 U	11 U	11 U	11 U	11 U	10 U	11 U
Toluene	4,200	11 U	8 J	11 U	11 U	11 U	11 U	11 U	10 U	11 U
Ethylbenzene	15,400	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U
Xylene (total)	3,360	11 U	6 J	11 U	11 U	11 U	11 U	11 U	10 U	11 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 11 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-8	MW-8	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-12
Laboratory ID	Soil Clean-up Objectives (ug/kg)	3247610	3247611	3198701	3198702	3198703	3198704	3198705	
Depth		06'-08'	30'-32'	02'-04'	06'-08'	44'-46'	50'-52'	04'-06'	
Date Sampled		09/25/97	09/26/97	08/11/97	08/11/97	08/11/97	08/12/97	08/12/97	
Benzene	168	10 U	11 U	11 U	12 U	1300 U	12 UJ	12 U	
Toluene	4,200	10 U	11 U	11 U	12 U	1300 U	R	12 U	
Ethylbenzene	15,400	10 U	11 U	11 U	12 U	1800	R	12 U	
Xylene (total)	3,360	10 U	11 U	11 U	12 U	800 J	R	12 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 12 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-12	MW-13	MW-13	MW-14	MW-15	FB-0809	FB2-0818
Laboratory ID	Soil Clean-up Objectives	3198706	3218702	3218703	3216201	3212704	2158301	Field Blank 2171607
Depth	(ug/kg)	06'-08'	02'-04'	04'-06'	04'-06'	02'-04'	--	--
Date Sampled		08/12/97	09/03/97	09/03/97	08/28/97	08/25/97	08/09/94	08/18/94
Benzene	168	11 U	11 U	11 U	12 UJ	10 U	10 U	10 U
Toluene	4,200	11 U	11 U	11 U	3 J	10 U	10 U	10 U
Ethylbenzene	15,400	11 U	11 U	11 U	12 UJ	10 U	10 U	10 U
Xylene (total)	3,360	11 U	11 U	11 U	12 UJ	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-11
BTEX Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 13 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-1010 Field Blank 2529801 --	FB-0820A Field Blank 3209205 --	FB-0825 Field Blank 3212705 --	FB-0826 Field Blank 3212706 --	FB-0925 Field Blank 3247615 --
Laboratory ID		10/10/95	08/20/97	08/25/97	08/25/97	09/26/97
Depth						
Date Sampled						
Benzene	168	10 U	10 U	10 U	10 U	10 U
Toluene	4,200	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	15,400	10 U	10 U	10 U	10 U	10 U
Xylene (total)	3,360	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39	SB-2	SB-3
Laboratory ID Depth Date Sampled					Duplicate of SS-19		
Phenol	84	3204805 01'-02' 08/18/97	3204801 02'-03' 08/18/97	3212801 02'-03' 08/25/97	Duplicate of SS-19 3212802 02'-03' 08/25/97	2171501 06'-08' 08/18/94	2532301 18'-20' 10/11/95
Diethyl Ether	NC	390 U	360 U	350 U	350 U	R	410 U
2-Chlorophenol	2,240	390 U	360 U	350 U	350 U	1500 U	410 U
1,3-Dichlorobenzene	4,480	390 U	360 U	350 U	350 U	R	410 U
1,4-Dichlorobenzene	23,800	390 U	360 U	350 U	350 U	1500 U	410 U
1,2-Dichlorobenzene	22,120	390 U	360 U	350 U	350 U	1500 U	410 U
2-Methylphenol	280	390 U	360 U	350 U	350 U	1500 U	410 U
2,2'-oxybis(1-Chloropropane)	NC	390 U	360 U	350 U	350 U	R	410 U
4-Methylphenol	2,520	390 U	360 U	350 U	350 U	1500 U	410 U
N-Nitroso-di-n-propylamine	NC	390 U	360 U	350 U	350 U	R	410 U
Hexachloroethane	NC	390 U	360 U	350 U	350 U	1500 U	410 U
Nitrobenzene	560	390 U	360 U	350 U	350 U	1500 U	410 U
Isophorone	12,320	390 U	360 U	350 U	350 U	1500 U	410 U
2-Nitrophenol	924	390 U	360 U	350 U	350 U	1500 U	410 U
2,4-Dimethylphenol	1,120	390 U	360 U	350 U	350 U	R	410 U
2,4-Dichlorophenol	1,120	390 U	360 U	350 U	350 U	R	410 U
1,2,4-Trichlorobenzene	NC	390 U	360 U	350 U	350 U	R	410 U
Naphthalene	36,400	390 U	360 U	350 U	350 U	1500 U	410 U
4-Chloroaniline	616	390 UJ	360 UJ	350 UJ	350 UJ	1500 U	3100 JD
Hexachlorobutadiene	NC	390 U	360 U	350 U	350 U	1500 U	410 U
bis(2-Chloroethoxy)methane	NC	390 U	360 U	350 U	350 U	1500 U	410 U
4-Chloro-3-Methylphenol	672	390 U	360 U	350 U	350 U	1500 U	410 U
2-Methylnaphthalene	50,000	390 U	360 U	350 U	350 U	R	410 U
Hexachlorocyclopentadiene	NC	390 U	360 U	350 U	350 U	1500 U	210 J
2,4,6-Trichlorophenol	NC	390 U	360 U	350 U	350 U	1500 U	410 U
2,4,5-Trichlorophenol	280	940 U	860 U	840 U	840 U	R	410 U
							990 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 2 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39 Duplicate of SS-19	SB-2	SB-3
Laboratory ID Depth Date Sampled							
2-Chloronaphthalene	NC	390 U	360 U	350 U	350 U	1500 U	410 U
2-Nitroaniline	1,204	940 U	860 U	840 U	840 U	3600 U	990 U
Dimethylphthalate	5,600	390 U	360 U	350 U	350 U	1500 U	410 U
Acenaphthylene	50,000	48 J	360 U	350 U	350 U	1500 U	2400
2,6-Dinitrotoluene	1,030	390 U	360 U	350 U	350 U	1500 U	410 U
3-Nitroaniline	1,400	940 U	860 U	840 U	840 U	3600 U	990 U
Acenaphthene	50,000	66 J	360 U	350 U	350 U	1500 U	7300 D
2,4-Dinitrophenol	560	940 U	860 U	840 U	840 U	R	990 U
4-Nitrophenol	280	940 U	860 U	840 U	840 U	R	990 U
Dibenzofuran	17,360	68 J	360 U	350 U	350 U	1500 U	550
2,4-Dinitrotoluene	NC	390 U	360 U	350 U	350 U	1500 U	410 U
Diethylphthalate	19,880	390 U	43 J	350 U	350 U	1500 U	190 J
4-Chlorophenyl-phenylether	NC	390 U	360 U	350 U	350 U	1500 U	410 U
Fluorene	50,000	75 J	360 U	350 U	350 U	1500 U	6300 D
4-Nitroaniline	NC	940 U	860 U	840 U	840 U	3600 U	990 U
4,6-Dinitro-2-methylphenol	NC	940 U	860 U	840 U	840 U	R	990 U
N-Nitrosodiphenylamine	NC	390 U	360 U	350 U	350 U	1500 U	410 U
4-Bromophenyl-phenylether	NC	390 U	360 U	350 U	350 U	1500 U	410 U
Hexachlorobenzene	410	390 U	360 U	350 U	350 U	1500 U	410 U
Pentachlorophenol	2,800	940 U	860 U	840 U	840 U	R	990 U
Phenanthrene	50,000	1200	250 J	350 U	350 U	1500 U	10000 D
Anthracene	50,000	95 J	52 J	350 U	350 U	1500 U	3700 JD
Carbazole	NC	79 J	360 U	350 U	350 U	1500 U	48 J
Di-n-butylphthalate	22,680	390 U	360 U	350 U	350 U	1500 U	68 J
Fluoranthene	50,000	1200	480	350 U	350 U	1500 U	7500 D
Pyrene	50,000	910	400	350 U	350 U	1500 U	12000 D

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39 Duplicate of SS-19	SB-2	SB-3
Laboratory ID							
Depth							
Date Sampled							
Butylbenzylphthalate	50,000	390 U	360 U	350 U	350 U	1500 U	410 U
3,3'-Dichlorobenzidine	NC	390 U	360 U	350 U	350 U	1500 U	410 U
Benzo(a)anthracene	224	340 J	220 J	350 U	350 U	1500 U	4300 D
Chrysene	1,120	460	240 J	350 U	350 U	1500 U	3700 JD
bis(2-Ethylhexyl)phthalate	50,000	120 J	120 J	43 J	350 U	210 J	330 J
Di-n-octylphthalate	50,000	390 U	360 U	350 U	350 U	1500 U	410 U
Benzo(b)fluoranthene	3,080	250 J	200 J	350 U	350 U	1500 U	1900
Benzo(k)fluoranthene	3,080	290 J	200 J	350 U	350 U	1500 U	2300
Benzo(a)pyrene	61	320 J	230 J	350 U	350 U	1500 U	3200 JD
Indeno(1,2,3-cd)pyrene	8,960	210 J	160 J	350 U	350 U	1500 U	2000
Dibenz(a,h)anthracene	14	390 U	360 U	350 U	350 U	1500 U	280 J
Benzo(g,h,i)perylene	50,000	210 J	160 J	350 U	350 U	1500 U	2500
Semi-volatile TICs	NC	4150 JN	3216 JN	200 J	100 J	R	28200 JN

724 220 J 430

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-6	SB-7	SB-9	SB-10	SB-20	SB-11
Laboratory ID		2179401	2168504	2171502	2534401	Duplicate of SB-10	3209101
Depth		32'-34'	14'-16'	22'-24'	06'-08'	06'-08'	02'-04'
Date Sampled		08/23/94	08/16/94	08/19/94	10/16/95	10/16/95	08/20/97
Phenol	84	390 U	390 U	400 U	150000 U	630000 U	360 U
bis(2-Chloroethyl)Ether	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
2-Chlorophenol	2,240	390 U	390 U	400 U	150000 U	630000 U	360 U
1,3-Dichlorobenzene	4,480	390 U	390 U	400 U	150000 U	630000 U	360 U
1,4-Dichlorobenzene	23,800	390 U	390 U	400 U	150000 U	630000 U	360 U
1,2-Dichlorobenzene	22,120	390 U	390 U	400 U	150000 U	630000 U	360 U
2-Methylphenol	280	390 U	390 U	400 U	150000 U	630000 U	360 U
2,2'-oxybis(1-Chloropropane)	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
4-Methylphenol	2,520	390 U	390 U	400 U	150000 U	630000 U	360 U
N-Nitroso-di-n-propylamine	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Hexachloroethane	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Nitrobenzene	560	390 U	390 U	400 U	150000 U	630000 U	360 U
Isophorone	12,320	390 U	390 U	400 U	150000 U	630000 U	360 U
2-Nitrophenol	924	390 U	390 U	400 U	150000 U	630000 U	360 U
2,4-Dimethylphenol	1,120	390 U	390 U	400 U	150000 U	630000 U	360 U
2,4-Dichlorophenol	1,120	390 U	390 U	400 U	150000 U	630000 U	360 U
1,2,4-Trichlorobenzene	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Naphthalene	36,400	390 U	390 U	400 U	4400000 BD	3700000 B	56 J
4-Chloroaniline	616	390 U	390 U	400 U	150000 U	630000 U	360 UJ
Hexachlorobutadiene	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
bis(2-Chloroethoxy)methane	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
4-Chloro-3-Methylphenol	672	390 U	390 U	400 U	150000 U	630000 U	360 U
2-Methylnaphthalene	50,000	390 U	390 U	400 U	2600000 D	2300000	360 U
Hexachlorocyclopentadiene	NC	390 U	390 U	400 UJ	150000 U	630000 U	360 U
2,4,6-Trichlorophenol	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
2,4,5-Trichlorophenol	280	930 U	930 U	960 U	370000 U	1600000 U	860 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-6	SB-7	SB-9	SB-10	SB-20	SB-11
Laboratory ID		2179401	2168504	2171502	2534401	Duplicate of SB-10	3209101
Depth		32'-34'	14'-16'	22'-24'	06'-08'	06'-08'	02'-04'
Date Sampled		08/23/94	08/16/94	08/19/94	10/16/95	10/16/95	08/20/97
2-Chloronaphthalene	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
2-Nitroaniline	1,204	930 U	930 U	960 U	370000 U	1600000 U	860 U
Dimethylphthalate	5,600	390 U	390 U	400 U	150000 U	630000 U	360 U
Acenaphthylene	50,000	390 U	390 U	400 U	830000	910000	120 J
2,6-Dinitrotoluene	1,030	390 U	390 U	400 U	150000 U	630000 U	360 U
3-Nitroaniline	1,400	930 U	930 U	960 U	370000 U	1600000 U	860 U
Acenaphthene	50,000	390 U	390 U	400 U	280000	230000 J	360 U
2,4-Dinitrophenol	560	930 U	930 U	960 U	370000 U	1600000 U	860 U
4-Nitrophenol	280	930 U	930 U	960 U	370000 U	1600000 U	860 U
Dibenzofuran	17,360	390 U	390 U	400 U	74000 J	630000 U	360 U
2,4-Dinitrotoluene	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Diethylphthalate	19,880	390 U	510	400 U	150000 U	630000 U	360 U
4-Chlorophenyl-phenylether	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Fluorene	50,000	390 U	390 U	400 U	810000	710000	360 U
4-Nitroaniline	NC	930 U	930 U	960 U	370000 U	1600000 U	860 U
4,6-Dinitro-2-methylphenol	NC	930 U	930 U	960 U	370000 U	1600000 U	860 U
N-Nitrosodiphenylamine	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
4-Bromophenyl-phenylether	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Hexachlorobenzene	410	390 U	390 U	400 U	150000 U	630000 U	360 U
Pentachlorophenol	2,800	930 U	930 U	960 U	370000 U	1600000 U	860 U
Phenanthrene	50,000	390 U	49 J	400 U	1800000 D	1500000	160 J
Anthracene	50,000	390 U	390 U	400 U	560000	560000 J	57 J
Carbazole	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Di-n-butylphthalate	22,680	390 U	390 U	400 U	150000 U	630000 U	360 U
Fluoranthene	50,000	390 U	50 J	400 U	450000	400000 J	540
Pyrene	50,000	390 U	390 U	400 U	680000	600000 J	250 J

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-6	SB-7	SB-9	SB-10	SB-20	SB-11
Laboratory ID		2179401	2168504	2171502	2534401	Duplicate of SB-10 2534404	3209101
Depth		32'-34'	14'-16'	22'-24'	06'-08'	06'-08'	02'-04'
Date Sampled		08/23/94	08/16/94	08/19/94	10/16/95	10/16/95	08/20/97
Butylbenzylphthalate	50,000	390 U	390 U	400 U	150000 U	630000 U	360 U
3,3'-Dichlorobenzidine	NC	390 U	390 U	400 U	150000 U	630000 U	360 U
Benzo(a)anthracene	224	390 U	390 U	400 U	240000	220000 J	460 J
Chrysene	1,120	390 U	390 U	400 U	220000	190000 J	560 J
bis(2-Ethylhexyl)phthalate	50,000	390 U	190 J	210 J	150000 U	630000 U	76 J
Di-n-octylphthalate	50,000	390 U	390 U	400 UJ	150000 U	630000 U	360 U
Benzo(b)fluoranthene	3,080	390 U	390 U	400 U	69000 J	65000 J	360 U
Benzo(k)fluoranthene	3,080	390 U	390 U	400 U	94000 J	74000 J	360 U
Benzo(a)pyrene	61	390 U	390 U	400 U	150000	130000 J	360 U
Indeno(1,2,3-cd)pyrene	8,960	390 U	390 U	400 U	46000 J	630000 U	130 J
Dibenz(a,h)anthracene	14	390 U	390 U	400 U	150000 U	630000 U	360 U
Benzo(g,h,i)perylene	50,000	390 U	390 U	400 U	27000 J	630000 U	67 J
Semi-volatile TICs	NC	670 J	1100 J	1916 J	4925000 JN	5810000 JN	9930 JN

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 7 of 24

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-11	SB-13	SB-17	SB-21	SB-22	MW-1
Phenol	84	3209102 40'-42' 08/21/97	3251201 06'-08' 09/30/97	3247503 06'-08' 09/26/97	3247501 42'-44' 09/25/97	3241501 24'-26' 09/23/97	2129804 20'-22' 07/12/94
bis(2-Chloroethyl)Ether	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
2-Chlorophenol	2,240	380 U	360 U	1500 U	370 U	1600 U	410 U
1,3-Dichlorobenzene	4,480	380 U	360 U	1500 U	370 U	1600 U	410 U
1,4-Dichlorobenzene	23,800	380 U	360 U	1500 U	370 U	1600 U	410 U
1,1,2-Dichlorobenzene	22,120	380 U	360 U	1500 U	370 U	1600 U	410 U
2-Methylphenol	280	380 U	360 U	1500 U	370 U	1600 U	410 U
2,2'-oxybis(1-Chloropropane)	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
4-Methylphenol	2,520	380 U	360 U	1500 U	370 U	1600 U	410 U
N-Nitroso-di-n-propylamine	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Hexachloroethane	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Nitrobenzene	560	380 U	360 U	1500 U	370 U	1600 U	410 U
Isophorone	12,320	380 U	360 U	1500 U	370 U	1600 U	410 U
2-Nitrophenol	924	380 U	360 U	1500 U	370 U	1600 U	410 U
2,4-Dimethylphenol	1,120	380 U	360 U	1500 U	370 U	1600 U	410 U
2,4-Dichlorophenol	1,120	380 U	360 U	1500 U	370 U	1600 U	410 U
1,2,4-Trichlorobenzene	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Naphthalene	36,400	380 U	360 U	1500 U	370 U	1600 U	410 U
4-Chloroaniline	616	380 UJ	360 U	1500 U	1600	590 J	65 J
Hexachlorobutadiene	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
bis(2-Chloroethoxy)methane	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
4-Chloro-3-Methylphenol	672	380 U	360 U	1500 U	370 U	1600 U	410 U
2-Methylnaphthalene	50,000	380 U	360 U	1500 U	370 U	1600 U	410 U
Hexachlorocyclopentadiene	NC	380 U	360 U	1500 U	120 J	440 J	410 U
2,4,6-Trichlorophenol	NC	380 U	360 U	1500 U	370 U	1600 U	410 UJ
2,4,5-Trichlorophenol	280	920 U	870 U	3600 U	370 U	1600 U	410 U
					890 U	3800 U	990 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-11	SB-13	SB-17	SB-21	SB-22	MW-1
Laboratory ID		3209102	3251201	3247503	3247501	3241501	2129804
Depth		40'-42'	06'-08'	06'-08'	42'-44'	24'-26'	20'-22'
Date Sampled		08/21/97	09/30/97	09/26/97	09/25/97	09/23/97	07/12/94
2-Chloronaphthalene	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
2-Nitroaniline	1,204	920 U	870 U	3600 U	890 U	3800 U	990 U
Dimethylphthalate	5,600	380 U	360 U	1500 U	370 U	1600 U	410 U
Acenaphthylene	50,000	380 U	360 U	1500 U	96 J	4400	410 U
2,6-Dinitrotoluene	1,030	380 U	360 U	1500 U	370 U	1600 U	410 U
3-Nitroaniline	1,400	920 U	870 U	3600 U	890 U	3800 U	990 U
Acenaphthene	50,000	380 U	360 U	1500 U	1200	39000 JE	410 U
2,4-Dinitrophenol	560	920 U	870 U	3600 U	890 U	3800 U	990 U
4-Nitrophenol	280	920 U	870 U	3600 U	890 U	3800 U	990 U
Dibenzofuran	17,360	380 U	360 U	1500 U	370 U	2000	410 U
2,4-Dinitrotoluene	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Diethylphthalate	19,880	380 U	360 U	1500 U	370 U	1600 U	410 U
4-Chlorophenyl-phenylether	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Fluorene	50,000	380 U	360 U	1500 U	370 U	1600 U	410 U
4-Nitroaniline	NC	920 U	870 U	3600 U	540	29000 JE	410 U
4,6-Dinitro-2-methylphenol	NC	920 U	870 U	3600 U	890 U	3800 U	990 U
N-Nitrosodiphenylamine	NC	920 U	870 U	3600 U	890 U	3800 U	990 U
4-Bromophenyl-phenylether	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Hexachlorobenzene	410	380 U	360 U	1500 U	370 U	1600 U	410 U
Pentachlorophenol	2,800	920 U	870 U	3600 U	370 U	1600 U	410 U
Phenanthrene	50,000	380 U	360 U	1500 U	890 U	3800 U	990 U
Anthracene	50,000	380 U	39 J	270 J	1100	1600 U	410 U
Carbazole	NC	380 U	360 U	1500 U	340 J	22000 JE	410 U
Di-n-butylphthalate	22,680	380 U	360 U	1500 U	370 U	1600 U	410 U
Fluoranthene	50,000	380 U	360 U	1500 U	370 U	1600 U	410 U
Pyrene	50,000	380 U	82 J	290 J	520	21000 JE	410 U
					810	24000 JE	410 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 9 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-11	SB-13	SB-17	SB-21	SB-22	MW-1
Laboratory ID	3209102	3251201	3247503	3247501	3241501	2129804	
Depth	40'-42'	06'-08'	06'-08'	42'-44'	24'-26'	20'-22'	
Date Sampled	08/21/97	09/30/97	09/26/97	09/25/97	09/23/97	07/12/94	
Butylbenzylphthalate	50,000	380 U	360 U	1500 U	370 U	1600 U	410 U
3,3'-Dichlorobenzidine	NC	380 U	360 U	1500 U	370 U	1600 U	410 U
Benzo(a)anthracene	224	380 U	360 U	210 J	260 J	11000	410 U
Chrysene	1,120	380 U	43 J	260 J	250 J	11000	410 U
bis(2-Ethylhexyl)phthalate	50,000	58 J	48 J	1500 U	370 U	1600 U	410 U
Di-n-octylphthalate	50,000	380 U	360 U	1500 U	370 U	1600 U	410 U
Benzo(b)fluoranthene	3,080	380 U	360 U	220 J	370 U	1600 U	410 U
Benzo(k)fluoranthene	3,080	380 U	360 U	1500 U	170 J	5800	410 U
Benzo(a)pyrene	61	380 U	360 U	250 J	180 J	7600	410 U
Indeno(1,2,3-cd)pyrene	8,960	380 U	360 U	1500 U	59 J	2500	410 U
Dibenz(a,h)anthracene	14	380 U	360 U	1500 U	370 U	1200 J	410 U
Benzo(g,h,i)perylene	50,000	380 U	360 U	1500 U	77 J	2900	410 U
Semi-volatile TICs	NC	780 JN	13064 JN	1550 J	4560 JN	97100 JN	24540 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 10 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-2 RE	MW-3	MW-4A	MW-5	MW-5	MW-6
Laboratory ID Depth Date Sampled							
Phenol	84	R	1900 U	410 U	420 U	390 U	3800 U
bis(2-Chloroethyl)Ether	NC	R	1900 U	410 U	420 U	390 U	3800 U
2-Chlorophenol	2,240	R	1900 U	410 U	420 U	390 U	3800 U
1,3-Dichlorobenzene	4,480	R	1900 U	410 U	420 U	390 U	3800 U
1,4-Dichlorobenzene	23,800	R	1900 U	410 U	420 U	390 U	3800 U
1,2-Dichlorobenzene	22,120	R	1900 U	410 U	420 U	390 U	3800 U
2-Methylphenol	280	R	1900 U	410 U	420 U	390 U	3800 U
2,2'-oxybis(1-Chloropropane)	NC	R	1900 U	410 U	420 U	390 U	3800 U
4-Methylphenol	2,520	R	1900 U	410 U	420 U	390 U	3800 U
N-Nitroso-di-n-propylamine	NC	R	1900 U	410 U	420 U	390 U	3800 U
Hexachloroethane	NC	R	1900 U	410 U	420 U	390 U	3800 U
Nitrobenzene	560	R	1900 U	410 U	420 U	390 U	3800 U
Isophorone	12,320	R	1900 U	410 U	420 U	390 U	3800 U
2-Nitrophenol	924	R	1900 U	410 U	420 U	390 U	3800 U
2,4-Dimethylphenol	1,120	R	1900 U	410 U	420 U	390 U	3800 U
2,4-Dichlorophenol	1,120	R	1900 U	410 U	420 U	390 U	3800 U
1,2,4-Trichlorobenzene	NC	R	1900 U	410 U	420 U	390 U	3800 U
Naphthalene	36,400	2600 J	1900 U	410 U	420 U	670	3800 U
4-Chloroaniline	616	R	1900 U	410 U	420 U	390 U	3800 U
Hexachlorobutadiene	NC	R	1900 U	410 U	420 U	390 U	3800 U
bis(2-Chloroethoxy)methane	NC	R	1900 U	410 U	420 U	390 U	3800 U
4-Chloro-3-Methylphenol	672	R	1900 U	410 U	420 U	390 U	3800 U
2-Methylnaphthalene	50,000	1200 J	1900 U	410 U	420 U	490	700 J
Hexachlorocyclopentadiene	NC	R	1900 U	410 U	420 U	390 U	3800 UJ
2,4,6-Trichlorophenol	NC	R	1900 U	410 U	420 U	390 U	3800 U
2,4,5-Trichlorophenol	280	R	4600 U	990 U	1000 U	930 U	9100 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 11 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-2 RE	MW-3	MW-4A	MW-5	MW-5	MW-5	MW-6
Laboratory ID Depth Date Sampled								
2-Chloronaphthalene	NC	R	1900 U	410 U	420 U	420 U	390 U	3800 U
2-Nitroaniline	1,204	R	4600 U	990 U	1000 U	1000 U	930 U	9100 U
Dimethylphthalate	5,600	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Acenaphthylene	50,000	460 J	480 J	410 U	420 U	2200	2200	3500 J
2,6-Dinitrotoluene	1,030	R	1900 U	410 U	420 U	390 U	390 U	3800 U
3-Nitroaniline	1,400	R	4600 U	990 U	1000 U	930 U	930 U	9100 U
Acenaphthene	50,000	1400 J	1900 U	410 U	420 U	23000 D	23000 D	23000
2,4-Dinitrophenol	560	R	4600 U	990 U	1000 U	930 U	930 U	9100 U
1-Nitrophenol	280	R	4600 U	990 UJ	1000 U	1000 U	930 U	9100 U
Dibenzofuran	17,360	1700 J	1900 U	410 U	420 U	860	860	1700 J
2,4-Dinitrotoluene	NC	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Diethylphthalate	19,880	R	1900 U	410 U	420 U	390 U	390 U	3800 U
4-Chlorophenyl-phenylether	NC	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Fluorene	50,000	2400 J	280 J	410 U	420 U	17000 D	17000 D	26000
4-Nitroaniline	NC	R	4600 U	990 U	1000 U	930 U	930 U	9100 U
4,6-Dinitro-2-methylphenol	NC	R	4600 U	990 U	1000 U	930 U	930 U	9100 U
N-Nitrosodiphenylamine	NC	R	1900 U	410 U	420 U	390 U	390 U	3800 U
4-Bromophenyl-phenylether	NC	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Hexachlorobenzene	410	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Pentachlorophenol	2,800	R	4600 U	990 U	1000 U	930 U	930 U	9100 U
Phenanthrene	50,000	13000 J	3500	410 U	420 U	28000 D	28000 D	14000
Anthracene	50,000	3400 J	1800 J	410 U	420 U	12000 D	12000 D	12000
Carbazole	NC	1000 J	1900 U	410 UJ	420 U	390 U	390 U	3800 U
Di-n-butylphthalate	22,680	R	1900 U	410 U	420 U	390 U	390 U	3800 U
Fluoranthene	50,000	11000 J	3100	410 U	420 U	13000 D	13000 D	14000
Pyrene	50,000	13000 J	4800	410 U	420 U	19000 D	19000 D	30000

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 12 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-2 RE	MW-3	MW-4A	MW-5	MW-5	MW-6
Laboratory ID		2133001	2168501	2159402	2529702	2529703	2162901
Depth		10'-12'	34'-36'	27'-29'	32'-34'	50'-52'	42'-44'
Date Sampled		07/13/94	08/16/94	08/09/94	10/10/95	10/10/95	08/12/94
Butylbenzylphthalate	50,000	R	1900 U	410 U	420 U	390 U	3800 U
3,3'-Dichlorobenzidine	NC	R	1900 U	410 U	420 U	390 U	3800 U
Benzo(a)anthracene	224	6700 J	2100 J	410 U	420 U	8300 D	7600
Chrysene	1,120	5000 J	2100	410 U	420 U	7500 D	9400
bis(2-Ethylhexyl)phthalate	50,000	R	1900 U	140 J	56 J	140 J	3800 U
Di-n-octylphthalate	50,000	R	1900 U	410 U	420 U	390 U	3800 U
Benzo(b)fluoranthene	3,080	4000 J	820 J	410 U	420 U	2700 JD	2300 J
Benzo(k)fluoranthene	3,080	2200 J	1000 J	410 U	420 U	1500	2600 J
Benzo(a)pyrene	61	4100	1700 J	410 U	420 U	6600 D	4300
Indeno(1,2,3-cd)pyrene	8,960	2000 J	1900 U	410 U	420 U	1800	1200 J
Dibenz(a,h)anthracene	14	R	1900 U	410 U	420 U	230 J	3800 U
Benzo(g,h,i)perylene	50,000	1400 J	540 J	410 U	420 U	1900	3800 U
Semi-volatile TICs	NC	21290 J	15630 J	R	500 JN	24280 JN	129400 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 13 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14	MW-15	TP-1
Laboratory ID Depth Date Sampled							
Phenol	84	3203101 42'-44" 08/15/97	3203102 42'-44" 08/15/97	3247502 24'-26" 09/26/97	3216101 06'-08" 08/28/97	3212804 04'-06" 08/25/97	2536101 04'-08" 10/17/95
bis(2-Chloroethyl)Ether	NC	380 U	390 U	350 U	380 U	350 U	380 U
2-Chlorophenol	2,240	380 U	390 U	350 U	380 U	350 U	380 U
1,3-Dichlorobenzene	4,480	380 U	390 U	350 U	380 U	350 U	380 U
1,4-Dichlorobenzene	23,800	380 U	390 U	350 U	380 U	350 U	380 U
1,2-Dichlorobenzene	22,120	380 U	390 U	350 U	380 U	350 U	380 U
2-Methylphenol	280	380 U	390 U	350 U	380 U	350 U	380 U
2,2'-oxybis(1-Chloropropane)	NC	380 U	390 U	350 U	380 U	350 U	380 U
4-Methylphenol	2,520	380 U	390 U	350 U	380 U	350 U	380 U
N-Nitroso-di-n-propylamine	NC	380 U	390 U	350 U	380 U	350 U	380 U
Hexachloroethane	NC	380 U	390 U	350 U	380 U	350 U	380 U
Nitrobenzene	560	380 U	390 U	350 U	380 U	350 U	380 U
Isophorone	12,320	380 U	390 U	350 U	380 U	350 U	380 U
2-Nitrophenol	924	380 U	390 U	350 U	380 U	350 U	380 U
2,4-Dimethylphenol	1,120	380 U	390 U	350 U	380 U	350 U	380 U
2,4-Dichlorophenol	1,120	380 U	390 U	350 U	380 U	350 U	380 U
1,2,4-Trichlorobenzene	NC	380 U	390 U	350 U	380 U	350 U	380 U
Naphthalene	36,400	1400	1400	350 U	52 J	350 U	81 J
4-Chloroaniline	616	380 UJ	390 UJ	350 U	380 U	350 UJ	380 UJ
Hexachlorobutadiene	NC	380 U	390 U	350 U	380 U	350 U	380 U
bis(2-Chloroethoxy)methane	NC	380 U	390 U	350 U	380 U	350 U	380 U
4-Chloro-3-Methylphenol	672	380 U	390 U	350 U	380 U	350 U	380 U
2-Methylnaphthalene	50,000	770	750	350 U	48 J	350 U	380 U
Hexachlorocyclopentadiene	NC	380 U	390 U	350 U	380 U	350 U	380 U
2,4,6-Trichlorophenol	NC	380 U	390 U	350 U	380 U	350 U	380 U
2,4,5-Trichlorophenol	280	920 U	930 U	850 U	920 U	840 U	920 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 14 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14	MW-15	TP-1
Laboratory ID Depth Date Sampled		3203101 42'-44' 08/15/97	3203102 42'-44' 08/15/97	3247502 24'-26' 09/26/97	3216101 06'-08' 08/28/97	3212804 04'-06' 08/25/97	2536101 04'-08' 10/17/95
2-Chloronaphthalene	NC	380 U	390 U	350 U	380 U	350 U	380 U
2-Nitroaniline	1,204	920 U	930 U	850 U	920 U	840 U	920 U
Dimethylphthalate	5,600	380 U	390 U	350 U	380 U	350 U	380 U
Acenaphthylene	50,000	600	580	350 U	150 J	350 U	380 U
2,6-Dinitrotoluene	1,030	380 U	390 U	350 U	380 U	350 U	380 U
3-Nitroaniline	1,400	920 U	930 U	850 U	920 U	840 U	920 U
Acenaphthene	50,000	110 J	110 J	36 J	53 J	350 U	380 U
2,4-Dinitrophenol	560	920 U	930 U	850 U	920 UJ	840 U	920 U
4-Nitrophenol	280	920 U	930 U	850 U	920 U	840 U	920 U
Dibenzofuran	17,360	380 U	390 U	350 U	62 J	350 U	380 U
2,4-Dinitrotoluene	NC	380 U	390 U	350 U	380 U	350 U	380 U
Diethylphthalate	19,880	380 U	390 U	350 U	380 U	350 U	380 U
4-Chlorophenyl-phenylether	NC	380 U	390 U	350 U	380 U	350 U	380 U
Fluorene	50,000	370 J	350 J	350 U	100 J	350 U	380 U
4-Nitroaniline	NC	920 U	930 U	850 U	920 U	840 U	920 U
4,6-Dinitro-2-methylphenol	NC	920 U	930 U	850 U	920 U	840 U	920 U
N-Nitrosodiphenylamine	NC	380 U	390 U	350 U	380 U	350 U	380 U
4-Bromophenyl-phenylether	NC	380 U	390 U	350 U	380 U	350 U	380 U
Hexachlorobenzene	410	380 U	390 U	350 U	380 U	350 U	380 U
Pentachlorophenol	2,800	920 U	930 U	850 U	920 U	840 U	920 U
Phenanthrene	50,000	780	740	69 J	1300	350 U	70 J
Anthracene	50,000	320 J	300 J	350 U	380 J	350 U	380 U
Carbazole	NC	380 U	390 U	350 U	120 J	350 U	380 U
Di-n-butylphthalate	22,680	380 U	390 U	350 U	380 U	350 U	380 U
Fluoranthene	50,000	650	640	39 J	2900	350 U	140 J
Pyrene	50,000	920	910	350 U	2000 D	350 U	190 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 15 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14	MW-15	TP-1
Laboratory ID		3203101	3203102	3247502	3216101	3212804	2536101
Depth		42'-44"	42'-44"	24'-26"	06'-08"	04'-06"	04'-08"
Date Sampled		08/15/97	08/15/97	09/26/97	08/28/97	08/25/97	10/17/95
Butylbenzylphthalate	50,000	380 U	390 U	350 U	380 U	350 U	380 U
3,3'-Dichlorobenzidine	NC	380 U	390 U	350 U	380 U	350 U	380 U
Benzo(a)anthracene	224	380 U	390 U	350 U	1500	350 U	80 J
Chrysene	1,120	380 U	390 U	350 U	1600 J	350 U	110 J
bis(2-Ethylhexyl)phthalate	50,000	78 J	79 J	350 U	2000 B	71 J	380 U
Di-n-octylphthalate	50,000	380 U	390 U	350 U	R	350 U	380 U
Benzo(b)fluoranthene	3,080	380 U	390 U	350 U	1800 J	350 U	74 J
Benzo(k)fluoranthene	3,080	380 U	390 U	350 U	1800 J	350 U	110 J
Benzo(a)pyrene	61	380 U	390 U	350 U	1400 J	350 U	100 J
Indeno(1,2,3-cd)pyrene	8,960	380 U	390 U	350 U	320 J	350 U	92 J
Dibenz(a,h)anthracene	14	380 U	390 U	350 U	R	350 U	380 U
Benzo(g,h,i)perylene	50,000	380 U	390 U	350 U	310 J	350 U	110 J
Semi-volatile TICs	NC	2940 JN	2700 JN	1858 JN	16040 JN	570 JN	10210 JN

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 16 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-2	TP-3	TP-3	TP-4	TP-4D Duplicate of TP-4	TP-4
Laboratory ID		2128107	2536102	2536103	2128103	2128106	2128104
Depth		04'	02'-03'	06'-08'	01'	01'	03'
Date Sampled		07/08/94	10/17/95	10/17/95	07/08/94	07/08/94	07/08/94
Phenol	84	360 U	890 U	360 U	3900 U	3800 U	7800 U
bis(2-Chloroethyl)Ether	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
2-Chlorophenol	2,240	360 U	890 U	360 U	3900 U	3800 U	7800 U
1,3-Dichlorobenzene	4,480	360 U	890 U	360 U	3900 U	3800 U	7800 U
1,4-Dichlorobenzene	23,800	360 U	890 U	360 U	3900 U	3800 U	7800 U
1,2-Dichlorobenzene	22,120	360 U	890 U	360 U	3900 U	3800 U	7800 U
2-Methylphenol	280	360 U	890 U	360 U	3900 U	3800 U	7800 U
2,2'-oxybis(1-Chloropropane)	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
4-Methylphenol	2,520	360 U	890 U	360 U	3900 U	3800 U	7800 U
N-Nitroso-di-n-propylamine	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
Hexachloroethane	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
Nitrobenzene	560	360 U	890 U	360 U	3900 U	3800 U	7800 U
Isophorone	12,320	360 U	890 U	360 U	3900 U	3800 U	7800 U
2-Nitrophenol	924	360 U	890 U	360 U	3900 U	3800 U	7800 U
2,4-Dimethylphenol	1,120	360 U	890 U	360 U	3900 U	3800 U	7800 U
2,4-Dichlorophenol	1,120	360 U	890 U	360 U	3900 U	3800 U	7800 U
1,2,4-Trichlorobenzene	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
Naphthalene	36,400	360 U	890 U	360 U	3900 U	3800 U	7800 U
4-Chloroaniline	616	360 U	9300000 JD	280 J	3900 U	3800 U	7800 U
Hexachlorobutadiene	NC	360 U	890 UJ	360 UJ	3900 U	3800 U	7800 U
bis(2-Chloroethoxy)methane	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
4-Chloro-3-Methylphenol	672	360 U	890 U	360 U	3900 U	3800 U	7800 U
2-Methylnaphthalene	50,000	360 U	890 U	360 U	3900 U	3800 U	7800 U
Hexachlorocyclopentadiene	NC	360 U	7400000 JD	130 J	6400	7200	9100
2,4,6-Trichlorophenol	NC	360 U	890 U	360 U	3900 U	3800 U	7800 U
2,4,5-Trichlorophenol	280	870 U	890 U	360 U	3900 U	3800 U	7800 U
			2100 U	870 U	9300 U	9200 U	19000 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 17 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-2	TP-3	TP-3	TP-3	TP-4	TP-4D	TP-4
Laboratory ID Depth Date Sampled							Duplicate of TP-4	
2-Chloronaphthalene	NC	2128107 04' 07/08/94	2536102 02-03' 10/17/95	2536103 06'-08' 10/17/95	2128103 01' 07/08/94	2128104 03' 07/08/94		
2-Nitroaniline	1,204	360 U	890 U	360 U	3900 U	3800 U		7800 U
Dimethylphthalate	5,600	870 U	2100 U	870 U	9300 U	9200 U		19000 U
Acenaphthylene	50,000	360 U	890 U	360 U	3900 U	3800 U		7800 U
2,6-Dinitrotoluene	1,030	360 U	2000000 JD	550	28000	28000		40000
3-Nitroaniline	1,400	360 U	890 U	360 U	3900 U	3800 U		7800 U
Acenaphthene	50,000	870 U	2100 U	870 U	9300 U	9200 U		19000 U
2,4-Dinitrophenol	560	360 U	1900000 JD	38 J	420 J	470 J		7800 U
4-Nitrophenol	280	870 U	2100 U	870 U	9300 U	9200 U		19000 U
Dibenzofuran	17,360	360 U	5100	360 U	410 J	400 J		7800 U
2,4-Dinitrotoluene	NC	360 U	890 U	360 U	3900 U	3800 U		7800 U
Diethylphthalate	19,880	360 U	890 U	360 U	3900 U	3800 U		7800 U
4-Chlorophenyl-phenylether	NC	360 U	890 U	360 U	3900 U	3800 U		7800 U
Fluorene	50,000	360 U	2700000 JD	360 U	3900 U	3800 U		7800 U
4-Nitroaniline	NC	870 U	2100 U	870 U	3300 J	3700 J		4600 J
4,6-Dinitro-2-methylphenol	NC	870 U	2100 U	870 U	9300 U	9200 U		19000 U
N-Nitrosodiphenylamine	NC	360 U	890 U	360 U	9300 U	9200 U		19000 U
4-Bromophenyl-phenylether	NC	360 U	890 U	360 U	3900 U	3800 U		7800 U
Hexachlorobenzene	410	360 U	890 U	360 U	3900 U	3800 U		7800 U
Pentachlorophenol	2,800	870 U	2100 U	870 U	3900 U	3800 U		7800 U
Phenanthrene	50,000	360 U	2100 U	870 U	9300 U	9200 U		19000 U
Anthracene	50,000	360 U	5200000 JD	190 J	1400 J	1200 J		5300 J
Carbazole	NC	360 U	1800000 JD	210 J	6700	8000		7500 J
Di-n-butylphthalate	22,680	360 U	3700	360 U	3900 U	3800 U		7800 U
Fluoranthene	50,000	360 U	890 U	360 U	3900 U	3800 U		7800 U
Pyrene	50,000	360 U	1700000 JD	720	2800 J	3100 J		13000
			2200000 JD	1100	12000 J	13000 J		29000 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 18 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-2	TP-3	TP-3	TP-4	TP-4D	TP-4
Laboratory ID		2128107	2536102	2536103	2128103	Duplicate of TP-4	2128104
Depth		04'	02'-03'	06'-08'	01'	01'	03'
Date Sampled		07/08/94	10/17/95	10/17/95	07/08/94	07/08/94	07/08/94
Butylbenzylphthalate	50,000	360 U	890 U	360 U	3900 U	3800 U	7800 U
3,3'-Dichlorobenzidine	NC	360 U	890 U	360 UJ	3900 U	3800 U	7800 U
Benzo(a)anthracene	224	360 U	820000 JD	1000	6500	7900	26000
Chrysene	1,120	360 U	860000 JD	1500	11000	12000	33000
bis(2-Ethylhexyl)phthalate	50,000	360 U	890 U	360 U	3900 U	3800 U	7800 U
Di-n-octylphthalate	50,000	360 U	890 U	360 U	3900 U	3800 U	7800 U
Benzo(b)fluoranthene	3,080	360 U	180000 JD	1600 J	16000	15000	21000
Benzo(k)fluoranthene	3,080	360 U	200000 JD	1600 J	12000	16000	27000
Benzo(a)pyrene	61	360 U	290000 JD	2400 J	26000	28000	41000
Indeno(1,2,3-cd)pyrene	8,960	360 U	3200	620 J	19000	18000	23000
Dibenz(a,h)anthracene	14	360 U	700 J	92 J	9600	6600	9400
Benzo(g,h,i)perylene	50,000	360 U	2900	520 J	16000	16000	17000
Semi-volatile TICs	NC	986 J	64900 JN	13070 JN	111200 J	111900 J	151300 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 19 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-5	TP-5	FB-0707 Field Blank	FB2-0708 Field Blank	FB-0712 Field Blank
Laboratory ID Depth Date Sampled							
Phenol	84	3600 U	770 U	780 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	NC	3600 U	770 U	780 U	10 U	10 U	10 U
2-Chlorophenol	2,240	3600 U	770 U	780 U	10 U	10 U	10 U
1,3-Dichlorobenzene	4,480	3600 U	770 U	780 U	10 U	10 U	10 U
1,4-Dichlorobenzene	23,800	3600 U	770 U	780 U	10 U	10 U	10 U
1,2-Dichlorobenzene	22,120	3600 U	770 U	780 U	10 U	10 U	10 U
2-Methylphenol	280	3600 U	770 U	780 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	NC	3600 U	770 U	780 U	10 U	10 U	10 U
4-Methylphenol	2,520	3600 U	770 U	780 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Hexachloroethane	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Nitrobenzene	560	3600 U	770 U	780 U	10 U	10 U	10 U
Isophorone	12,320	3600 U	770 U	780 U	10 U	10 U	10 U
2-Nitrophenol	924	3600 U	770 U	780 U	10 U	10 U	10 U
2,4-Dimethylphenol	1,120	3600 U	770 U	780 U	10 U	10 U	10 U
2,4-Dichlorophenol	1,120	3600 U	770 U	780 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Naphthalene	36,400	3600 U	770 U	780 U	10 U	10 U	10 U
4-Chloroaniline	616	3600 U	770 U	100 J	10 U	10 U	10 U
Hexachlorobutadiene	NC	3600 U	770 U	780 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	NC	3600 U	770 U	780 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	672	3600 U	770 U	780 U	10 U	10 U	10 U
2-Methylnaphthalene	50,000	1300 J	770 U	780 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	NC	3600 U	770 U	780 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NC	3600 U	770 U	780 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	280	8600 U	1800 U	1900 U	25 U	25 U	25 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 20 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-5	TP-5	FB-0707 Field Blank	FB2-0708 Field Blank	FB-0712 Field Blank
Laboratory ID Depth Date Sampled							
2-Chloronaphthalene	NC	3600 U	770 U	780 U	10 U	10 U	10 U
2-Nitroaniline	1,204	8600 U	1800 U	1900 U	25 U	25 U	25 U
Dimethylphthalate	5,600	3600 U	770 U	780 U	10 U	10 U	10 U
Acenaphthylene	50,000	5000	770 U	780 U	10 U	10 U	10 U
2,6-Dinitrotoluene	1,030	3600 U	770 U	780 U	10 U	10 U	10 U
3-Nitroaniline	1,400	8600 U	1800 U	1900 U	25 U	25 U	25 U
Acenaphthene	50,000	3600 U	770 U	780 U	10 U	10 U	10 U
2,4-Dinitrophenol	560	8600 U	1800 U	1900 U	25 UJ	25 UJ	25 U
4-Nitrophenol	280	8600 U	1800 U	1900 U	25 U	25 U	25 U
Dibenzofuran	17,360	3600 U	770 U	780 U	10 U	10 U	10 U
2,4-Dinitrotoluene	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Diethylphthalate	19,880	3600 U	770 U	780 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Fluorene	50,000	600 J	770 U	780 U	10 U	10 U	10 U
4-Nitroaniline	NC	8600 U	1800 U	1900 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	NC	8600 U	1800 U	1900 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	NC	3600 U	770 U	780 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Hexachlorobenzene	410	3600 U	770 U	780 U	10 U	10 U	10 U
Pentachlorophenol	2,800	8600 U	1800 U	1900 U	25 U	25 U	25 U
Phenanthrene	50,000	3600 U	80 J	200 J	10 U	10 U	10 U
Anthracene	50,000	800 J	770 U	780 U	10 U	10 U	10 U
Carbazole	NC	3600 U	770 U	780 U	10 U	10 U	10 U
Di-n-butylphthalate	22,680	3600 U	770 U	780 U	10 U	10 U	10 U
Fluoranthene	50,000	1700 J	210 J	250 J	10 U	10 U	10 U
Pyrene	50,000	8600 J	170 J	250 J	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 21 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-5	TP-5	TP-5	FB-0707 Field Blank	FB2-0708 Field Blank	FB-0712 Field Blank
Laboratory ID		2128105	2128102	2128101	2128121	2128120	2128120	2129805
Depth		06'-06.5'	01.5'	03'	--	--	--	--
Date Sampled		07/08/94	07/08/94	07/08/94	07/07/94	07/08/94	07/08/94	07/12/94
Butylbenzylphthalate	50,000	3600 U	770 U	780 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	NC	3600 U	770 U	780 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	224	2000 J	150 J	150 J	10 U	10 U	10 U	10 U
Chrysene	1,120	3700	130 J	160 J	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50,000	3600 U	770 U	780 U	1 J	10 U	10 U	1 J
Di-n-octylphthalate	50,000	3600 U	770 U	780 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	3,080	3200 J	140 J	110 J	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	3,080	4000	91 J	140 J	10 U	10 U	10 U	10 U
Benzo(a)pyrene	61	6400	120 J	120 J	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	8,960	3400 J	770 U	780 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	14	1000 J	770 U	780 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	50,000	2100 J	770 U	780 U	10 U	10 U	10 U	10 U
Semi-volatile TICs	NC	39310 J	390 J	2650 J	--	--	--	14 J

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 22 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503 -- 08/18/94	FB-1012 Field Blank 2532302 -- 10/11/95	FB-0818 Field Blank 3204806 -- 08/18/97	FB-0820B Field Blank 3209103 -- 08/20/97	TAP-01 Drilling Water 2159401 -- 08/09/94
Laboratory ID						
Depth						
Date Sampled						
Phenol	84	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	NC	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	2,240	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	4,480	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	23,800	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	22,120	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	280	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	NC	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	2,520	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	NC	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	560	10 U	10 U	10 U	10 U	10 U
Isophorone	12,320	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	924	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1,120	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1,120	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	NC	10 U	10 U	10 U	10 U	10 U
Naphthalene	36,400	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	616	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	NC	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	NC	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	672	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	50,000	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	NC	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NC	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	280	25 U	25 U	25 U	25 U	25 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 23 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503 -- 08/18/94	FB-1012 Field Blank 2532302 -- 10/11/95	FB-0818 Field Blank 3204806 -- 08/18/97	FB-0820B Field Blank 3209103 -- 08/20/97	TAP-01 Drilling Water 2159401 -- 08/09/94
Laboratory ID						
Depth						
Date Sampled						
2-Chloronaphthalene	NC	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	1,204	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	5,600	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	50,000	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	1,030	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	1,400	25 U	25 U	25 U	25 U	25 U
Acenaphthene	50,000	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	560	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	280	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	17,360	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	NC	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	19,880	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	NC	10 U	10 U	10 U	3 J	10 U
Fluorene	50,000	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	NC	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	NC	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	NC	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	NC	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	410	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	2,800	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50,000	10 U	10 U	10 U	10 U	10 U
Anthracene	50,000	10 U	10 U	10 U	10 U	10 U
Carbazole	NC	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	22,680	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50,000	10 U	10 U	10 U	10 U	10 U
Pyrene	50,000	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-12
TCL Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 24 of 24

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503 --	FB-1012 Field Blank 2532302 --	FB-0818 Field Blank 3204806 --	FB-0820B Field Blank 3209103 --	TAP-01 Drilling Water 2159401 --
Laboratory ID		08/18/94	10/11/95	08/18/97	08/20/97	08/09/94
Depth						
Date Sampled						
Butylbenzylphthalate	50,000	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	NC	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	224	10 U	10 U	10 U	10 U	10 U
Chrysene	1,120	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50,000	10 U	10 U	10 U	10 U	2 J
Di-n-octylphthalate	50,000	10 UJ	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	3,080	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	3,080	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	61	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	8,960	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	14	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	50,000	10 U	10 U	10 U	10 U	10 U
Semi-volatile TICs	NC	10 JB	9 JN	--	23 JN	--

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-1	SB-1	SB-1	SB-3	SB-3	SB-4	SB-4
Laboratory ID Depth Date Sampled		2529803 28'-30' 10/12/95	2529806 34'-36' 10/13/95	2529807 46'-48' 10/13/95	2529801 08'-10' 10/11/95	2529802 14'-16' 10/11/95	2179305 10'-12' 08/24/94	2179308 28'-30' 08/25/94
Naphthalene	36,400	360 U	750	330 J	3500 U	120 J	360 U	160 J
Acenaphthylene	50,000	360 U	160 J	370 U	3800	2400	360 U	370 U
Acenaphthene	50,000	360 U	570	110 J	3500 U	1100	360 U	370 U
Fluorene	50,000	360 U	430	88 J	3500 U	380 U	360 U	370 U
Phenanthrene	50,000	360 U	1300	200 J	3500 U	310 J	360 U	53 J
Anthracene	50,000	360 U	400 J	47 J	350 J	590	360 U	370 U
Fluoranthene	50,000	360 U	520	77 J	4200	3000	360 U	370 U
Pyrene	50,000	360 U	780	130 J	14000	5700 D	360 U	370 U
Benzo(a)anthracene	224	360 U	340 J	48 J	4900	4300 D	360 U	370 U
Chrysene	1,120	360 U	330 J	54 J	5700	4000 D	360 U	370 U
Benzo(b)fluoranthene	3,080	360 U	100 J	370 U	3700	2800 J	360 U	370 U
Benzo(k)fluoranthene	3,080	360 U	190 J	370 U	5300	2500 J	360 U	370 U
Benzo(a)pyrene	61	360 U	250 J	370 U	7400	4600 D	360 U	370 U
Indeno(1,2,3-cd)pyrene	8,960	360 U	75 J	370 U	3100 J	940 J	360 U	370 U
Dibenz(a,h)anthracene	14	360 U	410 U	370 U	3500 U	120 J	360 U	370 U
Benzo(g,h,i)perylene	50,000	360 U	100 J	370 U	4500	1100 J	360 U	370 U

See appendix introduction for abbreviations and data qualifiers.
Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 2 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-4	SB-14 Duplicate of SB-4	SB-4	SB-6	SB-6	SB-6	SB-6	SB-6	SB-7
Laboratory ID Depth Date Sampled										
Naphthalene	36,400	410 U	400 U	370 U	72 J	420 U	360 U	2179303	2179304	2168602
Acenaphthylene	50,000	410 U	400 U	370 U	350 U	420 U	360 U	22'-24'	44'-46'	26'-28'
Acenaphthene	50,000	410 U	400 U	370 U	350 U	420 U	360 U	08/23/94	08/24/94	08/16/94
Fluorene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			
Phenanthrene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			
Anthracene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			
Fluoranthene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			
Pyrene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			
Benzo(a)anthracene	224	410 U	400 U	370 U	350 U	420 U	360 U			
Chrysene	1,120	410 U	400 U	370 U	350 U	420 U	360 U			
Benzo(b)fluoranthene	3,080	410 U	400 U	370 U	350 U	420 U	360 U			
Benzo(k)fluoranthene	3,080	410 U	400 U	370 U	350 U	420 U	360 U			
Benzo(a)pyrene	61	410 U	400 U	370 U	350 U	420 U	360 U			
Indeno(1,2,3-cd)pyrene	8,960	410 U	400 U	370 U	350 U	420 U	360 U			
Dibenz(a,h)anthracene	14	410 U	400 U	370 U	350 U	420 U	360 U			
Benzo(g,h,i)perylene	50,000	410 U	400 U	370 U	350 U	420 U	360 U			

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-7	SB-7	SB-7	SB-8	SB-9	SB-9	SB-9	SB-9	SB-10
Laboratory ID		2171601	2171602	2171603	2171604	2174701	2174702			2534501
Depth		34'-36'	42'-44'	02'-03'	10'-12'	30'-34'	48'-50'			04'-06'
Date Sampled		08/17/94	08/17/94	08/18/94	08/19/94	08/22/94	08/22/94			10/16/95
Naphthalene	36,400	390 U	410 U	7200 U	350 U	360 U	370 U			6400000 D
Acenaphthylene	50,000	390 U	410 U	7200 U	350 U	360 U	370 U			1600000 D
Acenaphthene	50,000	390 U	410 U	7200 U	350 U	360 U	370 U			340000
Fluorene	50,000	390 U	410 U	7200 U	350 U	360 U	370 U			1400000 D
Phenanthrene	50,000	390 U	410 U	7200 U	150 J	360 U	370 U			2800000 D
Anthracene	50,000	390 U	410 U	7200 U	350 U	360 U	370 U			960000 JD
Fluoranthene	50,000	390 U	410 U	7200 U	190 J	360 U	370 U			440000
Pyrene	50,000	390 U	410 U	7200 U	180 J	360 U	370 U			1100000 JD
Benzo(a)anthracene	224	390 U	410 U	7200 U	88 J	360 U	370 U			330000
Chrysene	1,120	390 U	410 U	7200 U	88 J	360 U	370 U			290000
Benzo(b)fluoranthene	3,080	390 U	410 U	7200 U	92 J	360 U	370 U			120000
Benzo(k)fluoranthene	3,080	390 U	410 U	7200 U	50 J	360 U	370 U			140000
Benzo(a)pyrene	61	390 U	410 U	7200 U	350 U	360 U	370 U			210000
Indeno(1,2,3-cd)pyrene	8,960	390 U	410 U	7200 U	350 U	360 U	370 U			52000 J
Dibenz(a,h)anthracene	14	390 U	410 U	7200 U	350 U	360 U	370 U			8700 J
Benzo(g,h,i)perylene	50,000	390 U	410 U	7200 U	350 U	360 U	370 U			56000 J

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-10	SB-11	SB-11 Duplicate of SB-11	SB-11	SB-13	SB-14	SB-14
Laboratory ID		2534502	3209203	3209202	3209204	3251101	3248501	3248502
Depth		10'-12'	06'-08'	06'-08'	46'-48'	02'-04'	02'-04'	06'-08'
Date Sampled		10/16/95	08/20/97	08/20/97	08/20/97	09/30/97	09/29/97	09/29/97
Naphthalene	36,400	1600000 D	350 U	350 U	390 U	710 UJ	370 U	370 U
Acenaphthylene	50,000	290000	350 U	350 U	390 U	710 UJ	370 U	370 U
Acenaphthene	50,000	55000	350 U	350 U	390 U	710 UJ	370 U	370 U
Fluorene	50,000	230000	350 U	350 U	390 U	710 UJ	370 U	370 U
Phenanthrene	50,000	760000 D	350 U	350 U	390 U	84 J	370 U	370 U
Anthracene	50,000	210000	350 U	350 U	390 U	710 UJ	370 U	370 U
Fluoranthene	50,000	180000	350 U	350 U	390 U	190 J	59 J	370 U
Pyrene	50,000	230000	350 U	350 U	390 U	92 J	48 J	370 U
Benzo(a)anthracene	224	120000	350 U	350 U	390 U	710 U	370 U	370 U
Chrysene	1,120	100000	350 U	350 U	390 U	100 J	46 J	370 U
Benzo(b)fluoranthene	3,080	40000 J	350 U	350 U	390 U	710 U	370 U	370 U
Benzo(k)fluoranthene	3,080	54000	350 U	350 U	390 U	710 U	38 J	370 U
Benzo(a)pyrene	61	76000	350 U	350 U	390 U	710 U	370 U	370 U
Indeno(1,2,3-cd)pyrene	8,960	19000 J	350 U	350 U	390 U	710 U	370 U	370 U
Dibenz(a,h)anthracene	14	41000 U	350 U	350 U	390 U	710 U	370 U	370 U
Benzo(g,h,i)perylene	50,000	22000 J	350 U	350 U	390 U	710 U	370 U	370 U

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-16	SB-17
Laboratory ID		3248503	3248504	3251102	3251105	3247612	3247613	3247614	
Depth		38'-40'	44'-46'	02'-04'	06'-08'	04'-06'	06'-08'	02'-04'	
Date Sampled		09/29/97	09/29/97	09/30/97	09/30/97	09/26/97	09/26/97	09/26/97	
Naphthalene	36,400	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Acenaphthylene	50,000	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Acenaphthene	50,000	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Fluorene	50,000	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Phenanthrene	50,000	380 U	370 U	350 U	350 U	55 J	370 U	130 J	
Anthracene	50,000	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Fluoranthene	50,000	380 U	370 U	350 U	350 U	89 J	370 U	280 J	
Pyrene	50,000	380 U	370 U	350 U	350 U	86 J	370 U	100 J	
Benzo(a)anthracene	224	380 U	370 U	350 U	350 U	390 U	370 U	100 J	
Chrysene	1,120	380 U	370 U	350 U	350 U	59 J	370 U	160 J	
Benzo(b)fluoranthene	3,080	380 U	370 U	350 U	350 U	390 U	370 U	96 J	
Benzo(k)fluoranthene	3,080	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Benzo(a)pyrene	61	380 U	370 U	350 U	350 U	390 U	370 U	110 J	
Indeno(1,2,3-cd)pyrene	8,960	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Dibenz(a,h)anthracene	14	380 U	370 U	350 U	350 U	390 U	370 U	740 U	
Benzo(g,h,i)perylene	50,000	380 U	370 U	350 U	350 U	390 U	370 U	740 U	

See appendix introduction for abbreviations and data qualifiers.

Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-18	SB-18	SB-18	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20
Laboratory ID Depth Date Sampled					Duplicate of SB-18					
Naphthalene	36,400	19000 UJ	3600 UJ	3600 UJ	3600 UJ	370 U	380 U	380 U	90 J	350 U
Acenaphthylene	50,000	60000 J	13000 J	12000 J	12000 J	110 J	380 U	380 U	130 J	350 U
Acenaphthene	50,000	19000 UJ	3600 UJ	3600 UJ	3600 UJ	43 J	380 U	380 U	220 J	350 U
Fluorene	50,000	15000 J	2500 J	2300 J	2300 J	64 J	380 U	380 U	190 J	350 U
Phenanthrene	50,000	19000 UJ	3600 UJ	3600 UJ	3600 UJ	1600	240 J	2200	2200	350 U
Anthracene	50,000	15000 J	2900 J	3000 J	3000 J	260 J	380 U	540	540	350 U
Fluoranthene	50,000	82000 J	19000 J	20000 J	20000 J	4300 D	560	3000 D	3000 D	350 U
Pyrene	50,000	150000 J	31000 D	32000 D	32000 D	1400 JD	460 J	2000 J	2000 J	350 U
Benzo(a)anthracene	224	79000 J	15000 J	16000 J	16000 J	1300	180 J	1000	1000	350 U
Chrysene	1,120	99000 J	20000 J	20000 J	20000 J	1600	240 J	1100	1100	350 U
Benzo(b)fluoranthene	3,080	34000 J	9300	9000	9000	1200 J	190 J	760 J	760 J	350 U
Benzo(k)fluoranthene	3,080	34000 J	9700	10000	10000	1500	200 J	770	770	350 U
Benzo(a)pyrene	61	61000	20000	20000	20000	1300	130 J	790	790	350 U
Indeno(1,2,3-cd)pyrene	8,960	16000 J	4200 J	4200 J	4200 J	520 J	85 J	90 J	90 J	350 U
Dibenz(a,h)anthracene	14	19000 UJ	580 J	620 J	620 J	370 U	380 U	380 U	380 U	350 U
Benzo(g,h,i)perylene	50,000	17000 J	5200 J	5300 J	5300 J	570 J	91 J	250 J	250 J	350 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 7 of 13

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-21	SB-21	SB-21	SB-21	SB-21	SB-22	SB-22	SB-22	MW-1
Naphthalene	36,400	1700 UJ	370 U	3247603	3241601	3241602	3241603	1200	2129801	06'-08'
Acenaphthylene	50,000	790 J	160 J	34'-36'	02'-04'	04'-08'	38'-40'	250 J	06'-08'	07/12/94
Acenaphthene	50,000	1700 UJ	370 U	09/25/97	09/23/97	09/24/97	09/23/97	6100 D		
Fluorene	50,000	1700 UJ	370 U					3300 D		
Phenanthrene	50,000	1700 UJ	94 J					1400		
Anthracene	50,000	260 J	64 J					750		
Fluoranthene	50,000	870 J	380					220 J		
Pyrene	50,000	1300 J	580					170 J		
Benzo(a)anthracene	224	780 J	310 J					380 U		
Chrysene	1,120	970 J	390					380 U		
Benzo(b)fluoranthene	3,080	480 J	150 J					380 U		
Benzo(k)fluoranthene	3,080	540 J	160 J					380 U		
Benzo(a)pyrene	61	760 J	280 J					380 U		
Indeno(1,2,3-cd)pyrene	8,960	210 J	160 J					380 U		
Dibenz(a,h)anthracene	14	1700 UJ	370 U					380 U		
Benzo(g,h,i)perylene	50,000	290 J	180 J					380 U		

See appendix introduction for abbreviations and data qualifiers.
Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-1	MW-1	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-2AD Duplicate of MW-2A	MW-2A
Laboratory ID		2129802	2129803	2146401	2146402	2146403	2146404	2146404	2146405	
Depth		30'-32'	40'-42'	26'-28'	34'-36'	42'-44'	42'-44'	42'-44'	44'-46'	
Date Sampled		07/12/94	07/12/94	07/26/94	07/26/94	07/27/94	07/27/94	07/27/94	07/27/94	
Naphthalene	36,400	380 U	400 U	40 J	51 J	880 J	310 J	880 J	8800 J	
Acenaphthylene	50,000	380 U	400 U	390 U	420 U	1600 J	1600	1600 J	26000 J	
Acenaphthene	50,000	380 U	400 U	390 U	420 U	1500 U	1500 U	1500 U	59000 J	
Fluorene	50,000	380 U	400 U	390 U	420 U	410 J	370 J	370 J	70000 J	
Phenanthrene	50,000	380 U	400 U	93 J	420 U	790 J	850 J	850 J	110000 J	
Anthracene	50,000	380 U	400 U	390 U	420 U	820 J	2700	2700	74000 J	
Fluoranthene	50,000	380 U	400 U	92 J	420 U	4900 J	7200	7200	67000 J	
Pyrene	50,000	380 U	400 U	84 J	420 U	11000 D	18000 D	18000 D	82000 J	
Benzo(a)anthracene	224	380 U	400 U	390 U	420 U	6000 J	5900	5900	66000 J	
Chrysene	1,120	380 U	400 U	44 J	420 U	5700 J	5800	5800	66000 J	
Benzo(b)fluoranthene	3,080	380 U	400 U	390 U	420 U	2800 J	2400	2400	21000 J	
Benzo(k)fluoranthene	3,080	380 U	400 U	390 U	420 U	2400 J	3200	3200	37000 J	
Benzo(a)pyrene	61	380 U	400 U	390 U	420 U	4900 J	4700	4700	56000 J	
Indeno(1,2,3-cd)pyrene	8,960	380 U	400 U	390 U	420 U	1600 J	1600 J	1600 J	21000 J	
Dibenz(a,h)anthracene	14	380 U	400 U	390 U	420 U	1500 U	1500 U	1500 U	5100 J	
Benzo(g,h,i)perylene	50,000	380 U	400 U	390 U	420 U	2200 J	2300 J	2300 J	29000 J	

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 9 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-4	MW-4A	MW-4A	MW-4A	MW-5	MW-5	MW-5
Laboratory ID								
Depth								
Date Sampled								
Naphthalene	36,400	3500 U	82 J	49 J	350 U	770	1700	
Acenaphthylene	50,000	1700 J	410 U	380 U	350 U	10000 D	580	
Acenaphthene	50,000	3500 U	410 U	380 U	350 U	23000 D	240 J	
Fluorene	50,000	3500 U	410 U	380 U	350 U	19000 D	950	
Phenanthrene	50,000	740 J	64 J	380 U	50 J	41000 D	1800	
Anthracene	50,000	410 J	410 U	380 U	350 U	15000 D	710	
Fluoranthene	50,000	3300 J	410 U	41 J	49 J	19000 D	380	
Pyrene	50,000	8300	59 J	75 J	47 J	29000 D	1600	
Benzo(a)anthracene	224	5300	410 U	380 U	350 U	11000 D	130 J	
Chrysene	1,120	7600	410 U	380 U	350 U	10000 D	120 J	
Benzo(b)fluoranthene	3,080	3600	410 U	380 U	350 U	3800 JD	43 J	
Benzo(k)fluoranthene	3,080	4600	410 U	380 U	350 U	4600 JD	54 J	
Benzo(a)pyrene	61	7300	410 U	380 U	350 U	7600 D	83 J	
Indeno(1,2,3-cd)pyrene	8,960	3100 J	410 U	380 U	350 U	1200	370 U	
Dibenz(a,h)anthracene	14	1200 J	410 U	380 U	350 U	190 J	370 U	
Benzo(g,h,i)perylene	50,000	4000	410 U	380 U	350 U	1200	370 U	

See appendix introduction for abbreviations and data qualifiers.
Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
 Page 10 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-6	MW-6	MW-6	MW-7D	MW-7D	MW-7D	MW-7D	MW-8
Laboratory ID		2162801	2162802	2162803	3203201	3203202	3203205		
Depth		10'-12'	26'-28'	36'-38'	04'-06'	06'-08'	50'-52'		
Date Sampled		08/11/94	08/11/94	08/09/94	08/14/97	08/14/97	08/15/97		09/25/97
Naphthalene	36,400	1700 J	440 J	410	2400	490	400 U		350 U
Acenaphthylene	50,000	720 J	240 J	160 J	1100	360 J	400 U		350 U
Acenaphthene	50,000	2600	410 J	69 J	1400	530	400 U		350 U
Fluorene	50,000	3400	590 J	100 J	3000	970	400 U		350 U
Phenanthrene	50,000	13000	2200	510	21000 D	6200 D	400 U		61 J
Anthracene	50,000	4100	560 J	270 J	5800	1900	400 U		350 U
Fluoranthene	50,000	12000	2300	310 J	20000 D	5500 D	400 U		110 J
Pyrene	50,000	9900	2100	1100	13000 D	2600	400 U		140 J
Benzo(a)anthracene	224	5100	980	430	7700 D	2200	400 U		73 J
Chrysene	1,120	4800	950	370 J	6700 D	2400	400 U		95 J
Benzo(b)fluoranthene	3,080	4000	800	47 J	4200	1100	400 U		44 J
Benzo(k)fluoranthene	3,080	4200	660 J	94 J	3800	1500	400 U		63 J
Benzo(a)pyrene	61	3900	700 J	94 J	5200	1600	400 U		88 J
Indeno(1,2,3-cd)pyrene	8,960	1100 J	230 J	380 U	1700	460	400 U		66 J
Dibenz(a,h)anthracene	14	1800 U	760 U	380 U	210 J	73 J	400 U		350 U
Benzo(g,h,i)perylene	50,000	990 J	210 J	380 U	1400	370 J	400 U		74 J

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 11 of 13

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-8	MW-8	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-12
Laboratory ID		3247610	3247611	3198701	3198702	3198703	3198704			
Depth		06'-08'	30'-32'	02'-04'	06'-08'	44'-46'	50'-52'			
Date Sampled		09/25/97	09/26/97	08/11/97	08/11/97	08/11/97	08/12/97			08/12/97
Naphthalene	36,400	350 U	370 U	380 U	390 U	83000 D	460			390 U
Acenaphthylene	50,000	350 U	370 U	380 U	390 U	3700	410 U			390 U
Acenaphthene	50,000	350 U	370 U	380 U	390 U	46000 D	220 J			62 J
Fluorene	50,000	350 U	370 U	380 U	390 U	26000 JD	130 J			56 J
Phenanthrene	50,000	350 U	370 U	370 J	520	130000 D	530			970
Anthracene	50,000	350 U	370 U	67 J	120 J	37000 D	160 J			230 J
Fluoranthene	50,000	350 U	370 U	490	1000	47000 D	260 J			2200
Pyrene	50,000	350 U	370 U	170 J	300 J	74000 D	180 J			770
Benzo(a)anthracene	224	350 U	370 U	170 J	400	24000 JD	120 J			870
Chrysene	1,120	350 U	370 U	210 J	390 J	21000 JD	100 J			930
Benzo(b)fluoranthene	3,080	350 U	370 U	250 J	480	8300 JD	82 J			1400
Benzo(k)fluoranthene	3,080	350 U	370 U	230 J	470	10000 JD	78 J			1100
Benzo(a)pyrene	61	350 U	370 U	200 J	410	21000 JD	120 J			990
Indeno(1,2,3-cd)pyrene	8,960	350 U	370 U	380 U	62 J	1700 J	410 U			180 J
Dibenz(a,h)anthracene	14	350 U	370 U	380 U	390 U	190 J	410 U			390 U
Benzo(g,h,i)perylene	50,000	350 U	370 U	380 U	54 J	2100 J	410 U			170 J

See appendix introduction for abbreviations and data qualifiers.

Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 12 of 13

Sample ID Laboratory ID Depth Date Sampled	MW-12	MW-13	MW-13	MW-13	MW-14	MW-15	FB-0708 Field Blank 2128122 -- 07/08/94	FB-0809 Field Blank 2158301 -- 08/09/94
Naphthalene	370 U	360 U	370 U	20000 U	43 J	10 U	10 U	10 U
Acenaphthylene	370 U	360 U	110 J	20000 U	350 U	10 U	10 U	10 U
Acenaphthene	370 U	360 U	46 J	20000 U	59 J	10 U	10 U	10 U
Fluorene	370 U	360 U	52 J	20000 U	78 J	10 U	10 U	10 U
Phenanthrene	100 J	360 U	570	4400 JD	730	10 U	10 U	10 U
Anthracene	370 U	360 U	130 J	20000 U	180 J	10 U	10 U	10 U
Fluoranthene	130 J	49 J	890	5600 JD	990	10 U	10 U	10 U
Pyrene	60 J	39 J	860	5100 JD	610	10 U	10 U	10 U
Benzo(a)anthracene	50 J	360 U	510	3800 JD	450	10 U	10 U	10 U
Chrysene	54 J	360 U	550	3400 JD	530	10 U	10 U	10 U
Benzo(b)fluoranthene	48 J	360 U	370 J	2200 JD	370	10 U	10 U	10 U
Benzo(k)fluoranthene	53 J	360 U	380	2700 JD	430	10 U	10 U	10 U
Benzo(a)pyrene	42 J	360 U	540	3300 JD	420	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	370 U	360 U	440	20000 U	56 J	10 U	10 U	10 U
Dibenz(a,h)anthracene	370 U	360 U	370 U	20000 U	350 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	370 U	360 U	520	20000 U	36 J	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-13
PAH Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 13 of 13

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB2-0818 Field Blank 2171607 -- 08/18/94	FB-1010 Field Blank 2529801 -- 10/10/95	FB-0820A Field Blank 3209205 -- 08/21/97	FB-0825 Field Blank 3212705 -- 08/25/97	FB-0826 Field Blank 3212706 -- 08/26/97	FB-0925 Field Blank 3247615 -- 09/25/97
Naphthalene	36,400	10 U	11 U	10 U	10 U	10 U	10 U
Acenaphthylene	50,000	10 U	11 UJ	10 U	10 U	10 U	10 U
Acenaphthene	50,000	10 U	11 UJ	10 U	10 U	10 U	10 U
Fluorene	50,000	10 U	11 UJ	10 U	10 U	10 U	10 U
Phenanthrene	50,000	10 U	11 U	10 U	10 U	10 U	10 U
Anthracene	50,000	10 U	11 U	10 U	10 U	10 U	10 U
Fluoranthene	50,000	10 U	11 U	10 U	10 U	10 U	10 U
Pyrene	50,000	10 U	11 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	224	10 U	11 U	10 U	10 U	10 U	10 U
Chrysene	1,120	10 U	11 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	3,080	10 U	11 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	3,080	10 U	11 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	61	10 U	11 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	8,960	10 U	11 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	14	10 U	11 U	10 U	10 UJ	10 UJ	10 U
Benzo(g,h,i)perylene	50,000	10 U	11 U	10 U	10 UJ	10 UJ	10 U

See appendix introduction for abbreviations and data qualifiers.
Soil results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SS-17	SS-18	SS-19	SS-39 Duplicate of SS-19	SB-2	SB-3	SB-6
Laboratory ID Depth Date Sampled		3204805 01'-02' 08/18/97	3204801 02'-03' 08/18/97	3212801 02'-03' 08/25/97	3212802 02'-03' 08/25/97	2171501 06'-08' 08/18/94	2532301 18'-20' 10/11/95	2179401 32'-34' 08/23/94
alpha-BHC	110	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
beta-BHC	560	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
delta-BHC	840	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
gamma-BHC (Lindane)	168	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
heptachlor	280	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
Aldrin	41	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
Heptachlor epoxide	56	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
Endosulfan I	2,520	1.9 U	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
Dieldrin	44	3.7 U	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
4,4'-DDE	2,100	6.1	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
Endrin	280	3.7 U	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
Endosulfan II	2,520	3.7 U	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
4,4'-DDD	2,900	2.9 JPN	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
Endosulfan sulfate	2,800	3.7 U	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
4,4'-DDT	2,100	10	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
Methoxychlor	NC	19 U	18 U	18 U	18 U	1.6 J	660 U	3.8 U
Endrin ketone	NC	3.7 U	3.5 U	3.5 U	3.5 U	21 U	3300 U	20 U
Endrin aldehyde	NC	3.7 U	3.5 U	3.5 U	3.5 U	4.1 U	660 U	3.8 U
alpha-Chlordane	NC	1.9 U	1.8 U	1.8 U	1.8 U	1.5 JP	660 U	3.8 U
gamma-Chlordane	540	0.35 J	1.8 U	1.8 U	1.8 U	2.1 U	330 U	2 U
Toxaphene	NC	190 U	180 U	180 U	180 U	2.1 U	330 U	2 U
Aroclor-1016	10,000	37 U	35 U	35 U	35 U	210 U	NA	200 U
Aroclor-1221	10,000	75 U	72 U	71 U	71 U	41 U	2100 U	38 U
Aroclor-1232	10,000	37 U	35 U	35 U	35 U	84 U	4100 U	78 U
Aroclor-1242	10,000	37 U	35 U	35 U	35 U	41 U	2100 U	38 U
Aroclor-1248	10,000	37 U	35 U	35 U	35 U	41 U	2100 U	38 U
Aroclor-1254	10,000	37 U	35 U	35 U	35 U	41 U	2100 U	38 U
Aroclor-1260	10,000	37 U	35 U	35 U	35 U	41 U	2100 U	38 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
 Page 2 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-7	SB-9	SB-10 RE	SB-20 RE	SB-11	SB-11	SB-13
Laboratory ID Depth Date Sampled					Duplicate of SB-10			
alpha-BHC	110	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
beta-BHC	560	2 U	2 U	13 JPN	12 UJ	1.8 U	2 U	1.8 U
delta-BHC	840	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
gamma-BHC (Lindane)	168	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
Heptachlor	280	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
Aldrin	41	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
Heptachlor epoxide	56	2 U	2 U	24 JPN	12 UJ	1.8 U	2 U	1.2 JPN
Endosulfan I	2,520	2 U	2 U	12 UJ	9.7 JPN	1.8 U	2 U	1.8 U
Dieldrin	44	3.8 U	4 U	24 UJ	12 UJ	1.8 U	2 U	1.8 U
4,4'-DDE	2,100	3.8 U	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
Endrin	280	3.8 U	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
Endosulfan II	2,520	3.8 U	4 U	24 UJ	91 JPN	4.1 JPN	3.8 U	3.6 U
4,4'-DDD	2,900	3.8 U	4 U	120 J	66 J	3.5 U	3.8 U	3.6 U
Endosulfan sulfate	2,800	3.8 U	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
4,4'-DDT	2,100	3.8 U	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
Methoxychlor	NC	20 U	20 U	170 JPN	150 J	18 U	20 U	18 U
Endrin ketone	NC	3.8 U	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
Endrin aldehyde	NC	6.1 JP	4 U	24 UJ	24 UJ	3.5 U	3.8 U	3.6 U
alpha-Chlordane	NC	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
gamma-Chlordane	540	2 U	2 U	12 UJ	12 UJ	1.8 U	2 U	1.8 U
Toxaphene	NC	200 U	200 U	1200 UJ	1200 UJ	180 U	200 U	180 U
Aroclor-1016	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U
Aroclor-1221	10,000	78 U	81 U	490 UJ	480 UJ	72 U	77 U	73 U
Aroclor-1232	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U
Aroclor-1242	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U
Aroclor-1248	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U
Aroclor-1254	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U
Aroclor-1260	10,000	38 U	40 U	240 UJ	240 UJ	35 U	38 U	36 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	SB-17	SB-21	SB-22	MW-1	MW-2	MW-3	MW-4A
Laboratory ID Depth Date Sampled		3247503 06'-08' 09/22/97	3247501 42'-44' 09/22/97	3241501 24'-26' 09/23/97	2129804 20'-22' 07/12/94	2133001 10'-12' 07/13/94	2168501 34'-36' 08/16/94	2159402 27'-29' 08/09/94
alpha-BHC	110	1.9 UJ	1.9 U	2 U	2 U	1.9 U	9.9 U	2.1 U
beta-BHC	560	1.9 UJ	1.9 U	2 U	2 U	1.9 U	9.9 U	2.1 U
delta-BHC	840	1.9 UJ	1.9 U	2 U	2 U	1.9 U	9.9 U	2.1 U
gamma-BHC (Lindane)	168	1.9 UJ	1.9 U	2 U	2 U	1.9 U	9.9 U	2.1 U
Heptachlor	280	1.9 UJ	1.9 U	1.9 JPN	2 U	1.9 U	9.9 U	2.1 U
Aldrin	41	1 JP	1.9 U	3.6 JPN	2 U	1.9 U	9.9 U	2.1 U
Heptachlor epoxide	56	1.9 UJ	1.4 JPN	5.3 JPN	2 U	1.9 U	9.9 U	2.1 U
Endosulfan I	2,520	1.9 UJ	1.9 U	2 U	2 U	1.9 U	9.9 U	2.1 U
Dieldrin	44	3.7 UJ	3.7 U	2.8 JP	3.9 U	3.7 U	19 U	4.1 U
4,4'-DDE	2,100	2.7 JPN	3.7 U	3.1 JP	3.9 U	3.7 U	19 U	4.1 U
Endrin	280	3.7 UJ	3.7 U	14 JPN	3.9 U	3.7 U	19 U	4.1 U
Endosulfan II	2,520	3.7 UJ	3.7 U	5.3 JP	7.2 JP	3.7 U	19 U	4.1 U
4,4'-DDD	2,900	3.7 UJ	3.7 U	2.5 JPN	3.9 U	3.7 U	19 U	4.1 U
Endosulfan sulfate	2,800	3.7 UJ	3.7 U	3.9 U	3.9 U	3.7 U	19 U	4.1 U
4,4'-DDT	2,100	6.5 JPN	3.7 U	8.4	3.9 U	3.7 U	19 U	4.1 U
Methoxychlor	NC	19 UJ	19 U	20 U	3.9 U	3.7 U	19 U	4.1 U
Endrin ketone	NC	2.3 J	3.7 U	9 JPN	49 JP	19 U	99 U	21 U
Endrin aldehyde	NC	3.7 UJ	3.7 U	5.1 JPN	3.9 U	3.7 U	19 U	4.1 U
alpha-Chlordane	NC	1.9 UJ	1.9 U	2 U	15 JP	5.7 JP	28 JP	4.1 U
gamma-Chlordane	540	1.9 UJ	1.9 U	2 U	2.4 JP	1.9 U	9.9 U	2.1 U
Toxaphene	NC	190 UJ	190 U	200 U	2 U	190 U	990 U	210 U
Aroclor-1016	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U
Aroclor-1221	10,000	74 UJ	74 U	79 U	80 U	76 U	390 U	83 U
Aroclor-1232	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U
Aroclor-1242	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U
Aroclor-1248	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U
Aroclor-1254	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U
Aroclor-1260	10,000	37 UJ	37 U	39 U	39 U	37 U	190 U	41 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-5	MW-5	MW-6	MW-7D	MW-7D Duplicate of MW-7D	MW-8	MW-14
Laboratory ID Depth Date Sampled								
alpha-BHC	110	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
beta-BHC	560	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
delta-BHC	840	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
gamma-BHC (Lindane)	168	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
Heptachlor	280	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
Aldrin	41	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
Heptachlor epoxide	56	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
Endosulfan I	2,520	340 U	310 U	5.8 JP	2 U	2 UJ	1.8 U	2 U
Dieldrin	44	670 U	620 U	5.8 U	2 U	2 UJ	1.8 U	2 U
4,4'-DDE	2,100	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	3.8 U
Endrin	280	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	3.8 U
Endosulfan II	2,520	670 U	620 U	29	3.8 U	3.8 UJ	3.5 U	3.8 JP
4,4'-DDD	2,900	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	2.6 JPN
Endosulfan sulfate	2,800	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	3.8 U
4,4'-DDT	2,100	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	3.8 U
Methoxychlor	NC	3400 U	3100 U	58 U	20 U	20 UJ	18 U	3.8 U
Endrin ketone	NC	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	20 U
Endrin aldehyde	NC	670 U	620 U	11 U	3.8 U	3.8 UJ	3.5 U	3.8 U
alpha-Chlordane	NC	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	3.8 U
gamma-Chlordane	540	340 U	310 U	5.8 U	2 U	2 UJ	1.8 U	2 U
Toxaphene	NC	NA	NA	580 U	200 U	200 UJ	180 U	2 U
Aroclor-1016	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	200 U
Aroclor-1221	10,000	4200 U	3900 U	230 U	77 U	78 U	71 U	38 U
Aroclor-1232	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	77 U
Aroclor-1242	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	38 U
Aroclor-1248	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	38 U
Aroclor-1254	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	38 U
Aroclor-1260	10,000	2100 U	1900 U	110 U	38 U	38 U	35 U	38 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
 Page 5 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	MW-15	TP-1 RE	TP-2	TP-3 RE	TP-3 RE	TP-4	TP-4D
Laboratory ID		3212804	2536101	2128107	2536102	2536103	2128103	Duplicate of TP-4
Depth		04'-06'	04'-08'	04'	02'-03'	06'-08'	01'	2128106
Date Sampled		08/25/97	12/13/95	07/08/94	12/13/95	12/13/95	07/08/94	01'
								07/08/94
alpha-BHC	110	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
beta-BHC	560	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
delta-BHC	840	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
gamma-BHC (Lindane)	168	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
Heptachlor	280	1.8 U	12 UJ	1.8 UJ	14 UJ	13 UJ	12 UJ	12 UJ
Aldrin	41	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
Heptachlor epoxide	56	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
Endosulfan I	2,520	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 JP	15 JP
Dieldrin	44	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	23 U	23 U
4,4'-DDE	2,100	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	23 U	23 U
Endrin	280	3.5 U	24 JPN	3.6 U	33 JP	26 JP	23 U	23 UJ
Endosulfan II	2,520	3.5 U	30 JP	3.6 U	22 JPN	26 UJ	23 UJ	23 U
4,4'-DDD	2,900	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	23 U	23 U
Endosulfan sulfate	2,800	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	29 JP	32 JP
4,4'-DDT	2,100	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	23 U	190 JP
Methoxychlor	NC	18 U	95 J	18 U	140 UJ	130 UJ	120 U	120 U
Endrin ketone	NC	3.5 U	23 UJ	3.6 U	27 UJ	26 UJ	23 U	23 U
Endrin aldehyde	NC	3.5 U	R	3.6 U	27 UJ	26 UJ	53 JP	53 JP
alpha-Chlordane	NC	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
gamma-Chlordane	540	1.8 U	12 UJ	1.8 U	14 UJ	13 UJ	12 U	12 U
Toxaphene	NC	180 U	1200 UJ	180 U	1400 UJ	1300 UJ	1200 U	1200 U
Aroclor-1016	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U
Aroclor-1221	10,000	71 U	470 UJ	73 U	540 UJ	520 UJ	470 U	460 U
Aroclor-1232	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U
Aroclor-1242	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U
Aroclor-1248	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U
Aroclor-1254	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U
Aroclor-1260	10,000	35 U	230 UJ	36 U	270 UJ	260 UJ	230 U	230 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
 Page 6 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	TP-4	TP-4	TP-5	TP-5	TP-5	FB-0707 Field Blank 2128121	FB-0708 Field Blank 2128120	FB-0712 Field Blank 2129805
Laboratory ID		2128104	2128105	2128102	2128101				
Depth		03'	06'-06.5'	01.5'	03'				
Date Sampled		07/08/94	07/08/94	07/08/94	07/08/94		07/07/94	07/08/94	07/12/94
alpha-BHC	110	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
beta-BHC	560	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
delta-BHC	840	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
gamma-BHC (Lindane)	168	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Heptachlor	280	12 UJ	3.7 UJ	2 UJ	2 UJ		0.05 UJ	0.05 U	0.05 U
Aldrin	41	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Heptachlor epoxide	56	12 U	9.9 J	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Endosulfan I	2,520	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Dieldrin	44	23 U	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
4,4'-DDE	2,100	25 JP	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
Endosulfan II	280	23 UJ	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
4,4'-DDD	2,520	23 U	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
Endosulfan sulfate	2,900	23 U	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
4,4'-DDT	2,800	64 JP	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
Methoxychlor	2,100	23 U	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
Endrin ketone	NC	120 U	37 UJ	20 U	20 U		0.5 UJ	0.5 U	0.5 U
Endrin aldehyde	NC	23 U	7.1 UJ	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
alpha-Chlordane	NC	78 JP	43 JP	3.8 U	3.9 U		0.1 UJ	0.1 U	0.1 U
gamma-Chlordane	NC	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Toxaphene	540	12 U	3.7 UJ	2 U	2 U		0.05 UJ	0.05 U	0.05 U
Aroclor-1016	NC	1200 U	370 UJ	200 U	200 U		5 UJ	5 U	5 U
Aroclor-1221	10,000	230 U	71 UJ	38 U	39 U		1 UJ	1 U	1 U
Aroclor-1232	10,000	470 U	140 UJ	77 U	79 U		2 UJ	2 U	2 U
Aroclor-1242	10,000	230 U	71 UJ	38 U	39 U		1 UJ	1 U	1 U
Aroclor-1248	10,000	230 U	71 UJ	38 U	39 U		1 UJ	1 U	1 U
Aroclor-1254	10,000	230 U	71 UJ	38 U	39 U		1 UJ	1 U	1 U
Aroclor-1260	10,000	230 U	71 UJ	90	45		1 UJ	1 U	1 U

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-14
TCL Pesticide/PCB Compounds - Subsurface Soils
Troy (Smith Avenue) Site
 Page 7 of 7

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (ug/kg)	FB-0818 Field Blank 2171503 --	FB-1012 Field Blank 2532302 --	FB-0818 Field Blank 3204806 --	FB-0820B Field Blank 3209103 --
Laboratory ID		08/18/94	10/11/95	08/18/97	08/20/97
Depth					
Date Sampled					
alpha-BHC	110	0.05 U	8 U	0.05 UJ	0.05 U
beta-BHC	560	0.05 U	8 U	0.05 UJ	0.05 U
delta-BHC	840	0.05 U	8 U	0.05 UJ	0.05 U
gamma-BHC (Lindane)	168	0.05 U	8 U	0.05 UJ	0.05 U
Heptachlor	280	0.05 U	8 U	0.05 UJ	0.05 U
Aldrin	41	0.05 U	8 U	0.05 UJ	0.05 U
Heptachlor epoxide	56	0.05 U	8 U	0.05 UJ	0.05 U
Endosulfan I	2,520	0.05 U	8 U	0.05 UJ	0.05 U
Dieldrin	44	0.1 U	16 U	0.1 UJ	0.1 U
4,4'-DDE	2,100	0.1 U	16 U	0.1 UJ	0.1 U
Endrin	280	0.1 U	16 U	0.1 UJ	0.1 U
Endosulfan II	2,520	0.1 U	16 U	0.1 UJ	0.1 U
4,4'-DDD	2,900	0.1 U	16 U	0.1 UJ	0.1 U
Endosulfan sulfate	2,800	0.1 U	16 U	0.1 UJ	0.1 U
4,4'-DDT	2,100	0.1 U	16 U	0.1 UJ	0.1 U
Methoxychlor	NC	0.5 U	80 U	0.5 UJ	0.5 U
Endrin ketone	NC	0.1 U	16 U	0.1 UJ	0.1 U
Endrin aldehyde	NC	0.1 U	16 U	0.1 UJ	0.1 U
alpha-Chlordane	NC	0.05 U	8 U	0.05 UJ	0.05 U
gamma-Chlordane	540	0.05 U	8 U	0.05 UJ	0.05 U
Toxaphene	NC	5 U	NA	5 UJ	5 U
Aroclor-1016	10,000	1 U	80 U	1 UJ	1 U
Aroclor-1221	10,000	2 U	160 U	2 UJ	2 U
Aroclor-1232	10,000	1 U	80 U	1 UJ	1 U
Aroclor-1242	10,000	1 U	80 U	1 UJ	1 U
Aroclor-1248	10,000	1 U	80 U	1 UJ	1 U
Aroclor-1254	10,000	1 U	80 U	1 UJ	1 U
Aroclor-1260	10,000	1 U	80 U	1 UJ	1 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SS-17	SS-18 Site Background	SS-19 Site Background	SS-39 Duplicate of SS-19	SB-2
Laboratory ID				3204805	3204801	3212801	3212802	2171501
Date Sampled				01'-02'	02'-03'	02'-03'	02'-03'	06'-08'
				08/18/97	08/18/97	08/25/97	08/25/97	08/18/94
Aluminum	SB	9030	9,030	11400	7970	8450	7330	8590
Antimony	SB	8.2	8.2	0.74 JB	2.2 JB	0.73 JB	0.97 JB	6.6 UJ
Arsenic	7.5 or SB	7.7	7.7	6.5 J	7.7 J	4.8 J	4.6 J	4.6
Barium	300 or SB	71	300	73	71	30.6	24.7	71.5
Beryllium	0.16 or SB	0.3700	0.37	0.4 B	0.32 B	0.27 B	0.22 B	0.86 U
Cadmium	1 or SB	0.36	1	0.34 B	0.36 B	0.17 B	0.1 B	0.43 U
Calcium	SB	21400	21,400	7150	3920	1360	1160	65600
Chromium	10 or SB	14.5	14.5	13.1	12.1	9.9	8.8	13.8 J
Cobalt	30 or SB	9.5	30	6.9	8.7	6.5	5.8	10.1 B
Copper	25 or SB	31.5	31.5	21.9	31.5	16.9	15.2	87.4
Iron	2,000 or SB	26500	26,500	20200	26500	18500	16900	18700
Lead	SB	100	100	92	100	9	7.6	45.9 J
Magnesium	SB	7560	7,560	3560	4110	4260	3740	5190
Manganese	SB	726	726	477	726	409	338	593
Mercury	0.1	0.66	0.66	0.13	0.66	0.04 B	0.05 B	0.15 J
Nickel	13 or SB	19.4	19.4	17.7	18.7	16.3	14.5	16.5 J
Potassium	SB	1240	1,240	778	720	585	415 B	1180
Selenium	2 or SB	0.86	2	0.3 U	0.86 J	0.28 U	0.28 U	1 U
Silver	SB	2.4	2.4	0.13 UJ	0.13 UJ	0.12 UJ	0.12 UJ	1.5 UJ
Sodium	SB	363	363	113 B	363 B	119 B	99.2 B	609 U
Thallium	SB	1.4	1.4	1.9	1.4	1	1.2	1 U
Vanadium	150 or SB	17.4	150	20.2	15.9	12.5	11.4	19.2
Zinc	20 or SB	86	86	115	86	48.5	43.1	63.6

See Appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
 Page 2 of 9

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SB-3	SB-6	SB-7	SB-9	SB-10
Aluminum	SB	9030	9,030	8750	10400	11800	10800	2534401
Antimony	SB	8.2	8.2	1.5 UJ	6.2 U	6.5 UJ	6.5 UJ	2171502
Arsenic	7.5 or SB	7.7	7.7	7.4 J	5.1	4.2	5	22'-24'
Barium	300 or SB	71	300	75.5	55.1	73.9	84.5	06'-08'
Beryllium	0.16 or SB	0.3700	0.37	0.31 B	0.81 U	0.84 U	0.84 U	10/16/95
Cadmium	1 or SB	0.36	1	0.19 U	0.59 B	0.42 U	1.6	0.39 B
Calcium	SB	21400	21,400	24600	8020	2710	21800	2.3
Chromium	10 or SB	14.5	14.5	12.6	13.9	20.9 J	15.9 J	23300
Cobalt	30 or SB	9.5	30	10 B	10.1	10.5 B	12.6	12.2
Copper	25 or SB	31.5	31.5	28.2 J	22.6	22.7	23.8	9.3 B
Iron	2,000 or SB	26500	26,500	23700	25800	28300	22600	64.5
Lead	SB	100	100	10	10.6	9.7 J	12.5 J	25300
Magnesium	SB	7560	7,560	9660	6970	5940	6510	624
Manganese	SB	726	726	642	394	897	777	5540
Mercury	0.1	0.66	0.66	0.12 U	0.12 U	0.12 U	0.12 U	519
Nickel	13 or SB	19.4	19.4	20.8	18.5	26.4 J	24.8 J	8.5
Potassium	SB	1240	1,240	1820	1040	2190	2420	20.7
Selenium	2 or SB	0.86	2	3	1.1 U	1.1 U	1.1 U	2140
Silver	SB	2.4	2.4	1.3 UJ	1.4 U	1.5 UJ	1.5 UJ	16.3
Sodium	SB	363	363	205 B	572 U	600 U	598 U	1.9 JB
Thallium	SB	1.4	1.4	3.1	1.1 U	1.1 U	1.1 U	434 B
Vanadium	150 or SB	17.4	150	14.1	21.7	31	24.7	8.2 J
Zinc	20 or SB	86	86	66.9	67.2	60.3	61.8	19.2
								574

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SB-20 Duplicate of SB-10	SB-11	SB-11	SB-11	SB-13	SB-17
Laboratory ID Depth Date Sampled									
Aluminum	SB	9030	9,030	11500	10200	9750	7120	11700	
Antimony	SB	8.2	8.2	7.7 JB	1.2 JB	1.5 JB	0.36 JB	5.6 B	3247503
Arsenic	7.5 or SB	7.7	7.7	30.8 J	6.1 J	9.8 J	5.5	9	06'-08'
Barium	300 or SB	71	300	82.2	74.6	104	46.2	164	09/22/97
Beryllium	0.16 or SB	0.3700	0.37	0.59 B	0.39 B	0.36 B	0.35 B	0.48 B	
Cadmium	1 or SB	0.36	1	2.2	0.39 B	0.4 B	0.03 U	0.06 U	
Calcium	SB	21400	21,400	14800	13000	13400	1180	13000 J	
Chromium	10 or SB	14.5	14.5	14.7	15.1	15.3	11	16.3	
Cobalt	30 or SB	9.5	30	11.2 B	9.2	13.1	6.9	12 J	
Copper	25 or SB	31.5	31.5	69	29.9	27.5	23.8	34.6	
Iron	2,000 or SB	26500	26,500	28300	23000	25700	20200	26800	
Lead	SB	100	100	658	94.9	13.6	10 J	34.8	
Magnesium	SB	7560	7,560	5590	6470	7660	3590	6110	
Manganese	SB	726	726	574	513	1460	618	596	
Mercury	0.1	0.66	0.66	14	0.19	0.07 B	0.02 U	0.13 J	
Nickel	13 or SB	19.4	19.4	24.5	21.3	29.1	15.8	20.5 J	
Potassium	SB	1240	1,240	2310	1370	1130	533 B	1690	
Selenium	2 or SB	0.86	2	16.1	0.29 U	0.32 U	0.32 JB	0.31 U	
Silver	SB	2.4	2.4	2 JB	0.12 UJ	0.14 UJ	0.09 UJ	0.13 U	
Sodium	SB	363	363	463 B	636	165 B	58.5 B	51.1 U	
Thallium	SB	1.4	1.4	7.9 J	1.7	1.4	2.2 J	5.8	
Vanadium	150 or SB	17.4	150	21.3	21.3	15.7	13.1	22.9	
Zinc	20 or SB	86	86	547	81.7	83.6	48.3	66	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	SB-21	SB-22	MW-1 Site Background	MW-2	MW-3
Laboratory ID								
Depth Sampled								
Aluminum	SB	9030	9,030	9820	8000	7670	7570	9750
Antimony	SB	8.2	8.2	1.3 B	2.4 B	8.2 B	18.6	6.8 UJ
Arsenic	7.5 or SB	7.7	7.7	12.1	7.9	3.4 J	20.9 J	4.4
Barium	300 or SB	71	300	92.7	143	44.8	80.1	45.5
Beryllium	0.16 or SB	0.3700	0.37	0.48 B	0.37 B	0.85 U	0.84 U	0.88 U
Cadmium	1 or SB	0.36	1	0.65	0.06 U	0.43 U	0.42 U	0.48 B
Calcium	SB	21,400	21,400	15000 J	39100 J	21400	5530	12300
Chromium	10 or SB	14.5	14.5	15.6	41.8	10.4 J	29 J	14.8 J
Cobalt	30 or SB	9.5	30	14.3 J	7.1 J	8 B	40.9	10.1 B
Copper	25 or SB	31.5	31.5	31.3	25.1	15.4	21.9 J	21.8
Iron	2,000 or SB	26500	26,500	29700	26600	18700	132000	22300
Lead	SB	100	100	14.9	8.4	9.4	31.7	8.2 J
Magnesium	SB	7560	7,560	9210	11500	7560	3780	7660
Manganese	SB	726	726	589	2850	454	390	507
Mercury	0.1	0.66	0.66	0.03 JB	0.04 JB	0.13	0.2	0.12 U
Nickel	13 or SB	19.4	19.4	27.6 J	20.2 J	14.4 J	57.8	19.9 J
Potassium	SB	1240	1,240	1660	1010	1240	1010 B	1370
Selenium	2 or SB	0.86	2	0.31 U	0.32 U	1.2 U	1.1 U	1.1 U
Silver	SB	2.4	2.4	0.13 U	0.14 B	2.4 J	1.7 JB	1.5 UJ
Sodium	SB	363	363	50.8 U	51.6 UJ	606 U	766 B	627 U
Thallium	SB	1.4	1.4	1.2	5.3	1.2 U	1.1 U	1.1 U
Vanadium	150 or SB	17.4	150	17.3	14.2	17.4	64.2	19.9
Zinc	20 or SB	86	86	52.9	51.1	61	47.6	61.7

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	MW-4A	MW-5	MW-5	MW-6	MW-7D
Laboratory ID								
Date Sampled								
Aluminum	SB	9030	9,030	8960	8700	8780	12700	7970
Antimony	SB	8.2	8.2	7.6 UJ	1.1 UJ	1.2 UJ	6.5 UJ	1 JB
Arsenic	7.5 or SB	7.7	7.7	4.7	5 J	4.1 J	4.5	5.1 J
Barium	300 or SB	71	300	46.7 B	65	47.2	98.4	59.6
Beryllium	0.16 or SB	0.3700	0.37	0.98 U	0.34 B	0.37 B	0.83 U	0.35 B
Cadmium	1 or SB	0.36	1	1.5 J	0.14 U	0.15 U	0.42 UJ	0.32 B
Calcium	SB	21,400	21,400	19000	15300	13600	17600	15800
Chromium	10 or SB	14.5	14.5	13.7 J	13	18.3	16.7 J	12.4
Cobalt	30 or SB	9.5	30	10.4 B	9.3	7.5 B	15.1	8.5
Copper	25 or SB	31.5	31.5	25.7 J	24.7	19.4	25.5 J	24.4
Iron	2,000 or SB	26,500	26,500	21300	22200	19800	26600	21000
Lead	SB	100	100	12.5	11.4	8	13.6	11.5
Magnesium	SB	7560	7,560	8100	6490	6900	8250	6550
Manganese	SB	726	726	442	559	373	2610	658
Mercury	0.1	0.66	0.66	0.15	0.13 U	0.12 U	0.11 U	0.05 B
Nickel	13 or SB	19.4	19.4	17.9 J	20.5	17.8	24.6 J	20
Potassium	SB	1240	1,240	1270	1340	1870	2020	837
Selenium	2 or SB	0.86	2	1.1 U	2.7 J	2.5 J	1.1 U	0.75 J
Silver	SB	2.4	2.4	1.7 U	0.31 UJ	0.32 UJ	1.5 U	0.13 UJ
Sodium	SB	363	363	693 U	162 B	139 U	592 U	168 B
Thallium	SB	1.4	1.4	1.1 U	2.2	1.3 B	1.1 U	1.9
Vanadium	150 or SB	17.4	150	20.4	14	14.3	26.2	13.5
Zinc	20 or SB	86	86	72.2	61.2	48.1	72.3	60.9

See appendix introduction for abbreviations and data qualifiers.

Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
 Page 6 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	MW-7D Duplicate of MW-7D	MW-8 Site Background	MW-14	MW-15 Site Background	TP-1
Aluminum	SB	9030	9,030	3203102 42'-44' 08/15/97	3247502 24'-26' 09/22/97	3216101 06'-08' 08/28/97	3212804 04'-06' 08/25/97	2536101 04'-08' 10/17/95
Antimony	SB	8.2	8.2	9320	9030	3810	7250	12600
Arsenic	7.5 or SB	7.7	7.7	1.3 JB	1.3 B	6 JB	0.72 JB	1.1 U
Barium	300 or SB	71	300	5.8 J	4.8	29.4 J	5.1 J	5.5
Beryllium	0.16 or SB	0.3700	0.37	58.7	48.2	69.5	37.6	98.9
Cadmium	1 or SB	0.36	1	0.37 B	0.37 B	0.39 B	0.23 B	0.48 B
Calcium	SB	21400	21,400	0.32 B	0.05 U	0.06 UJ	0.14 B	0.14 U
Chromium	10 or SB	14.5	14.5	13100	4120 J	2130	1710	2220 J
Cobalt	30 or SB	9.5	30	14.1	14.5	11.2	9.9	13.2
Copper	25 or SB	31.5	31.5	9.7	9.5 J	14.3	6.7	7.3 B
Iron	2,000 or SB	26500	26,500	26	21.4	73.4	18.6	19.9 J
Lead	SB	100	100	23800	20700	R	18500	23300
Magnesium	SB	7560	7,560	12.4	24.4	71.1	8	44.9 J
Manganese	SB	726	726	7390	6220	1090	4420	4070
Mercury	0.1	0.66	0.66	616	355	157 J	507	677
Nickel	13 or SB	19.4	19.4	0.05 B	0.07 JB	0.09 B	0.03 B	0.12
Potassium	SB	1240	1,240	23.4	19.4 J	23.7	15.9	16.7
Selenium	2 or SB	0.86	2	962	992	455 B	750	1310
Silver	SB	2.4	2.4	0.86 J	0.28 U	3.8 J	0.28 U	1.5 J
Sodium	SB	363	363	0.13 JB	0.12 U	0.14 UJ	0.12 UJ	0.31 U
Thallium	SB	1.4	1.4	178 B	45.9 U	183 B	101 B	134 U
Vanadium	150 or SB	17.4	150	0.81 B	1	5.4 J	0.69 B	3.8
Zinc	20 or SB	86	86	15.6	15.8	23.9	12	17.8
				68.9	53.3	33.7 J	50.6	75.5

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
 Page 7 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	TP-2	TP-3	TP-3	TP-3	TP-4	TP-4D
Laboratory ID									Duplicate of TP-4
Depth									
Date Sampled									
Aluminum	SB	9030	9,030	2128107	2536102	2536103	2128103	2128103	2128106
Antimony	SB	8.2	8.2	04'	02'-03'	06'-08'	01'	01'	01'
Arsenic	7.5 or SB	7.7	7.7	07/08/94	10/17/95	10/17/95	07/08/94	07/08/94	07/08/94
Barium	300 or SB	71	300	9130	7480	11800	8780	8780	9890
Beryllium	0.16 or SB	0.3700	0.37	6.2 U	9.7 B	1.1 U	6.6 U	6.6 U	6.9 U
Cadmium	1 or SB	0.36	1	6.2 J	26.3	7	17.6 J	17.6 J	21.4 J
Calcium	SB	21400	21,400	36.2 B	98.5	79	123	123	103
Chromium	10 or SB	14.5	14.5	0.8 U	0.48 B	0.45 B	0.85 U	0.85 U	0.89 U
Cobalt	30 or SB	9.5	30	0.4 U	2.7	0.14 U	0.42 U	0.42 U	0.45 U
Copper	25 or SB	31.5	31.5	1320	3270 J	5870 J	6540	6540	5650
Iron	2,000 or SB	26500	26,500	12.8 J	10.2	14.3	11.6 J	11.6 J	13.4 J
Lead	SB	100	100	7.8 B	7 B	8 B	11.6	11.6	16.2
Magnesium	SB	7560	7,560	19.6	71	25.1	44.9 J	44.9 J	41.8 J
Manganese	SB	726	726	26300	20600	23400	36500	36500	52300
Mercury	0.1	0.66	0.66	5.1	1050 J	22.4 J	157 J	157 J	135 J
Nickel	13 or SB	19.4	19.4	3920	3200	4780	3550	3550	4250
Potassium	SB	1240	1,240	482	327	575	702	702	687
Selenium	2 or SB	0.86	2	0.13	3.3	0.17	0.36	0.36	0.4
Silver	SB	2.4	2.4	16.4 J	15.6	20.3	15.6 J	15.6 J	27 J
Sodium	SB	363	363	911 B	1070	1550	1110	1110	1310
Thallium	SB	1.4	1.4	1.1 U	14.7	2.6 J	1.2 U	1.2 U	1.1
Vanadium	150 or SB	17.4	150	2.2 J	2.1	0.3 U	2.3 J	2.3 J	1.9 JB
Zinc	20 or SB	86	86	570 U	262 B	154 B	601 U	601 U	633 U
				1.1 U	5.1	2.9	1.2 U	1.2 U	1.1 U
				18.8	17.7	19.2	21.6	21.6	21.3
				47	699	66.5	123	123	115

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 9

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	Maximum Background Concentration (mg/kg)	Comparison Criteria Used (mg/kg)	TP-4	TP-4	TP-5	TP-5
Laboratory ID				2128104	2128105	2128102	2128101
Depth				03'	06'-06.5'	01.5'	03'
Date Sampled				07/08/94	07/08/94	07/08/94	07/08/94
Aluminum	SB	9030	9,030	9300	7970	10600	11300
Antimony	SB	8.2	8.2	6.1 U	6.5 U	8.7 B	6.9 U
Arsenic	7.5 or SB	7.7	7.7	8.9 J	4.5 J	10.6 J	9.8 J
Barium	300 or SB	71	300	135	44.3	80	119
Beryllium	0.16 or SB	0.3700	0.37	0.78 U	0.84 U	0.89 U	0.89 U
Cadmium	1 or SB	0.36	1	0.39 U	0.42 U	0.45 U	0.44 U
Calcium	SB	21400	21,400	5360	1620	30600	25300
Chromium	10 or SB	14.5	14.5	11.4 J	9.7 J	15 J	36 J
Cobalt	30 or SB	9.5	30	9.3 B	7.2 B	12.2	14.5
Copper	25 or SB	31.5	31.5	25.7 J	13.9	35.4 J	96.8 J
Iron	2,000 or SB	26500	26,500	22100	17500	24100	76400
Lead	SB	100	100	53.5 J	9.8	87.8 J	2100 J
Magnesium	SB	7560	7,560	3120	3220	5080	4670
Manganese	SB	726	726	939	341	651	742
Mercury	0.1	0.66	0.66	0.25	0.11 U	0.57	0.3
Nickel	13 or SB	19.4	19.4	19.8 J	14.2 J	22.2 J	35 J
Potassium	SB	1240	1,240	1350	902 B	1380	1510
Selenium	2 or SB	0.86	2	1 U	0.9 U	1.1 U	1.2 U
Silver	SB	2.4	2.4	1.5 JB	1.5 UJ	1.6 UJ	10.6 J
Sodium	SB	363	363	557 U	599 U	633 U	742 B
Thallium	SB	1.4	1.4	1 U	0.9 U	1.1 U	1.2 U
Vanadium	150 or SB	17.4	150	15.3	12.8	19.6	36.2
Zinc	20 or SB	86	86	68.9	43	83	271

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-15
TCL Metals - Subsurface Soils
Troy (Smith Avenue) Site
 Page 9 of 9

Sample ID	FB-0707	FB2-0708	FB-0712	FB-0818	FB-1012	FB-0818	FB-0820B	TAP-1
Laboratory ID	2128121	2128120	2129805	2171503	2532302	3204806	3209103	2159401
Depth	--	--	--	--	--	--	--	--
Date Sampled	07/07/94	07/08/94	07/12/94	08/18/94	10/11/95	08/18/97	08/20/97	08/09/94
Aluminum	84 U	84 U	84 U	84 U	66.5 B	34.8 U	34.8 U	84 U
Antimony	31 U	31 U	31 U	31 UJ	6.2 U	4.6 U	4.6 U	31 U
Arsenic	5 UJ	5 U	5 UJ	5 U	2.6 U	2.7 U	2.7 U	5 U
Barium	55 U	55 U	55 U	55 U	3.6 U	5.3 U	5.3 U	55 U
Beryllium	4 U	4 U	4 U	4 U	0.1 U	0.08 U	0.08 U	4 U
Cadmium	2 U	2.3 JB	2 U	2 U	0.8 U	0.5 U	0.5 U	2 UJ
Calcium	4000 U	4000 U	4000 U	4000 U	132 U	127 U	127 U	23500
Chromium	4 UJ	4 UJ	4 UJ	4 U	2 U	1 U	1 U	4 U
Cobalt	23 U	23 U	23 U	23 U	1.3 U	1.8 U	1.8 U	23 U
Copper	10 U	10 U	10 U	10 U	1.5 U	2 U	2 U	111 J
Iron	73 U	73 U	73 U	73 U	23.9 U	22.4 U	45.8 B	73 U
Lead	3 U	3 U	3 U	3 U	2.1 U	1.6 U	1.6 U	4.6
Magnesium	3320 U	3320 U	3320 U	3320 U	68.4 U	160 U	160 U	3320 U
Manganese	5 U	5 U	5 U	5 U	1 U	0.4 U	0.86 B	5 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.08 B	0.06 B	0.2 U
Nickel	38 U	38 U	38 U	38 UJ	15.8 U	1.6 U	1.6 U	38 U
Potassium	1690 U	1690 U	1690 U	1690 U	1630 B	173 U	173 U	1690 U
Selenium	5 U	5 U	5 U	5 U	4.4 U	2.8 U	2.8 U	5 U
Silver	7 UJ	7 U	7 UJ	7 UJ	6.7 U	1.2 UJ	1.2 UJ	7 U
Sodium	2840 U	2840 U	2840 U	2840 U	746 U	458 U	458 U	8600
Thallium	5 U	5 U	5 U	5 U	5.4 U	3.9 U	3.9 U	5 U
Vanadium	22 U	22 U	22 U	22 U	1.2 U	1.7 U	1.7 U	22 U
Zinc	12 U	12 U	12 U	12 U	10 U	4.1 U	4.1 U	12 U

See Appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 1 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SS-17	SS-18	SS-19	SS-39	SB-1	SB-1	SB-1
Laboratory ID		3204805	3204801	3212801	Duplicate of SS-19 3212802	2529803	2529806	2529807
Depth		01'-02'	02'-03'	02'-03'	02'-03'	28'-30'	34'-36'	46'-48'
Date Sampled		08/18/97	08/18/97	08/25/97	08/25/97	10/12/95	10/13/95	10/13/95
Cyanide	NC	0.56 U	0.54 U	0.52 U	0.53 U	0.54 UJ	0.62 UJ	0.55 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 2 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-2	SB-3	SB-3	SB-3	SB-3	SB-4	SB-4	SB-4
Laboratory ID		2171501	2529801	2529802	2532301	2179305	2179308	2179309	
Depth		06'-08'	08'-10'	14'-16'	18'-20'	10'-12'	28'-30'	38'-40'	
Date Sampled		08/18/94	10/11/95	10/11/95	10/11/95	08/24/94	08/25/94	08/25/94	
Cyanide	NC	R	0.53 UJ	0.57 UJ	0.63 UJ	0.5 U	0.5 U	0.5 U	0.5 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-14	SB-4	SB-6	SB-6	SB-6	SB-6	SB-6	SB-6	SB-7
Laboratory ID		Duplicate of SB-4	2179311	2179302	2179303	2179401	2179304	2179304	2168504	
Depth		38'-40'	50'-52'	12'-14'	22'-24'	32'-34'	44'-46'	44'-46'	14'-16'	
Date Sampled		08/25/94	08/25/94	08/23/94	08/23/94	08/23/94	08/23/94	08/23/94	08/16/94	
Cyanide	NC	0.5 U	0.5 U	0.5 U	0.5 U	0.61 U	0.5 U	0.5 U	0.5 U	R

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 4 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-7	SB-7	SB-7	SB-8	SB-9	SB-9	SB-9
Laboratory ID		2168602	2171601	2171602	2171603	2171604	2171502	2174701
Depth		26'-28'	34'-36'	42'-44'	02'-03'	10'-12'	22'-24'	30'-34'
Date Sampled		08/16/94	08/17/94	08/17/94	08/18/94	08/19/94	08/19/94	08/22/94
Cyanide	NC	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	R	0.5 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-9	SB-10	SB-10	SB-10	SB-20 Duplicate of SB-10	SB-10	SB-10	SB-11	SB-11
Laboratory ID		2174702	2534501	2534401	2534404	2534502	2534501	2534502	3209101	3209203
Depth		48'-50'	04'-06'	06'-08'	06'-08'	10'-12'	06'-08'	10'-12'	02'-04'	06'-08'
Date Sampled		08/22/94	10/16/95	10/16/95	10/16/95	10/16/95	10/16/95	10/16/95	08/20/97	08/20/97
Cyanide	NC	0.5 UJ	R	R	R	R	R	R	0.54 U	0.53 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-11	SB-11	SB-11	SB-13	SB-13	SB-13	SB-14	SB-14
Laboratory ID		Duplicate of SB-11	3209102	3209204	3251101	3251201	3248501	3248502	
Depth		06'-08'	40'-42'	46'-48'	02'-04'	06'-08'	02'-04'	06'-08'	
Date Sampled		08/20/97	08/21/97	08/21/97	09/30/97	09/30/97	09/29/97	09/29/97	
Cyanide	NC	0.53 U	0.57 U	0.58 U	0.53 UJ	R	0.53 U	0.55 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 7 of 19

Sample ID	SB-14	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-16	SB-16	SB-17
Laboratory ID	3248503	3248504	3248504	3251102	3251102	3251105	3247613	3247612	3247614	
Depth	38'-40'	44'-46'	44'-46'	02'-04'	02'-04'	06'-08'	04'-06'	06'-08'	02'-04'	
Date Sampled	09/29/97	09/29/97	09/29/97	09/30/97	09/30/97	09/30/97	09/26/97	09/26/97	09/26/97	
Cyanide	0.57 U	0.55 U	0.55 U	0.53 UJ	0.53 UJ	0.53 UJ	0.55 UJ	0.58 UJ	0.56 UJ	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 8 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-17	SB-18	SB-18	SB-18	SB-18	SB-18	SB-19	SB-19	SB-19	SB-20
Laboratory ID		3247503	3247606	3247607	Duplicate of SB-18 3247608	3251106	3251107	3251108			
Depth		06'-08'	02'-04'	04'-08'	04'-08'	02'-04'	06'-08'	02'-04'			
Date Sampled		09/26/97	09/25/97	09/25/97	09/25/97	09/30/97	09/30/97	09/30/97			
Cyanide	NC	0.56 U	0.56 UJ	0.54 UJ	0.54 UJ	0.55 UJ	0.57 UJ	0.53 UJ			

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 9 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	SB-20	SB-21	SB-21	SB-21	SB-21	SB-21	SB-21	SB-21	SB-21	SB-22	SB-22
Laboratory ID		3251109	3247601	3247602	3247603	3247501	3241601	3241602	3247501	3241601	3241602	
Depth		06'-08'	02'-04'	04'-08'	34'-36'	42'-44'	02'-04'	08'-10'	42'-44'	02'-04'	08'-10'	
Date Sampled		09/30/97	09/24/97	09/24/97	09/25/97	09/25/97	09/23/97	09/23/97	09/25/97	09/23/97	09/23/97	
Cyanide	NC	0.55 UJ	0.62 UJ	0.55 UJ	0.55 UJ	0.55 U	0.62 U	0.53 U	0.55 U	0.62 U	0.53 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 10 of 19

Sample ID	NYSDEC Recommended	SB-22	SB-22	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-2
Laboratory ID	Soil Clean-up Objectives (mg/kg)	3241501	3241603	2129801	2129804	2129802	2129802	2129802	2129802	2133001
Depth		24'-26'	38'-40'	06'-08'	20'-22'	30'-32'	30'-32'	40'-42'	40'-42'	10'-12'
Date Sampled		09/23/97	09/24/97	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/13/94
Cyanide	NC	0.59 U	0.57 U	0.49 U	0.42 U	0.52 U	0.52 U	0.43 U	0.43 U	0.41 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 11 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-3	MW-4
Laboratory ID		2146401	2146402	2146403	2146404	2146405	Duplicate of MW-2A	2168501	2151101	
Depth		26'-28'	34'-36'	42'-44'	42'-44'	44'-46'	42'-44'	34'-36'	10'-12'	
Date Sampled		07/26/94	07/26/94	07/27/94	07/27/94	07/27/94	07/27/94	08/16/94	07/29/94	
Cyanide	NC	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	R	0.05 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 12 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	MW-4	MW-4A	MW-4A	MW-4A	MW-5	MW-5	MW-5
Laboratory ID		2151102	2159402	2158303	2158306	2529806	2529702	2529807
Depth		20'-22'	27'-29'	34'-36'	42'-44'	14'-16'	32'-34'	39'-40'
Date Sampled		08/01/94	08/09/94	08/09/94	08/09/94	10/09/95	10/10/95	10/10/95
Cyanide	NC	0.05 U	0.58 U	0.5 U	0.5 U	0.52 UJ	0.51 UJ	0.55 UJ

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 13 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	MW-5	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7D
Laboratory ID		2529808	2529703	2162801	2162802	2162803	2162901	3203201		
Depth		44'-45'	50'-52'	10'-12'	26'-28'	36'-38'	42'-44'	04'-06'		
Date Sampled		10/10/95	10/10/95	08/11/94	08/11/94	08/11/94	08/12/94	08/14/97		
Cyanide	NC	0.55 UJ	0.59 UJ	0.5 U	0.5 U	0.5 U	0.51 U	0.55 U		

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 14 of 19

Sample ID	NYSDEC Recommended Soil Clean-up Objectives (mg/kg)	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-8	MW-8	MW-8
Laboratory ID		3203202	3203101	3203102	3203205	3247609	3247610	3247502	
Depth		06'-08'	42'-44'	42'-44'	50'-52'	02'-04'	06'-08'	24'-26'	
Date Sampled		08/14/97	08/15/97	08/15/97	08/15/97	09/25/97	09/25/97	09/26/97	
Cyanide	NC	0.58 U	0.58 U	0.58 U	0.59 U	0.53 UJ	0.52 UJ	0.53 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 15 of 19

Sample ID	NYSDEC Recommended	MW-8	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-12	MW-12
Laboratory ID	Soil Clean-up Objectives	3247611	3198701	3198702	3198703	3198704	3198705	3198706	3198705	3198706
Depth		30'-32'	02'-04'	06'-08'	44'-46'	50'-52'	04'-06'	06'-08'	04'-06'	06'-08'
Date Sampled	(mg/kg)	09/26/97	08/11/97	08/11/97	08/11/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
Cyanide	NC	0.55 UJ	0.57 U	0.59 U	0.5 U	0.61 U	0.59 U	0.56 U	0.59 U	0.56 U

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 16 of 19

Sample ID	NYSDEC Recommended	MW-13	MW-13	MW-14	MW-14	MW-14	MW-15	MW-15	TP-1
Laboratory ID	Soil Clean-up	3218702	3218703	3216201	3216101	3212704	3212804	2536101	
Depth	Objectives	02'-04'	04'-06'	04'-06'	06'-08'	02'-04'	04'-06'	04'-08'	
Date Sampled	(mg/kg)	09/03/97	09/03/97	08/28/97	08/28/97	08/26/97	08/25/97	10/17/95	
Cyanide	NC	0.55 U	0.55 U	0.6 U	0.57 U	0.52 U	0.53 U	0.53 U	

See appendix introduction for abbreviations and data qualifiers.
 Soils results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 17 of 19

Sample ID	NYSDEC Recommended	TP-2	TP-3	TP-3	TP-3	TP-4	TP-4D	TP-4	TP-4	TP-4	TP-5
Laboratory ID	Soil Clean-up Objectives (mg/kg)	2128107	2536102	2536103	2128103	2128106	2128104	2128105	2128102		
Depth		4'	02'-03'	06'-08'	1'	1'	3'	06'-6.5'	1.5'		
Date Sampled		07/08/94	10/17/95	10/17/95	07/08/94	07/08/94	07/08/94	07/08/94	07/08/94		
Cyanide	NC	0.5 U	0.56 U	0.53 U	0.39 U	0.65 U	0.52 U	0.57 U	0.64 U		

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
Cyanide - Subsurface Soils
Troy (Smith Avenue) Site
Page 18 of 19

Sample ID	TP-5	FB-0707	FB-0708	FB-0708	FB2-0708	FB-0712	FB-0809	FB-0818	FB2-0818	FB-1010
Laboratory ID	2128101	Field Blank 2128121	Field Blank 2128122	Field Blank 2128120	Field Blank 2129805	Field Blank 2158301	Field Blank 2171503	Field Blank 2171607	Field Blank 2529801	
Depth	3'	--	--	--	--	--	--	--	--	--
Date Sampled	07/08/94	07/08/94	07/08/94	07/08/94	07/11/94	08/09/94	08/18/94	08/18/94	08/18/94	10/10/95
Cyanide	4.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-16
 Cyanide - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 19 of 19

Sample ID	FB-1012	FB-0818	FB-0820A	FB-0820B	FB-0825	FB-0826	FB-0925	TAP-1
Laboratory ID	2532302	3204806	3209205	3209103	3212705	3212706	3247615	2159401
Depth	--	--	--	--	--	--	--	--
Date Sampled	10/12/95	08/18/97	08/20/97	08/20/97	08/25/97	08/26/97	09/25/97	08/09/94
Cyanide	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Soil results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 8

Sample ID	SS-17	SS-18	SS-19	SS-39	SB-1	SB-6	SB-9	SB-11
Laboratory ID	3204805	3204801	3212801	Duplicate of SS-19 3212802	2532208	2179301	2174703	3209101
Depth	01'-02'	02'-03'	02'-03'	02'-03'	38'-40'	20'-24'	32'-34'	02'-04'
Date Sampled	08/18/97	08/18/97	08/25/97	08/25/97	10/13/95	08/23/94	08/22/94	08/20/97
Total Organic Carbon	28600	8900	2500	700	12100	11666	3765	11500

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 2 of 8

Sample ID	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-13	SB-13	SB-14	SB-14
Laboratory ID	3209203	3209202	3209102	3209204	3251101	3251201	3248501	3248502		
Depth	06'-08'	06'-08'	40'-42'	46'-48'	02'-04'	06'-08'	02'-04'	06'-08'		
Date Sampled	08/20/97	08/20/97	08/21/97	08/21/97	09/30/97	09/30/97	09/29/97	09/29/97		
Total Organic Carbon	5400	5900	600	10500	3200	5100	4000	1600		

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 3 of 8

Sample ID	SB-14	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	SB-17
Laboratory ID	3248503	3248504	3251102	3251105	3247612	3247613	3247614	3247503	3247503
Depth	38'-40'	44'-46'	02'-04'	06'-08'	04'-06'	06'-08'	02'-04'	06'-08'	06'-08'
Date Sampled	09/29/97	09/29/97	09/30/97	09/30/97	09/26/97	09/26/97	09/26/97	09/26/97	09/26/97
Total Organic Carbon	12300	4600	2800	14300	10000	15700	11300	21400	21400

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 4 of 8

Sample ID	SB-18	SB-18	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21
Laboratory ID	3247606	3247607	3247608	Duplicate of SB-18 3247608	3251106	3251107	3251108	3251109	3247601
Depth	02'-04'	04'-08'	04'-08'	04'-08'	02'-04'	06'-08'	02'-04'	06'-08'	02'-04'
Date Sampled	09/25/97	09/25/97	09/25/97	09/25/97	09/30/97	09/30/97	09/30/97	09/30/97	09/24/97
Total Organic Carbon	201300	20100	23800	14500	26300	44600	3200	30600	

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 5 of 8

Sample ID	SB-21	SB-21	SB-21	SB-21	SB-22	SB-22	SB-22	SB-22	SB-22	MW-2A
Laboratory ID	3247602	3247603	3247501	3241601	3241602	3241501	3241603	3241501	3241603	2146402
Depth	04'-08'	34'-36'	42'-44'	02'-04'	08'-10'	24'-26'	38'-40'	24'-26'	38'-40'	34'-36'
Date Sampled	09/24/97	09/25/97	09/25/97	09/23/97	09/23/97	09/23/97	09/24/97	09/23/97	09/24/97	07/26/94
Total Organic Carbon	13900	9800	16800	20200	4200	16500	9800	16500	9800	5714

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
TOC Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 6 of 8

Sample ID	MW-3	MW-4A	MW-5	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D
Laboratory ID	2168601	2158306	2529809	3203201	3203202	3203101	3203102	3203205	
Depth	14'-16'	42'-44'	40'-41'	04'-06'	06'-08'	42'-44'	42'-44'	50'-52'	
Date Sampled	08/16/94	08/09/94	10/10/95	08/14/97	08/14/97	08/15/97	08/15/97	08/15/97	
Total Organic Carbon	7170	12198	13200	49900	49600	4800	4900	21000	

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
 TOC Compounds - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 7 of 8

Sample ID	MW-8	MW-8	MW-8	MW-8	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-12
Laboratory ID	3247609	3247610	3247502	3198701	3198702	3198703	3198704	3198705		
Depth	02'-04'	06'-08'	24'-26'	02'-04'	06'-08'	44'-46'	50'-52'	04'-06'		
Date Sampled	09/25/97	09/25/97	09/26/97	08/11/97	08/11/97	08/11/97	08/12/97	08/12/97		
Total Organic Carbon	14100	7000	14900	24500	20400	83300	19500	34200		

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-17
 TOC Compounds - Subsurface Soils
 Troy (Smith Avenue) Site
 Page 8 of 8

Sample ID	MW-12	MW-13	MW-13	MW-13	MW-14	MW-14	MW-14	MW-15	MW-15	TP-1	TP-3
Laboratory ID	3198706	3218702	3218703	3216201	3216101	3212704	3212804	2536101	2536102		
Depth	06'-08'	02'-04'	04'-06'	04'-06'	06'-08'	02'-04'	04'-06'	04'-08'	02'-03'		
Date Sampled	08/12/97	09/03/97	09/03/97	08/28/97	08/28/97	08/28/97	08/25/97	10/17/95	10/17/95		
Total Organic Carbon	24900	3900	14800	636000	1963 E	28900	1700	2500 J	64000 J		

See appendix introduction for abbreviation and data qualifiers.
 Soils results are presented in mg/kg (ppm).

TABLE E-18
TCLP Volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	Regulatory Maximum Concentration Level (mg/L)	SB-10	SB-22	MW-2A
Laboratory ID		2534503	3241502	2146405
Depth		08'-10'	22'-24'	44'-46'
Date Sampled		10/16/95	09/23/97	07/27/94
Benzene	0.5	1.1 D	0.01 U	ND
2-Butanone	200	0.05 UJ	0.01 UJ	ND
Carbon tetrachloride	0.5	0.05 U	0.01 U	ND
Chlorobenzene	100	0.05 U	0.01 U	ND
Chloroform	6	0.05 U	0.01 U	ND
1,1-Dichloroethene	0.7	0.05 U	0.01 U	ND
1,2-Dichloroethane	0.5	0.05 U	0.01 U	ND
Tetrachloroethene	0.7	0.05 U	0.01 U	ND
Trichloroethene	0.5	0.05 U	0.01 U	ND
Vinyl chloride	0.2	0.05 U	0.01 U	ND

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm) for the TCLP extract.

TABLE E-19
TCLP Semi-volatile Organic Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	Regulatory Maximum Concentration Level (mg/L)	SB-10	SB-22	MW-2A
Laboratory ID	2534503	3241502	2146405	
Depth	08'-10'	22'-24'	44'-46'	
Date Sampled	10/16/95	09/23/97	07/27/94	
Cresol*	200	NA	NA	ND
2-Methylphenol	200	0.03 J	0.01 U	NA
3- and 4-Methylphenol	200	0.03 J	0.02 U	NA
1,4-Dichlorobenzene	7.5	0.04 U	0.01 U	ND
2,4-Dinitrotoluene	0.13	0.04 U	0.01 U	ND
Hexachlorobenzene	0.13	0.04 U	0.01 U	ND
Hexachlorobutadiene	0.5	0.04 U	0.01 U	ND
Hexachloroethane	3	0.04 U	0.01 U	ND
Nitrobenzene	2	0.04 U	0.01 U	ND
Pentachlorophenol	100	0.20 U	0.05 U	ND
Pyridine	5	0.04 U	0.01 U	ND
2,4,5-Trichlorophenol	400	0.04 U	0.01 U	ND
2,4,6-Trichlorophenol	2	0.04 U	0.01 U	ND

* Cresol is a mixture of 2-, 3- and 4-methylphenol.

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm) for the TCLP extract.

TABLE E-20
TCLP Pesticide and Herbicide Compounds - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	Regulatory Maximum Concentration Level (mg/L)	SB-22
Laboratory ID	3241502	
Depth	22'-24'	
Date Sampled	09/23/97	
Chlordane	0.03	0.0033 U
Endrin	0.02	0.0007 U
gamma-BHC (Lindane)	0.4	0.0003 U
Heptachlor	0.008	0.0003 U
Heptachlor Epoxide	0.008	0.0003 U
Methoxychlor	10	0.0033 U
Toxaphene	0.5	0.033 U
2,4-D	10	0.013 U
2,4,5-TP (Silvex)	1	0.0013 U

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm) for the TCLP extract.

TABLE E-21
TCLP Metals - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	Regulatory Maximum Concentration Level (mg/L)	SB-10	SB-22	MW-2A
Laboratory ID		2534503	3241502	2146405
Depth		08'-10'	22'-24'	44'-46'
Date Sampled		10/16/95	09/23/97	07/27/94
Arsenic	5	0.034 U	0.024 U	ND
Barium	100	0.630	3.6	ND
Cadmium	1	0.0033 U	0.0025 U	ND
Chromium	5	0.013 U	0.0034 U	ND
Lead	5	0.053 U	0.0078 U	ND
Mercury	0.2	0.0002 U	0.000095 B	ND
Selenium	1	0.15 U	0.042 U	ND
Silver	5	0.0067 UJ	0.0043 UJ	ND

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm) for the TCLP extract.

TABLE E-22
RCRA Characteristics - Subsurface Soils
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	SB-10	SB-22	MW-2A
Laboratory ID	2534503	3241502	2146405
Depth	08'-10'	22'-24'	44'-46'
Date Sampled	10/16/95	09/23/97	07/27/94
	Units		
pH	7.97	8.96	NA
Corrosivity	0.01 U	0.01 U	0.01 U
Ignitability	> 212	> 212	> 212
Reactivity S+CN	1/1 U	NA	1/1 U
Cyanide, Reactive	NA	1.17 U	NA
Sulfide, Reactive	NA	1.17 U	NA

See appendix introduction for abbreviations and data qualifiers.

