



**2023 Annual Vegetation and Wetland
Monitoring Report
Saranac Lake Gas Company, Inc.
NYSDEC Site 516008
Saranac Lake, Essex County, New York**

Work Assignment No. D009806-34

Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017



Prepared by

EA Engineering, P.C. and Its Affiliate
EA Science and Technology
269 W. Jefferson Street
Syracuse, New York 13202
315-431-4610

January 2024

Revision: FINAL
EA Project No. 1602534

This page intentionally left blank

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	ii
LIST OF FIGURES	ii
LIST OF APPENDIXES	ii
LIST OF ACRONYMS AND ABBREVIATIONS	iii
1. INTRODUCTION	1
1.1 GOALS AND OBJECTIVES	1
2. METHODS	3
2.1 LAKE FLOWER	3
2.2 BRANDY BROOK.....	4
2.3 WETLAND AREAS.....	4
3. RESULTS	7
3.1 LAKE FLOWER	7
3.2 BRANDY BROOK.....	7
3.3 WETLAND AREAS.....	8
4. CONCLUSIONS / RECOMMENDATIONS.....	11

LIST OF TABLES

Table 1.	Current Monitoring Status of Each OU
Table 2.	Lake Flower Monitoring Results
Table 3.	Brandy Brook Monitoring Results
Table 4.	Wetland Areas Monitoring Results
Table 5.	Proposed Riparian Plantings

LIST OF FIGURES (provided in Appendix B)

Figure 1.	Site Vicinity Map
Figure 2.	Monitoring Areas and Data Collection Points – Pontiac Bay/Lake Flower
Figure 3.	Monitoring Areas and Data Collection Points – Brandy Brook West
Figure 4.	Monitoring Areas and Data Collection Points – Brandy Brook East
Figure 5.	Photograph Location Map 1
Figure 6.	Photograph Location Map 2

LIST OF APPENDIXES

Appendix A.	Design Drawings
Appendix B.	Figures
Appendix C.	Wetland Data Sheets
Appendix D.	On-Site Photographs

LIST OF ACRONYMS AND ABBREVIATIONS

%	Percent
EA	EA Engineering, P.C. and its Affiliate EA Science and Technology
FAC	Facultative
No.	Number
NWP	Nationwide Permit
NYSDEC	New York State Department of Environmental Conservation
USACE	U.S. Army Corps of Engineers

This page intentionally left blank

1. INTRODUCTION

EA Engineering, P.C. and its affiliate EA Science and Technology (EA) was retained by the New York State Department of Environmental Conservation (NYSDEC) to perform annual vegetation and wetland monitoring associated with the remediation work conducted at the Saranac Lake Gas Company (Co.), Inc. Site (NYSDEC Site Number [No.] 516008) in the Village of Saranac Lake, Essex County, New York (Figure 1). Site design, regulatory authorization, and the previous 2 years of annual reporting were completed by others and EA was retained by NYSDEC to monitor the site starting in April 2023. The following description of the project is based upon information presented in previous monitoring reports.

The NYSDEC has completed remediation at the site associated with Permit Application No. NAN-2017-0040-UDE, which included the condition to restore 1,360 linear feet of existing stream channel, 0.58 acres of riparian emergent and scrub shrub wetland, 0.09 acres of upland riparian area and stream bank, 71,650 square feet of Pontiac Bay, and 175 feet of shoreline.

The purpose of this report is to fulfill the requirements of the U.S. Army Corps of Engineers (USACE) authorization to complete remediation and restoration activities within jurisdictional areas under the USACE Nationwide Permit (NWP) 38 in which an annual monitoring report is required to describe the conditions of the restored wetlands and riparian areas for a period of 5 years to ensure that permit conditions and restoration objectives are being met at the conclusion of the 5-year monitoring period.

EA has been tasked with conducting the annual vegetation and wetland monitoring of the restored areas as detailed in the approved design plans (Appendix A). This report presents a summary of the 2023 annual monitoring activity conducted to ensure the long-term success of the restored wetland, stream and riparian areas conducted as part of the remedial action. Since the project site OU's were restored during different years the 5 year monitoring period for each OU is slightly different as described in Table 1.

Table 1. Current Monitoring Status of Each OU

OU	Common Name	Monitoring Subset Area	Date of Restoration	Monitoring Year (1-5)
OU1	Wetland Areas	WP-1	June 2022	1
		WP-2		
OU2	Brandy Brook Area	BB-1	June 2019	3
		BB-2		
OU3	Lake Flower Area	LF-1	June 2019	3
		LF-2		
		LF-3		
		Cedar Area		

1.1 GOALS AND OBJECTIVES

Annual monitoring of the restored wetland areas, stream channel, and riparian areas is required to be conducted to meet the conditions of the authorization received from USACE to perform the remediation under NWP 38. The annual monitoring must be conducted to ensure the permittee

successfully restored 1,360 linear feet of Brandy Brook, 0.58 acres of riparian emergent and scrub shrub wetland, 0.09 acres of upland riparian area and stream bank, 71,650 square feet of Pontiac Bay, and 175 feet of shoreline.

Per the Special Conditions of NWP 38, the following criteria shall be met for successful restoration of the site:

- Ensure that all proposed wetland, upland, and stream restoration plantings have an 85 percent (%) survival rate.
- Ensure that the newly established planting areas do not consist of more than a total of 5% areal coverage of invasive species.
- Ensure that no mowing of the restoration areas has occurred.
- Complete wetland data sheets within restored wetland areas to document wetland characteristics including wetland hydrology exists with the wetland areas.

In order to determine if these goals and objectives are being met within the restored areas, the annual monitoring for this year's effort as well as future efforts will be conducted annually following the methods provided in this report for a period of 5 years. At the end of the 5th monitoring year, EA will include a discussion in the annual monitoring report to identify if additional monitoring should be conducted after the 5th year and make recommendations for monitoring to be terminated if the conditions are acceptable to the regulatory agencies.

2. METHODS

To satisfy both USACE and NYSDEC monitoring requirements, the restoration monitoring efforts include the collection of specific data for reporting, including the requirements below, which are described in more detail in the sections that follow:

- Wetland, Riparian, and Upland Vegetation Monitoring
- Documentation of Erosion and Signs of Instability Along Brandy Brook and the Banks of Lake Flower
- Hydrology Monitoring within Restored Wetland Areas
- Development of Anaerobic Soil Conditions with Wetland Areas

For the annual monitoring, the project site was separated into three sections, consisting of the banks of Lake Flower, Brandy Brook, and the two restored wetland areas. These sections were separated based on the monitoring methods utilized to document the site conditions and are depicted on Figures 2 through 4 (Appendix B).

During an on-site discussion with NYSDEC staff it was requested to break the monitoring area into distinct areas based on existing on-site conditions to provide recommendations relevant to specific areas, rather than broad general recommendations. Therefore, a total of 8 distinct monitoring areas were established on-site, as depicted on Figures 2 through 4, and described in greater detail in the following sections. These 8 distinct monitoring areas were established during the 2023 monitoring effort and should be assessed throughout the 5-year monitoring period. Wetland monitoring areas and key observations were located with a global positioning system in the field for repeat monitoring and are depicted on the figures in Appendix B. Location and directions of on-site photographs are depicted on Figures 5 and 6 (Appendix B) and on-site photographs are provided in Appendix D.

2.1 LAKE FLOWER

The banks of Lake Flower were monitored to determine the successful restoration of the vegetation along the banks and note areas of erosion and instability. The Lake Flower Restoration Section was separated into four distinct monitoring areas (Figure 2). These four monitoring locations consisted of three sections of shoreline on the northern banks of Lake Flower (LF-1, LF-2, and LF-3) and one are of Cedar plantings on the southern bank of Lake Flower. Within the Lake Flower Monitoring Areas, EA conducted a visual survey of the planted material and conducted an estimate of survivability based on counting live and dead woody stems along the shoreline, as well as estimating percent cover of native vegetation and percent cover of invasive species. General observations on restoration success and areas of concern, such as erosion and instability, were also documented within each monitoring area.

2.2 BRANDY BROOK

The stream channel identified as Brandy Brook was monitored to determine the successful restoration of the stream which included the successful establishment of riparian vegetation along the banks and identification of any areas of erosion and instability within the channel. Brandy Brook Restoration Section was separated into two distinct monitoring areas (Figures 3 and 4). These two monitoring areas included the northern portion of Brandy Brook (BB-1) located between Slater Avenue and Pine Street and the southern portion of Brandy Brook (BB-2) located between Brandy Brook Avenue and Wetland Area 2. Within the Brandy Brook Monitoring Areas, EA conducted a visual survey of the restored stream banks to document the percent vegetation cover along the banks and identify areas of bare earth lacking vegetation, as well as estimating percent cover of invasive species. General observations on restoration success and areas of concern, such as erosion and instability, were also documented within Brandy Brook.

2.3 WETLAND AREAS

Two wetland areas were restored as part of the remediation effort and are both located along the southern portion of the project site at the upstream end of Brandy Brook (Figure 4). These two wetlands were monitored to determine the successful restoration of the vegetation within the wetlands as well as ensuring wetland characteristics, such as wetland hydrology and hydric soils, are developing. The northern wetland monitoring area (Wet-1) consists of an emergent wetland which was seeded with an emergent wetland mix, and the southern wetland monitoring area (Wet-2) consists of a newly planted forested wetland. Within the two wetland areas, EA completed formal wetland data sheets (Appendix C) to ensure all three wetland criteria are present and the two areas meet the requirements of a wetland. In addition to the formal wetland data plot, EA also conducted a meander search throughout the two wetlands to estimate coverage of invasive species and estimate total plant cover throughout the wetlands. Within the newly planted Wet-2 area, EA also conducted an estimate of survivability based on counting live and dead woody stems. General observations on restoration success and areas of concern, such as erosion and instability, were also documented within each wetland area.

A formal wetland delineation data form for the Northcentral and Northeast Region was completed within each wetland area to document the vegetation species, wetland hydrology indicators, and hydric soil conditions within each wetland monitoring area. Field personnel collected soil to a depth of approximately 18 inches or until refusal was encountered to observe soil conditions and classify the soil as either hydric or non-hydric.

Wetland hydrology supplies the moisture required to support wetland vegetation and creates the conditions necessary for the formation of hydric soils. Primary indicators of wetland hydrology include, but are not limited to, observed inundation or saturation, watermarks, drift deposits, sediment deposits, aquatic fauna, oxidized rhizospheres on living roots, and water-stained leaves. Secondary indicators of wetland hydrology include, but are not limited to, drainage patterns, dry season water table, crayfish burrows, and the Facultative (FAC)-Neutral Test. The FAC-Neutral Test involves comparing the number of obligate and facultative wetland plant species to the number of facultative upland and upland plant species, with FAC species being neutral. If 50% or more of the plant species are obligate or facultative wetland, the FAC-Neutral Test is met. Meeting

the FAC-Neutral Test is considered a secondary indicator of wetland hydrology. An area must contain at least one primary indicator or two secondary indicators of wetland hydrology for the parameter of wetland hydrology to be met.

Hydric soils are soils that are saturated, ponded, or flooded long enough during the growing season to develop anaerobic conditions in the upper portion of the soil column (typically within the upper 18 inches). The prolonged presence of water results in the chemical reduction of elements, particularly iron and manganese. Reduced soils often exhibit a gray (or “gleyed”) color that reflects either the leaching of elements or the presence of reduced elements (again, generally iron and manganese).

Hydric soils are often characterized by bright mottles, sometimes called redoxymorphic features. Mottles are an indication of incomplete saturation. They typically represent isolated pockets where elements (mainly iron) have remained oxidized. Another feature of hydric soils is a low matrix chroma in the diagnostic zone, which is typically identified as the upper 18 inches of the soil layer but may vary. For mineral hydric soils, the diagnostic zone typically must have a matrix chroma of two or less for soils with mottles, or a matrix chroma of one or less for soils without mottles. To make this determination, soil cores are collected in the field in suspected wetland areas, and the soil colors are compared to a Munsell Soil Color Chart. Other examples of field indicators for hydric soils include, but are not limited to, high organic content, histic epipedons, and concretions.

Since hydric soils indicators in newly created or recently disturbed wetlands can be difficult to observe, the hydric soils assessment was supplemented with the use of alpha, alpha-dipyridyl test strips to determine the presence of ferrous iron in the soil. These test strips are placed on the face of a soil sample and soaked with water. If ferrous iron is present in the soil sample, the test strips turn reddish pink. Within each wetland plot, a soil sample was collected, and test strips were placed on the soil sample in 4-inch increments from a depth of 0 inches down to 16 inches.

This page intentionally left blank

3. RESULTS

Annual monitoring was performed on 6 June 2023, which included general observations of wetland hydrology and soils as well as vegetation assessments within the restored wetlands, stream banks, and riparian areas.

3.1 LAKE FLOWER

The Lake Flower section of the project site included the riparian banks of the lake and monitoring included documenting the survivability of planted woody stems along the banks, as well as percent native vegetation cover and percent invasive coverage. A total of four monitoring areas were established during the 2023 annual monitoring event, as depicted on Figure 2, and were evaluated during this monitoring event. Based on the data collected during this monitoring event, monitoring area LF-3 and the Cedar Area are both exceeding the success criteria for survivability and invasive cover. LF-1 and LF-2 are also successful in respect to invasive cover but have a woody stem survivability below the 85% requirement (Table 2). In both LF-1 and LF-2 numerous dead live stakes were observed along the lower portion of the banks in over 6 inches of water at the time of the monitoring event. During the monitoring event no live woody stems were identified within the LF-1 monitoring area. Although 10 live woody stems were identified within LF-2, a total of 25 dead stems were identified within this monitoring area, typically found along the lower portion of the bank below the waterline. Additionally, wildlife browsing was also observed on numerous woody stems within LF-2.

Table 2. Lake Flower Monitoring Results

Area No.	No. of Live Woody Stems	No. of Dead Woody Stems	Survivability	% Native Cover	% Invasive Cover
LF-1	0	4	0%	100%	0%
LF-2	10	25	29%	60%	5%
LF-3	59	7	89%	90%	2%
Cedar Area	34	0	100%	90%	0%
Total	83	39	68.0%	85%	1.8%

No signs of bank erosion or instability were observed within the Lake Flower section of the project site.

