SEPTEMBER 2021 SITE SUMMARY REPORT

FORMER J&L STEEL SPILL SITE
4669 STATE HIGHWAY 3
STAR LAKE, NEW YORK

PREPARED FOR:
NYSDEC REGION 6
317 WASHINGTON STREET
WATERTOWN, NEW YORK 13601

PREPARED BY:
NRC NY ENVIRONMENTAL SERVICES, INC. / US Ecology
63 TRADE ROAD, BLDG 4
MASSENA, NY 13662

NRC PROJECT #:
123065

NYSDEC SPILL #:
8706728

September 2021

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1.0 INTRODUCTION

NRC East Environmental Services, Inc., a US Ecology Company (NRC), has prepared this summary report for the purpose of documenting and summarizing NRC's 2021 site oil recovery activities associated with a historical petroleum release at the Former J&L Steel Site, located at 4669 State Highway 3, in Star Lake, New York. The report covers site operations during the period beginning in Late December 2020 to the end of September 2021. NRC was retained on behalf of the New York State Department of Environmental Conservation (NYSDEC) to perform remediation services, as part of the Interim Remedial Measure for NYSDEC Spill #8706728. The historical spill is associated with the release of approximately 1,000,000 gallons of #2 fuel oil during iron ore refining processes at the J&L Steel site, resulting in petroleum-impacted soils, contaminated shallow groundwater, and impacted deep groundwater at the site. Free petroleum product is present in the shallow and deep aquifers at the site.

The NYSDEC has requested the services of NRC to recover oil from the shallow and submerged plumes within the footprint of the #2 fuel oil spill area at the site, using numerous oil collection strategies. Current sub-surface oil collection infrastructure includes a shallow recovery trench system with eighteen (18) access manholes, and twelve (12), 6-inch diameter drilled recovery wells. Several EPA-installed 2-inch groundwater monitoring "ERT" wells are also used for oil recovery by NRC.

2.0 SUMMARY OF PREVIOUS WORK

The trench recovery system was installed by NRC in 2018, per NYSDEC specifications, which consisted of an approximately ten (10) feet deep excavated trench, with two layers of 8-inch slotted HDPE pipe at approximately 8 ft below grade and 6 feet below grade, respectively. The piping is connected at approximately 50 feet intervals along the trench with eighteen (18), four-feet diameter, 10 feet deep concrete Recovery Trench Manholes (RTMs). Four to six-inch (4-6") diameter round stone was used as permeable backfill for the trench, the 8-inch perforated piping, and the RTMs. The upper approximately two (2) feet of the trench was backfilled with "clean" site backfill material, placed over non-woven geotextile fabric on top of the round stone. The (4-6") diameter round stone was installed to allow mobility of oil and water into the piping and ultimately into the RTMs for oil and water recovery, with resistance to fouling by oxidized iron, as has historically occurred at the site in previous trench recovery systems. The recovery trench and locations of the RTMs are depicted on the **Exhibit A** 2021 Remediation Plan drawing. Further details regarding the recovery trench construction can be found in the NRC 2018 *Trench Installation Report*.

The submerged plume at the J&L Steel site is identified and described in the US Environmental Protection Agency's (EPA) *Draft Preliminary LNAPL Assessment & Conceptual Site Model Report*, dated July 2017. Oil is apparently trapped below a semi-confining layer beneath the site, consisting of organic material that was once a former marsh area, hereinafter identified as the "marsh mat". The marsh mat was covered with sands, gravels, shot rock, mine tailings, and mine overburden materials, by the former Jones and Laughlin Steel Company, during iron ore processing operations at the site.

During the period of September 10, to October 2, 2018, NRC mobilized their Geoprobe® Model 6620 DT hydraulic push/percussion hammer sampling unit to the site to advance soil borings. NRC advanced a total of 31 soil borings designated as B-1 through B-31 to investigate subsurface soil conditions, obtain field soil screening samples, and assess the potential for #2 fuel oil recovery at various locations across the plume area, identified in the EPA draft report. During the Geoprobe soil sampling project, nineteen temporary 1-in. PVC monitoring wells were installed in select Geoprobe soil sampling boreholes. The wells were installed with the screened intervals set to intercept the saturated zone immediately beneath the marsh mat. The locations of the 1-inch monitoring wells are depicted on the **Exhibit A** 2021 Remediation Plan drawing.