TABLE E-23
TCL Volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 1 of 4

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1	SD-1	SD-2	SD-3	SD-7	SD-3
Laboratory ID Depth Date Sampled		3238001 00'-03' 09/22/97	3238002 03'-06' 09/22/97	3238003 00'-03' 09/22/97	3238004 00'-03' 09/22/97	Duplicate of SD-3 3238011 00'-03' 09/22/97	3238005 03'-06' 09/22/97
Chloromethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
Bromomethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
Vinyl Chloride	0.602	12 U	13 U	14 U	12 U	13 U	11 U
Chloroethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
Methylene Chloride	NC	12 U	13 U	14 U	12 U	13 U	11 U
Acetone	NC	12 UJ	13 UJ	14 UJ	12 UJ	13 UJ	11 UJ
Carbon Disulfide	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,1-Dichloroethene	0.172	12 U	13 U	14 U	12 U	13 U	11 U
1,1-Dichloroethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,2-Dichloroethene (total)	NC	12 U	13 U	14 U	12 U	13 U	11 U
Chloroform	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,2-Dichloroethane	6.02	12 U	13 U	14 U	12 U	13 U	11 U
2-Butanone	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,1,1-Trichloroethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
Carbon Tetrachloride	5.16	12 U	13 U	14 U	12 U	13 U	11 U
Bromodichloromethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,2-Dichloropropane	NC	12 U	13 U	14 U	12 U	13 U	11 U
cis-1,3-Dichloropropene	NC	12 U	13 U	14 U	12 U	13 U	11 U
Trichloroethene	17.2	12 U	13 U	14 U	12 U	13 U	11 U
Dibromochloromethane	NC	12 U	13 U	14 U	12 U	13 U	11 U
1,1,2-Trichloroethane	5.16	12 U	13 U	14 U	12 U	13 U	11 U
Benzene	5.16	12 U	13 U	14 U	2 J	13 U	11 U
trans-1,3-Dichloropropene	NC	12 U	13 U	14 U	12 U	13 U	11 U
Bromoform	NC	12 U	13 U	14 U	12 U	13 U	11 U
4-Methyl-2-Pentanone	NC	12 U	13 U	14 U	12 U	13 U	11 U
2-Hexanone	NC	12 U	13 U	14 U	12 U	13 U	11 U

See appendix introduction for abbreviations and data qualifiers.
Sediment results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-23
TCL Volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 2 of 4

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1	SD-1	SD-2	SD-3	SD-7 Duplicate of SD-3	SD-3
Tetrachloroethene	6.88	12 U	13 U	14 U	12 U	13 U	11 U
1,1,2,2-Tetrachloroethane	2.58	12 U	13 U	14 U	12 U	13 U	11 U
Toluene	NC	12 U	13 U	14 U	12 U	13 U	11 U
Chlorobenzene	NC	12 U	13 U	14 U	12 U	13 U	11 U
Ethylbenzene	NC	12 U	13 U	14 U	6 J	13 U	2 J
Styrene	NC	12 U	13 U	14 U	12 U	13 U	11 U
Xylene (total)	NC	12 U	13 U	14 U	3 J	13 U	2 J
Volatiles TICs	NC	--	--	10 J	251 JN	14 J	264 J

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-23
TCL Volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 3 of 4

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-4	SD-5	SD-6	FB-0922 Field Blank 3241503 -- 09/23/97
Chloromethane	NC	12 U	12 U	12 U	10 U
Bromomethane	NC	12 U	12 U	12 U	10 U
Vinyl Chloride	0.602	12 U	12 U	12 U	10 U
Chloroethane	NC	12 U	12 U	12 U	10 U
Methylene Chloride	NC	12 U	12 U	12 U	10 U
Acetone	NC	12 UJ	12 UJ	12 UJ	7 JB
Carbon Disulfide	NC	12 U	12 U	12 U	2 J
1,1-Dichloroethene	0.172	12 U	12 U	12 U	10 U
1,1-Dichloroethane	NC	12 U	12 U	12 U	10 U
1,2-Dichloroethene (total)	NC	12 U	12 U	12 U	10 U
Chloroform	NC	12 U	12 U	12 U	10 U
1,2-Dichloroethane	6.02	12 U	12 U	12 U	10 U
2-Butanone	NC	12 U	12 U	12 U	10 U
1,1,1-Trichloroethane	NC	12 U	12 U	12 U	10 UJ
Carbon Tetrachloride	5.16	12 U	12 U	12 U	10 U
Bromodichloromethane	NC	12 U	12 U	12 U	10 U
1,2-Dichloropropane	NC	12 U	12 U	12 U	10 U
cis-1,3-Dichloropropene	NC	12 U	12 U	12 U	10 U
Trichloroethene	17.2	12 U	12 U	12 U	10 U
Dibromochloromethane	NC	12 U	12 U	12 U	10 U
1,1,2-Trichloroethane	5.16	12 U	12 U	12 U	10 U
Benzene	5.16	12 U	12 U	12 U	10 U
trans-1,3-Dichloropropene	NC	12 U	12 U	12 U	10 U
Bromoform	NC	12 U	12 U	12 U	10 U
4-Methyl-2-Pentanone	NC	12 U	12 U	12 U	10 U
2-Hexanone	NC	12 U	12 U	12 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Sediment results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-23
 TCL Volatile Organic Compounds - Sediments
 Troy (Smith Avenue) Site
 Page 4 of 4

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-4	SD-5	SD-6	FB-0922 Field Blank
Laboratory ID Depth Date Sampled		3238006 00'-03' 09/22/97	3238007 00'-03' 09/22/97	3238008 00'-03' 09/22/97	3241503 -- 09/23/97
Tetrachloroethene	6.88	12 U	12 U	12 U	10 U
1,1,2,2-Tetrachloroethane	2.58	12 U	12 U	12 U	10 U
Toluene	NC	12 U	12 U	12 U	10 U
Chlorobenzene	NC	12 U	12 U	12 U	10 U
Ethylbenzene	NC	12 U	12 U	12 U	10 U
Styrene	NC	12 U	12 U	12 U	10 U
Xylene (total)	NC	12 U	12 U	12 U	10 U
Volatile TICs	NC	57 JN	--	27 J	--

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blanks are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1 3238001 00'-03' 09/22/97	SD-1 3238002 03'-06' 09/22/97	SD-2 3238003 00'-03' 09/22/97	SD-3 3238004 00'-03' 09/22/97	SD-7 Duplicate of SD-3 3238011 00'-03' 09/22/97
Phenol	4.3	420 U	430 U	450 U	400 U	440 U
bis(2-Chloroethyl)Ether	0.258	420 U	430 U	450 U	400 U	440 U
2-Chlorophenol	NC	420 U	430 U	450 U	400 U	440 U
1,3-Dichlorobenzene	103.2	420 U	430 U	450 U	400 U	440 U
1,4-Dichlorobenzene	103.2	420 U	430 U	450 U	400 U	440 U
1,2-Dichlorobenzene	103.2	420 U	430 U	450 U	400 U	440 U
2-Methylphenol	4.3	420 U	430 U	450 U	400 U	440 U
2,2'-oxybis(1-Chloropropane)	NC	420 U	430 U	450 U	400 U	440 U
4-Methylphenol	4.3	420 U	430 U	450 U	400 U	440 U
N-Nitroso-di-n-propylamine	NC	420 U	430 U	450 U	400 U	440 U
Hexachloroethane	NC	420 U	430 U	450 U	400 U	440 U
Nitrobenzene	NC	420 U	430 U	450 U	400 U	440 U
Isophorone	NC	420 U	430 U	450 U	400 U	440 U
2-Nitrophenol	4.3	420 U	430 U	450 U	400 U	440 U
2,4-Dimethylphenol	4.3	420 U	430 U	450 U	400 U	440 U
2,4-Dichlorophenol	4.3	420 U	430 U	450 U	400 U	440 U
1,2,4-Trichlorobenzene	782.6	420 U	430 U	450 U	400 U	440 U
Naphthalene	NC	420 U	47 J	450 U	730	69 J
4-Chloroaniline	NC	420 U	430 U	450 U	400 U	440 U
Hexachlorobutadiene	2.58	420 U	430 U	450 U	400 U	440 U
bis(2-Chloroethoxy)methane	NC	420 U	430 U	450 U	400 U	440 U
4-Chloro-3-Methylphenol	5.16	420 U	430 U	450 U	400 U	440 U
2-Methylnaphthalene	NC	420 U	430 U	450 U	400 U	440 U
Hexachlorocyclopentadiene	37.84	420 U	430 U	450 U	160 J	440 U
2,4,6-Trichlorophenol	5.16	420 U	430 U	450 U	400 U	440 U
2,4,5-Trichlorophenol	5.16	1000 U	1000 U	1100 U	960 U	1100 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1	SD-1	SD-1	SD-2	SD-3	SD-7
Laboratory ID Depth Date Sampled		3238001 00'-03' 09/22/97	3238002 03'-06' 09/22/97	3238003 00'-03' 09/22/97	3238004 00'-03' 09/22/97	Duplicate of SD-3 3238011 00'-03' 09/22/97	
2-Chloronaphthalene	NC	420 U	430 U	450 U	400 U	440 U	
2-Nitroaniline	NC	1000 U	1000 U	1100 U	960 U	1100 U	
Dimethylphthalate	NC	420 U	430 U	450 U	400 U	440 U	
Acenaphthylene	NC	160 J	200 J	76 J	400 J	240 J	
2,6-Dinitrotoluene	NC	420 U	430 U	450 U	400 U	440 U	
3-Nitroaniline	NC	1000 U	1000 U	1100 U	960 U	1100 U	
Acenaphthene	1204	2900	3400	110 J	6800 D	4500 D	
2,4-Dinitrophenol	4.3	1000 U	1000 U	1100 U	960 U	1100 U	
4-Nitrophenol	4.3	1000 U	1000 U	1100 U	960 U	1100 U	
Dibenzofuran	NC	420 U	430 U	450 U	320 J	53 J	
2,4-Dinitrotoluene	NC	420 U	430 U	450 U	400 U	440 U	
Diethylphthalate	NC	420 U	430 U	450 U	400 U	440 U	
4-Chlorophenyl-phenylether	NC	420 U	430 U	450 U	400 U	440 U	
Fluorene	NC	420 U	51 J	65 J	4400 D	370 J	
4-Nitroaniline	NC	1000 U	1000 U	1100 U	960 U	1100 U	
4,6-Dinitro-2-methylphenol	NC	1000 U	1000 U	1100 U	960 U	1100 U	
N-Nitrosodiphenylamine	NC	420 U	430 U	450 U	400 U	440 U	
4-Bromophenyl-phenylether	NC	420 U	430 U	450 U	400 U	440 U	
Hexachlorobenzene	1.29	420 U	430 U	450 U	400 U	440 U	
Pentachlorophenol	5.16	1000 U	1000 U	1100 U	960 U	1100 U	
Phenanthrene	1032	260 J	620	430 J	5300 D	1100	
Anthracene	NC	61 J	180 J	99 J	2900	360 J	
Carbazole	NC	420 U	80 J	450 U	400 U	110 J	
Di-n-butylphthalate	NC	420 U	430 U	450 U	400 U	440 U	
Fluoranthene	8772	400 J	1500	900	2200	1800	
Pyrene	NC	350 J	890	1100	2200	910	

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 3 of 6

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1	SD-1	SD-2	SD-3	SD-7
Laboratory ID		3238001	3238002	3238003	3238004	Duplicate of SD-3
Depth		00'-03'	03'-06'	00'-03'	00'-03'	00'-03'
Date Sampled		09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Butylbenzylphthalate	NC	420 U	430 U	450 U	400 U	440 U
3,3'-Dichlorobenzidine	NC	420 U	430 U	450 U	400 U	440 U
Benzo(a)anthracene	11.18	180 J	600	380 J	1200	700
Chrysene	11.18	210 J	610	490	1500	640
bis(2-Ethylhexyl)phthalate	1715.7	420 U	430 U	450 U	1700 U	440 U
Di-n-octylphthalate	NC	420 U	430 U	450 U	400 U	440 UJ
Benzo(b)fluoranthene	11.18	150 J	560	370 J	380 J	670
Benzo(k)fluoranthene	11.18	130 J	570	350 J	500	520
Benzo(a)pyrene	11.18	130 J	560	300 J	740	580
Indeno(1,2,3-cd)pyrene	11.18	420 U	82 J	450 U	51 J	88 J
Dibenz(a,h)anthracene	NC	420 U	430 U	450 U	400 U	440 U
Benzo(g,h,i)perylene	NC	420 U	43 J	450 U	400 U	55 J
Semi-volatile TICs	NC	11140 JN	11100 JN	12690 JN	13210 JN	8390 JN

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 4 of 6

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-3	SD-4	SD-5	SD-6	FB-0922
Laboratory ID		3238005	3238006	3238007	3238008	Field Blank
Depth		03'-06'	00'-03'	00'-03'	00'-03'	3241503
Date Sampled		09/22/97	09/22/97	09/22/97	09/22/97	--
Phenol	4.3	370 U	400 U	420 U	400 U	10 U
bis(2-Chloroethyl)Ether	0.258	370 U	400 U	420 U	400 U	10 U
2-Chlorophenol	NC	370 U	400 U	420 U	400 U	10 U
1,3-Dichlorobenzene	103.2	370 U	400 U	420 U	400 U	10 U
1,4-Dichlorobenzene	103.2	370 U	400 U	420 U	400 U	10 U
1,2-Dichlorobenzene	103.2	370 U	400 U	220 J	400 U	10 U
2-Methylphenol	4.3	370 U	400 U	420 U	400 U	10 U
2,2'-oxybis(1-Chloropropane)	NC	370 U	400 U	420 U	400 U	10 U
4-Methylphenol	4.3	370 U	400 U	420 U	400 U	10 U
N-Nitroso-di-n-propylamine	NC	370 U	400 U	420 U	400 U	10 U
Hexachloroethane	NC	370 U	400 U	420 U	400 U	10 U
Nitrobenzene	NC	370 U	400 U	420 U	400 U	10 U
Isophorone	NC	370 U	400 U	420 U	400 U	10 U
2-Nitrophenol	4.3	370 U	400 U	420 U	400 U	10 U
2,4-Dimethylphenol	4.3	370 U	400 U	420 U	400 U	10 U
2,4-Dichlorophenol	4.3	370 U	400 U	420 U	400 U	10 U
1,2,4-Trichlorobenzene	782.6	370 U	400 U	420 U	400 U	10 U
Naphthalene	NC	1500	400 U	420 U	400 U	10 U
4-Chloroaniline	NC	370 U	400 U	420 U	400 U	10 U
Hexachlorobutadiene	2.58	370 U	400 U	420 U	400 U	10 U
bis(2-Chloroethoxy)methane	NC	370 U	400 U	420 U	400 U	10 U
4-Chloro-3-Methylphenol	5.16	370 U	400 U	420 U	400 U	10 U
2-Methylnaphthalene	NC	130 J	400 U	420 U	400 U	10 U
Hexachlorocyclopentadiene	37.84	370 U	400 U	420 U	400 U	10 U
2,4,6-Trichlorophenol	5.16	370 U	400 U	420 U	400 U	10 U
2,4,5-Trichlorophenol	5.16	890 U	950 U	1000 U	960 U	25 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
 Page 5 of 6

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-3	SD-4	SD-5	SD-6	FB-0922 Field Blank 3241503 -- 09/22/97
2-Chloronaphthalene	NC	370 U	400 U	420 U	400 U	10 U
2-Nitroaniline	NC	890 U	950 U	1000 U	960 U	25 U
Dimethylphthalate	NC	370 U	400 U	420 U	400 U	10 U
Acenaphthylene	NC	530	400 U	420 U	400 U	10 U
2,6-Dinitrotoluene	NC	370 U	400 U	420 U	400 U	10 U
3-Nitroaniline	NC	890 U	950 U	1000 U	960 U	25 U
Acenaphthene	1204	6000 D	400 U	420 U	400 U	10 U
2,4-Dinitrophenol	4.3	890 U	950 U	1000 U	960 U	25 U
4-Nitrophenol	4.3	890 U	950 U	1000 U	960 U	25 U
Dibenzofuran	NC	190 J	400 U	420 U	400 U	10 U
2,4-Dinitrotoluene	NC	370 U	400 U	420 U	400 U	10 U
Diethylphthalate	NC	370 U	400 U	420 U	400 U	10 U
4-Chlorophenyl-phenylether	NC	370 U	400 U	420 U	400 U	2 J
Fluorene	NC	3600 D	400 U	420 U	400 U	10 U
4-Nitroaniline	NC	890 U	950 U	1000 U	960 U	25 U
4,6-Dinitro-2-methylphenol	NC	890 U	950 U	1000 U	960 U	25 U
N-Nitrosodiphenylamine	NC	370 U	400 U	420 U	400 U	10 U
4-Bromophenyl-phenylether	NC	370 U	400 U	420 U	400 U	10 U
Hexachlorobenzene	1.29	370 U	400 U	420 U	400 U	10 U
Pentachlorophenol	5.16	890 U	950 U	1000 U	960 U	25 U
Phenanthrene	1032	6600 D	41 J	51 J	400 U	10 U
Anthracene	NC	2600	400 U	420 U	400 U	10 U
Carbazole	NC	370 U	400 U	420 U	400 U	10 U
Di-n-butylphthalate	NC	370 U	400 U	130 J	400 U	10 U
Fluoranthene	8772	2900	400 U	94 J	400 U	10 U
Pyrene	NC	2200	400 U	50 J	400 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-24
TCL Semi-volatile Organic Compounds - Sediments
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-3	SD-4	SD-5	SD-6	FB-0922 Field Blank
Laboratory ID		3238005	3238006	3238007	3238008	3241503
Depth		03'-06'	00'-03'	00'-03'	00'-03'	--
Date Sampled		09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Butylbenzylphthalate	NC	370 U	400 U	420 U	400 U	10 U
3,3'-Dichlorobenzidine	NC	370 U	400 U	420 U	400 U	10 U
Benzo(a)anthracene	11.18	1400	400 U	420 U	400 U	10 U
Chrysene	11.18	1500	400 U	420 U	400 U	10 U
bis(2-Ethylhexyl)phthalate	1715.7	370 U	400 U	420 U	400 U	10 U
Di-n-octylphthalate	NC	370 U	400 U	420 UJ	400 U	10 U
Benzo(b)fluoranthene	11.18	580	400 U	420 U	400 U	10 U
Benzo(k)fluoranthene	11.18	670	400 U	420 U	400 U	10 U
Benzo(a)pyrene	11.18	1000	400 U	420 U	400 U	10 U
Indeno(1,2,3-cd)pyrene	11.18	66 J	400 U	420 U	400 U	10 U
Dibenz(a,h)anthracene	NC	370 U	400 U	420 U	400 U	10 U
Benzo(g,h,i)perylene	NC	370 U	400 U	420 U	400 U	10 U
Semi-volatile TICs	NC	10240 JN	3741 JN	15760 JN	7036 JN	24 JN

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-25
TCL Pesticide/PCB Compounds - Sediments
Troy (Smith Avenue) Site
 Page 1 of 2

Sample ID	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-1	SD-1	SD-2	SD-3	SD-7
Laboratory ID		3238001RE	3238002RE	3238003RE	3238004RE	Duplicate of SD-3
Depth		00'-03'	03'-06'	00'-03'	00'-05'	3238011RE
Date Sampled		09/22/97	09/22/97	09/22/97	09/22/97	00'-03'
alpha-BHC	0.516	2.1 UJ	2.2 UJ	2.3 UJ	2 UJ	2.3 UJ
beta-BHC	0.516	2.1 UJ	2.2 UJ	2.3 UJ	1.6 JP	2.3 UJ
delta-BHC	0.516	2.1 UJ	2.2 UJ	2.3 UJ	2 UJ	9.2 JPNX
gamma-BHC (Lindane)	0.516	2.1 UJ	2.2 UJ	2.3 UJ	2 UJ	2.3 UJ
Heptachlor	0.00688	2 JPNX	8.6 JX	3.9 JX	1.1 JPN	12 JX
Aldrin	0.86	2.1 UJ	2.2 UJ	2.3 UJ	2 UJ	2.3 UJ
Heptachlor epoxide	0.00688	2.1 UJ	2.2 UJ	2.3 UJ	0.78 JPN	2.3 UJ
Endosulfan I	NC	2.1 UJ	2.2 UJ	2.3 UJ	1.4 JPN	2.3 UJ
Dieldrin	0.86	4.1 UJ	4.2 UJ	4.5 UJ	4 UJ	4.4 UJ
4,4'-DDE	0.086	4.1 UJ	5.4 JPNX	4.3 JPNX	4 UJ	6.5 JPNX
Endrin	6.88	4.1 UJ	3.4 J	4.5 UJ	4 UJ	3 JP
Endosulfan II	NC	4.1 UJ	4.2 UJ	4.5 UJ	4 UJ	4.4 UJ
4,4'-DDD	0.086	4.1 UJ	4.8 JPN	4.7 JPN	3.2 JP	7.7 JPN
Endosulfan sulfate	NC	4.1 UJ	4.2 UJ	4.5 UJ	4 UJ	4.4 UJ
4,4'-DDT	0.086	4.1 UJ	5 JPN	4.6 JP	4 UJ	4.4 UJ
Methoxychlor	5.16	2.1 UJ	22 UJ	23 UJ	20 UJ	23 UJ
Endrin ketone	6.88	4.1 UJ	4.2 U	4.5 UJ	4 UJ	4.4 UJ
Endrin aldehyde	6.88	4.1 UJ	9.2 J	4.5 UJ	4 UJ	4.4 UJ
alpha-Chlordane	0.0086	2.1 UJ	2.2 UJ	2.3 UJ	2 UJ	2.3 UJ
gamma-Chlordane	0.0086	2 JPNX	7.5 JPNX	3 JPNX	2 UJ	8.9 JPN
Toxaphene	0.086	210 UJ	220 UJ	230 UJ	200 UJ	230 UJ
Aroclor-1016	0.00688	41 UJ	42 UJ	45 UJ	40 UJ	44 UJ
Aroclor-1221	0.00688	84 UJ	86 UJ	91 UJ	81 UJ	89 UJ
Aroclor-1232	0.00688	41 UJ	42 UJ	45 UJ	40 UJ	44 UJ
Aroclor-1242	0.00688	190 J	770 J	230 J	40 UJ	1000 JP
Aroclor-1248	0.00688	41 UJ	42 UJ	45 UJ	40 UJ	44 UJ
Aroclor-1254	0.00688	41 UJ	42 UJ	45 UJ	40 UJ	44 UJ
Aroclor-1260	0.00688	41 UJ	42 UJ	45 UJ	40 UJ	44 UJ

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-25
 TCL Pesticide/PCB Compounds - Sediments
 Troy (Smith Avenue) Site
 Page 2 of 2

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Guidance Criteria (ug/kg)	SD-3 3238005RE 03'-06' 09/22/97	SD-4 3238006RE 00'-03' 09/22/97	SD-5 3238007RE 00'-03' 09/22/97	SD-6 3238008RE 00'-03' 09/22/97	FB-0922 Field Blank 3241503 -- 09/22/97
alpha-BHC	0.516	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
beta-BHC	0.516	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
delta-BHC	0.516	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
gamma-BHC (Lindane)	0.516	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
Heptachlor	0.00688	1.9 UJ	2 UJ	2.1 UJ	2.5 JPNX	0.052 U
Aldrin	0.86	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
Heptachlor epoxide	0.00688	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
Endosulfan I	NC	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
Dieldrin	0.86	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
4,4'-DDE	0.086	3.7 UJ	3.9 UJ	4.1 UJ	3.7 JPNX	0.1 U
Endrin	6.88	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
Endosulfan II	NC	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
4,4'-DDD	0.086	2.1 JPN	3.9 UJ	4.1 UJ	4 UJ	0.1 U
Endosulfan sulfate	NC	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
4,4'-DDT	0.086	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
Methoxychlor	5.16	19 UJ	20 UJ	2.5 JPN	4 UJ	0.1 U
Endrin ketone	6.88	3.7 UJ	3.9 UJ	21 UJ	20 UJ	0.52 U
Endrin aldehyde	6.88	3.7 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
alpha-Chlordane	0.0086	1.9 UJ	3.9 UJ	4.1 UJ	4 UJ	0.1 U
gamma-Chlordane	0.0086	1.9 UJ	2 UJ	2.1 UJ	2 UJ	0.052 U
Toxaphene	0.086	1.9 UJ	2 UJ	1.1 JPN	4.2 JPNX	0.052 U
Aroclor-1016	0.00688	190 UJ	200 UJ	210 UJ	200 UJ	5.2 U
Aroclor-1221	0.00688	37 UJ	39 UJ	41 UJ	40 UJ	1 U
Aroclor-1232	0.00688	74 UJ	80 UJ	84 UJ	81 UJ	2.1 U
Aroclor-1242	0.00688	37 UJ	39 UJ	41 UJ	40 UJ	1 U
Aroclor-1248	0.00688	37 UJ	190 J	54 J	570 J	1 U
Aroclor-1254	0.00688	37 UJ	39 UJ	41 UJ	40 UJ	1 U
Aroclor-1260	0.00688	37 UJ	39 UJ	41 UJ	40 UJ	1 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in ug/kg (ppb); field blank results are presented in ug/L (ppb).

TABLE E-26
TAL Metals - Sediments
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Criteria Severe Effect Level (mg/kg)	SD-1	SD-1	SD-2	SD-3	SD-7
Aluminum	NC	6700	6470	10200	11000	7420
Antimony	25	0.94 B	0.59 U	2.8 B	1.9 B	1.9 B
Arsenic	33	3.3	2.9	6.8	8.3	4.2
Barium	NC	42.2	54.3	74.5	51.2	50.7
Beryllium	NC	0.29 B	0.26 B	0.43 B	0.61	0.3 B
Cadmium	9	0.06 U	0.58 B	0.21 B	0.05 U	0.61 B
Calcium	NC	4360 J	4170 J	7990 J	14400 J	4580 J
Chromium	110	12.5	23.5	23.7	18.8	25.8
Cobalt	NC	5.8 B	6.4 B	8.8 J	12.4 J	7.3 J
Copper	110	17	18.6	42.5	41.7	22.7
Iron	40,000 (4%)	16900	15400	33300	27200	17500
Lead	110	51.4	75.2	98.9	27.7	74.6
Magnesium	NC	4040	3850	6780	9700	4400
Manganese	1100	190	198	396	667	225
Mercury	1.3	0.06 JB	0.13 J	0.13 JB	0.05 JB	0.24 J
Nickel	50	13.6 J	13.3 J	21.1 J	30.2 J	15.6 J
Potassium	NC	726	679	1010	1380	846
Selenium	NC	0.34 U	0.66	0.35 U	0.31 U	2.1
Silver	2.2	0.15 U	0.15 U	0.19 B	0.26 B	0.15 U
Sodium	NC	56.4 UJ	58.8 UJ	56.6 UJ	50 UJ	58.4 UJ
Thallium	NC	0.73 B	1.4	1.5	1.6	4.8
Vanadium	NC	11.7	11.6	18.8	18.3	13.4
Zinc	270	73.1	98.6	154	109	119

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-26
TAL Metals - Sediments
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID Laboratory ID Depth Date Sampled	NYSDEC Sediment Criteria Severe Effect Level (mg/kg)	SD-3	SD-4	SD-5	SD-6	FB-0922 Field Blank 3241503 -- 09/22/97
Aluminum	NC	11500	6280	10700	9000	34.8 U
Antimony	25	2.1 B	1.2 B	1.9 B	1.6 B	4.6 U
Arsenic	33	10.4	3.2	6.3	4.4	2.7 U
Barium	NC	52.4	26.8	89.1	47	5.3 U
Beryllium	NC	0.53	0.26 B	0.54 B	0.37 B	0.08 U
Cadmium	9	0.05 U	0.05 U	0.06 U	0.06 U	0.5 U
Calcium	NC	12600 J	2170 J	4800 J	4500 J	127 U
Chromium	110	18.2	12.3	15.6	23.9	1 U
Cobalt	NC	16.6 J	5.5 J	9.4 J	8.4 J	1.8 U
Copper	110	37.2	13.7	31.6	16.5	2 U
Iron	40,000 (4%)	29900	17500	26100	22100	22.4 U
Lead	110	20.6	12.7	31	25.3	1.6 UJ
Magnesium	NC	9340	3850	5480	4910	160 U
Manganese	1100	690	333	420	338	0.4 U
Mercury	1.3	0.04 JB	0.06 JB	0.05 JB	0.23 J	0.05 B
Nickel	50	31.7 J	13.2 J	24.2 J	19.1 J	1.6 U
Potassium	NC	1440	537 B	1180	1040	173 U
Selenium	NC	0.3 U	0.3 U	0.34 U	0.34 U	2.8 U
Silver	2.2	0.13 U	0.13 U	0.14 U	0.15 U	1.2 U
Sodium	NC	48.4 UJ	49.3 UJ	54.8 UJ	55.4 UJ	458 U
Thallium	NC	1.4	1.1 B	1.3	1.4	3.9 U
Vanadium	NC	19.3	9.8	16.2	14.7	1.7 U
Zinc	270	92.1	69.6	110	109	4.1 U

See appendix introduction for abbreviations and data qualifiers.
Sediment results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-27
Cyanide - Sediments
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Sediment Criteria Severe Effect Level mg/kg	SD-1	SD-1	SD-2	SD-3	SD-7
Laboratory ID Depth Date Sampled		3238001 00'-03' 09/22/97	3238002 03'-06' 09/22/97	3238003 00'-03' 09/22/97	3238004 00'-03' 09/22/97	Duplicate of SD-3 3238011 00'-03' 09/22/97
Cyanide	NC	0.62 U	0.64 U	0.68 U	0.6 U	0.66 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-27
Cyanide - Sediments
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Sediment Criteria	SD-3	SD-4	SD-5	SD-6	FB-0922
Laboratory ID	Severe Effect	3238005	3238006	3238007	3238008	Field Blank
Depth	Level	03'-06'	00'-03'	00'-03'	00'-03'	3241503
Date Sampled	mg/kg	09/22/97	09/22/97	09/22/97	09/22/97	--
Cyanide	NC	0.55 U	0.59 U	0.63 U	0.6 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in mg/kg (ppm); field blank results are presented in ug/L (ppb).

TABLE E-28
Total Organic Carbon - Sediments
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	SD-1	SD-1	SD-2	SD-3	SD-7	SD-3
Laboratory ID	3238001	3238002	3238003	3238004	Duplicate of SD-3 3238011	3238005
Depth	00'-03'	03'-06'	00'-03'	00'-03'	00'-03'	03'-06'
Date Sampled	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Total Organic Carbon	1800	8700	7300	4900	21800	9900

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in mg/kg (ppm).

TABLE E-28
Total Organic Carbon - Sediments
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	SD-4	SD-5	SD-6
Laboratory ID	3238006	3238007	3238008
Depth	00'-03'	00'-03'	00'-03'
Date Sampled	09/22/97	09/22/97	09/22/97
Total Organic Carbon	4600	11000	2800

See appendix introduction for abbreviations and data qualifiers.
 Sediment results are presented in mg/kg (ppm).

TABLE E-29
TCL Volatile Organic Compounds - Surface Water
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID Date Sampled		3237901 09/22/97	3237902 09/22/97	3237903 09/22/97	3237907 09/22/97	3237904 09/22/97	3237905 09/22/97	3237906 09/22/97
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	0.3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	0.07	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	0.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	0.6	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-29
TCL Volatile Organic Compounds - Surface Water
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID Date Sampled		3237901 09/22/97	3237902 09/22/97	3237903 09/22/97	3237907 09/22/97	3237904 09/22/97	3237905 09/22/97	3237906 09/22/97
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	0.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Volatile TICs	NC	--	--	--	--	--	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-30
TCL Semi-volatile Organic Compounds - Surface Water
Troy (Smith Avenue) Site
Page 1 of 3

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1 3237901 09/22/97	SW-2 3237902 09/22/97	SW-3 3237903 09/22/97	SW-7 Duplicate of SW-3 3237907 09/22/97	SW-4 3237904 09/22/97	SW-5 3237905 09/22/97	SW-6 3237906 09/22/97
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	0.03	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	20	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	30	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	30	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	0.3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	0.45	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-30
TCL Semi-volatile Organic Compounds - Surface Water
Troy (Smith Avenue) Site
Page 2 of 3

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID Date Sampled		3237901 09/22/97	3237902 09/22/97	3237903 09/22/97	3237907 09/22/97	3237904 09/22/97	3237905 09/22/97	3237906 09/22/97
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	NC	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	0.07	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	20	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ
4-Nitrophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50	10 U	10 U	10 U	1 J	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	NC	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.02	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-30
TCL Semi-volatile Organic Compounds - Surface Water
Troy (Smith Avenue) Site
Page 3 of 3

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID Date Sampled		3237901 09/22/97	3237902 09/22/97	3237903 09/22/97	3237907 09/22/97	3237904 09/22/97	3237905 09/22/97	3237906 09/22/97
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	0.6	10 U	1 J	10 U	10 U	10 U	10 U	1 J
Di-n-octylphthalate	50	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.0012	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Semi-volatile TICs	NC	16 JN	3 JN	17 J	33 JN	6 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-31
TCL Pesticide/PCB Compounds - Surface Water
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class AA] (ug/L)	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3 3237907 09/22/97	SW-4	SW-5	SW-6
alpha-BHC	0.01	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
beta-BHC	0.01	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
delta-BHC	0.01	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
gamma-BHC (Lindane)	0.01	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Heptachlor	0.001	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Aldrin	0.001	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Heptachlor epoxide	0.001	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Endosulfan I	NC	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Dieldrin	0.0009	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.001	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.02	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	NC	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.001	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	NC	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.001	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	0.03	0.54 U	0.52 U	0.51 U	0.5 U	0.51 U	0.5 U	0.5 U
Endrin ketone	NC	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	NC	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	0.002	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
gamma-Chlordane	0.002	0.054 U	0.052 U	0.051 U	0.05 U	0.051 U	0.05 U	0.05 U
Toxaphene	0.005	5.4 U	5.2 U	5.1 U	5 U	5.1 U	5 U	5 U
Aroclor-1016	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	6.00E-07	2.2 U	2.1 U	2 U	2 U	2 U	2 U	2 U
Aroclor-1232	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	6.00E-07	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-32
TAL Metals - Surface Water
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	NYSDEC Water Quality Standards/ Guidance Values (Class AA) [ug/L]	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID		3237901	3237902	3237903	3237907	3237904	3237905	3237906
Date Sampled		09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Aluminum	100	49.3 B	44.4 B	39.2 B	46.8 B	45.8 B	61.6 B	47.2 B
Antimony	3	4.6 UJ	4.6 UJ	4.6 UJ	4.6 UJ	4.6 UJ	4.6 UJ	4.6 UJ
Arsenic	50	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Barium	1,000	19.6 B	19.7 B	19.6 B	19.6 B	20 B	18.1 B	19.4 B
Beryllium	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Cadmium	10	0.58 B	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Calcium	NC	26400	26300	26500	26300	27300	21600	26600
Chromium	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	5	1.8 U	1.8 U	2.1 B	1.8 U	1.8 U	1.8 U	1.8 U
Copper	200	3 B	4.8 B	2.8 B	3.1 B	2.8 B	4.3 B	2.1 B
Iron	300	120	101	98.4 B	108	109	147	91.8 B
Lead	50	1.6 U	1.6 JB	1.6 U	1.9 JB	1.6 U	1.6 U	2 JB
Magnesium	35,000	4710 B	4730 B	4700 B	4640 B	4840 B	4020 B	4790 B
Manganese	300	27.9	29.5	27.6	27.1	29	31.5	29
Mercury	0.2	0.04 U	0.04 U	0.04 U	0.04 B	0.04 U	0.04 U	0.04 U
Nickel	NC	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Potassium	NC	1110 B	1080 B	1090 B	1080 B	1140 B	906 B	1070 B
Selenium	1	3.8 B	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Silver	0.1	R	R	R	R	R	R	R
Sodium	NC	12700 J	12600 J	12700 J	12800 JB	13200 J	10900 J	12800 J
Thallium	4	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Vanadium	14	1.7 U	1.7 U	1.7 U	1.9 B	1.7 U	2.7 B	1.7 U
Zinc	30	4.3 JB	5.8 JB	6.3 JB	5.3 JB	6.5 JB	7.3 JB	4.1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-33
Cyanide - Surface Water
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	NYSDEC Water Quality Standards/ Guidance Values	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID		3237901	3237902	3237903	3237907	3237904	3237905	3237906
Date Sampled	[Class AA] (ug/L)	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Cyanide	5.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).



TABLE E-34
Hardness - Surface Water
Troy (Smith Avenue) Site
Page 1 of 1

Sample ID	SW-1	SW-2	SW-3	SW-7 Duplicate of SW-3	SW-4	SW-5	SW-6
Laboratory ID	3237901	3237902	3237903	3237907	3237904	3237905	3237906
Date Sampled	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97	09/22/97
Hardness	1840	85.3	85.5	84.7	88.1	70.5	86.2

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in mg/L (ppm).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S
Laboratory ID Date Sampled		2545001 10/25/95	2549202 10/27/95	2545003 10/26/95	2545002 10/25/95	2547003 10/26/95	Duplicate of MW-5S 2547004 10/26/95
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	4 J	10 U	10 U	1 J	1 J
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	27	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S
Laboratory ID		2545001	2549202	2545003	2545002	2547003	Duplicate of MW-5S 2547004
Date Sampled		10/25/95	10/27/95	10/26/95	10/25/95	10/26/95	10/26/95
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	32	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	1 J	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U	2100 D	10 U	10 U
Volatiles TICs	NC	--	341 JN	8 JN	3099 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 3 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-1	USMW-2
Laboratory ID Date Sampled		2547005 10/26/95	2547008 10/26/95	2549201 10/27/95	2547010 10/26/95	2549203 10/27/95	2547009 10/26/95
Chloromethane	5	10 U	10 U	10 U	10 U	100 U	3 J
Bromomethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Vinyl chloride	2	10 U	10 U	10 U	10 U	100 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Methylene chloride	5	10 UJ	10 UJ	10 UJ	10 UJ	100 UJ	10 UJ
Acetone	50	10 U	10 U	10 U	10 U	100 U	10 U
Carbon disulfide	NC	10 U	10 U	10 U	10 U	100 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	100 U	10 U
Chloroform	7	10 U	4 J	10 U	10 U	100 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
2-Butanone	50	10 UJ	10 UJ	10 UJ	10 UJ	120 UJ	10 UJ
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U	10 U	100 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	100 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	100 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	100 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Benzene	0.7	2 J	8 J	8 J	3 J	19000 D	2 J
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	100 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U	10 U	100 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	100 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 4 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-1	USMW-2
Laboratory ID Date Sampled		2547005 10/26/95	2547008 10/26/95	2549201 10/27/95	2547010 10/26/95	2549203 10/27/95	2547009 10/26/95
Tetrachloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Toluene	5	2 J	10 U	42	10 U	15000 D	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	100 U	10 U
Ethylbenzene	5	10 U	10 U	310 D	10 U	5400 D	10 U
Styrene	5	10 U	10 U	3 J	10 U	340	10 U
Xylene (total)	5	10 U	10 U	160	3 J	6800 D	2 J
Volatile TICs	NC	29 JN	5 JN	1133 JN	289 JN	15190 JN	161 JN

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 5 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	FB-1026 Field Blank 2547002 10/26/95	TB-1025 Trip Blank 254504 10/25/95	TB-1026 Trip Blank 2547001 10/26/95	TB-1027 Trip Blank 2549204 10/27/95
Chloromethane	5	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U
Vinyl chloride	2	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U
Methylene chloride	5	8 JB	5 JB	8 JB	10 JB
Acetone	50	10 B	10 U	5 JB	3 JB
Carbon disulfide	NC	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U
2-Butanone	50	3 JB	2 JB	3 JB	23 JB
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-35
TCL Volatile Organic Compounds - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	FB-1026 Field Blank 2547002 10/26/95	TB-1025 Trip Blank 254504 10/25/95	TB-1026 Trip Blank 2547001 10/26/95	TB-1027 Trip Blank 2549204 10/27/95
Tetrachloroethene	5	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U	10 U
Volatile TICs	NC	--	46 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S RE	MW-15S RE Duplicate of MW-5S	MW-5D
Phenol	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
bis(2-Chloroethyl)ether	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2-Chlorophenol	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
1,3-Dichlorobenzene	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
1,4-Dichlorobenzene	4.7	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
1,2-Dichlorobenzene	4.7	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2-Methylphenol	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
4-Methylphenol	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
N-Nitroso-di-n-propylamine	NC	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Hexachloroethane	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Nitrobenzene	5	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Isophorone	50	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
2-Nitrophenol	1	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
2,4-Dimethylphenol	1	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
2,4-Dichlorophenol	1	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
1,2,4-Trichlorobenzene	5	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Naphthalene	10	10 U	11 U	10 U	130 D	11 UJ	12 UJ	1 J
4-Chloroaniline	5	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Hexachlorobutadiene	5	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
bis(2-Chloroethoxy)methane	5	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
4-Chloro-3-Methylphenol	1	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
2-Methylnaphthalene	NC	10 U	11 U	10 U	180 D	11 UJ	12 UJ	10 U
Hexachlorocyclopentadiene	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2,4,6-Trichlorophenol	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2,4,5-Trichlorophenol	1	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S RE	MW-15S RE Duplicate of MW-5S	MW-5D
2-Chloronaphthalene	10	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
2-Nitroaniline	5	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U
Dimethylphthalate	50	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Acenaphthylene	NC	10 U	4 J	10 U	10 U	11 UJ	12 UJ	11
2,6-Dinitrotoluene	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
3-Nitroaniline	5	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U
Acenaphthene	20	10 U	11 U	10 U	47 J	11 UJ	12 UJ	45
2,4-Dinitrophenol	1	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U
4-Nitrophenol	1	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U
Dibenzofuran	NC	10 U	11 U	10 U	10 U	11 UJ	12 UJ	2 J
2,4-Dinitrotoluene	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Diethylphthalate	50	2 J	11 U	1 J	10 U	11 UJ	12 UJ	10 U
4-Chlorophenyl-phenylether	1	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Fluorene	50	10 U	11 U	10 U	37 J	11 UJ	12 UJ	16
4-Nitroaniline	5	25 U	28 U	25 U	25 U	27 UJ	31 UJ	26 U
4,6-Dinitro-2-methylphenol	1	25 U	28 U	25 U	25 UJ	27 UJ	31 UJ	26 U
N-Nitrosodiphenylamine	50	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
4-Bromophenyl-phenylether	1	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Hexachlorobenzene	0.35	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Pentachlorophenol	1	25 U	28 U	25 U	25 UJ	27 UJ	31 UJ	26 U
Phenanthrene	50	10 U	11 U	10 U	60 J	1 J	2 J	10 J
Anthracene	50	10 U	4 J	10 U	14 J	11 UJ	12 UJ	6 J
Carbazole	NC	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Di-n-butylphthalate	50	10 U	11 U	10 U	10 UJ	11 UJ	12 UJ	10 U
Fluoranthene	50	10 U	2 J	10 U	21 J	2 J	2 J	12
Pyrene	50	10 U	2 J	10 U	25 J	1 J	2 J	9 J

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 3 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S RE	MW-15S RE Duplicate of MW-5S	MW-5D
Butylbenzylphthalate	50	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
3,3'-Dichlorobenzidine	5	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Benzo(a)anthracene	0.002	10 U	2 J	10 U	7 J	11 UJ	12 UJ	1 J
Chrysene	0.002	10 U	2 J	10 U	9 J	11 UJ	12 UJ	1 J
bis(2-Ethylhexyl)phthalate	50	10 U	11 U	3 J	3 J	11 UJ	12 UJ	10 U
Di-n-octylphthalate	50	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Benzo(b)fluoranthene	0.002	10 U	2 J	10 U	6 J	11 UJ	12 UJ	10 U
Benzo(k)fluoranthene	0.002	10 U	2 J	10 U	6 J	11 UJ	12 UJ	10 U
Benzo(a)pyrene	ND	10 U	6 J	10 U	10 J	11 UJ	12 UJ	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	3 J	10 U	5 J	11 UJ	12 UJ	10 U
Dibenz(a,h)anthracene	NC	10 U	11 U	10 U	10 U	11 UJ	12 UJ	10 U
Benzo(g,h,i)perylene	NC	10 U	4 J	10 U	6 J	11 UJ	12 UJ	10 U
Semi-volatile TICs	NC	22 JN	6 JN	7 JN	1440 JN	64 JN	25 JN	146 JN

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
 Page 4 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	US-201 RE	US-204	US-206 RE	USMW-1	USMW-2 RE	FB-1026 Field Blank
Laboratory ID Date Sampled		2547008 10/26/95	2549201 10/27/95	2547010 10/26/95	2549203 10/27/95	2547009 10/26/95	2547002 10/26/95
Phenol	1	14 UJ	11 U	40 UJ	400 U	45 UJ	10 U
bis(2-Chloroethoxy)ether	1	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
2-Chlorophenol	1	14 UJ	11 U	40 UJ	400 U	45 UJ	10 U
1,3-Dichlorobenzene	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
1,4-Dichlorobenzene	4.7	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
1,2-Dichlorobenzene	4.7	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
2-Methylphenol	1	14 UJ	11 U	40 UJ	400 U	45 UJ	10 U
2,2-oxybis(1-Chloropropane)	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
4-Methylphenol	1	14 UJ	11 U	40 UJ	290 J	45 UJ	10 U
N-Nitroso-di-n-propylamine	NC	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Hexachloroethane	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Nitrobenzene	5	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
Isophorone	50	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
2-Nitrophenol	1	14 UJ	11 U	40 UJ	400 UJ	45 UJ	10 U
2,4-Dimethylphenol	1	14 UJ	11 U	40 UJ	660 JN	45 UJ	10 U
2,4-Dichlorophenol	1	14 UJ	11 U	40 UJ	400 UJ	45 UJ	10 U
1,2,4-Trichlorobenzene	5	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
Naphthalene	10	3 J	140 D	40 UJ	130000 D	45 UJ	10 UJ
4-Chloroaniline	5	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
Hexachlorobutadiene	5	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
bis(2-Chloroethoxy)methane	5	14 UJ	11 UJ	40 UJ	400 UJ	45 UJ	10 UJ
4-Chloro-3-Methylphenol	1	14 UJ	11 U	40 UJ	400 UJ	45 UJ	10 U
2-Methylnaphthalene	NC	1 J	10 J	40 UJ	74000 D	45 UJ	10 UJ
Hexachlorocyclopentadiene	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
2,4,6-Trichlorophenol	1	14 UJ	11 U	40 UJ	400 U	45 UJ	10 U
2,4,5-Trichlorophenol	1	34 UJ	28 U	100 UJ	1000 U	110 UJ	26 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 5 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	US-201 RE	US-204	US-206 RE	USMW-1	USMW-2 RE	FB-1026 Field Blank
2-Chloronaphthalene	10	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
2-Nitroaniline	5	34 UJ	28 UJ	100 UJ	1000 U	110 UJ	26 UJ
Dimethylphthalate	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Acenaphthylene	NC	13 J	17 J	22 J	33000 D	23 J	10 UJ
2,6-Dinitrotoluene	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
3-Nitroaniline	5	34 UJ	28 UJ	100 UJ	1000 U	110 UJ	26 UJ
Acenaphthene	20	27 J	80 J	250 J	2000	230 J	10 UJ
2,4-Dinitrophenol	1	34 UJ	28 U	100 UJ	1000 U	110 UJ	26 U
4-Nitrophenol	1	34 UJ	28 U	100 UJ	1000 U	110 UJ	26 U
Dibenzofuran	NC	14 UJ	3 J	7 J	560	7 J	10 UJ
2,4-Dinitrotoluene	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Diethylphthalate	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
4-Chlorophenyl-phenylether	1	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Fluorene	50	10 J	50 J	88 J	16000 JD	93 J	10 UJ
4-Nitroaniline	5	34 UJ	28 UJ	100 UJ	1000 U	110 UJ	26 UJ
4,6-Dinitro-2-methylphenol	1	34 UJ	28 U	100 UJ	1000 U	110 UJ	26 U
N-Nitrosodiphenylamine	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
4-Bromophenyl-phenylether	1	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Hexachlorobenzene	0.35	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Pentachlorophenol	1	34 UJ	28 U	100 UJ	1000 U	110 UJ	26 U
Phenanthrene	50	8 J	32 J	15 J	46000 D	45 UJ	10 UJ
Anthracene	50	16 J	25 J	24 J	18000 JD	20 J	10 UJ
Carbazole	NC	14 UJ	11 UJ	40 UJ	230 J	45 UJ	10 UJ
Di-n-butylphthalate	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Fluoranthene	50	45 J	22 J	25 J	13000 JD	37 J	10 UJ
Pyrene	50	56 J	24 J	34 J	17000 JD	48 J	10 UJ

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-36
TCL Semi-volatile Organic Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	US-201 RE	US-204	US-206 RE	USMW-1	USMW-2 RE	FB-1026 Field Blank
Laboratory ID		2547008	2549201	2547010	2549203	2547009	2547002
Date Sampled		10/26/95	10/27/95	10/26/95	10/27/95	10/26/95	10/26/95
Butylbenzylphthalate	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
3,3'-Dichlorobenzidine	5	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Benzo(a)anthracene	0.002	20 J	8 J	11 J	2500	12 J	10 UJ
Chrysene	0.002	20 J	8 J	11 J	2400	12 J	10 UJ
bis(2-Ethylhexyl)phthalate	50	3 J	2 J	40 UJ	400 U	45 UJ	10 UJ
Di-n-octylphthalate	50	14 UJ	11 UJ	40 UJ	400 U	45 UJ	10 UJ
Benzo(b)fluoranthene	0.002	7 J	2 J	5 J	800	6 J	10 UJ
Benzo(k)fluoranthene	0.002	9 J	3 J	5 J	1000	6 J	10 UJ
Benzo(a)pyrene	ND	16 J	5 J	10 J	1600	12 J	10 UJ
Indeno(1,2,3-cd)pyrene	0.002	5 J	2 J	40 UJ	370 J	45 UJ	10 UJ
Dibenz(a,h)anthracene	NC	14 UJ	11 UJ	40 UJ	59 J	45 UJ	10 UJ
Benzo(g,h,i)perylene	NC	6 J	2 J	5 J	360 J	6 J	10 UJ
Semi-volatile TICs	NC	162 JN	275 JN	511 JN	25470 JN	426 J	20 JNIB

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-37
TCL Pesticide/PCB Compounds - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S Duplicate of MW-5S
Laboratory ID Date Sampled		2545001 10/25/95	2549202 10/27/95	2545003 10/26/95	2545002 10/25/95	2547003 10/26/95	2547004 10/26/95
alpha-BHC	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ND	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ND	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ND	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ND	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	ND	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ND	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin ketone	5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	ND	5 U	5 U	5 U	5 U	5 U	5 U
Aroclor-1016	0.1	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	0.1	2 U	2 U	2 U	2 U	2 U	2 U
Aroclor-1232	0.1	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	0.1	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	0.1	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	0.1	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	0.1	1 U	1 U	1 U	1 U	1 U	1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-37
TCL Pesticide/PCB Compounds - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-2	FB-1026 Field Blank
alpha-BHC	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
beta-BHC	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
delta-BHC	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Heptachlor	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Aldrin	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ND	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Endosulfan I	NC	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Dieldrin	ND	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ND	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
Endrin	ND	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
Endosulfan II	NC	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	ND	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	NC	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ND	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
Methoxychlor	35	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Endrin ketone	5	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	5	0.1 U	0.1 U	0.2 U	0.098 JP	0.1 U	0.1 U
alpha-Chlordane	0.1	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.1	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Toxaphene	ND	5 U	5 U	10 U	5 U	5 U	5 U
Aroclor-1016	0.1	1 U	1 U	2 U	1 U	1 U	1 U
Aroclor-1221	0.1	2 U	2 U	4 U	2 U	2 U	2 U
Aroclor-1232	0.1	1 U	1 U	2 U	1 U	1 U	1 U
Aroclor-1242	0.1	1 U	1 U	2 U	1 U	1 U	1 U
Aroclor-1248	0.1	1 U	1 U	2 U	1 U	1 U	1 U
Aroclor-1254	0.1	1 U	1 U	2 U	1 U	1 U	1 U
Aroclor-1260	0.1	1 U	1 U	2 U	1 U	1 U	1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-38
TAL Metals - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S
Laboratory ID		2545001	2549202	2545003	2545002	2547003	Duplicate of MW-5S 2547004
Date Sampled		10/25/95	10/27/95	10/26/95	10/25/95	10/26/95	10/26/95
Aluminum	NC	2210	983	758	192 B	31900	28200
Antimony	3	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U
Arsenic	25	2.6 U	3.7 B	2.6 U	12.6	88.5 J	64
Barium	1,000	147 B	196 B	156 B	948	2100 J	1790
Beryllium	3	0.11 B	0.1 U	0.1 U	0.1 U	1.7 B	1.6 B
Cadmium	10	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Calcium	NC	117000	139000	102000	200000	139000	144000
Chromium	50	5.8 B	2.5 B	3 B	2 U	73	60.3
Cobalt	NC	3.3 B	10.8 B	1.3 B	10.3 B	55.8	45.4 B
Copper	200	6.6 B	6.6 B	3.8 B	1.7 B	190 J	158 J
Iron	300	5650	3450	1790	15600	127000	89200
Lead	25	3 B	2.5 B	2.1 U	2.1 U	1410 J	1280
Magnesium	35,000	23400	24900	19600	50000	40600	37800
Manganese	300	1190	235	390	1550	14000 J	11200
Mercury	2	0.2 U	1.2	0.2 U	0.2 U	1.3 J	1.2
Nickel	NC	15.8 U	15.8 U	15.8 U	15.8 U	102	81
Potassium	NC	14500	8260	8850	5760	10800	12600
Selenium	10	4.4 U	4.4 U	4.4 U	4.4 U	16 J	13.2 J
Silver	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Sodium	20,000	33800	55300 J	93700	300000 J	24500 J	26000 J
Thallium	4	5.4 U	5.4 U	5.4 U	5.4 U	33.1 J	24.6
Vanadium	NC	4.4 B	1.6 B	1.8 B	1.2 U	67.1 J	53.8 J
Zinc	300	18 B	18 B	15 B	10 U	642 J	578

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-38
TAL Metals - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-1	USMW-2	FB-1026 Field Blank
Laboratory ID Date Sampled								
Aluminum	NC	36300	31100	237000	12300	24700	14900	149 B
Antimony	3	6.2 U	6.2 U	15.3 B	6.2 U	99.1	6.2 U	6.2 U
Arsenic	25	34.8 J	41.9	202	6.5 B	1460	23	2.6 U
Barium	1,000	423 J	970	5490	208	548	742	3.6 U
Beryllium	3	1.8 B	1.4 B	10.8	0.54 B	1.5 B	0.78 B	0.1 U
Cadmium	10	0.8 U	0.8 U	0.8 U	0.8 U	12.6	0.8 U	0.8 U
Calcium	NC	135000	203000	487000	88700	303000	91000	132 U
Chromium	50	68.9	61.4	423	19	35.6	24.3	2 U
Cobalt	NC	47.4 B	35.6 B	255	10.5 B	37.1 B	18.1 B	1.3 U
Copper	200	164 J	132	959	33	377 J	68.2	1.5 U
Iron	300	103000	107000	618000	26900	94600	58500	29 B
Lead	25	93.1 J	64.1	368	28.9	4220	48.6	2.1 U
Magnesium	35,000	43200	56100	213000	21000	37200	23000	68.4 U
Manganese	300	2830 J	3210	25400	955	5320	3120	1.2 B
Mercury	2	0.2 UJ	0.2 U	0.2 U	0.2 U	6.6	0.2 U	0.2 U
Nickel	NC	89.4	73.7	535	22.5 B	65.8	35.2 B	15.8 U
Potassium	NC	13200	14300	50300	8000	17200	8810	398 U
Selenium	10	7.6 J	11 J	65.3 J	4.4 U	44.3 J	4.4 B	4.4 U
Silver	50	1.7 U	1.7 U	4.7 B	1.7 U	10.4	1.7 U	1.7 U
Sodium	20,000	46100 J	50800	92500	36900	23100 J	36800	746 U
Thallium	4	10.7 J	10.8	80.6	5.4 U	12.8	6.8 B	5.4 U
Vanadium	NC	65.9 J	57.1	407	21.1 B	151 J	28.2 B	1.2 U
Zinc	300	287 J	231	1610	84.7	2760	133	13.7 B

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-39
Cyanide - Groundwater [Round 1 - October 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S
Laboratory ID Date Sampled		2545001 10/25/95	2549202 10/27/95	2545003 10/26/95	2545002 10/25/95	2547003 10/26/95	Duplicate of MW-5S 2547004 10/26/95
Cyanide	100	R	R	60 J	19 J	R	R

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-39
 Cyanide - Groundwater [Round 1 - October 1995]
 Troy (Smith Avenue) Site
 Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-2	FB-1026 Field Blank 2547002 10/26/95
Laboratory ID Date Sampled		2547005 10/26/95	2547008 10/26/95	2549201 10/27/95	2547010 10/26/95	2547009 10/26/95	
Cyanide	100	R	R	R	R	R	R

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-40
Conventional Water Quality Parameters - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-15S Duplicate of MW-5S	MW-5D
Laboratory ID	2545001	2549202	2545003	2545002	2547003	2547004	2547005
Date Sampled	10/25/95	10/27/95	10/26/95	10/25/95	10/26/95	10/26/95	10/26/95
Biochemical Oxygen Demand	3 U	3 U	3 U	3 U	3	3	3 U
Chemical Oxygen Demand	3 U	10	3 U	150	5	3	3 U
Chloride	67	178	102	804	66	69	101
Hardness	400	444	328	720	508	494	450
Nitrate, Nitrogen	0.38	0.55	1.43	0.53	0.95	0.95	0.95
Oil and Grease	2	1	69	2	2	2	3
pH (unitless)	7.35	7.41	7.38	6.88	7.6	7.6	7.64
Sulfate	68	70	36	59	76	80	68
Sulfide	5.6	2.3	3.1	0.2	2.2 J	2.2 J	3.4 J
Total Cyanide	R	R	0.06 J	0.019 J	R	R	R
Total Dissolved Solids	492	625	560	1020	382	348	454

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in mg/L (ppm).

TABLE E-40
Conventional Water Quality Parameters - Groundwater [Round I - October 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	US-201	US-204	US-206	USMW-2
Laboratory ID	2547008	2549201	2547010	2547009
Date Sampled	10/26/95	10/27/95	10/26/95	10/26/95
Biochemical Oxygen Demand	3 U	3 U	3 U	3 U
Chemical Oxygen Demand	5	30	7	3 U
Chloride	132	241	84	93
Hardness	680	1960	308	304
Nitrate, Nitrogen	3.62	0.09	0.04 U	0.04 U
Oil and Grease	3	4	1	1
pH (unitless)	7.22	7.29	7.78	7.63
Sulfate	132	66	64	59
Sulfide	2.6 J	2.5	1.5 J	1.9 J
Total Cyanide	R	R	R	R
Total Dissolved Solids	754	700	380	392

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in mg/L (ppm).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1 2601409 12/15/95	MW-11 Duplicate of MW-1 2601410 12/15/95	MW-2A 2601402 12/14/95	MW-3 2545003 12/15/95	MW-4A 2601401 12/14/95	MW-5S 2598802 12/13/95
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	50	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-11 Duplicate of MW-1	MW-2A	MW-3	MW-4A	MW-5S
Laboratory ID Date Sampled		2601409 12/15/95	2601410 12/15/95	2601402 12/14/95	2545003 12/15/95	2601401 12/14/95	2598802 12/13/95
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	12	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U	10 U	1000 D	10 U
Volatiles TICs	NC	--	--	--	--	1378 JN	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 3 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-1	USMW-2
Laboratory ID Date Sampled		2598801 12/13/95	2598803 12/13/95	2601403 12/14/95	2601411 12/14/95	2598804 12/13/95	2601404 12/14/95
Chloromethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Vinyl chloride	2	10 U	10 U	10 U	10 U	100 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Methylene chloride	5	10 UJ	10 UJ	10 UJ	10 UJ	110 UJ	10 UJ
Acetone	50	10 U	10 U	10 U	84 J	100 U	10 U
Carbon disulfide	NC	10 U	10 U	10 U	10 U	100 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	100 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	100 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	100 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	20 J	100 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U	10 U	100 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	100 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	100 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	100 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Benzene	0.7	10 U	2 J	2 J	10 U	17000 D	2 J
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	100 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U	10 U	100 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	100 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 4 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	US-206	USMW-1	USMW-2
Laboratory ID Date Sampled		2598801 12/13/95	2598803 12/13/95	2601403 12/14/95	2601411 12/14/95	2598804 12/13/95	2601404 12/14/95
Tetrachloroethene	5	10 U	10 U	10 U	10 U	100 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U
Toluene	5	10 U	10 U	2 J	10 U	9300 D	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	100 U	10 U
Ethylbenzene	5	10 U	30	17	10 U	2200 D	10 U
Styrene	5	10 U	10 U	10 U	130	450	10 U
Xylene (total)	5	10 U	20	32	4 J	2900 D	10 U
Volatiles TICs	NC	--	277 JN	242 JN	55 JN	15690 JN	148 JN

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 5 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	FB-1214 Field Blank 2601405 12/14/95	TB-1213 Trip Blank 2598805 12/13/95	TB-1215 Trip Blank 2601412 12/15/95
Chloromethane	5	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U
Vinyl chloride	2	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U
Methylene chloride	5	10 JB	11 JB	17 JB
Acetone	50	10 U	10 UJ	10 U
Carbon disulfide	NC	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U
Carbon tetrachloride	5	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U
4-Methyl-2-pentanone	NC	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-41
TCL Volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	FB-1214 Field Blank 2601405 12/14/95	TB-1213 Trip Blank 2598805 12/13/95	TB-1215 Trip Blank 2601412 12/15/95
Tetrachloroethene	5	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U
Volatiles TICs	NC	--	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 1 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-11 Duplicate of MW-1	MW-2A	MW-3	MW-4A	MW-5S
Phenol	1	10 U	10 U	10 U	10 U	10 U	R
bis(2-Chloroethyl) ether	1	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	R
1,3-Dichlorobenzene	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
1,4-Dichlorobenzene	4.7	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
1,2-Dichlorobenzene	4.7	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	R
2,2'-oxybis(1-Chloropropane)	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	R
N-Nitroso-di-n-propylamine	NC	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Hexachloroethane	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Nitrobenzene	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Isophorone	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	R
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	R
2,4-Dichlorophenol	1	10 U	10 U	10 U	10 U	10 U	R
1,2,4-Trichlorobenzene	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Naphthalene	10	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
4-Chloroaniline	5	10 UJ	10 UJ	10 UJ	10 UJ	66	10 UJ
Hexachlorobutadiene	5	10 UJ	10 U	10 U	10 UJ	10 UJ	10 UJ
bis(2-Chloroethoxy)methane	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 UJ
2-Methylnaphthalene	NC	10 UJ	10 U	10 U	10 U	10 U	R
Hexachlorocyclopentadiene	5	10 UJ	10 U	10 U	10 UJ	64	10 UJ
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 UJ
2,4,5-Trichlorophenol	1	25 U	25 U	25 U	25 U	25 U	R
2-Chloronaphthalene	10	10 UJ	10 U	10 U	10 UJ	10 U	R
							10 UJ

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1 2601409 12/15/95	MW-11 Duplicate of MW-1 2601410 12/15/95	MW-2A 2601402 12/14/95	MW-3 2545003 12/15/95	MW-4A 2601401 12/14/95	MW-5S 2598802 12/13/95
2-Nitroaniline	5	25 UJ	25 U	25 U	25 UJ	25 U	25 UJ
Dimethylphthalate	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Acenaphthylene	NC	10 UJ	10 U	2 J	10 UJ	10 U	10 UJ
2,6-Dinitrotoluene	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
3-Nitroaniline	5	25 UJ	25 U	25 U	25 UJ	25 U	25 UJ
Acenaphthene	20	10 UJ	10 U	2 J	10 UJ	10	10 UJ
2,4-Dinitrophenol	1	25 U	25 U	25 U	25 U	25 U	R
4-Nitrophenol	1	25 U	25 U	25 U	25 U	25 U	R
Dibenzofuran	NC	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
2,4-Dinitrotoluene	5	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Diethylphthalate	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
4-Chlorophenyl-phenylether	1	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Fluorene	50	10 UJ	10 U	10 U	10 UJ	7 J	10 UJ
4-Nitroaniline	5	25 UJ	25 U	25 U	25 UJ	25 U	25 UJ
4,6-Dinitro-2-methylphenol	1	25 U	25 U	25 U	25 U	25 U	R
N-Nitrosodiphenylamine	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
4-Bromophenyl-phenylether	1	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Hexachlorobenzene	0.35	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	R
Phenanthrene	50	10 UJ	10 U	10 U	10 UJ	10	10 UJ
Anthracene	50	10 UJ	10 U	1 J	10 UJ	2 J	10 UJ
Carbazole	NC	10 UJ	10 U	10 U	10 UJ	1 J	10 UJ
Di-n-butylphthalate	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Fluoranthene	50	10 UJ	10 U	2 J	10 UJ	3 J	10 UJ
Pyrene	50	10 UJ	10 U	2 J	10 UJ	4 J	10 UJ
Butylbenzylphthalate	50	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
3,3'-Dichlorobenzidine	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
 Page 3 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1 2601409 12/15/95	MW-11 Duplicate of MW-1 2601410 12/15/95	MW-2A 2601402 12/14/95	MW-3 2545003 12/15/95	MW-4A 2601401 12/14/95	MW-5S 2598802 12/13/95
Benzo(a)anthracene	0.002	10 UJ	10 U	1 J	10 UJ	1 J	10 UJ
Chrysene	0.002	10 UJ	10 U	1 J	10 UJ	1 J	10 UJ
bis(2-Ethylhexyl)phthalate	50	10 UJ	10 U	10 U	2 J	2 J	10 UJ
Di-n-octylphthalate	50	10 UJ	10 U	10 U	10 UJ	10 U	R
Benzo(b)fluoranthene	0.002	10 UJ	10 U	1 J	10 UJ	1 J	10 UJ
Benzo(k)fluoranthene	0.002	10 UJ	10 U	1 J	10 UJ	10 U	10 UJ
Benzo(a)pyrene	ND	10 UJ	10 U	1 J	10 UJ	1 J	10 UJ
Indeno(1,2,3-cd)pyrene	0.002	10 UJ	10 U	2 J	10 UJ	10 U	10 UJ
Dibenz(a,h)anthracene	NC	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Benzo(g,h,i)perylene	NC	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ
Semi-volatile TICs	NC	35 JN	57 JN	146 J	106 JN	924 JN	66 JN