3.2 BRANDY BROOK

The Brandy Brook section of the project site included the restored stream channel riparian banks of the lake and monitoring included documenting any signs of erosion or instability along the banks or within the stream channel and at constructed restoration structures, as well as estimating percent native vegetation cover, and percent invasive coverage throughout the riparian areas adjacent to the stream channel. The Brandy Brook section of the project site is separated into two monitoring areas which were established during the 2023 annual monitoring event as depicted on Figures 3 and 4 and were evaluated during this monitoring event. Based on the data collected during this monitoring, the riparian areas adjacent to the stream channel in both BB-1 and BB-2

are currently exceeding the success criteria for vegetation cover (85% coverage) and have an invasive species cover below 5% (Table 3). Sections of riprap placed upstream and downstream of multiple culverts within both BB-1 and BB-2 contribute to the vegetation cover being below 100%.

Table 3. Brandy Brook Monitoring Results

Area No.	% Native Cover	% Invasive Cover	Observations / Areas of Concern
BB-1	90%	0%	The area directly east of Slater Avenue has limited vegetation cover along the bottom of the bank along the core fiber log. Live stakes may be suitable in this area.
BB-2	95%	1%	Rip-rap slope at corner of Pine Street and Brandy Brook Avenue appears to receive significant street runoff and should be monitored closely. The concrete headwall and box culvert between BB1 and BB-2 has signs of scour and should be closely monitored in future events. Areas of previously identified invasive species (Japanese knotweed) have been treated successfully.
Total	92.5%	1%	

During the monitoring effort, EA personnel did not observe areas of stream bank erosion or signs of stream instability along the channel. However, at the concrete box culvert, signs of scour under the concrete headwall were noted and should be closely monitored. Additionally, NYSDEC noted concern over the potential of future erosion along the rip-rap slope at the corner of Pine Street and Brandy Brook Avenue, since this location appears to receive significant runoff from the roads. No signs of erosion or rip-rap instability were noted during the 2023 monitoring event, but this area should be closely monitored in future events. The stream channel appears to be well connected to the wetlands and floodplain, and photographic documentation of the current channel conditions is provided in Appendix C. Established stream photograph locations are provided on Figures 5 and 6 (Appendix B). The core fiber log along the bottom of the stream bank looked good throughout BB-1 and BB-2 with the exception of a small area near the box culvert between BB-1 and BB-2, which had become dislodged from the stake on one end. However, this core log was re-staked in the field during the monitoring event. All in-stream structures and habitat features were visually observed during the monitoring event and are in place and appear to be properly functioning per the design plans. Although the previously identified Japanese knotweed areas have been treated and are below the 5% cover threshold, the areas of previously identified Japanese knotweed should continue to be monitored and treated as identified.

3.3 WETLAND AREAS

The restored wetland areas of the project site included one emergent wetland and one forested/shrub wetland. The monitoring for these two wetlands included documenting the survivability of planted woody stems within Wet-2 only, as well as percent native vegetation cover, percent invasive coverage in both wetlands, documenting the presence of hydric soils, wetland hydrology, and noting any additional issues or concerns with the successful restoration of these areas back to wetlands. A total of two monitoring areas were established during the 2023 annual

monitoring event (Figure 4) and were evaluated during this monitoring event. Based on the data collected during this monitoring event, both wetlands are achieving the success criteria for survivability, vegetation cover, and invasive cover; as well as the presence of hydric soils and wetland hydrology (Table 4).

Table 4. Wetland Areas Monitoring Results

Area No.	No. of Live Trees	No. of Dead Trees	Survivability	% Native Cover	% Invasive Cover	Hydric Soils	Wetland Hydrology
Wet-1	N/A	N/A	N/A	100%	0%	Yes	Yes
Wet-2	76*	4	95%	85%	0%	Yes	Yes
Total	76	4	95%	92.5%	0%		

*Three trees were noted as being in poor condition, although still alive, and did not show signs of vigorous growth

The original planting count as indicated in the Annual Monitoring Report - Year 2 (2022); Wet-2 included 95 woody stems (24 white pine, 23 red maple, 23 birch, and 25 dogwood). However, in April 2023 it was noted that 10 of the white pine were not successful and were replaced with more tolerant wetland species (*Acer rubrum* - red maple). During the 2023 monitoring event a total of 80 planted woody stems were observed within the wetland area with 76 live stems and 4 dead stems, for a survivability of 95%. However, if 95 stems were actually planted in the wetland area then the current survivability would only be 80%. However, it appears some of these trees were planted along the opposite bank of the stream channel along the riparian edge and therefore were not included in the wetland survivability calculations. It should be noted that no dead standing trees or shrubs were observed along the opposite bank of the stream channel during the wetland monitoring effort. The native vegetation cover in Wet-2 is right at the requirement of 85%, but this appears to be due to the recent removal of remaining silt fence in the wetland as well as, replanting activities within this wetland that required planting of additional trees, including additional reseeding of slightly disturbed areas from equipment. The native herbaceous cover is therefore expected to be higher in the following monitoring years.

Wetland hydrology indicators as well as hydric soils were identified throughout both wetlands. A formal USACE wetland data sheet was collected within each wetland area. At each data collection location, EA obtained a soil sample (14-18 inches deep) using a stainless-steel auger. The hydric soils indicator of a depleted matrix was observed within each wetland. Additionally, wetland hydrology including drainage patterns, passing of the FAC-Neutral Test, and presence of reduced iron were observed in both wetlands. Saturated soils were identified within Wet-1 and sediment deposits and drift deposits were identified within Wet-2.

This page intentionally left blank

4. CONCLUSIONS / RECOMMENDATIONS

In general, the restored wetlands, stream channel, and riparian areas appear to be functioning as designed and invasive species are below the required 5%. The two wetland areas are meeting or exceeding the success criteria and the stream channel is stable and functioning as designed. However, areas along the Lake Flower section of the project site currently do not meet the success criteria for restoration and will need to be addressed to reach the restoration goals prior to the end of the 5-year monitoring period.

Monitoring areas LF-1 and LF-2 currently do not meet the survivability requirement of planted woody stems, which is set at 85%. Many of the live stakes appear to have been planted along the lower portion of the banks below the water line. NYSDEC expressed concern over the lack of bank shading within these two monitoring areas, which should be planted with shrubs along the top of bank, along the riprap edge or additional small trees should be planted to provide shade along the shoreline. Table 5 provides a general planting recommendation for areas LF-1 and LF-2, which includes planting shrubs along the top of the rip-rap edge within LF-1 and along the banks of LF-2. The presence of large rock and rip-rap in these two areas along the banks would likely inhibit the placement of additional live stakes along the bank.

Table 5. Proposed Riparian Plantings

Scientific Name	Common Name	Size	Quantity
LF-1			
<i>Cephalanthus occidentalis</i>	Buttonbush	1 gallon	8
<i>Betula nigra</i>	River birch	5-7 gallon	4
<i>Acer rubra</i>	Red Maple	5-7 gallon	4
LF-2			
<i>Cephalanthus occidentalis</i>	Buttonbush	1 gallon	3
<i>Betula nigra</i>	River birch	5-7 gallon	3
<i>Spiraea alba</i>	White meadowsweet	1 gallon	3

All plants shall be sourced from stock grown within a 150-mile radius of the project site, acclimated to the climate of Upstate New York, and grown from naturally occurring ecotypes in the region. Substitutions to plant species, type, size, and origin may be made at the approval of NYSDEC based on species availability.

The rip-rap slope and box culvert located between BB-1 and BB-2 should continue to be closely monitored during future monitoring events to ensure erosion or scour continues in this area, although adaptive management activity is required at this time. Similarly, the recently planted area within Wet-2 should be closely monitored to ensure disturbed ground cover is re-established by the 2024 monitoring event.

Invasive species throughout the project site are sparse and under the restoration goal. However, the previously identified areas of Japanese knotweed should continue to be monitored, and continued treatment is recommended for 2023 and 2024. The two previously identified knotweed areas appear to have been successfully treated but a small area of regrowth was identified along BB-2 in the location of photograph 23 (Figure 5). If not continuously treated, this population can

re-establish and exceed the 5% threshold rapidly, as Japanese knotweed is an aggressive, fast growing invasive species.

Appendix A

Design Drawings

This page intentionally left blank



INCLUDED THIS SUBMITTAL	SHEET NUMBER	DRAWING TITLE	DISCIPLINE NUMBER
-------------------------------	-----------------	---------------	----------------------

CONSTRUCTION CONTRACTOR:



Mark S. Steinhilber
03/31/20

ADDITION TO THIS DOCUMENT IS A
NEW YORK STATE EDUCATION LAW

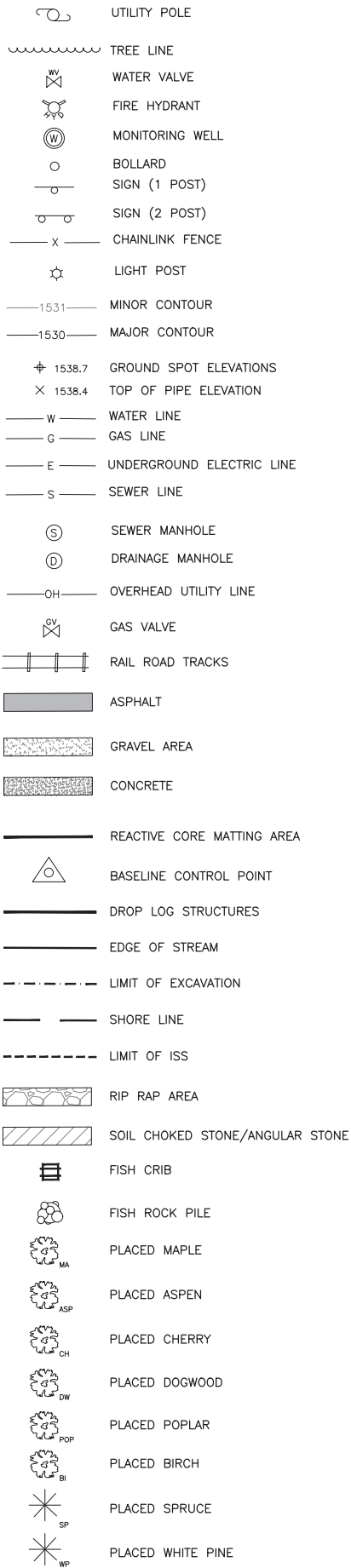
BASE MAP SOURCES:

1. MAP ENTITLED "REMEDIAL ACTION NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SARANAC LAKE GAS CO., INC., SITE NO. 516008 0U02: BRANDY BROOK AND 0U03 PONTIAC BAY ON LAKE FLOWER", DATED NOVEMBER 29, 2017 AND PREPARED BY MACTEC ENGINEERING AND CONSULTING, P.C.
2. FINAL AS-BUILT SURVEYS BY NMB LAND SURVEYING PLC, WYNNANTSKILL, NY WITH VARIOUS SURVEY DATES FROM MAY 2018 TO JUNE 2019.
3. SURVEY SUBJECT TO ANY SUBSURFACE CONDITIONS THAT MAY EXIST, IF ANY.
4. NO UNDERGROUND UTILITY INVESTIGATION WAS PERFORMED.
5. THE DATUM USED FOR THIS SURVEY IS BASED ON MAP REFERENCE 1.

GENERAL NOTES:

- THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION IS RESPONSIBLE FOR COORDINATING PERMISSIONS AND SECURING ACCESS AGREEMENTS TO PERMIT WORK AND CONSTRUCTION SUPPORT ACTIVITIES ON THE PROPERTIES ADJACENT TO THE LIMIT OF WORK.
- WATER SURFACE ELEVATIONS SHOWN ARE APPROXIMATE AND BASED ON FIELD OBSERVATIONS OF THE WORK AREA DURING COMPLETION OF THE 2017 SURVEY. ACTUAL WATER ELEVATIONS MAY VARY IN THE FIELD.
- SELECT A CONSTRUCTION SEQUENCE AND METHODOLOGY THAT MINIMIZES IMPACTS TO BUSINESSES AND PUBLIC AREAS IN THE VICINITY OF THE WORK.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOULD BE CONSIDERED APPROXIMATE. OTHER UNIDENTIFIED UNDERGROUND FEATURES MAY BE PRESENT. VERIFY THE LOCATION OF ALL EXISTING UTILITIES OR STRUCTURES WITHIN THE LIMIT OF WORK PRIOR TO THE COMMENCEMENT OF EARTH DISTURBING ACTIVITIES. DIG SAFELY NEW YORK: 811 OR 1-800-962-7962.
- SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EARTH DISTURBING ACTIVITIES, CONSULT THE UTILITY OWNER AND ENGINEER IMMEDIATELY FOR DIRECTION. REPAIR OR COORDINATE REPAIR OF CONTRACTOR-DAMAGED UTILITIES TO THE SATISFACTION OF THE UTILITY OWNER, PROPERTY OWNER, AND ENGINEER.
- DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED FACILITIES WITHOUT ADVANCED NOTIFICATION TO THE DEPARTMENT AND THE OWNER. PROVIDE COORDINATION AND TIMELY NOTIFICATION TO THE AFFECTED UTILITY OWNER FOR SHUT-OFF AND RE-CONNECTION OF SERVICES FOR TEMPORARY REMOVAL AND REPLACEMENT DURING AND FOLLOWING EARTH DISTURBING ACTIVITIES. PROVIDE TEMPORARY FACILITIES DURING CONSTRUCTION.
- CONTROL DUST GENERATION THROUGHOUT THE DURATION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DUST MONITORING WILL CONSIST OF CONTINUOUS PARTICULATE/DUST VISUAL OBSERVATION FOR DUST GENERATION DURING EXCAVATION/CONSTRUCTION ACTIVITIES. DURING NON-WORKING HOURS, LEAVE THE SITE IN A CONDITION THAT WILL PREVENT DUST FROM BEING GENERATED. MONITOR WEATHER REPORTS FOR DRY AND/OR WINDY CONDITIONS AND PREPARE THE SITE ACCORDINGLY.
- AIR MONITORING WILL BE UNDERTAKEN BY THE RA CONTRACTOR AT THE PERIMETER OF THE WORK AREA TO DETERMINE WHEN ADDITIONAL ENGINEERING CONTROLS (E.G., WATER SPRAY) ARE REQUIRED TO SUPPRESS DUST EMISSION DURING THE EXECUTION OF THE WORK. AIR MONITORING WILL ALSO BE CONDUCTED TO MEASURE AMOUNTS OF VOLATILE ORGANIC COMPOUNDS (VOCs) ASSOCIATED WITH MGP WASTE, INCLUDING BENZENE AND NAPHTHALENE, ANTICIPATED TO BE RELEASED DURING THE RA.
- CONTROL ODOR GENERATION THROUGHOUT THE DURATION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. TYPICAL ODOR CONTROL MEASURES INCLUDE APPLYING HYDROCARBON VAPOR SUPPRESSING AGENTS, DETERGENTS, OR ODOR-SUPPRESSING FOAMS TO ACTIVE EXCAVATION AREAS AND STOCKPILED WASTES, AS WELL AS CONDUCTING SOIL STABILIZATION OPERATIONS IN TEMPORARY ENCLOSURES.
- SEGREGATE CLEAN MATERIALS FROM MGP IMPACTED SOIL AND SEDIMENT AND STOCKPILE SEPARATELY.
- COVER STOCKPILES WITH TARPS AND SANDBAG DURING NON-WORKING PERIODS.
- DEWATER OR STABILIZE STOCKPILED WASTES TO MEET THE MOISTURE CONTENT AND WORKABILITY REQUIREMENTS OF THE FACILITY CHOSEN FOR OFF-SITE DISPOSAL. HISTORICAL FILTER BAG TEST RESULTS OF PONTIAC BAY SEDIMENTS ARE PROVIDED IN THE PRE-DESIGN INVESTIGATION REPORT FOR THE CONTRACTOR'S REFERENCE. SUBMIT A MIX DESIGN FOR STABILIZING FINE-GRAINED DEPOSITS AS PART OF THE CONSTRUCTION WORK PLAN TO ENGINEER FOR APPROVAL IF STABILIZATION METHODS ARE USED.
- COLLECT ALL CONSTRUCTION WATER, INCLUDING SURFACE WATER ENTERING THE WORK ZONE, WATER FROM DECONTAMINATION OF VEHICLES AND EQUIPMENT, AND WATER FROM EXCAVATION DEWATERING. CONSTRUCTION WATER SHALL BE TREATED ON-SITE AND DISCHARGED TO THE LOCAL POTW AT THE REQUIRED TREATMENT STANDARDS OR ALTERNATIVELY TO SURFACE WATER IF AVAILABLE PERMIT CRITERIA ARE MET. SUBMIT CONSTRUCTION WATER MANAGEMENT PLAN TO ENGINEER FOR APPROVAL.
- PROVIDE APPROPRIATE PROTECTION FOR SITE WORKERS AND TRESPASSERS WHEN THERE IS DANGER OF FALLING INTO AN OPEN EXCAVATION.
- ROADS SHALL BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES. ROADSIDE DRAINAGE SHALL BE MAINTAINED TO ASSURE EXISTING ROADWAY DRAINAGE IS NOT ADVERSELY IMPACTED.
- MATERIALS, EQUIPMENT AND VEHICLES SHALL NOT BE STORED OR PARKED WITHIN ROADWAY RIGHT OF WAY.
- WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE MOST RECENT NYSOT SPECIFICATION SECTION 619 WORK ZONE TRAFFIC CONTROL AND THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS LATEST EDITION AND THE NEW YORK STATE SUPPLEMENT.

