DECISION DOCUMENT

Former Tri-State Industrial Laundries Site
Brownfield Cleanup Program
Utica, Oneida County
Site No. C633068
February 2013

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Former Tri-State Industrial Laundries Site
Brownfield Cleanup Program
Utica, Oneida County
Site No. C633068
February 2013

Statement of Purpose and Basis

This document presents the remedy for the Former Tri-State Industrial Laundries Site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Tri-State Industrial Laundries Site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Installation of a dual phase soil vapor and groundwater extraction system. This will include modification of the existing groundwater extraction system into a dual phased extraction system for groundwater and soil vapors. This is an upgrade of the existing groundwater treatment

that is currently being provided by the perimeter hydraulic control system. In addition to treating groundwater, dual phase extraction conducted under higher vacuum will also treat soil vapor as the groundwater table is depressed. The dual phase vapor and groundwater extraction system will be installed at all areas of concern including AOC 1 (chlorinated solvent impacts in proximity to historic B-8 area); AOC 2 (chlorinated solvent impacts present in proximity to the exterior pit and accumulated water within the pit); and AOC 3 (petroleum impacts in proximity to the former underground petroleum tanks along Lincoln Avenue).

3. The Former Waste Water Exterior Pit (AOC 2) will be cleaned of all water, debris and sediments and all media properly disposed. The existing piping will be removed or sealed to remove the existing exposure pathways and possible discharge points outside of the pit.

4. Installation of sub-slab depressurization systems beneath all on-site structures. Suction fans will be utilized to produce negative pressure beneath building slabs preventing the mobilization of vapors into the building. The ventilation system will be augmented by sealing potential vapor routes in the existing slab over the areas of impact.

5. A site cover currently exists and will be maintained to allow for industrial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for industrial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

6. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

b. allows the use and development of the controlled property for industrial use defined by Part 375-1.8(g), although land use is subject to local zoning laws;

c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

d. prohibits agriculture or vegetable gardens on the controlled property; and requires compliance with the Department approved Site Management Plan.

7. A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

i. Institutional Controls: The Environmental Easement discussed above.

Engineering Controls: The dual phase vacuum extraction system, the sub-

slab depressurization system and the cover system.

This plan includes, but may not be limited to:

i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

ii. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

iii. a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

iv. maintaining site access controls and Department notification; and

v. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

i. monitoring of soil vapor and groundwater to assess the performance and effectiveness of the remedy;

ii. a schedule of monitoring and frequency of submittals to the Department;

iii. monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

i. compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;

ii. maintaining site access controls and Department notification; and

iii. providing the Department access to the site and O&M records.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

February 21, 2013

Date

George Heitzman, Director
Remedial Bureau C

DECISION DOCUMENT

Former Tri-State Industrial Laundries Site
Utica, Oneida County
Site No. C633068
February 2013

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

UTICA PUBLIC LIBRARY
Attn: Darby OBrien
303 GENESEE STREET
UTICA, NY 13501
Phone: (315) 735-2279

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Features: The site is 1.66 acres in size and is predominantly covered by three large interconnected structures. The structures were home to the industrial laundry operation and include one and two story buildings. A narrow strip of grassed land and a driveway are found to the northwest between the buildings and the NYS Route 12 Arterial. Nail Creek passes to the north in an underground box culvert.

Current Zoning/Use: The site is currently in use and is zoned industrial. Tri-State Industrial Laundries uses some of the buildings for storage and leases others to the Indium Corporation of America for the manufacture of germanium. Adjacent parcels are currently used for roadways, light industrial, commercial, and residential use.

Historic Uses: The site was used for industrial laundry services from 1930 to 1999. Both water and dry-cleaning solvent were used. Tri-State ceased operation at this facility in 1999 when their operation was relocated.