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 4 of 6

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-1	USMW-2	FB-1214 Field Blank 2601405 12/14/95
Phenol	1	R	10 U	10 U	68	10 U	R
bis(2-Chloroethyl)ether	1	10 U	10 UJ	10 U	10 UJ	10 U	10 U
2-Chlorophenol	1	R	10 U	10 U	10 U	10 U	R
1,3-Dichlorobenzene	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
1,4-Dichlorobenzene	4.7	10 U	10 UJ	10 U	10 UJ	10 U	10 U
1,2-Dichlorobenzene	4.7	10 U	10 UJ	10 U	10 UJ	10 U	10 U
2-Methylphenol	1	R	10 U	10 U	42	10 U	R
2,2'-oxybis(1-Chloropropane)	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
4-Methylphenol	1	R	10 U	10 U	200 JD	10 U	R
N-Nitroso-di-n-propylamine	NC	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Hexachloroethane	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Nitrobenzene	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Isophorone	50	14	10 UJ	10 U	10 UJ	10 U	10 U
2-Nitrophenol	1	R	10 U	10 U	10 UJ	10 U	R
2,4-Dimethylphenol	1	R	10 U	10 U	10 UJ	10 U	R
2,4-Dichlorophenol	1	R	10 U	10 U	10 UJ	10 U	R
1,2,4-Trichlorobenzene	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Naphthalene	10	10 U	2 J	27	9800 D	10 U	10 U
4-Chloroaniline	5	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U
Hexachlorobutadiene	5	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ
bis(2-Chloroethoxy)methane	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
4-Chloro-3-Methylphenol	1	R	10 U	10 U	10 UJ	10 U	10 U
2-Methylnaphthalene	NC	10 U	10 UJ	1 J	2900 D	10 U	R
Hexachlorocyclopentadiene	5	10 U	10 UJ	10 U	10 UJ	10 U	10 U
2,4,6-Trichlorophenol	1	R	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	R	25 U	25 U	25 U	25 U	R
2-Chloronaphthalene	10	R	10 UJ	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
 Page 5 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-1	USMW-2	FB-1214 Field Blank
Laboratory ID		2598801	2598803	2601403	2598804	2601404	2601405
Date Sampled		12/13/95	12/13/95	12/14/95	12/13/95	12/14/95	12/14/95
2-Nitroaniline	5	R	25 UJ	25 U	25 UJ	25 U	25 U
Dimethylphthalate	50	R	10 UJ	10 U	10 UJ	10 U	10 U
Acenaphthylene	NC	R	9 J	12	1000 JD	7 J	10 U
2,6-Dinitrotoluene	5	R	10 UJ	10 U	10 UJ	10 U	10 U
3-Nitroaniline	5	R	25 UJ	25 U	25 UJ	25 U	25 U
Acenaphthene	20	10 J	36 J	76	46 J	250 D	10 U
2,4-Dinitrophenol	1	R	25 U	25 U	25 U	25 U	R
4-Nitrophenol	1	R	25 U	25 U	25 U	25 U	R
Dibenzofuran	NC	4 J	3 J	3 J	18 J	4 J	10 U
2,4-Dinitrotoluene	5	R	10 UJ	10 U	10 UJ	10 U	10 U
Diethylphthalate	50	R	10 UJ	10 U	10 UJ	10 U	10 U
4-Chlorophenyl-phenylether	1	R	10 UJ	10 U	10 UJ	10 U	10 U
Fluorene	50	10 J	27 J	40	600 JD	44	10 U
4-Nitroaniline	5	R	25 UJ	25 U	25 UJ	25 U	25 U
4,6-Dinitro-2-methylphenol	1	R	25 U	25 U	25 U	25 U	R
N-Nitrosodiphenylamine	50	10 U	10 UJ	10 U	10 UJ	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Pentachlorophenol	1	R	25 U	25 U	25 U	25 U	R
Phenanthrene	50	7 J	22 J	22	1200 JD	2 J	10 U
Anthracene	50	10 U	6 J	12	330 JD	5 J	10 U
Carbazole	NC	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Di-n-butylphthalate	50	10 U	10 UJ	10 U	10 UJ	10 U	10 U
Fluoranthene	50	1 J	4 J	9 J	320 JD	7 J	10 U
Pyrene	50	4 J	5 J	9 J	66 J	7 J	10 U
Butylbenzylphthalate	50	R	10 UJ	10 U	10 UJ	10 U	10 U
3,3'-Dichlorobenzidine	5	R	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-42
TCL Semi-volatile Organic Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 6 of 6

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-1	USMW-2	FB-1214 Field Blank
Laboratory ID Date Sampled		2598801 12/13/95	2598803 12/13/95	2601403 12/14/95	2598804 12/13/95	2601404 12/14/95	2601405 12/14/95
Benzo(a)anthracene	0.002	1 J	10 UJ	3 J	52 J	2 J	10 U
Chrysene	0.002	10 J	10 UJ	3 J	49 J	2 J	10 U
bis(2-Ethylhexyl)phthalate	50	R	10 UJ	10 U	10 UJ	10 U	10 U
Di-n-octylphthalate	50	R	10 UJ	10 U	10 UJ	10 U	10 U
Benzo(b)fluoranthene	0.002	R	10 UJ	10 U	31 J	10 U	10 U
Benzo(k)fluoranthene	0.002	R	10 UJ	1 J	35 J	10 U	10 U
Benzo(a)pyrene	ND	R	10 UJ	2 J	45 J	1 J	10 U
Indeno(1,2,3-cd)pyrene	0.002	R	10 UJ	10 U	6 J	10 U	10 U
Dibenz(a,h)anthracene	NC	R	10 UJ	10 U	10 UJ	10 U	10 U
Benzo(g,h,i)perylene	NC	R	10 UJ	10 U	5 J	10 U	10 U
Semi-volatile TICs	NC	406 JN	177 JN	231 JN	444 JN	288 JN	67 JB

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-43
 TCL Pesticide/PCB Compounds - Groundwater [Round II - December 1995]
 Troy (Smith Avenue) Site
 Page 1 of 2

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1 2601409 12/15/95	MW-11 Duplicate of MW-1 2601410 12/15/95	MW-2A 2601402 12/14/95	MW-3 2545003 12/15/95	MW-4A 2601401 12/14/95	MW-5S 2598802 12/13/95
alpha-BHC	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
beta-BHC	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
delta-BHC	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
gamma-BHC (Lindane)	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Heptachlor	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Aldrin	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Heptachlor epoxide	ND	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Endosulfan I	NC	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Dieldrin	ND	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
4,4'-DDE	ND	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
Endrin	ND	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
Endosulfan II	NC	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
4,4'-DDD	ND	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
Endosulfan sulfate	NC	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
4,4'-DDT	ND	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
Methoxychlor	35	0.51 UJ	0.51 UJ	0.51 U	0.53 U	0.62 U	0.5 U
Endrin ketone	5	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
Endrin aldehyde	5	0.1 UJ	0.1 UJ	0.1 U	0.11 U	0.12 U	0.1 U
alpha-Chlordane	0.1	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
gamma-Chlordane	0.1	0.051 UJ	0.051 UJ	0.051 U	0.053 U	0.062 U	0.05 U
Toxaphene	ND	5.1 UJ	5.1 UJ	5.1 U	5.3 U	6.2 U	5 U
Aroclor-1016	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U
Aroclor-1221	0.1	2 UJ	2 UJ	2 U	2.1 U	2.5 U	2 U
Aroclor-1232	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U
Aroclor-1242	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U
Aroclor-1248	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U
Aroclor-1254	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U
Aroclor-1260	0.1	1 UJ	1 UJ	1 U	1.1 U	1.2 U	1 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-43
TCL Pesticide/PCB Compounds - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-1	USMW-2	FB-1214
Laboratory ID Date Sampled		2598801 12/13/95	2598803 12/13/95	2601403 12/14/95	2598804 12/13/95	2601404 12/14/95	Field Blank 2601405 12/14/95
alpha-BHC	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
beta-BHC	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
delta-BHC	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
gamma-BHC (Lindane)	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
Heptachlor	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
Aldrin	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
Heptachlor epoxide	ND	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
Endosulfan I	NC	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
Dieldrin	ND	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
4,4'-DDE	ND	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
Endrin	ND	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
Endosulfan II	NC	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
4,4'-DDD	ND	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
Endosulfan sulfate	NC	0.1 U	0.1 U	0.1 U	0.25 JNP	0.1 UJ	0.12 U
4,4'-DDT	ND	0.1 U	0.1 U	0.1 U	0.46 JNP	0.1 UJ	0.12 U
Methoxychlor	35	0.5 U	0.5 U	0.51 U	1 U	0.52 UJ	0.62 U
Endrin ketone	5	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
Endrin aldehyde	5	0.1 U	0.1 U	0.1 U	0.2 U	0.1 UJ	0.12 U
alpha-Chlordane	0.1	0.05 U	0.05 U	0.051 U	0.1 U	0.052 UJ	0.062 U
gamma-Chlordane	0.1	0.05 U	0.05 U	0.051 U	R	0.052 UJ	0.062 U
Toxaphene	ND	5 U	5 U	5.1 U	10 U	5.2 UJ	6.2 U
Aroclor-1016	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U
Aroclor-1221	0.1	2 U	2 U	2 U	4 U	2.1 UJ	2.5 U
Aroclor-1232	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U
Aroclor-1242	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U
Aroclor-1248	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U
Aroclor-1254	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U
Aroclor-1260	0.1	1 U	1 U	1 U	2 U	1 UJ	1.2 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-44
TAL Metals - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-11 Duplicate of MW-1	MW-2A	MW-3	MW-4A	MW-5S
Laboratory ID Date Sampled		2601409 35048	2601410 35048	2601402 35047	2545003 35048	2601401 35047	2598802 35046
Aluminum	NC	2880 J	3060 J	742 J	3860 J	981 J	47200 J
Antimony	3	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U
Arsenic	25	4.7 JB	2.6 U	2.6 U	8.5 JB	11.2 J	130
Barium	1,000	179 B	163 B	157 B	708	735	2850
Beryllium	3	0.2 B	0.19 B	0.1 U	0.14 B	0.1 U	2.4 B
Cadmium	10	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Calcium	NC	126000	123000	106000	140000	145000	160000
Chromium	50	7.5 JB	7.3 JB	2.2 JB	331 J	2 UJ	109 J
Cobalt	NC	6.3 B	6.4 B	18.7 B	37 B	22.1 B	79.4
Copper	200	30.1	28.6	30.5	37.1	33.6	252
Iron	300	8350 J	8210 J	3200 J	12800 J	20500 J	197000 J
Lead	25	12.2 J	12.8	5.1 J	22.6	8.1 J	1980
Magnesium	35,000	26200	25900	19800	29500	40700	51700
Manganese	300	943	740	213	9110	863	17300
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2
Nickel	NC	15.8 U	34.1 B	15.8 U	31.2 B	20.6 B	142
Potassium	NC	17700	18000	6620	9000	4860 B	12400
Selenium	10	9.7 J	4.4 U	4.4 U	4.4 U	4.4 U	39.2 J
Silver	50	1.7 UJ	1.8 UJ	1.7 UJ	1.7 UJ	2.2 JB	1.7 UJ
Sodium	20,000	22000	21800	32500	76400	229000	24400
Thallium	4	5.4 U	14.2	5.4 U	25.8	5.4 U	57.7
Vanadium	NC	6.2 B	8.3 B	3.6 B	25 B	3.4 B	101
Zinc	300	32.8 J	28.9 J	19.8 JB	57.4 J	25.7 J	874

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-44
TAL Metals - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-2	FB-1214 Field Blank
Laboratory ID		2598801	2598803	2601403	2601404	2601405
Date Sampled		35046	35046	35047	35047	35047
Aluminum	NC	3520 J	219000 J	112000 J	29600 J	75.3 B
Antimony	3	6.2 U	18.2 B	6.2 U	6.2 U	6.2 U
Arsenic	25	5.8 JB	198	82.7	13.9 J	2.6 U
Barium	1,000	133 B	5730	3380	1840	3.6 U
Beryllium	3	0.1 U	10	5.4	2 B	0.12 B
Cadmium	10	0.8 U	1.6 JB	0.8 U	0.8 U	0.8 U
Calcium	NC	95400	695000	349000	142000	132 U
Chromium	50	4.5 JB	417 J	226 J	59.1 J	2 U
Cobalt	NC	4.6 B	264	150	47.7 B	1.3 U
Copper	200	18.1 B	1040	581	193	1.5 U
Iron	300	10400 J	865000 J	390000 J	92000 J	23.9 U
Lead	25	7.7 J	485	230	134	2.1 U
Magnesium	35,000	18500	225000	120000	44900	68.4 U
Manganese	300	438	22100	17800	10400	1 U
Mercury	2	0.2 U	1	0.92	0.5	0.2 U
Nickel	NC	15.8 U	545	302	84.8	15.8 U
Potassium	NC	8250	27500	19600	9580	398 U
Selenium	10	4.4 U	102 J	63.8 J	17.4 J	4.4 U
Silver	50	1.7 UJ	1.7 UJ	2.8 JB	2.1 JB	1.7 UJ
Sodium	20,000	43700	44900	49800	27300	746 U
Thallium	4	5.4 U	137	65	33.6	5.4 U
Vanadium	NC	6.8 B	371	206	62.4	1.3 B
Zinc	300	35.1 J	1530	930	297	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-45
Cyanide - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-11 Duplicate of MW-1	MW-2A	MW-3	MW-4A	MW-5S
Laboratory ID Date Sampled		2601409 12/15/95	2601410 12/15/95	2601402 12/14/95	2545003 12/15/95	2601401 12/14/95	2598802 12/13/95
Cyanide	100	R	R	R	R	R	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-45
Cyanide - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-5D	US-201	US-204	USMW-2	FB-1214 Field Blank 2601405 12/14/95
Laboratory ID Date Sampled	100	2598801 12/13/95	2598803 12/13/95	2601403 12/14/95	2601404 12/14/95	
Cyanide		10 U	10 U	R	R	R

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-46
Conventional Water Quality Parameters - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	MW-1	MW-11 Duplicate of MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Laboratory ID	2601409	2601410	2601402	2545003	2601401	2598802	2598801
Date Sampled	12/15/95	12/15/95	12/14/95	12/15/95	12/14/95	12/13/95	12/13/95
Biochemical Oxygen Demand	3 U	3 U	7 J	10	3 UJ	3 U	3 U
Chemical Oxygen Demand	38	23	43	14	96	60	34
Chloride	51	59	141	150	157	4	104
Hardness	453	450	448	461	567	566	286
Nitrate, Nitrogen	2.41	2.16	1.46	0.09	0.54	1.43	1.34
Oil and Grease	1 U	1 U	1 U	1 U	7	1 U	1 U
pH (unitless)	6.90	6.80	7.26	6.88	6.92	7.98	7.94
Sulfate	95	87	87	74	9.7	25	42
Sulfide	2	1.7	2.1	5	3.4	1.2	0.2 U
Total Cyanide	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	560	600	650	590	1,400	368	445

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-46
Conventional Water Quality Parameters - Groundwater [Round II - December 1995]
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	US-201	US-204	USMW-2	FB-1214
Laboratory ID	2598803	2601403	2601404	Field Blank
Date Sampled	12/13/95	12/14/95	12/14/95	2601405
Biochemical Oxygen Demand	36 U	19 J	18 J	3 UJ
Chemical Oxygen Demand	760	3,980	98	6
Chloride	5	85	101	1 U
Hardness	1,670	1,340	529	1 U
Nitrate, Nitrogen	0.04 U	0.57	0.32	0.16
Oil and Grease	1 U	1 U	1 U	1 U
pH (unitless)	7.91	7.06	7.14	8.34
Sulfate	41	64	34	3 U
Sulfide	1.3	3.5	1.8	0.2 U
Total Cyanide	NA	NA	NA	NA
Total Dissolved Solids	451	580	380	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 10

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class G.A] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	45 UJ	25 U	10 U	10 U	10 U	10 U
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	9 J	10 U	10 U	6 J	10 U	2 J
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	13	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	67	10 U	10 U	39	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 2 of 10

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	1 J	10 U	10 U	5 J	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	20	10 U	10 U	49	10 U	10 U
Styrene	5	10 U	10 U	10 U	8 J	10 U	10 U
Xylene (total)	5	14	10 U	10 U	570 D	10 U	10 U
Volatiles TICs	NC	57 JN	35 JN	6 J	1430 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
 Page 3 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Laboratory ID Date Sampled		3259001 10/07/97	3258708 10/06/97	3258707 10/06/97	3258701 10/06/97	3255005 10/02/97	3255008 10/02/97
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 UJ	10 UJ
Acetone	50	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	5 J	5 J	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	3 J	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 4 of 10

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	2 J	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	62	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	39	10 U	10 U	10 U	10 U	10 U
Volatiles TICs	NC	653 JN	--	--	12 J	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 5 of 10

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 UJ	10 UJ
Acetone	50	10 U	10 U	41 U	10 U	10 U	10 U
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	9 J	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	14	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	69	280 D	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 6 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Laboratory ID Date Sampled	3258706 10/06/97	3258702 10/06/97	3255011 10/02/97	3259002 10/07/97	3255007 10/02/97	3255006 10/02/97	
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	1 J	1 J	21	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	22	1200 D	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	15	500 D	10 U	10 U
Volatiles TICs	NC	14 J	6 JN	33 JN	3380 J	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 7 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001
Laboratory ID Date Sampled	3255002 10/02/97	3259004 10/07/97	3259003 10/07/97	3260801 10/07/97	3259005 10/07/97	Field Blank 3255001 10/02/97	
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 UJ	10 U	10 U	10 U	10 U	2 JB
Acetone	50	10 U	10 U	10 U	10 U	11	32 J
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	2 J	2 J	4 J	3 J	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 8 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank
Laboratory ID Date Sampled	3255002 10/02/97	3259004 10/07/97	3259003 10/07/97	3260801 10/07/97	3259005 10/07/97	3255001 10/02/97	
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	2 J	10 U	16	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	52	36	1 J	3 J	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	42	13	4 J	1 J	10 U	10 U
Volatile TICs	NC	635 J	655 J	150 JN	496 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 9 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	FB-1006 Field Blank 3258709 10/06/97	TB-1001 Trip Blank 3255012 10/02/97	TB-1003 Trip Blank 3255705 10/03/97	TB-1006 Trip Blank 3258710 10/06/97	TB-1007 Trip Blank 3259006 10/07/97	TB-1008 Trip Blank 3260802 10/07/97
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	2 J	4 JB	12	2 J	8 JB	2 J
Acetone	50	5 J	10 U	15	10 U	10 U	10 U
Carbon Disulfide	NC	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NC	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-47
 TCL Volatile Organic Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 10 of 10

Sample ID	NYSDEC Water Quality Standards/ Guidance Values	FB-1006 Field Blank	TB-1001 Trip Blank	TB-1003 Trip Blank	TB-1006 Trip Blank	TB-1007 Trip Blank	TB-1008 Trip Blank
Laboratory ID	[Class GA] (ug/L)	3258709	3255012	3255705	3258710	3259006	3260802
Date Sampled		10/06/97	10/02/97	10/03/97	10/06/97	10/07/97	10/07/97
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	10 U	10 U	10 U	10 U	10 U	10 U
Volatile TICs	NC	--	--	--	--	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 12

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class G.A] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Laboratory ID		3255010	3255702	3258705	3255703	3255009	3255701
Date Sampled		10/01/97	10/03/97	10/06/97	10/03/97	10/02/97	10/03/97
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	10 U	10 U	54	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NC	10 U	10 U	10 U	31	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	25 U	26 U	25 U	26 U	25 U	26 U
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 2 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
2-Nitroaniline	5	25 U	26 U	25 U	26 U	25 U	26 U
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NC	10 U	10 U	3 J	10 U	10 U	1 J
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	26 U	25 U	26 U	25 U	26 U
Acenaphthene	20	10 U	2 J	16	4 J	10 U	4 J
2,4-Dinitrophenol	1	25 U	26 U	25 U	26 U	25 U	26 U
4-Nitrophenol	1	25 U	26 U	25 U	26 U	25 U	26 U
Dibenzofuran	NC	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50	1 J	10 U	1 J	10 U	10 U	2 J
4-Chlorophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50	10 U	10 U	1 J	2 J	10 U	2 J
4-Nitroaniline	5	25 U	26 U	25 U	26 U	25 U	26 U
4,6-Dinitro-2-methylphenol	1	25 U	26 U	25 U	26 U	25 U	26 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	26 U	25 U	26 U	25 U	26 U
Phenanthrene	50	10 U	10 U	10 U	2 J	2 J	6 J
Anthracene	50	10 U	10 U	10 U	10 U	10 U	1 J
Carbazole	NC	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	10 U	10 U	10 U	10 U	2 J	2 J
Pyrene	50	10 U	10 U	10 U	10 U	10 U	4 J
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-48
 TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 3 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	NC	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NC	10 U	10 U	10 U	10 U	10 U	10 U
Semi-volatile TICs	NC	25 J	--	25 J	379 JN	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
 TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 4 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	380 D	10 U	10 U	2 J	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NC	52	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 5 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NC	85 D	10 U	10 U	12	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	20	240 D	10 U	10 U	11	10 U	10 U
2,4-Dinitrophenol	1	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	NC	14	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50	10 U	10 U	10 U	10 U	10 U	3 J
4-Chlorophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50	120 D	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50	62	10 U	10 U	2 J	10 U	10 U
Anthracene	50	16	10 U	10 U	10 U	10 U	10 U
Carbazole	NC	1 J	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	6 J	10 U	10 U	4 J	10 U	10 U
Pyrene	50	7 J	10 U	10 U	8 J	10 U	10 U
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 6 of 12

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Laboratory ID		3259001	3258708	3258707	3258701	3255005	3255008
Date Sampled		10/07/97	10/06/97	10/06/97	10/06/97	10/02/97	10/02/97
Benzo(a)anthracene	0.002	1 J	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	NC	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NC	10 U	10 U	10 U	10 U	10 U	10 U
Semi-volatile TICs	NC	206 J	136 JN	65 JN	136 JN	--	29 J

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
 TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 7 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	9 J	18	6600 D	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NC	10 U	3 J	10 U	610 JD	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	25 U	25 U	26 U	25 U	25 U	25 U
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 8 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
2-Nitroaniline	5	25 U	25 U	26 U	25 U	25 U	25 U
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NC	10 U	10 U	10 U	8 J	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	26 U	25 U	25 U	25 U
Acenaphthene	20	10 U	4 J	10 U	310 JD	10 U	10 U
2,4-Dinitrophenol	1	25 U	25 U	26 U	25 U	25 U	25 U
4-Nitrophenol	1	25 U	25 U	26 U	25 U	25 U	25 U
Dibenzofuran	NC	10 U	10 U	10 U	4 J	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50	1 J	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50	10 U	2 J	10 U	64	10 U	10 U
4-Nitroaniline	5	25 U	25 U	26 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1	25 U	25 U	26 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	25 U	26 U	25 U	25 U	25 U
Phenanthrene	50	10 U	4 J	10 U	62	10 U	10 U
Anthracene	50	10 U	10 U	10 U	12	10 U	10 U
Carbazole	NC	10 U	10 U	10 U	2 J	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	10 U	10 U	10 U	8 J	10 U	10 U
Pyrene	50	10 U	1 J	10 U	10	10 U	10 U
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 9 of 12

Sample ID Laboratory ID Date Sampled	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Benzo(a)anthracene Chrysene bis(2-Ethylhexyl)phthalate Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	3258706 10/06/97	3258702 10/06/97	3255704 10/03/97	3259002 10/06/97	3255007 10/02/97	3255006 10/02/97
	0.002	10 U	10 U	2 J	10 U	10 U
	0.002	10 U	10 U	2 J	10 U	10 U
	50	1 J	2 J	10 U	3 J	1 J
	50	10 U	10 U	10 U	10 U	10 U
	0.002	10 U	10 U	10 U	10 U	10 U
	0.002	10 U	10 U	10 U	10 U	10 U
	ND	10 U	10 U	1 J	10 U	10 U
	0.002	10 U	10 U	10 U	10 U	10 U
	NC	10 U	10 U	10 U	10 U	10 U
NC	10 U	10 U	10 U	10 U	10 U	
Semi-volatile TICs	31 J	52 J	559 JN	400 J	--	--

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 10 of 12

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank	FB-1006 Field Blank
Laboratory ID Date Sampled		3255002 10/02/97	3259004 10/07/97	3259003 10/07/97	3260801 10/07/97	3259005 10/07/97	3255001 10/01/97	3258709 10/06/97
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	20	10	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-48
 TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 11 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank 3255001 10/01/97	FB-1006 Field Blank 3258709 10/06/97
2-Nitroaniline	5	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U
Dimethylphthalate	50	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Acenaphthylene	NC	10 U	20	20	10 UJ	13	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U
Acenaphthene	20	10 U	100 D	330 D	330 D	300 D	10 U	10 U
2,4-Dinitrophenol	1	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U
4-Nitrophenol	1	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U
Dibenzofuran	NC	10 U	8 J	4 J	13 J	9 J	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Diethylphthalate	50	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Fluorene	50	10 U	72	31	120 D	91 JD	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50	10 U	14	31	12 J	7 J	10 U	10 U
Anthracene	50	10 U	17	8 J	2 J	6 J	10 U	10 U
Carbazole	NC	10 U	1 J	1 J	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	10 U	18	6 J	2 J	7 J	10 U	10 U
Pyrene	50	10 U	29	8 J	3 J	10	10 U	10 U
Butylbenzylphthalate	50	10 U	10 U	10 U	R	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	R	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb)

TABLE E-48
TCL Semi-volatile Organic Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 12 of 12

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank 3255001 10/01/97	FB-1006 Field Blank 3258709 10/06/97
Benzo(a)anthracene	0.002	10 U	7 J	10 U	R	10 U	10 U	10 U
Chrysene	0.002	10 U	7 J	10 U	R	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	1 J	10 U	R	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	R	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002	10 U	2 J	10 U	R	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002	10 U	3 J	10 U	R	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	5 J	10 U	R	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	1 J	10 U	R	10 U	10 U	10 U
Dibenz(a,h)anthracene	NC	10 U	10 U	10 U	R	10 U	10 U	10 U
Benzo(g,h,i)perylene	NC	10 U	1 J	10 U	R	10 U	10 U	10 U
Semi-volatile TICs	NC	--	339 J	239 J	473 J	590 J	--	--

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb)

TABLE E-49
TCL Pesticide/PCB Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Laboratory ID		3255010	3255702	3258705	3255703	3255009	3255701
Date Sampled		10/02/97	10/03/97	10/06/97	10/03/97	10/02/97	10/03/97
alpha-BHC	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
beta-BHC	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
delta-BHC	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
gamma-BHC (Lindane)	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Heptachlor	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Aldrin	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Heptachlor epoxide	ND	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Endosulfan I	NC	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Dieldrin	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
4,4'-DDE	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
Endrin	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
Endosulfan II	NC	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
4,4'-DDD	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
Endosulfan sulfate	NC	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
4,4'-DDT	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
Methoxychlor	35	0.5 UJ	0.52 UJ	0.5 UJ	0.55 U	0.5 UJ	0.54 UJ
Endrin ketone	5	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
Endrin aldehyde	5	0.1 UJ	0.1 UJ	0.1 UJ	0.11 U	0.1 UJ	0.11 UJ
alpha-Chlordane	0.1	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
gamma-Chlordane	0.1	0.05 UJ	0.052 UJ	0.05 UJ	0.055 U	0.05 UJ	0.054 UJ
Toxaphene	ND	5 UJ	5.2 UJ	5 UJ	5.5 U	5 UJ	5.4 UJ
Aroclor-1016	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ
Aroclor-1221	0.1	2 UJ	2.1 UJ	2 U	2.2 U	2 UJ	2.2 UJ
Aroclor-1232	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ
Aroclor-1242	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ
Aroclor-1248	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ
Aroclor-1254	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ
Aroclor-1260	0.1	1 UJ	1 UJ	1 U	1.1 U	1 UJ	1.1 UJ

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-49
TCL Pesticide/PCB Compounds - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 2 of 4

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8 3255008 10/02/97
alpha-BHC	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
beta-BHC	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
delta-BHC	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Heptachlor	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Aldrin	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Heptachlor epoxide	ND	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Endosulfan I	NC	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Dieldrin	ND	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDE	ND	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Endrin	ND	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Endosulfan II	NC	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDD	ND	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Endosulfan sulfate	NC	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDT	ND	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Methoxychlor	35	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ
Endrin ketone	5	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Endrin aldehyde	5	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
gamma-Chlordane	0.1	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Toxaphene	ND	5 U	5 UJ	5 U	5 U	5 UJ	5 UJ
Aroclor-1016	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1221	0.1	2 UJ	2 U	2 U	2 UJ	2 UJ	2 UJ
Aroclor-1232	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1242	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1248	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1254	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1260	0.1	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-49
 TCL Pesticide/PCB Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 3 of 4

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
alpha-BHC	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
beta-BHC	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
delta-BHC	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Heptachlor	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Aldrin	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Heptachlor epoxide	ND	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Endosulfan I	NC	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Dieldrin	ND	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDE	ND	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
Endrin	ND	0.1 UJ	0.1 UJ	0.058 J	0.1 U	0.1 UJ	0.1 UJ
Endosulfan II	NC	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDD	ND	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
Endosulfan sulfate	NC	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
4,4'-DDT	ND	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
Methoxychlor	35	0.5 UJ	0.5 UJ	0.56 UJ	0.5 U	0.5 UJ	0.5 UJ
Endrin ketone	5	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
Endrin aldehyde	5	0.1 UJ	0.1 UJ	0.11 UJ	0.1 U	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
gamma-Chlordane	0.1	0.05 UJ	0.05 UJ	0.056 UJ	0.05 U	0.05 UJ	0.05 UJ
Toxaphene	ND	5 UJ	5 UJ	5.6 UJ	5 U	5 UJ	5 UJ
Aroclor-1016	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	0.1	2 U	2 UJ	2.2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	0.1	1 U	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-49
 TCL Pesticide/PCB Compounds - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 4 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank 3255001 10/01/97	FB-1006 Field Blank 3258709 10/06/97
alpha-BHC	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	ND	0.05 UJ	0.05 U	0.05 UJ	R	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	NC	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDDD	ND	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	NC	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ND	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	35	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
Endrin ketone	5	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	5	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	0.1	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.1	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	ND	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Aroclor-1016	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	0.1	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	0.1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-50
TAL Metals - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Laboratory ID Date Sampled		3255010 10/02/97	3255702 10/03/97	3258705 10/06/97	3255703 10/03/97	3255009 10/02/97	3255701 10/03/97
Aluminum	NC	25400 J	54 B	67 B	58.6 B	501 J	94.1 B
Antimony	3	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	5.8 B
Arsenic	25	27.7 J	2.7 U	2.7 U	6 JB	2.7 UJ	2.7 U
Barium	1,000	439	99.5 B	142 B	287	190 B	71.3 B
Beryllium	3	1.5 B	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Cadmium	10	1.1 B	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Calcium	NC	121000	82500	111000	114000	71800	77600
Chromium	50	93.1	3.6 B	3.8 B	2.6 B	3.1 B	3.6 B
Cobalt	NC	52.7	1.8 U	1.8 U	2.4 B	2.4 B	2.1 B
Copper	200	182	2 U	2 U	2 U	10.7 B	2 U
Iron	300	69500	49.9 B	52.1 B	6390	1380	175
Lead	25	58.3	1.6 U	1.6 U	1.6 U	5.7 J	1.6 U
Magnesium	35,000	32400	15200	20800	26700	11400	13100
Manganese	300	16900	24.8	45	678	433	173
Mercury	2	0.16 B	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nickel	NC	91.6	1.6 U	1.7 B	3.5 B	3.9 B	2.3 B
Potassium	NC	6670	3770 B	4150 B	3990 B	2310 B	3500 B
Selenium	10	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Silver	50	1.6 B	1.8 B	2.2 JB	1.3 B	1.7 B	2.2 B
Sodium	20,000	14300 J	50100 J	60900	123000 J	19900 J	49400 J
Thallium	4	4.4 JB	3.9 U	3.9 U	3.9 U	7.2 JB	3.9 U
Vanadium	NC	42.4 B	1.7 U	1.7 U	1.7 U	2.1 B	1.7 U
Zinc	300	269	4.1 U	14.5 B	4.1 U	22.4	4.1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-50
 TAL Metals - Groundwater [Round III - October 1997]
 Troy (Smith Avenue) Site
 Page 2 of 4

Sample ID Laboratory ID Date Sampled	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Aluminum	NC	1620 J	261	373	118 B	48.1 B	49.5 B
Antimony	3	3 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U
Arsenic	25	2.4 U	2.7 U	2.7 U	2.7 U	2.7 UJ	2.7 UJ
Barium	1,000	353	102 B	124 B	126 B	129 B	137 B
Beryllium	3	0.6 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Cadmium	10	0.3 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U
Calcium	NC	108000	114000	138000	98400	53000	51900
Chromium	50	7.7 B	3.2 B	4.4 B	3.5 B	2.8 B	1.8 B
Cobalt	NC	2.8 B	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Copper	200	9.5 B	2 U	2.4 B	2 U	4.4 B	4.6 B
Iron	300	5390	900	1160	197	741	741
Lead	25	2.3 B	1.6 U	1.8 B	1.8 B	1.6 U	1.6 U
Magnesium	35,000	21100	22000	26700	19700	10500	10300
Manganese	300	726	94.1	126	574	743	727
Mercury	2	0.06 B	0.04 U	0.04 U	0.04 U	0.04 U	0.05 B
Nickel	NC	7.1 B	1.6 U	3 B	1.6 B	1.6 U	2 B
Potassium	NC	5570	4850 B	5920	4150 B	3400 B	3360 B
Selenium	10	2.3 U	2.8 U	2.8 U	2.8 U	3.4 JB	2.8 U
Silver	50	0.8 U	1.3 JB	1.7 JB	1.6 JB	1.2 U	1.8 B
Sodium	20,000	61800	87000	106000	63700	10800 J	11400 J
Thallium	4	2.6 U	3.9 U	3.9 U	3.9 U	3.9 U	6.8 JB
Vanadium	NC	3 B	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Zinc	300	R	4.6 B	14.6 B	13 B	10.1 B	13.6 B

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-50
TAL Metals - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 3 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Laboratory ID Date Sampled							
Aluminum	NC	12500	57.8 B	525 J	2810 J	404 J	408 J
Antimony	3	4.6 U	4.6 U	4.6 U	3 U	4.6 U	4.6 U
Arsenic	25	16.4	2.7 U	2.7 U	2.6 B	2.7 UJ	2.7 UJ
Barium	1,000	293	150 B	2790	3160	3750	1450
Beryllium	3	0.23 B	0.08 U	0.08 U	0.6 U	0.08 U	0.08 U
Cadmium	10	0.5 UJ	0.5 UJ	0.5 UJ	0.3 U	1.1 B	0.93 B
Calcium	NC	131000	141000	612000	93900	27600	10500
Chromium	50	26	2.6 B	4.9 B	5.3 B	1.4 B	2.1 B
Cobalt	NC	13.9 B	1.8 U	1.8 U	4.4 B	2.5 B	1.8 U
Copper	200	42.8	3.2 B	2 U	1.5 U	6.9 B	9.9 B
Iron	300	31400	882	136	5420	950	498
Lead	25	50	1.6 U	1.6 U	2.4 B	1.6 U	1.9 JB
Magnesium	35,000	24800	27000	326 B	20000	7640	2680 B
Manganese	300	1800	734	1 B	355	177	52.3
Mercury	2	0.41	0.04 U	0.04 U	0.04 U	0.04 B	0.04 U
Nickel	NC	30 B	1.6 U	1.6 U	5.6 B	1.6 U	1.6 U
Potassium	NC	6590	5450	407000	7170	11100	10200
Selenium	10	2.8 U	2.8 U	2.8 U	2.6 B	2.8 U	2.8 U
Silver	50	1.2 B	1.4 JB	1.2 U	0.8 U	1.2 B	1.2 U
Sodium	20,000	96200	79800	434000 J	63500	220000 J	163000 J
Thallium	4	3.9 U	3.9 U	3.9 U	2.6 U	5.6 JB	6.5 JB
Vanadium	NC	23.1 B	1.7 U	1.7 U	5.3 B	1.7 U	2.9 B
Zinc	300	116	5.5 B	4.9 B	R	35.9	42.7

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-50
TAL Metals - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 4 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001 Field Blank 3255001 10/01/97	FB-1006 Field Blank 3258709 10/06/97
Aluminum	NC	385 J	109000 J	672 J	303	168 B	34.8 U	39.1 B
Antimony	3	4.6 U	22.2 B	3 U	4.6 U	3 U	4.6 U	4.6 U
Arsenic	25	2.7 UJ	158	2.4 U	2.7 U	2.4 B	2.7 UJ	2.7 U
Barium	1,000	81.7 B	2550	265	109 B	253	5.3 U	5.3 U
Beryllium	3	0.08 U	5.4	0.6 U	0.08 U	0.6 U	0.08 U	0.08 U
Cadmium	10	0.5 U	0.71 B	0.3 U	0.5 UJ	0.3 U	0.5 U	0.5 UJ
Calcium	NC	69700	285000	103000	95300	103000	185 B	341 B
Chromium	50	5.4 B	212	4.7 B	5.6 B	2.5 B	1 U	1 U
Cobalt	NC	1.8 U	120	2.2 U	1.8 U	2.2 U	1.8 U	1.8 U
Copper	200	4.2 B	431	1.5 U	2 U	1.5 U	2 U	2 U
Iron	300	807	311000	3230	465	1370	22.4 U	22.4 U
Lead	25	1.6 U	212	1.9 U	2 B	1.9 U	1.9 JB	1.6 U
Magnesium	35,000	13400	113000	21000	17500	18700	160 U	160 U
Manganese	300	550	9630	1000	390	561	0.68 B	0.4 U
Mercury	2	0.04 U	0.55	0.04 U	0.1 B	0.04 U	0.04 U	0.04 U
Nickel	NC	4.2 B	264	4.7 B	3.9 B	3.1 B	1.6 U	1.6 U
Potassium	NC	3050 B	21300	5250	4490 B	5690	173 U	173 U
Selenium	10	3.5 JB	2.3 U	2.3 U	2.8 U	2.3 U	3.4 JB	2.8 U
Silver	50	1.2 U	0.8 U	0.8 U	R	0.8 U	1.2 U	R
Sodium	20,000	18000 J	54100	62000	65000	66300	458 U	458 U
Thallium	4	7.3 JB	15.7	2.6 U	3.9 U	2.6 U	13.2 J	3.9 U
Vanadium	NC	1.7 U	199	2.1 U	1.7 U	2.1 U	1.7 U	1.7 U
Zinc	300	10.1 B	R	13.5 B	6.3 B	8.5 B	8.5 B	4.1 U

See appendix introduction for abbreviations and data qualifiers.
Aqueous results are presented in ug/L (ppb).

TABLE E-51
Cyanide - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D
Laboratory ID Date Sampled		3255010 10/01/97	3255702 10/03/97	3258705 10/06/97	3255703 10/03/97	3255009 10/02/97	3255701 10/03/97
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-51
Cyanide - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 2 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-6	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8
Laboratory ID Date Sampled		3259001 10/07/97	3258708 10/06/97	3258707 10/06/97	3258701 10/06/97	3255005 10/02/97	3255008 10/02/97
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-51
Cyanide - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 3 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-9S	MW-9D	MW-12	MW-13	MW-14	MW-15
Laboratory ID Date Sampled		3258706 10/06/97	3258702 10/06/97	3258901 10/07/97	3259002 10/06/97	3255007 10/02/97	3255006 10/02/97
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-51
Cyanide - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 4 of 4

Sample ID	NYSDEC Water Quality Standards/ Guidance Values [Class GA] (ug/L)	MW-16	US-201	US-204	US-206	USMW-2	FB-1001	FB-1006
Laboratory ID Date Sampled		3255002 10/02/97	3259004 10/07/97	3259003 10/07/97	3260801 10/07/97	3259005 10/07/97	Field Blank 3255001 10/01/97	Field Blank 3258709 10/06/97
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U

See appendix introduction for abbreviations and data qualifiers.
 Aqueous results are presented in ug/L (ppb).

TABLE E-52
Conventional Water Quality Parameters - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 1 of 3

Sample ID	MW-1	MW-2A	MW-3	MW-4A	MW-5S	MW-5D	MW-6
Laboratory ID	3255010	3255702	3258705	3255703	3255009	3255701	3259001
Date Sampled	10/01/97	10/03/97	10/06/97	10/03/97	10/02/97	10/03/97	10/07/97
Biochemical Oxygen Demand	R	4 U	11.6 U	7.9 U	4.6 U	4 U	4.8 U
pH	7.06	7.13	6.97	7.09	7.21	7.2	7.71
Chloride	14.2	61.7	168	61.7	21.3	70.4	173
Hardness	434	269	364	395	226	248	355
Nitrate Nitrogen	0.26	2.1	0.18	2.1	0.67	7.7	7.65
Oil & Grease	1 U	10.6	2	10.6	2.2	1.88	3.1
Sulfate	23.4	23.6	22.3	22.8	15.3	23.2	24.1
Sulfide	3.21 J	0.2 U	1.64	1.72	2.28	3.76	2.72
Total Dissolved Solids	218	339	457	595	937	330	434

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm), with the exception of pH which is presented in standard units.

TABLE E-52
Conventional Water Quality Parameters - Groundwater [Round III - October 1997]
Troy (Smith Avenue) Site
Page 2 of 3

Sample ID	MW-7S	MW-72 Duplicate of MW-7S	MW-7D	MW-8	MW-82 Duplicate of MW-8	MW-9S	MW-9D	MW-12
Laboratory ID	3258708	3258707	3258701	3255005	3255008	3258706	3258702	3258901
Date Sampled	10/06/97	10/06/97	10/06/97	10/02/97	10/02/97	10/06/97	10/06/97	10/07/97
Biochemical Oxygen Demand	6.9 U	6.9 U	11.6 U	4.6 U	4.6 U	11.6 U	6.9 U	4.8 U
pH	7.03	7	7.21	6.75	7.01	6.88	7.09	12.2
Chloride	285	326	120	20.2	22.9	239	229	32.1
Hardness	375	453	327	175	172	428	463	1530
Nitrate Nitrogen	4.08 U	3.99	0.5	0.58 U	0.25 U	0.25	1.44	0.73
Oil & Grease	1	1.4	1 U	1 U	1	7.25	1.05	3.67
Sulfate	4.84	29.3	33.3	23.8	32.3	7.9	8.8	3.96
Sulfide	2.95	2.56	0.2 U	3.98	1.38	0.55	2.76	0.62
Total Dissolved Solids	640	560	417	179	173	579	566	5040

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm), with the exception of pH which is presented in standard units.

TABLE E-52
Conventional Water Quality Parameters - Groundwater | Round III - October 1997 |
Troy (Smith Avenue) Site
Page 3 of 3

Sample ID	MW-13	MW-14	MW-15	MW-16	US-201	US-204	US-206	USMW-2
Laboratory ID	3259002	3255007	3255006	3255002	3259004	3259003	3260801	3259005
Date Sampled	10/06/97	10/02/97	10/02/97	10/02/97	10/07/97	10/07/97	10/07/97	10/07/97
Biochemical Oxygen Demand	20.8	10.5	4.6 U	4.6 U	20.4	4.8 U	4.8 U	4.8 U
pH	7.14	7.31	8.85	6.95	7.55	7.14	7.18	7.57
Chloride	163	125	66.7	36.4	187	138	165	148
Hardness	317	100	37.3	229	1170	344	310	333
Nitrate Nitrogen	0.5	0.26	0.48	0.36	0.35	5.45	0.39 U	0.2
Oil & Grease	3.67	1.1	1.55	1.1	1.21	3.6	1	2.2
Sulfate	7.03	3 U	27.5	34	31.5	24.1	56.3	24.1
Sulfide	0.2 U	1.86	1.26	0.42	3.93	0.2 U	6.48	3.37
Total Dissolved Solids	5100	536	380	238	399	4210	434	4140

See appendix introduction for abbreviations and data qualifiers.
 Results are presented in mg/L (ppm), with the exception of pH which is presented in standard units.

TABLE E-53
BTEX Compounds - Air Samples
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	VO-01	VO-02	VO-03	VO-04	VO-01	VO-02	VO-03	VO-04	VO-04	VO-04	VO-BK
Laboratory ID	VO-01	VO-02	VO-03	VO-04	VO-01	VO-02	VO-03	VO-04	VO-04	VO-04	VO-BK
Sampling Date	7/7/94	7/7/94	7/7/94	7/7/94	7/8/94	7/8/94	7/8/94	7/7/94	7/8/94	7/8/94	7/8/94
Units	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge	ug/badge
Benzene	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Toluene	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Ethylbenzene	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
m&p-Xylene	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
o-Xylene	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

TABLE E-53
BTEX Compounds - Air Samples
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	TPV001-F	TPV001-B	TPV002-F	TPV002-B	TPV003-F	TPV003-B	TPV004-F	TPV004-B	TPVOBL-F	TPVOBL-B
Laboratory ID	2536001	2536001	2536002	2536002	2536003	2536003	2536004	2536004	2536005	2536005
Sampling Date	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95
Units	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube	ug/tube
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-Xylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

TABLE E-54
PAH Compounds - Air Samples
Troy (Smith Avenue) Site
Page 1 of 2

Sample ID	PAH-01AB	PAH-02AB	PAH-03AB	PAH-01AB	PAH-02AB	PAH-03AB	PAH-01AB	PAH-02AB	PAH-03AB	PAH-BKAB
Laboratory ID	PAH-01AB	PAH-02AB	PAH-03AB	PAH-01AB	PAH-02AB	PAH-03AB	PAH-01AB	PAH-02AB	PAH-03AB	PAH-BKAB
Sampling Date	07/07/94	07/07/94	07/07/94	07/08/94	07/07/94	07/07/94	07/08/94	07/08/94	07/08/94	07/08/94
Units	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample
Acenaphthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acenaphthylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(a)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(a)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(b)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(e)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(g,h,i)perylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(k)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chrysene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibenz(a,h)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluorene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Indeno(1,2,3-cd)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Phenanthrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE E-54
PAH Compounds - Air Samples
Troy (Smith Avenue) Site
Page 2 of 2

Sample ID	TPPH-01	TPPH-02	TPPH-03	TPPH-04	TPPH-BL
Laboratory ID	2536006	2536007	2536008	2536009	2536010
Sampling Date	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95
Units	ug/sample	ug/sample	ug/sample	ug/sample	ug/sample
Acenaphthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acenaphthylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(a)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(a)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(b)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(e)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(g,h,i)perylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo(k)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chrysene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibenz(a,h)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluorene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Indeno(1,2,3-cd)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Phenanthrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

See appendix introduction for abbreviations and data qualifiers.

APPENDIX F-1
DOCUMENTATION FOR SELECTION OF CERCLA-BASED
CHEMICALS OF POTENTIAL CONCERN

F-1 DOCUMENTATION FOR SELECTION OF CERCLA-BASED CHEMICALS OF POTENTIAL CONCERN

This section documents the CERCLA-based process used in the identification of the chemicals of potential concern (COPCs) for applicable media within each of the Areas of Concern: the NMPC property, the ACOE property, the off-site (Douw Street) property, and the Hudson River. The general process for COPC selection, as defined by the USEPA in RAGS Part A (USEPA, 1989), includes:

- ◆ Compilation of data sets from validated analytical results collected from each medium and depth range, where appropriate. The validation qualifiers and the rules used to interpret the data for this assessment presented below:

Validation Qualifier	Meaning	Action
U	Compound not detected at detection limits.	Replace with half the sample-specific detection/quantitation limit. If quantitation limit is unusually high*, do not enter into the risk assessment database.
J	Compound value is estimated.	Enter the estimated value into the database.
R	Compound value is rejected and deemed unusable.	Not to be used; not entered into database
B (organics)	Compound was also detected in an associated blank sample.	Enter the value into the database, if greater than the quantitation limit AND greater than 10x (for common laboratory contaminants) or 5x (for other constituents) the blank concentration value.
B (inorganics)	Analyte value is less than the required method detection limit but greater than the instrument detection limit.	Enter the value into the database.
E	Compound concentration exceeds the calibration range.	Enter the value into the database.
D	Compound value reported is from a dilution analysis.	Enter the value into the database.
N	Presumptive evidence exists for the presence of compound.	Used for tentatively identified compounds (TICs), which are not entered into the database.
P	A pesticide/Aroclor compound had a greater than 25 percent difference for the detected concentration between two GC columns.	Enter the value into the database.
NA	Not analyzed/not available.	No value entered into the database.

* **NOTE:** An "unusually high" quantitation limit occurs when the quantitation limit is greater than twice the maximum detected value for a constituent in that matrix/sample type, provided that the maximum detected value is greater than the quantitation limit

- ◆ Identification of duplicate samples and averaging of their results;
- ◆ Removal of results associated with non-detects at unusually high detection limits (as defined in Section 5.3.2 of RAGS Part A) from the risk assessment data set;
- ◆ Elimination of compounds that were indicated to be present only because of laboratory contamination;
- ◆ Identification of compound sets detected in each medium and appropriate depth range, and compilation of their frequency of detection, and minimum and maximum detected concentrations;
- ◆ Elimination of essential human nutrients from each data set;
- ◆ Comparison of the maximum detected concentrations to the local measured background values of the same parameter in the same medium and depth range, if appropriate, as defined by the background upper tolerance limit (see below for details on calculation); and
- ◆ Consideration of any other factors (i.e., low frequency of detection (1 in 20) or low maximum and average detection levels relative to the sample quantitation limit) which support the indicated presence or absence of a particular compound in that medium and depth range.

For comparison of analyte levels to background conditions, Background Upper Tolerance Limits (BUTLs), equivalent to the upper 95 percent confidence limit of the sample mean, were calculated (see Equation F-1-1) for naturally-occurring compounds in each medium, based on available samples from areas considered to be unimpacted. The BUTL is designed to represent the maximum concentration of 95 percent of the background population. The proportion of the population is referred to as coverage and the confidence level is referred to as the tolerance coefficient.

Equation F-1-1: Calculation of the Background Upper Tolerance Limit

$$\text{BUTL} = \bar{x} + ks$$

where

BUTL = Background Upper Tolerance Limit

\bar{x} = mean of background sample concentrations

k = constant based on number of samples, the tolerance coefficient ($\alpha = 0.05$), and coverage (95%)

s = standard deviation of the background sample concentrations

The calculation of the BUTL assumes that the analytical data are normally distributed. The lognormally distributed laboratory data were transformed by taking the natural logarithm of the data to yield a data set that more closely approximate a normal distribution. Logarithmically transformed BUTLs calculated in this manner were transformed back for use in the analysis and

presentation in this report. Additional information on tolerance limits, intervals and values of k is provided in USEPA (1992) and Guttman (1970).

For screening analytes against background conditions, the maximum level or concentration of each analyte was compared to the respective BUTL. If the maximum site concentration of an analyte was less than the respective BUTL, the compound was considered to be within the range of background levels and was not considered a COPC. However, given that the BUTL only defines 95 percent of the background samples, it is possible that some samples will exceed the BUTL, even though they are part of the background condition. This will occur more frequently for areas with higher numbers of samples.

For compounds for which a BUTL could, or should not be calculated (due to an insufficient number of background samples or the fact that the compound is not a naturally-occurring constituent), either the maximum detected background level or the non-detect sample quantitation limit for that compound characteristic of good laboratory procedure and practice was used as a comparative benchmark concentration for screening purposes.

Two surface soil locations, SS-18 and SS-19, were identified as representative of Site-wide background surface soil conditions. Neither of these samples was analyzed for naturally occurring analytes (metals) and no background concentrations were established for the surface soil. All naturally occurring analytes which exceeded the method detection limit were retained as COPCs.

Seven subsurface soil samples (SS-8, SS-9, SS-10, SS-18, SS-19, MW-1, MW-8 and MW-15) were considered to be representative of Site-wide background subsurface soil conditions. Background samples were obtained from three rounds of sampling in January 1995, February 1995 and October 1997. The BUTLs were calculated using lognormally distributed data and are presented below.

Summary of the Natural Log Background Upper Tolerance Limit for Metals from the Subsurface Soil		
Compound	Natural Log of BUTL	BUTL (mg/kg)
Aluminum	9.630	15209
Antimony	4.103	60.5
Arsenic	2.496	12.1
Barium	6.600	735
Beryllium	0.361	1.4
Cadmium	1.074	2.9
Calcium	11.694	119811
Chromium (Total)	3.456	31.7
Cobalt	2.647	14.1
Copper	6.775	876
Iron	10.589	39707
Lead	9.526	13714
Magnesium	9.233	10229
Manganese	7.192	1329
Mercury	1.949	7.0
Nickel	3.460	31.8
Potassium	7.747	2314
Selenium	1.434	4.2

Summary of the Natural Log Background Upper Tolerance Limit for Metals from the Subsurface Soil		
Compound	Natural Log of BUTL	BUTL (mg/kg)
Silver	5.186	179
Sodium	8.596	5411
Thallium	0.903	2.5
Vanadium	3.809	45.1
Zinc	7.074	1180

Four groundwater monitoring wells; MW-1, MW-15, MW-16, and MW-8; are considered to be representative of Site-wide local background groundwater conditions. The groundwater BUTL is based on the results of three rounds of background samples collected in January 1995, February 1995 and October 1997. Rounds 1 and 2 sampled MW-1 only, Round 3 sampled all four background wells. Because background constituents are naturally occurring and stable over time, the time difference between the sampling rounds was not considered in determining background concentrations. The results for MW-1 from the October 1997 sampling event were not included in the calculation of the BUTL for the following reasons:

- As noted in field logs, the well water contained large amounts silty, grey sediment.
- The results of the metals analyses were inconsistent with previous (Rounds 1 and 2) sampling results for the same well.
- The concentrations were consistently the highest detected values for the background results, in many cases 10 or more times greater.

For groundwater, all three rounds of sampling, with the above noted exception, were used to calculate the BUTLs which are presented below.

Summary of the Natural Log Background Upper Tolerance Limit for Metals in Groundwater		
Compound	Natural Log of BUTL	BUTL (mg/L)
Aluminum	13.195	538000
Antimony	1.639	5.15
Arsenic	2.905	18.3
Barium	10.041	22900
Beryllium	0.450	1.57
Cadmium	1.320	3.14
Calcium	15.169	3870000
Chromium	3.841	46.6
Cobalt	4.400	81.4
Copper	5.480	240
Iron	12.886	395000
Lead	5.501	245
Magnesium	13.212	547000
Manganese	11.472	96000
Mercury	0.256	1.30
Nickel	5.500	244
Potassium	12.406	244000

Summary of the Natural Log Background Upper Tolerance Limit for Metals in Groundwater		
Compound	Natural Log of BUTL	BUTL (mg/L)
Selenium	4.170	64.7
Silver	0.986	2.68
Sodium	14.627	2250000
Thallium	3.440	31.2
Vanadium	4.394	80.9
Zinc	5.618	275

Two surface water samples, SW-4 and SW-5, were identified as upstream of the Site and appropriate background sampling locations. The maximum detected concentrations of naturally occurring constituents were selected as the background concentration for sample comparison. For those constituents that were not detected in the background samples, the method detection limit, as described previously, was used for screening purposes.

Summary of the Background Concentration for Metals in Surface Water from the Hudson River	
Compound	Maximum Detected Background (mg/L)
Aluminum	61.6
Barium	20
Cadmium	0.5 U
Calcium	27300
Cobalt	1.8 U
Copper	4.3 B
Iron	147
Lead	1.6 U
Magnesium	4840 B
Manganese	31.5
Mercury	0.04U
Potassium	1140 B
Selenium	2.8 U
Sodium	13200
Vanadium	2.7 B
Zinc	7.3 B

NOTES:
 B = Estimated concentration below the Contract Required Detection Limit (inorganics).
 U = Not detected, as stated detection limit.

NMPC Property**Surface Soils**

Three surface soil samples were collected on the NMPC property from depths of 0 to 2 inches below ground surface (bgs) and analyzed for the surface soil investigation. Two samples were analyzed for BTEX, PAHs, cyanide, and total organic carbon (TOC), and the other was analyzed for volatile organics, semi-volatile organics, pesticides/PCBs, metals, cyanide and TOC (see below). Sample locations are shown in Figure 1-2. The identifiers for the surface soil samples included in the risk assessment database are:

NMPC SURFACE SOIL SAMPLE	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
SS-15		09/02/97	BTEX, PAHs, CN, TOC
SS-20		09/03/97	BTEX, PAHs, CN, TOC
SS-21		09/02/97	VOC, SVOC, P, M, CN, TOC

NOTES:
VOC: Volatile organic compounds
SVOC: Semi-volatile organic compounds
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
PAHs: Polycyclic Aromatic Hydrocarbons
TOC: Total Organic Carbon
M: Metals
P: Pesticides/PCBs
CN: Cyanide

The RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted. This procedure dictates a chemical-by-chemical evaluation of the reported high sample quantitation limits relative to the maximum detected concentration of the chemical in that medium. Any sample result with a detection limit for a chemical in a medium that was greater than twice this value (twice being related to the guidance presented in Section 5.3.3 of RAGS Part A) was removed from further consideration in the risk assessment. No surface soil samples for the NMPC property exhibited unusually high detection limits. Therefore, no surface soil results for the NMPC property were excluded from consideration on this basis.

A number of compounds analyzed for in the NMPC property surface soils were not detected in any of the samples collected. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the NMPC property surface soils. Table F-1-1 provides a summary of the chemicals detected in the NMPC property surface soils, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that chemicals that are: 1) essential human nutrients; 2) present at levels only slightly elevated above naturally occurring levels; and 3) toxic only at very high doses that would not be associated with conditions or exposures at the site, need not be considered in a baseline risk assessment. Chemical analytes typically meeting these criteria include inorganics such as iron, magnesium, calcium, potassium and sodium. As no

particular linkage to site operations has been made with any of the latter analytes and no site-specific health or exposure issues have been identified, these compound were excluded as COPCs for the NMPC property surface soils.

Some naturally occurring analytes were reported as estimated concentrations which exceeded the method detection limit but not the Contract Required Detection Limit (CRDL). The naturally occurring analytes which did not exceed the sample CRDL (antimony, beryllium, cadmium, mercury, and thallium) were not retained as COPCs.

Section 5.5 of RAGS Part A (USEPA, 1989) identifies a number of chemicals and families of compounds as common laboratory contaminants. They include: acetone, 2-butanone (MEK), methylene chloride, toluene, and the phthalate esters. In addition, carbon disulfide is known to be a possible laboratory contaminant at low concentrations at analytical facilities that also conduct non-target compound list (TCL) extractions and analyses, such as certain extractions of petroleum hydrocarbons. None of the detected compounds listed were identified as occurring in associated blanks. Therefore, none of the COPCs were eliminated as laboratory contaminants.

No analytes were excluded from the COPC data set on the basis of Tentatively Identified Compounds (TICs) or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, only the essential human nutrients (calcium, iron, magnesium, potassium and sodium) and inorganics present at levels above the detection limit but below the CRDL (i.e., antimony, beryllium, cadmium, mercury, and thallium) were eliminated as COPCs for the surface soil in the NMPC property.

Subsurface Soil

Sixty-six subsurface soil samples were collected on the NMPC property from depths of 0 to 52 feet bgs and analyzed. Three field duplicates were collected and analyzed for samples SB-4, MW-2A, and TP-4. The location of these samples can be seen in Figure 1-2. The identifiers, sample depths, and analyses performed for the subsurface soil samples are:

Summary of Detected Chemicals in the Subsurface Soil Samples from the NMPC Property			
NMPC SUBSURFACE SOIL SAMPLES	DUPLICATES	DEPTH (feet bgs.)	ANALYSES PERFORMED
SS-7		0 - 0.5	BTEX, PAH, CN
SB-2		6 - 8	VOC, SVOC, P, M, CN
SB-4		10 - 12	BTEX, PAH, CN
SB-4		28 - 30	BTEX, PAH, CN
SB-4	SB-14	38 - 40	BTEX, PAH, CN
SB-4		50 - 52	BTEX, PAH, CN
SB-6		12 - 14	BTEX, PAH, CN
SB-6		22 - 24	BTEX, PAH, CN
SB-6		32 - 34	VOC, SVOC, P, M, CN

Summary of Detected Chemicals in the Subsurface Soil Samples from the NMPC Property			
NMPC SUBSURFACE SOIL SAMPLES	DUPLICATES	DEPTH (feet bgs.)	ANALYSES PERFORMED
SB-6		44 - 46	BTEX, PAH, CN
SB-7		14 - 16	VOC, SVOC, P, M, CN
SB-7		26 - 28	BTEX, PAH, CN
SB-7		34 - 36	BTEX, PAH, CN
SB-7		42 - 44	BTEX, PAH, CN
SB-8		2 - 3	BTEX, PAH, CN
SB-9		10 - 12	BTEX, PAH, CN
SB-9		22 - 24	VOC, SVOC, P, M, CN
SB-9		30 - 34	BTEX, PAH, CN
SB-9		48 - 50	BTEX, PAH, CN
SB-11		2 - 4	VOC, SVOC, P, M, CN
SB-11	SB-11 (74-76)	6 - 8	BTEX, PAH, CN, TOC
SB-11		40 - 42	VOC, SVOC, P, M, CN, TOC
SB-11		46 - 48	BTEX, PAH, CN, TOC
SB-13		2 - 4	BTEX, PAH, CN, TOC
SB-13		6 - 8	VOC, SVOC, P, M, CN, TOC
SB-14		2 - 4	BTEX, PAH, CN, TOC
SB-14		6 - 8	BTEX, PAH, CN, TOC
SB-14		38 - 40	BTEX, PAH, CN, TOC
SB-14		44 - 46	BTEX, PAH, CN, TOC
SB-15		2 - 4	BTEX, PAH, CN, TOC
SB-15		6 - 8	BTEX, PAH, CN, TOC
SB-17		2 - 4	BTEX, PAH, CN, TOC
SB-17		6 - 8	VOC, SVOC, P, M, CN, TOC
SB-19		2 - 4	BTEX, PAH, CN, TOC
SB-19		6 - 8	BTEX, PAH, CN, TOC
SB-20		2 - 4	BTEX, PAH, CN, TOC
SB-20		6 - 8	BTEX, PAH, CN, TOC
MW-2		10 - 12	VOC, SVOC, P, M, CN, TOC
MW-2A		26 - 28	BTEX, PAH, CN, TOC
MW-2A		34 - 36	BTEX, PAH, CN, TOC
MW-2A	MW-2A D	42 - 44	BTEX, PAH, CN, TOC
MW-2A		44 - 46	VOC, SVOC, P, M, CN, TOC
MW-3		34 - 36	VOC, SVOC, P, M, CN, TOC
MW-4		10 - 12	BTEX, PAH, CN, TOC
MW-4		20 - 22	BTEX, PAH, CN, TOC
MW-4A		27 - 29	VOC, SVOC, P, M, CN, TOC
MW-4A		34 - 36	BTEX, PAH, CN, TOC
MW-4A		42 - 44	BTEX, PAH, CN, TOC
MW-6		10 - 12	BTEX, PAH, CN, TOC
MW-6		26 - 28	BTEX, PAH, CN, TOC
MW-6		36 - 38	BTEX, PAH, CN, TOC
MW-6		42 - 44	VOC, SVOC, P, M, CN, TOC

Summary of Detected Chemicals in the Subsurface Soil Samples from the NMPC Property			
NMPC SUBSURFACE SOIL SAMPLES	DUPLICATES	DEPTH (feet bgs.)	ANALYSES PERFORMED
MW-7D		4 - 6	BTEX, PAH, CN, TOC
MW-7D		6 - 8	BTEX, PAH, CN, TOC
MW-7D	MW-7D (74-76)	42 - 44	VOC, SVOC, P, M, CN, TOC
MW-7D		50 - 52	BTEX, PAH, CN, TOC
MW-13		2 - 4	BTEX, PAH, CN, TOC
MW-13		4 - 6	BTEX, PAH, CN, TOC
MW-14		4 - 6	BTEX, PAH, CN, TOC
MW-14		6 - 8	VOC, SVOC, P, M, CN, TOC
TP-2		4	VOC, SVOC, P, M, CN, TOC
TP-4	TP-4D	1	VOC, SVOC, P, M, CN, TOC
TP-4		3	VOC, SVOC, P, M, CN, TOC
TP-4		6 - 6.5	VOC, SVOC, P, M, CN, TOC
TP-5		3	VOC, SVOC, P, M, CN, TOC
TP-5		1.5	VOC, SVOC, P, M, CN, TOC
NOTES:			
VOC: Volatile organic compounds		M: Metals	
SVOC: Semi-volatile organic compounds		P: Pesticides/PCBs	
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes		CN: Cyanide	
PAHs: Polycyclic Aromatic Hydrocarbons			
TOC: Total Organic Carbon			

The field duplicates and corresponding original samples for SB-4, MW-2A, and TP-4 were counted as one sample in the frequency of detection summary table for the NMPC property subsurface soil, as they each represent only one discrete sampling point. The average of the measured concentration for the original sample and duplicate was used to represent the analyte level at that sampling location.

The RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted, as previously described. Eight analytes [acetone, 2-butanone, tetrachloroethene, Aroclor-1260, naphthalene, dibenzofuran, diethylphthalate, and bis(2-ethylhexyl)phthalate] had unusually high detection limits. The following table provides a summary of the chemicals that exhibited high detection limits with respect to the subsurface soil samples, listed by class, and how many sample results for that chemical were rejected on the basis of the RAGS guidance

Summary of Chemicals that Exhibited Unusually High Detection Limits in the Subsurface Soil Samples from the NMPC Property			
Class /Chemical	Maximum Detected Level in the Subsurface Soil Samples (µg/kg)	High Detection Limit Cut-Off Value (µg/kg)	Frequency of Sample Result Exclusion Due to High Detection Limits
VOLATILES			
Acetone	63	>126 U	1
2-Butanone	28	>56 U	1
Tetrachloroethene	23	>46 U	1
SEMIVOLATILES			
Naphthalene	8800	>176 U	1
Dibenzofuran	1700	>3400 U	2
Diethylphthalate	510	>1020 U	7
bis(2-Ethylhexyl)phthalate	2000	>4000 U	1
PESTICIDES/PCBS			
Aroclor-1260	90	>180 U	3
NOTES:			
U = Not detected at the Contract Required Detection Limit			

A number of constituents analyzed for in the NMPC property subsurface soils were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the NMPC property subsurface soils. Table F-1-2 provides a summary of the chemicals detected in the NMPC property subsurface soils, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be excluded from a baseline risk assessment. Chemical analytes typically meeting this criterion include iron, magnesium, calcium, potassium and sodium. These essential human nutrients were excluded as COPCs for the NMPC property subsurface soils.

The maximum detected values of metals in the subsurface soil were compared to subsurface BUTLs. Aluminum, antimony, barium, beryllium, cadmium, copper, lead, mercury, selenium, silver, and zinc maximum detected concentrations were less than the BUTLs.

Five constituents (2-butanone, tetrachloroethene, endosulfan II, endrin ketone and cyanide) were detected at low frequency (1 in 20) and were eliminated as COPCs.

A review of the analytical data for the field and trip blanks associated with the NMPC property subsurface soil samples revealed the presence of methylene chloride and acetone in the blanks associated with subsurface soil samples SB-6 and MW-2. Methylene chloride and acetone were eliminated as a COPC for the subsurface soils.

The single detect of endosulfan II was qualified "JNP" which indicates that there was a greater than 25 percent difference in concentrations between the two columns. Endosulfan II is therefore a Tentatively Identified Compound (TIC) and is not retained as a COPC. No other analytes were

excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, the essential human nutrients (calcium, iron, magnesium, potassium and sodium) and inorganics present at levels consistent with background levels (aluminum, barium, beryllium, cadmium, copper, lead, manganese, mercury, selenium, silver, and zinc), the TICs (endosulfan II), those constituents detected at low frequency (2-butanone, tetrachloroethene, endosulfan II, endrin ketone, and cyanide) and two analytes (methylene chloride and acetone) associated with blank contamination, were eliminated as COPCs for the subsurface soil in the NMPC property.

Groundwater

As discussed previously in this section, groundwater samples were collected in October 1997 (Round 3) from eight monitoring wells on the NMPC property and analyzed. One field duplicate, associated with monitoring well MW-7S during the October 1997 (Round 3) sampling period, was collected and analyzed. The monitoring wells, sample identifiers, and sample dates for the groundwater samples are:

NMPC MONITORING WELL	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
MW-2A		10/03/97	VOC, SVOC, P, M, CN
MW-3		10/06/97	VOC, SVOC, P, M, CN
MW-4A		10/03/97	VOC, SVOC, P, M, CN
MW-6		10/07/97	VOC, SVOC, P, M, CN
MW-7S	MW-72	10/06/97	VOC, SVOC, P, M, CN
MW-7D		10/06/97	VOC, SVOC, P, M, CN
MW-13		10/06/97	VOC, SVOC, P, M, CN
MW-14		10/02/97	VOC, SVOC, P, M, CN

NOTES:
VOC: Volatile organic compounds
SVOC: Semi-volatile organic compounds
M: Metals
P: Pesticides/PCBs
CN: Cyanide

The location of each monitoring well is identified in Figure 1-2. Samples were analyzed for volatile organics, semi-volatile organics, pesticides/PCBs, metals and cyanide.

The field duplicate and corresponding original sample for monitoring well MW-7S were counted as one sample in the frequency of detection summary table for the NMPC property groundwater, as they each represent only one discrete sampling event. The average of the measured concentrations for the original sample and duplicate was used to represent the concentration for that sampling location.