LEGEND:



ABBREVIATIONS:

IN	INCH(ES)
FT	FOOT OR FEET
APPROX	APPROXIMATE
BM	BENCHMARK
CB	CATCH BASIN
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
DIA	DIAMETER
DWG	DRAWING
EL	ELEVATION
GPM	GALLON(S) PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
ISS	IN SITU STABILIZATION/SOLIDIFICATION
MAX	MAXIMUM
MGP	MANUFACTURED GAS PLANT
MIN	MINIMUM
MW	MONITORING WELL
NAVD	NORTH AMERICAN VERTICAL DATUM
NTS	NOT TO SCALE
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
OC	ON CENTER
OH	OVERHEAD UTILITY
OZ	OUNCE
PEM	PALUSTRINE, EMERGENT WETLANDS
PSS	PALUSTRINE, SCRUB-SHRUB WETLANDS
PCB	POLYCHLORINATED BIPHENYL
TSCA	TOXIC SUBSTANCES CONTROL ACT
TYP	TYPICAL
RCM	REACTIVE CORE MAT
PP	POWER POLE

CONTROL POINTS:

Control ID	Northing	Easting	Elevation	Description
2984	1999774.077	592685.332	1545.690	CBP
2988	1999314.956	592741.973	1550.385	CBP
2990	1999792.272	592658.264	1548.420	BM X CUT HEADWALL
2992	2000430.759	591021.880	1535.420	BM X FLANGE BOLT
2995	2000427.836	590997.877	1533.149	CBP
2996	2000521.899	591344.323	1536.652	CBP
3391	2000553.347	590025.228	1533.671	CBP
3394	2000185.758	590794.364	1532.487	CBP
3395	2000591.134	589991.283	1531.622	USMH
3396	2000456.145	590110.605	1530.588	BL50 MAG
999997	2000472.213	590116.367	1531.863	BASE CIR

[illegible]

REMEDIAL ACTION
SARANAC LAKE GAS CO.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 5

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

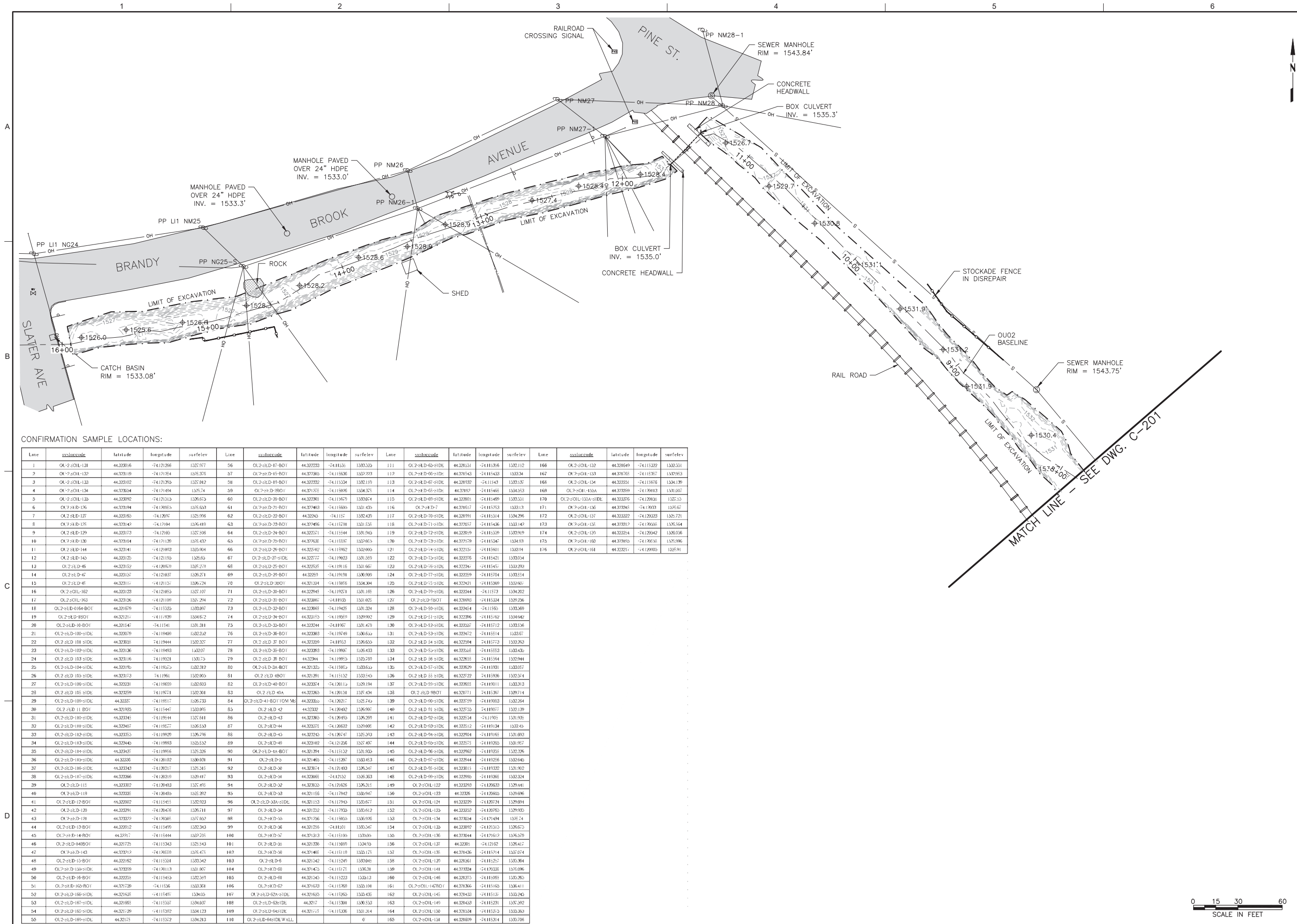
GENERAL

NOTES, LEGEND AND ABBREVIATIONS

VERIFY SCALE

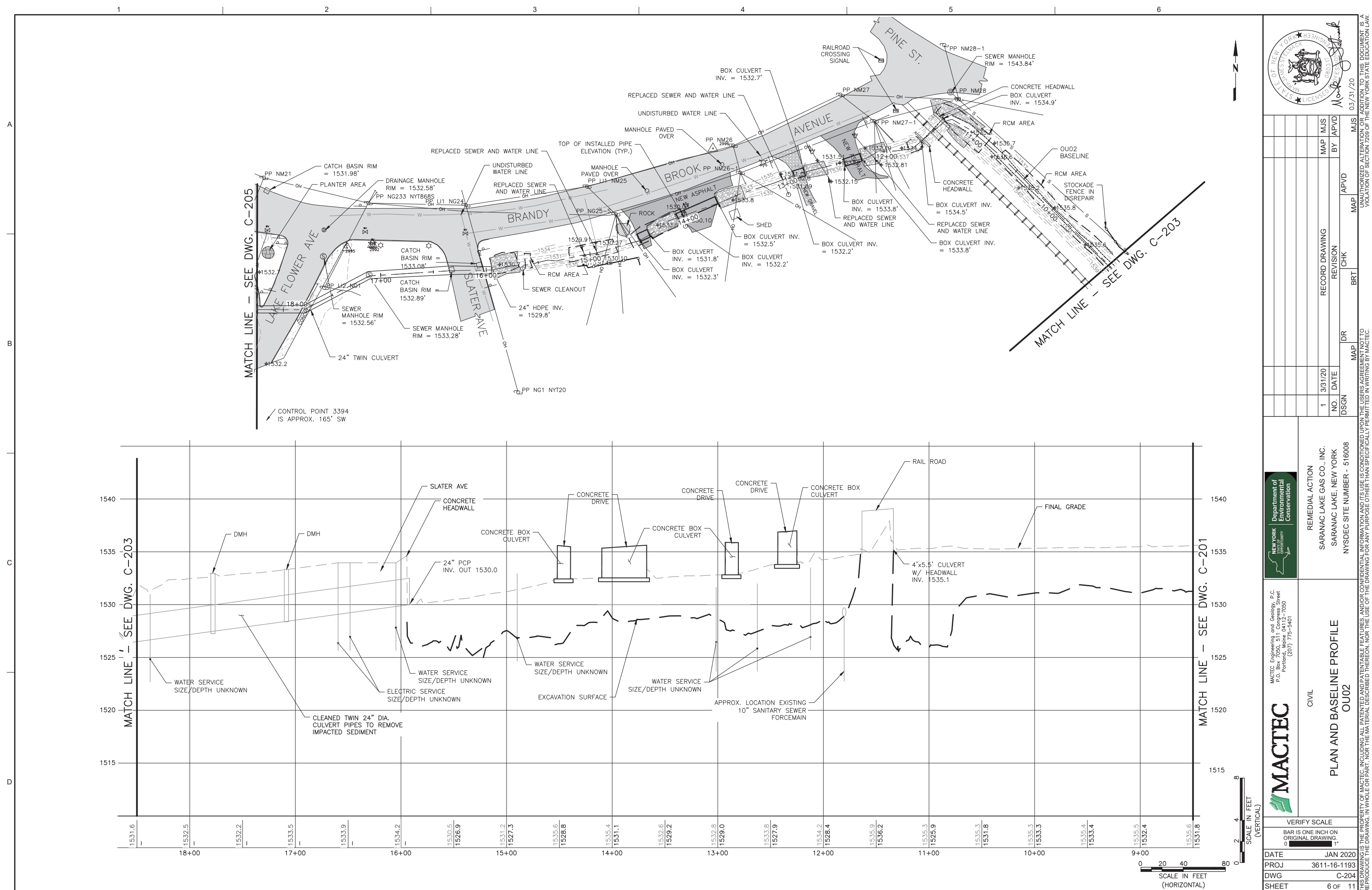
BAR IS ONE INCH C
ORIGINAL DRAWING

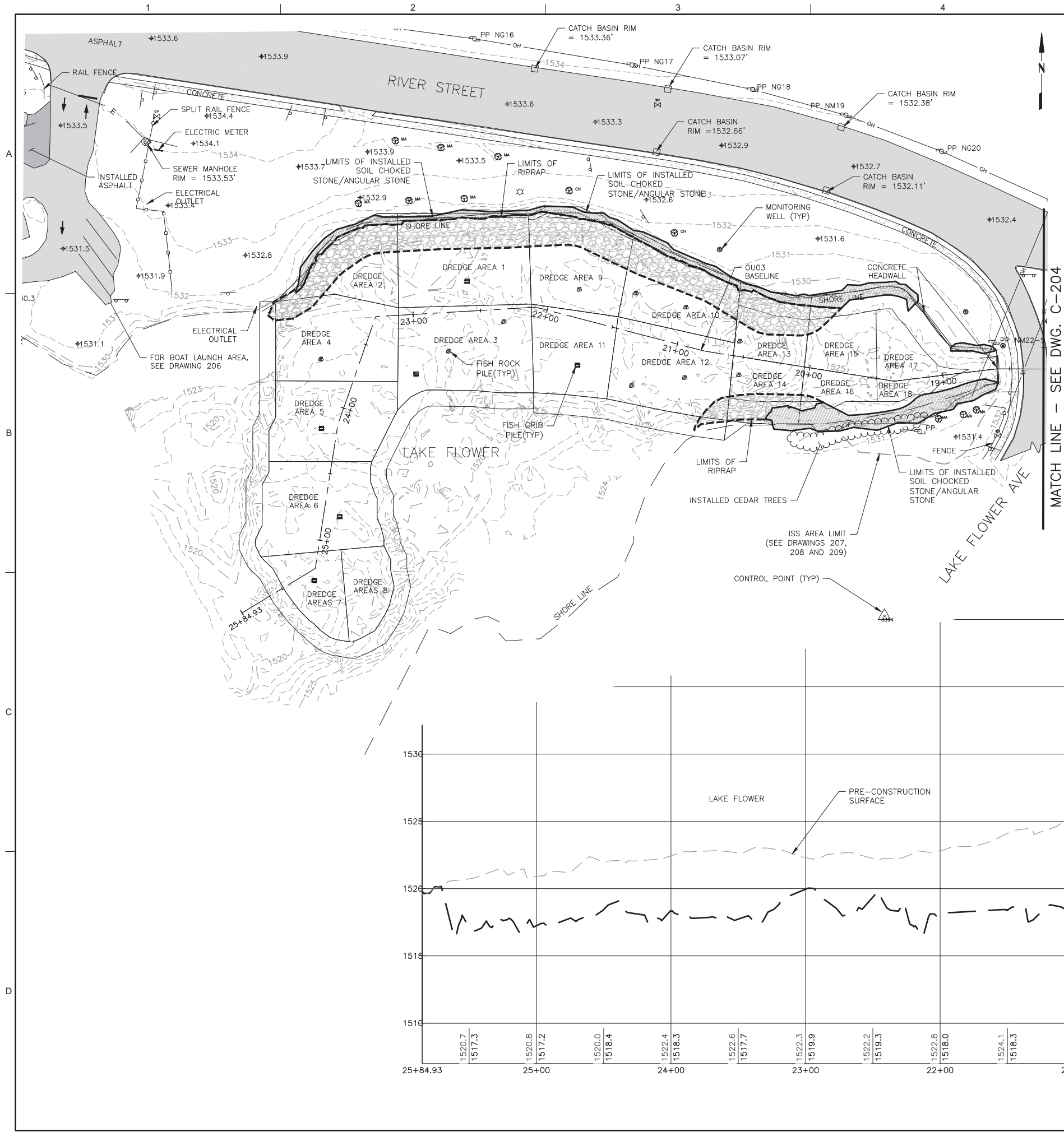
DATE	JAN 202
PROJ	3611-16-119
DWG	G-00
SHEET	2 OF 1