Previous Investigations: Previous investigations at the site include spill number 87-07863. In December of 1987 Tri-State Industrial Laundries removed several underground storage tanks containing petroleum products. Subsequent sampling revealed impacts to groundwater by chlorinated solvents. Additional testing identified a solvent plume originating from beneath the building and migrating north-northwest toward the Route 12 Arterial. In 1988 the Department directed Tri-State Industrial Laundries to investigate the chlorinated solvent plume. In 1991 a groundwater collection system was installed on the northwest side of the building to capture the chlorinated solvent plume. The collection system is comprised of a series of eighteen (18) extraction wells located between B-8 and B-9 (See Figure 2). The system has operated from 1991 to present. Annual reporting has been provided to the Department under Spill No. 87-07863.

Site Geology and Hydrology: The site soils typically consist of fill material starting near the ground surface and extending to a depth of approximately five feet. The fill material is underlain by silt with some sand and gravel. Below the silt is a very stiff grey till which is comprised of silt/clay with some sand and gravel. Groundwater is encountered between six and nine feet below grade and flows toward the north-northwest.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to industrial use as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant(s) has/have an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- air
- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

TETRACHLOROETHYLENE (PCE)	XYLENE (MIXED)
TRICHLOROETHENE (TCE)	ETHYLBENZENE
BENZENE	VINYL CHLORIDE

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

Interim Remedial Measure

Four underground storage tanks were identified during the remedial investigation. All tanks were located beneath the existing building and slab systems. These tanks were emptied of their contents and cleaned in place. The tanks contained mop oil (paraffin based compound) and fuel oil. Borings penetrated the sidewalls and bottom of the tank and testing of soil and groundwater

were conducted. No evidence of contamination or releases to the environment were identified. Field work for the IRM concluded in November of 2010.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Based upon investigations conducted to date, the primary contaminants of concern at the site are chlorinated solvents which have contaminated groundwater, soil, soil vapor and indoor air. No off-site migration of contamination has been documented through groundwater and soil sampling.

Three areas of concern (AOC) have been identified by the Remedial Investigation:

AOC 1 is located in the vicinity of the former assembly room. The assembly room is believed to be the source of groundwater contamination in the vicinity of well B-8, which has shown total volatile organic compound (VOCs) contamination as high as 79 parts per million (ppm). A long-term groundwater collection system has been maintained in this area. Total chlorinated VOCs in soils have exceeded 1,100 ppm beneath this 6,900 square foot area. This AOC is characterized by the presence of chlorinated VOCs in soil and groundwater.

AOC 2 is located in the vicinity of the waste water discharge pit. This is located toward the western end of the facility in a narrow area between the building and the Nail Creek Culvert/NYS Route 12. This 600 square foot AOC is characterized by the presence of chlorinated VOCs in soils exceeding the protection of groundwater soil cleanup objectives (SCOs) and groundwater standards.

AOC 3 is located west of AOC 1 and the truck loading area. This 3,850 square foot AOC is characterized by the presence of petroleum related VOCs (ethylbenzene and xylene) in soils exceeding the protection of groundwater SCOs.

In addition to the three AOCs, soil vapor structure sampling for the current on-site buildings indicates that mitigation is recommended based on elevated levels of chlorinated solvents found in the sub-slab and indoor air samplings.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor intrusion sampling identified impacts in indoor air quality. This impact is limited to the on-site building and represents an exposure concern.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for,

soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Dual Phase Soil Vapor and Groundwater Extraction remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Installation of a dual phase soil vapor and groundwater extraction system. This will include modification of the existing groundwater extraction system into a dual phased extraction system for groundwater and soil vapors. This is an upgrade of the existing groundwater treatment that is currently being provided by the perimeter hydraulic control system. In addition to treating groundwater, dual phase extraction conducted under higher vacuum will also treat soil vapor as the groundwater table is depressed. The dual phase vapor and groundwater extraction system will be installed at all areas of concern including AOC 1 (chlorinated solvent impacts in proximity to historic B-8 area); AOC 2 (chlorinated solvent impacts present in proximity to the exterior pit and accumulated water within the pit); and AOC 3 (petroleum impacts in proximity to the former underground petroleum tanks along Lincoln Avenue).