No groundwater samples for the NMPC property exhibited unusually high detection limits, as defined previously. Therefore, no groundwater results for the NMPC property were excluded from consideration on the basis of unusually high detection limits.

A number of constituents analyzed for in the NMPC property groundwater were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated as COPCs for the NMPC property groundwater. Table F-1-3 provides a summary of the chemicals detected in the NMPC property groundwater, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be excluded from a baseline risk assessment. Chemical analytes typically meeting this criterion include iron, magnesium, calcium, potassium and sodium. Therefore, these essential human nutrients were excluded as COPCs for the NMPC property groundwater.

A review of the analytical data for the field and trip blanks associated with the NMPC property groundwater samples does not indicate a concern with laboratory contamination and no contaminants were eliminated solely on this basis. However, based on a low frequency of detection (i.e., 1 of 8 samples in the NMPC property groundwater), analytical concentrations less than the sample quantitation limit, and/or association as common laboratory contaminants, chloroform, diethylphthalate, bis(2-ethylhexyl)phthalate, and styrene were removed from consideration as ground water COPCs for the NMPC property.

The maximum detected concentrations of aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc in the NMPC property groundwater were less than the corresponding BUTL concentrations in the background groundwater samples. Consequently, these analytes were not retained as COPCs for groundwater in the NMPC property.

No analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, the essential human nutrients (calcium, iron, magnesium, potassium and sodium), inorganics present at concentrations consistent with background levels (aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc), and compounds infrequently detected at a concentration less than the sample quantitation limit and often present as laboratory contaminants (chloroform, diethylphthalate, bis(2-ethylhexyl)phthalate, and styrene) were eliminated as COPCs for groundwater in the NMPC property.

ACOE Property

Surface Soils

Four surface soil samples were collected on the ACOE property from depths of 0 to 2 inches bgs and analyzed for the surface soil investigation. Three samples were analyzed for BTEX, PAHs, cyanide, and TOC, and the other was analyzed for volatile organics, semi-volatile organics, pesticides/PCBs, metals, cyanide and TOC (see below). Sample locations are shown in Figure 1-2. The identifiers for the surface soil samples included in the risk assessment database are:

ACOE SURFACE SOIL SAMPLE	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
SS-12		09/03/97	BTEX, PAHs, CN, TOC
SS-13		09/03/97	BTEX, PAHs, CN, TOC
SS-14		09/03/97	BTEX, PAHs, CN, TOC
SS-17		08/12/97	VOC, SVOC, P, CN, TOC
NOTES:			
VOC: Volatile organic compounds		M: Metals	
SVOC: Semi-volatile organic compounds		P: Pesticides/PCBs	
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes		CN: Cyanide	
PAHs: Polycyclic Aromatic Hydrocarbons			
TOC: Total Organic Carbon			

As discussed previously, the RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted. No surface soil samples for the ACOE property exhibited unusually high detection limits. Therefore, no surface soil results for the ACOE property were excluded from consideration on this basis.

A number of compounds analyzed for in the ACOE property surface soils were not detected in any of the samples collected. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the ACOE property surface soils. Table F-1-4 provides a summary of the chemicals detected in the ACOE property surface soils, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that chemicals that are: 1) essential human nutrients; 2) present at levels only slightly elevated above naturally occurring levels; and 3) toxic only at very high doses that would not be associated with conditions or exposures at the site, need not be considered in a baseline risk assessment. Chemical analytes typically meeting these criteria include inorganics such as iron, magnesium, calcium, potassium and sodium. As no particular linkage to site operations has been made with any of the latter analytes and no site-specific health or exposure issues have been identified, these compound were excluded for the ACOE property surface soils.

Some naturally occurring analytes were reported as estimated concentrations which exceeded the method detection limit but not the Contract Required Detection Limit (CRDL). Antimony, beryllium, and cadmium were eliminated for the ACOE property surface soil on this basis.

Section 5.5 of RAGS Part A (USEPA, 1989) identifies a number of chemicals and families of compounds as common laboratory contaminants. They include: acetone, 2-butanone (MEK), methylene chloride, toluene, and the phthalate esters. In addition, carbon disulfide is known to be a possible laboratory contaminant at low concentrations at analytical facilities that also conduct non-target compound list (TCL) extractions and analyses, such as certain extractions of petroleum

hydrocarbons. None of the detected compounds listed were identified as occurring in associated blanks. Therefore, none of the COPCs were eliminated as laboratory contaminants.

Four analytes (pentachlorophenol, di-n-butylphthalate, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate) were identified at levels less than the CRDL and are not associated with the MGP site activities. These analytes were eliminated from consideration.

No analytes were excluded from the COPC data set on the basis of Tentatively Identified Compounds (TICs) or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, only the essential human nutrients (calcium, iron, magnesium, potassium and sodium) and inorganics present at levels below the CRDL (antimony, beryllium and cadmium) were eliminated as COPCs for the surface soil in the ACOE property.

Subsurface Soil

Thirty-six subsurface soil samples were collected in the ACOE property from depths of 0 to 48 feet bgs and analyzed. Two field duplicates were collected and analyzed for samples SB-10 and SS-4. The location of these samples can be seen in Figure 1-2. The identifiers, sample depths, and analyses performed for the subsurface soil samples are:

Summary of the Subsurface Soil Samples from the ACOE Property			
ACOE SUBSURFACE SOIL SAMPLES	DUPLICATES	DEPTH (feet bgs.)	ANALYSES PERFORMED
SS-1		0-0.5	VOC, SVOC, P, M, CN
SS-17		1-2	VOC, SVOC, P, M, CN, TOC
SB-3		18-20	VOC, SVOC, P, M, CN
SB-10	SB-20	6-8	VOC, SVOC, P, M, CN
SB-21		42-44	VOC, SVOC, P, M, CN, TOC
SB-22		24-26	VOC, SVOC, P, M, CN, TOC
MW-5		32-34	VOC, SVOC, M, CN
MW-5		50-52	VOC, SVOC, M, CN
SS-2		0-0.5	BTEX, PAH, CN
SS-3		0-0.5	BTEX, PAH, CN
SS-4	SS-14	0-0.5	BTEX, PAH, CN
SB-1		28-30	BTEX, PAH, CN
SB-1		34-36	BTEX, PAH, CN
SB-1		46-48	BTEX, PAH, CN
SB-3		8-10	BTEX, PAH, CN
SB-3		14-16	BTEX, PAH, CN
SB-10		4-6	BTEX, PAH, CN
SB-10		10-12	BTEX, PAH, CN
SB-16		4-6	BTEX, PAH, CN, TOC
SB-16		6-8	BTEX, PAH, CN, TOC
SB-18		2-4	BTEX, PAH, CN, TOC

Summary of the Subsurface Soil Samples from the ACOE Property			
ACOE SUBSURFACE SOIL SAMPLES	DUPLICATES	DEPTH (feet bgs.)	ANALYSES PERFORMED
SB-18	SB-18 (74-76)	4-8	BTEX, PAH, CN, TOC
SB-21		2-4	BTEX, PAH, CN, TOC
SB-21		4-8	BTEX, PAH, CN, TOC
SB-21		34-36	BTEX, PAH, CN, TOC
SB-22		2-4	BTEX, PAH, CN, TOC
SB-22		8-10	BTEX, PAH, CN, TOC
SB-22		38-40	BTEX, PAH, CN, TOC
MW-5		14-16	BTEX, PAH, CN
MW-5		39-40	BTEX, PAH, CN
MW-5		44-45	BTEX, PAH, CN
MW-12		4-6	BTEX, PAH, CN, TOC
MW-12		6-8	BTEX, PAH, CN, TOC
TP-1		4-8	VOC, SVOC, P, M, CN
TP-3		2-3	VOC, SVOC, P, M, CN
TP-3		6-8	VOC, SVOC, P, M, CN

NOTES:

VOC: Volatile organic compounds	M: Metals
SVOC: Semi-volatile organic compounds	P: Pesticides/PCBs
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes	CN: Cyanide
PAHs: Polycyclic Aromatic Hydrocarbons	
TOC: Total Organic Carbon	

The field duplicates and corresponding original samples for SB-10 and SS-4 were counted as one sample in the frequency of detection summary table for the ACOE property subsurface soil, as they each represent only one discrete sampling point. The average of the measured concentration for the original sample and duplicate was used to represent the analyte level at that sampling location.

The RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted, as previously described. Twelve analytes (acetone, 2-butanone, aldrin, 4,4'-DDE, 4,4'-DDT, endosulfan II, endrin, endrin aldehyde, endrin ketone, heptachlor epoxide, methoxychlor, and dibenz(a,h)anthracene) had unusually high detection limits. The following table provides a summary of the chemicals that exhibited high detection limits with respect to the subsurface soil samples, listed by class, and how many sample results for that chemical were rejected on the basis of the RAGS guidance.

Summary of Chemicals that Exhibited Unusually High Detection Limits in the Subsurface Soil Samples from the ACOE Property			
Class /Chemical	Maximum Detected Level in the Subsurface Soil Samples ($\mu\text{g}/\text{kg}$)	High Detection Limit Cut-Off Value ($\mu\text{g}/\text{kg}$)	Frequency of Sample Result Exclusion Due to High Detection Limits
VOLATILES			
Acetone	16	>32 U	3
2-Butanone	18	>36 U	3

Summary of Chemicals that Exhibited Unusually High Detection Limits in the Subsurface Soil Samples from the ACOE Property			
Class /Chemical	Maximum Detected Level in the Subsurface Soil Samples (µg/kg)	High Detection Limit Cut-Off Value (µg/kg)	Frequency of Sample Result Exclusion Due to High Detection Limits
SEMIVOLATILES			
Dibenz[a, h]anthracene	8700	>17400 U	2
PESTICIDES/PCBS			
Aldrin	3.6	>7.2 U	7
4,4'-DDE	6.1	>12.2 U	7
4,4'-DDT	10	>20 U	3
Endosulfan II	93	>186 U	3
Endrin	33	>66 U	3
Endrin aldehyde	5.1	10.2 U	6
Endrin ketone	9	>18 U	7
Heptachlor epoxide	16.85	>33.7 U	3
Methoxychlor	160	>320 U	
NOTES:			
U = Not detected at the Contract Required Detection Limit			

A number of constituents analyzed for in the ACOE property subsurface soils were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the ACOE property subsurface soils. Table F-1-5 provides a summary of the chemicals detected in the ACOE property subsurface soils, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be excluded from a baseline risk assessment. Chemical analytes typically meeting this criterion include iron, magnesium, calcium, potassium and sodium. These essential human nutrients were excluded as COPCs for the ACOE property subsurface soils.

A review of the analytical data for the field and trip blanks associated with the ACOE property subsurface soil samples indicated that none of the detected compounds listed were identified as occurring in associated blanks. Therefore, none of the COPCs were eliminated as solely on the basis of laboratory contaminants. However, two common laboratory contaminants (diethylphthalate and di-n-butylphthalate) were detected in 1 of 11 samples at concentrations less than the CRDL. These analytes were eliminated from consideration on this basis.

One analyte (1,1,1-trichloroethane) was eliminated on the basis of low frequency of detection (1 in 11), low concentration (less than CRDL) and not associated with site activities.

A comparison of the BUTLs calculated for subsurface soil analytes to the maximum detected subsurface analyte soil levels in the ACOE property is provided in Table F-1-5. The of the maximum detected levels of aluminum, antimony, barium, beryllium, cadmium, copper, lead, nickel, silver, vanadium, and zinc were less than the corresponding calculated BUTLs

Several pesticides (beta-BHC, aldrin, heptachlor, heptachlor epoxide, 4,4'-DDD, endrin ketone, and endrin aldehyde) were reported as TICs and were not retained as COPCs. No other analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, only the essential human nutrients (calcium, iron, magnesium, potassium and sodium) and inorganics present at levels consistent with background levels (aluminum, antimony, barium, beryllium, cadmium, copper, lead, nickel, silver, vanadium, and zinc), low concentration, low frequency, common laboratory contaminants (diethylphthalate and di-n-butylphthalate), low frequency of detection and low concentration (1,1,1-trichloroethane), and pesticide TICs (beta-BHC, aldrin, heptachlor, heptachlor epoxide, 4,4'-DDD, endrin ketone, and endrin aldehyde) were eliminated as COPCs for the subsurface soil in the ACOE property.

Groundwater

Groundwater samples were collected in October 1997 (Round 3) from seven monitoring wells in the ACOE property and analyzed. The monitoring wells, sample identifiers, and sample dates for the groundwater samples are:

ACOE PARCEL MONITORING WELL	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
MW-5S		10/02/97	VOC, SVOC, P, M, CN
MW-5D		10/03/97	VOC, SVOC, P, M, CN
MW-12		10/07/97	VOC, SVOC, P, M, CN
US-201		10/07/97	VOC, SVOC, P, M, CN
US-204		10/07/97	VOC, SVOC, P, M, CN
US-206		10/06/97	VOC, SVOC, P, M, CN
USMW-2		10/07/97	VOC, SVOC, P, M, CN

NOTES:
VOC: Volatile organic compounds
SVOC: Semi-volatile organic compounds
M: Metals
P: Pesticides/PCBs
CN: Cyanide

The location of each monitoring well is identified in Figure 1-2. Samples were analyzed for volatile organics, semi-volatile organics, pesticides/PCBs, inorganics and cyanide.

No groundwater samples for the ACOE property exhibited unusually high detection limits, as defined previously. Therefore, no groundwater results for the ACOE property were excluded from consideration on the basis of unusually high detection limits.

A number of constituents analyzed for in the ACOE property groundwater were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated as COPCs for the ACOE property groundwater. Table F-1-6 provides a summary of the chemicals detected in the ACOE property groundwater, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be excluded from a baseline risk assessment. Chemical analytes typically meeting this criterion include iron, magnesium, calcium, potassium and sodium. Therefore, these essential human nutrients were excluded as COPCs for the ACOE property groundwater.

A review of the analytical data for the field and trip blanks associated with the ACOE property groundwater samples does not indicate a concern with laboratory contamination and no contaminants were eliminated solely on this basis. However, based on: a low frequency of detection (i.e., 1 of 8 samples in the ACOE property groundwater), analytical concentration less than the sample quantitation limit, and association as common laboratory contaminant, diethylphthalate was removed from consideration as a groundwater COPC in the ACOE property.

Three analytes (acetone, 2-butanone, and chloroform) were eliminated on the basis of low frequency of detection, low concentration, and not associated with site activities.

The maximum detected concentrations of aluminum, barium, cadmium, lead, manganese, mercury, nickel, silver, thallium, and zinc in the ACOE property groundwater were less than the corresponding BUTL concentrations in the background groundwater samples. Consequently, these analytes were not retained as COPCs for groundwater in the ACOE property. Antimony was eliminated due to being reported at less than the CRDL.

No analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, only the essential human nutrients (calcium, iron, magnesium, potassium and sodium), inorganics present at concentrations consistent with background levels (aluminum, barium, cadmium, lead, manganese, mercury, nickel, silver, thallium, and zinc), and a compound infrequently detected at a concentration less than the sample quantitation limit and/or present as a laboratory contaminant (diethylphthalate, acetone, 2-butanone, and chloroform) were eliminated as COPCs for groundwater in the ACOE property.

Off-site (Douw Street)

Surface Soils

One surface soil sample was collected in the off-site (Douw Street) property from depths of 0 to 2 inches bgs and analyzed for the surface soil investigation. The sample was analyzed for BTEX, PAHs, cyanide and TOC (see below). The sample was not analyzed for metals. The sample location is shown in Figure 1-2. The identifier for the surface soil sample included in the risk assessment database is:

OFF-SITE SURFACE SOIL SAMPLE	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
SS-16		08/12/97	BTEX, PAHs, CN, TOC
NOTES: BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes PAHs: Polycyclic Aromatic Hydrocarbons TOC: Total Organic Carbon CN: Cyanide			

As discussed previously, the RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted. This surface soil sample did not exhibit unusually high detection limits. Therefore, no surface soil results for the off-site (Douw Street) property sample were excluded from consideration on this basis.

A number of compounds analyzed for in the off-site (Douw Street) property surface soils were not detected in this sample. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the off-site (Douw Street) property surface soils. Table F-1-7 provides a summary of the chemicals detected in the off-site (Douw Street) property surface soils, listed by class.

Section 5.5 of RAGS Part A (USEPA, 1989) identifies a number of chemicals and families of compounds as common laboratory contaminants. They include: acetone, 2-butanone (MEK), methylene chloride, toluene, and the phthalate esters. In addition, carbon disulfide is known to be a possible laboratory contaminant at low concentrations at analytical facilities that also conduct non-target compound list (TCL) extractions and analyses, such as certain extractions of petroleum hydrocarbons. None of the detected compounds listed were identified as occurring in associated blanks. Therefore, none of the COPCs were eliminated as laboratory contaminants.

No analytes were excluded from the COPC data set on the basis of Tentatively Identified Compounds (TICs) or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, none of the detected constituents were eliminated as COPCs for the surface soil in the off-site (Douw Street) property.

Subsurface Soil

Four subsurface soil samples were collected in the off-site (Douw Street) property from depths of 2 to 52 feet bgs below grade and analyzed. The location of these samples can be seen in Figure 1-2. The identifiers, sample depths, and analyses performed for the subsurface soil samples are:

Summary of the Subsurface Soil Samples from the Off-site (Douw Street) Property			
Samples	Duplicates	Depths (feet)	Analyses Performed
MW-9D		2-4	BTEX, PAH, CN, TOC
MW-9D		6-8	BTEX, PAH, CN, TOC
MW-9D		44-46	BTEX, PAH, CN, TOC
MW-9D		50-52	BTEX, PAH, CN, TOC
NOTES: VOC: Volatile organic compounds SVOC: Semi-volatile organic compounds BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes PAHs: Polycyclic Aromatic Hydrocarbons TOC: Total Organic Carbon M: Metals P: Pesticides/PCBs CN: Cyanide			

The RAGS Part A procedure for evaluating the analytical results associated with samples exhibiting unusually high detection limits was adopted, as previously described. No analytes had unusually high detection limits and no chemical was rejected on the basis of the RAGS guidance. A number of constituents analyzed for in the off-site (Douw Street) property subsurface soils were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from further consideration as COPCs for the off-site (Douw Street) property subsurface soils. Table F-1-8 provides a summary of the chemicals detected in the off-site (Douw Street) property subsurface soils, listed by class.

Section 5.5 of RAGS Part A (USEPA, 1989) identifies a number of chemicals and families of compounds as common laboratory contaminants. They include: acetone, 2-butanone (MEK), methylene chloride, toluene, and the phthalate esters. In addition, carbon disulfide is known to be a possible laboratory contaminant at low concentrations at analytical facilities that also conduct non-target compound list (TCL) extractions and analyses, such as certain extractions of petroleum hydrocarbons. None of the detected compounds listed were identified as occurring in associated blanks. Therefore, none of the COPCs were eliminated solely on the basis of laboratory contamination.

No other analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, none of the detected constituents were eliminated as COPCs for the subsurface soil in the off-site (Douw Street) property.

Groundwater

Groundwater samples were collected in October 1997 (Round 3) from two monitoring wells in the off-site (Douw Street) property and analyzed. The monitoring wells, sample identifiers, and sample dates for the groundwater samples are:

OFF-SITE MONITORING WELL	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
MW-9S		10/06/97	VOC, SVOC, P, M, CN
MW-9D		10/06/97	VOC, SVOC, P, M, CN
NOTES: VOC: Volatile organic compounds SVOC: Semi-volatile organic compounds M: Metals P: Pesticides/PCBs CN: Cyanide			

The location of each monitoring well is identified in Figure 1-2. Samples were analyzed for volatile organics, semi-volatile organics, pesticides/PCBs, inorganics and cyanide.

No groundwater samples for the off-site (Douw Street) property exhibited unusually high detection limits, as defined previously. Therefore, no groundwater results for the off-site (Douw Street) property were excluded from consideration on that basis.

A number of constituents analyzed for in the off-site (Douw Street) property groundwater were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated as COPCs for the off-site (Douw Street) property groundwater. Table F-1-9 provides a summary of the chemicals detected in the off-site (Douw Street) property groundwater, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be excluded from a baseline risk assessment. Chemical analytes typically meeting this criterion include iron, magnesium, calcium, potassium and sodium. Therefore, these essential human nutrients were excluded as COPCs for the off-site (Douw Street) property groundwater.

Section 5.5 of RAGS Part A (USEPA, 1989) identifies a number of chemicals and families of compounds as common laboratory contaminants. They include: acetone, 2-butanone (MEK), methylene chloride, toluene, and the phthalate esters. In addition, carbon disulfide is known to be a possible laboratory contaminant at low concentrations at analytical facilities that also conduct non-target compound list (TCL) extractions and analyses, such as certain extractions of petroleum hydrocarbons. Diethylphthalate and bis(2-ethylhexyl)phthalate were eliminated as COPCs on this basis.

The maximum detected concentrations of aluminum, arsenic, barium, beryllium, chromium, cobalt, copper, lead, manganese, mercury, nickel, silver, vanadium, and zinc in the off-site (Douw Street) property groundwater were less than the corresponding BUTL concentrations in the background groundwater samples. Consequently, these analytes were not retained as COPCs for groundwater in the off-site (Douw Street) property.

No analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, only the essential human nutrients (calcium, iron, magnesium, potassium and sodium), inorganics present at concentrations consistent with background levels (aluminum, arsenic, barium, beryllium, chromium, cobalt, copper, lead, manganese, mercury, nickel, silver, vanadium, and zinc), and compounds infrequently detected at, or below, the sample quantitation limit and often present as laboratory contaminants (diethylphthalate and bis(2-ethylhexyl)phthalate), were eliminated as COPCs for groundwater in the off-site (Douw Street) property.

Hudson River

Sediment

Sediment samples were collected from the Hudson River at a distance of at least 25 feet from the shore line. These sediments are never exposed to the surface, or otherwise available for human exposure. Therefore, sediment COPCs are not selected for the human health risk evaluation due to the lack of a complete exposure pathway.

Surface Water

Surface water samples were collected on September 22, 1997, from four downstream locations along the Hudson River. One field duplicate was collected and analyzed for sampling location SW-3. Sampling locations are shown in Figure 1-2. The sampling locations, sample identifiers, and sample dates for the surface water are:

SURFACE WATER SAMPLE	DUPLICATE	DATE SAMPLED	ANALYSES PERFORMED
SW-1		9/22/97	VOC, SVOC, P, M, CN
SW-2		9/22/97	VOC, SVOC, P, M, CN
SW-3	SW-7	9/22/97	VOC, SVOC, P, M, CN
SW-6		9/22/97	VOC, SVOC, P, M, CN
NOTES:			
VOC: Volatile organic compounds			
SVOC: Semi-volatile organic compounds			
M: Metals			
P: Pesticides/PCBs			
CN: Cyanide			

The field duplicate and corresponding original sample for sampling location SW-3 were counted as one sample in the frequency of detection summary table for the Hudson River surface water, as they represent only one discrete sampling event. The average of the measured concentrations for the original sample and duplicate was used to represent the concentration for that sampling location.

No surface water sample for the Hudson River exhibited unusually high detection limits as defined previously. Therefore, no surface water results for the Hudson River were removed from consideration on the basis of unusually high detection limits.

A number of compounds analyzed for in the Hudson River surface water were not detected in any of the samples. Based on this finding, there is no evidence to support an assumption that these chemicals are actually present. Consequently, these chemicals were eliminated from consideration as COPCs for the surface water. Table F-1-10 provides a summary of the chemicals detected in the surface water, listed by class.

Section 5.9.4 of RAGS Part A (USEPA, 1989) establishes that essential human nutrients may be eliminated from a baseline risk assessment. Chemical analytes typically meeting these criteria include iron, magnesium, calcium, potassium and sodium. Consequently, these essential human nutrients were excluded as COPCs for the Hudson River surface water.

A review of the available analytical data for the field and trip blanks associated with the Hudson River surface water samples does not indicate a concern with laboratory contamination, and no contaminants were eliminated from consideration solely on this basis. However, based on: a low frequency of detection (i.e., 1 of 4 samples in the Hudson River surface water); a level less than the CRDL; and known association as common laboratory contaminants, diethylphthalate and bis(2-

ethylhexyl)phthalate, were removed from consideration as surface water COPCs in the Hudson River.

Cadmium, copper, lead, and selenium were detected at less than half the CRDL and less than 20 percent above the corresponding background. Cadmium and selenium are less than the Federal Maximum Contaminant Levels (MCL) and copper and lead, which have no MCLs, are less than the EPA Drinking Water Standards (USEPA, 1996). On the basis of these comparisons, these constituents were eliminated as surface water COPCS.

Comparison of Maximum Detects from the Hudson River Surface Water to Surface Water ARARS		
Chemical	Maximum Detected Concentration (µg/L)	MCL or EPA Action Level* (µg/L)
Cadmium	0.58B	5.0
Copper	4.8B	1300*
Lead	2JB	15*
Selenium	3.8B	50

* EPA has set Action Levels, rather than MCLs, for copper and lead in drinking water.

No analytes were excluded from the COPC data set on the basis of TICs or known transformation or degradation products of the principal surface soil contaminants.

In summary of the previous findings and considerations, no COPCs were identified for the surface water in the Hudson River.

TABLE F-1-1
Summary of Detected Chemicals in the Surface Soil Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
VOLATILE ORGANICS				
No Detects				
SEMI-VOLATILE ORGANICS				
Acenaphthylene	1/3	57J	57J	NA
Phenanthrene	3/3	49J	270J	NA
Anthracene	2/3	43J	66J	NA
Carbazole	1/1	41J	41J	NA
Fluoranthene	3/3	86J	730	NA
Pyrene	3/3	68J	350	NA
Benzo(a)anthracene	3/3	38J	290J	NA
Chrysene	3/3	48J	340J	NA
bis(2-Ethylhexyl)phthalate	1/1	72J	72J	NA
Benzo(b)fluoranthene	3/3	38J	290J	NA
Benzo(k)fluoranthene	2/3	100J	380	NA
Benzo(a)pyrene	3/3	42J	340J	NA
Indeno(1,2,3-cd)pyrene	2/3	79J	94J	NA
Benzo(g,h,i)perylene	3/3	41J	110J	NA
PESTICIDES/PCBs				
4,4'-DDE	1/1	2.4J	2.4J	NA
Endrin	1/1	3.3JPN	3.3JPN	NA
4,4'-DDT	1/1	8.6JP	8.6JP	NA
alpha-Chlordane	1/1	1.4J	1.4J	NA
INORGANICS AND CYANIDE⁽¹⁾				
Aluminum	1/1	8340	8340	NA
Antimony	1/1	1.2JB	1.2JB	NA
Arsenic	1/1	5.1J	5.1J	NA
Barium	1/1	58.3	58.3	NA
Beryllium	1/1	0.34B	0.34B	NA
Cadmium	1/1	0.44B	0.44B	NA
Calcium	1/1	28700	28700	NA
Chromium	1/1	13.1	13.1	NA
Cobalt	1/1	7.3	7.3	NA
Copper	1/1	16.5	16.5	NA
Iron	1/1	18100	18100	NA
Lead	1/1	25	25	NA
Magnesium	1/1	6100	6100	NA
Manganese	1/1	420	420	NA
Mercury	1/1	0.06B	0.06B	NA
Nickel	1/1	14.8	14.8	NA
Potassium	1/1	1380	1380	NA
Sodium	1/1	96.1B	96.1B	NA
Thallium	1/1	0.84B	0.84B	NA
Vanadium	1/1	6.2	6.2	NA

TABLE F-1-1
Summary of Detected Chemicals in the Surface Soil Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
Zinc	1/1	30.9	30.9	NA

NOTES:
¹ = Units for inorganic analytes are in mg/kg.
 NA = Not applicable.
 U = Not detected at the Contract Required Detection Limit.
 J = Estimated concentration.
 B = Estimated concentration below the Contract Required Detection Limit (inorganics).
 P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns.
 N = Presumptive evidence exists for presence of compound.

TABLE F-1-2
Summary of Detected Chemicals in the Subsurface Soil Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
VOLATILE ORGANICS				
Methylene chloride	2/20	2J	9JB	NA
Acetone	7/19	5	63B	NA
2-Butanone	1/19	28	28	NA
Tetrachloroethene	1/19	23	23	NA
Benzene	7/65	2J	3500	NA
Toluene	12/65	1J	12000	NA
Ethylbenzene	5/65	1J	4900	NA
Xylenes (Total)	6/65	6J	14000	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	19/65	40J	8800J	NA
2-Methylnaphthalene	8/21	48J	9100	NA
Acenaphthylene	21/66	110J	40000	NA
Acenaphthene	14/66	43J	59000J	NA
Dibenzofuran	4/18	62J	1700J	NA
Diethylphthalate	1/12	510	510	NA
Fluorene	19/66	52J	70000	NA
Phenanthrene	32/66	39J	110000J	NA
Anthracene	21/66	57J	74000J	NA
Carbazole	2/20	120J	1000J	NA
Fluoranthene	35/66	41J	67000J	NA
Pyrene	35/66	39J	82000J	NA
Benzo(a)anthracene	27/66	88J	66000J	NA
Chrysene	31/66	43J	66000J	NA
bis(2-Ethylhexyl)phthalate	9/18	48J	2000B	NA
Benzo(b)fluoranthene	26/66	47J	21000J	NA
Benzo(k)fluoranthene	25/66	38J	37000J	NA
Benzo(a)pyrene	26/66	94J	56000J	NA
Indeno(1,2,3-cd)pyrene	19/66	85J	23000	NA
Dibenzo(a,h)anthracene	8/64	73J	9400	NA
Benzo(g,h,i)perylene	19/66	67J	29000J	NA
PESTICIDES/PCBs				
Aldrin	2/20	1JP	1.2JP	NA
Heptachlor epoxide	3/20	5.8JP	13.5JP	NA
4,4'-DDE	2/20	2.7JN	25JP	NA
Endrin	4/20	3.8JP	29	NA
Endosulfan II	1/20	2.6 JNP	2.6 JNP	NA
Endosulfan sulfate	2/20	30.5JP	64JP	NA
4,4'-DDT	4/20	1.6J	100.75JP	NA
Endrin ketone	1/20	2.3J	2.3J	NA
Endrin aldehyde	7/20	5.7JP	78JP	NA
Aroclor-1260	2/17	45	90	NA

TABLE F-1-2
Summary of Detected Chemicals in the Subsurface Soil Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
INORGANICS AND CYANIDE¹⁾				
Aluminum	20/20	3810	12700	15209
Antimony	8/20	0.36B	18.6	60.5
Arsenic	20/20	4.2	29.4J	12.1
Barium	20/20	36.2B	164	735
Beryllium	6/20	0.35B	0.48B	1.4
Cadmium	7/20	0.32B	1.6	2.9
Calcium	20/20	1180	65600	119811
Chromium (Total)	20/20	9.7J	36J	31.7
Cobalt	20/20	6.9	40.9	14.1
Copper	20/20	13.9	96.8J	876
Iron	19/19	17500	132000	39707
Lead	20/20	5.1	2100J	13714
Magnesium	20/20	1090	8250	10229
Manganese	20/20	157	2610	1329
Mercury	13/20	0.05B	0.57	7.0
Nickel	20/20	14.2J	57.8	31.8
Potassium	20/20	455B	2420	2314
Selenium	4/20	0.32B	3.8	4.2
Silver	6/20	0.0975JB	10.6J	179
Sodium	7/20	58.5B	766B	5411
Thallium	6/20	1.355	5.8	2.5
Vanadium	20/20	12.8	64.2	45.1
Zinc	20/20	33.7J	271	1180
Cyanide	1/61	4.5	4.5	0.33

NOTES:

¹⁾ = Units for inorganic analytes are in mg/kg.

NA = Not applicable.

U = Not detected at the Contract Required Detection Limit.

J = Estimated concentration.

P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns.

N = Presumptive evidence exists for presence of compound.

B = For organics, chemical detected in the blanks.

TABLE F-1-3
Summary of Detected Chemicals in the Groundwater Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Groundwater Concentration (µg/L)
VOLATILE ORGANICS				
Chloroform	2/8	5J	6J	NA
Benzene	3/8	3J	280	NA
Toluene	3/8	2J	21	NA
Ethylbenzene	3/8	49	1200	NA
Styrene	1/8	8J	8J	NA
Xylenes (Total)	3/8	39	570	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	4/8	2J	6600	NA
2-Methylnaphthalene	3/8	31	610	NA
Acenaphthylene	4/8	3J	85	NA
Acenaphthene	6/8	2J	310	NA
Dibenzofuran	2/8	4J	14	NA
Diethylphthalate	1/8	1J	1J	NA
Fluorene	4/8	1J	120	NA
Phenanthrene	4/8	2J	62	NA
Anthracene	2/8	12	16	NA
Carbazole	2/8	1J	2J	NA
Fluoranthene	3/8	4J	8J	NA
Pyrene	3/8	7J	10	NA
Benzo(a)anthracene	2/8	1J	2J	NA
Chrysene	1/8	2J	2J	NA
bis(2-Ethylhexyl)phthalate	1/8	3J	3J	NA
Benzo(a)pyrene	1/8	1J	1J	NA
PESTICIDES/PCBs				
No Detects				
INORGANICS				
Aluminum	8/8	54	2810	538000
Arsenic	2/8	2.6	6	18.3
Barium	8/8	99.5	3750	23000
Cadmium	1/8	1.1	1.1	3.74
Calcium	8/8	27600	126000	3870000
Chromium	8/8	1.4	7.7	46.6
Cobalt	4/8	2.4	4.4	81.4
Copper	3/8	1.7	9.5	240000
Iron	8/8	49.9	6390	395000
Lead	4/8	1.3	2.4	245
Magnesium	8/8	7640	26700	547000
Manganese	8/8	24.8	726	960000
Mercury	2/8	0.04	0.06	1.30
Nickel	6/8	1.6	7.1	244
Potassium	8/8	3770	11100	244000

TABLE F-1-3
Summary of Detected Chemicals in the Groundwater Samples
from the NMPC Property

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Groundwater Concentration (µg/L)
Selenium	1/8	2.6	2.6	64.7
Silver	6/8	1.2	2.2	2.7
Sodium	8/8	50100	220000	2250000
Thallium	1/8	516	5.6	31.2
Vanadium	2/8	3	5.3	80.9
Zinc	4/6	9.6	35.9	275
Cyanide	0/8			

NOTES:

NA = Not applicable.

U = Not detected at the Contract Required Detection Limit.

J = Estimated concentration.

P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns.

N = Presumptive evidence exists for presence of compound.

TABLE F-1-4
Summary of Detected Chemicals in the Surface Soil Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
VOLATILE ORGANICS				
No Detects				
SEMI-VOLATILE ORGANICS				
Naphthalene	1/4	990	990	NA
Acenaphthylene	3/4	3700	4100	NA
Fluorene	2/4	270J	1000	NA
Pentachlorophenol	1/1	39J	39J	NA
Phenanthrene	4/4	180J	8800J	NA
Anthracene	3/4	1200J	2800J	NA
Di-n-butylphthalate	1/1	66J	66J	NA
Fluoranthene	4/4	470	17000	NA
Pyrene	4/4	420	20000	NA
Butylbenzylphthalate	1/1	110J	110J	NA
Benzo(a)anthracene	4/4	190J	10000	NA
Chrysene	4/4	260J	13000	NA
bis(2-Ethylhexyl)phthalate	1/1	230J	230J	NA
Benzo(b)fluoranthene	4/4	190J	7700J	NA
Benzo(k)fluoranthene	4/4	210J	8100J	NA
Benzo(a)pyrene	4/4	220J	13000	NA
Indeno(1,2,3-cd)pyrene	4/4	180J	9100	NA
Dibenzo(a,h)anthracene	1/1	190J	190J	NA
Benzo(g,h,i)perylene	4/4	220J	10000	NA
PESTICIDES/PCBs				
Aldrin	1/1	1.35	1.35	NA
Dieldrin	1/1	9.6	9.6	NA
Endosulfan II	1/1	2.5	2.5	NA
4,4'-DDD	1/1	2.5JPN	2.5JPN	NA
4,4'-DDT	1/1	21	21	NA
INORGANICS AND CYANIDE⁽¹⁾				
Aluminum	1/1	9360	9360	NA
Antimony	1/1	2.4B	2.4B	NA
Arsenic	1/1	6	6	NA
Barium	1/1	68.8	68.8	NA
Beryllium	1/1	0.34B	0.34B	NA
Cadmium	1/1	0.45B	0.45B	NA
Calcium	1/1	2530	2530	NA
Chromium	1/1	12.2	12.2	NA
Cobalt	1/1	7.3	7.3	NA
Copper	1/1	21.7	21.7	NA
Iron	1/1	18500	18500	NA
Lead	1/1	141	141	NA
Magnesium	1/1	3290	3290	NA
Manganese	1/1	491	491	NA

TABLE F-1-4
Summary of Detected Chemicals in the Surface Soil Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
Mercury	1/1	0.16	0.16	NA
Nickel	1/1	16.1	16.1	NA
Potassium	1/1	847	847	NA
Selenium	1/1	0.85	0.85	NA
Sodium	1/1	117B	117B	NA
Thallium	1/1	4	4	NA
Vanadium	1/1	19.4	19.4	NA
Zinc	1/1	156	156	NA
Cyanide	1/4	1.05	1.05	0.56

NOTES:

¹ = Units for inorganic analytes are in mg/kg.

NA = Not applicable.

J = Estimated concentration below the Contract Required Detection Limit (organics).

B = Estimated concentration below the Contract Required Detection Limit (inorganics).

P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns

N = Presumptive evidence exists for presence of compound.

TABLE F-1-5
Summary of Detected Chemicals in the Subsurface Soil Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Detected Level (µg/kg)	Maximum Detected Level (µg/kg)	Background Concentration (µg/kg)
VOLATILE ORGANICS				
Acetone	3/8	6J	16J	NA
1,1,1-Trichloroethane	1/11	2J	2J	NA
Benzene	10/36	2J	475000D	NA
Toluene	12/36	2J	865000D	NA
Ethylbenzene	11/36	2J	705000D	NA
Styrene	3/11	1J	130000D	NA
Xylenes (Total)	12/36	2J	955000D	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	19/36	81J	9300000JD	NA
2-Methylnaphthalene	7/11	120J	7400000JD	NA
Acenaphthylene	27/36	48J	2000000JD	NA
Acenaphthene	20/36	38J	1900000JD	NA
Dibenzofuran	6/11	68J	194500J	NA
Diethylphthalate	1/11	190 J	190 J	NA
Fluorene	20/36	56J	2700000JD	NA
Phenanthrene	28/36	47.5J	5200000JD	NA
Anthracene	28/36	47J	1800000JD	NA
Carbazole	3/11	48J	3700	NA
Di-n-butylphthalate	1/11	68 J	68 J	NA
Fluoranthene	33/36	49J	1700000JD	NA
Pyrene	33/36	47J	2200000JD	NA
Benzo(a)anthracene	29/36	48J	820000JD	NA
Chrysene	30/36	54J	860000JD	NA
bis(2-Ethylhexyl)phthalate	5/11	56J	330 J	NA
Benzo(b)fluoranthene	25/36	43J	180000JD	NA
Benzo(k)fluoranthene	27/36	53J	200000JD	NA
Benzo(a)pyrene	28/36	42J	290000JD	NA
Indeno(1,2,3cd)pyrene	25/36	59J	180500J	NA
Dibenzo(a,h)anthracene	10/34	87J	8700J	NA
Benzo(g,h,i)perylene	25/36	77J	171000J	NA
PESTICIDES/PCBS				
beta-BHC	1/11	9.5 JNP	9.5 JNP	NA
Aldrin	1/4	3.6 JN	3.6 JN	NA
Heptachlor	1/11	1.9 JN	1.9 JN	NA
Heptachlor epoxide	3/8	1.4 JNP	16.85 JNP	NA
Dieldrin	1/11	2.8	2.8	NA
Endrin	4/8	14	33	NA
4,4'-DDE	2/4	3.1	6.1	NA
Endosulfan II	4/8	5.3	93	NA
4,4'-DDD	2/11	2.5 JNP	2.9 JNP	NA
4,4'-DDT	2/8	8.4	10	NA
Methoxychlor	2/8	95	160	NA
Endrin ketone	1/4	9 JNP	9 JNP	NA

TABLE F-1-5
Summary of Detected Chemicals in the Subsurface Soil Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Detected Level (µg/kg)	Maximum Detected Level (µg/kg)	Background Concentration (µg/kg)
Endrin aldehyde	1/4	5.1 JNP	5.1 JNP	NA
gamma-Chlordane	1/11	0.35	0.35	NA
INORGANICS AND CYANIDE⁽¹⁾				
Aluminum	11/11	7270	12600	15209
Antimony	5/11	0.74	9.7	60.5
Arsenic	11/11	4.1	31.05	12.1
Barium	11/11	47.2	143	735
Beryllium	11/11	0.31	0.49	1.4
Cadmium	4/11	0.34	2.7	2.9
Calcium	11/11	2220	39100	119811
Chromium (Total)	11/11	10.2	41.8	31.7
Cobalt	11/11	6.9	14.3	14.1
Copper	11/11	19.2	71	876
Iron	11/11	17000	29700	39707
Lead	11/11	8	1050	13714
Magnesium	11/11	2920	11500	10229
Manganese	11/11	317	2850	1329
Mercury	7/11	0.03	11.25	7.0
Nickel	11/11	15.6	27.6	31.8
Potassium	11/11	778	2225	2314
Selenium	8/11	1.5	16.2	4.2
Silver	3/11	0.14	2.1	179
Sodium	6/11	113	448.5	5411
Thallium	11/11	1.2	8.05	2.5
Vanadium	11/11	14	20.25	45.1
Zinc	11/11	48.1	699	1180
Cyanide	1/33	0.5925J	0.5925J	0.33

NOTES:

¹ = Units for inorganic analytes are in mg/kg.

NA = Not applicable.

B = For inorganics, less than the CRDL.

= For organics, associated with blank contamination.

J = Estimated concentration.

P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns.

N = Presumptive evidence exists for presence of compound.

D = Sample diluted.

TABLE F-1-6
Summary of Detected Chemicals in the Groundwater Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Groundwater Concentration (µg/L)
VOLATILE ORGANICS				
Acetone	1/6	11	11	NA
Chloroform	2/7	2J	9J	NA
2-Butanone	1/7	14	14	NA
Benzene	5/7	2J	69	NA
Toluene	3/7	1J	16	NA
Ethylbenzene	5/7	1J	52	NA
Xylenes (Total)	5/7	1J	42	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	3/7	10	20	NA
Acenaphthylene	4/7	1J	20	NA
Acenaphthene	5/7	4J	330	NA
Dibenzofuran	4/7	4J	13	NA
Diethylphthalate	1/7	2J	2J	NA
Fluorene	5/7	2J	120	NA
Phenanthrene	6/7	2J	31	NA
Anthracene	5/7	1J	17	NA
Carbazole	2/7	1J	1J	NA
Fluoranthene	6/7	2J	18	NA
Pyrene	5/7	3J	29	NA
Benzo(a)anthracene	1/6	7J	7J	NA
Chrysene	1/6	7J	7J	NA
bis(2-Ethylhexyl)phthalate	2/6	1J	2J	NA
Benzo(b)fluoranthene	1/6	2J	2J	NA
Benzo(k)fluoranthene	1/6	3J	3J	NA
Benzo(a)pyrene	1/6	5J	5J	NA
Indeno(1,2,3-cd)pyrene	1/6	1J	1J	NA
Benzo(g,h,i)perylene	1/6	1J	1J	NA
PESTICIDES/PCBs				
Endrin	1/7	0.058J	0.058J	NA
INORGANICS				
Aluminum	7/7	94.1B	109000	538000
Antimony	2/7	5.8B	22.2B	5.15
Arsenic	2/7	2.4B	158	18.3
Barium	7/7	71.3B	2790	23000
Beryllium	1/7	5.4B	5.4	1.57
Cadmium	1/7	0.71B	0.71B	3.74
Calcium	7/7	71800B	612000	3870000
Chromium	7/7	2.5B	212	46.6
Cobalt	3/7	2.1B	120	81.4
Copper	2/7	10.7B	431	240
Iron	7/7	136	311000	395000

TABLE F-1-6
Summary of Detected Chemicals in the Groundwater Samples
from the ACOE Property

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Groundwater Concentration (µg/L)
Lead	3/7	2B	212	245
Magnesium	7/7	326	113000	547000
Manganese	7/7	1B	9630	96000
Mercury	2/7	0.1B	0.55	1.29
Nickel	6/7	2.3B	2.64	244
Potassium	7/7	2310B	407000	244000
Silver	2/6	1.7B	2.2B	2.68
Sodium	7/7	19900	434000	2250000
Thallium	2/7	7.2B	15.7	31.2
Vanadium	1/7	2.1U	199	80.9
Zinc	5/6	4.9B	22.4	275

NOTES:

NA = Not applicable.

J = Estimated concentration.

B = Estimated concentration below the Contract Required Detection Limit (inorganics).

P = A pesticide or Aroclor compound which exhibited 25 percent difference between the detected concentrations between two GC columns.

N = Presumptive evidence exists for presence of compound.

U = Not detected.

TABLE F-1-7
Summary of Detected Chemicals in the Surface Soil Samples
from the Off-site (Doww Street) Property

Chemical	Frequency of Detection	Minimum Concentration (µg/kg)	Maximum Concentration (µg/kg)	Background Concentration (µg/kg)
VOLATILE ORGANICS				
No Detects				
SEMI-VOLATILE ORGANICS				
Phenanthrene	1/1	180J	180J	NA
Anthracene	1/1	44J	44J	NA
Fluoranthene	1/1	390J	390J	NA
Pyrene	1/1	120J	120J	NA
Benzo(a)anthracene	1/1	120J	120J	NA
Chrysene	1/1	140J	140J	NA
Benzo(b)fluoranthene	1/1	240J	240J	NA
Benzo(k)fluoranthene	1/1	190J	190J	NA
Benzo(a)pyrene	1/1	170J	170J	NA
PESTICIDES/PCBs				
Not Sampled				
INORGANICS AND CYANIDE				
Not Sampled				
NOTES:				
NA = Not applicable.				
J = Estimated concentration.				

TABLE F-1-8
Summary of Detected Chemicals in the Subsurface Soil Samples
from the Off-site (Douw Street) Property

Chemical	Frequency of Detection	Minimum Detected Level (µg/kg)	Maximum Detected Level (µg/kg)	Background Concentration (mg/kg) ⁽¹⁾
VOLATILE ORGANICS				
Ethylbenzene	1/3	1800	1800	NA
Xylenes (Total)	1/3	800	800	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	2/4	460	83000	NA
Acenaphthylene	1/4	3700	3700	NA
Acenaphthene	2/4	220J	46000	NA
Fluorene	2/4	130J	26000	NA
Phenanthrene	4/4	370	130000	NA
Anthracene	4/4	67J	37000	NA
Fluoranthene	4/4	260J	47000	NA
Pyrene	4/4	170J	74000	NA
Benzo(a)anthracene	4/4	120J	24000	NA
Chrysene	4/4	100J	21000	NA
Benzo(b)fluoranthene	4/4	82J	8300	NA
Benzo(k)fluoranthene	4/4	78J	10000	NA
Benzo(a)pyrene	4/4	120J	21000	NA
Indeno(1,2,3cd)pyrene	2/4	62J	1700	NA
Dibenzo(a,h)anthracene	1/4	190J	190J	NA
Benzo(g,h,i)perylene	2/4	54J	2100	NA
PESTICIDES/PCBS				
Not Sampled				
INORGANICS AND CYANIDE⁽¹⁾				
Not Sampled				
NOTES:				
¹ = Units for inorganic analytes are in mg/kg. NA = Not applicable. B = For inorganics, less than the CRDL. = For organics, associated with blank contamination. J = Estimated concentration.				

TABLE F-1-9
Summary of Detected Chemicals in the Groundwater Samples
from the Off-site (Dow Street) Property

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Concentration (µg/L)
VOLATILE ORGANICS				
Toluene	1/2	1J	1J	NA
SEMI-VOLATILE ORGANICS				
Naphthalene	1/2	9J	9J	NA
2-Methylnaphthalene	1/2	3J	3J	NA
Acenaphthene	1/2	4J	4J	NA
Diethylphthalate	1/2	1J	1J	NA
Fluorene	1/2	2J	2J	NA
Phenanthrene	1/2	4J	4J	NA
Pyrene	1/2	1J	1J	NA
bis(2-Ethylhexyl)phthalate	1/2	1J	1J	NA
PESTICIDES/PCBs				
No Detects				
INORGANICS				
Aluminum	2/2	57.8B	12500	538000
Arsenic	1/2	16.4	16.4	18.3
Barium	2/2	150B	293	22900
Beryllium	1/2	0.23B	0.23B	1.6
Calcium	2/2	131000	141000	3870000
Chromium	2/2	2.6B	26	46.6
Cobalt	1/2	13.9B	13.9B	81.4
Copper	2/2	3.2B	42.8	240
Iron	2/2	882	31400	395000
Lead	1/2	50	50	245
Magnesium	2/2	24800	27000	547000
Manganese	2/2	734	1800	960000
Mercury	1/2	0.41	0.41	1.3
Nickel	1/2	30	30	244
Potassium	2/2	5450	6590	244000
Silver	2/2	1.2B	1.4	2.7
Sodium	2/2	79800	96200	2250000
Vanadium	1/2	23.1B	23.1B	80.9
Zinc	2/2	5.5B	116	275

NOTES:

NA = Not applicable.

J = Estimated concentration.

B = Estimated concentration below the Contract Required Detection Limit (inorganics).

TABLE F-1-10
Summary of Detected Chemicals in the Surface Water Samples
from the Hudson River

Chemical	Frequency of Detection	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Background Concentration (µg/L)
VOLATILE ORGANICS				
No Detects				
SEMI-VOLATILE ORGANICS				
Diethylphthalate	1/4	3J	3J	NA
bis(2-Ethylhexyl)phthalate	2/4	1J	1J	NA
PESTICIDES/PCBs				
No Detects				NA
INORGANICS				
Aluminum	4/4	43	49.3	61.6
Barium	4/4	19.4	19.7	20
Cadmium	1/4	0.58B	0.58B	0.5U
Calcium	4/4	26300	26600	27300
Cobalt	1/4	1.55B	1.55B	1.8U
Copper	4/4	2.1B	4.8B	4.3B
Iron	4/4	91.8	120	147
Lead	3/4	1.35	2	1.6U
Magnesium	4/4	4670B	4790B	4840B
Manganese	4/4	27.35	29.5	31.5
Mercury	1/4	0.03B	0.03B	0.04U
Potassium	4/4	1070B	1110B	1140B
Selenium	1/4	3.8B	3.8B	2.8U
Sodium	4/4	12600	12800	13200
Vanadium	1/4	1.38B	1.38B	2.7B
Zinc	3/4	4.3B	5.8B	7.3JB
NOTES:				
NA = Not applicable.				
J = Estimated concentration.				
B = Estimated concentration below the Contract Required Detection Limit (inorganics).				
U = Not detected.				

TABLE F-1-11			
Summary of CERCLA-Based Chemicals of Potential Concern for the NMPC Property			
Compounds	Surface soil	Subsurface Soil	Groundwater
VOLATILE ORGANICS			
Methylene chloride	No ND	No ^{oc}	No ND
Acetone	No ND	No ^{oc}	No ND
Chloroform	No ND	No ND	No ^{oc}
1,2-Dichloroethene (total)	No ND	No ND	No ND
2-Butanone	No ND	No ^{oc}	No ND
Trichloroethene	No ND	No ND	No ND
1,1,1-Trichloroethane	No ND	No ND	No ND
Benzene	No ND	Yes	Yes
4-Methyl-2-pentanone	No ND	No ND	No ND
Tetrachloroethene	No ND	No ^{oc}	No ND
Toluene	No ND	Yes	Yes
Ethylbenzene	No ND	Yes	Yes
Styrene	No ND	No ND	No ^{oc}
Xylenes (Total)	No ND	Yes	Yes
SEMI-VOLATILE ORGANICS			
2,4-Dimethylphenol	No ND	No ND	No ND
Phenol	No ND	No ND	No ND
4-Methylphenol	No ND	No ND	No ND
Naphthalene	No ND	Yes	Yes
2-Methylnaphthalene	No ND	Yes	Yes
2-Chloronaphthalene	No ND	No ND	No ND
Dimethylphthalate	No ND	No ND	No ND
Acenaphthylene	Yes	Yes	Yes
Acenaphthene	No ND	Yes	Yes
Dibenzofuran	No ND	Yes	Yes
2,4-Dinitrotoluene	No ND	No ND	No ND
Diethylphthalate	No ND	Yes	No ^{B2}
Fluorene	No ND	Yes	Yes
Phenanthrene	Yes	Yes	Yes
Anthracene	Yes	Yes	Yes
Carbazole	Yes	Yes	Yes
Di-n-butylphthalate	No ND	No ND	No ND
Fluoranthene	Yes	Yes	Yes
Pyrene	Yes	Yes	Yes
Butylbenzylphthalate	No ND	No ND	No ND
Benzo(a)anthracene	Yes	Yes	Yes
Chrysene	Yes	Yes	Yes
bis(2-Ethylhexyl)phthalate	No ^{B2}	Yes	No ^{B2}
Di-n-octylphthalate	No ND	No ND	No ND
Benzo(b)fluoranthene	Yes	Yes	No ND
Benzo(k)fluoranthene	Yes	Yes	No ND
Benzo(a)pyrene	Yes	Yes	Yes
Indeno(1,2,3cd)pyrene	Yes	Yes	No ND
Dibenzo(a,h)anthracene	No ND	Yes	No ND
Benzo(g,h,i)perylene	Yes	Yes	No ND

TABLE F-1-11
Summary of CERCLA-Based Chemicals of Potential Concern
for the NMPC Property

Compounds	Surface soil	Subsurface Soil	Groundwater
PESTICIDES/PCBS			
alpha-BHC	No ND	No ND	No ND
beta-BHC	No ND	No ND	No ND
delta-BHC	No ND	No ND	No ND
gamma-BHC (Lindane)	No ND	No ND	No ND
Aldrin	No ND	Yes	No ND
Heptachlor	No ND	No ND	No ND
Heptachlor epoxide	No ND	Yes	No ND
Endosulfan I	No ND	No ND	No ND
Dieldrin	No ND	No ND	No ND
Endrin	Yes	Yes	No ND
4,4'-DDE	Yes	Yes	No ND
Endosulfan II	No ND	No ^{OC}	No ND
4,4'-DDD	No ND	No ND	No ND
Endosulfan sulfate	No ND	Yes	No ND
4,4'-DDT	Yes	Yes	No ND
Methoxychlor	No ND	No ND	No ND
Endrin ketone	No ND	No ^{OC}	No ND
Endrin aldehyde	No ND	Yes	No ND
alpha-Chlordane	Yes	No ND	No ND
gamma-Chlordane	No ND	No ND	No ND
Aroclor-1242	No ND	No ND	No ND
Aroclor-1248	No ND	No ND	No ND
Aroclor-1254	No ND	No ND	No ND
Aroclor-1260	No ND	Yes	No ND
INORGANICS AND CYANIDE			
Aluminum	Yes	No ^{B1}	No ^{B1}
Antimony	No ^{B2}	No ^{B1}	No ND
Arsenic	Yes	Yes	No ^{B1}
Barium	Yes	No ^{B1}	No ^{B1}
Beryllium	No ^{B2}	No ^{B1}	No ND
Cadmium	No ^{B2}	No ^{B1}	No ^{B1}
Calcium	No ^{EN}	No ^{EN}	No ^{EN}
Chromium (Total)	Yes	Yes	No ^{B1}
Cobalt	Yes	Yes	No ^{B1}
Copper	Yes	No ^{B1}	No ^{B1}
Iron	No ^{EN}	No ^{EN}	No ^{EN}
Lead	Yes	No ^{B1}	No ^{B1}
Magnesium	No ^{EN}	No ^{EN}	No ^{EN}
Manganese	Yes	Yes	No ^{B1}
Mercury	No ^{B2}	No ^{B1}	No ^{B1}
Nickel	Yes	Yes	No ^{B1}
Potassium	No ^{EN}	No ^{EN}	No ^{EN}
Selenium	No ND	No ^{B1}	No ^{B1}
Silver	No ND	No ^{B1}	No ^{B1}
Sodium	No ^{EN}	No ^{EN}	No ^{EN}
Thallium	No ^{B2}	Yes	No ^{B1}

TABLE F-1-11
Summary of CERCLA-Based Chemicals of Potential Concern
for the NMPC Property

Compounds	Surface soil	Subsurface Soil	Groundwater
Vanadium	Yes	Yes	No ^{B1}
Zinc	Yes	No ^{B1}	No ^{B1}
Cyanide	No ND	No ^{OC}	No ND

NOTES:

Compounds detected in other properties and media are included in table.

Yes: Compound retained as COPC for medium.

No: Compound not retained as COPC for medium. See notes below for justification.

B1: (Soil) Natural Log of the maximum detected level was less than calculated natural log BUTL.
 (Groundwater) Maximum detected concentration was less than maximum detected concentration in background sample.

B2: Compound eliminated based on low frequency of detection and low level or concentration compared to sample quantitation limit.

EN: Analyte considered essential human nutrient.

OC: Other Consideration; See text.

ND: Not detected in applicable medium.

TABLE F-1-12
Summary of CERCLA-Based Chemicals of Potential Concern
for the ACOE Property

Compounds	Surface soil	Subsurface Soil	Groundwater
VOLATILE ORGANICS			
Methylene chloride	No ND	No ND	No ND
Acetone	No ND	Yes	Yes
Carbon disulfide	No ND	No ND	No ND
Cholorform	No ND	No ND	No ^{OC}
1,2-Dichloroethene (total)	No ND	No ND	No ND
2-Butanone	No ND	No ND	No ^{OC}
Trichloroethene	No ND	No ND	No ND
1, 1, 1-Trichloroethane	No ND	No ^{OC}	No ND
Benzene	No ND	Yes	Yes
4-Methyl-2-pentanone	No ND	No ND	No ND
Tetrachloroethene	No ND	No ND	No ND
Toluene	No ND	Yes	Yes
Ethylbenzene	No ND	Yes	Yes
Styrene	No ND	Yes	No ND
Xylenes (Total)	No ND	Yes	Yes
SEMI-VOLATILE ORGANICS			
2,4-Dimethylphenol	No ND	No ND	No ND
Phenol	No ND	No ND	No ND
4-Methylphenol	No ND	No ND	No ND
Naphthalene	Yes	Yes	Yes
2-Methylnaphthalene	No ND	Yes	No ND
2-Chloronaphthalene	No ND	No ND	No ND
Dimethylphthalate	No ND	No ND	No ND
Acenaphthylene	Yes	Yes	Yes
Acenaphthene	No ND	Yes	Yes
Dibenzofuran	No ND	Yes	Yes
2,4-Dinitrotoluene	No ND	No ND	No ND
Diethylphthalate	No ND	No ^{B2}	No ^{B2}
Fluorene	Yes	Yes	Yes
Pentachlorophenol	No ^{OC}	No ND	No ND
Phenanthrene	Yes	Yes	Yes
Anthracene	Yes	Yes	Yes
Carbazole	No ND	Yes	Yes
Di-n-butylphthalate	No ^{B2}	No ^{B2}	No ND
Fluoranthene	Yes	Yes	Yes
Pyrene	Yes	Yes	Yes
Butylbenzylphthalate	No ^{B2}	No ND	No ND
Benzo(a)anthracene	Yes	Yes	Yes
Chrysene	Yes	Yes	Yes
bis(2-Ethylhexyl)phthalate	No ^{B2}	Yes	No ^{B2}
Di-n-octylphthalate	No ND	No ND	No ND
Benzo(b)fluoranthene	Yes	Yes	Yes
Benzo(k)fluoranthene	Yes	Yes	Yes
Benzo(a)pyrene	Yes	Yes	Yes
Indeno(1,2,3cd)pyrene	Yes	Yes	Yes

TABLE F-1-12
Summary of CERCLA-Based Chemicals of Potential Concern
for the ACOE Property

Compounds	Surface soil	Subsurface Soil	Groundwater
Dibenzo(a,h)anthracene	Yes	Yes	No ND
Benzo(g,h,i)perylene	Yes	Yes	Yes
PESTICIDES/PCBS			
alpha-BHC	No ND	No ND	No ND
beta-BHC	No ND	No ^{OC}	No ND
delta-BHC	No ND	No ND	No ND
gamma-BHC (Lindane)	No ND	No ND	No ND
Aldrin	Yes	No ^{OC}	No ND
Heptachlor	No ND	No ^{OC}	No ND
Heptachlor epoxide	No ND	No ^{OC}	No ND
Endosulfan I	No ND	No ND	No ND
Dieldrin	Yes	Yes	No ND
Endrin	No ND	Yes	Yes
4,4'-DDE	No ND	Yes	No ND
Endosulfan II	Yes	Yes	No ND
4,4'-DDD	Yes	No ^{OC}	No ND
Endosulfan sulfate	Yes	No ND	No ND
4,4'-DDT	No ND	Yes	No ND
Methoxychlor	No ND	Yes	No ND
Endrin ketone	No ND	No ^{OC}	No ND
Endrin aldehyde	No ND	No ^{OC}	No ND
alpha-Chlordane	No ND	No ND	No ND
gamma-Chlordane	No ND	Yes	No ND
Aroclor-1242	No ND	No ND	No ND
Aroclor-1248	No ND	No ND	No ND
Aroclor-1254	No ND	No ND	No ND
Aroclor-1260	No ND	No ND	No ND
INORGANICS AND CYANIDE			
Aluminum	Yes	No ^{B1}	No ^{B1}
Antimony	No ^{B2}	No ^{B1}	No ^{B2}
Arsenic	Yes	Yes	Yes
Barium	Yes	No ^{B1}	No ^{B1}
Beryllium	No ^{B2}	No ^{B1}	Yes
Cadmium	No ^{B2}	No ^{B1}	No ^{B1}
Calcium	No ^{EN}	No ^{EN}	No ^{EN}
Chromium (Total)	Yes	Yes	Yes
Cobalt	Yes	Yes	Yes
Copper	Yes	No ^{B1}	Yes
Iron	No ^{EN}	No ^{EN}	No ^{EN}
Lead	Yes	No ^{B1}	No ^{B1}
Magnesium	No ^{EN}	No ^{EN}	No ^{EN}
Manganese	Yes	Yes	No ^{B1}
Mercury	Yes	Yes	No ^{B1}
Nickel	Yes	No ^{B1}	No ^{B1}
Potassium	No ^{EN}	No ^{EN}	No ^{EN}
Selenium	Yes	Yes	No ND
Silver	No ND	No ^{B1}	No ^{B1}

TABLE F-1-12
Summary of CERCLA-Based Chemicals of Potential Concern
for the ACOE Property

Compounds	Surface soil	Subsurface Soil	Groundwater
Sodium	No ^{EN}	No ^{EN}	No ^{EN}
Thallium	Yes	Yes	No ^{B1}
Vanadium	Yes	No ^{B1}	Yes
Zinc	Yes	No ^{B1}	No ^{B1}
Cyanide	Yes	Yes	No ND

NOTES:

Compounds detected in other properties and media are also included in table.

Yes: Compound retained as COPC for medium.

No: Compound not retained as COPC for medium. See notes below for justification.

B1: (Soil) Natural Log of the maximum detected level was less than calculated natural log BUTL.
 (Groundwater) Maximum detected concentration was less than maximum detected concentration in background sample.

B2: Compound eliminated based on low frequency of detection and low level or concentration compared to sample quantitation limit.

EN: Analyte considered essential human nutrient.

OC: Other Consideration; See text.

ND: Not detected in applicable medium.

TABLE F-1-13			
Summary of CERCLA-Based Chemicals of Potential Concern for the Off-site (Doww Street) Property			
Compounds	Surface soil	Subsurface Soil	Groundwater
VOLATILE ORGANICS			
Methylene chloride	NA	NA	No ND
Acetone	NA	NA	No ND
Carbon disulfide	NA	NA	No ND
Chloroform	NA	NA	No ND
1,2-Dichloroethene (total)	NA	NA	No ND
2-Butanone	NA	NA	No ND
Trichloroethene	NA	NA	No ND
1,1,1-Trichloroethane	NA	NA	No ND
Benzene	No ND	No ND	No ND
4-Methyl-2-pentanone	NA	NA	No ND
Tetrachloroethene	NA	NA	No ND
Toluene	No ND	No ND	No ND
Ethylbenzene	No ND	Yes	No ND
Styrene	NA	NA	No ND
Xylenes (Total)	No ND	Yes	Yes
SEMI-VOLATILE ORGANICS			
2,4-Dimethylphenol	NA	NA	No ND
Phenol	NA	NA	No ND
4-Methylphenol	NA	NA	No ND
Naphthalene	No ND	Yes	Yes
2-Methylnaphthalene	NA	NA	Yes
2-Chloronaphthalene	NA	NA	No ND
Dimethylphthalate	NA	NA	No ND
Acenaphthylene	No ND	Yes	No ND
Acenaphthene	No ND	Yes	Yes
Dibenzofuran	NA	NA	No ND
2,4-Dinitrotoluene	NA	NA	No ND
Diethylphthalate	NA	NA	No ^{B2}
Fluorene	Yes	Yes	Yes
Phenanthrene	Yes	Yes	Yes
Anthracene	Yes	Yes	No ND
Carbazole	NA	NA	No ND
Di-n-butylphthalate	NA	NA	No ND
Fluoranthene	No ND	Yes	No ND
Pyrene	Yes	Yes	Yes
Butylbenzylphthalate	NA	NA	No ND
Benzo(a)anthracene	Yes	Yes	No ND
Chrysene	Yes	Yes	No ND
bis(2-Ethylhexyl)phthalate	NA	NA	No ^{B2}
Di-n-octylphthalate	NA	NA	No ND
Benzo(b)fluoranthene	Yes	Yes	No ND
Benzo(k)fluoranthene	Yes	Yes	No ND

TABLE F-1-13			
Summary of CERCLA-Based Chemicals of Potential Concern for the Off-site (Dow Street) Property			
Compounds	Surface soil	Subsurface Soil	Groundwater
Benzo(a)pyrene	Yes	Yes	No ND
Indeno(1,2,3cd)pyrene	No ND	Yes	No ND
Dibenzo(a,h)anthracene	No ND	Yes	No ND
Benzo(g,h,i)perylene	No ND	Yes	No ND
PESTICIDES/PCBS			
alpha-BHC	NA	NA	No ND
beta-BHC	NA	NA	No ND
delta-BHC	NA	NA	No ND
gamma-BHC (Lindane)	NA	NA	No ND
Aldrin	NA	NA	No ND
Heptachlor	NA	NA	No ND
Heptachlor epoxide	NA	NA	No ND
Endosulfan I	NA	NA	No ND
Dieldrin	NA	NA	No ND
Endrin	NA	NA	No ND
4,4'-DDE	NA	NA	No ND
Endosulfan II	NA	NA	No ND
4,4'-DDD	NA	NA	No ND
Endosulfan sulfate	NA	NA	No ND
4,4'-DDT	NA	NA	No ND
Methoxychlor	NA	NA	No ND
Endrin ketone	NA	NA	No ND
Endrin aldehyde	NA	NA	No ND
alpha-Chlordane	NA	NA	No ND
gamma-Chlordane	NA	NA	No ND
Aroclor-1242	NA	NA	No ND
Aroclor-1248	NA	NA	No ND
Aroclor-1254	NA	NA	No ND
Aroclor-1260	NA	NA	No ND
INORGANICS AND CYANIDE			
Aluminum	NA	NA	No ^{B1}
Antimony	NA	NA	No ND
Arsenic	NA	NA	No ^{B1}
Barium	NA	NA	No ^{B1}
Beryllium	NA	NA	No ^{B1}
Cadmium	NA	NA	No ^{B1}
Calcium	NA	NA	No ^{EN}
Chromium (Total)	NA	NA	No ^{B1}
Cobalt	NA	NA	No ^{B1}
Copper	NA	NA	No ^{B1}
Iron	NA	NA	No ^{EN}
Lead	NA	NA	No ^{B1}
Magnesium	NA	NA	No ^{EN}

TABLE F-1-13
Summary of CERCLA-Based Chemicals of Potential Concern
for the Off-site (Dow Street) Property

Compounds	Surface soil	Subsurface Soil	Groundwater
Manganese	NA	NA	No ^{B1}
Mercury	NA	NA	No ^{B1}
Nickel	NA	NA	No ^{B1}
Potassium	NA	NA	No ^{EN}
Selenium	NA	NA	No ND
Silver	NA	NA	No ^{B1}
Sodium	NA	NA	No ^{EN}
Thallium	NA	NA	No ND
Vanadium	NA	NA	No ^{B1}
Zinc	NA	NA	No ^{B1}
Cyanide	NA	NA	No ND

NOTES:

- Compounds detected in other properties and media are also included in table.
- NA: Compound not analyzed.
- Yes: Compound retained as COPC for medium.
- No: Compound not retained as COPC for medium. See notes below for justification.
- B1: (Soil) maximum detected level was less than calculated BUTL.
 (Groundwater) maximum detected level was less than calculated BUTL.
- B2: Compound eliminated based on low frequency of detection and low level or concentration compared to sample quantitation limit.
- EN: Analyte considered essential human nutrient.
- OC: Other Consideration; See text.
- ND: Not detected in applicable medium.