NRC conducted several water and oil depth gauging events using the EPA's existing site ERT wells and the newly installed Geoprobe wells, during and following the Geoprobe Investigation. An electronic oil/water interface tape, capable of distinguishing between oil and groundwater, was used to determine the thickness of oil in the various NRC Geoprobe monitoring wells and selected 2-in. EPA monitoring wells at the site. NRC's oil/water depth gauging and peristaltic pump oil recovery via several of the Geoprobe wells and deep EPA ERT monitoring wells provided information for locating new recovery wells at the site. Further details of the Geoprobe work can be found on the NRC 2020 *Geoprobe Investigation Report*.

Per the request of the NYSDEC, during the period of October 9, to October 18, 2018, NRC subcontracted a truck-mounted ultra-sonic drilling rig to the site to collect subsurface soil cores and to install twelve (12) new 6-in. diameter oil recovery wells. Four of the recovery wells were installed for and under the direction of EPA representatives also working at the site at that time. The recovery wells were screened for oil recovery within the deep, semi-confined aquifer beneath the marsh mat, at locations where EPA's deep ERT 2- inch monitoring wells and NRC's 1-inch temporary Geoprobe wells showed promise of favorable oil recovery. The locations of the 6-inch recovery wells are depicted on the **Exhibit A** 2021 Remediation Plan drawing.

During NRC's 2018 recovery trench installation, a temporary groundwater treatment system (GWTS) was installed on the western portion of the site to treat contaminated excavation water. Groundwater was pumped from the trench excavation areas to one (1) 18,000-gallon weir tank to settle out solids and separate/recover floating product, one (1) oil-water separator, several 21,000-gallon fractionation settling tanks, two (2) parallel 25-micron bag filters, followed by two (2) parallel 5-micron bag filters before passing through two (2), then later four (4) serial 1,000-lb. granular activated carbon (GAC) vessels. Post-treatment water was discharge to a NYSDEC-designated discharge point at the adjacent Little River. This system was partially demobilized over the winters of 2018 and 2019 and returned to the site for spring, summer and fall groundwater treatment operations. The rental groundwater treatment system was continued to be used after the trench installation, for trench oil recovery activities by NRC. NRC used diesel and gasoline-powered pumps, electric pumps, and an NRC vacuum truck to dewater sections of the trench via the recovery trench manholes, to draw-in and recover oil. All evacuated trench water was piped to the weir, frac tanks, and GWT system, for oil recovery, treatment, and eventual discharge of treated water to the Little River.

Over the winter of 2019/2020, NYSDEC requested the purchase of key groundwater treatment components, versus rental of the equipment, for an estimated two-plus year duration for the project, as a cost saving measure. The following GWTS components were purchased: a 100-gpm 3-phase electric pump skid with floats, three (3) 21,000-gallon pre-treatment frac tanks, two (2) in-line duplex bag filter skids, four (4) 2,000 lb carbon treatment vessels, and a 21,000-gallon effluent storage (frac) tank. Associated spill berms, hoses, floats, a weir tank oil skimmer, and sampling ports were also purchased and installed. Due to high purchase cost, an 18,000-gallon weir tank has continued to be rented. The weir tank and frac tanks were all placed on a level pad area adjacent to the site Remediation Building, constructed by NRC of onsite mill tailings and crushed stone. The bag filters, pump skid, and carbon treatment vessels were installed inside the site Remediation Building. From April 23, 2020 to present, NRC has been recovering oil and treating impacted water utilizing the purchased water treatment system and rental weir tank. The position of the groundwater treatment components and Remediation Building are shown on the **Exhibit A** 2021 Remediation Plan drawing.