CONFIRMATION SAMPLE LOCATIONS:

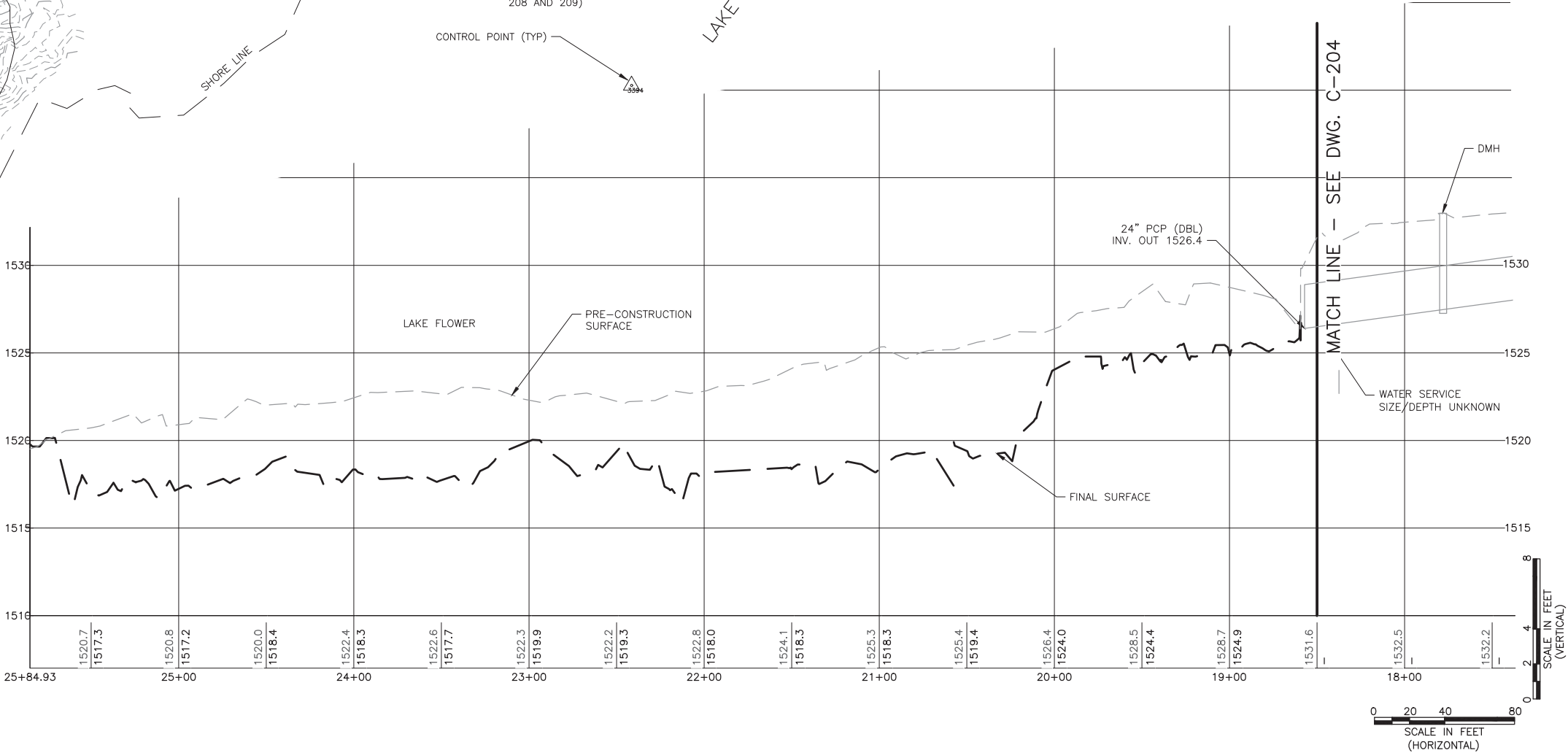
Line	assloccode	latitude	longitude	surfelev	Line	assloccode	latitude	longitude	surfelev	Line	assloccode	latitude	longitude	surfelev	Line	assloccode	latitude	longitude	surfelev
1	OL-2-sOIL-131	44.323056	-74.121266	1327.957	56	OL-2-sLD-17-BOT	44.322233	-74.11535	1332.325	111	OL-2-sLD-63-sIDE	44.321531	-74.115356	1332.152	166	OL-2-sOIL-132	44.321649	-74.115322	1332.351
2	OL-2-sOIL-132	44.323119	-74.121264	1328.376	57	OL-2-sLD-15-BOT	44.322905	-74.115636	1327.293	112	OL-2-sLD-66-sIDE	44.321543	-74.115433	1332.34	167	OL-2-sOIL-133	44.321705	-74.115367	1332.953
3	OL-2-sOIL-133	44.323102	-74.121263	1327.042	58	OL-2-sLD-19-BOT	44.322332	-74.115324	1332.159	113	OL-2-sLD-67-sIDE	44.321532	-74.11543	1332.337	168	OL-2-sOIL-134	44.322251	-74.115676	1334.139
4	OL-2-sOIL-134	44.323054	-74.121484	1325.74	59	OL-2-sLD-20-BOT	44.321725	-74.115005	1334.375	114	OL-2-sLD-65-sIDE	44.32162	-74.115465	1334.553	169	OL-2-sOIL-135A	44.322859	-74.120113	1331.007
5	OL-2-sOIL-135	44.323092	-74.121513	1326.673	60	OL-2-sLD-20-BOT	44.322955	-74.115679	1333.674	115	OL-2-sLD-69-sIDE	44.322005	-74.115469	1332.351	170	OL-2-sOIL-135A-sIDE	44.323376	-74.120136	1327.53
6	OL-2-sLD-126	44.323194	-74.120653	1325.633	61	OL-2-sLD-21-BOT	44.321603	-74.115605	1331.435	116	OL-2-sLD-7	44.321617	-74.115753	1333.13	171	OL-2-sOIL-136	44.322945	-74.12033	1325.67
7	OL-2-sLD-127	44.323153	-74.12007	1325.996	62	OL-2-sLD-22-BOT	44.322943	-74.1157	1332.420	117	OL-2-sLD-70-sIDE	44.321991	-74.115314	1334.296	172	OL-2-sOIL-137	44.323322	-74.120333	1325.721
8	OL-2-sLD-128	44.323142	-74.121044	1326.419	63	OL-2-sLD-23-BOT	44.321956	-74.115791	1331.535	118	OL-2-sLD-71-sIDE	44.322057	-74.115406	1333.142	173	OL-2-sOIL-138	44.322812	-74.120555	1325.564
9	OL-2-sLD-129	44.323173	-74.121045	1327.596	64	OL-2-sLD-24-BOT	44.322571	-74.115344	1331.945	119	OL-2-sLD-72-sIDE	44.322659	-74.115339	1332.919	174	OL-2-sOIL-139	44.323294	-74.120442	1326.036
10	OL-2-sLD-130	44.323164	-74.121139	1325.432	65	OL-2-sLD-25-BOT	44.321938	-74.115337	1332.965	120	OL-2-sLD-73-sIDE	44.322179	-74.115367	1334.93	175	OL-2-sOIL-140	44.322915	-74.120535	1325.996
11	OL-2-sLD-144	44.323141	-74.121033	1325.904	66	OL-2-sLD-26-BOT	44.322102	-74.115902	1332.005	121	OL-2-sLD-74-sIDE	44.322157	-74.115901	1333.94	176	OL-2-sOIL-141	44.323217	-74.120505	1325.91
12	OL-2-sLD-145	44.323125	-74.121155	1325.65	67	OL-2-sLD-27-sIDE	44.322177	-74.115923	1331.359	122	OL-2-sLD-75-sIDE	44.322276	-74.115421	1333.034					
13	OL-2-sLD-45	44.323152	-74.120679	1325.279	68	OL-2-sLD-25-BOT	44.322525	-74.119116	1331.667	123	OL-2-sLD-76-sIDE	44.322347	-74.115457	1333.293					
14	OL-2-sLD-47	44.323157	-74.121037	1326.271	69	OL-2-sLD-29-BOT	44.32259	-74.119191	1330.009	124	OL-2-sLD-77-sIDE	44.322559	-74.115704	1333.554					
15	OL-2-sLD-45	44.323117	-74.121157	1326.724	70	OL-2-sLD-30-BOT	44.321324	-74.115656	1334.384	125	OL-2-sLD-75-sIDE	44.322421	-74.115369	1332.607					
16	OL-2-sOIL-162	44.323123	-74.121053	1327.107	71	OL-2-sLD-30-BOT	44.322945	-74.119271	1331.165	126	OL-2-sLD-79-sIDE	44.322944	-74.11573	1334.202					
17	OL-2-sOIL-163	44.323156	-74.121109	1327.294	72	OL-2-sLD-31-BOT	44.323003	-74.11935	1331.025	127	OL-2-sLD-58-BOT	44.321893	-74.115384	1332.296					
18	OL-2-sLD-0164-BOT	44.321679	-74.115325	1333.897	73	OL-2-sLD-32-BOT	44.323065	-74.119425	1331.324	128	OL-2-sLD-59-sIDE	44.322644	-74.11555	1333.369					
19	OL-2-sLD-180-BOT	44.321217	-74.111709	1334.572	74	OL-2-sLD-34-BOT	44.323153	-74.119569	1329.902	129	OL-2-sLD-51-sIDE	44.322956	-74.115762	1334.642					
20	OL-2-sLD-16-BOT	44.321547	-74.11541	1331.311	75	OL-2-sLD-35-BOT	44.323244	-74.11967	1331.479	130	OL-2-sLD-52-sIDE	44.322367	-74.115712	1333.536					
21	OL-2-sLD-100-sIDE	44.322679	-74.119609	1332.242	76	OL-2-sLD-36-BOT	44.323003	-74.119749	1330.650	131	OL-2-sLD-53-sIDE	44.322472	-74.115514	1333.67					
22	OL-2-sLD-101-sIDE	44.323035	-74.119444	1332.327	77	OL-2-sLD-37-BOT	44.323359	-74.11953	1326.655	132	OL-2-sLD-54-sIDE	44.322594	-74.115773	1333.263					
23	OL-2-sLD-102-sIDE	44.323136	-74.119635	1332.07	78	OL-2-sLD-35-BOT	44.323093	-74.119807	1325.433	133	OL-2-sLD-55-sIDE	44.322455	-74.115553	1333.435					
24	OL-2-sLD-103-sIDE	44.323116	-74.119821	1331.75	79	OL-2-sLD-37-BOT	44.323044	-74.119955	1325.769	134	OL-2-sLD-56-sIDE	44.322635	-74.115594	1332.944					
25	OL-2-sLD-104-sIDE	44.323176	-74.119525	1332.312	80	OL-2-sLD-3A-BOT	44.321324	-74.115655	1333.650	135	OL-2-sLD-57-sIDE	44.322629	-74.115931	1333.057					
26	OL-2-sLD-105-sIDE	44.323173	-74.11961	1332.005	81	OL-2-sLD-48-BOT	44.321391	-74.115132	1333.545	136	OL-2-sLD-55-sIDE	44.322722	-74.115906	1332.574					
27	OL-2-sLD-106-sIDE	44.323231	-74.119659	1332.803	82	OL-2-sLD-40-BOT	44.323274	-74.120115	1329.194	137	OL-2-sLD-59-sIDE	44.322655	-74.115911	1333.313					
28	OL-2-sLD-105-sIDE	44.323259	-74.119771	1332.301	83	OL-2-sLD-40A	44.323365	-74.120131	1327.434	138	OL-2-sLD-58-BOT	44.321771	-74.115367	1329.714					
29	OL-2-sLD-109-sIDE	44.32337	-74.119817	1326.733	84	OL-2-sLD-41-BOT TOW Mts	44.323333	-74.120217	1325.740	139	OL-2-sLD-60-sIDE	44.322739	-74.119933	1332.264					
30	OL-2-sLD-111-BOT	44.323193	-74.115447	1333.995	85	OL-2-sLD-42	44.323332	-74.120402	1326.907	140	OL-2-sLD-61-sIDE	44.322735	-74.119977	1332.139					
31	OL-2-sLD-110-sIDE	44.323345	-74.119544	1327.611	86	OL-2-sLD-43	44.323303	-74.120493	1326.269	141	OL-2-sLD-62-sIDE	44.322534	-74.11995	1331.935					
32	OL-2-sLD-111-sIDE	44.323407	-74.119577	1326.533	87	OL-2-sLD-44	44.323375	-74.120622	1329.695	142	OL-2-sLD-63-sIDE	44.322512	-74.119934	1332.45					
33	OL-2-sLD-112-sIDE	44.323353	-74.119929	1326.796	88	OL-2-sLD-45	44.323245	-74.120747	1325.393	143	OL-2-sLD-64-sIDE	44.322594	-74.119955	1331.093					
34	OL-2-sLD-113-sIDE	44.323443	-74.119993	1325.552	89	OL-2-sLD-46	44.323102	-74.121256	1327.407	144	OL-2-sLD-65-sIDE	44.322575	-74.119925	1331.957					
35	OL-2-sLD-114-sIDE	44.323427	-74.119956	1325.326	90	OL-2-sLD-4A-BOT	44.321391	-74.115132	1331.933	145	OL-2-sLD-66-sIDE	44.322962	-74.119925	1332.326					
36	OL-2-sLD-115-sIDE	44.323336	-74.120102	1329.031	91	OL-2-sLD-5	44.321465	-74.115207	1333.453	146	OL-2-sLD-67-sIDE	44.322944	-74.119925	1332.645					
37	OL-2-sLD-116-sIDE	44.323343	-74.120217	1325.345	92	OL-2-sLD-30	44.323074	-74.121403	1326.347	147	OL-2-sLD-68-sIDE	44.323015	-74.119332	1331.902					
38	OL-2-sLD-117-sIDE	44.323366	-74.120219	1329.417	93	OL-2-sLD-51	44.323065	-74.12152	1326.363	148	OL-2-sLD-69-sIDE	44.322955	-74.119365	1332.324					
39	OL-2-sLD-115	44.323302	-74.120493	1327.495	94	OL-2-sLD-32	44.323033	-74.121626	1326.315	149	OL-2-sLD-122	44.323293	-74.120633	1329.411					
40	OL-2-sLD-119	44.323335	-74.120495	1325.292	95	OL-2-sLD-33	44.321158	-74.117942	1336.947	150	OL-2-sLD-123	44.323336	-74.120665	1329.696					
41	OL-2-sLD-12-BOT	44.323202	-74.115455	1332.932	96	OL-2-sLD-33A-sIDE	44.321153	-74.117943	1335.677	151	OL-2-sLD-124	44.323229	-74.120731	1329.991					
42	OL-2-sLD-120	44.323291	-74.120476	1326.711	97	OL-2-sLD-34	44.321232	-74.117953	1335.612	152	OL-2-sLD-125	44.323302	-74.120755	1329.995					
43	OL-2-sLD-121	44.323222	-74.120495	1327.032	98	OL-2-sLD-35	44.321296	-74.119653	1336.095	153	OL-2-sLD-126	44.323054	-74.121494	1326.74					
44	OL-2-sLD-13-BOT	44.322652	-74.115499	1332.343	99	OL-2-sLD-36	44.321255	-74.11591	1335.347	154	OL-2-sLD-128	44.322892	-74.121515	1326.673					
45	OL-2-sLD-14-BOT	44.32171	-74.115444	1329.205	100	OL-2-sLD-37	44.321313	-74.115105	1335.005	155	OL-2-sLD-129	44.323044	-74.121612	1326.579					
46	OL-2-sLD-140-BOT	44.321725	-74.115343	1325.543	101	OL-2-sLD-38	44.321336	-74.115089	1334.705	156	OL-2-sLD-137	44.32305	-74.12162	1326.417					
47	OL-2-sLD-143	44.323212	-74.120559	1325.475	102	OL-2-sLD-39	44.321405	-74.115119	1335.175	157	OL-2-sLD-138	44.321435	-74.115714	1326.074					
48	OL-2-sLD-15-BOT	44.322162	-74.115331	1323.342	103	OL-2-sLD-40	44.321542	-74.115249	1333.045	158	OL-2-sLD-139	44.321361	-74.115257	1335.364					
49	OL-2-sLD-15A-sIDE	44.323359	-74.120113	1331.007	104	OL-2-sLD-41	44.321473	-74.115175	1330.31	159	OL-2-sLD-141	44.323334	-74.120335	1325.096					
50	OL-2-sLD-16-BOT	44.322255	-74.115453	1332.349	105	OL-2-sLD-42	44.321545	-74.115223	1333.13	160	OL-2-sLD-146	44.321275	-74.115955	1335.263					
51	OL-2-sLD-16S-BOT	44.321729	-74.11526	1333.351	106	OL-2-sLD-43	44.321628	-74.115269	1325.101	161	OL-2-sLD-147-BOT	44.321366	-74.115165	1326.411					
52	OL-2-sLD-16S-sIDE	44.321635	-74.115495	1334.05	107	OL-2-sLD-42A-sIDE	44.321625	-74.115265	1335.435	162	OL-2-sLD-145	44.321433	-74.115139	1335.245					
53	OL-2-sLD-167-sIDE	44.321665	-74.115357	1334.837	108	OL-2-sLD-43A-sIDE	44.3217	-74.115301	1330.533	163	OL-2-sLD-149	44.321433	-74.115201	1325.392					
54	OL-2-sLD-168-sIDE	44.321729	-74.115392	1334.133	109	OL-2-sLD-44A-sIDE	44.321715	-74.115336	1331.314	164	OL-2-sLD-150	44.321534	-74.115253	1325.383					