TABLE F-1-14
Summary of CERCLA-Based Chemicals of Potential Concern
for the Hudson River

Compounds	Sediment	Surface Water
VOLATILE ORGANICS		
Methylene chloride	P.I.	No ND
Acetone	P.I.	No ND
Carbon disulfide	P.I.	No ND
1,2-Dichloroethene (total)	P.I.	No ND
2-Butanone	P.I.	No ND
Trichloroethene	P.I.	No ND
1,1,1-Trichloroethane	P.I.	No ND
Benzene	P.I.	No ND
4-Methyl-2-pentanone	P.I.	No ND
Tetrachloroethene	P.I.	No ND
Toluene	P.I.	No ND
Ethylbenzene	P.I.	No ND
Styrene	P.I.	No ND
Xylenes (Total)	P.I.	No ND
SEMI-VOLATILE ORGANICS		
2,4-Dimethylphenol	P.I.	No ND
Phenol	P.I.	No ND
2-Methylphenol	P.I.	No ND
4-Methylphenol	P.I.	No ND
Naphthalene	P.I.	No ND
2-Methylnaphthalene	P.I.	No ND
2-Chloronaphthalene	P.I.	No ND
Dimethylphthalate	P.I.	No ND
Acenaphthylene	P.I.	No ND
Acenaphthene	P.I.	No ND
Dibenzofuran	P.I.	No ND
2,4-Dinitrotoluene	P.I.	No ND
Diethylphthalate	P.I.	No ^{B2}
Fluorene	P.I.	No ND
Phenanthrene	P.I.	No ND
Anthracene	P.I.	No ND
Carbazole	P.I.	No ND
Di-n-butylphthalate	P.I.	No ND
Fluoranthene	P.I.	No ND
Pyrene	P.I.	No ND
Butylbenzylphthalate	P.I.	No ND
Benzo(a)anthracene	P.I.	No ND
Chrysene	P.I.	No ND
bis(2-Ethylhexyl)phthalate	P.I.	No ^{B2}
Di-n-octylphthalate	P.I.	No ND
Benzo(b)fluoranthene	P.I.	No ND
Benzo(k)fluoranthene	P.I.	No ND

TABLE F-1-14
Summary of CERCLA-Based Chemicals of Potential Concern
for the Hudson River

Compounds	Sediment	Surface Water
Benzo(a)pyrene	P.I.	No ND
Indeno(1,2,3cd)pyrene	P.I.	No ND
Dibenzo(a,h)anthracene	P.I.	No ND
Benzo(g,h,i)perylene	P.I.	No ND
PESTICIDES/PCBS		
alpha-BHC	P.I.	No ND
beta-BHC	P.I.	No ND
delta-BHC	P.I.	No ND
gamma-BHC (Lindane)	P.I.	No ND
Aldrin	P.I.	No ND
Heptachlor	P.I.	No ND
Heptachlorepoxyde	P.I.	No ND
Endosulfan I	P.I.	No ND
Dieldrin	P.I.	No ND
Endrin	P.I.	No ND
4,4'-DDE	P.I.	No ND
Endosulfan II	P.I.	No ND
4,4'-DDD	P.I.	No ND
Endosulfan sulfate	P.I.	No ND
4,4'-DDT	P.I.	No ND
Methoxychlor	P.I.	No ND
Endrin ketone	P.I.	No ND
Endrin aldehyde	P.I.	No ND
alpha-Chlordane	P.I.	No ND
gamma-Chlordane	P.I.	No ND
Aroclor-1242	P.I.	No ND
Aroclor-1248	P.I.	No ND
Aroclor-1254	P.I.	No ND
Aroclor-1260	P.I.	No ND
INORGANICS AND CYANIDE		
Aluminum	P.I.	No ^{B1}
Antimony	P.I.	No ND
Arsenic	P.I.	No ND
Barium	P.I.	No ^{B1}
Beryllium	P.I.	No ND
Cadmium	P.I.	No ^{OC}
Calcium	P.I.	No ^{EN}
Chromium (Total)	P.I.	No ND
Cobalt	P.I.	No ^{B1}
Copper	P.I.	No ^{OC}
Iron	P.I.	No ^{EN}
Lead	P.I.	No ^{OC}
Magnesium	P.I.	No ^{EN}

TABLE F-1-14
Summary of CERCLA-Based Chemicals of Potential Concern
for the Hudson River

Compounds	Sediment	Surface Water
Manganese	P.I.	No ^{B1}
Mercury	P.I.	No ^{B1}
Nickel	P.I.	No ND
Potassium	P.I.	No ^{EN}
Selenium	P.I.	No ^{OC}
Silver	P.I.	No ND
Sodium	P.I.	No ^{EN}
Thallium	P.I.	No ND
Vanadium	P.I.	No ^{B1}
Zinc	P.I.	No ^{B1}
Cyanide	P.I.	No ND

NOTES:

Compounds detected in other properties and media are also included in table.

Surface water was screened against background surface water concentrations.

PI: Pathway incomplete.

Yes: Compound retained as COPC for medium.

No: Compound not retained as COPC for medium. See notes below for justification.

B1: (Surface water) Maximum detected concentration was less than maximum detected concentration in background sample.

B2: Compound eliminated based on low frequency of detection and low level or concentration compared to sample quantitation limit.

EN: Analyte considered essential human nutrient.

OC: Other Consideration; See text.

ND: Not detected in applicable medium.

APPENDIX F-2
SUMMARY OF EXPOSURE PARAMETERS, VALUES AND
SOURCES

TABLE F-2-1
Summary of Exposure Parameters, Values, and Sources for the Commercial Worker

	Units	Value	Source
General Parameters			
Body Weight	kg	70	Default Value from USEPA, 1991
Carcinogenic Averaging Period	days	25,550	Default Value from USEPA, 1991
Incidental Ingestion of Surface Soil			
Soil Ingestion Rate	mg/day	100	Default Value from USEPA, 1991
Exposure Frequency	days/year	140	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Dermal Exposure to Surface Soil			
Exposure Time	event/day	1	Adults; USEPA, 1992
Exposure Frequency	days/year	140	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Exposed Skin Surface Area	cm ² /day	2,300	Adult Typical Case (long-sleeve shirt, pants, shoes); USEPA, 1992
Soil Adherence Factor	mg/cm ²	1	Upper range; USEPA, 1992
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Inhalation of Resuspended Surface Soil			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	4	1/2 work day
Exposure Frequency	days/year	140	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
PEF	m ³ /kg	1.32 x 10 ⁹	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Inhalation of Volatiles (Indoor Air)			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	8	Work day
Exposure Frequency	days/year	250	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991

TABLE F-2-2

Summary of Exposure Parameters, Values, and Sources for the Utility/Maintenance Worker

	Units	Value	Source
General Parameters			
Body Weight	kg	70	Default Value from USEPA, 1991
Carcinogenic Averaging Period	days	25,550	Default Value from USEPA, 1991
Incidental Ingestion of Surface and Subsurface Soil			
Soil Ingestion Rate	mg/day	100	Default Value from USEPA, 1991
Exposure Frequency	days/year	22	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Dermal Exposure to Surface and Subsurface Soil			
Exposure Time	event/day	1	Adults; USEPA, 1992
Exposure Frequency	days/year	22	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Exposed Skin Surface Area	cm ² /day	2,300	Adult Typical Case (long-sleeve shirt, pants, shoes); USEPA, 1992
Soil Adherence Factor	mg/cm ²	1	Upper range; USEPA, 1992
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Inhalation of Resuspended Surface and Subsurface Soil			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	8	Work day
Exposure Frequency	days/year	22	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
PEF	m ³ /kg	1.32 x 10 ⁹	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Inhalation of Volatiles (Outdoors)			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	8	Work day
Exposure Frequency	days/year	22	Site Specific; See Text
Exposure Duration	years	25	Default Worker Value from USEPA, 1991
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991

TABLE F-2-3
Summary of Exposure Parameters, Values, and Sources for the Construction Worker

	Units	Value	Source
General Parameters			
Body Weight	kg	70	Default Value from USEPA, 1991
Carcinogenic Averaging Period	days	25,550	Default Value from USEPA, 1991
Incidental Ingestion of Surface and Subsurface Soil			
Soil Ingestion Rate	mg/day	500	Default Value from USEPA, 1991
Exposure Frequency	day/year	100	Site Specific; See Text
Exposure Duration	year	1	One year construction project
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	365	Site Specific; See Text
Dermal Exposure with Surface and Subsurface Soil			
Exposure Time	event/day	1	Adults; USEPA, 1992
Exposure Frequency	day/year	100	Site Specific; See Text
Exposure Duration	year	1	One year construction project
Exposed Skin Surface Area	cm ² /day	2,300	Adult Typical Case (long-sleeve shirt, pants, shoes); USEPA, 1992
Soil Adherence Factor	mg/cm ²	1	Upper range; USEPA, 1992
Non-Carcinogenic Averaging Period	days	365	Site Specific; See Text
Inhalation of Resuspended Surface and Subsurface Soil			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	8	Work day
Exposure Frequency	day/year	100	Site Specific; See Text
Exposure Duration	year	1	One year construction project
PEF	m ³ /kg	4.63 x 10 ³	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	365	Site Specific; See Text
Inhalation of Volatiles (Outdoors)			
Inhalation Rate	m ³ /hour	0.83	Adult average (20 m ³ /day); in USEPA, 1995
Exposure Time	hours/day	8	Work day
Exposure Frequency	day/year	100	Site Specific; See Text
Exposure Duration	year	1	One year construction project
Non-Carcinogenic Averaging Period	days	365	Site Specific; See Text

TABLE F-2-4

Summary of Exposure Parameters, Values, and Sources for the Adolescent Trespasser

	Units	Value	Source
General Parameters			
Body Weight	kg	40	50th percentile of body weights for 12 year old male and 11 year old female (USEPA, 1995)
Carcinogenic Averaging Period	days	25,550	Default Value from EPA, 1991
Incidental Ingestion of Surface Soil			
Soil Ingestion Rate	mg/day	100	Default Value from USEPA, 1991
Exposure Frequency	day/year	40	Site Specific; See Text
Exposure Duration	years	6	Assumption
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	2,190	Site Specific; See Text
Dermal Exposure to Surface Soil			
Exposure Time	event/day	1	USEPA, 1992
Exposure Frequency	day/year	40	Site Specific; See Text
Exposure Duration	years	6	Assumption
Exposed Skin Surface Area	cm ² /day	5,300	Reasonable Worst Case (short sleeve shirt, shorts, and shoes); USEPA, 1992.
Soil Adherence Factor	mg/cm ²	1	Upper range; USEPA, 1992
Non-Carcinogenic Averaging Period	days	2,190	Site Specific; See Text

TABLE F-2-5

Summary of Exposure Parameters, Values, and Sources for the Adult Resident,
Non-Carcinogenic Constituents

	Units	Value	Source
General Parameters			
Body Weight	kg	70	Default Value from USEPA, 1991
Inhalation of Volatiles (Indoor)			
Exposure Time	hours/day	16	Assumption
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Inhalation Rate	m ³ /hr	0.625	Residential Scenario; (15 m ³ /day) USEPA, 1991
Non-Carcinogenic Averaging Period	days	10,950	Residential Scenario; USEPA, 1991
Inhalation of Resuspended Surface Soil			
Inhalation Rate	m ³ /hour	0.625	Residential Scenario; USEPA, 1991
Exposure Time	hours/day	16	Residential Scenario; USEPA, 1991
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Exposure Duration	years	30	Residential Scenario; USEPA, 1991
PEF	m ³ /kg	1.32 x 10 ⁹	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Dermal Contact with Groundwater			
Exposed Skin Surface Area	cm ² -year/kg	22,000	90% percentile body male; USEPA, 1992
Exposure Time	hour/day	0.25	90th Percentile Bathing (15 minutes); USEPA, 1992
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Non-Carcinogenic Averaging Period	days	10,950	Residential Scenario; USEPA, 1991
Permeability Constant - K _p water	cm/hour	CSV	Chemical-specific value
Use of Groundwater as Drinking Water Source			
Drinking Ingestion Rate	L-day	2	Adults; USEPA, 1992
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Non-Carcinogenic Averaging Period	days	10,950	Residential Scenario; USEPA, 1991

TABLE F-2-6

Summary of Exposure Parameters, Values, and Sources for the Composite Child (1-6 years) Resident, Non-carcinogenic Constituents

	Units	Value	Source
General Parameters			
Body Weight	kg	15	Default Value from USEPA, 1991
Inhalation of Indoor Air			
Exposure Time	hours/day	16	Assumption
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Inhalation Rate	m ³ /hr	0.625	Residential Scenario; (15 m ³ /day) USEPA, 1991
Non-Carcinogenic Averaging Period	days	2,190	Residential Scenario; USEPA, 1991
Inhalation of Resuspended Surface Soil			
Inhalation Rate	m ³ /hour	0.625	Residential Scenario; USEPA, 1991
Exposure Time	hours/day	16	Residential Scenario; USEPA, 1991
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Exposure Duration	years	6	Default Worker Value from USEPA, 1991
PEF	m ³ /kg	1.32 x 10 ⁹	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	2,190	Default Value from USEPA, 1991
Dermal Contact with Groundwater			
Exposed Skin Surface Area	cm ² -year/kg	10,600	50% Percentile 6 year male (Average)
Exposure Time	hour/day	0.25	90th Percentile Bathing (15 minutes); USEPA, 1992
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Non-Carcinogenic Averaging Period	days	2,190	Residential Scenario; USEPA, 1991
Permeability Constant - K _p water	cm/hour	CSV	Chemical-specific value
Use of Groundwater as Drinking Water Source			
Drinking Ingestion Rate	L-day	1	Child; USEPA, 1992
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Non-Carcinogenic Averaging Period	days	2,190	Residential Scenario; USEPA, 1991

TABLE F-2-7

Summary of Exposure Parameters, Values, and Sources for the Composite Adult/Child Resident, Carcinogenic Constituents

	Units	Value	Source
Inhalation of Indoor Air			
Carcinogenic Averaging Period	days	25,550	Residential Scenario; USEPA, 1991
Exposure Time	hours/day	16	Assumption
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Inhalation Rate	m ³ /hr	0.625	Residential Scenario; (15 m ³ /day) USEPA, 1991
Inhalation of Resuspended Surface Soil			
Inhalation Rate	m ³ /hour	0.625	Residential Scenario; USEPA, 1991
Exposure Time	hours/day	16	Residential Scenario; USEPA, 1991
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Exposure Duration	years	30	Residential Scenario; USEPA, 1991
PEF	m ³ /kg	1.32 x 10 ⁹	USEPA, 1991
Fraction from Contaminated Source	unitless	1	100% from contaminated source
Non-Carcinogenic Averaging Period	days	9,125	Default Value from USEPA, 1991
Dermal Contact with Groundwater			
Exposed Skin Surface Area	cm ² -year/kg	11,300	Calculated (See Table USEPA Average)
Exposure Time	hour/day	0.25	90th Percentile Bathing (15 minutes); USEPA, 1992
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991
Permeability Constant - K _p water	cm/hour	CSV	Chemical-specific value
Use of Groundwater as Drinking Water Source			
Drinking Ingestion Rate	L-year/kg-day	1.1	Calculated composite value (See Table F-2-8)
Exposure Frequency	days/year	350	Residential Scenario; USEPA, 1991

TABLE F-2-8

Calculation of Composite Exposure Factors for Residential Adult/Child

	Ages 1 - 6 years	Ages 7 - 30 years	Source	Composite Factor
Incidental Ingestion of Soil				
Soil Ingestion Rate (mg/day)	200	100	Default Value from USEPA, 1991	114 mg-year/kg-day
Exposure Duration (years)	6	24	Default Value from USEPA, 1991	
Body Weight (kg)	15	70	Default Value from USEPA, 1991	
Surface Area Exposed to Soil				
Exposed Surface Area (cm ² /day)	4050	5,300	Adult Reasonable Worst Case (short sleeve shirt, shorts, and shoes); EPA, 1992 / child (hands, arms, legs, feet)	3,400 (rounded from 3,437) cm ² -year/kg-day
Exposure Duration (years)	6	24	Default Value from USEPA, 1991	
Body Weight (kg)	15	70	Default Value from USEPA, 1991	
Drinking Water				
Ingestion Rate (L/day)	1	2	Default Value from USEPA, 1991	1.1 L-year/kg-day
Exposure Duration (years)	6	24	Default Value from USEPA, 1991	
Body Weight (kg)	15	70	Default Value from USEPA, 1991	
Bathing				
Exposed Surface Area (cm ²)	9310	22,000	Reasonable Worst Case total body male; EPA, 1992 / Median total body male age 6<9; USEPA, 1992	11,300 (rounded from 11,267) cm ² -year/kg
Exposure Duration (years)	6	24	Default Value from USEPA, 1991	
Body Weight (kg)	15	70	Default Value from USEPA, 1991	

APPENDIX G
FATE AND TRANSPORT PROFILES FOR INORGANICS OF
POTENTIAL CONCERN

APPENDIX G

FATE AND TRANSPORT PROFILES FOR INORGANICS OF POTENTIAL CONCERN

As stated in Section 5.0, numerous metals and cyanide were detected in the various matrices sampled at the Troy (Smith Avenue) Site. A brief discussion of the important controls on fate and transport of the inorganics of potential concern at the site is presented below. These synopses were compiled from USEPA (1979), Clement Associates (1985), and other sources.

Arsenic

In the environment, arsenic occurs predominantly in the As(+3) and As(+5) valence states and, although certain conditions may promote the formation of arsenious (H_3AsO_3) or arsenic (H_3AsO_4) acid, the oxidation state of arsenic is the factor that seems to control arsenic solubilization. The inorganic state is dominant even though arsenic is involved in biological cycling that can form soluble organic complexes.

The redox chemistry of arsenic is highly analogous to that of iron and manganese, and arsenic tends to be closely associated with these two elements in aqueous systems. Under aerobic conditions, As(+5) is the predominant species. Pentavalent arsenic is highly insoluble and tends to be strongly adsorbed on ferromanganous precipitates; i.e., As(+5) follows the oxidized species of iron (Fe(+3)) and manganese (Mn(+4)). Thus, in oxidized water, arsenic is primarily associated with particulate phases. Under reducing conditions arsenic is reduced to As(+3), which is soluble in anoxic waters. Arsenic may also form complexes with anthropogenically introduced organic compounds that may affect the geochemical behavior of arsenic.

Arsenic is adsorbed principally onto clays, aluminum hydroxides, ferromanganese oxides, and organic compounds. In general, pentavalent arsenic has a greater adsorptive affinity than trivalent arsenic. For arsenic, adsorption is most important in aerobic, acidic fresh water with adsorption decreasing above pH 9 for As(+3) and above pH 7 for As(+5). Arsenic is not appreciably bioaccumulated in aquatic organisms.

Barium

Barium is an alkaline earth element, which is to say that it belongs to Group IIA of the Periodic Table of the elements. Barium is also a geochemical minor element, occurring in most geologic materials in concentrations of a few tenths of a percent to a few percent. Like all alkaline earths, barium occurs exclusively in the +2 valence state in nature. The aqueous solubility of barium is low in natural waters. Because of its low solubility, little data are available on the sorption behavior of barium; however, barium is thought to be readily sorbed to clay mineral surfaces.

Beryllium

Beryllium is always found in the +2 valence state in aqueous matrices and may form stable compounds with small anions if they are present (e.g., fluoride). At low pH (< 4), Be+2 ions are the predominant species, whereas at very high pH (>12), $HBeO_2$ is the more prevalent form in water. Within normal pH ranges in the environment, the very slightly soluble $Be(OH)_2$ is the

dominant species. Very little data exist for beryllium sorption behavior because of its very low solubility; however, the available data suggest that beryllium sorbs to clay at low pH. At high pH, complexation into insoluble compounds appears to be favored over adsorption mechanisms. Beryllium is not appreciably bioaccumulated in aquatic organisms.

Chromium

Chromium is an essential micronutrient that, at elevated levels, can have toxic effects. In aqueous systems chromium can theoretically occur in two oxidation states: Cr(+3) and Cr(+6). In many ways, the hydrogeochemical behavior of chromium is the opposite of iron, manganese, arsenic and antimony. The oxidized state of chromium, Cr(+6), is relatively soluble, forming complex anions in aqueous solution. The most important of these are chromate (CrO_4^{2-}) and hydrochromate (HCrO_4^-). However, Cr(+6) species are not stable aqueous complexes under virtually all naturally occurring redox conditions. In virtually all natural waters trivalent chromium is the stable and predominant aqueous form of chromium. In its trivalent form, chromium rapidly precipitates as insoluble oxides or hydroxides or adsorbs onto clays or oxides of other metals. Chromium is not appreciably bioconcentrated in aquatic organisms.

Cobalt

Cobalt is an essential nutrient that rarely occurs in soluble form in natural aquatic systems, and its hydrogeochemical behavior is therefore little studied. Available evidence suggests that cobalt behavior is analogous to that of iron and manganese in that cobalt is strongly adsorbed to metal oxides and oxyhydroxides, and to clay mineral surfaces. Desorption of cobalt may be important at lower pH values.

Copper

Copper is an essential nutrient that, at elevated levels, can have toxic effects. Copper(+2) is the most prevalent form of copper in aqueous systems as most of the stable cuprous (+1) forms in toxic waters are highly insoluble. Copper may also exist in water as the hydrated divalent cupric ion. However, in general, most copper in aqueous solution is in a complex form with organic or inorganic ligands and these are expected to be the predominant dissolved aqueous species of copper at the site. Copper is sorbed by clays, mineral surfaces, organics, carbonate, and iron and manganese oxide precipitates. Copper adsorption is highly pH dependent and the presence of other anionic species can increase copper adsorption. Copper is not appreciably bioconcentrated in aquatic organisms, since its toxicity to aquatic vegetation and fish limits the extent to which bioaccumulation can occur.

Lead

Lead (+2) is the most common stable ionic aqueous species with hydroxyl, carbonate, sulfide and sulfate anions acting as solubility controls. Under aerobic conditions, PbSO_4 and to a lesser extent PbCO_3 , control lead solubility; whereas, under anaerobic conditions, PbS concentrations mediate aqueous lead solubility. Lead may also exist in soluble organic complexes (i.e., humic and fulvic acids) in aqueous matrices. Lead adsorbs principally to clays, hydrous iron and manganese oxides, mineral surfaces, and organic compounds. Lead adsorption is very pH-dependent, with low pH conditions favoring desorption.

Manganese

Manganese occurs in the +2 and +4 oxidation states in aqueous systems. In oxidated waters, Mn(IV) is the stable form. Mn(IV) is insoluble and precipitates, along with Fe(III), to form ferromanganous oxides and oxyhydroxides. In anaerobic waters, manganese is reduced to Mn(II) which is soluble under continuing reducing conditions. Studies of natural systems have shown that Mn(IV) is the first (i.e., the least soluble) metal to precipitate of the behaviorally analogous group manganese, iron and arsenic. Similarly, the reduction of Mn(IV) to Mn(II) and the accompanying reduction occurs before the reduction of Fe(II) or As(V). As long as aerobic conditions persist in the groundwater, transport of manganese in aqueous solutions will be of minor significance. Manganese readily forms insoluble oxides in aerobic waters. The formation of manganese oxides often requires nucleation on a particle resulting in "manganese coatings". The formation and continued growth of manganese coatings is an adsorption process. Adsorption is an important process under aerobic conditions, but is readily reversed if conditions become anaerobic.

Mercury

Mercury may exist in the 0, +1, or +2 valence states in natural waters, depending on conditions. Above a pH of 5 and under moderately oxidizing conditions, dissolved elemental mercury is expected to be the predominant elemental aqueous species. Mercury readily complexes with organic matter via biologically and non-biologically mediated processes. As a result, dissolved methyl mercury ion and undissociated dimethyl mercury may be present in aqueous matrices if mercury is present. Some studies have found mercury concentrations in surface waters vary with the biological cycle (i.e., vary seasonally with biological activity). Mercury is strongly adsorbed to many inorganic surfaces and organic matter. Desorption may occur under low pH conditions.

Nickel

Nickel almost always occurs as Ni(+2) in aquatic environments. Although conditions can favor the presence of dissolved nickel, in aqueous matrices, nickel may be primarily associated with the particulate phases because of its strong adsorptive affinity. Nickel sorbs to hydrous iron, manganese oxides, clay minerals, and organic material. Nickel is not appreciably bioaccumulated in aquatic organisms.

Selenium

Selenium is an essential nutrient, but can be toxic when only slightly above required levels. The geochemical behavior of selenium is similar to that of sulfur, and selenium occurs in both cationic (mostly +4) and anionic (-2) states. More rarely, selenium can occur in the native (0) state. However, this occurs only under anoxic conditions.

Thallium

Thallium occurs predominantly in the +2 valence state in natural systems, and is quite insoluble over the Eh-pH range of most natural waters. Because of its low solubility and resultant low aqueous concentrations, thallium behavior is not well studied. There is some evidence that it may be involved in the biological cycle.

Vanadium

Vanadium can occur in the +3, +4, and +5 valence states in the normal range of environmental conditions. In addition to the complexity introduced by the multiple oxidation states, the aqueous geochemistry of vanadium is further complicated by the bewildering variety of complex ions that vanadium may form. In simplified form, however, the chemical behavior of vanadium somewhat resembles that of chromium. In reducing environments, vanadium is insoluble, and its solubility increases as conditions becoming increasingly oxidizing. Vanadium is readily adsorbed by clays and organic matter. Adsorption by organic matter is probably more correctly a reductive, and therefore an immobilizing, reaction.

Zinc

In most natural waters, zinc occurs as the hydrated divalent (+2) cation. In organically polluted waters, complexing with organic compounds may be an important process. The solubility of zinc is strongly dependent on pH, with low pH favoring increased solubility. Zinc has a strong affinity for adsorption to hydrous metal oxides, clays and organic matter. Adsorption of zinc is strongly favored at higher (>7) pH values and it is not appreciably bioaccumulated in aquatic organisms.

Cyanide

The cyanide functional group (-CN) can exist in a diverse group of organic or inorganic compounds whose fate and transport in the environment can vary greatly. The most common and toxic of the cyanides, free hydrogen cyanide (HCN), is extremely volatile, soluble in water, and reactive. Due to these characteristics, it rarely occurs in the environment. Cyanide ion typically forms complexes with a variety of metals, especially transition series metals, with ferricyanides and ferrocyanides being the most prominent form typically encountered in the environment. Iron cyanides are very stable in the absence of light, yet rapidly undergo photolytic decomposition reactions to release hydrogen cyanide upon exposure to sunlight or ultraviolet radiation. Complex metallo-cyanides (i.e., ferricyanides, ferrocyanides, etc.) are quite soluble and can be readily transported in aqueous solution. Cyanogen [(CN)₂] is a highly toxic, flammable, gaseous form that undergoes slow hydrolytic reactions in water to produce hydrogen cyanide, cyanic acid, and other compounds. In contrast, metallo-cyanates (-OCN) readily hydrolyze in water to form ammonia and bicarbonate ion as decomposition products. Organo-cyanates, if sufficiently concentrated, may also readily trimerize to generate cyanurates. Organo-isocyanates (-NCO) can be formed from cyanates and they too are rapidly hydrolyzed. Thiocyanates (-SCN) can be produced from cyanates and sulfur containing compounds under anaerobic conditions and are more stable than cyanates; however, in acidic media, thiocyanates can decompose to form free hydrogen cyanide. Nitriles also contain the cyanide functional group, are generally much less toxic than the metal cyanides or free hydrogen cyanide, and exhibit similar environmental fate characteristics as that for hydrogen cyanide. Cyanohydrins [R₂C(OH)CN] can also decompose with the release of HCN or CN⁻ under normal environmental conditions.

Cyanides are adsorbed to a variety of materials, including clays, biological solids and sediments; however, sorption is typically not a significant immobilizing process due to the relatively high volatility, solubility and/or reactivity of most cyanide containing compounds. Thus, cyanides are

fairly mobile in soils with mobility being greatest at high pH, high concentrations of free CaCO_3 (i.e., high negative charge) and low clay content.

In general, cyanides typically occur in water as: 1) free hydrocyanic acid (HCN); 2) simple cyanides (alkali and alkaline earth cyanides); 3) easily decomposable complex cyanides such as $\text{Zn}(\text{CN})_2$; and, relatively stable complex cyanides such as $[\text{Fe}(\text{CN})_6]^{3-}$, $[\text{Fe}(\text{CN})_6]^{4-}$ and $\text{Co}(\text{CN})_4$. Complex nickel and copper cyanides exhibit intermediate stability when compared to the easily decomposable and relatively stable cyanide containing compounds.

Hydrogen cyanide, metallo-cyanide complexes and nitriles are all subject to aerobic and anaerobic microbial degradation, and the importance of this process varies according to such factors as cyanide concentrations, pH, temperature, concentration of microbes, availability of nutrients, and whether the microbes are acclimated to cyanide. Additionally, all organisms have the ability to rapidly metabolize low concentrations (i.e., below lethal doses) of cyanide containing compounds. This, combined with the high toxicity of some of the cyanide compounds, results in an extremely low potential for organisms to bioaccumulate these compounds.

In general, most cyanide compounds are typically mobile and not very persistent in the environment due to their high volatility (hydrogen cyanide, nitriles), high reactivity (principally hydrogen cyanide), high aqueous solubility (except for insoluble simple metal cyanides), low adsorption to soil, low bioaccumulation potential, and susceptibility to microbial, metabolic, photolytic (primarily iron cyanides) and hydrolytic degradation. However, since many of these compounds can be converted to other cyanide containing compounds during various degradation/decomposition reactions, various forms may exist for some time in the environment, particularly if insoluble and/or stable cyanide containing compounds are produced.

**APPENDIX H
SURVEY DATA**

SURVEY DATA
NIAGARA MOHAWK POWER CORPORATION
TROY (SMITH AVENUE) SITE

Page 1 of 2

<u>Location Number</u>	<u>Ground Surface</u>	<u>Top of Inner Casing</u>
SS-1	27.70	-
SS-2	31.56	-
SS-3	22.43	-
SS-4	27.26	-
SS-6	31.64	-
SS-7	26.50	-
SS-8	27.83	-
SS-9	31.77	-
SS-10	35.99	-
SS-15	29.17	-
SS-17	30.46	-
SS-18	32.44	-
SS-19	29.18	-
SB-1	31.68	-
SB-2	31.61	-
SB-3	16.18	-
SB-4	33.27	-
SB-6	32.63	-
SB-7	32.2	-
SB-8	29.38	-
SB-9	28.45	-
SB-10	28.61	-
SB-11	29.58	-
SB-13	32.94	-
SB-14	32.53	-
SB-15	32.34	-
SB-16	31.24	-
SB-17	31.70	-
SB-18	15.85	-
SB-19	31.22	-
SB-20	28.56	-
SB-21	16.58	-
SB-22	16.59	-
MW-1	32.79	34.73
MW-2	28.01	27.52
MW-3	29.23	31.43
MW-4	32.49	32.17

SURVEY DATA
NIAGARA MOHAWK POWER CORPORATION
TROY (SMITH AVENUE) SITE

Page 2 of 2

<u>Location Number</u>	<u>Ground Surface</u>	<u>Top of Inner Casing</u>
MW-5S	27.75	29.97
MW-5D	27.85	30.27
MW-6	29.03	31.11
MW-7S	28.44	28.01
MW-7D	28.50	28.27
MW-8	24.16	25.97
MW-9S	24.44	24.23
MW-9D	24.70	24.32
MW-12	27.92	31.01
MW-13	29.92	32.35
MW-14	27.42	27.69
MW-15	32.75	35.20
MW-16	32.78	34.87
US-201	23.46	23.30
US-204	30.09	30.03
US-206	16.41	16.07
USMW-1	28.92	28.77
USMW-2	16.41	18.98

NOTES:

Elevations are given in feet mean sea level.

Elevations shown in italics are estimated. These locations were not surveyed.

APPENDIX I
**DEVELOPMENT OF HUMAN HEALTH-BASED PRELIMINARY
REMEDATION GOALS**

APPENDIX I DEVELOPMENT OF HUMAN HEALTH- BASED PRELIMINARY REMEDIATION GOALS

This section presents the development of human health-based preliminary remediation goals (PRGs) for COPCs identified in applicable media at the Troy (Smith Avenue) Site (see Table I-1). Toxicity and fate and transport information (Tables I-2 through I-9) is used in conjunction with information from the exposure assessment (Section 6.1.3) to calculate the human health-based PRGs (Tables I-10 through I-20).

Fate and Transport Assessment

Based on the potential for COPCs to migrate from one environmental medium to another, PRGs have been developed to be protective of the leaching of soil contaminants to groundwater, and the migration of volatile soil and groundwater and particulate soil contaminants into air. For the leaching pathway, soil, hydraulic and contaminant source data are combined with COPC-specific chemical and physical property data to estimate the potential leachability of each COPC. Soil leaching potential PRGs were calculated from NYSDEC equations for a Commercial Worker (Table I-27) and a Resident (Table I-26).

Volatilization Factors (Table I-2): Volatilization factors, typically in units of m^3/kg for soil or m^3/L for groundwater, were calculated to account for volatilization of COPCs from soil to indoor and outdoor air and from groundwater to indoor and outdoor air.

Groundwater to Indoor and Outdoor Air (Table I-3): The volatilization factors for groundwater to indoor air were estimated using the Henry's Law Constants obtained as indicated above. A conservative 100 percent COPC mass transfer from groundwater to soils was assumed; also assumed were a full basement with a 15.24 cm thick, relatively impermeable slab, with an intrinsic permeability (K_{sa}) of $1E-10 \text{ cm}^2$, with contamination assumed to be directly below the slab; a ceiling height of 2.44 meters; and an air exchange of 0.5/hr.

The model estimates atmospheric concentrations of a COPC from groundwater independent of the media concentration. Thus, by setting the groundwater concentration to $1 \mu\text{g/L}$, the volatilization factors can be estimated based on the ratio of $1 \mu\text{g/L}$ of COPC in groundwater to the resulting atmospheric concentration (mg/m^3). This ratio can then be expressed as the volatilization factor (m^3/L) as indicated in Equation I-3.

Equation I-3: Final Volatilization Factor - Groundwater to Atmospheric Concentrations

where:

$$VF (\text{m}^3 / \text{L}) = \frac{1}{\frac{AC (\text{mg} / \text{m}^3)}{SC / (1 \text{ ug} / \text{L})} * 1000 (\text{ug} / \text{mg})}$$

Parameter	Description	Unit
VF	Volatilization Factor	m ³ /L
SC	Groundwater Concentration set at 1	µg - COPC/L - water
AC	Resulting Atmospheric Concentration from groundwater to air model	mg/m ³
1,000	Conversion factor	µg/mg

Soil to Outdoor Air (Table I-4): Volatilization factors for volatilization of COPC from soil to outdoor air were estimated using default values and the model from the USEPA's Risk Assessment Guidance for Superfund - Part B (page 29). Assumptions used in the modeling of volatilization of COPCs from soil to outdoor air included a contamination area of 45 meters in length and a total area of 20,250,000 cm², a wind speed of 2.25 m/s, and a soil porosity of 0.35.

Soil to Indoor Air (Table I-5): Soil gas concentrations were calculated using the Research Triangle Institute Closed Landfill Model. Assumptions used in the modeling of volatilization factors for soil to indoor air included a full basement with a 15.24 cm thick, relatively impermeable slab, with an intrinsic permeability (Ksa) of 1E-10 cm², with contamination assumed to be directly below the slab; a ceiling height of 2.44 meters; and an air exchange of 0.5/hr.

The volatilization factors were estimated based on the ratio of 1 µg/kg of COPC in soil to the resulting atmospheric concentration in mg/m³. This ratio can then be transformed to the volatilization factor (m³/kg) as indicated in Equation I-4.

Equation I-4. Final Volatilization Factor - Soil to Indoor Atmospheric Concentrations

where;

$$VF (m^3 / kg) = \frac{1}{\frac{AC (mg / m^3)}{SC (1 \mu g / kg)} * 1000 (\mu g / mg)}$$

Parameter	Description	Unit
VF	Volatilization Factor	m ³ /kg
SC	Soil Concentration set at 1	µg - COPC/kg - soil
AC	Resulting Indoor Air Concentration	mg/m ³
1,000	Conversion factor	µg/mg

Particulate Emission Factors (Table I-9): The Particulate Emission Factor (PEF) is used in calculating air concentrations of respirable dust from resuspension of soil due to wind erosion and mechanical disturbance. Default values and the model from the USEPA's Risk Assessment Guidance for Superfund - Part B (page 30) were used in developing the PEF. Assumptions used

in the development of the PEF included a contaminated area 30 meters in length and a total area of 2300 m² with 80 percent vegetative cover, a wind speed of 2.25 m/s, and a respirable fraction of 0.036 g/m²-hour.

Chemical-Specific Physical Parameters (Table I-6)

Several chemical-specific physical parameters were also required in the development of the human health-based PRGs. The parameters included: Henry's Law Constants (atm-m³/mol or dimensionless); dermal permeability coefficient in water, K_p (cm/hr); and the molecular weights of the COPCs.

Henry's Law Constants were compiled from the Electronic Handbook of Risk Assessment Values (EHRAV) and NYSDEC's Interim Procedures for Inactivation of Petroleum-Impacted Sites. Depending on the source of the Henry's Law Constant, the units were either presented in atm-m³/mol or dimensionless.

Since both units are used in various models, the available Henry's Law Constant was transformed, where required, using the universal gas constant (8.21E-05 m³-atm/mol-K) and temperature in Kelvin (298 K) for standard temperature and pressure (see Equation I-1).

Equation I-1: Transformation of Henry's Law Constant

$$H \text{ (dimensionless)} = \frac{H \text{ (m}^3 \text{ - atm / mol)}}{RT}$$

or

$$H \text{ (m}^3 \text{ - atm / mol)} = H \text{ (dimensionless)}RT$$

where:

Parameter	Description	Unit
H' (dimensionless)	Henry's Law Constant	Dimensionless
H (m ³ -atm/mol)	Henry's Law Constant	m ³ -atm/mol
R	Universal Gas Constant	m ³ -atm/mol-K
T	Temperature	°K

Dermal permeabilities in water (K_{p,water}) were compiled from the USEPA's Dermal Exposure Assessment Principles and Applications or estimated based on Equation I-2 from the same document (see Table I-7).

Equation I-2: Estimation of Dermal Permeability Coefficient from Water through Skin. Based on Potts and Guy (1992) in USEPA's Dermal Exposure Assessment Principles and Applications.

$$K_p \text{ water} = 10^{(-2.72 + 0.71 \log K_{ow} - 0.0061 \text{MW})}$$

where;

Parameter	Description	Unit
$K_p \text{ water}$	Dermal Permeability coefficient in water	cm/hr
$\log K_{ow}$	Partition coefficient between octanol and water	dimensionless
MW	Molecular Weight	g/g mole

Toxicity Information (Table I-8)

Specific toxicity criteria are available to evaluate both carcinogenic and noncarcinogenic endpoints. For noncarcinogenic effects, USEPA has developed Reference Doses (RfDs) for oral and dermal exposures and Reference Concentrations (RfCs) for inhalation exposures. For the purposes of calculating the PRGs, the RfC, typically presented in units of mg/m^3 , must be expressed in the same units as the RfD ($\text{mg}/\text{kg}/\text{day}$). Therefore, the RfCs were transformed to units of $\text{mg}/\text{kg}/\text{day}$ by multiplying by $20 \text{ m}^3/\text{day}$ (default adult respiration rate) and dividing by 70 kg (default adult body weight). In the absence of subchronic RfDs for COPC, the chronic RfDs were used as the subchronic RfDs for the construction worker scenario.

To evaluate potential carcinogenic risk, USEPA has developed cancer slope factors (CSFs) and unit risk (UR) values. The toxicity values used in this evaluation for carcinogenic effects are the Oral Cancer Slope Factors (CSF_o) for oral and dermal exposures and the Inhalation Cancer Slope Factors (CSF_i) for inhalation exposures. Both the oral and inhalation CSFs are expressed in $(\text{mg}/\text{kg}/\text{day})^{-1}$.

Toxicity criteria were obtained from the USEPA's Integrated Risk Information System (IRIS), the Health Effects Assessment Summary Tables (HEAST), or the EPA National Center for Environmental Assessment Superfund Technical Support Center (EPA-NCEA) and used in this order.

Calculation of Human Health-Based PRGs

Equations for human health-based PRGs were developed based on USEPA's Risk Assessment Guidance for Superfund: Part B, Development of Risk-based Preliminary Remediation Goals (USEPA, 1991). PRGs are chemical-, medium-, and receptor-specific values and are designed to account for the applicable exposure pathways identified in the exposure assessment (Section 6.1.3). Carcinogenic and noncarcinogenic PRGs are calculated for applicable COPCs. If a COPC has both a carcinogenic and noncarcinogenic PRG, the lower of the two (i.e., the value protective of both health effects) is selected as the human health-based PRG.

Human health-based PRGs are developed by setting the risk level in the baseline risk relationship to a target risk level, and back-calculating the corresponding concentration term. This concentration term represents the concentration in the applicable media which would be associated with a risk equal to the target risk level for the specific receptor and exposure assumptions.

The equations for noncarcinogenic and carcinogenic soil and sediment PRGs are presented in the following text Tables A and B, respectively, for the Commercial Worker, Construction Worker, Utility/Maintenance Worker, Adolescent Trespasser, and Resident.

The equations for noncarcinogenic and carcinogenic groundwater PRGs are presented in Tables C and D, respectively, for the Construction Worker and Resident.

The parameters used in the calculation of the PRGs include:

Target Risk Levels: Human health-based PRGs are calculated by setting the individual chemical-specific risk level for noncarcinogenic effects (Hazard Quotient, or HQ) to 0.2 and for carcinogenic effects (Excess Lifetime Cancer Risk, or ELCR) to 1E-06. The individual PRGs calculated are shown in Tables I-10 through I-20.

HUMAN HEALTH RISK-BASE PRELIMINARY REMEDIATION GOALS

Table A

Non-Carcinogenic Effects

Surface Soil, Subsurface Soil for the Commercial Worker, Construction Worker, Utility/Maintenance Worker, and Adolescent Trespasser, and Resident

<u>Pathways</u>	$THI * BW * AT$ $\left(\frac{1}{RfD_i} * \frac{1}{VF_{sa}} * IR_i * ET_i * EF_i * ED_i \right) +$ $\left(\frac{1}{RfD_o} * IR_{si} * EF_{si} * ED_{si} * RAF_{si} * CF_1 * FC \right) +$ $\left(\frac{1}{RfD_o} * SA_{sd} * AF_{sd} * ET_{sd} * EF_{sd} * ED_{si} * RAF_{sd} * CF_1 \right) +$ $\left(\frac{1}{RfD_i} * \frac{1}{PEF} * IR_{sp} * ET_{sp} * EF_{sp} * ED_{sp} * FC \right)$
Inhalation of Vapors (Indoor or Outdoor)	
Ingestion of Soil	
Direct Contact	
Inhalation of Resuspended Soil	

Note: Only applicable pathways for each receptor (as defined in the exposure assessment) are used in the calculation of the PRGs.

Parameter	Description	Unit
THI	Target Hazard Index	unitless
BW	Body Weight	kg
AT	Averaging Time	days
RfD _i	Inhalation Reference Dose	mg/kg-day
RfD _o	Chronic or Subchronic Oral Reference Dose	mg/kg-day
RAF	Relative Absorption Factor for Appropriate Medium and Route	unitless
VF _{sa}	Soil to Indoor/Outdoor Air Volatilization Factor	m ³ /kg
CF ₁	Conversion Factor	kg/mg
FC	Fraction from Contaminated Source	unitless
IR _i	Inhalation Rate	m ³ /hour
ET _i	Exposure Time - Inhalation	hour/day
EF _i	Exposure Frequency - Inhalation	day/year
ED _i	Exposure Duration - Inhalation	year
IR _{si}	Soil Ingestion Rate	mg/day
EF _{si}	Exposure Frequency - Soil Ingestion	day/year
ED _{si}	Exposure Duration - Soil Ingestion	year
SA _{sd}	Exposed Skin Area	cm ² /event
AF _{sd}	Soil to Skin Adherence Factor	mg/cm ²
ET _{sd}	Exposure Time - Direct Contact	event/day
EF _{sd}	Exposure Frequency - Direct Contact	day/year
ED _{sd}	Exposure Duration - Direct Contact	year
PEF	Particulate Emission Factor	m ³ /kg
IR _{sp}	Inhalation Rate - Soil Particulates	m ³ /hour
ET _{sp}	Exposure Time - Soil Particulates	hour/day
EF _{sp}	Exposure Frequency - Soil Particulates	day/year
ED _{sp}	Exposure Duration - Soil Particulates	year

Table B
Carcinogenic Effects
Surface Soil, Subsurface Soil
for the Commercial Worker, Construction Worker, Utility/Maintenance Worker, and
Adolescent Trespasser, and Resident

Pathways

Inhalation of Vapors (Indoor or Outdoor)	$ \begin{aligned} & \text{THI} * \text{BW} * \text{AT} \\ & \left(\text{CSF}_i * \frac{1}{\text{VF}_{sa}} * \text{IR}_i * \text{ET}_i * \text{EF}_i * \text{ED}_i \right) + \\ & \left(\text{CSF}_o * \text{IR}_{si} * \text{EF}_{si} * \text{ED}_{si} * \text{RAF}_{si} * \text{CF}_i * \text{FC} \right) + \\ & \left(\text{CSF}_o * \text{SA}_{sd} * \text{AF}_{sd} * \text{ET}_{sd} * \text{EF}_{sd} * \text{ED}_{si} * \text{RAF}_{sd} * \text{CF}_i \right) + \\ & \left(\text{CSF}_i * \frac{1}{\text{PEF}} * \text{IR}_{sp} * \text{ET}_{sp} * \text{EF}_{sp} * \text{ED}_{sp} * \text{FC} \right) \end{aligned} $
Ingestion of Soil	
Direct Contact	
Inhalation of Resuspended soil	

Note: Only applicable pathways for each receptor (as defined in the exposure assessment) are used in the calculation of the PRGs.

Parameter	Description	Unit
THI	Target Hazard Index	unitless
BW	Body Weight	kg
AT	Averaging Time	days
CSF _i	Inhalation Cancer Slope Factor	(mg/kg-day) ⁻¹
CSF _o	Oral Cancer Slope Factor	(mg/kg-day) ⁻¹
RAF	Relative Absorption Factor for Appropriate Medium and Route	unitless
VF _{sa}	Soil to Indoor/Outdoor Air Volatilization Factor	m ³ /kg
CF _i	Conversion Factor	kg/mg
FC	Fraction from Contaminated Source	unitless
IR _i	Inhalation Rate	m ³ /hour
ET _i	Exposure Time - Inhalation	hour/day
EF _i	Exposure Frequency - Inhalation	day/year
ED _i	Exposure Duration - Inhalation	year
IR _{si}	Soil Ingestion Rate	mg/day
EF _{si}	Exposure Frequency - Soil Ingestion	day/year
ED _{si}	Exposure Duration - Soil Ingestion	year
SA _{sd}	Exposed Skin Area	cm ² /event
AF _{sd}	Soil to Skin Adherence Factor	mg/cm ²
ET _{sd}	Exposure Time - Direct Contact	event/day
EF _{sd}	Exposure Frequency - Direct Contact	day/year
ED _{sd}	Exposure Duration - Direct Contact	year
PEF	Particulate Emission Factor	m ³ /kg
IR _{sp}	Inhalation Rate - Soil Particulates	m ³ /hour
ET _{sp}	Exposure Time - Soil Particulates	hour/day
EF _{sp}	Exposure Frequency - Soil Particulates	day/year
ED _{sp}	Exposure Duration - Soil Particulates	year

Table C
Non-Carcinogenic Effects
Groundwater
for the Commercial/Industrial Worker and Resident

<u>Pathways</u>	THI * BW * AT
Inhalation of Vapors (Indoor or Outdoor)	$\left(\frac{1}{RfD_i} * \frac{1}{VF_{gw-a}} * IR_i * ET_i * EF_i * ED_i \right) +$
Ingestion of Groundwater	$\left(\frac{1}{RfD_o} * IR_{wi} * EF_{wi} * ED_{wi} * RAF_{wi} * FC \right) +$
Direct Contact	$\left(\frac{1}{RfD_o} * SA_{wd} * K_p * ET_{wd} * EF_{wd} * ED_{wi} * RAF_{wd} * CF_1 \right)$

Note: Only applicable pathways for each receptor (as defined in the exposure assessment) are used in the calculation of the PRGs.

Parameter	Description	Unit
THI	Target Hazard Index	unitless
BW	Body Weight	kg
AT	Averaging Time	days
RfD _i	Inhalation Reference Dose	mg/kg-day
RfD	Chronic or Subchronic Oral Reference Dose	mg/kg-day
RAF	Relative Absorption Factor for Appropriate Media and Pathway	unitless
VF _{gw-a}	Groundwater to Air Volatilization Factor	m ³ /L
CF ₁	Conversion Factor	L/cm ³
FC	Fraction from Contaminated Source	unitless
IR _i	Inhalation Rate	m ³ /hour
ET _i	Exposure Time - Inhalation	hour/day
EF _i	Exposure Frequency - Inhalation	day/year
ED _i	Exposure Duration - Inhalation	year
IR _{wi}	Incidental or Drinking Water Ingestion Rate	L/day
EF _{wi}	Exposure Frequency - Water Ingestion	day/year
ED _{wi}	Exposure Duration - Water Ingestion	year
SA _{wd}	Exposed Skin Area	cm ²
K _p	Chemical Specific Dermal Permeability Constant	cm/hr
ET _{wd}	Exposure Time - Direct Contact	hr/day
EF _{wd}	Exposure Frequency - Direct Contact	day/year
ED _{wd}	Exposure Duration - Direct Contact	year

Table D
Carcinogenic Effects
Groundwater
for the Commercial/Industrial Worker and Resident

<u>Pathways</u>	THI * BW * AT
Inhalation of Vapors (Indoor or Outdoor)	$\left(\text{CSF}_i * \frac{1}{\text{VF}_{\text{gw-a}}} * \text{IR}_i * \text{ET}_i * \text{EF}_i * \text{ED}_i \right) +$ $\left(\text{CSF}_o * \text{IR}_{\text{wi}} * \text{EF}_{\text{wi}} * \text{ED}_{\text{wi}} * \text{RAF}_{\text{wi}} * \text{FC} \right) +$ $\left(\text{CSF}_o * \text{SA}_{\text{wd}} * \text{K}_p * \text{ET}_{\text{wd}} * \text{EF}_{\text{wd}} * \text{ED}_{\text{wi}} * \text{RAF}_{\text{wd}} * \text{CF}_1 \right)$
Ingestion of Groundwater	
Direct Contact	

Note: Only applicable pathways for each receptor (as defined in the exposure assessment) are used in the calculation of the PRGs.

Parameter	Description	Unit
THI	Target Hazard Index	unitless
BW	Body Weight	kg
AT	Averaging Time	days
CSF _i	Inhalation Cancer Slope Factor	(mg/kg-day) ⁻¹
CSF _o	Oral Cancer Slope Factor	(mg/kg-day) ⁻¹
RAF	Relative Absorption Factor for Appropriate Media and Pathway	unitless
VF _{gw-a}	Groundwater to Air Volatilization Factor	m ³ /L
CF ₁	Conversion Factor	L/cm ³
FC	Fraction from Contaminated Source	unitless
IR _i	Inhalation Rate	m ³ /hour
ET _i	Exposure Time - Inhalation	hour/day
EF _i	Exposure Frequency - Inhalation	day/year
ED _i	Exposure Duration - Inhalation	year
IR _{wi}	Incidental or Drinking Water Ingestion Rate	L/day
EF _{wi}	Exposure Frequency - Water Ingestion	day/year
ED _{wi}	Exposure Duration - Water Ingestion	year
SA _{wd}	Exposed Skin Area	cm ²
K _p	Chemical Specific Dermal Permeability Constant	cm/hr
ET _{wd}	Exposure Time - Direct Contact	hr/day
EF _{wd}	Exposure Frequency - Direct Contact	day/year
ED _{wd}	Exposure Duration - Direct Contact	year

**Table I-1
Summary of COPC by Media**

COPC	NMPC AND ACOE PROPERTIES			OFF-SITE (DOUW STREET) PROPERTY		
	Shallow Soil	Subsurface	Groundwater	Shallow Soil	Subsurface	Groundwater
Volatile Organics						
Methylene chloride	--	--	--	--	--	--
Acetone	--	YES	YES	--	--	--
Carbon disulfide	--	--	--	--	--	--
1,2-Dichloroethene (total)	--	--	--	--	--	--
2-Butanone	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--
Benzene	--	YES	YES	--	--	--
4-Methyl-2-pentanone	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	--	YES	YES	--	--	--
Ethylbenzene	--	YES	YES	--	YES	--
Styrene	--	YES	--	--	--	--
Xylenes (Total)	--	YES	YES	--	YES	YES
	--	--	--	--	--	--
Semi-volatile Organics						
2,4-Dimethylphenol	--	--	--	--	--	--
Phenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
Naphthalene	YES	YES	YES	--	YES	YES
2-Methylnaphthalene	--	YES	YES	--	--	YES
2-Chloronaphthalene	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--

**Table I-1
Summary of COPC by Media**

COPC	NMPC AND ACOE PROPERTIES			OFF-SITE (DOUW STREET) PROPERTY		
	Shallow Soil	Subsurface	Groundwater	Shallow Soil	Subsurface	Groundwater
Acenaphthylene	YES	YES	YES	--	YES	--
Acenaphthene	--	YES	YES	--	YES	YES
Dibenzofuran	--	YES	YES	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
Diethylphthalate	--	YES	--	--	--	--
Fluorene	YES	YES	YES	YES	YES	YES
Phenanthrene	YES	YES	YES	YES	YES	YES
Anthracene	YES	YES	YES	YES	YES	--
Carbazole	YES	YES	YES	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
Fluoranthene	YES	YES	YES	--	YES	--
Pyrene	YES	YES	YES	YES	YES	YES
Butylbenzylphthalate	--	--	--	--	--	--
Benzo(a)anthracene	YES	YES	YES	YES	YES	--
Chrysene	YES	YES	YES	YES	YES	--
Bis(2-ethylhexyl)phthalate	--	YES	--	--	--	--
Di-n-octylphthalate	--	YES	--	--	--	--
Benzo(b)fluoranthene	YES	YES	YES	YES	YES	--
Benzo(k)fluoranthene	YES	YES	YES	YES	YES	--
Benzo(a)pyrene	YES	YES	YES	YES	YES	--
Indeno(1,2,3cd)pyrene	YES	YES	YES	--	YES	--
Dibenzo(a,h)anthracene	YES	YES	--	--	YES	--
Benzo(g,h,i)perylene	YES	YES	YES	--	YES	--

**Table I-1
Summary of COPC by Media**

COPC	NMPC AND ACOE PROPERTIES			OFF-SITE (DOUW STREET) PROPERTY		
	Shallow Soil	Subsurface	Groundwater	Shallow Soil	Subsurface	Groundwater
Pesticides/PCBs						
alpha-BHC	--	--	--	--	--	--
beta-BHC	--	--	--	--	--	--
delta-BHC	--	--	--	--	--	--
gamma-BHC (Lindane)	--	--	--	--	--	--
Aldrin	YES	YES	--	--	--	--
Heptachlor	--	--	--	--	--	--
Heptachlor epoxide	--	YES	--	--	--	--
Endosulfan I	--	--	--	--	--	--
Dieldrin	YES	YES	--	--	--	--
Endrin	YES	YES	YES	--	--	--
4,4'-DDE	YES	YES	--	--	--	--
Endosulfan II	YES	YES	--	--	--	--
4,4'-DDD	YES	--	--	--	--	--
Endosulfan sulfate	YES	YES	--	--	--	--
4,4'-DDT	YES	YES	--	--	--	--
Methoxychlor	--	YES	--	--	--	--
Endrin ketone	--	--	--	--	--	--
Endrin aldehyde	--	YES	--	--	--	--
alpha-Chlordane	YES	--	--	--	--	--
gamma-Chlordane	--	YES	--	--	--	--
Aroclor-1242	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--

**Table I-1
Summary of COPC by Media**

COPC	NMPC AND ACOE PROPERTIES			OFF-SITE (DOUW STREET) PROPERTY		
	Shallow Soil	Subsurface	Groundwater	Shallow Soil	Subsurface	Groundwater
Aroclor-1260	--	YES				
Aluminum	YES	--	--	--	--	--
Antimony	--	--	--	--	--	--
Arsenic	YES	YES	YES			
Barium	YES	--	--	--	--	--
Beryllium	--	--	YES	--	--	--
Cadmium	--	--	--	--	--	--
Chromium (Total)	YES	YES	YES	--	--	--
Cobalt	YES	YES	YES	--	--	--
Copper	YES	--	YES	--	--	--
Iron	--	--	--	--	--	--
Lead	YES	--	--	--	--	--
Manganese	YES	YES	--	--	--	--
Mercury	YES	YES	--	--	--	--
Nickel	YES	YES	--	--	--	--
Selenium	YES	YES	--	--	--	--
Silver	--	--	--	--	--	--
Thallium	YES	YES	--	--	--	--
Vanadium	YES	YES	YES	--	--	--
Zinc	YES	--	--	--	--	--
Cyanide	YES	YES	--	--	--	--

Notes

-: Not a COPC

Table I-2
Summary of Volatilization Factors

COPC ^[1]	CASRN	Soil to Outdoor Air ^[2] (m ³ /kg)	Soil to Indoor Air ^[3] (m ³ /kg)	Exposed Groundwater to Outdoor Air ^[2] (m ³ /l)	Groundwater to Indoor Air ^[3] (m ³ /l)
Methylene chloride	75-09-2	1.2E+03	7.5E+01	7.8E+02	5.6E+02
Acetone	67-64-1	3.7E+03	3.8E+03	1.5E+03	2.8E+04
Carbon disulfide	75-15-0	1.2E+03	1.5E+01	-	1.1E+02
1,2-Dichloroethene (tot	156-60-5	1.8E+03	2.8E+01	-	2.1E+02
2-Butanone	78-93-3	5.9E+03	3.6E+03	-	2.7E+04
Trichloroethene	79-01-6	2.5E+03	2.1E+01	-	1.6E+02
1,1,1-Trichloroethane	71-55-6	1.5E+03	6.6E+00	3.8E+03	4.9E+01
Benzene	71-43-2	2.1E+03	3.4E+01	3.9E+03	2.6E+02
4-Methyl-2-pentanone	108-10-1	1.1E+04	2.7E+03	-	2.0E+04
Tetrachloroethene	127-18-4	9.3E+03	9.0E+01	5.4E+03	6.8E+02
Toluene	108-88-3	2.9E+03	2.9E+01	5.7E+03	2.2E+02
Ethylbenzene	100-41-4	3.9E+03	2.4E+01	6.6E+03	1.8E+02
Styrene	100-42-5	1.4E+04	7.5E+01	7.0E+03	5.6E+02
Xylenes (Total)	1330-20-7	4.1E+03	2.6E+01	6.8E+03	1.9E+02
Naphthalene	91-20-3	6.8E+03	1.5E+02	8.6E+03	1.2E+03
2-Methylnaphthalene	91-57-6	2.9E+04	3.6E+02	1.1E+04	2.7E+03

Notes

- [1] Chemical of Potential Concern: Volatile Compounds
- [2] Construction Worker and Utility Worker.
- [3] Commercial Worker and Resident Adult/Child.

**Table I-3
Groundwater to Soil Gas to Indoor Air**

Compound	CASRN	Groundwater Conc. (ug/l)	Henry's Law Constant unitless	Conv. Factor (l/cm3)*(mg/ug)	Csg (mg/cm3)	Ksa (cm2)	Pi-Po (g/cm*s2)
Methylene chloride	75-09-2	1	1.00E-01	0.000001	1.00E-07	1.00E-10	16.08
Acetone	67-64-1	1	2.00E-03	0.000001	2.00E-09	1.00E-10	16.08
1,1,1-Trichloroethane	71-55-6	1	1.14E+00	0.000001	1.14E-06	1.00E-10	16.08
Benzene	71-43-2	1	2.20E-01	0.000001	2.20E-07	1.00E-10	16.08
Tetrachloroethene	127-18-4	1	8.34E-02	0.000001	8.34E-08	1.00E-10	16.08
Toluene	108-88-3	1	2.60E-01	0.000001	2.60E-07	1.00E-10	16.08
Ethylbenzene	100-41-4	1	3.20E-01	0.000001	3.20E-07	1.00E-10	16.08
Styrene	100-42-5	1	1.00E-01	0.000001	1.00E-07	1.00E-10	16.08
Xylenes (Total)	1330-20-7	1	2.90E-01	0.000001	2.90E-07	1.00E-10	16.08
Naphthalene	91-20-3	1	4.90E-02	0.000001	4.90E-08	1.00E-10	16.08
2-Methylnaphthalene	91-57-6	1	2.07E-02	0.000001	2.07E-08	1.00E-10	16.08

Assumes: 6" thick concrete slab, permeability (Ksa) 1E-10, 8 ft. high ceilings in building, air exchange of 0.5/hr.