3. The Former Waste Water Exterior Pit (AOC 2) will be cleaned of all water, debris and sediments and all media properly disposed. The existing piping will be removed or sealed to remove the existing exposure pathways and possible discharge points outside of the pit.

4. Installation of sub-slab depressurization systems beneath all on-site structures. Suction fans will be utilized to produce negative pressure beneath building slabs preventing the mobilization of vapors into the building. The ventilation system will be augmented by sealing potential vapor routes in the existing slab over the areas of impact.

5. A site cover currently exists and will be maintained to allow for industrial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for industrial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

6. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

b. allows the use and development of the controlled property for industrial use defined by Part 375-1.8(g), although land use is subject to local zoning laws;

c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

d. prohibits agriculture or vegetable gardens on the controlled property; and requires compliance with the Department approved Site Management Plan.

7. A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

i. Institutional Controls: The Environmental Easement discussed above.

Engineering Controls: The dual phase vacuum extraction system, the sub-slab depressurization system and the cover system.

This plan includes, but may not be limited to:

i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

ii. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

iii. a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

iv. maintaining site access controls and Department notification; and

v. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

i. monitoring of soil vapor and groundwater to assess the performance and effectiveness of the remedy;

ii. a schedule of monitoring and frequency of submittals to the Department;

iii. monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

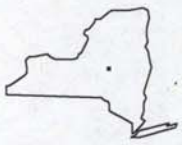
c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

i. compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;

ii. maintaining site access controls and Department notification; and

iii. providing the Department access to the site and O&M records.

SOURCE: UTICA WEST, NEW YORK U.S.G.S. QUADRANGLE MAP, DATE 1976.



QUADRANGLE LOCATION

2000' 0 2000'

1"=2000'

N

TRUE OR CALLED NORTH

Barton & Loguidice, P.C.

TRI-STATE INDUSTRIAL LAUNDRIES, INC.

FORMER TRI-STATE INDUSTRIAL LAUNDRY

PROJECT LOCATION MAP

CITY OF UTICA ONEIDA COUNTY, NEW YORK

Date	Scale
JULY, 2009	1" = 2000'