CONFIRMATION SAMPLE LOCATIONS:

182	OU3-SED-1 COM	44.323122	-74.124219	1520.3426
183	OU3-SED-11	44.323122	-74.124219	1520.3426
184	OU3-SED-12	44.323184	-74.124241	1519.8338
185	OU3-SED-13	44.323196	-74.124045	1520.2279
186	OU3-SED-14	44.323105	-74.124034	1520.431
187	OU3-SED-10 COM	44.323067	-74.123571	1520.1731
188	OU3-SED-10-1	44.323057	-74.123571	1520.1731
189	OU3-SED-11 COM	44.322935	-74.12387	1518.3213
190	OU3-SED-12 COM	44.322921	-74.123651	1515.9299
191	OU3-SED-13 COM	44.322985	-74.12331	1515.0426
192	OU3-SED-13-1	44.322985	-74.12331	1515.0426
193	OU3-SED-14 COM	44.32295	-74.123323	1515.0412
194	OU3-SED-14-1	44.32295	-74.123323	1515.0412
195	OU3-SED-14-2	44.322935	-74.123323	1515.1339
196	OU3-SED-15-1	44.322973	-74.123116	1519.4233
197	OU3-SED-15 COM	44.322973	-74.123116	1519.4233
198	OU3-SED-15 COMP-DUP			0"
199	OU3-SED-16-1	44.322921	-74.123111	1519.3997
200	OU3-SED-16 COM	44.322921	-74.123111	1519.3997
201	OU3-SED-17-1	44.322955	-74.122934	1519.752
202	OU3-SED-17-2	44.323016	-74.122916	1519.444
203	OU3-SED-17 COM	44.322955	-74.122934	1519.752
204	OU3-SED-18-1	44.322935	-74.122941	1515.4304
205	OU3-SED-18-2	44.322933	-74.122904	1519.7386
206	OU3-SED-18 COM	44.322935	-74.122941	1515.4304
207	OU3-SED-2 COM			0"
208	OU3-SED-2 COMPOSITE	44.323138	-74.124499	1521.6327
209	OU3-SED-3 COM	44.322947	-74.124246	1515.071
210	OU3-SED-4 COM			0"
211	OU3-SED-4 COMPOSITE	44.322977	-74.124609	1519.8475
212	OU3-SED-9 COM	44.323113	-74.123885	1519.5943
213	OU3-SED-9-1	44.323113	-74.123885	1519.5943
214	OU3-SED-9-2	44.323202	-74.12385	1519.5342
215	OU3-SED5	44.322809	-74.124605	1515.2506
216	OU3-SED6	44.322625	-74.124525	1517.4143
217	OU3-SED7	44.322461	-74.124517	1515.1193
218	OU3-SED8	44.322451	-74.124446	1519.5404



STATE OF NEW YORK
JAMES B. BUCKLEY
ENGINEER
LICENSED PROFESSIONAL
060311

03/31/20

RECORD DRAWING

REVISION

CHK

MAP

APVD

BY

MJS

1

3/31/20

NO.

DATE

DSGN

DR

MAP

BRT

REMEDIAL ACTION

SARANAC LAKE GAS CO., INC.

SARANAC LAKE, NEW YORK

NYSDEC SITE NUMBER - 516008

CIVIL

PLAN AND BASELINE PROFILE

OU03

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE

JAN 2020

PROJ

3611-16-1193

DWG

C-205

SHEET

7 OF 11

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, ME 04106
(207) 775-5401

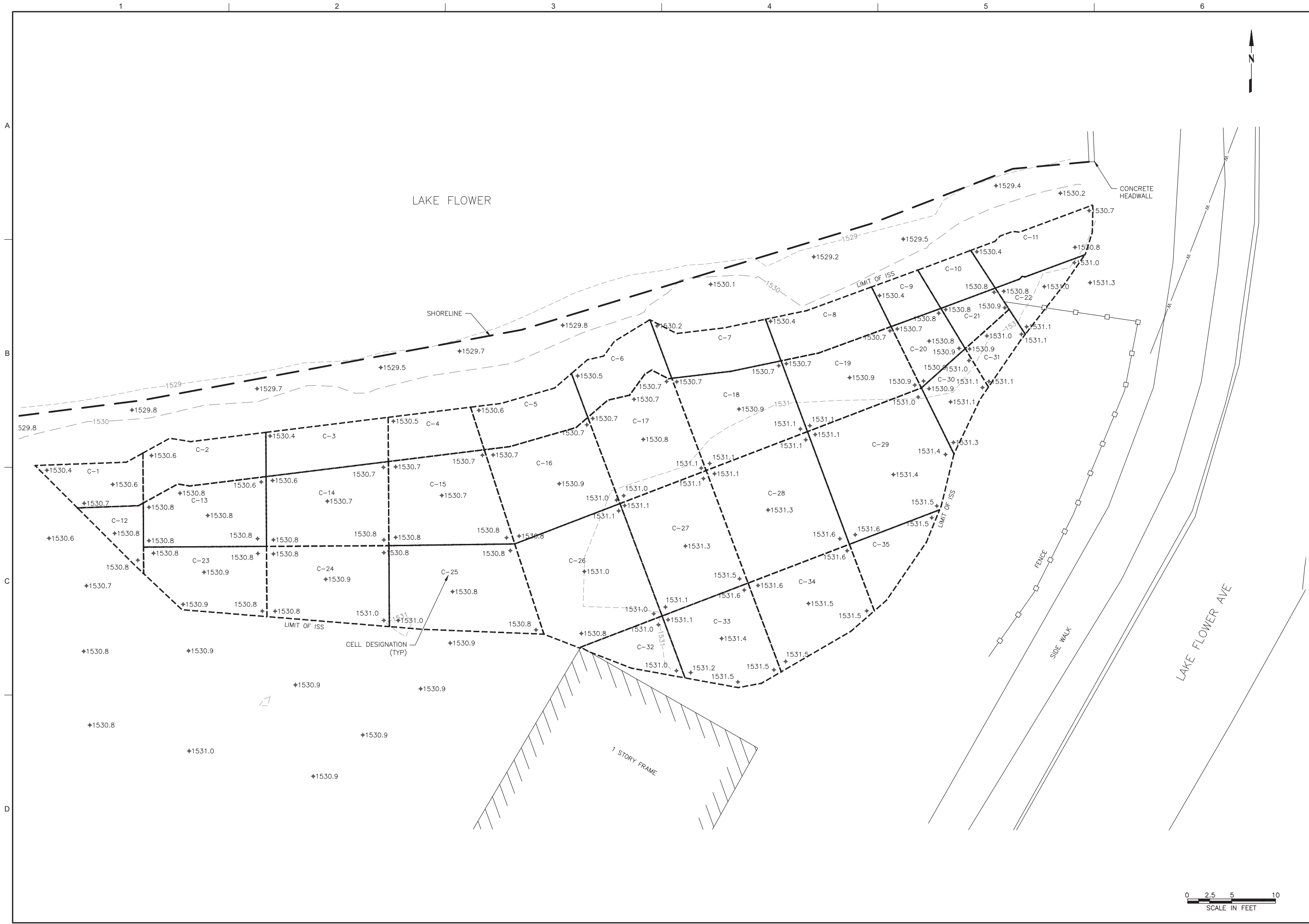
NEW YORK
Department of
Environmental
Conservation

THIS DRAWING IS THE PROPERTY OF MACTEC, INCLUDING ALL PATENTED AND PATENTABLE FEATURES AND/OR CONFIDENTIAL INFORMATION AND ITS USE IS CONDITIONED UPON THE USER'S AGREEMENT NOT TO REPRODUCE THE DRAWING, IN WHOLE OR PART, NOR THE MATERIAL DESCRIBED THEREON, NOR THE USE OF THE DRAWING FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY MACTEC.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.



THIS DRAWING IS THE PROPERTY OF MACTEC, AND/OR CONFIDENTIAL INFORMATION AND ITS USE IS CONDITIONED UPON THE USERS AGREEMENT NOT TO REPRODUCE THE DRAWING, IN WHOLE OR PART, NOR THE MATERIAL DESCRIBED THEREON, NOR THE USE OF THE DRAWING FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY MACTEC. THIS DRAWING IS NOT TO BE USED FOR ANY OTHER PURPOSE, AND ANY UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.



FILE NAME: Z:\Projects\insys\sect1\Saranac Lake\REC-C-209-FINAL GRADE- ISS AREA.dwg PLOT DATE: Fri, 13 Mar 2020 PLOT TIME: 3:05 PM

MACTEC

MACTEC Engineering and Geology, P.C.
P.O. Box 7050, 511 Congress Street
Portland, ME 04106-7050
(207) 775-5401

NEW YORK

Department of
Environmental
Conservation

CIVIL

FINAL GRADE OF
ISS AREA

REMEDIAL ACTION

SARANAC LAKE GAS CO., INC.
SARANAC LAKE, NEW YORK
NYSDEC SITE NUMBER - 516008

VERIFY SCALE

BAR IS ONE INCH ON
ORIGINAL DRAWING. 1"

DATE

JAN 2020

PROJ

3611-16-1193

DWG

C-209

SHEET

11 OF 11

STATE OF NEW YORK

MACTEC ENGINEERING AND GEOLOGY, P.C.