**Table I-3
Groundwater to Soil Gas to Indoor Air (Continued)**

Air Viscosity (g/cm*s)	Slab Thick. (cm)	Conv. Factor (cm ² /m ²)	Mass Flux Qacs (mg/m ² *s)	Ceiling Height (m)	Air Exchange (Ex/hr)	Conv. Factor (s/hr)	Indoor Air Conc. (mg/m ³)	Indoor Air Volatilization Factor (m ³ /L)
1.76E-04	15.24	10000	5.99E-10	2.44	0.5	3600	1.77E-06	5.65E+02
1.76E-04	15.24	10000	1.20E-11	2.44	0.5	3600	3.54E-08	2.82E+04
1.76E-04	15.24	10000	6.86E-09	2.44	0.5	3600	2.03E-05	4.94E+01
1.76E-04	15.24	10000	1.32E-09	2.44	0.5	3600	3.89E-06	2.57E+02
1.76E-04	15.24	10000	5.00E-10	2.44	0.5	3600	1.48E-06	6.78E+02
1.76E-04	15.24	10000	1.56E-09	2.44	0.5	3600	4.60E-06	2.17E+02
1.76E-04	15.24	10000	1.92E-09	2.44	0.5	3600	5.66E-06	1.77E+02
1.76E-04	15.24	10000	5.99E-10	2.44	0.5	3600	1.77E-06	5.65E+02
1.76E-04	15.24	10000	1.74E-09	2.44	0.5	3600	5.13E-06	1.95E+02
1.76E-04	15.24	10000	2.94E-10	2.44	0.5	3600	8.67E-07	1.15E+03
1.76E-04	15.24	10000	1.24E-10	2.44	0.5	3600	3.66E-07	2.73E+03

**Table I- 3
Groundwater to Outdoor Box Model**

Compound	CASRN	From Water 8 Mass Flux		Mixing	Wind	Outdoor Air	Outdoor Air
		Qacs (mg/m ² *s)	Distance (m)	Height (m)	Speed (m/s)	Conc. (mg/m ³)	Volatilization Factor (m ³ /L)
Methylene chloride	75-09-2	3.43E-07	9.144	1.22	2	1.28E-06	7.79E+02
Acetone	67-64-1	2.68E-07	9.144	1.22	3	6.69E-07	1.49E+03
1,1,1-Trichloroethane	71-55-6	2.84E-07	9.144	1.22	8	2.66E-07	3.75E+03
Benzene	71-43-2	3.05E-07	9.144	1.22	9	2.54E-07	3.94E+03
Tetrachloroethene	127-18-4	2.71E-07	9.144	1.22	11	1.85E-07	5.41E+03
Toluene	108-88-3	2.79E-07	9.144	1.22	12	1.75E-07	5.73E+03
Ethylbenzene	100-41-4	2.62E-07	9.144	1.22	13	1.51E-07	6.62E+03
Styrene	100-42-5	2.66E-07	9.144	1.22	14	1.42E-07	7.02E+03
Xylenes (Total)	1330-20-7	2.95E-07	9.144	1.22	15	1.47E-07	6.78E+03
Naphthalene	91-20-3	2.49E-07	9.144	1.22	16	1.17E-07	8.56E+03
2-Methylnaphthalene	91-57-6	2.11E-07	9.144	1.22	17	9.31E-08	1.07E+04

Mass flux derived from USEPA Water 8

Table I-4
Volatilization Factors - Soil to Outdoor Air

Length of Contaminated Area (m)	45
Wind Speed (m/sec.)	2.25
diffusion height (m)	2
area of contamination (cm ²)	20,250,000
Soil Porosity (unitless)	0.35
Organic Carbon Content of Soil (fraction)	0.02
Exposure Interval (sec)	7.9E+08
Soil Density (g/cm ³)	2.65

		Molecular Diffusivity (cm ² /sec) D_i	Effective Diffusivity (cm ² /sec) $D_{ei} = D_i * E^{0.33}$	Henry's Law (atm m ³ /mol) H	Soil-Water Partition Coefficient (cm ³ /g) $K_d = K_{oc} * OC$	Organic Carbon Partition Coefficient (cm ³ /g) K_{oc}	Volatilization Factor (m ³ /kg) VF
Methylene chloride	75-09-2	0.0858	0.119	2.45E-03	0.176	8.8	1164
Acetone	67-64-1	0.11498	0.160	4.89E-05	0.044	2.2	3739
Carbon disulfide	75-15-0	0.1045	0.145	1.22E-02	1.08	54	1180
1,2-Dichloroethene (total)	156-60-5	0.0998	0.139	6.60E-03	1.18	59	1757
2-Butanone	78-93-3	0.08944	0.124	5.14E-05	0.0902	4.51	5936
Trichloroethene	79-01-6	0.08116	0.113	8.90E-03	2.52	126	2472
1,1,1-Trichloroethane	71-55-6	0.07965	0.111	2.80E-02	3.04	152	1511
Benzene	71-43-2	0.0932	0.130	5.38E-03	1.3	65	2126
4-Methyl-2-pentanone	108-10-1	0.07867	0.109	6.77E-05	0.38	19	11336
Tetrachloroethene	127-18-4	0.07404	0.103	2.04E-03	7.28	364	9313
Toluene	108-88-3	0.07828	0.109	6.36E-03	2.4	120	2916
Ethylbenzene	100-41-4	0.06667	0.093	7.83E-03	4.4	220	3871
Styrene	100-42-5	0.07035	0.098	2.45E-03	17.82	891	13658
Xylenes (Total) ¹	1330-20-7	0.07164	0.100	7.10E-03	4.72	236	4067
Naphthalene	91-20-3	0.08205	0.114	1.20E-03	2.56	128	6838
2-Methylnaphthalene	91-57-6	0.06196	0.086	5.06E-04	14.4	720	28766

¹ based on o-Xylene

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

1. Calculate mole fraction of constituents in waste liquid:

Model Step	A	B	C	D	E	F	G	
Constituent	Soil Level (ug/kg)	Dry Weight Ratio (Dimensionless)	Waste Liquid Weight in 1 kg of Sample (kg)	Waste Liquid Density (kg/cu.cm)	Waste Liquid Volume in 1 kg of Sample (liters)	Concentration in Waste Liquid (ug/l)	Constituent Weight in 1 L Waste Liquid (g)	
			I-B		C/D * 0.001	A/E	F * 0.000001	
Methylene chloride	75-09-2	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Acetone	67-64-1	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Carbon disulfide	75-15-0	1	0.86	0.14	0.001	0.14	7	7.14286E-06
1,2-Dichloroethene (total)	156-60-5	1	0.86	0.14	0.001	0.14	7	7.14286E-06
2-Butanone	78-93-3	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Trichloroethene	79-01-6	1	0.86	0.14	0.001	0.14	7	7.14286E-06
1,1,1-Trichloroethane	71-55-6	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Benzene	71-43-2	1	0.86	0.14	0.001	0.14	7	7.14286E-06
4-Methyl-2-pentanone	108-10-1	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Tetrachloroethene	127-18-4	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Toluene	108-88-3	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Ethylbenzene	100-41-4	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Styrene	100-42-5	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Xylenes (Total) ¹	1330-20-7	1	0.86	0.14	0.001	0.14	7	7.14286E-06
Naphthalene	91-20-3	1	0.86	0.14	0.001	0.14	7	7.14286E-06
2-Methylnaphthalene	91-57-6	1	0.86	0.14	0.001	0.14	7	7.14286E-06

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

I. Calculate mole fraction of constituents in waste liquid (continued):

H	I	J	K	L	M	N	O
Weight of 1 l. of Waste Liquid (g)	Weight Fraction of Constituent in Waste Liquid (Dimensionless)	Weight Fraction of Water in Waste Liquid (Dimensionless)	Molecular Weight of Water (g)	Molecular Weight of Constituent (g)	GI/MWi	CH ₂ O/MWH ₂ O	Mole Fraction of Constituent in Waste Liquid (Dimensionless)
1000 + Sum of G	G/H	1000/H			I/L	J/K	M/(M+N)
1000.000114	7.14E-09	1.00E+00	18	84.93	8.4E-11	5.56E-02	1.51E-09
1000.000114	7.14E-09	1.00E+00	18	58.00	1.2E-10	5.56E-02	2.22E-09
1000.000114	7.14E-09	1.00E+00	18	76.14	9.4E-11	5.56E-02	1.69E-09
1000.000114	7.14E-09	1.00E+00	18	96.94	7.4E-11	5.56E-02	1.33E-09
1000.000114	7.14E-09	1.00E+00	18	72.12	9.9E-11	5.56E-02	1.78E-09
1000.000114	7.14E-09	1.00E+00	18	131.29	5.4E-11	5.56E-02	9.79E-10
1000.000114	7.14E-09	1.00E+00	18	133.41	5.4E-11	5.56E-02	9.64E-10
1000.000114	7.14E-09	1.00E+00	18	78.00	9.2E-11	5.56E-02	1.65E-09
1000.000114	7.14E-09	1.00E+00	18	100.16	7.1E-11	5.56E-02	1.28E-09
1000.000114	7.14E-09	1.00E+00	18	165.85	4.3E-11	5.56E-02	7.75E-10
1000.000114	7.14E-09	1.00E+00	18	92.15	7.8E-11	5.56E-02	1.40E-09
1000.000114	7.14E-09	1.00E+00	18	106.17	6.7E-11	5.56E-02	1.21E-09
1000.000114	7.14E-09	1.00E+00	18	104.16	6.9E-11	5.56E-02	1.23E-09
1000.000114	7.14E-09	1.00E+00	18	106.00	6.7E-11	5.56E-02	1.21E-09
1000.000114	7.14E-09	1.00E+00	18	128.06	5.6E-11	5.56E-02	1.00E-09
1000.000114	7.14E-09	1.00E+00	18	142.20	5.0E-11	5.56E-02	9.04E-10

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

2. Estimate equilibrium partial pressure of constituent. in atm.

Model Step	A	B	C	D	E	F
Constituent	Mole Fraction of Constituent in Waste Liquid (Dimensionless)	Density of Waste Liquid (g/cu.cm.)	Henry's Law Constant (cu.m*atm/mol)	Molecular Weight of Waste Liquid (g)	Cu.cm to Cu.m. Conversion Factor (1.0E06)	Equilibrium Partial Press. of Constituent (atm.)
	O from I.					
Methylene chloride	75-09-2	1.51E-09	1	2.45E-03	18	1.00E+06
Acetone	67-64-1	2.22E-09	1	4.89E-05	18	1.00E+06
Carbon disulfide	75-15-0	1.69E-09	1	1.22E-02	18	1.00E+06
1,2-Dichloroethene (total)	156-60-5	1.33E-09	1	6.60E-03	18	1.00E+06
2-Butanone	78-93-3	1.78E-09	1	5.14E-05	18	1.00E+06
Trichloroethene	79-01-6	9.79E-10	1	8.90E-03	18	1.00E+06
1,1,1-Trichloroethane	71-55-6	9.64E-10	1	2.80E-02	18	1.00E+06
Benzene	71-43-2	1.65E-09	1	5.38E-03	18	1.00E+06
4-Methyl-2-pentanone	108-10-1	1.28E-09	1	6.77E-05	18	1.00E+06
Tetrachloroethene	127-18-4	7.75E-10	1	2.04E-03	18	1.00E+06
Toluene	108-88-3	1.40E-09	1	6.36E-03	18	1.00E+06
Ethylbenzene	100-41-4	1.21E-09	1	7.83E-03	18	1.00E+06
Styrene	100-42-5	1.23E-09	1	2.45E-03	18	1.00E+06
Xylenes (Total)I	1330-20-7	1.21E-09	1	7.10E-03	18	1.00E+06
Naphthalene	91-20-3	1.00E-09	1	1.20E-03	18	1.00E+06
2-Methylnaphthalene	91-57-6	9.04E-10	1	5.06E-04	18	1.00E+06

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

3. Estimate concentrations of constituents in the vadose zone:							
Model Step		A	B	C	D	E	F
Constituent		Equilibrium Partial Press. of Constituent (atm.)	Molecular Weight of Constituent (g)	Gas Constant, R (cu.cm*atm./k*g*mol)	Soil Temperature (Degrees Kelvin)	Concentration of Constituent in Vadose Zone (g/cu.cm.)	Conversion Factor (mg/cm ³)
		F from 2.				(A*B)/(C*D)	E * 1000
Methylene chloride	75-09-2	2.06E-07	84.93	82.05	284	7.50E-10	7.50E-07
Acetone	67-64-1	6.03E-09	58.00	82.05	284	1.50E-11	1.50E-08
Carbon disulfide	75-15-0	1.15E-06	76.14	82.05	284	3.75E-09	3.75E-06
1,2-Dichloroethene (total)	156-60-5	4.86E-07	96.94	82.05	284	2.02E-09	2.02E-06
2-Butanone	78-93-3	5.09E-09	72.12	82.05	284	1.57E-11	1.57E-08
Trichloroethene	79-01-6	4.84E-07	131.29	82.05	284	2.73E-09	2.73E-06
1,1,1-Trichloroethane	71-55-6	1.50E-06	133.41	82.05	284	8.58E-09	8.58E-06
Benzene	71-43-2	4.93E-07	78.00	82.05	284	1.65E-09	1.65E-06
4-Methyl-2-pentanone	108-10-1	4.83E-09	100.16	82.05	284	2.08E-11	2.08E-08
Tetrachloroethene	127-18-4	8.79E-08	165.85	82.05	284	6.25E-10	6.25E-07
Toluene	108-88-3	4.93E-07	92.15	82.05	284	1.95E-09	1.95E-06
Ethylbenzene	100-41-4	5.27E-07	106.17	82.05	284	2.40E-09	2.40E-06
Styrene	100-42-5	1.68E-07	104.16	82.05	284	7.50E-10	7.50E-07
Xylenes (Total)I	1330-20-7	4.78E-07	106.00	82.05	284	2.17E-09	2.17E-06
Naphthalene	91-20-3	6.69E-08	128.06	82.05	284	3.67E-10	3.67E-07
2-Methylnaphthalene	91-57-6	2.54E-08	142.20	82.05	284	1.55E-10	1.55E-07

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

4. Calculate Indoor Air Concentrations

FUTURE FORSEEABLE RESIDENTIAL HOME (8 ft. ceiling, 6" slab; Relatively impermeable @ 1E-10)

Model Step		A	B	C	D	E	F	G
Compound		Csg (mg/cm3)	Ksa (cm2)	Pi-Po (g/cm*s2)	Viscosity (g/cm*s)	Thick. (cm)	Conversion Factor (cm2/m2)	Qacs (mg/m2*s)
		F from 3.						(A*B*C*F)/(D*E)
Methylene chloride	75-09-2	7.50E-07	1.00E-10	16.08	1.76E-04	15.24	10000	4.50E-09
Acetone	67-64-1	1.50E-08	1.00E-10	16.08	1.76E-04	15.24	10000	8.99E-11
Carbon disulfide	75-15-0	3.75E-06	1.00E-10	16.08	1.76E-04	15.24	10000	2.25E-08
1,2-Dichloroethene (total)	156-60-5	2.02E-06	1.00E-10	16.08	1.76E-04	15.24	10000	1.21E-08
2-Butanone	78-93-3	1.57E-08	1.00E-10	16.08	1.76E-04	15.24	10000	9.44E-11
Trichloroethene	79-01-6	2.73E-06	1.00E-10	16.08	1.76E-04	15.24	10000	1.64E-08
1,1,1-Trichloroethane	71-55-6	8.58E-06	1.00E-10	16.08	1.76E-04	15.24	10000	5.15E-08
Benzene	71-43-2	1.65E-06	1.00E-10	16.08	1.76E-04	15.24	10000	9.89E-09
4-Methyl-2-pentanone	108-10-1	2.08E-08	1.00E-10	16.08	1.76E-04	15.24	10000	1.24E-10
Tetrachloroethene	127-18-4	6.25E-07	1.00E-10	16.08	1.76E-04	15.24	10000	3.75E-09
Toluene	108-88-3	1.95E-06	1.00E-10	16.08	1.76E-04	15.24	10000	1.17E-08
Ethylbenzene	100-41-4	2.40E-06	1.00E-10	16.08	1.76E-04	15.24	10000	1.44E-08
Styrene	100-42-5	7.50E-07	1.00E-10	16.08	1.76E-04	15.24	10000	4.50E-09
Xylenes (Total)1	1330-20-7	2.17E-06	1.00E-10	16.08	1.76E-04	15.24	10000	1.30E-08
Naphthalene	91-20-3	3.67E-07	1.00E-10	16.08	1.76E-04	15.24	10000	2.20E-09
2-Methyl naphthalene	91-57-6	1.55E-07	1.00E-10	16.08	1.76E-04	15.24	10000	9.31E-10

TABLE I-5
SOIL - SOIL GAS - INDOOR AIR MODEL
ON-PROPERTY
CURRENT FORSEEABLE FUTURE, WITH SLAB

4. Calculate Indoor Air Concentrations (continued)

H	I	J	K	L
Height (m)	Exchange (Ex/hr)	Factor (s/hr)	Indoor Conc. (mg/m3)	Indoor Air Volatilization Factor (m3/kg)
			((G*J)/(H*I))	1/(K*1000)
2.44	0.5	3600	1.3E-05	7.53E+01
2.44	0.5	3600	2.7E-07	3.77E+03
2.44	0.5	3600	6.6E-05	1.51E+01
2.44	0.5	3600	3.6E-05	2.79E+01
2.44	0.5	3600	2.8E-07	3.59E+03
2.44	0.5	3600	4.8E-05	2.07E+01
2.44	0.5	3600	1.5E-04	6.58E+00
2.44	0.5	3600	2.9E-05	3.42E+01
2.44	0.5	3600	3.7E-07	2.72E+03
2.44	0.5	3600	1.1E-05	9.03E+01
2.44	0.5	3600	3.5E-05	2.90E+01
2.44	0.5	3600	4.2E-05	2.35E+01
2.44	0.5	3600	1.3E-05	7.53E+01
2.44	0.5	3600	3.8E-05	2.60E+01
2.44	0.5	3600	6.5E-06	1.54E+02
2.44	0.5	3600	2.7E-06	3.64E+02

RESEARCH TRIANGLE INSTITUTE CLOSED LANDFILL MODEL
 FROM U.S. EPA REVIEW DRAFT OF HAZARDOUS WASTE TREATMENT,
 STORAGE, AND DISPOSAL FACILITIES (TSDF) - AIR EMISSION MODELS

Table I-6
Summary of Chemical Specific Values Used in Volatilization Factors

Compound	CASRN	Henry's Law (dimensionless)	Henry's Law (atm-m3/mol)	Molecular Weight	Henry's Law Source
Methylene chloride	75-09-2	1.0E-01	2.4E-03	84.93	MADEP, 1994 (dimensionless)
Acetone	67-64-1	2.0E-03	4.9E-05	58	MADEP, 1994 (dimensionless)
Carbon disulfide	75-15-0	5.0E-01	1.2E-02	76.14	EHRAV (atm-m3/mol)
1,2-Dichloroethene (total)	156-60-5	2.7E-01	6.6E-03	96.94	EHRAV (atm-m3/mol)
2-Butanone	78-93-3	2.1E-03	5.1E-05	72.12	EHRAV (atm-m3/mol)
Trichloroethene	79-01-6	3.6E-01	8.9E-03	131.29	EHRAV (atm-m3/mol)
1,1,1-Trichloroethane	71-55-6	1.1E+00	2.8E-02	133.41	EHRAV (atm-m3/mol)
Benzene	71-43-2	2.2E-01	5.4E-03	78	NYSDEC, 1997 (dimensionless)
4-Methyl-2-pentanone	108-10-1	2.8E-03	6.8E-05	100.16	EHRAV (atm-m3/mol)
Tetrachloroethene	127-18-4	8.3E-02	2.0E-03	165.85	MADEP, 1994 (atm-m3/mol)
Toluene	108-88-3	2.6E-01	6.4E-03	92.15	NYSDEC, 1997 (dimensionless)
Ethylbenzene	100-41-4	3.2E-01	7.8E-03	106.17	NYSDEC, 1997 (dimensionless)
Styrene	100-42-5	1.0E-01	2.4E-03	104.16	MADEP, 1994 (dimensionless)
Xylenes (Total)	1330-20-7	2.9E-01	7.1E-03	106	NYSDEC, 1997 (dimensionless)
Naphthalene	91-20-3	4.9E-02	1.2E-03	128.06	NYSDEC, 1997 (dimensionless)
2-Methylnaphthalene	91-57-6	2.1E-02	5.1E-04	142.2	MADEP, 1996 TPH Policy (dimensionless)

NOTES

Henry's Law constants were compiled from a variety of sources as dimensionless or atm-m3/mol.

See text on conversion between dimensionless and atm-m3/mol.

EHRAV: Electronic Handbook of Risk Assessment Values. Henry's Law in atm-m3/mol.

Table I-7
Summary of Dermal Permeability Values and Water Partition Coefficient

Compounds	CASRN	Molecular Weight	Log K_{ow}	Log K_{ow} Source	K_p water (cm/hour)	Source	K_{oc} (mg/L)	Source	Henry's Law Constant (dim.less)	Source
Volatile Organics										
Methylene chloride	75-09-2	84.93	1.51	EHRAV	6.82E-03	Calculated	8.8	EHRAV	1.0E-01	MADEP, 1994 (dimensionless)
Acetone	67-64-1	58	-0.24	EHRAV	5.70E-04	Calculated	2.2	EHRAV	2.0E-03	MADEP, 1994 (dimensionless)
Carbon disulfide	75-15-0	76.14	2	EHRAV	5.00E-01	Measured Value (EPA, 1992)	54	EHRAV	5.0E-01	EHRAV (atm-m ³ /mol)
1,2-Dichloroethene (total)	156-60-5	96.94	2.09	EHRAV	1.49E-02	Calculated	59	EHRAV	2.7E-01	EHRAV (atm-m ³ /mol)
2-Butanone	78-93-3	72.12	0.26	EHRAV	5.00E-03	Measured Value (EPA, 1992)	4.51	EHRAV	2.1E-03	EHRAV (atm-m ³ /mol)
Trichloroethene	79-01-6	131.29	2.42	EHRAV	2.30E-01	Measured Value (EPA, 1992)	126	EHRAV	3.6E-01	EHRAV (atm-m ³ /mol)
1,1,1-Trichloroethane	71-55-6	133.41	2.47	EHRAV	1.66E-02	Calculated	152	EHRAV	1.1E+00	EHRAV (atm-m ³ /mol) NYSDEC, 1997
Benzene	71-43-2	78	2.13	EHRAV	1.10E-01	Measured Value (EPA, 1992)	65	EHRAV	2.2E-01	(dimensionless)
4-Methyl-2-pentanone	108-10-1	100.16	1.31	EHRAV	3.97E-03	Calculated	19	EHRAV	2.8E-03	EHRAV (atm-m ³ /mol)
Tetrachloroethene	127-18-4	165.85	2.53	EHRAV	3.70E-01	Measured Value (EPA, 1992)	364	EHRAV	8.3E-02	MADEP, 1994 (atm-m ³ /mol)
Toluene	108-88-3	92.15	2.69	EHRAV	1.00E+00	Measured Value (EPA, 1992)	120	EHRAV	2.6E-01	NYSDEC, 1997 (dimensionless)
Ethylbenzene	100-41-4	106.17	3.15	EHRAV	1.00E+00	Measured Value (EPA, 1992)	220	EHRAV	3.2E-01	NYSDEC, 1997 (dimensionless)
Styrene	100-42-5	104.16	3.16	EHRAV	6.70E-01	Measured Value (EPA, 1992)	891	EHRAV	1.0E-01	MADEP, 1994 (dimensionless)
Nylenes (Total)	1330-20-7	106.2	3.2	EPA, 1992	8.00E-02	Calculated (Nylene, m-)	236	EHRAV (Nylene, m-)	2.9E-01	NYSDEC, 1997 (dimensionless)
Semi-volatile Organics										
2,4-Dimethylphenol	105-67-9	122.16	2.42	EHRAV	1.10E-01	Measured Value (EPA, 1992)	96	EHRAV	2.2E-05	EHRAV (atm-m ³ /mol)
Phenol	108-95-2	94.11	1.48	EHRAV	8.20E-03	Measured Value (EPA, 1992)	14.2	EHRAV	1.6E-05	EHRAV (atm-m ³ /mol)
4-Methylphenol	106-44-5	108.15	1.93	EHRAV	1.80E-02	Measured Value (EPA, 1992)	17	EHRAV	9.7E-06	EHRAV (atm-m ³ /mol)
Naphthalene	91-20-3	128.06	3.36	EHRAV	7.66E-02	Calculated	940	EHRAV	4.9E-02	NYSDEC, 1997 (dimensionless)
2-Methylnaphthalene	91-57-6	142.2	4.11	EHRAV	2.14E-01	Calculated	7940	EHRAV	2.1E-02	MADEP, 1996 TPH Policy (dimensionless)
2-Chloronaphthalene	91-58-7	162.2	4	EHRAV	1.35E-01	Calculated	4800	EHRAV	8.7E-02	EHRAV (atm-m ³ /mol)
Acenaphthylene	208-96-8	152.06	3.7	EHRAV	9.54E-02	Calculated	2500	EHRAV	4.7E-03	EHRAV (atm-m ³ /mol)
Acenaphthene	83-32-9	154	3.92	EHRAV	1.33E-01	Calculated	4600	EHRAV	9.8E-03	EHRAV (atm-m ³ /mol)
Dibenzofuran	132-64-9	168	4.17	EHRAV	1.64E-01	Calculated	9120	EHRAV	3.0E-05	EHRAV (atm-m ³ /mol)
2,4-Dinitrotoluene	121-14-2	182.14	1.98	EHRAV	3.76E-03	Calculated	251	EHRAV	7.6E-06	EHRAV (atm-m ³ /mol)
Diethylphthalate	84-66-2	222.2	2.46	EHRAV	4.69E-03	Calculated	69	EHRAV	6.1E-05	EHRAV (atm-m ³ /mol)
Fluorene	86-73-7	166.08	4.18	EHRAV	1.72E-01	Calculated	7300	EHRAV	3.4E-03	EHRAV (atm-m ³ /mol)
Phenanthrene	85-01-8	178.08	4.52	EHRAV	2.53E-01	Calculated	14000	EHRAV	1.6E-03	EHRAV (atm-m ³ /mol)

Table I-7
Summary of Dermal Permeability Values and Water Partition Coefficient

Compounds	CASRN	Molecular Weight	Log K_{ow}	Log K_{ow} Source	K_p water (cm/hour)	Source	K_{ow} (mg/L)	Source	Henry's Law Constant (dim.less)	Source
Anthracene	120-12-7	178.08	4.54	EHRAV	2.61E-01	Calculated	14000	EHRAV	2.4E-03	EHRAV (atm-m ³ /mol)
Carbazole	86-74-8	202.27	1.66	EHRAV	1.68E-03	Calculated	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	278	3.75	EHRAV	1.76E-02	Calculated	1390	EHRAV	5.3E-05	EHRAV (atm-m ³ /mol)
Fluoranthene	206-44-0	202.08	5.2	EHRAV	5.49E-01	Calculated	38000	EHRAV	3.8E-04	EHRAV (atm-m ³ /mol)
Pyrene	129-00-0	202.08	5.18	EHRAV	5.31E-01	Calculated	38000	EHRAV	3.6E-04	EHRAV (atm-m ³ /mol)
Butylbenzylphthalate	85-68-7	312	4.47	EHRAV	3.55E-02	Calculated	17000	EHRAV	1.8E-04	EHRAV (atm-m ³ /mol)
Benzo(a)anthracene	56-55-3	228.09	5.61	EHRAV	7.44E-01	Calculated	1380000	EHRAV	1.8E-04	EHRAV (atm-m ³ /mol)
Chrysene	218-01-9	228.09	5.61	EHRAV	7.44E-01	Calculated	200000	EHRAV	3.9E-05	EHRAV (atm-m ³ /mol)
Bis(2-ethylhexyl)phthalate	117-81-7	391	5.11	EHRAV	3.33E-02	Calculated	87400	EHRAV	1.8E-05	EHRAV (atm-m ³ /mol)
Di-n-octylphthalate	117-84-0	391	5.22	EHRAV	3.99E-02	Calculated	19000	EHRAV	2.2E-04	EHRAV (atm-m ³ /mol)
Benzo(b)fluoranthene	205-99-2	252	6.06	EHRAV	1.11E+00	Calculated	550000	EHRAV	4.8E-04	EHRAV (atm-m ³ /mol)
Benzo(k)fluoranthene	207-08-9	252.32	6.06	EHRAV	1.11E+00	Calculated	550000	EHRAV	1.6E-03	EHRAV (atm-m ³ /mol)
Benzo(a)pyrene	50-32-8	252.09	6.25	EHRAV	1.51E+00	Calculated	5500000	EHRAV	1.5E-03	EHRAV (atm-m ³ /mol)
Indeno(1,2,3-cd)pyrene	193-39-5	276	6.5	EHRAV	1.63E+00	Calculated	1600000	EHRAV	2.8E-06	EHRAV (atm-m ³ /mol)
Dibenzof(a,h)anthracene	53-70-3	278	5.61	EHRAV	3.69E-01	Calculated	3300000	EHRAV	1.1E-07	EHRAV (atm-m ³ /mol)
Benzo(g,h,i)perylene	191-24-2	276	6.51	EHRAV	1.65E+00	Calculated	1600000	EHRAV	5.1E-06	EHRAV (atm-m ³ /mol)
Pesticides/PCBs										
alpha-BHC	319-84-6	290.83	3.9	EHRAV	1.40E-02	Lindane used as surrogate	3800	EHRAV	2.4E-04	EHRAV (atm-m ³ /mol)
beta-BHC	319-85-7	290.83	3.9	EHRAV	1.40E-02	Lindane used as surrogate	3800	EHRAV	1.8E-05	EHRAV (atm-m ³ /mol)
delta-BHC	319-86-8	290.83	4.1	EHRAV	1.40E-02	Lindane used as surrogate	6600	EHRAV	8.5E-06	EHRAV (atm-m ³ /mol)
gamma-BHC (Lindane)	58-89-9	290.83	3.9	EHRAV	1.40E-02	Estimated EPA 1992 (Table 5-8)	1080	EHRAV	3.2E-04	EHRAV (atm-m ³ /mol)
Aldrin	309-00-2	365	3.01	EHRAV	1.55E-03	Calculated	96000	EHRAV	2.0E-02	EHRAV (atm-m ³ /mol)
Heptachlor	76-44-8	373.5	4.4	EHRAV	1.34E-02	Calculated	6000	EHRAV	6.0E-02	EHRAV (atm-m ³ /mol)
Heptachlor epoxide	1024-57-3	389	2.7	EHRAV	6.67E-04	Calculated	220	EHRAV	1.3E-03	EHRAV (atm-m ³ /mol)
Endosulfan I	115-29-7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	380.95	3.5	EHRAV	2.76E-03	Calculated	1700	EHRAV	4.5E-04	EHRAV (atm-m ³ /mol)
Endrin	72-20-8	380.9	5.6	EHRAV	8.56E-02	Calculated	10600	EHRAV	1.7E-04	EHRAV (atm-m ³ /mol)
4,4'-DDE	72-55-9	318	5.69	EHRAV	2.40E-01	Calculated	29700	EHRAV	2.8E-03	EHRAV (atm-m ³ /mol)
Endosulfan II	115-29-7	NA	NA	NA	NA	NA	770000	EHRAV	3.3E-04	EHRAV (atm-m ³ /mol)
4,4'-DDD	72-54-8	320	5.99	EHRAV	3.81E-01	Calculated	NA	NA	NA	NA
Endosulfan sulfate	Endo Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50-29-3	354.49	5.98	EHRAV	2.31E-01	Calculated	243000	EHRAV	3.4E-04	EHRAV (atm-m ³ /mol)
Methoxychlor	72-43-5	345.65	4.3	EHRAV	1.68E-02	Calculated	80000	EHRAV	9.2E-07	EHRAV (atm-m ³ /mol)
Endrin ketone	En ketone	-	-	-	8.56E-02	Endrin used as surrogate	10600	Endrin used as surrogate	1.7E-04	Endrin used as surrogate

Table I-7
Summary of Dermal Permeability Values and Water Partition Coefficient

Compounds	CASRN	Molecular Weight	Log K_{ow}	Log K_{ow} Source	K_p water (cm/hour)	Source	K_{ow} (mg/L)	Source	Henry's Law Constant (dim.less)	Source
Endrin aldehyde	En ald	-	-	-	8.56E-02	Endrin used as surrogate	10600	Endrin used as surrogate	1.7E-04	Endrin used as surrogate
alpha-Chlordane	57-74-9	409.8	4.78	EHRAV	1.49E-02	Calculated	9500	EHRAV	2.0E-03	EHRAV (atm-m ³ /mol)
gamma-Chlordane	57-74-9	409.8	4.78	EHRAV	1.49E-02	Calculated	9500	EHRAV	2.0E-03	EHRAV (atm-m ³ /mol)
Aroclor-1242	1336-36-3	NA	NA	EHRAV	7.3E-01	Aroclor-1248 used as surrogate	277000	Aroclor-1248 used as surrogate	1.8E-02	Aroclor-1248 used as surrogate
Aroclor-1248	12672-29-6	288	6.11	EHRAV	7.3E-01	Calculated	277000	EHRAV	1.8E-02	EHRAV (atm-m ³ /mol)
Aroclor-1254	1336-36-3	NA	NA	EHRAV	7.3E-01	Aroclor-1248 used as surrogate	277000	Aroclor-1248 used as surrogate	1.8E-02	Aroclor-1248 used as surrogate
Aroclor-1260	1336-36-3	NA	NA	EHRAV	7.3E-01	Aroclor-1248 used as surrogate	277000	Aroclor-1248 used as surrogate	1.8E-02	Aroclor-1248 used as surrogate
Inorganics/Cyanide										
Aluminum	7429-90-5	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Barium	7440-39-3	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Cadmium	7440-43-9	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Chromium (Total)	18540-29-9	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Cobalt	7440-48-4	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Copper	7440-50-8	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Manganese	7439-96-5	-	-	EHRAV	4.00E-06	Measured Value (EPA, 1992)	-	-	NA	NA
Mercury	7439-97-6	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	4.5E-01	EHRAV (atm-m ³ /mol)
Nickel	7440-02-0	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Selenium	7782-49-2	-	-	EHRAV	1.00E-03	Measured Value (EPA, 1992)	-	-	NA	NA
Silver	7440-22-4	-	-	EHRAV	1.00E-04	Measured Value (EPA, 1992)	-	-	NA	NA
Vanadium	7440-62-2	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	-	-	NA	NA
Zinc	7440-66-6	-	-	EHRAV	6.00E-04	Measured Value (EPA, 1992)	-	-	NA	NA
Cyanide	57-12-5	-	-	EHRAV	1.00E-03	Default for Inorganics (EPA, 1992)	0.58	EHRAV	NA	NA

Notes

K_p values were calculated based on EPA, 1992; Equation 5.8 (see text)

NA: Not available

-: Not applicable or required for calculation of K_p or PRG development.

EHRAV: Electronic Handbook of Risk Assessment Values

**Table I-8
COPC Toxicity Values**

Compound	CASRN	Chronic RfC		Sub-Chronic RfD		Chronic RfD	
		(mg/m3)	Source	(mg/kg/day)	Source	(mg/kg.day)	Source
Volatile Organics							
Methylene chloride	75-09-2	3	HEAST (07/93)	0.06	HEAST	0.06	IRIS (1994)
Acetone	67-64-1	-		1	HEAST	0.1	IRIS (1994)
Carbon disulfide	75-15-0	0.7	IRIS (08/01/95)	0.1	HEAST	0.1	IRIS (1994)
1,2-Dichloroethene (total)	156-60-5	-		0.009	HEAST	0.009	HEAST
2-Butanone	78-93-3	1	IRIS	2	HEAST	0.6	IRIS (05/01/93)
Trichloroethene	79-01-6	-		0.006	Chronic RfD	6.00E-03	EPA-NCEA
1,1,1-Trichloroethane	71-55-6	-		-		-	
Benzene	71-43-2	-		0.0003	Chronic RfD	0.0003	EPA-NCEA
4-Methyl-2-pentanone	108-10-1	0.08	HEAST (07/93)	0.8	HEAST	0.08	HEAST (11/93)
Tetrachloroethene	127-18-4	-		0.1	HEAST	0.01	IRIS (1994)
Toluene	108-88-3	0.4	IRIS (1994)	2	HEAST	0.2	IRIS (1994)
Ethylbenzene	100-41-4	1	IRIS (1994)	0.1	Chronic RfD	0.1	IRIS (1994)
Styrene	100-42-5	1	IRIS(11/01/92)	0.2	Chronic RfD	0.2	IRIS (1994)
Xylenes (Total)	1330-20-7	-		2	Chronic RfD	2	IRIS (1994)
Semi-volatile Organics							
2,4-Dimethylphenol	105-67-9	-		0.2	HEAST	0.02	IRIS (1994)
Phenol	108-95-2	-		0.6	HEAST	0.6	IRIS (1994)
4-Methylphenol	106-44-5	-		0.005	HEAST	0.005	HEAST (11/93)
Naphthalene	91-20-3	--		0.04	Chronic RfD	0.04	EPA-NCEA
2-Methylnaphthalene	91-57-6	-		-		-	MA DEP, 1995
2-Chloronaphthalene	91-58-7	-		0.08	Chronic RfD	0.08	IRIS (1994)
Dimethylphthalate	131-11-3	-		-		-	
Acenaphthylene	208-96-8	-		-		-	
Acenaphthene	83-32-9	-		0.6	HEAST	0.06	IRIS (1994)
Dibenzofuran	132-64-9	-		-		-	

**Table I-8
COPC Toxicity Values**

Compound	Weight of Evidence	Inhalation CSF (mg/kg.day)⁻¹	Source	Oral CSF (mg/kg.day)⁻¹	Source	Chronic RAF Dermal	Cancer RAF Soil Dermal	Cancer RAF Water Ingest
Volatile Organics								
Methylene chloride	B2	0.0016	IRIS (1994)	0.0075	IRIS (1994)	0.1	0.1	1
Acetone	D	-		-		0.1	NC	NC
Carbon disulfide		-		-		0.11	NC	NC
1,2-Dichloroethene (total)		-		-		0.1	NC	NC
2-Butanone	D	-		-		0.1	NC	NC
Trichloroethene		0.006	EPA-NCEA	1.10E-02	EPA-NCEA	0.1	0.1	1
1,1,1-Trichloroethane	D	-		-		0.1	NC	NC
Benzene	A	0.029	HEAST (07/93)	0.029	IRIS (1994)	0.08	0.08	1
4-Methyl-2-pentanone		-		-		0.1	NC	NC
Tetrachloroethene	C-B2	0.002	ECAO (1992)	0.052	ECAO (1992)	0.1	0.1	1
Toluene	D	-		-		0.12	NC	NC
Ethylbenzene	D	-		-		0.2	NC	NC
Styrene		-		-		0.2	0.2	1
Xylenes (Total)	D	-		-		0.12	NC	NC
Semi-volatile Organics								
2,4-Dimethylphenol		-		-		0.26	NC	NC
Phenol	D	-		-		0.26	NC	NC
4-Methylphenol	C	-		-	IRIS (1994)	0.17	NC	NC
Naphthalene	D	-		-		0.1	NC	NC
2-Methylnaphthalene		-		-		0.1	NC	NC
2-Chloronaphthalene		-		-		0.17	NC	NC
Dimethylphthalate	D	-		-		0.07	NC	NC
Acenaphthylene	D	-		-		0.18	NC	NC
Acenaphthene		-		-		0.2	NC	NC
Dibenzofuran	D	-		-		0.17	NC	NC

**Table I-8
COPC Toxicity Values**

Compound	CASRN	Chronic RfC		Sub-Chronic RfD		Chronic RfD	
		(mg/m3)	Source	(mg/kg/day)	Source	(mg/kg.day)	Source
2,4-Dinitrotoluene	121-14-2	-		0.002	HEAST	0.002	IRIS (1994)
Diethylphthalate	84-66-2	-		8	HEAST	0.8	IRIS (1994)
Fluorene	86-73-7	-		0.4	HEAST	0.04	IRIS (1994)
Phenanthrene	85-01-8	-		-		-	
Anthracene	120-12-7	-		3	HEAST	0.3	IRIS (1994)
Carbazole	86-74-8	-		-		-	
Di-n-butylphthalate	84-74-2	-		1	HEAST	0.1	IRIS (1994)
Fluoranthene	206-44-0	-		0.4	HEAST	0.04	IRIS (1994)
Pyrene	129-00-0	-		0.3	HEAST	0.03	IRIS (1994)
Butylbenzylphthalate	85-68-7	-		2	HEAST	0.2	IRIS (1994)
Benzo(a)anthracene	56-55-3	-		-		-	MA DEP, 1995
Chrysene	218-01-9	-		-		-	MA DEP, 1995
Bis(2-ethylhexyl)phthalate	117-81-7	-		-		0.02	IRIS (1994)
Di-n-octylphthalate	117-84-0	-		0.02	HEAST	0.02	HEAST (07/93)
Benzo(b)fluoranthene	205-99-2	-		-		-	
Benzo(k)fluoranthene	207-08-9	-		-		-	
Benzo(a)pyrene	50-32-8	-		-		-	
Indeno(1,2,3cd)pyrene	193-39-5	-		-		-	
Dibenzo(a,h)anthracene	53-70-3	-		-		-	
Benzo(g,h,i)perylene	191-24-2	-		-		-	
Pesticides/PCBs							
alpha-BHC	319-84-6	-		0.003	Lindane as surrogate	0.0003	Lindane as surrogate
beta-BHC	319-85-7	-		0.003	Lindane as surrogate	0.0003	Lindane as surrogate
delta-BHC	319-86-8	-		0.003	Lindane as surrogate	0.0003	Lindane as surrogate
gamma-BHC (Lindane)	58-89-9	-		0.003	HEAST	0.0003	IRIS
Aldrin	309-00-2	-		0.00003	HEAST	0.00003	IRIS (1994)

**Table I-8
COPC Toxicity Values**

Compound	Weight of Evidence	Inhalation CSF (mg/kg.day)⁻¹	Source	Oral CSF (mg/kg.day)⁻¹	Source	Chronic RAF Dermal	Cancer RAF Soil Dermal	Cancer RAF Water Ingest
2,4-Dinitrotoluene	B2	-		0.68	IRIS (1994)	0.13	0.13	1
Diethylphthalate	D	-		-		0.02	NC	NC
Fluorene	D	-		-		0.2	NC	NC
Phenanthrene	D	-		-		0.18	NC	NC
Anthracene	D	-		-		0.29	NC	NC
Carbazole	B2	-		0.02	HEAST (07/93)	0.17	0.17	0.92
Di-n-butylphthalate	D	-		-		0.17	NC	NC
Fluoranthene	D	-		-		0.2	NC	NC
Pyrene	D	-		-		0.2	NC	NC
Butylbenzylphthalate	C	-		-		0.17	NC	NC
Benzo(a)anthracene	B2	-		0.73	TEF, EPA, 1990	0.18	0.2	1
Chrysene	B2	-		0.073	TEF, EPA, 1990	0.18	0.2	1
Bis(2-ethylhexyl)phthalate	B2	-		0.014	IRIS (1994)	0.02	0.02	1
Di-n-octylphthalate		-		-		0.17	NC	NC
Benzo(b)fluoranthene	B2	-		0.73	TEF, EPA, 1990	0.18	0.2	1
Benzo(k)fluoranthene	B2	-		0.073	TEF, EPA, 1990	0.18	0.2	1
Benzo(a)pyrene	B2	-		7.3	IRIS (1994)	0.18	0.2	1
Indeno(1,2,3cd)pyrene	B2	-		0.73	TEF, EPA, 1990	0.18	0.2	1
Dibenzo(a,h)anthracene	B2	-		7.3	TEF, EPA, 1990	0.08	0.09	1
Benzo(g,h,i)perylene	D	-		-		0.18	NC	NC
Pesticides/PCBs								
alpha-BHC	B2	6.3	HEAST (07/93)	6.3	IRIS (1994)	0.25	0.25	1
beta-BHC	C	1.8	HEAST (07/93)	1.8	IRIS (1994)	0.25	0.25	1
delta-BHC	D	-		-		0.25	NC	NC
gamma-BHC (Lindane)	B2 - C	-		1.3	HEAST (07/93)	0.25	0.25	1
Aldrin	B2	17	HEAST (07/93)	17	IRIS (1994)	0.25	0.25	1

**Table I-8
COPC Toxicity Values**

Compound	CASRN	Chronic RfC		Sub-Chronic RfD		Chronic RfD	
		(mg/m ³)	Source	(mg/kg/day)	Source	(mg/kg.day)	Source
Heptachlor	76-44-8	-		0.0005	HEAST	0.0005	IRIS (1994)
Heptachlor epoxide	1024-57-3	-		0.000013	HEAST	0.000013	IRIS (1994)
Endosulfan I	115-29-7	-		0.006	HEAST	0.006	IRIS (10/01/94)
Dieldrin	60-57-1	-		0.00005	HEAST	0.00005	IRIS (1994)
Endrin	72-20-8	-		0.0003	HEAST	0.0003	IRIS (1994)
4,4'-DDE	72-55-9	-		0.0007		0.0007	EPA-NCEA
Endosulfan II	115-29-7	-		0.006	Endosulfan I surrogate	0.006	IRIS (10/01/94)
4,4'-DDD	72-54-8	-		0.003	Chronic RfD	0.003	EPA-NCEA
Endosulfan sulfate	Endo. Sulfate	-		0.006	Endosulfan I surrogate	0.006	Endosulf I as surrogate
4,4'-DDT	50-29-3	-		0.0005	HEAST	0.0005	IRIS (1994)
Methoxychlor	72-43-5	-		0.005	HEAST	0.005	IRIS (1994)
Endrin ketone	En ketone	-		0.0003	Endrin surrogate	0.0003	Endrin surrogate
Endrin aldehyde	En ald	-		0.0003	Endrin surrogate	0.0003	Endrin surrogate
alpha-Chlordane	57-74-9	-		0.00006	HEAST	0.00006	IRIS (1994)
gamma-Chlordane	57-74-9	-		0.00006	HEAST	0.00006	IRIS (1994)
Aroclor-1242	1336-36-3	-		0.000005	Aroclor-1254 Surrogate	0.00002	Aroclor-1254 Surrogate
Aroclor-1248	1336-36-3	-		0.000005	Aroclor-1254 Surrogate	0.00002	Aroclor-1254 Surrogate
Aroclor-1254	1336-36-3	-		0.000005	HEAST	0.00002	IRIS
Aroclor-1260	1336-36-3	-		0.000005	Aroclor-1254 Surrogate	0.00002	Aroclor-1254 Surrogate
Inorganics/Cyanide							
Aluminum	7429-90-5	-		1		1	EPA-NCEA
Antimony	7440-36-0	-		0.0004	HEAST	0.0004	IRIS (1994)
Arsenic	7440-38-2	-		0.0003	HEAST	0.0003	IRIS (1994)
Barium	7440-39-3	-		0.07	HEAST	0.07	IRIS (1994)
Beryllium	7440-41-7	-		0.005	HEAST	0.005	IRIS (1994)
Cadmium	7440-43-9	-		0.001	HEAST (SOIL)	0.001	HEAST (SOIL)

**Table I-8
COPC Toxicity Values**

Compound	Weight of Evidence	Inhalation CSF (mg/kg.day)⁻¹	Source	Oral CSF (mg/kg.day)⁻¹	Source	Chronic RAF Dermal	Cancer RAF Soil Dermal	Cancer RAF Water Ingest
Heptachlor	B2	4.5	HEAST (07/93)	4.5	IRIS (1994)	0.2	0.2	1
Heptachlor epoxide	B2	9.1	HEAST (07/93)	9.1	IRIS (1994)	0.2	0.2	1
Endosulfan I		-		-		0.2	NC	NC
Dieldrin	B2	16	HEAST (07/93)	16	IRIS (1994)	0.25	0.25	1
Endrin	D	-		-		0.25	NC	NC
4,4'-DDE	B2	-		0.34	IRIS (1994)	0.25	0.2	1
Endosulfan II		-		-		0.2	NC	NC
4,4'-DDD	B2	-		0.24	IRIS (1994)	0.2	0.25	1
Endosulfan sulfate	D	-		-		0.25	NC	NC
4,4'-DDT	B2	0.34	HEAST (07/93)	0.34	IRIS (1994)	0.2	0.2	1
Methoxychlor	D	-		-		0.2	NC	NC
Endrin ketone	D	-		-		0.25	NC	NC
Endrin aldehyde	D	-		-		0.25	NC	NC
alpha-Chlordane	B2	1.3	HEAST (07/93)	1.3	IRIS (1994)	0.05	0.05	1
gamma-Chlordane	B2	1.3	HEAST (07/93)	1.3	IRIS (1994)	0.05	0.05	1
Aroclor-1242	B2	-		7.7	Aroclor-1260 surrogate	0.067	0.067	1
Aroclor-1248	B2	-		7.7	Aroclor-1260 surrogate	0.067	0.067	1
Aroclor-1254	B2	-		7.7	Aroclor-1260 surrogate	0.067	0.067	1
Aroclor-1260	B2	-		7.7	IRIS (1994)	0.067	0.067	1
Inorganics/Cyanide								
Aluminum		-		-		0.03	NC	NC
Antimony		-		-		0.1	NC	NC
Arsenic	A	50	HEAST (07/93)	1.5	IRIS (06/01/95)	0.03	0.03	1
Barium		-		-		0.03	NC	NC
Beryllium	B2	8.4	HEAST (07/93)	4.3	IRIS (1994)	0.03	0.03	1
Cadmium	B1	-		-		0.14	NC	NC

**Table I-8
COPC Toxicity Values**

Compound	CASRN	Chronic RFC (mg/m3)	Source	Sub-Chronic RfD (mg/kg/day)	Source	Chronic RfD (mg/kg.day)	Source
Chromium (Total)	18540-29-9	-		0.02	HEAST	0.005	IRIS (1994)
Cobalt	7440-48-4	-		0.18	Chronic RfD	6.E-02 / 1.8E-1	EACO
Copper	7440-50-8	-		-		-	
Iron	7439-89-6	-		-		-	
Lead	7439-92-1	-		-		-	
Manganese	7439-96-5	-		0.14	HEAST	0.14	IRIS (11/01/95)
Mercury	7439-97-6	-		0.003	HEAST	0.0003	IRIS
Nickel	7440-02-0	-		0.02	HEAST	0.02	IRIS (1994)
Selenium	7782-49-2	-		0.005	HEAST	0.005	IRIS (1994)
Silver	7440-22-4	-		0.005	HEAST	0.005	IRIS (1994)
Thallium	7440-28-0	-		0.0008	HEAST	0.00008	IRIS
Vanadium	7440-62-2	-		0.007	HEAST	0.007	HEAST (07/93)
Zinc	7440-66-6	-		0.3	HEAST	0.3	IRIS (1994)
Cyanide	57-12-5	-		0.02	HEAST	0.02	IRIS (1994)

**Table I-8
COPC Toxicity Values**

Compound	Weight of Evidence	Inhalation CSF (mg/kg.day)⁻¹	Source	Oral CSF (mg/kg.day)⁻¹	Source	Chronic RAF Dermal	Cancer RAF Soil Dermal	Cancer RAF Water Ingest
Chromium (Total)		41	HEAST	-		0.09	NC	NC
Cobalt		-		-		0.03	NC	NC
Copper	D	-		-		0.03	NC	NC
Iron		-		-		0.03	NC	NC
Lead	B2	-		-		0.006	NC	NC
Manganese	D	-		-		0.03	NC	NC
Mercury	D	-		-		0.05	NC	NC
Nickel		0.84	HEAST	-		0.35	NC	NC
Selenium	D	-		-		0.002	NC	NC
Silver	D	-		-		0.25	NC	NC
Thallium		-		-		0.01	NC	NC
Vanadium		-		-		0.03	NC	NC
Zinc	D	-		-		0.02	NC	NC
Cyanide	D	-		-		0.3	NC	NC

HEAST: USEPA Health Effects Summary Tables

ECAO: USEPA Environmental Criteria and Assessment Office, Cincinnati, OH

IRIS: USEPA Integrated Risk Information System

**Table I-9
Particulate Emission Factor**

	Particulate Emission Factor (m ³ /kg)	1.32E+09
LS	Width of Contaminated Area (m)	100
V	wind speed in mixing zone (m/s)	2.25
DH	diffusion height (m)	2
A	area of contamination (m ²)	3,400
RF	respirable fraction (m/m ² .hr)	0.036
G	fraction of vegetative cover (unitless)	0.5
U _m	mean annual wind speed (m/s)	2.25
U ₁	equivalent threshold value of wind speed at 10 m (m/s)	12.8
F(x)	function dependent on U _m /U ₁ (unitless)	0.0497

Notes:

Values based on default parameter values given in RAGS - Part B (EPA, 1991).

Table I-10
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
NMPC Property and ACOE Property
Surface Soil
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	140
Exposure Frequency (day/year)	250	Exposure Duration (year)	25
Exposure Duration (year)	25	fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	140	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	25	Exposure Time (hour/day)	4
Exposed Skin Surface Area (cm ² /event)	2,300	Exposure Frequency (day/year)	140
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	25
Conversion Factor (kg/mg)	1.00E-06	fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Non-Carcinogenic AP (days)	9,125	ELCR Target Level	1.0E-06

Table I-10 (Continued)

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non-Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.86	0.06	1 / 0.1	7.53E+01	-
Acetone	67-64-1	-	0.1	1 / 0.1	3.77E+03	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.51E+01	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.79E+01	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	3.59E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.07E+01	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / 0.1	6.58E+00	-
Benzene	71-43-2	-	0.0003	1 / 0.08	3.42E+01	-
4-Methyl-2-pentanone	108-10-1	0.023	0.08	1 / 0.1	2.72E+03	-
Tetrachloroethene	127-18-4	-	0.01	1 / 0.1	9.03E+01	-
Toluene	108-88-3	0.11	0.2	1 / 0.12	2.90E+01	-
Ethylbenzene	100-41-4	0.29	0.1	1 / 0.2	2.35E+01	-
Styrene	100-42-5	0.29	0.2	1 / 0.2	7.53E+01	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	2.60E+01	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.02	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	1.54E+02	0.054
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	3.64E+02	4,424
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	-
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-

Table I-10 (Continued)

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non-Carcinogenic PRG (mg/kg)
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	2,607
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	14,276
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	2,607
Pyrene	129-00-0	-	0.03	1 / 0.2	-	1,955
Butylbenzylphthalate	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	2

Table I-10 (Continued)

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non-Carcinogenic PRG (mg/kg)
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	3
Endrin	72-20-8	-	0.0003	1 / 0.25	-	16
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	38
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	391
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	196
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	391
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	33
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	10
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	215,976
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	65
Barium	7440-39-3	-	0.07	1 / 0.03	-	15,118
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-

Table I-10 (Continued)

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non-Carcinogenic PRG (mg/kg)
Chromium (Total)	18540-29-9	-	0.005	1 / 0.09	-	594
Cobalt	7440-48-4	-	0.18	1 / 0.03	-	38,876
Copper	7440-50-8	-	3.5	1 / 0.03	-	755,916
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	30,237
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	51
Nickel	7440-02-0	-	0.02	1 / 0.35	-	807
Selenium	7782-49-2	-	0.005	1 / 0.002	-	1,745
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	24
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	1,512
Zinc	7440-66-6	-	0.3	1 / 0.02	-	75,000
Cyanide	57-12-5	-	0.02	1 / 0.3	-	924

Notes

-: Not Available

Table I-11
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
NMPC Property and ACOE Property
Surface Soil
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	140
Exposure Frequency (day/year)	250	Exposure Duration (year)	25
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	140	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	25	Exposure Time (hour/day)	4
Exposed Skin Surface Area (cm ² /event)	2,300	Exposure Frequency (day/year)	140
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	25
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Carcinogenic AP (days)	25,550	ELCR Target Level	1.0E-06

Table I-11

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.0016	0.0075	1 / 0.1	7.53E+01	-
Acetone	67-64-1	-	-	1 / NC	3.77E+03	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.51E+01	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	2.79E+01	-
2-Butanone	78-93-3	-	-	1 / NC	3.59E+03	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	2.07E+01	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / NC	6.58E+00	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	3.42E+01	-
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	2.72E+03	-
Tetrachloroethene	127-18-4	0.002	0.052	1 / 0.1	9.03E+01	-
Toluene	108-88-3	-	-	1 / NC	2.90E+01	-
Ethylbenzene	100-41-4	-	-	1 / NC	2.35E+01	-
Styrene	100-42-5	-	-	1 / 0.2	7.53E+01	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	2.60E+01	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	-	1 / NC	-	-
Phenol	108-95-2	-	-	1 / NC	-	-
4-Methylphenol	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	1.54E+02	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	3.64E+02	-
2-Chloronaphthalene	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	52.04
Di-n-butylphthalate	84-74-2	-	-	1 / NC	-	-

Table I-11

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	1.25
Chrysene	218-01-9	-	0.073	1 / 0.2	-	12.50
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	1.25
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	12.50
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	0.12
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	1.25
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	0.23
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin	309-00-2	17	17	1 / 0.25	-	0.04
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	0.05
Endrin	72-20-8	-	-	1 / NC	-	-
4,4'-DDE	72-55-9	-	0.34	1 / 0.2	-	2.68
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD	72-54-8	-	0.24	1 / 0.25	-	3.15
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT	50-29-3	0.34	0.34	1 / 0.2	-	2.68
Methoxychlor	72-43-5	-	-	1 / NC	-	-
Endrin ketone	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	1.83
gamma-Chlordane	57-74-9G	1.3	1.3	1 / 0.05	-	-
Aroclor-1242	1336-36-3	-	7.7	1 / 0.067	-	-

Table I-11

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Aroclor-1248	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	2.02
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)	18540-29-9	41	-	1 / NC	-	51,016.53
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	2,490,092.30
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

Table I-12
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
NMPC Property and ACOE Property
Surface Soil
Adolescent Trespasser

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	NA	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	NA	Exposure Frequency (day/year)	40
Exposure Frequency (day/year)	NA	Exposure Duration (year)	6
Exposure Duration (year)	NA	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	NA
Exposure Frequency (day/year)	40	Inhalation Rate (m ³ /hour)	NA
Exposure Duration (year)	6	Exposure Time (hour/day)	NA
Exposed Skin Surface Area (cm ² /event)	5300	Exposure Frequency (day/year)	NA
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	NA
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	NA
Standard Parameters		Risk Levels	
Body Weight (kg)	40	HI Target Level	0.2
Non-Carcinogenic AP (days)	2190	ELCR Target Level	1.0E-06

Table I-12

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.857142857	0.06	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	0.1	1 / 0.1	3.74E+03	-
Carbon disulfide	75-15-0	0.2	0.1	1 / 0.11	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	1.76E+03	-
2-Butanone	78-93-3	0.285714286	0.6	1 / 0.1	5.94E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / 0.1	1.51E+03	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.13E+03	-
4-Methyl-2-pentanone	108-10-1	0.022857143	0.08	1 / 0.1	1.13E+04	-
Tetrachloroethene	127-18-4	-	0.01	1 / 0.1	9.31E+03	-
Toluene	108-88-3	0.114285714	0.2	1 / 0.12	2.92E+03	-
Ethylbenzene	100-41-4	0.285714286	0.1	1 / 0.2	3.87E+03	-
Styrene	100-42-5	0.285714286	0.2	1 / 0.2	1.37E+04	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	4.07E+03	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.02	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	6.84E+03	4,635
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.88E+04	-
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	-
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-

Table I-12

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	2,517
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	13,378
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	2,517
Pyrene	129-00-0	-	0.03	1 / 0.2	-	1,888
Butylbenzylphthalate	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	2
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-

Table I-12

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	3
Endrin	72-20-8	-	0.0003	1 / 0.25	-	15
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	36
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	378
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	189
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	378
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	31
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	12
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	281,853
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	85
Barium	7440-39-3	-	0.07	1 / 0.03	-	19,730
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)	18540-29-9	-	0.005	1 / 0.09	-	633
Cobalt	7440-48-4	-	0.06	1 / 0.03	-	16,911

Table I-12

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Copper	7440-50-8	-	3.5	1 / 0.03	-	986,486
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	39,459
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	60
Nickel	7440-02-0	-	0.02	1 / 0.35	-	747
Selenium	7782-49-2	-	0.005	1 / 0.002	-	3,300
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	38
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	1,973
Zinc	7440-66-6	-	0.3	1 / 0.02	-	106,311
Cyanide	57-12-5	-	0.02	1 / 0.3	-	864

Notes

-: Not Available

Table I-13
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
NMPC Property and ACOE Property
Surface Soil
Adolescent Trespasser

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	NA	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	NA	Exposure Frequency (day/year)	40
Exposure Frequency (day/year)	NA	Exposure Duration (year)	6
Exposure Duration (year)	NA	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	NA
Exposure Frequency (day/year)	40	Inhalation Rate (m ³ /hour)	NA
Exposure Duration (year)	6	Exposure Time (hour/day)	NA
Exposed Skin Surface Area (cm ² /event)	5300	Exposure Frequency (day/year)	NA
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	NA
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	NA
Standard Parameters		Risk Levels	
Body Weight (kg)	40	HI Target Level	0.2
Carcinogenic AP (days)	25550	ELCR Target Level	1.0E-06

Table I-13

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.0016	0.0075	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	-	1 / NC	3.74E+03	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	1.76E+03	-
2-Butanone	78-93-3	-	-	1 / NC	5.94E+03	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / NC	1.51E+03	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.13E+03	-
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	1.13E+04	-
Tetrachloroethene	127-18-4	0.002	0.052	1 / 0.1	9.31E+03	-
Toluene	108-88-3	-	-	1 / NC	2.92E+03	-
Ethylbenzene	100-41-4	-	-	1 / NC	3.87E+03	-
Styrene	100-42-5	-	-	1 / 0.2	1.37E+04	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	4.07E+03	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	-	1 / NC	-	-
Phenol	108-95-2	-	-	1 / NC	-	-
4-Methylphenol	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	6.84E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.88E+04	-
2-Chloronaphthalene	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	213
Di-n-butylphthalate	84-74-2	-	-	1 / NC	-	-

Table I-13

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	5
Chrysene	218-01-9	-	0.073	1 / 0.2	-	50
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	5
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	50
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	1
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	5
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	1
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin	309-00-2	17	17	1 / 0.25	-	0
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	0
Endrin	72-20-8	-	-	1 / NC	-	-
4,4'-DDE	72-55-9	-	0.34	1 / 0.2	-	11
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD	72-54-8	-	0.24	1 / 0.25	-	12
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT	50-29-3	0.34	0.34	1 / 0.2	-	11
Methoxychlor	72-43-5	-	-	1 / NC	-	-
Endrin ketone	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	9
gamma-Chlordane	57-74-9G	1.3	1.3	1 / 0.05	-	-

Table I-13

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Aroclor-1242	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	11
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

Table I-14A
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
Off-site (Douw Street) Property
Surface Soil
Resident Adult

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	NA	Ingestion Rate (mg-year/kg-day)	NA
Exposure Time (hour/day)	NA	Exposure Frequency (day/year)	NA
Exposure Frequency (day/year)	NA	Fraction Contaminated (dim.less)	NA
Exposure Duration (year)	NA	Conversion Factor (kg/mg)	NA
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	NA	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	NA	Inhalation Rate (m ³ /hour)	0.625
Skin Surface Area (cm ² -year/kg-event)	NA	Exposure Time (hour/day)	16
Soil Adherence Factor (mg/cm ²)	NA	Exposure Frequency (day/year)	350
Conversion Factor (kg/mg)	NA	Exposure Duration (year)	30
		Fraction Contaminated (dim.less)	1
Standard Parameters		Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Non-Carcinogenic AP (days)	10950	ELCR Target Level	1.0E-06

Table I-14A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride*	75-09-2	0.86	0.06	1 / 0.1	7.53E+01	-
Acetone*	67-64-1	-	0.1	1 / 0.1	3.77E+03	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.51E+01	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.79E+01	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	3.59E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.07E+01	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	6.58E+00	-
Benzene	71-43-2	-	0.0003	1 / 0.08	3.42E+01	-
4-Methyl-2-pentanone	108-10-1	0.02	0.08	1 / 0.1	2.72E+03	-
Tetrachloroethene	127-18-4	-	0.01	1 / 0.1	9.03E+01	-
Toluene	108-88-3	0.11	0.2	1 / 0.12	2.90E+01	-
Ethylbenzene	100-41-4	0.29	0.1	1 / 0.2	2.35E+01	-
Styrene*	100-42-5	0.29	0.2	1 / 0.2	7.53E+01	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	2.60E+01	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.02	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	1.54E+02	-
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	3.64E+02	-
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	-
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-

Table I-14A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	793,642,219
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	5,952,316,644
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	-
Pyrene	129-00-0	-	0.03	1 / 0.2	-	595,231,664
Butylbenzylphthalate	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-

Table I-14A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	-
Endrin	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)	18540-29-9	-	0.005	1 / 0.09	-	-
Cobalt	7440-48-4	-	0.156	1 / 0.03	-	-

Table I-14A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Copper	7440-50-8	-	3.5	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	-
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

Table I-14B
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
Off-site (Douw Street) Property
Surface Soil
Resident Child

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	NA	Ingestion Rate (mg-year/kg-day)	NA
Exposure Time (hour/day)	NA	Exposure Frequency (day/year)	NA
Exposure Frequency (day/year)	NA	Fraction Contaminated (dim.less)	NA
Exposure Duration (year)	NA	Conversion Factor (kg/mg)	NA
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	NA	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	NA	Inhalation Rate (m ³ /hour)	0.625
Skin Surface Area (cm ² -year/kg-event)	NA	Exposure Time (hour/day)	16
Soil Adherence Factor (mg/cm ²)	NA	Exposure Frequency (day/year)	350
Conversion Factor (kg/mg)	NA	Exposure Duration (year)	6
		Fraction Contaminated (dim.less)	1
Standard Parameters		Risk Levels	
Body Weight (kg)	15	HI Target Level	0.2
Non-Carcinogenic AP (days)	2190	ELCR Target Level	1.0E-06

Table I-14B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride*	75-09-2	0.86	0.06	1 / 0.1	7.53E+01	-
Acetone*	67-64-1	-	0.1	1 / 0.1	3.77E+03	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.51E+01	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.79E+01	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	3.59E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.07E+01	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	6.58E+00	-
Benzene	71-43-2	-	0.0003	1 / 0.08	3.42E+01	-
4-Methyl-2-pentanone	108-10-1	0.02	0.08	1 / 0.1	2.72E+03	-
Tetrachloroethene	127-18-4	-	0.01	1 / 0.1	9.03E+01	-
Toluene	108-88-3	0.11	0.2	1 / 0.12	2.90E+01	-
Ethylbenzene	100-41-4	0.29	0.1	1 / 0.2	2.35E+01	-
Styrene*	100-42-5	0.29	0.2	1 / 0.2	7.53E+01	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	2.60E+01	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.02	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	1.54E+02	-
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	3.64E+02	-
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	-
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-

Table I-14B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	170,066,190
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	1,275,496,424
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	-
Pyrene	129-00-0	-	0.03	1 / 0.2	-	127,549,642
Butylbenzylphthalate	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-

Table I-14B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	-
Endrin	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)	18540-29-9	-	0.005	1 / 0.09	-	-
Cobalt	7440-48-4	-	0.156	1 / 0.03	-	-

Table I-14B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Copper	7440-50-8	-	3.5	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	-
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

Table I-15
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
Off-site (Douw Street) Property
Surface Soil
Resident Child/Adult Composite

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	NA	Ingestion Rate (mg-year/kg-day)	NA
Exposure Time (hour/day)	NA	Exposure Frequency (day/year)	NA
Exposure Frequency (day/year)	NA	Fraction Contaminated (dim.less)	NA
Exposure Duration (year)	NA	Conversion Factor (kg/mg)	NA
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	NA	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	NA	Inhalation Rate (m ³ /hour)	0.625
Skin Surface Area (cm ² -year/kg-event)	NA	Exposure Time (hour/day)	16
Soil Adherence Factor (mg/cm ²)	NA	Exposure Frequency (day/year)	350
Conversion Factor (kg/mg)	NA	Exposure Duration (year)	30
		Fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	59	HI Target Level	0.2
Carcinogenic AP (days)	25550	ELCR Target Level	1.0E-06

Table I-15

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride*	75-09-2	0.0016	0.0075	1 / 0.1	7.53E+01	-
Acetone*	67-64-1	-	-	1 / NC	3.77E+03	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.51E+01	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	2.79E+01	-
2-Butanone	78-93-3	-	-	1 / NC	3.59E+03	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	2.07E+01	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / NC	6.58E+00	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	3.42E+01	-
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	2.72E+03	-
Tetrachloroethene	127-18-4	0.002	0.052	1 / 0.1	9.03E+01	-
Toluene	108-88-3	-	-	1 / NC	2.90E+01	-
Ethylbenzene	100-41-4	-	-	1 / NC	2.35E+01	-
Styrene*	100-42-5	-	-	1 / 0.2	7.53E+01	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	2.60E+01	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	-	1 / NC	-	-
Phenol	108-95-2	-	-	1 / NC	-	-
4-Methylphenol	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	1.54E+02	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	3.64E+02	-
2-Chloronaphthalene	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	-	1 / NC	-	-

Table I-15

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	267,265
Chrysene	218-01-9	-	0.073	1 / 0.2	-	2,672,654
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	267,265
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	2,672,654
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	26,727
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	-
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin	309-00-2	17	17	1 / 0.25	-	-
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	-
Endrin	72-20-8	-	-	1 / NC	-	-
4,4'-DDE	72-55-9	-	0.34	1 / 0.2	-	-
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD	72-54-8	-	0.24	1 / 0.25	-	-
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT	50-29-3	0.34	0.34	1 / 0.2	-	-
Methoxychlor	72-43-5	-	-	1 / NC	-	-
Endrin ketone	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	1.3	1.3	1 / 0.05	-	-

Table I-15

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Aroclor-1242	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	-
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

*: Subsurface soil COPC. PRG is based only on Inhalation of Volatiles from Soil to Indoor Air.