Figure Number 1

Project Number 2000.1205.001

Plotted: Jul 15, 2009 - 7:56AM SYR By: jgs
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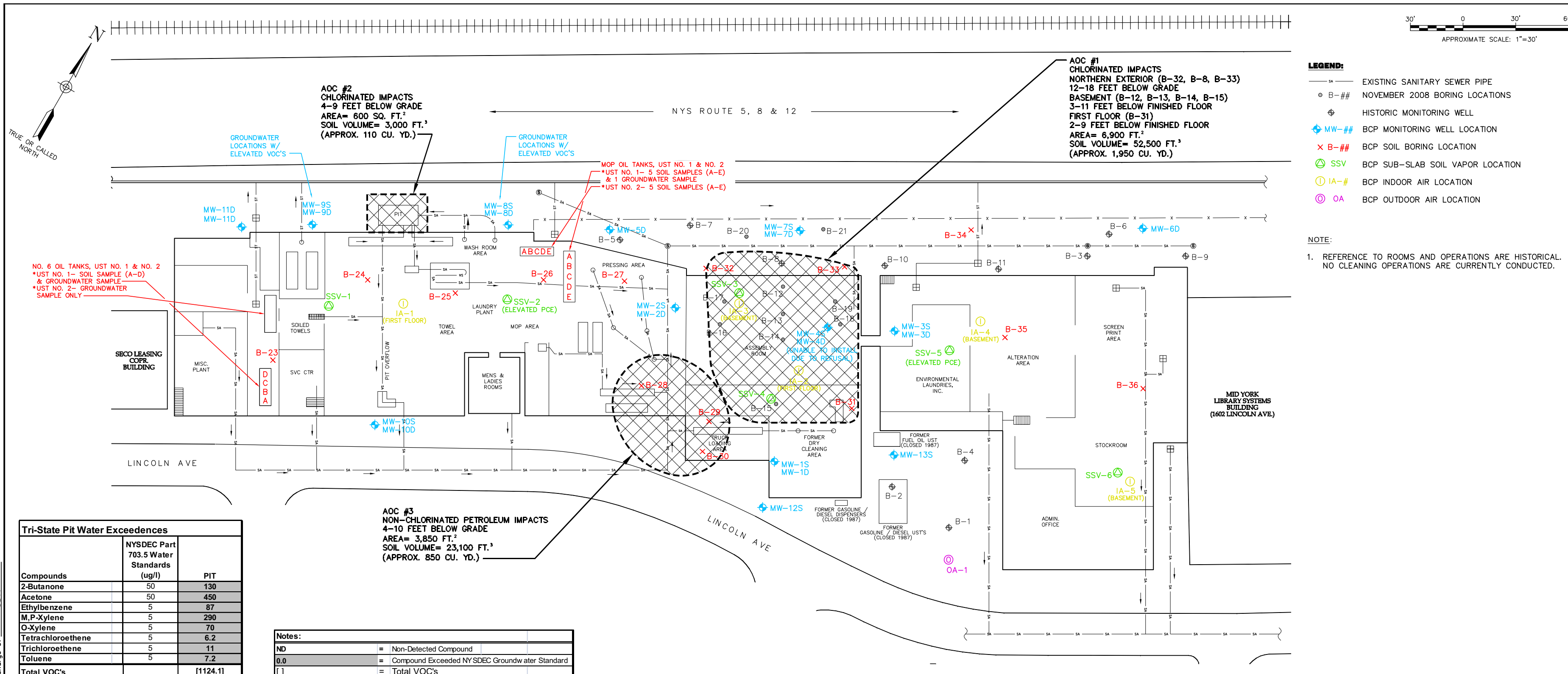

Tri-State Pit Water Exceedences

Compounds	NYSDEC Part 703.5 Water Standards (ug/l)	PIT
2-Butanone	50	130
Acetone	50	450
Ethylbenzene	5	87
M,P-Xylene	5	290
O-Xylene	5	70
Tetrachloroethene	5	6.2
Trichloroethene	5	11
Toluene	5	7.2
Total VOC's		[1124.1]

SVOC BIS (2-ETHYLHEXYL)PHTHALATE 1400.0 PPB IN PIT WATER

Notes:		
ND	=	Non-Detected Compound
0.0	=	Compound Exceeded NYSDEC Groundwater Standard
[ ]	=	Total VOC's

Summary of the Tri-State Groundwater Exceedences for the Monitoring Wells

Compounds	NYSDEC Part 703.5 Water Standards (ug/l)	MW-1S		MW-1D		MW-2S		MW-2D		MW-3S		MW-3D	
Date		Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11
Benzene	1	2.6J	4.4J	ND	ND	ND	ND	ND	ND	DRY	DRY	ND	ND
Cis-1,2-Dichloroethene	5	7.4	49	ND	ND	0.41J	ND	5.1	0.98J	DRY	DRY	0.37J	ND
Isopropylbenzene	5	-	0.97J	-	ND	-	1.1J	-	ND	DRY	DRY	-	ND
Tetrachloroethene	5	60	2.7J	ND	ND	ND	ND	ND	ND	DRY	DRY	ND	ND
Trans-1,2-Dichloroethene	5	ND	0.57J	ND	ND	ND	ND	ND	ND	DRY	DRY	ND	ND
Trichloroethene	5	3.4J	8.5	ND	ND	ND	0.36 J	ND	ND	DRY	DRY	ND	ND
Toluene	5	ND	0.41J	ND	ND	ND	ND	ND	ND	DRY	DRY	ND	ND
Vinyl Chloride	2	1.5J	12	ND	ND	22	ND	23	3.1	DRY	DRY	0.32J	ND
Total VOC's		83.48	96.41	0.61	4.70	31.33	3.90	35.30	5.28	-	-	2.39	0.43