06031T

LICENSED PROFESSIONAL ENGINEER

03/31/20

MACTEC

MAP

MJS

BY

APVD

RECORD DRAWING

REVISION

CHK

APVD

1

3/31/20

NO.

DATE

DSGN

DR

MAP

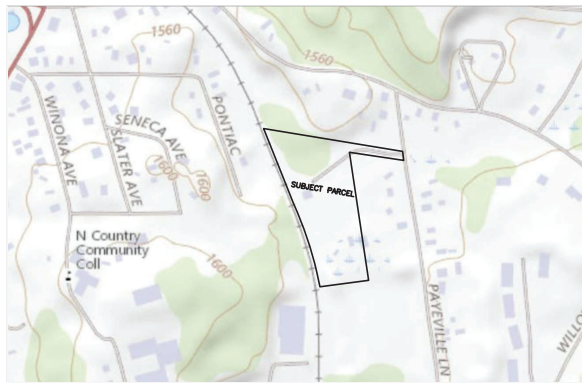
BRT

MJS

03/31/20

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

ATTACHMENT 2



CADD File: 21007 SH10f6 final conditions.dwg



LOCATION MAP
NOT TO SCALE

LEGEND

- Boundary Line
- Adjoiner Line
- Gravel Road
- Overhead wires
- Chainlink Fenceline
- Adjoiner Line
- Easement Area
- ISS Limits
- Final Cap
- Found iron pipe/rebar
- Set 5/8" capped rebar
- Calculated corner

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

Certifications, if any, indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to any additional institutions or subsequent owners.

GREGORY L. PEACOCK
Reputed Owner
L. 1366 pg. 73
Tax parcel 32.215-6-2

GREGORY L. PEACOCK
Reputed Owner
L. 1028 pg. 187
Tax parcel 32.215-6-3

GEORGE C. HUTTIG
Reputed Owner
L. 1384 pg. 275
Tax parcel 32.232-1-1

DEBORAH FOX
AUBREY FOX
Reputed Owner
L. 1920 pg. 186
Tax parcel 32.232-1-2

RANDOLPH SMITH, Jr.
LYNN LOUISE SMITH
Reputed Owner
L. 721 pg. 87
Tax parcel 32.232-1-5

ESSEX COUNTY
Reputed Owner
L. 1419 pg. 194
Tax parcel 32.232-1-15

JANICE M. GAUTHIER
Reputed Owner
L. 844 pg. 112
Tax parcel 32.232-1-6

ROBERT OHMANN
MARY L. OHMANN
Reputed Owner
L. 656 pg. 120
Tax parcel 32.232-1-7

STEVEN P. SCHMIDT
MONICA D. SCHMIDT
Reputed Owner
L. 1972 pg. 210
Tax parcel 32.232-1-8

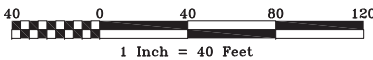
GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-9

GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-10

SARANAC LAKE GAS CO INC.
Reputed Owner
L. 141 pg. 392
Tax parcel 32.231-1-11

GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-16

COUNTY OF ESSEX
COUNTY OF FRANKLIN
Reputed Owner
L. 1143 pg. 217
Tax parcel 32.232-1-13



Horizontal Datum: NAD 83
Vertical Datum: NAVD 88



GEOMATICS
land surveying, pc

STACEY L. ALLOTT, L.S.
P.O. BOX 1277 SARANAC LAKE, NY
518-891-6218 Phone
geomatistics@gmail.com www.geomatistics.pro

MAP OF SURVEY showing Final Cap Limits Location
Saranac Lake Gas Company Remediation

PREPARED FOR
D.A. COLLINS ENVIRONMENTAL SERVICES, LLC

SITUATE IN LOT 12, TOWNSHIP 11, OLD MILITARY TRACT, VILLAGE OF
SARANAC LAKE, TOWN OF NORTH ELBA, COUNTY OF ESSEX AND STATE OF NEW YORK.

REVISIONS / DATE / BY

COPYRIGHT 2021

CHECKED BY SLA

DRAWN BY REL

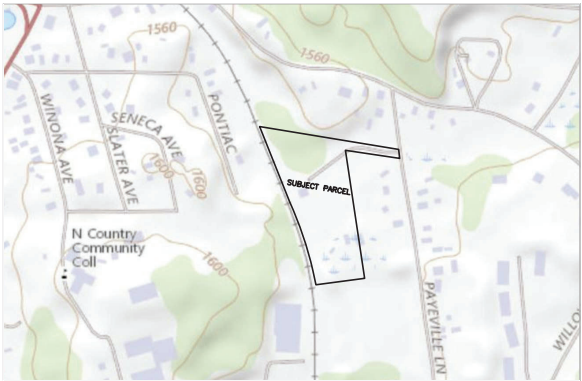
DATE SURVEY 06/08/22
MAP 11/03/22

SCALE IN./FT. 1"=40'
RATIO 1:480

TAX MAP NO. 32.231-1-11

MAP NO. 21007
SHEET 2 of 6

CADD File: 21007 SH2of6 final cap.dwg



LOCATION MAP
NOT TO SCALE

LEGEND

- Boundary Line
- Adjoiner Line
- Gravel Road
- Overhead wires
- Chainlink Fenceline
- Adjoiner Line
- Easement Area
- ISS Limits
- Final Cap
- Found iron pipe/rebar
- Set 5/8" capped rebar
- Calculated corner

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

Certifications, if any, indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to any additional institutions or subsequent owners.

GREGORY L. PEACOCK
Reputed Owner
L. 1366 pg. 73
Tax parcel 32.215-6-2

GREGORY L. PEACOCK
Reputed Owner
L. 1028 pg. 187
Tax parcel 32.215-6-3

GEORGE C. HUTTIG
Reputed Owner
L. 1364 pg. 275
Tax parcel 32.232-1-1

DEBORAH FOX
AUBREY FOX
Reputed Owner
L. 1920 pg. 186
Tax parcel 32.232-1-2

RANDOLPH SMITH, Jr.
LYNN LOUISE SMITH
Reputed Owner
L. 721 pg. 87
Tax parcel 32.232-1-5

ESSEX COUNTY
Reputed Owner
L. 1419 pg. 194
Tax parcel 32.232-1-15

JANICE M. GAUTHIER
Reputed Owner
L. 844 pg. 112
Tax parcel 32.232-1-6

ROBERT OHMANN
MARY L. OHMANN
Reputed Owner
L. 656 pg. 120
Tax parcel 32.232-1-7

STEVEN P. SCHMIDT
MONICA D. SCHMIDT
Reputed Owner
L. 1972 pg. 210
Tax parcel 32.232-1-8

GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-9

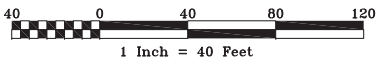
GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-10

GEORGE E. PAYE III
Reputed Owner
L. 1794 pg. 120
Tax parcel 32.232-1-16

COUNTY OF ESSEX
COUNTY OF FRANKLIN
Reputed Owner
L. 1143 pg. 217
Tax parcel 32.232-1-13

SARANAC LAKE GAS CO INC.
Reputed Owner
L. 141 pg. 392
Tax parcel 32.231-1-11

STATE OF NEW YORK
Reputed Owner
L. 1951 pg. 17
Tax parcel 32.247-4-1.2



Contour Interval: 1 Foot
Horizontal Datum: NAD 83
Vertical Datum: NAVD 88



GEOMATICS
land surveying, pc

STACEY L. ALLOTT, L.S.
P.O. BOX 1277 SARANAC LAKE, NY
518-891-6218 Phone
geomatisticspc@gmail.com www.geomatistics.pro

MAP OF SURVEY showing Final ISS Limits Location
Saranac Lake Gas Company Remediation

PREPARED FOR
D.A. COLLINS ENVIRONMENTAL SERVICES, LLC

SITUATE IN LOT 12, TOWNSHIP 11, OLD MILITARY TRACT, VILLAGE OF
SARANAC LAKE, TOWN OF NORTH ELBA, COUNTY OF ESSEX AND STATE OF NEW YORK.

REVISIONS / DATE / BY

COPYRIGHT 2021

CHECKED BY SLA

DRAWN BY REL

DATE SURVEY 06/08/22
MAP 11/03/22

SCALE IN./FT. 1"=40'
RATIO 1:480

TAX MAP NO. 32.231-1-11

MAP NO. 21007
Sheet 3 of 6

CADD File: 21007_SH3of6_ISS.dwg



LOCATION MAP
NOT TO SCALE

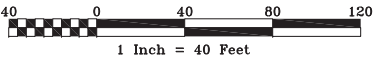
LEGEND

- Boundary Line
- Adjoiner Line
- Gravel Road
- Overhead wires
- Chainlink Fenceline
- Adjoiner Line
- Easement Area
- ISS Limits
- Final Cap
- Found iron pipe/rebar
- Set 5/8" capped rebar
- Calculated corner

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

Certifications, if any, indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to any additional institutions or subsequent owners.



Horizontal Datum: NAD 83
Vertical Datum: NAVD 88



STACEY L. ALLOTT, L.S.
P.O. BOX 1277 SARANAC LAKE, NY
518-891-6218 Phone
geomatisticspc@gmail.com www.geomatistics.pro

MAP OF SURVEY showing Excavation Limits Location
Saranac Lake Gas Company Remediation

PREPARED FOR
D.A. COLLINS ENVIRONMENTAL SERVICES, LLC

SITUATE IN LOT 12, TOWNSHIP 11, OLD MILITARY TRACT, VILLAGE OF
SARANAC LAKE, TOWN OF NORTH ELBA, COUNTY OF ESSEX AND STATE OF NEW YORK.

REVISIONS / DATE / BY		
COPYRIGHT	2021	
CHECKED BY	SLA	
DRAWN BY	REL	
DATE	SURVEY MAP	06/08/22 11/03/22
SCALE	IN./FT. RATIO	1"=40' 1:480
TAX MAP NO.	32.231-1-11	
MAP NO.	21007 Sheet 4 of 6	



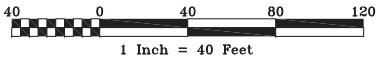
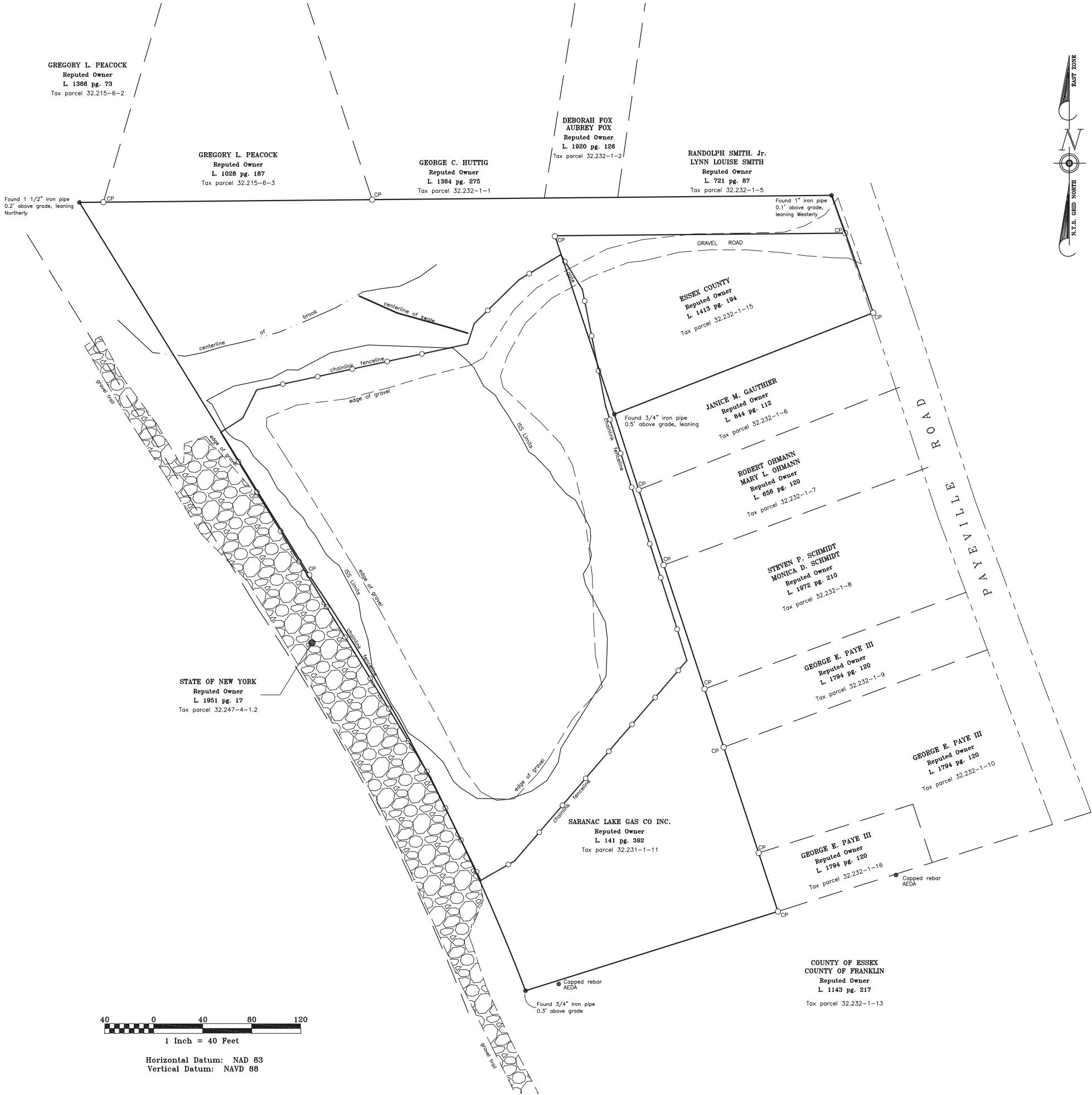
LOCATION MAP
NOT TO SCALE

- LEGEND
- Boundary Line
 - Adjoiner Line
 - Gravel Road
 - Overhead wires
 - Chainlink Fenceline
 - Adjoiner Line
 - Easement Area
 - ISS Limits
 - Final Cap
 - Found iron pipe/rebar
 - Set 5/8" capped rebar
 - Calculated corner

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

Certifications, if any, indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to any additional institutions or subsequent owners.