3.0 OIL RECOVERY METHODOLOGIES

3.1 Recovery Trench and Weir Tank Oil Recovery

Since the completion of the recovery trench system in 2018 to present, NRC has been utilizing pumps and the vacuum truck to remove water and oil from recovery trench manholes. The raw water and oil removed from the trench has been sent via overland hose systems and the vacuum truck to the 18,000-gallon weir tank for gross oil and sediment separation. The weir has an inlet section, an under dam section, and an over dam section. The majority of the extracted oil separates from the inlet water in the first section, where an oil skimmer is used to remove the oil to a collection tote, detailed below. The third, over dam section accumulates oil from the sheens floated in the middle section. The third section is periodically skimmed manually, or with the vacuum truck.

3.2 Motorized Belt, Floating Weir, and Pneumatic Oil Skimmers

Per NYSDEC approvals, several types of oil recovery equipment were purchased by NRC during 2018 and 2019. In 2018, an Ambar belt mop skimmer was purchased and installed atop the inlet section of the weir tank. The belt mop skimmer is manually activated when floating oil in the weir accumulated from incoming groundwater is greater than approximately ½-inch thick. Oil recovered with the belt mop skimmer is received in a 300-gallon tote, located in the containment berm at the foot of the weir tank.

In 2019, three (3) Geotech Environmental Equipment, Inc. (Geotech) Filter Scavenger floating oil skimmers were purchased for recovering oil in select recovery trench manholes (RTMs). The filter Scavengers are deployed, when possible, in recovery trench manholes with a measurable oil layer present. The recovered oil from each Filter Scavenger unit is pumped automatically to a 55-gallon receiving drum placed next to the manhole.

Two (2) Geotech AC Sipper controllers and thirteen pneumatic, down-well oil skimmers are employed to skim oil from select 2-inch ERT wells and select 6-inch recovery wells. The AC Sipper controllers

use small pneumatic vacuum/pressure pumps with electronic solenoids to vacuum oil via small weir floats into a cylindrical container in the down-well skimmers, then push the oil out, under pressure, to 55-gallon receiving drums inside a conex container and the Remediation Building. The down well skimmers have special air and oil flow control valves that allow vacuum and pressure to be applied via a single 1/8-inch dia. tube connected from the controller to the skimmer. The oil is pushed by air pressure to the 55- gallon receiving drums. The various skimmers are put into use whenever the weather permits (consistent, above-freezing temperatures) and where there is measurable oil to recover in the respective weir section, trench manhole, or well.

3.3 Peristaltic Pump Oil Recovery

Since 2018, a peristaltic pump has been used to collect oil from specific 2-inch ERT wells and select 6-inch recovery wells at the site. These are deep monitoring wells and recovery wells installed with their screened intervals below the semi-confining marsh mat layer. After gauging oil thickness and calculating the amount of oil floating above the groundwater the in a particular well, NRC places a 3/8-inch diameter tube down the well and evacuates the floating oil via a peristaltic sampling pump, into a receiving bucket. This routine is conducted daily, in the high-volume oil-producing wells, by NRC representatives. This procedure was utilized to collect oil which accumulated under static conditions in the respective wells. Currently, only selected recovery wells are evacuated of oil using the peristaltic pump, as they produce more oil than the AC Sipper skimmers effectively extract. The lesser oil producing ERT wells and recovery wells are skimmed of oil using the automatic AC Sipper skimmer units.

All oil collected in the various oil skimmer receiving drums, the weir skimmer oil collection tote, and peristaltic pump receiving buckets are measured and transferred to the on-site 4,000-gallon oil storage aboveground tank (AST), located in the Remediation Building. Periodically, NRC transports the recovered oil to the Covanta Environmental Solutions, Inc. oil disposal/recycling facility, in Oriskany, New York.

4.0 RECOVERY WELL PUMP TESTS

Specific recovery wells, developed periodically after their installations with the vacuum truck and a stinger hose assembly, produced respectable oil quantities, after removing the floating oil daily with the peristaltic pump. The oil would accumulate in the wells under static conditions, overnight, and particularly over weekends. Other recovery wells continued to produce sheens only, with no recoverable oil.