Compounds	MW-5D		MW-6D		Dupe (MW-6D)	MW-7S		MW-7D		MW-8S		MW-8D	
Date	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11
Benzene	ND	ND	ND	ND	ND	DRY	ND	ND	ND	ND	ND	ND	ND
Cis-1,2-Dichloroethene	3.6J	1.2J	0.44J	0.38J	0.35J	DRY	ND	ND	ND	350E	210	ND	ND
Isopropylbenzene	-	ND	-	ND	-	DRY	ND	-	ND	-	ND	-	ND
Tetrachloroethene	ND	ND	0.44J	ND	ND	DRY	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	DRY	ND	ND	ND	.9DJ	3.9J	ND	ND
Trichloroethene	3.6J	ND	ND	ND	ND	DRY	ND	ND	ND	4.3J	ND	ND	ND
Toluene	0.52J	ND	ND	ND	ND	DRY	ND	ND	ND	9.9	ND	ND	ND
Vinyl Chloride	0.91J	2.2J	ND	ND	ND	DRY	ND	ND	ND	430E	360	ND	ND
Total VOC's	23.89	9.20	0.88	0.38	0.35	-	0.00	0.00	0.00	33.80	573.90	5.70	0.00

Compounds	MW-9S		MW-9D		MW-10S		MW-10D		MW-11S	MW-11D	MW-12S	MW-13S	B-5	B-7	B-8	B-10	B-11
Date	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jun-10	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11	Jan-11
Benzene	ND	ND	ND	ND	ND	0.59J	ND	ND	ND	ND	0.36J	ND	ND	ND	ND	ND	ND
Cis-1,2-Dichloroethene	140	6.40	140	520E	0.31J	0.43J	ND	ND	ND	ND	ND	8.20	ND	ND	2400	ND	ND
Isopropylbenzene	-	ND	-	ND	-	6.9	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	7.5	ND	1200	110	ND	ND	ND	ND	0.63J	ND	ND	3.7J	ND	ND	4500	ND	0.66J
Trans-1,2-Dichloroethene	1.7J	ND	ND	3.4DJ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.3J	ND	ND
Trichloroethene	16	1.2J	110	76	ND	ND	ND	ND	0.33J	ND	ND	ND	ND	ND	540	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	9	4.3J	13J	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOC's	176.98	12.56	1463.00	734.20	12.03	15.84	5.32	0.00	2.66	3.60	2.16	11.90	0.00	0.00	7448.30	0.00	0.66

Summary of the Tri-State Sub-Surface Soil Exceedences

Compounds	NYSDEC Part 375 Restricted Soil Cleanup Objectives for the Protection of Groundwater (ug/kg)	MW-1S (5-8')	MW-1D (14-19')	MW-4D	MW-7 (8-10')	MW-7D (18-20')	MW-8D (6-8')	MW-9D (6-8')	MW-9D (17.5-20')	MW-11D (2-9)	MW-11D (10-15')	MW-12S (3-8')	MW-13S (5-10')	MW-13S (5-10')
Acetone	50	ND	8.1	ND	ND	ND	ND	ND	ND	59.0	24.0	43.0	16.0	32.0
Cis-1,2-Dichloroethene	250	ND	ND	ND	ND	ND	3000.0	1600.0	ND	ND	ND	ND	10.0	11.0
Benzene	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	ND
Ethylbenzene	1000	ND	ND	ND	ND	ND	ND	ND	ND	24.0	ND	0.65	ND	0.4
Mixed Xylene	260	ND	ND	ND	ND	ND	ND	ND	ND	170.0	ND	8.8	0.82	1.9
Tetrachloroethene	1300	1.0	ND	ND	ND	ND	ND	160000.0	ND	ND	ND	ND	34.0	35.0
Toluene	700	ND	ND	ND	ND	12.0	ND	ND	ND	3.8	ND	1.3	19.0	14.0
Trans -1,2-Dichloroethene	190	ND	ND	ND	ND	ND	260.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	4200.0	4200.0	ND	ND	ND	ND	0.49	0.52
Vinyl Chloride	20	ND	ND	ND	ND	ND	78.0	ND	ND	ND	ND	ND	ND	2.0
Total VOC's		[44.1]	[8.1]	[0.0]	[0.0]	[47.0]	[7538.0]	[165800.0]	[4.4]	[256.8]	[24]	[55.75]	[80.31]	[96.82]