Horizontal Datum: NAD 83
Vertical Datum: NAVD 88



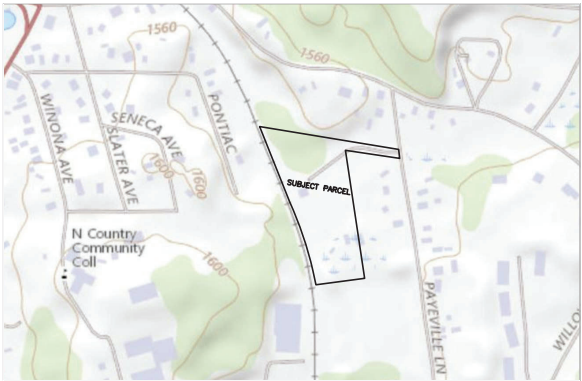
STACEY L. ALLOTT, L.S.
P.O. BOX 1277 SARANAC LAKE, NY
518-891-6218 Phone
geomatisticspc@gmail.com www.geomatistics.pro

MAP OF SURVEY showing Fenceline Location
Saranac Lake Gas Company Remediation
PREPARED FOR
D.A. COLLINS ENVIRONMENTAL SERVICES, LLC

SITUATE IN LOT 12, TOWNSHIP 11, OLD MILITARY TRACT, VILLAGE OF SARANAC LAKE, TOWN OF NORTH ELBA, COUNTY OF ESSEX AND STATE OF NEW YORK.

REVISIONS / DATE / BY		
COPYRIGHT	2021	
CHECKED BY	SLA	
DRAWN BY	REL	
DATE	SURVEY MAP	06/08/22 11/03/22
SCALE	IN./FT. RATIO	1"=40' 1:480
TAX MAP NO.	32.231-1-11	
MAP NO.	21007 Sheet 5 of 6	

CADD File: 21007 SHSof6 fenceline.dwg



LOCATION MAP
NOT TO SCALE

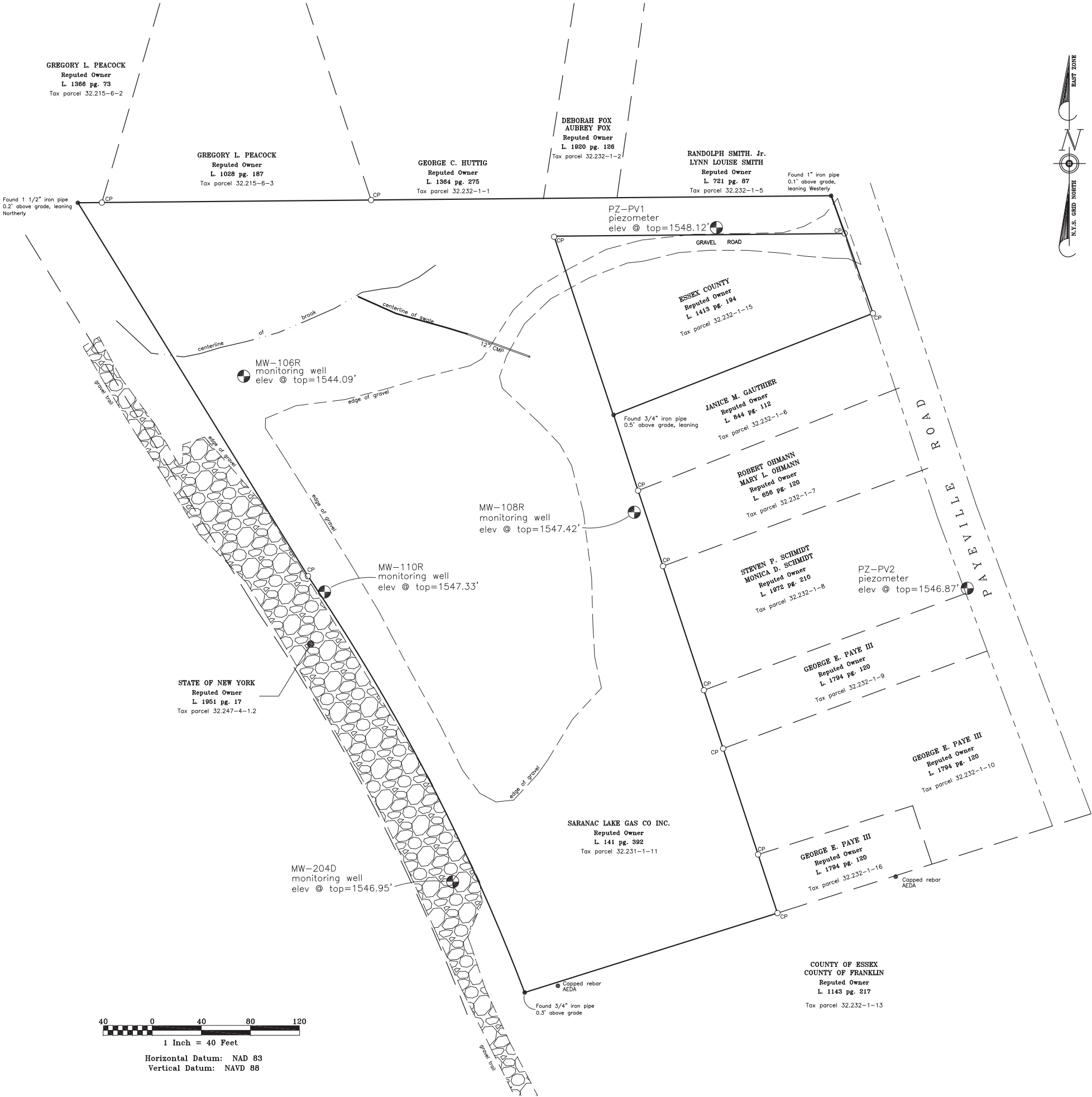
LEGEND

- Boundary Line
- Adjoiner Line
- Gravel Road
- Overhead wires
- Chainlink Fenceline
- Adjoiner Line
- Easement Area
- ISS Limits
- Final Cap
- Found iron pipe/rebar
- Set 5/8" capped rebar
- Calculated corner

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

Certifications, if any, indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to any additional institutions or subsequent owners.



GEOMATICS
land surveying, pc

STACEY L. ALLOTT, L.S.
P.O. BOX 1277 SARANAC LAKE, NY
518-891-6218 Phone
geomatisticspc@gmail.com www.geomatistics.pro

MAP OF SURVEY showing Monitoring Wells Locations
Saranac Lake Gas Company Remediation

PREPARED FOR
D.A. COLLINS ENVIRONMENTAL SERVICES, LLC

SITUATE IN LOT 12, TOWNSHIP 11, OLD MILITARY TRACT, VILLAGE OF
SARANAC LAKE, TOWN OF NORTH ELBA, COUNTY OF ESSEX AND STATE OF NEW YORK.

REVISIONS / DATE / BY		
COPYRIGHT	2021	
CHECKED BY	SLA	
DRAWN BY	REL	
DATE	SURVEY MAP	06/08/22 11/03/22
SCALE	IN./FT. RATIO	1"=40' 1:480
TAX MAP NO.	32.231-1-11	
MAP NO.	21007 Sheet 6 of 6	