Table I-16
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
ACOE Property
Surface Soil and Subsurface Soil
Adult Utility/Maintenance Worker

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	22
Exposure Frequency (day/year)	22	Exposure Duration (year)	25
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	22	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	25	Exposure Time (hour/day)	8
Exposed Skin Surface Area (cm ² /event)	2300	Exposure Frequency (day/year)	22
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	25
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Non-Carcinogenic AP (days)	9125	ELCR Target Level	1.0E-06

Table I-16

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.857	0.06	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	0.1	1 / 0.1	3.74E+03	70,386
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	1.76E+03	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	5.94E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / 0.1	1.51E+03	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.13E+03	245
4-Methyl-2-pentanone	108-10-1	0.022857143	0.08	1 / 0.1	1.13E+04	-
Tetrachloroethene	127-18-4	-	0.01	1 / 0.1	9.31E+03	-
Toluene	108-88-3	0.114	0.2	1 / 0.12	2.92E+03	10,654
Ethylbenzene	100-41-4	0.286	0.1	1 / 0.2	3.87E+03	20,017
Styrene	100-42-5	0.286	0.2	1 / 0.2	1.37E+04	51,598
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	4.07E+03	1,235,492
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.02	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	6.84E+03	27
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.88E+04	28,154
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	24,886
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	1,892
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	16,591
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	90,850
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	0.1	1 / 0.17	-	-

Table I-16

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	16,591
Pyrene	129-00-0	-	0.03	1 / 0.2	-	12,443
Butylbenzylphthalate	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	31,818
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	10
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	17
Endrin	72-20-8	-	0.0003	1 / 0.25	-	103
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	241
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	2,489
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	1,244
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	2,489
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	207
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	2,074
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	65
Aroclor-1242	1336-36-3	-	0.00002	1 / 0.067	-	-

Table I-16

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Aroclor-1248	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.000005	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	1,374,391
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	412
Barium	7440-39-3	-	0.07	1 / 0.03	-	96,207
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)	18540-29-9	-	0.005	1 / 0.09	-	3,783
Cobalt	7440-48-4	-	0.18	1 / 0.03	-	247,390
Copper	7440-50-8	-	3.5	1 / 0.03	-	4,810,368
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	192,415
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	324
Nickel	7440-02-0	-	0.02	1 / 0.35	-	5,133
Selenium	7782-49-2	-	0.005	1 / 0.002	-	11,103
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	151
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	9,621
Zinc	7440-66-6	-	0.3	1 / 0.02	-	477,271
Cyanide	57-12-5	-	0.02	1 / 0.3	-	5,880

Notes

-: Not Available

Table I-17
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
ACOE Property
Surface Soil and Subsurface Soil
Adult Utility/Maintenance Worker

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	100
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	22
Exposure Frequency (day/year)	22	Exposure Duration (year)	25
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	1.36E+10
Exposure Frequency (day/year)	22	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	25	Exposure Time (hour/day)	8
Exposed Skin Surface Area (cm ² /event)	2300	Exposure Frequency (day/year)	22
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	25
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Carcinogenic AP (days)	25550	ELCR Target Level	1.0E-06

Table I-17

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.0016	0.0075	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	-	1 / NC	3.74E+03	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	1.76E+03	-
2-Butanone	78-93-3	-	-	1 / NC	5.94E+03	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / NC	1.51E+03	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.13E+03	33
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	1.13E+04	-
Tetrachloroethene	127-18-4	0.002	0.052	1 / 0.1	9.31E+03	-
Toluene	108-88-3	-	-	1 / NC	2.92E+03	-
Ethylbenzene	100-41-4	-	-	1 / NC	3.87E+03	-
Styrene	100-42-5	-	-	1 / 0.2	1.37E+04	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	4.07E+03	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	-	1 / NC	-	-
Phenol	108-95-2	-	-	1 / NC	-	-
4-Methylphenol	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	6.84E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.88E+04	-
2-Chloronaphthalene	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	331
Di-n-butylphthalate	84-74-2	-	-	1 / NC	-	-

Table I-17

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	8
Chrysene	218-01-9	-	0.073	1 / 0.2	-	80
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	1,591
Di-n-octylphthalate	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	8
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	80
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	1
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	8
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	1
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin	309-00-2	17	17	1 / 0.25	-	0
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	0
Endrin	72-20-8	-	-	1 / NC	-	-
4,4'-DDE	72-55-9	-	0.34	1 / 0.2	-	17
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD	72-54-8	-	0.24	1 / 0.25	-	20
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT	50-29-3	0.34	0.34	1 / 0.2	-	17
Methoxychlor	72-43-5	-	-	1 / NC	-	-
Endrin ketone	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	1.3	1.3	1 / 0.05	-	12

Table I-17

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Aroclor-1242	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	13
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

Table I-18
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
ACOE Property
Surface Soil and Subsurface Soil
Adult Construction Worker

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	500
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	100
Exposure Frequency (day/year)	100	Exposure Duration (year)	1
Exposure Duration (year)	1	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	4.63E+09
Exposure Frequency (day/year)	100	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	1	Exposure Time (hour/day)	8
Exposed Skin Surface Area (cm ² /event)	2300	Exposure Frequency (day/year)	100
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	1
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	1
Standard Parameters		Target Risk Levels	
Body Weight (kg)	70	HI Target Level	0.2
Non-Carcinogenic AP (days)	365	ELCR Target Level	1.0E-06

Table I-18

COPC	CASRN	Inhalation RfD (mg/kg.day)	Sub-Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.86	0.06	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	1	1 / 0.1	3.74E+03	70,000
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	1.76E+03	-
2-Butanone	78-93-3	0.29	2	1 / 0.1	5.94E+03	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / 0.1	1.51E+03	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.13E+03	22
4-Methyl-2-pentanone	108-10-1	0.022857143	0.8	1 / 0.1	1.13E+04	-
Tetrachloroethene	127-18-4	-	0.1	1 / 0.1	9.31E+03	-
Toluene	108-88-3	0.11429	2	1 / 0.12	2.92E+03	2,516
Ethylbenzene	100-41-4	0.28571	0.1	1 / 0.2	3.87E+03	3,275
Styrene	100-42-5	0.28571	0.2	1 / 0.2	1.37E+04	7,860
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	4.07E+03	131,701
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	0.2	1 / 0.26	-	-
Phenol	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	6.84E+03	6
2-Methylnaphthalene	91-57-6	-	-	1 / 0.1	2.88E+04	-
2-Chloronaphthalene	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.6	1 / 0.2	-	31,937
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	229
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.4	1 / 0.2	-	21,292
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	3	1 / 0.29	-	131,362
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate	84-74-2	-	1	1 / 0.17	-	-

Table I-18

COPC	CASRN	Inhalation RfD (mg/kg.day)	Sub-Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	0.4	1 / 0.2	-	21,292
Pyrene	129-00-0	-	0.3	1 / 0.2	-	15,969
Butylbenzylphthalate	85-68-7	-	2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	-	1 / 0.02	-	-
Di-n-octylphthalate	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	-	0.003	1 / 0.25	-	-
beta-BHC	319-85-7	-	0.003	1 / 0.25	-	-
delta-BHC	319-86-8	-	0.003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.003	1 / 0.25	-	-
Aldrin	309-00-2	-	0.00003	1 / 0.25	-	1
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	2
Endrin	72-20-8	-	0.0003	1 / 0.25	-	14
4,4'-DDE	72-55-9	-	0.0007	1 / 0.25	-	33
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	319
4,4'-DDD	72-54-8	-	0.003	1 / 0.2	-	160
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	319
4,4'-DDT	50-29-3	-	0.0005	1 / 0.2	-	27
Methoxychlor	72-43-5	-	0.005	1 / 0.2	-	266
Endrin ketone	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	-	0.00006	1 / 0.05	-	5

Table I-18

COPC	CASRN	Inhalation RfD (mg/kg.day)	Sub-Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Non- Carcinogenic PRG (mg/kg)
Aroclor-1242	1336-36-3	-	0.000005	1 / 0.067	-	-
Aroclor-1248	1336-36-3	-	0.000005	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	0.000005	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.000005	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	89,806
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	27
Barium	7440-39-3	-	0.07	1 / 0.03	-	6,286
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)	18540-29-9	-	0.02	1 / 0.09	-	1,446
Cobalt	7440-48-4	-	0.18	1 / 0.03	-	16,165
Copper	7440-50-8	-	-	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	12,573
Mercury	7439-97-6	-	0.003	1 / 0.05	-	249
Nickel	7440-02-0	-	0.02	1 / 0.35	-	783
Selenium	7782-49-2	-	0.005	1 / 0.002	-	506
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.0008	1 / 0.01	-	78
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	629
Zinc	7440-66-6	-	0.3	1 / 0.02	-	28,077
Cyanide	57-12-5	-	0.02	1 / 0.3	-	859

Notes

-: Not Available

Table I-19
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
ACOE Property
Surface Soil and Subsurface Soil
Adult Construction Worker

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	Soil Ingestion Rate (mg/day)	500
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	100
Exposure Frequency (day/year)	100	Exposure Duration (year)	1
Exposure Duration (year)	1	Fraction Contaminated (dim.less)	1
		Conversion Factor (kg/mg)	1.00E-06
Direct Contact		Resuspended Soil	
Exposure Time (events/day)	1	PEF (m ³ /kg)	4.63E+09
Exposure Frequency (day/year)	100	Inhalation Rate (m ³ /hour)	0.83
Exposure Duration (year)	1	Exposure Time (hour/day)	8
Exposed Skin Surface Area (cm ² /event)	2300	Exposure Frequency (day/year)	100
Soil Adherence Factor (mg/cm ²)	1	Exposure Duration (year)	1
Conversion Factor (kg/mg)	1.00E-06	Fraction Contaminated (dim.less)	1
Standard Parameters		Standard Parameters	
Body Weight (kg)	70	HI Target Level	0.2
Carcinogenic AP (days)	25550	ELCR Target Level	1.0E-06

Table I-19

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Volatile Organics						
Methylene chloride	75-09-2	0.0016	0.0075	1 / 0.1	1.16E+03	-
Acetone	67-64-1	-	-	1 / NC	3.74E+03	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.18E+03	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	1.76E+03	-
2-Butanone	78-93-3	-	-	1 / NC	5.94E+03	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	2.47E+03	-
1,1,1-Trichloroethane	71-55-6	-	-	1 / NC	1.51E+03	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.13E+03	162
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	1.13E+04	-
Tetrachloroethene	127-18-4	0.002	0.052	1 / 0.1	9.31E+03	-
Toluene	108-88-3	-	-	1 / NC	2.92E+03	-
Ethylbenzene	100-41-4	-	-	1 / NC	3.87E+03	-
Styrene	100-42-5	-	-	1 / 0.2	1.37E+04	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	4.07E+03	-
Semi-volatile Organics						
2,4-Dimethylphenol	105-67-9	-	-	1 / NC	-	-
Phenol	108-95-2	-	-	1 / NC	-	-
4-Methylphenol	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	6.84E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.88E+04	-
2-Chloronaphthalene	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	1,004
Di-n-butylphthalate	84-74-2	-	-	1 / NC	-	-

Table I-19

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	26
Chrysene	218-01-9	-	0.073	1 / 0.2	-	255
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	2,340
Di-n-octylphthalate	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	26
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	255
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	3
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	26
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	3
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin	309-00-2	17	17	1 / 0.25	-	1
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	1
Endrin	72-20-8	-	-	1 / NC	-	-
4,4'-DDE	72-55-9	-	0.34	1 / 0.2	-	55
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD	72-54-8	-	0.24	1 / 0.25	-	69
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT	50-29-3	0.34	0.34	1 / 0.2	-	55
Methoxychlor	72-43-5	-	-	1 / NC	-	-
Endrin ketone	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane	57-74-9G	1.3	1.3	1 / 0.05	-	22
Aroclor-1242	1336-36-3	-	7.7	1 / 0.067	-	-

Table I-19

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	Soil-to-Air Volatilization Factor (m ³ /kg)	Carcinogenic PRG (mg/kg)
Aroclor-1248	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	21
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

Table I-20
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
ACOE Parcel
Groundwater
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	GW Ingestion Rate (L/day)	1
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	250
Exposure Frequency (day/year)	250	Exposure Duration (year)	25
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	1
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	NA	Body Weight (kg)	70
Exposure Frequency (day/year)	NA	Non-Carcinogenic AP (days)	9,125
Exposure Duration (year)	NA		
Exposed Skin Surface Area (cm ²)	NA	Target Risk Levels	
Dermal Permeability Constant (cm/hr)	NA	HI Target Level	0.2
Conversion Factor (L/cm ³)	NA	ELCR Target Level	1.0E-06

Table I-20

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.8571	0.06	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	0.1	1 / 0.1	2.82E+04	2,044
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.09E+02	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	2.69E+04	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	4.94E+01	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.57E+02	6
4-Methyl-2-pentanone	108-10-1	0.023	0.08	1 / 0.1	2.04E+04	-
Tetrachloroethene*	127-18-4	-	0.01	1 / 0.1	6.78E+02	-
Toluene	108-88-3	0.114	0.2	1 / 0.12	2.17E+02	3,880
Ethylbenzene	100-41-4	0.286	0.1	1 / 0.2	1.77E+02	2,017
Styrene*	100-42-5	0.286	0.2	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	1.95E+02	40,880
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	0.02	1 / 0.26	-	-
Phenol*	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol*	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	8.56E+03	643
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.73E+03	818
2-Chloronaphthalene*	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate*	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	1,226
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	81.8
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-

Table I-20

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	818
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	6,132
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	818
Pyrene	129-00-0	-	0.03	1 / 0.2	-	613
Butylbenzylphthalate*	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC*	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC*	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin*	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	-	0.000013	1 / 0.2	-	-

Table I-20

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	1.0
Endrin*	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE*	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD*	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT*	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone*	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)*	18540-29-9	-	0.005	1 / 0.09	-	102
Cobalt	7440-48-4	-	0.18	1 / 0.03	-	3,679
Copper	7440-50-8	-	3.5	1 / 0.03	-	71,540

Table I-20

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	143
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-21
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
NMPC Property
Groundwater
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	GW Ingestion Rate (L/day)	NA
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	NA
Exposure Frequency (day/year)	250	Exposure Duration (year)	NA
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	NA
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	NA	Body Weight (kg)	70
Exposure Frequency (day/year)	NA	Carcinogenic AP (days)	25,550
Exposure Duration (year)	NA		
Exposed Skin Surface Area (cm ²)	NA		
Dermal Permeability Constant (cm/hr) chemical specific		Target Risk Levels	
Conversion Factor (L/cm ³)	NA	HI Target Level	0.2
		ELCR Target Level	1.0E-06

Table I-21

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.0016	0.0075	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	-	1 / NC	2.82E+04	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	2.09E+02	-
2-Butanone	78-93-3	-	-	1 / NC	2.69E+04	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / NC	4.94E+01	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.57E+02	382
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	2.04E+04	-
Tetrachloroethene*	127-18-4	0.002	0.052	1 / 0.1	6.78E+02	-
Toluene	108-88-3	-	-	1 / NC	2.17E+02	-
Ethylbenzene	100-41-4	-	-	1 / NC	1.77E+02	-
Styrene*	100-42-5	-	-	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	1.95E+02	-
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	-	1 / NC	-	-
Phenol*	108-95-2	-	-	1 / NC	-	-
4-Methylphenol*	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	8.56E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate*	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	-	1 / NC	-	-

Table I-21

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate*	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	-
Chrysene	218-01-9	-	0.073	1 / 0.2	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	-
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	-
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	-
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC*	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC*	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin*	309-00-2	17	17	1 / 0.25	-	-
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	-
Endrin*	72-20-8	-	-	1 / NC	-	-
4,4'-DDE*	72-55-9	-	0.34	1 / 0.2	-	-
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD*	72-54-8	-	0.24	1 / 0.25	-	-
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT*	50-29-3	0.34	0.34	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	-	1 / NC	-	-
Endrin ketone*	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	1.3	1.3	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	7.7	1 / 0.067	-	-

Table I-21

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Aroclor-1248*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	-
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)*	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-22
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
NMPC Property
Groundwater
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	GW Ingestion Rate (L/day)	NA
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	NA
Exposure Frequency (day/year)	250	Exposure Duration (year)	NA
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	NA
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	NA	Body Weight (kg)	70
Exposure Frequency (day/year)	NA	Non-Carcinogenic AP (days)	9,125
Exposure Duration (year)	NA		
Exposed Skin Surface Area (cm ²)	NA	Target Risk Levels	
Dermal Permeability Constant (cm/hr)	NA	HI Target Level	0.2
Conversion Factor (L/cm ³)	NA	ELCR Target Level	1.0E-06

Table I-22

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.8571	0.06	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	0.1	1 / 0.1	2.82E+04	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.09E+02	-
2-Butanone	78-93-3	0.29	0.6	1 / 0.1	2.69E+04	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	4.94E+01	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.57E+02	-
4-Methyl-2-pentanone	108-10-1	0.023	0.08	1 / 0.1	2.04E+04	-
Tetrachloroethene*	127-18-4	-	0.01	1 / 0.1	6.78E+02	-
Toluene	108-88-3	0.114	0.2	1 / 0.12	2.17E+02	76,439
Ethylbenzene	100-41-4	0.286	0.1	1 / 0.2	1.77E+02	155,267
Styrene*	100-42-5	0.286	0.2	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	1.95E+02	-
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	0.02	1 / 0.26	-	-
Phenol*	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol*	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	8.56E+03	3,011
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	0.08	1 / 0.17	-	-

Table I-22

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Dimethylphthalate*	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	-
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	-
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	-
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	0.1	1 / 0.17	-	-
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	-
Pyrene	129-00-0	-	0.03	1 / 0.2	-	-
Butylbenzylphthalate*	85-68-7	-	0.2	1 / 0.17	-	-
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC*	319-85-7	-	0.0003	1 / 0.25	-	-

Table I-22

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
delta-BHC*	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin*	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	-
Endrin*	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE*	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD*	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT*	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone*	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1248*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-

Table I-22

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Non- Carcinogenic PRG (µg/L)
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)*	18540-29-9	-	0.005	1 / 0.09	-	-
Cobalt	7440-48-4	-	0.18	1 / 0.03	-	-
Copper	7440-50-8	-	3.5	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	-
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-23
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
ACOE Property
Groundwater
Commercial Worker

Inhalation of Volatiles (Indoor)		Ingestion	
Inhalation Rate (m ³ /hour)	0.83	GW Ingestion Rate (L/day)	1
Exposure Time (hour/day)	8	Exposure Frequency (day/year)	250
Exposure Frequency (day/year)	250	Exposure Duration (year)	25
Exposure Duration (year)	25	Fraction Contaminated (dim.less)	1
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	NA	Body Weight (kg)	70
Exposure Frequency (day/year)	NA	Carcinogenic AP (days)	25,550
Exposure Duration (year)	NA		
Exposed Skin Surface Area (cm ²)	NA		
Dermal Permeability Constant (cm/hr) chemical specific		Target Risk Levels	
Conversion Factor (L/cm ³)	NA	HI Target Level	0.2
		ELCR Target Level	1.0E-06

Table I-23

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.0016	0.0075	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	-	1 / NC	2.82E+04	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	2.09E+02	-
2-Butanone	78-93-3	-	-	1 / NC	2.69E+04	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / NC	4.94E+01	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.57E+02	10
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	2.04E+04	-
Tetrachloroethene*	127-18-4	0.002	0.052	1 / 0.1	6.78E+02	-
Toluene	108-88-3	-	-	1 / NC	2.17E+02	-
Ethylbenzene	100-41-4	-	-	1 / NC	1.77E+02	-
Styrene*	100-42-5	-	-	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	1.95E+02	-
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	-	1 / NC	-	-
Phenol*	108-95-2	-	-	1 / NC	-	-
4-Methylphenol*	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	8.56E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate*	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	0.421
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	14.308
Di-n-butylphthalate*	84-74-2	-	-	1 / NC	-	-

Table I-23

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate*	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	0.392
Chrysene	218-01-9	-	0.073	1 / 0.2	-	3.920
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	0.392
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	3.920
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	0.039
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	0.392
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC*	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC*	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin*	309-00-2	17	17	1 / 0.25	-	-
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	-
Endrin*	72-20-8	-	-	1 / NC	-	-
4,4'-DDE*	72-55-9	-	0.34	1 / 0.2	-	-
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD*	72-54-8	-	0.24	1 / 0.25	-	-
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT*	50-29-3	0.34	0.34	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	-	1 / NC	-	-
Endrin ketone*	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	1.3	1.3	1 / 0.05	-	-

Table I-23

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Aroclor-1242*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1248*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	0.191
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	0.067
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)*	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-24A
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
Off-site (Douw Street) Property
Groundwater
Resident Adult

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.625	Ingestion Rate (L-year/kg-day)	2
Exposure Time (hour/day)	16	Exposure Frequency (day/year)	350
Exposure Frequency (day/year)	350	Fraction Contaminated (dim.less)	1
Exposure Duration (year)	30		
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	0.25	Body Weight (kg)	70
Exposure Frequency (day/year)	350	Non-Carcinogenic AP (days)	10950
Skin Surface Area (cm ² -year/kg)	22,000		
Dermal Permeability Constant (cm/hr)	chemical specific		
Conversion Factor (L/cm ³)	0.001	Risk Levels	
		HI Target Level	0.2
		ELCR Target Level	1.0E-06

Table I-24A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.8571	0.06	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	0.1	1 / 0.1	2.82E+04	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.09E+02	-
2-Butanone	78-93-3	0.285714286	0.6	1 / 0.1	2.69E+04	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	4.94E+01	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.57E+02	-
4-Methyl-2-pentanone	108-10-1	0.022857143	0.08	1 / 0.1	2.04E+04	-
Tetrachloroethene*	127-18-4	-	0.01	1 / 0.1	6.78E+02	-
Toluene	108-88-3	0.114	0.2	1 / 0.12	2.17E+02	-
Ethylbenzene	100-41-4	0.286	0.1	1 / 0.2	1.77E+02	-
Styrene*	100-42-5	0.286	0.2	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	1.95E+02	426,734
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	0.02	1 / 0.26	-	-
Phenol*	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol*	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	8.56E+03	1,224
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate*	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	12,244
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	8,004
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	-
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	0.1	1 / 0.17	-	-

Table I-24A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	-
Pyrene	129-00-0	-	0.03	1 / 0.2	-	-
Butylbenzylphthalate*	85-68-7	-	0.2	1 / 0.17	-	5,085
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC*	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC*	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin*	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	-
Endrin*	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE*	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD*	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT*	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone*	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	0.00002	1 / 0.067	-	-

Table I-24A

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Aroclor-1248*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)*	18540-29-9	-	0.005	1 / 0.09	-	-
Cobalt	7440-48-4	-	0.156	1 / 0.03	-	-
Copper	7440-50-8	-	3.5	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	-
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-24B
Human Health Risk-based Preliminary Remediation Goals
Non-Carcinogenic Effects
Off-site (Douw Street) Property
Groundwater
Resident Child/Adult Composite

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.625	Ingestion Rate (L-year/kg-day)	1
Exposure Time (hour/day)	16	Exposure Frequency (day/year)	350
Exposure Frequency (day/year)	350	Fraction Contaminated (dim.less)	1
Exposure Duration (year)	30		
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	0.25	Body Weight (kg)	15
Exposure Frequency (day/year)	350	Non-Carcinogenic AP (days)	2190
Skin Surface Area (cm ² -year/kg)	9310		
Dermal Permeability Constant (cm/hr)	chemical specific	Risk Levels	
Conversion Factor (L/cm ³)	0.001	HI Target Level	0.2
		ELCR Target Level	1.0E-06

Table I-24B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.8571	0.06	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	0.1	1 / 0.1	2.82E+04	-
Carbon disulfide	75-15-0	0.20	0.1	1 / 0.11	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	0.009	1 / 0.1	2.09E+02	-
2-Butanone	78-93-3	0.285714286	0.6	1 / 0.1	2.69E+04	-
Trichloroethene	79-01-6	-	0.006	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / 0.1	4.94E+01	-
Benzene	71-43-2	-	0.0003	1 / 0.08	2.57E+02	-
4-Methyl-2-pentanone	108-10-1	0.022857143	0.08	1 / 0.1	2.04E+04	-
Tetrachloroethene*	127-18-4	-	0.01	1 / 0.1	6.78E+02	-
Toluene	108-88-3	0.114	0.2	1 / 0.12	2.17E+02	-
Ethylbenzene	100-41-4	0.286	0.1	1 / 0.2	1.77E+02	-
Styrene*	100-42-5	0.286	0.2	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	2	1 / 0.12	1.95E+02	36,722
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	0.02	1 / 0.26	-	-
Phenol*	108-95-2	-	0.6	1 / 0.26	-	-
4-Methylphenol*	106-44-5	-	0.005	1 / 0.17	-	-
Naphthalene	91-20-3	0.00011	0.04	1 / 0.1	8.56E+03	57
2-Methylnaphthalene	91-57-6	-	0.04	1 / 0.1	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	0.08	1 / 0.17	-	-
Dimethylphthalate*	131-11-3	-	-	1 / 0.07	-	-
Acenaphthylene	208-96-8	-	-	1 / 0.18	-	-
Acenaphthene	83-32-9	-	0.06	1 / 0.2	-	1,061
Dibenzofuran	132-64-9	-	0.004	1 / 0.17	-	-
2,4-Dinitrotoluene	121-14-2	-	0.002	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	0.8	1 / 0.02	-	-
Fluorene	86-73-7	-	0.04	1 / 0.2	-	695
Phenanthrene	85-01-8	-	-	1 / 0.18	-	-
Anthracene	120-12-7	-	0.3	1 / 0.29	-	-
Carbazole	86-74-8	-	-	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	0.1	1 / 0.17	-	-

Table I-24B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Fluoranthene	206-44-0	-	0.04	1 / 0.2	-	-
Pyrene	129-00-0	-	0.03	1 / 0.2	-	-
Butylbenzylphthalate*	85-68-7	-	0.2	1 / 0.17	-	452
Benzo(a)anthracene	56-55-3	-	-	1 / 0.18	-	-
Chrysene	218-01-9	-	-	1 / 0.18	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.02	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	0.02	1 / 0.17	-	-
Benzo(b)fluoranthene	205-99-2	-	-	1 / 0.18	-	-
Benzo(k)fluoranthene	207-08-9	-	-	1 / 0.18	-	-
Benzo(a)pyrene	50-32-8	-	-	1 / 0.18	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	-	1 / 0.18	-	-
Dibenzo(a,h)anthracene	53-70-3	-	-	1 / 0.08	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / 0.18	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	-	0.0003	1 / 0.25	-	-
beta-BHC*	319-85-7	-	0.0003	1 / 0.25	-	-
delta-BHC*	319-86-8	-	0.0003	1 / 0.25	-	-
gamma-BHC (Lindane)	58-89-9	-	0.0003	1 / 0.25	-	-
Aldrin*	309-00-2	-	0.00003	1 / 0.25	-	-
Heptachlor	76-44-8	-	0.0005	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	-	0.000013	1 / 0.2	-	-
Endosulfan I	115-29-71	-	0.006	1 / 0.2	-	-
Dieldrin	60-57-1	-	0.00005	1 / 0.25	-	-
Endrin*	72-20-8	-	0.0003	1 / 0.25	-	-
4,4'-DDE*	72-55-9	-	0.0007	1 / 0.25	-	-
Endosulfan II	115-29-72	-	0.006	1 / 0.2	-	-
4,4'-DDD*	72-54-8	-	0.003	1 / 0.2	-	-
Endosulfan sulfate	Endo. Sulfate	-	0.006	1 / 0.2	-	-
4,4'-DDT*	50-29-3	-	0.0005	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	0.005	1 / 0.2	-	-
Endrin ketone*	En ketone	-	0.0003	1 / 0.25	-	-
Endrin aldehyde	En ald	-	0.0003	1 / 0.25	-	-
alpha-Chlordane	57-74-9A	-	0.00006	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	-	0.00006	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	0.00002	1 / 0.067	-	-

Table I-24B

COPC	CASRN	Inhalation RfD (mg/kg.day)	Chronic RfD (mg/kg.day)	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Aroclor-1248*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	0.00002	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	0.00002	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	1	1 / 0.03	-	-
Antimony	7440-36-0	-	0.0004	1 / 0.1	-	-
Arsenic	7440-38-2	-	0.0003	1 / 0.03	-	-
Barium	7440-39-3	-	0.07	1 / 0.03	-	-
Beryllium	7440-41-7	-	0.005	1 / 0.03	-	-
Cadmium	7440-43-9	-	0.001	1 / 0.14	-	-
Chromium (Total)*	18540-29-9	-	0.005	1 / 0.09	-	-
Cobalt	7440-48-4	-	<u>0.156</u>	1 / 0.03	-	-
Copper	7440-50-8	-	3.5	1 / 0.03	-	-
Iron	7439-89-6	-	-	1 / 0.03	-	-
Lead	7439-92-1	-	-	1 / 0.006	-	-
Manganese	7439-96-5	-	0.14	1 / 0.03	-	-
Mercury	7439-97-6	-	0.0003	1 / 0.05	-	-
Nickel	7440-02-0	-	0.02	1 / 0.35	-	-
Selenium	7782-49-2	-	0.005	1 / 0.002	-	-
Silver	7440-22-4	-	0.005	1 / 0.25	-	-
Thallium	7440-28-0	-	0.00008	1 / 0.01	-	-
Vanadium	7440-62-2	-	0.007	1 / 0.03	-	-
Zinc	7440-66-6	-	0.3	1 / 0.02	-	-
Cyanide	57-12-5	-	0.02	1 / 0.3	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-25
Human Health Risk-based Preliminary Remediation Goals
Carcinogenic Effects
Off-site (Dow Street) Property
Groundwater
Resident Child/Adult Composite

Inhalation of Volatiles		Ingestion	
Inhalation Rate (m ³ /hour)	0.625	Ingestion Rate (L-year/kg-day)	1.1
Exposure Time (hour/day)	16	Exposure Frequency (day/year)	350
Exposure Frequency (day/year)	350	Fraction Contaminated (dim.less)	1
Exposure Duration (year)	30		
Direct Contact		Standard Parameters	
Exposure Time (hour/day)	0.25	Body Weight (kg)	59
Exposure Frequency (day/year)	350	Carcinogenic AP (days)	25550
Skin Surface Area (cm ² -year/kg)	11300		
Dermal Permeability Constant (cm/hr)	chemical specific		
Conversion Factor (L/cm ³)	0.001	Target Risk Levels	
		HI Target Level	0.2
		ELCR Target Level	1.0E-06

Table I-25

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Volatile Organics						
Methylene chloride*	75-09-2	0.0016	0.0075	1 / 0.1	5.65E+02	-
Acetone	67-64-1	-	-	1 / NC	2.82E+04	-
Carbon disulfide	75-15-0	-	-	1 / NC	1.13E+02	-
1,2-Dichloroethene (total)	156-60-5	-	-	1 / NC	2.09E+02	-
2-Butanone	78-93-3	-	-	1 / NC	2.69E+04	-
Trichloroethene	79-01-6	0.006	0.011	1 / 0.1	1.55E+02	-
1,1,1-Trichloroethane*	71-55-6	-	-	1 / NC	4.94E+01	-
Benzene	71-43-2	0.029	0.029	1 / 0.08	2.57E+02	-
4-Methyl-2-pentanone	108-10-1	-	-	1 / NC	2.04E+04	-
Tetrachloroethene*	127-18-4	0.002	0.052	1 / 0.1	6.78E+02	-
Toluene	108-88-3	-	-	1 / NC	2.17E+02	-
Ethylbenzene	100-41-4	-	-	1 / NC	1.77E+02	-
Styrene*	100-42-5	-	-	1 / 0.2	5.65E+02	-
Xylenes (Total)	1330-20-7	-	-	1 / NC	1.95E+02	-
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	-	1 / NC	-	-
Phenol*	108-95-2	-	-	1 / NC	-	-
4-Methylphenol*	106-44-5	-	-	1 / NC	-	-
Naphthalene	91-20-3	-	-	1 / NC	8.56E+03	-
2-Methylnaphthalene	91-57-6	-	-	1 / NC	2.73E+03	-
2-Chloronaphthalene*	91-58-7	-	-	1 / NC	-	-
Dimethylphthalate*	131-11-3	-	-	1 / NC	-	-
Acenaphthylene	208-96-8	-	-	1 / NC	-	-
Acenaphthene	83-32-9	-	-	1 / NC	-	-
Dibenzofuran	132-64-9	-	-	1 / NC	-	-
2,4-Dinitrotoluene	121-14-2	-	0.68	1 / 0.13	-	-
Diethylphthalate	84-66-2	-	-	1 / NC	-	-
Fluorene	86-73-7	-	-	1 / NC	-	-
Phenanthrene	85-01-8	-	-	1 / NC	-	-
Anthracene	120-12-7	-	-	1 / NC	-	-
Carbazole	86-74-8	-	0.02	1 / 0.17	-	-
Di-n-butylphthalate*	84-74-2	-	-	1 / NC	-	-

Table I-25

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Fluoranthene	206-44-0	-	-	1 / NC	-	-
Pyrene	129-00-0	-	-	1 / NC	-	-
Butylbenzylphthalate*	85-68-7	-	-	1 / NC	-	-
Benzo(a)anthracene	56-55-3	-	0.73	1 / 0.2	-	-
Chrysene	218-01-9	-	0.073	1 / 0.2	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	0.014	1 / 0.02	-	-
Di-n-octylphthalate*	117-84-0	-	-	1 / NC	-	-
Benzo(b)fluoranthene	205-99-2	-	0.73	1 / 0.2	-	-
Benzo(k)fluoranthene	207-08-9	-	0.073	1 / 0.2	-	-
Benzo(a)pyrene	50-32-8	-	7.3	1 / 0.2	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	0.73	1 / 0.2	-	-
Dibenzo(a,h)anthracene	53-70-3	-	7.3	1 / 0.09	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	1 / NC	-	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	6.3	6.3	1 / 0.25	-	-
beta-BHC*	319-85-7	1.8	1.8	1 / 0.25	-	-
delta-BHC*	319-86-8	-	-	1 / NC	-	-
gamma-BHC (Lindane)	58-89-9	-	1.3	1 / 0.25	-	-
Aldrin*	309-00-2	17	17	1 / 0.25	-	-
Heptachlor	76-44-8	4.5	4.5	1 / 0.2	-	-
Heptachlor epoxide*	1024-57-3	9.1	9.1	1 / 0.2	-	-
Endosulfan I	115-29-71	-	-	1 / NC	-	-
Dieldrin	60-57-1	16	16	1 / 0.25	-	-
Endrin*	72-20-8	-	-	1 / NC	-	-
4,4'-DDE*	72-55-9	-	0.34	1 / 0.2	-	-
Endosulfan II	115-29-72	-	-	1 / NC	-	-
4,4'-DDD*	72-54-8	-	0.24	1 / 0.25	-	-
Endosulfan sulfate	Endo. Sulfate	-	-	1 / NC	-	-
4,4'-DDT*	50-29-3	0.34	0.34	1 / 0.2	-	-
Methoxychlor*	72-43-5	-	-	1 / NC	-	-
Endrin ketone*	En ketone	-	-	1 / NC	-	-
Endrin aldehyde	En ald	-	-	1 / NC	-	-
alpha-Chlordane	57-74-9A	1.3	1.3	1 / 0.05	-	-
gamma-Chlordane*	57-74-9G	1.3	1.3	1 / 0.05	-	-
Aroclor-1242*	1336-36-3	-	7.7	1 / 0.067	-	-

Table I-25

COPC	CASRN	Inhalation CSF (mg/kg.day) ⁻¹	Oral CSF (mg/kg.day) ⁻¹	Ingestion / Dermal Absorption Fraction	GW-to-Air Volatilization Factor (m ³ /L)	Carcinogenic PRG (µg/L)
Aroclor-1248*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1254*	1336-36-3	-	7.7	1 / 0.067	-	-
Aroclor-1260	1336-36-3	-	7.7	1 / 0.067	-	-
Inorganics/Cyanide						
Aluminum	7429-90-5	-	-	1 / NC	-	-
Antimony	7440-36-0	-	-	1 / NC	-	-
Arsenic	7440-38-2	50	1.5	1 / 0.03	-	-
Barium	7440-39-3	-	-	1 / NC	-	-
Beryllium	7440-41-7	8.4	4.3	1 / 0.03	-	-
Cadmium	7440-43-9	-	-	1 / NC	-	-
Chromium (Total)*	18540-29-9	41	-	1 / NC	-	-
Cobalt	7440-48-4	-	-	1 / NC	-	-
Copper	7440-50-8	-	-	1 / NC	-	-
Iron	7439-89-6	-	-	1 / NC	-	-
Lead	7439-92-1	-	-	1 / NC	-	-
Manganese	7439-96-5	-	-	1 / NC	-	-
Mercury	7439-97-6	-	-	1 / NC	-	-
Nickel	7440-02-0	0.84	-	1 / NC	-	-
Selenium	7782-49-2	-	-	1 / NC	-	-
Silver	7440-22-4	-	-	1 / NC	-	-
Thallium	7440-28-0	-	-	1 / NC	-	-
Vanadium	7440-62-2	-	-	1 / NC	-	-
Zinc	7440-66-6	-	-	1 / NC	-	-
Cyanide	57-12-5	-	-	1 / NC	-	-

Notes

-: Not Available

*: Groundwater PRG only calculated for estimating soil levels protective of soil to groundwater leaching.

Table I-26
Soil Concentrations Protective of Groundwater under Residential Scenario

ρ_s	Soil Bulk Density	1.7	g-soil/cm ³ -soil	NYS Default Value
θ_{ws}	Volumetric water content in vadose zone	0.12	cm ³ -water/cm ³ -soil	NYS Default Value
foc	Fraction organic carbon	0.005	g-carbon/g-soil	NYS Default Value
H	Henry's Law	- CSV -	dim.less	
θ_{as}	Volumetric air content in vadose zone soil	0.26	cm ³ -air/cm ³ -soil	NYS Default Value
U_{gw}	Groundwater Darcy Velocity	2500	cm/year	NYS Default Value
δ_{gw}	Groundwater mixing zone thickness	200	cm	NYS Default Value
I	Infiltration rate of water through soil	30	cm/year	
W	Width of source area parallel to the groundwater flow	1500	cm	NYS Default Value
K_s	Chemical-specific solid-water sorption coefficient	- CSV -		$K_{oc} * foc$
LF_{sw}	Leaching Factor - Soil to groundwater	- CSV -	(mg/L)/(mg/kg)	NYSDEC, 1997
DAF	Dilution attenuation factor	1		(equation C-4 Exposure point assumed to be on site)

Table I-26

COPC	CASRN	Residential Groundwater PRG (mg/L)	K_s cm ³ -water/ gm soil	Henry's Law Constant cm ³ - water/ cm ³ - air	LF _{sw} soil/ water	kg- L-	Soil Leaching PRG (mg/kg)
Volatile Organics							
Methylene chloride*	75-09-2	-	4.4E-02	1.0E-01	6.4E-01	-	-
Acetone	67-64-1	-	1.1E-02	2.0E-03	1.0E+00	-	-
1,1,1-Trichloroethane*	71-55-6	-	7.6E-01	1.1E+00	8.2E-02	-	-
Benzene	71-43-2	-	3.3E-01	2.2E-01	1.9E-01	-	-
Tetrachloroethene*	127-18-4	-	1.8E+00	8.3E-02	4.3E-02	-	-
Toluene	108-88-3	-	6.0E-01	2.6E-01	1.2E-01	-	-
Ethylbenzene	100-41-4	-	1.1E+00	3.2E-01	6.8E-02	-	-
Styrene*	100-42-5	-	4.5E+00	1.0E-01	1.8E-02	-	-
Xylenes (Total)	1330-20-7	-	1.2E+00	2.9E-01	6.4E-02	-	-
Semi-volatile Organics							
2,4-Dimethylphenol*	105-67-9	-	4.8E-01	2.2E-05	1.5E-01	-	-
Phenol*	108-95-2	-	7.1E-02	1.6E-05	5.8E-01	-	-
4-Methylphenol*	106-44-5	-	8.5E-02	9.7E-06	5.3E-01	-	-
Naphthalene	91-20-3	-	4.7E+00	4.9E-02	1.7E-02	-	-
2-Methylnaphthalene	91-57-6	-	4.0E+01	2.1E-02	2.1E-03	-	-
2-Chloronaphthalene*	91-58-7	-	2.4E+01	8.7E-02	3.4E-03	-	-
Dimethylphthalate*	131-11-3	-	8.7E-02	2.1E-05	5.2E-01	-	-
Acenaphthylene	208-96-8	-	1.3E+01	4.7E-03	6.6E-03	-	-
Acenaphthene	83-32-9	-	2.3E+01	9.8E-03	3.6E-03	-	-
Dibenzofuran	132-64-9	-	4.6E+01	3.0E-05	1.8E-03	-	-
2,4-Dinitrotoluene	121-14-2	-	1.3E+00	7.6E-06	6.2E-02	-	-
Diethylphthalate	84-66-2	-	3.5E-01	6.1E-05	2.0E-01	-	-
Fluorene	86-73-7	-	3.7E+01	3.4E-03	2.3E-03	-	-
Phenanthrene	85-01-8	-	7.0E+01	1.6E-03	1.2E-03	-	-
Anthracene	120-12-7	-	7.0E+01	2.4E-03	1.2E-03	-	-

Table I-26

COPC	CASRN	Residential Groundwater PRG (mg/L)	K_s cm ³ -water/ gm soil	Henry's Law	LF _{sw} soil/ water	kg- L ⁻¹	Soil Leaching PRG (mg/kg)
				Constant cm ³ - water/ cm ³ - air			
Carbazole	86-74-8	-	-	-	-	-	-
Di-n-butylphthalate*	84-74-2	-	7.0E+00	5.3E-05	1.2E-02	-	-
Fluoranthene	206-44-0	-	1.9E+02	3.8E-04	4.3E-04	-	-
Pyrene	129-00-0	-	1.9E+02	3.6E-04	4.3E-04	-	-
Butylbenzylphthalate*	85-68-7	-	8.5E+01	1.8E-04	9.7E-04	-	-
Benzo(a)anthracene	56-55-3	-	6.9E+03	1.8E-04	1.2E-05	-	-
Chrysene	218-01-9	-	1.0E+03	3.9E-05	8.3E-05	-	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	4.4E+02	1.8E-05	1.9E-04	-	-
Di-n-octylphthalate*	117-84-0	-	9.5E+01	2.2E-04	8.7E-04	-	-
Benzo(b)fluoranthene	205-99-2	-	2.8E+03	4.8E-04	3.0E-05	-	-
Benzo(k)fluoranthene	207-08-9	-	2.8E+03	1.6E-03	3.0E-05	-	-
Benzo(a)pyrene	50-32-8	-	2.8E+04	1.5E-03	3.0E-06	-	-
Indeno(1,2,3cd)pyrene	193-39-5	-	8.0E+03	2.8E-06	1.0E-05	-	-
Dibenzo(a,h)anthracene	53-70-3	-	1.7E+04	1.1E-07	5.0E-06	-	-
Benzo(g,h,i)perylene	191-24-2	-	8.0E+03	5.1E-06	1.0E-05	-	-
Pesticides/PCBs							
alpha-BHC*	319-84-6	-	1.9E+01	2.4E-04	4.3E-03	-	-
beta-BHC*	319-85-7	-	1.9E+01	1.8E-05	4.3E-03	-	-
delta-BHC*	319-86-8	-	3.3E+01	8.5E-06	2.5E-03	-	-
gamma-BHC (Lindane)	58-89-9	-	5.4E+00	3.2E-04	1.5E-02	-	-
Aldrin*	309-00-2	-	4.8E+02	2.0E-02	1.7E-04	-	-
Heptachlor	76-44-8	-	3.0E+01	6.0E-02	2.7E-03	-	-
Heptachlor epoxide*	1024-57-3	-	1.1E+00	1.3E-03	7.1E-02	-	-
Dieldrin	60-57-1	-	8.5E+00	4.5E-04	9.6E-03	-	-
Endrin*	72-20-8	-	5.3E+01	1.7E-04	1.6E-03	-	-
4,4'-DDE*	72-55-9	-	1.5E+02	2.8E-03	5.6E-04	-	-
Endosulfan II	115-29-72	-	-	-	-	-	-

Table I-26

COPC	CASRN	Residential Groundwater		K_s cm ³ -water/ gm soil	Henry's Law		kg- L-	Soil Leaching PRG (mg/kg)
		PRG	(mg/L)		Constant cm ³ - water/ air	LF _{sw} cm ³ - soil/ water		
4,4'-DDD*	72-54-8	-	-	3.9E+03	3.3E-04	2.1E-05	-	
4,4'-DDT*	50-29-3	-	-	1.2E+03	3.4E-04	6.8E-05	-	
Methoxychlor*	72-43-5	-	-	4.0E+02	9.2E-07	2.1E-04	-	
Endrin ketone*	En ketone	-	-	5.3E+01	1.7E-04	1.6E-03	-	
Endrin aldehyde	En ald	-	-	5.3E+01	1.7E-04	1.6E-03	-	
gamma-Chlordane*	57-74-9G	-	-	4.8E+01	2.0E-03	1.7E-03	-	
Aroclor-1242*	1336-36-3	-	-	1.4E+03	1.8E-02	6.0E-05	-	
Aroclor-1248*	1336-36-3	-	-	1.4E+03	1.8E-02	6.0E-05	-	
Aroclor-1254*	1336-36-3	-	-	1.4E+03	1.8E-02	6.0E-05	-	
Inorganics/Cyanide								
Chromium (Total)*	18540-29-9	-	-	-	-	-	-	
Cobalt	7440-48-4	-	-	-	-	-	-	
Manganese	7439-96-5	-	-	-	-	-	-	
Nickel	7440-02-0	-	-	-	-	-	-	
Silver	7440-22-4	-	-	-	-	-	-	
Vanadium	7440-62-2	-	-	-	-	-	-	
Cyanide	57-12-5	-	-	2.9E-03	-	-	-	

Notes:

-: Not Available

Table I-27
Soil Concentrations Protective of Groundwater under Commercial Scenario

ρ_s	Soil Bulk Density	1.7	g-soil/cm ³ -soil	NYS Default Value
θ_{ws}	Volumetric water content in vadose zone	0.12	cm ³ -water/cm ³ -soil	NYS Default Value
foc	Fraction organic carbon	0.005	g-carbon/g-soil	NYS Default Value
H	Henry's Law	- CSV -	dim.less	
θ_{as}	Volumetric air content in vadose zone soil	0.26	cm ³ -air/cm ³ -soil	NYS Default Value
U_{gw}	Groundwater Darcy Velocity	2500	cm/year	NYS Default Value
δ_{gw}	Groundwater mixing zone thickness	200	cm	NYS Default Value
I	Infiltration rate of water through soil	30	cm/year	
W	Width of source area parallel to the groundwater flow	1500	cm	NYS Default Value
K_s	Chemical-specific solid-water sorption coefficient	- CSV -		$K_{oc} * foc$
LF_{sw}	Leaching Factor - soil to groundwater	- CSV -	(mg/L)/(mg/kg)	NYSDEC, 1997 (equation C-4)
DAF	Dilution attenuation factor	1		Exposure point assumed to be on site

Table I-27

COPC	CASRN	Commercial Groundwater PRG (mg/L)	K _s	Henry's Law Constant	LF _{sw}	Soil Leaching PRG (mg/kg)
Volatile Organics						
Methylene chloride*	75-09-2	-	4.4E-02	1.0E-01	6.4E-01	-
Acetone	67-64-1	-	1.1E-02	2.0E-03	1.0E+00	-
1,1,1-Trichloroethane*	71-55-6	-	7.6E-01	1.1E+00	8.2E-02	-
Benzene	71-43-2	3.82E-01	3.3E-01	2.2E-01	1.9E-01	2.0E+00
Tetrachloroethene*	127-18-4	-	1.8E+00	8.3E-02	4.3E-02	-
Toluene	108-88-3	7.64E+01	6.0E-01	2.6E-01	1.2E-01	6.6E+02
Ethylbenzene	100-41-4	1.55E+02	1.1E+00	3.2E-01	6.8E-02	2.3E+03
Styrene*	100-42-5	-	4.5E+00	1.0E-01	1.8E-02	-
Xylenes (Total)	1330-20-7	-	1.2E+00	2.9E-01	6.4E-02	-
Semi-volatile Organics						
2,4-Dimethylphenol*	105-67-9	-	4.8E-01	2.2E-05	1.5E-01	-
Phenol*	108-95-2	-	7.1E-02	1.6E-05	5.8E-01	-
4-Methylphenol*	106-44-5	-	8.5E-02	9.7E-06	5.3E-01	-
Naphthalene	91-20-3	3.01E+00	4.7E+00	4.9E-02	1.7E-02	1.7E+02
2-Methylnaphthalene	91-57-6	-	4.0E+01	2.1E-02	2.1E-03	-
2-Chloronaphthalene*	91-58-7	-	2.4E+01	8.7E-02	3.4E-03	-
Dimethylphthalate*	131-11-3	-	8.7E-02	2.1E-05	5.2E-01	-
Acenaphthylene	208-96-8	-	1.3E+01	4.7E-03	6.6E-03	-
Acenaphthene	83-32-9	-	2.3E+01	9.8E-03	3.6E-03	-
Dibenzofuran	132-64-9	-	4.6E+01	3.0E-05	1.8E-03	-
2,4-Dinitrotoluene	121-14-2	-	1.3E+00	7.6E-06	6.2E-02	-
Diethylphthalate	84-66-2	-	3.5E-01	6.1E-05	2.0E-01	-
Fluorene	86-73-7	-	3.7E+01	3.4E-03	2.3E-03	-
Phenanthrene	85-01-8	-	7.0E+01	1.6E-03	1.2E-03	-
Anthracene	120-12-7	-	7.0E+01	2.4E-03	1.2E-03	-
Carbazole	86-74-8	-	-	-	-	-
Di-n-butylphthalate*	84-74-2	-	7.0E+00	5.3E-05	1.2E-02	-

Table I-27

COPC	CASRN	Commercial Groundwater PRG (mg/L)	K_s	Henry's Law Constant	LF_{sw}	Soil Leaching PRG (mg/kg)
Fluoranthene	206-44-0	-	1.9E+02	3.8E-04	4.3E-04	-
Pyrene	129-00-0	-	1.9E+02	3.6E-04	4.3E-04	-
Butylbenzylphthalate*	85-68-7	-	8.5E+01	1.8E-04	9.7E-04	-
Benzo(a)anthracene	56-55-3	-	6.9E+03	1.8E-04	1.2E-05	-
Chrysene	218-01-9	-	1.0E+03	3.9E-05	8.3E-05	-
Bis(2-ethylhexyl)phthalate	117-81-7	-	4.4E+02	1.8E-05	1.9E-04	-
Di-n-octylphthalate*	117-84-0	-	9.5E+01	2.2E-04	8.7E-04	-
Benzo(b)fluoranthene	205-99-2	-	2.8E+03	4.8E-04	3.0E-05	-
Benzo(k)fluoranthene	207-08-9	-	2.8E+03	1.6E-03	3.0E-05	-
Benzo(a)pyrene	50-32-8	-	2.8E+04	1.5E-03	3.0E-06	-
Indeno(1,2,3cd)pyrene	193-39-5	-	8.0E+03	2.8E-06	1.0E-05	-
Dibenzo(a,h)anthracene	53-70-3	-	1.7E+04	1.1E-07	5.0E-06	-
Benzo(g,h,i)perylene	191-24-2	-	8.0E+03	5.1E-06	1.0E-05	-
Pesticides/PCBs						
alpha-BHC*	319-84-6	-	1.9E+01	2.4E-04	4.3E-03	-
beta-BHC*	319-85-7	-	1.9E+01	1.8E-05	4.3E-03	-
delta-BHC*	319-86-8	-	3.3E+01	8.5E-06	2.5E-03	-
gamma-BHC (Lindane)	58-89-9	-	5.4E+00	3.2E-04	1.5E-02	-
Aldrin*	309-00-2	-	4.8E+02	2.0E-02	1.7E-04	-
Heptachlor	76-44-8	-	3.0E+01	6.0E-02	2.7E-03	-
Heptachlor epoxide*	1024-57-3	-	1.1E+00	1.3E-03	7.1E-02	-
Dieldrin	60-57-1	-	8.5E+00	4.5E-04	9.6E-03	-
Endrin*	72-20-8	-	5.3E+01	1.7E-04	1.6E-03	-
4,4'-DDE*	72-55-9	-	1.5E+02	2.8E-03	5.6E-04	-
Endosulfan II	115-29-72	-	-	-	-	-
4,4'-DDD*	72-54-8	-	3.9E+03	3.3E-04	2.1E-05	-
4,4'-DDT*	50-29-3	-	1.2E+03	3.4E-04	6.8E-05	-
Methoxychlor*	72-43-5	-	4.0E+02	9.2E-07	2.1E-04	-
Endrin ketone*	En ketone	-	5.3E+01	1.7E-04	1.6E-03	-


Table I-27

COPC	CASRN	Commercial		Henry's Law	LF _{sw}	Soil Leaching PRG	(mg/kg)
		Groundwater PRG	K _s				
		(mg/L)		Constant			
Endrin aldehyde	En ald	-	5.3E+01	1.7E-04	1.6E-03	-	
gamma-Chlordane*	57-74-9G	-	4.8E+01	2.0E-03	1.7E-03	-	
Aroclor-1242*	1336-36-3	-	1.4E+03	1.8E-02	6.0E-05	-	
Aroclor-1248*	1336-36-3	-	1.4E+03	1.8E-02	6.0E-05	-	
Aroclor-1254*	1336-36-3	-	1.4E+03	1.8E-02	6.0E-05	-	
Inorganics/Cyanide							
Chromium (Total)*	18540-29-9	-	-	-	-	-	
Cobalt	7440-48-4	-	-	-	-	-	
Manganese	7439-96-5	-	-	-	-	-	
Nickel	7440-02-0	-	-	-	-	-	
Silver	7440-22-4	-	-	-	-	-	
Vanadium	7440-62-2	-	-	-	-	-	
Cyanide	57-12-5	-	2.9E-03	-	-	-	

Notes:

-: Not Available

APPENDIX J
SOIL GAS INVESTIGATION REPORT

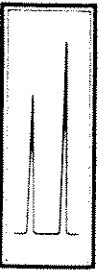


Vapor Trace® Shallow Soil Gas
Investigation

NIAGARA MOHAWK POWER CORPORATION
Troy, New York

July 18 and 19, 1994

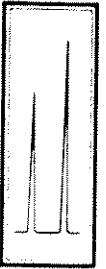
**Tracer
Research
Corporation**



Vapor Trace® Shallow Soil Gas
Investigation

NIAGARA MOHAWK POWER CORPORATION
Troy, New York

July 18 and 19, 1994



Vapor Trace® Shallow Soil Gas Investigation

NIAGARA MOHAWK POWER CORPORATION
Troy, New York

July 18 and 19, 1994

Prepared for:

ENSERCH ENVIRONMENTAL
160 Chubb Avenue
Lyndhurst, New Jersey 07071

Telephone: (201) 460-6029
FAX: (201) 460-0625

Prepared by:

TRACER RESEARCH CORPORATION
3755 North Business Center Drive
Tucson, Arizona 85705-2944

Telephone: (602) 888-9400
FAX: (602) 293-1306

EASTERN REGIONAL OFFICE
1 Deerpark Road, Suite G
Monmouth Junction, New Jersey 08542

Telephone: (908) 274-1888
FAX: (908) 274-2922

Submitted by:

Maigie D. Stivers
[Signature]

124-0108-S

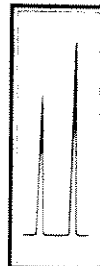


TABLE OF CONTENTS

1.0 NIAGARA MOHAWK POWER CORP. SITE INVESTIGATION.....1
 1.1 Objective.....1
 1.2 Overview of Results.....1
 2.0 SITE DESCRIPTION.....2
 3.0 SOIL GAS SAMPLING PARAMETERS.....2
 4.0 ANALYTICAL PARAMETERS.....3
 4.1 Chromatographic System.....3
 4.2 Analyses.....5
 5.0 QUALITY ASSURANCE AND QUALITY CONTROL.....5
 6.0 RESULTS.....8
 APPENDIX A Condensed Data.....A-1

TABLES

Table 1. Soil Gas Sample Summary.....2
 Table 2. Detection Limits for Target Compounds.....5
 Table 3. Quality Assurance Samples.....7



1.0 NIAGARA MOHAWK POWER CORPORATION SITE INVESTIGATION

Tracer Research Corporation (Tracer Research) performed a *Vapor Trace*® shallow soil gas investigation at the Niagara Mohawk Power Corporation site located in Troy, New York. The investigation was conducted July 18 and 19, 1994 for Enserch Environmental of Lyndhurst, New Jersey.

1.1 Objective

The purpose of the investigation was to determine the extent of possible soil and/or groundwater contamination by screening the shallow soil gas for the presence of volatile organic compounds (VOCs). The soil gas samples were collected and analyzed for the following analyte classes and compounds:

Analyte Class: Hydrocarbon

benzene, toluene, ethylbenzene, xylenes (BTEX)

total volatile hydrocarbons (TVHC)

Analyte Class: Fixed Gas

methane (CH₄)

1.2 Overview of Results

For this investigation, twenty-four samples were collected from thirteen sampling locations. Samples were collected at depths of 3.5 to 10 feet below ground surface (bgs). Depth profile samples were collected at the majority of sample locations at this site. A summary of the results of the investigation is presented in Table 1.

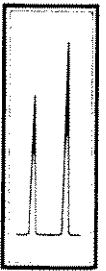


Table 1. Soil Gas Sample Summary

Compound	# of samples in which compound was detected	Low conc. $\mu\text{g/L}$	High conc. $\mu\text{g/L}$	Sample(s) with high conc.
CH ₄	0	NA	NA	NA
benzene	2	0.6	0.9	SB-08A-3.5'
toluene	4	0.8	1	MW-04A-6' SB-08A-3.5' MW-02A-10'
ethylbenzene	0	NA	NA	NA
xylenes	0	NA	NA	NA
TVHC	7	3	68	MW-06A-6'

NA = Not Applicable

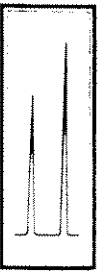
2.0 SITE DESCRIPTION

The soil gas samples were collected near monitoring wells and in areas of proposed soil boring locations at this site. The subsurface of the site was characterized by sandy soils. The depth to groundwater was reported to be 12 to 20 feet bgs and flows to the west.

3.0 SOIL GAS SAMPLING PARAMETERS

Soil gas sampling probes consisted of 7- to 14-foot lengths of 3/4-inch diameter hollow steel pipe. The probes were fitted with detachable drive tips and hydraulically pushed and/or pounded to depths of 3.5 to 10 feet bgs.

The aboveground end of each probe was fitted with an aluminum reducer (manifold) and a length of polyethylene tubing leading to a vacuum pump. Soil gas was pulled by the vacuum pump into the probe. Samples were collected in a glass syringe by inserting a needle through a silicone rubber segment in the evacuation line and down into the steel probe. The vacuum was monitored by a vacuum gauge to ensure an adequate gas flow from the vadose zone was maintained.



The volume of air within the probe was purged by evacuating 2 to 5 liters of gas. The evacuation time in minutes versus the vacuum in inches of mercury (Hg) was used to calculate the necessary evacuation time. The vacuum in inches Hg was recorded at each sampling location.

Sample probe vacuums ranged from 2 to 5 inches Hg. The vacuum capacity of the pump was approximately 23 inches Hg.

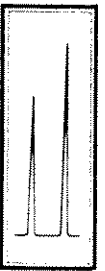
4.0 ANALYTICAL PARAMETERS

During this investigation, up to 10 milliliters (mL) of soil gas were collected for each sample and immediately analyzed in the Tracer Research analytical van. Subsamples (replicates) from these samples were injected into the gas chromatograph (GC) in volumes of 1 to 1,000 microliters (μL) depending on the VOC concentrations in the sample.

Analytical instruments were calibrated daily using fresh working standards made from National Institute of Sciences and Technology (NIST) traceable standards and reagent blanked solvents.

4.1 Chromatographic System

A Varian 3300 gas chromatograph, equipped with a flame ionization detector (FID) and one computing integrator, was used for the hydrocarbon analysis. A Tracor gas chromatograph, equipped with a thermal conductivity detector (TCD) and one computing integrator, was used for the fixed gas analysis. The hydrocarbon compounds were separated in the GC on a 6-foot by 1/8 inch outer diameter (OD) packed analytical column (10% OV101 stationary phase bonded to 80/100 mesh Chromosorb W support) in a temperature controlled oven. Nitrogen was used as the carrier gas. Methane was separated in the GC on a 6-foot by 1/8 inch dual packed analytical column, 1/4 inch OD outer column packed with activated molecular sieve and a 1/8 inch OD inner column packed with porous polymer mixture. Samples were analyzed at ambient temperature. Hydrogen was used as the carrier gas.



The instrument calibrations were checked periodically throughout the day to monitor the response factors and retention times. The following paragraphs explain the GC, FID, and TCD processes.

GC Process

The soil gas is injected into the GC where it is swept through the analytical column by the carrier gas. The detector senses the presence of a component different from the carrier gas and converts that information to an electrical signal. The components of the sample pass through the column at different rates, according to their individual properties, and are detected by the detector. Compounds are identified by the time it takes them to pass through the column (retention time).

FID Process

The FID utilizes a flame produced by the combustion of hydrogen and air. When a component, which has been separated on the GC analytical column, is introduced into the flame, a large increase in ions occurs. A collector with a polarizing voltage is applied near the flame and the ions are attracted and produce a current, which is proportional to the amount of the sample compound in the flame. The electrical current causes the computing integrator to record a peak on a chromatogram. By measuring the area of the peak and comparing that area to the integrator response of a known aqueous standard, the concentration of the analyte in the sample is determined.

TCD Process

The TCD responds to any compounds whose thermal conductivity differs from that of the carrier gas in the GC. Under constant applied voltage, a filament in the cell of the TCD heats up and its resistance increases. As the carrier gas passes over the filament, it maintains constant temperature and therefore constant resistance in the filament. The addition of the sample to the cell results in increased temperature and increased filament resistance. This change is measured by the detector and the integrator produces a peak on a chromatogram.



4.2 Analyses

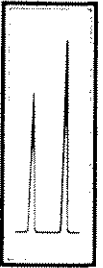
The detection limits for target compounds depend on the sensitivity of the detector to the individual compound as well as the volume of the sample injection. The detection limits of the target compounds were calculated from the response factor, the sample injection size, and the calculated minimum peak size (area) observed under the conditions of the analyses. If any compound was not detected in an analysis, the detection limit is given as a "less than" value, e.g., <0.01 $\mu\text{g/L}$. The approximate detection limits for the target compounds are presented in Table 2.

Table 2. Detection Limits for Target Compounds

Compound	Detection Limits ($\mu\text{g/L}$)
CH ₄	330
benzene	0.06
toluene	0.1
ethylbenzene	0.2
xylenes	0.3
TVHC	0.3

5.0 QUALITY ASSURANCE AND QUALITY CONTROL

Tracer Research's Quality Assurance (QA) and Quality Control (QC) program was followed to maintain data that was reproducible through the investigation. An overview presenting the significant aspects of this program is presented on the following pages.



Soil Gas Sampling Quality Assurance

To ensure consistent collection of samples, the following procedures are performed:

- Sampling Manifolds

Tracer Research's custom designed sampling manifold connects the sample probe to the vacuum line and pump. The manifold is designed to eliminate sample exposure to the polymeric (plastic) materials that connect the probe to the vacuum pump.

The sampling manifold is attached to the end of the probe, forming an air tight union between the probe and the silicone tubing septum. The septum connects the manifold to the pump vacuum line and permits syringe sampling.

This sampling system allows the sample to be taken upstream of the sampling pump, manifold, and septum. Since cross contamination of sampling equipment can be a major problem, Tracer Research replaces the materials (probe and syringe), between sampling points, that contact the soil gas before or during sampling.

-Sampling Probes

Steel probes are used only once each day. To eliminate the possibility of cross contamination, they are washed with high pressure soap and hot water spray, or steam-cleaned. Enough sampling probes are carried on each van to avoid the need to re-use any during the day.

-Glass Syringes

Glass syringes are used for only one sample a day and are washed and baked out at night. If they must be used twice, they are purged with carrier gas (nitrogen) and baked out between probe samplings.

-Sampling Efficiency

Soil gas pumping is monitored by a vacuum gauge to ensure that an adequate flow of gas from the soil is maintained. A reliable gas sample can be obtained if the sample vacuum gauge reading is at least 2 inches Hg less than the maximum measured vacuum of the vacuum pump.



Analytical Quality Assurance Samples

Quality assurance samples are performed at the minimum frequencies listed in Table 3. The actual frequency depends on the number of samples analyzed each day and the length of time of the survey.

Table 3. Quality Assurance Samples

Sample type	Frequency
Ambient Air Samples	3 per day or 1 per site
Analytical Method Blanks	1 per day
Continuing Calibration Check	20% (1 every 5 samples)
Field System Blank	1 per day
Reagent Blank	1 per set of working standards
Replicate Samples	10% of all samples

The ambient air samples are obtained on site by sampling the air immediately outside the mobile analytical van and directly injecting it into the GC. Analytical method blanks are taken to demonstrate that the analytical instrumentation is not contaminated. These are performed by injecting carrier gas (nitrogen) into the GC with the sampling syringe. Subsampling syringes are also checked in this fashion.

Continuing calibration checks are analyzed to verify the detector response for the target VOCs. If the response changes by more than twenty-five percent, the gas chromatograph is recalibrated and new response factors are calculated.

Field system blanks are analyzed to check for contamination of the sampling apparatus, e.g., probe and sampling syringe. A sample is collected using standard soil gas sampling procedures, but without putting the probe into the ground. The results are compared to those obtained from a concurrently analyzed ambient air sample.



If the field system blanks detect compounds of interest at concentrations that indicate equipment contamination or concentrations that exceed normal background levels (ambient air analysis), corrective actions are performed. If the problem cannot be corrected, an out-of-control event is documented and reported. Field system blanks are performed after any probe decontamination process.

A reagent blank is performed to ensure the solvent used to dilute the stock standards is not contaminated. Analytical instruments are calibrated daily using fresh working standards made from National Institute of Sciences and Technology traceable standards and reagent blanked solvents.

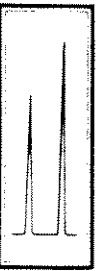
Quantitative precision is assured by replicating analysis of 10 percent of the samples. Replicate analyses are performed by subsampling vapors from the same sampling syringe.

The injector port septa through which samples are injected into the GC are replaced daily to prevent possible gas leaks from the chromatographic column. All sampling and subsampling syringes are decontaminated after use and are not used again until they have been decontaminated by washing in anionic detergent and baking at 90°C.

6.0 RESULTS

The analytical results from this soil gas investigation are condensed in Appendix A. The data are presented by location and by analyte concentration. When the compound was not detected, the detection limit is presented as a "less than" value, e.g., <0.01 µg/L.

Soil gas samples are identified by sample location and sampling depth. For example, SB-06A-6' represents a soil gas sample collected at location 6A at a depth of 6 feet bgs.

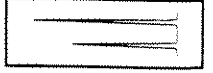


APPENDIX A Condensed Data

TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 ENSERCH/ NIAGARA MOHAWK POWER CORPORATION/ TROY, NEW YORK/ 1240108S
 07/18/94

SAMPLE	METHANE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL		TVHC µg/L
				BENZENE µg/L	XYLENES µg/L	
AIR	<330	<0.02	<0.04	<0.08	<0.1	<0.1
SB-04A-6'	<330	<0.2	<0.3	<0.7	<0.8	<0.8
SB-04A-10'	<330	<0.2	<0.3	<0.7	<0.8	<0.8
AIR	<330	<0.08	<0.2	<0.3	<0.4	<0.4
MW-06A-6'	<330	<0.8	<2	<3	<4	68
MW-06A-10'	<330	<0.8	<2	<3	<4	<4
MW-03A-6'	<330	<0.8	<2	<3	<4	<4
MW-03A-10'	<330	<0.4	<0.8	<2	<2	<2
SB-08A-3.5'	<330	0.9	1	<2	<0.9	3
SB-09A-6'	<330	<0.2	<0.3	<0.7	<0.9	<0.8
SB-09A-10'	<330	<0.4	<0.8	<2	<2	<2
SB-07A-6'	<330	<0.4	<0.8	<2	<2	<2
SB-07A-10'	<330	<0.4	<0.8	<2	<2	<2
SB-02A-6'	<330	<0.4	<0.8	<2	<2	<2
SB-02A-10'	<330	<0.4	<0.8	<2	<2	<2
MW-02A-6'	<330	<0.8	<2	<3	<4	<4
MW-02A-10'	<330	0.6	1	<2	<2	62
AIR	<330	<0.08	<0.2	<0.3	<0.4	<0.4

Analyzed by: Cg. Poff
 Proofed by: M. *Stivell*



TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 ENSERCH/ NIAGARA MOHAWK POWER CORPORATION/ TROY, NEW YORK/ 12401085
 07/18/94

SAMPLE	METHANE	BENZENE	TOLUENE	ETHYL		TVHC
	µg/L	µg/L	µg/L	BENZENE	XYLENES	
AIR	<330	<0.03	<0.06	<0.1	<0.1	<0.1
SB-06A-6'	<330	<0.1	<0.3	<0.6	<0.7	<0.7
SB-06A-10'	<330	<0.06	<0.1	<0.2	<0.3	<0.3
MW-04A-6'	<330	<0.2	1	<0.5	<0.6	16
MW-04A-10'	<330	<0.2	0.8	<0.9	<1	22

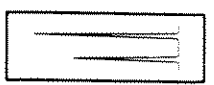
Analyzed by: Cg. Poff
 Proofed by: M. *Stiles*

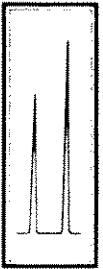


TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 ENERCH/ NIAGARA MOHAWK POWER CORPORATION/ TROY, NEW YORK/ 1240108S
 07/19/94

SAMPLE	METHANE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL		TVHC µg/L
				BENZENE µg/L	XYLENES µg/L	
AIR	<330	<0.04	<0.09	<0.2	<0.2	1
MW-06B-6'	<330	<0.2	<0.4	<0.9	<1	<1
MW-06B-10'	<330	<0.2	<0.4	<0.9	<1	<1
MW-02B-6'	<330	<0.2	<0.4	<0.9	<1	<1
MW-02B-10'	<330	<0.2	<0.4	<0.9	<1	6
AIR	<330	<0.04	<0.09	<0.2	<0.2	<0.2
MW-04B-4'	<330	<0.2	<0.4	<0.9	<1	15

Analyzed by: Cg. Poff
 Proofed by: M. Stivers





Tracer Research Corporation appreciates the opportunity of being of service to your organization. Because we are constantly striving to improve our service to you, we welcome any comments or suggestions you may have about how we can be more responsive to the needs of your organization. If you have any questions about the field work, analytical results, or this report, please give Mike Gervasini a call at (908) 274-1888.