Compounds	NYSDEC Part 375 Restricted Soil Cleanup Objectives for the Protection of Groundwater (ug/kg)	B-23 (10-15')	B-24 (5-6.5')	B-24 (18-20')	B-28 (6-8')	B-28 (17-19.5')	B-30 (6-8')	B-30 (15.5-18.5')	B-31 (7-9')	B-31 (13.5-18.5')	B-32 (10-12')	B-32 (14-18')	B-32 (14-18' Dupe)	B-32 (20-21')	B-33 (10-12')	B-33 (12-14')	B-33 (18-20')	B-34 (8-10')
Acetone	50	36.0	ND	3.8	ND	3.3	8.9	22.0	ND	22.0	ND	ND	ND	ND	ND	ND	ND	ND
Cis-1,2-Dichloroethene	250	39.0	980.0	1.0	ND	ND	ND	3.4	6400.0	ND	ND	ND	ND	ND	680.0	2800.0	ND	ND
Benzene	60	ND	ND	ND	ND	ND	ND	420.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1000	ND	ND	ND	1800.0	ND	ND	16.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mixed Xylene	260	56.0	ND	ND	157000.0	ND	ND	25.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1300	ND	5700.0	ND	ND	ND	ND	ND	200000.0	ND	ND	130000.0	130000.0	ND	ND	31000.0	ND	99.0
Toluene	700	14.0	ND	ND	ND	ND	ND	3.0	ND	ND	ND	ND	ND	ND	8.9	ND	ND	ND
Trans -1,2-Dichloroethene	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	5900.0	0.5	ND	ND	ND	ND	5700.0	ND	ND	ND	ND	ND	ND	3400.0	ND	5.9
Vinyl Chloride	20	700.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.8	ND	ND	ND
Total VOC's		[845]	[12580]	[5.31]	[315800]	[3.5]	[8.9]	[521.2]	[212100.0]	[11.0]	[6.8]	[130000.0]	[130000.0]	[0.0]	[778.1]	[37200.0]	[0.0]	[104.9]

Notes:		
ND	=	Compund Not Detected
0.0	=	Compound Exceeded Part 375 Standard
[ ]	=	Total VOC's

MW-1S also had tw o (2) SVOC's- Benzo (a) anthracene (2200.0) and Chrysene (2100.0)

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

Significant Construction Changes are Shown

By ______ Date ______

Ck'd ______ Date ______

REVISIONS

TRI-STATE INDUSTRIAL LAUNDRIES, INC. FORMER TRI-STATE INDUSTRIAL LAUNDRY
AREAS OF CONCERN AND BCP REMEDIAL INVESTIGATION DATA SUMMARY

CITY OF UTICA ONEIDA COUNTY, NEW YORK

Barton & Loguidice, P.C.

Date: FEBRUARY, 2012

Approximate Scale: 1" = 30'

Sheet Number: 2

File Number: 1205.001

In charge of SDN
MPS
Designed by
JGS
Drawn by SYR By: jgs
Checked by
Plotted: Feb 29, 2012 - 9:15AM
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