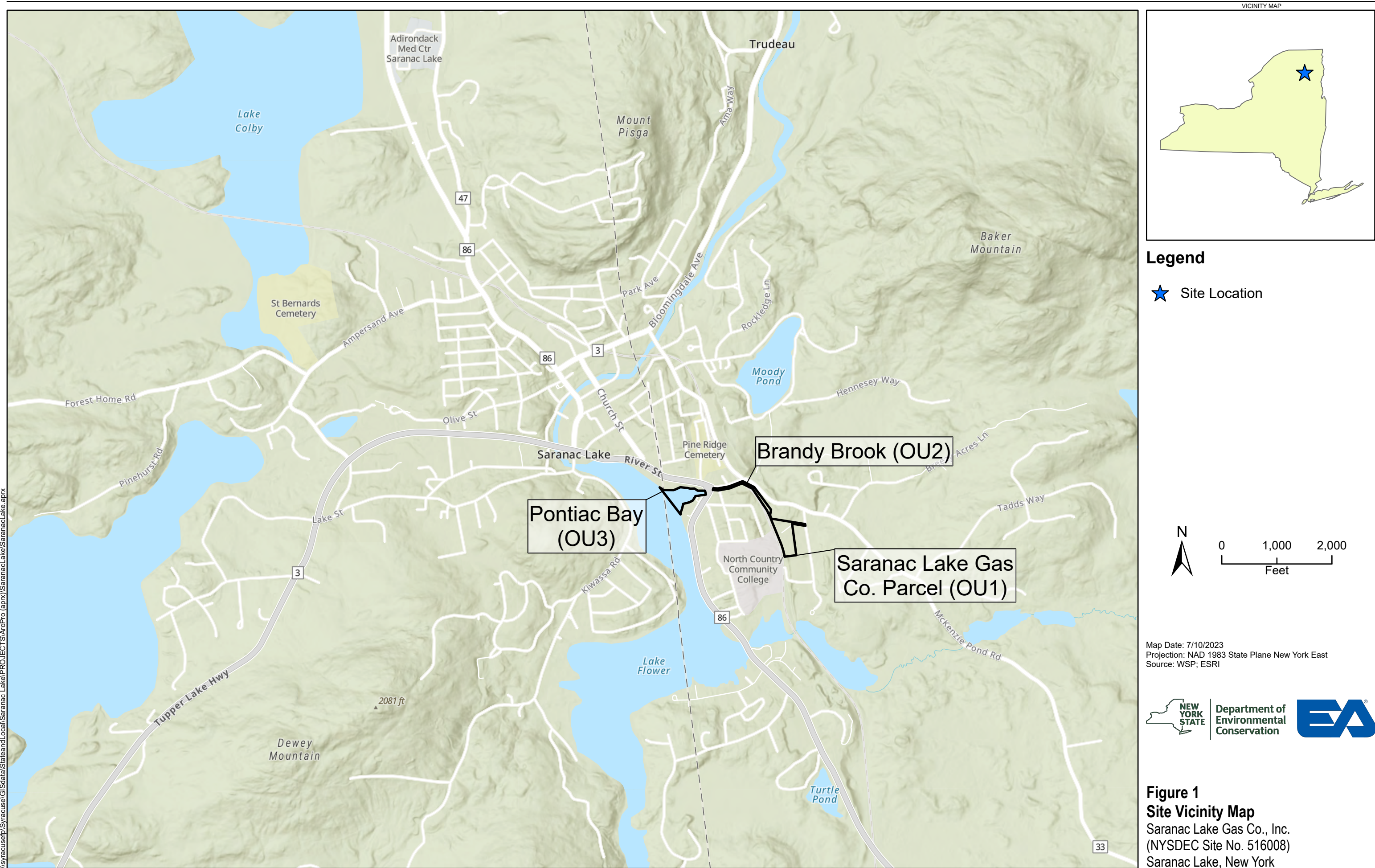
CADD File: 21007 SH606 mon_wells.dwg

Appendix B

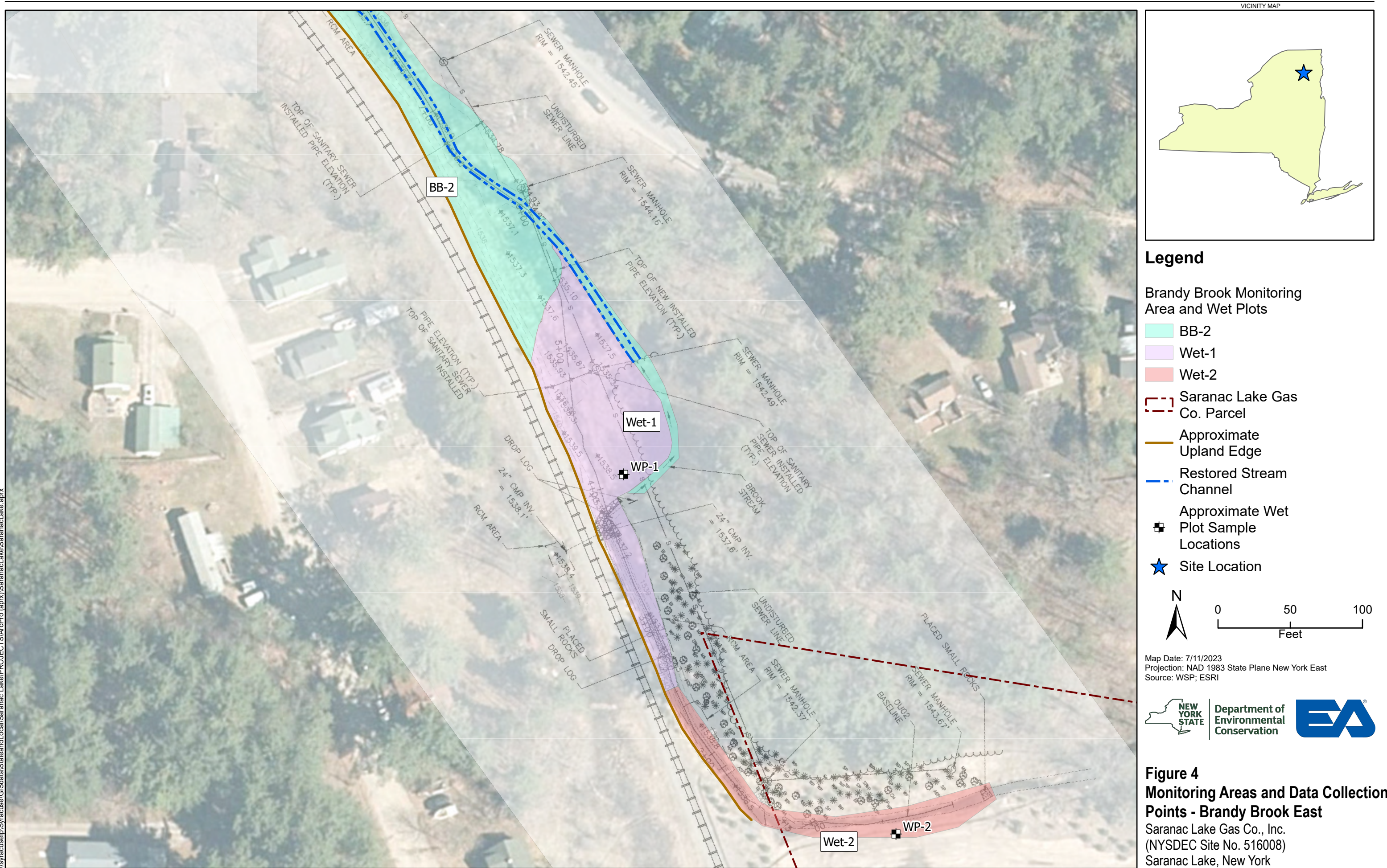
Figures

This page intentionally left blank

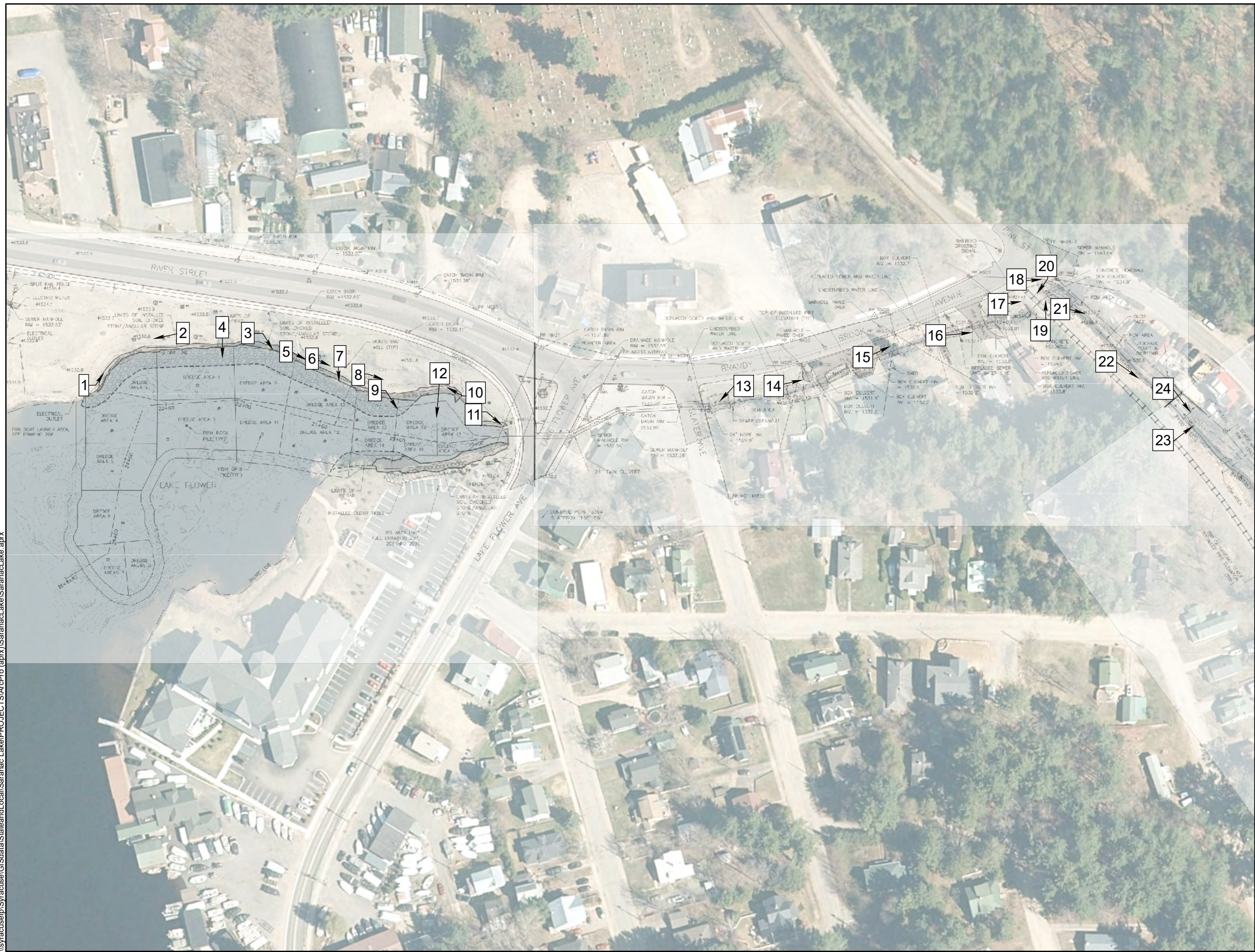
\\syracusefp\Syracuse\GIS\data\Stateandl\ocal\Saranac Lake\PROJECTS\ArcPro (aprx)\Saranac Lake\SaranacLake.aprx



\\syracusefp\Syracuse\GISData\StateandLocal\Saranac Lake\PROJECTS\ArcPro (aprx)\Saranac Lake\SaranacLake.aprx





\\syracusefp\Syracuse\GISData\StateandLocal\Saranac Lake\PROJECTS\ArPro (aprx)\SaranacLake\SaranacLake.aprx

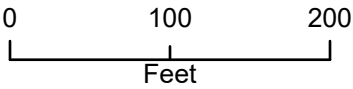


VICINITY MAP



Legend

-  Site Location
-  Photo Location/Direction



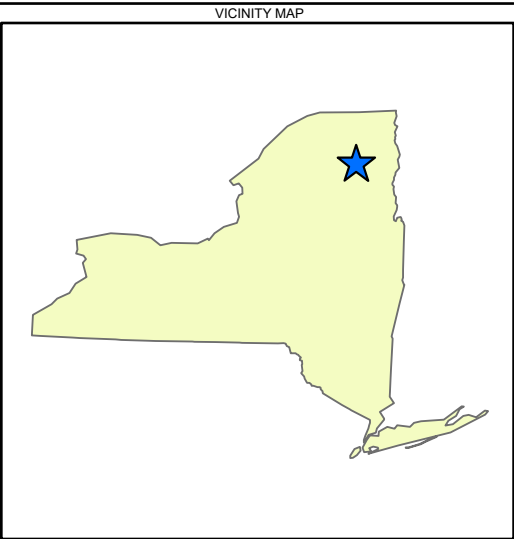
Note:
The photographs referenced on this figure are presented in the Saranac Lake 2023 Annual Wetlands Monitoring Report, Appendix D (Onsite Photos).

Map Date: 7/10/2023
Projection: NAD 1983 State Plane New York East
Source: WSP; ESRI

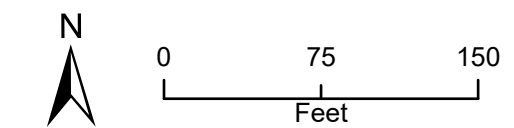


Figure 5
Photograph Location Map #1
Saranac Lake Gas Co., Inc.
(NYSDEC Site No. 516008)
Saranac Lake, New York

\\syracusefp\Syracuse\GISData\StateandLocal\Saranac Lake\PROJECTS\Ar-Pro (aprx)\SaranacLake\SaranacLake.aprx



- Legend**
- ★ Site Location
 - 25 Photo Location/Direction



Note:
The photographs referenced on this figure are presented in the Saranac Lake 2023 Annual Wetlands Monitoring Report, Appendix D (Onsite Photos).

Map Date: 7/10/2023
Projection: NAD 1983 State Plane New York East
Source: WSP; ESRI



Figure 6
Photograph Location Map #2
Saranac Lake Gas Co., Inc.
(NYSDEC Site No. 516008)
Saranac Lake, New York

Appendix C

Wetland Data Sheets

This page intentionally left blank

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Saranac lake City/County: Saranac lake / essex county Sampling Date: 2023-06-06
 Applicant/Owner: NYSDEC State: New York Sampling Point: Dpw1
 Investigator(s): TMK Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): _____ Lat: 44.32211081 Long: -74.11838117 Datum: WGS 84
 Soil Map Unit Name: _____ NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION – Use scientific names of plants.

 Sampling Point: Dpw1

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>150</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.5</u>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>150</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>60</u>	x 1 = <u>60</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>5</u>	x 4 = <u>20</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>150</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Alnus incana</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Juncus effusus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. <u>Eupatorium perfoliatum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Typha latifolia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
4. <u>Carex lupulina</u>	<u>10</u>	_____	<u>OBL</u>															
5. <u>Carex stipata</u>	<u>10</u>	_____	<u>OBL</u>															
6. <u>Lysimachia nummularia</u>	<u>10</u>	_____	<u>FACW</u>															
7. <u>Alisma plantago-aquatica</u>	<u>5</u>	_____	<u>OBL</u>															
8. <u>Impatiens capensis</u>	<u>5</u>	_____	<u>FACW</u>															
9. <u>Solidago canadensis</u>	<u>5</u>	_____	<u>FACU</u>															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

Hydrophytic Vegetation Indicators:
☒ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☒ 3 - Prevalence Index is ≤3.0¹
 _____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No _____

SOIL

Sampling Point: Dpw1**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10YR 3/1	100					Sandy Loam	
3 - 12	10YR 4/2	90	10YR 5/1	10	D	M	Sandy Loam	
12 - 16	10YR 5/2	90	10YR 5/1	10	D	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Saranac lake City/County: Saranac lake / essex county Sampling Date: 2023-06-06
 Applicant/Owner: NYSDEC State: New York Sampling Point: Dpw2
 Investigator(s): TMK Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): _____ Lat: 44.32122824 Long: -74.11781530 Datum: WGS 84
 Soil Map Unit Name: _____ NWI classification: Pfo/pss

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION – Use scientific names of plants.

 Sampling Point: Dpw2

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Acer saccharinum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Betula populifolia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>40%</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>235</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.88</u>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>235</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>60</u>	x 1 = <u>60</u>																	
FACW species <u>30</u>	x 2 = <u>60</u>																	
FAC species <u>25</u>	x 3 = <u>75</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>235</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Alnus incana</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>15%</u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Carex lupulina</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Scirpus atrovirens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
3. <u>Juncus effusus</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
4. <u>Solidago canadensis</u>	<u>10</u>	_____	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>70%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: Dpw2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 2	10YR 3/1	100					Loamy Sand	
2 - 16	10YR 4/2	90	10YR 5/2	10	D	M	Loamy Sand	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Appendix D

On-Site Photographs

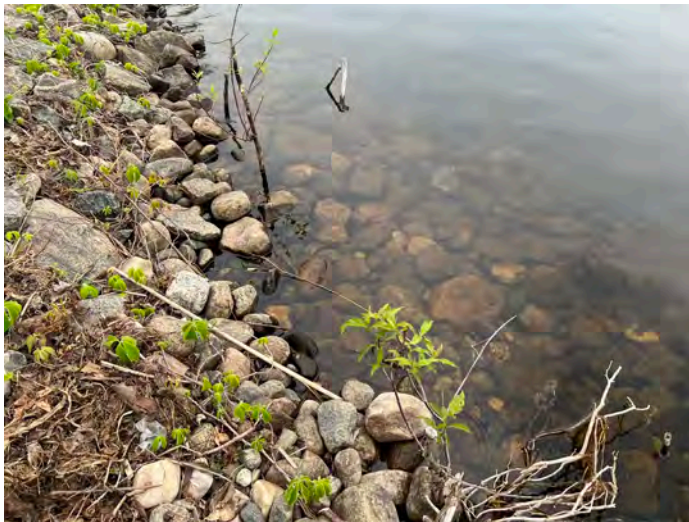
This page intentionally left blank



Photograph 1: Lack of woody vegetation along the bank in Monitoring Area LF-1.



Photograph 2: Overview of Monitoring Areas LF-1 and LF-2.



Photograph 3: Surviving live stakes observed at the transition from Monitoring Area LF-2 and LF-3.



Photograph 4: Dead live stakes observed within Monitoring Area LF-2.



Photograph 5: Signs of wildlife browsing on live stakes planted within Monitoring Area LF-3.



Photograph 6: Existing large trees along the banks within Monitoring Area LF-3.



Photograph 7: Successful live stakes along the banks within Monitoring Area LF-3.



Photograph 8: Mature trees along the banks within Monitoring Area LF-3.



Photograph 9: Live stakes successfully growing under mature trees within Monitoring Area LF-3.



Photograph 10: Vegetated and stable banks within Monitoring Area LF-3.



Photograph 11: Existing woody shrubs along the banks within Monitoring Area LF-3.



Photograph 12: Cedar Planting Area on the South bank of Lake Flower.



Photograph 13: Rip rap bank and unvegetated areas at the northwestern portion of Brandy Brook.



Photograph 14: View of well vegetated stream banks, facing upstream along Brandy Brook.



Photograph 15: View facing upstream of Brandy Brook along Brandy Brook Avenue.



Photograph 16: View facing upstream of the eastern portion of Monitoring Area BB-1.



Photograph 17: Easternmost portion of Monitoring Area BB-1.



Photograph 18: Area of street runoff along the top of banks of Brandy Brook at the northern portion of BB-2.



Photograph 19: Rip-rap slope of Brandy Brook at the northern end of BB-2 along Brandy Brook Avenue.



Photograph 20: Erosional deterioration of historic culvert on the northern end of Monitoring Area BB-2.



Photograph 21: View facing upstream of Brandy Brook, withing Monitoring area BB-2.



Photograph 22: View facing upstream of Brandy Brook, withing Monitoring area BB-2.



Photograph 23: Area of previously identified and treaded invasive species (Japanese knotweed).



Photograph 24: Stable drop log structure observed along Brandy Brook within Monitoring Area BB-2.



Photograph 25: View of stable stream channel bank with core log structure along Area BB-2.



Photograph 26: Stable rock vane structure within Brandy Brook within Monitoring Area BB-2.



Photograph 27: Well vegetated and stable stream banks of Brank Brook within Area BB-2.



Photograph 28: Restored emergent wetland area identified at Monitoring Area Wet-1.



Photograph 29: View facing south from Monitoring Area Wet-1.



Photograph 30: Depleted matrix identified within the soil sample at Monitoring Area Wet-1.



Photograph 31: Saturated soils identified within Monitoring Area Wet-1.



Photograph 32: Large alder shrubs located within Monitoring Area Wet-1.



Photograph 33: Southern portion of Brandy Brook between wetland areas Wet-1 and Wet-2.



Photograph 34: Restored stream channel within Monitoring Area Wet-2.



Photograph 35: Drop log structure within the restored stream channel within Monitoring Area Wet-2.



Photograph 36: Newly planted trees within Monitoring Area Wet-2.



Photograph 37: Overview of Monitoring Area Wet-2.



Photograph 38: Restored stream channel within Monitoring Area Wet-2.



Photograph 39: Tire ruts observed within the newly planted area in Wet-2.



Photograph 40: Sandy soils observed within Monitoring Area Wet-2.



Photograph 41: Reacting soil test strip indicating hydric wetland soils within Wet-2.



Photograph 42: Newly planted tree within Wet-2 with tree staking and fresh mulch pit.

This page intentionally left blank