Beginning in August 2020, under the supervision of the NYSDEC, NRC installed jet pumps and down-well piping and foot valves at several of the recovery wells to evacuate groundwater and determine oil recovery under a controlled, depressed groundwater condition at the respective wells. The evacuated groundwater was piped to the weir tank for residual oil separation and subsequent carbon treatment, via the existing GWTS. Through the next few months, a total of five jet pumps were moved to all twelve (12) recovery wells, to determine their oil production. Several Recovery wells, identified as, RW-2, RW-

3, RW-4, RW-5, and RW-11, produced significant oil within a day or two of the continuous pumping operations. The oil was removed from the wells daily via the peristaltic pump and tubing systems. Other wells, such as RW-6, RW-8, RW-9, and RW-10, took up to three weeks of continuous, controlled pumping, to produce oil. Pump tests at RW-1, RW-7 and RW-12 did not result in significant oil accumulation.

The recovery well pump tests and peristaltic pump and AC Sipper oil recovery were performed through the winter of 2020/2021, and continue to date in select recovery wells, such as RW-8, RW-9, RW-10, and RW-11.

5.0 GROUNDWATER EXTRACTION/OIL RECOVERY SYSTEM INSTALLATION

Under direction of the NYSDEC, NRC installed a groundwater pumping and automatic oil skimming system via selected, oil producing recovery wells at the site during January to March 2021. The system is designed to be freeze protected, with submersible pumps, buried and insulated water, air, and oil lines, and a heated and insulated conex building for the pump controls and one of the existing AC Sipper units. The system pumps recovery well water to a 1,150-gallon temporary storage tank inside the conex. A pump and float system transfers groundwater from the 1,150-gallon tank to the weir tank for treatment, via an insulated, buried waterline. The AC Sipper controller is connected to selected 6-inch recovery wells and 2-inch ERT wells for oil recovery. An oil recovery drum for the AC Sipper system is located inside the conex building.

Recovery wells RW-2, RW-3, RW-4, RW-5, RW-6, and RW-8 were included in the GW extraction and oil recovery system. These six (6) wells operate on a rotational schedule with the five (5) submersible pumps and control units purchased with the system. The locations of the groundwater extraction and oil recovery system components are depicted on the **Exhibit A** 2021 Remediation Plan drawing. Photographs of the system installation activities are included in the **Exhibit B** Select Site Photographs.

6.0 JANUARY TO MARCH 2021 WATER TREATMENT AND OIL COLLECTION OPERATIONS

After winterization of the outdoor weir tank and frac tank system in October 2020 for the winter months, water treatment operations were reduced significantly, with the elimination of water pumped from the recovery trench to the weir and reduced water from the recovery well pump tests. During January to March 2021, water and oil extracted from the recovery trench during winter vacuum truck oil skimming was pumped to the existing 18,000-gallon AST inside the heated Remediation Building. The water and oil were allowed to separate in the tank and the water was treated in batches, via the GWT system. Typically, approximately 11,000 gallons of oil/water were delivered to the 18,000-gallon AST and treated per workday during this period. A Tabulation of 2021 Monthly Water Treatment Volumes is presented in **Exhibit C**.

6.1 Winter 2021 Recovery Trench Oil Collection

During winter months of January to March 2021, oil from the recovery trench was skimmed off the surface of the water in select RTMs, whenever the weather allowed. Roads were plowed with the onsite loader to accommodate vacuum truck access to the RTMs. The recovered oil and water were transferred from the vacuum truck to the 18,000-gallon AST in the Remediation Building. Floating oil was periodically skimmed off the surface of the water in the 18,000-gallon AST and transferred to a 300-gallon tote inside the Remediation Building for further oil/water separation and eventual transfer of oil to the 4,000-gallon oil storage AST, using a pneumatic, dual diaphragm pump. Oil volumes collected and transferred in this manner were recorded on the J&L Steel Oil Recovery Logs, a Monthly Oil Recovery Summary for which is attached as **Exhibit D**.

6.2 Winter 2021 Recovery Well Oil Collection

Oil collection from wells employed in the recovery well pump tests continued through the winter months of 2021, via recovery wells RW-2, RW-4, RW-6, RW-6, RW-8, RW-9, and RW-10, with a rotation of five (5) jet pumps for the seven (7) wells. The primary oil collection recovery wells were RWs -2, -4, -6, -8, -9, and -10. Daily oil collection via the active recovery wells was preformed using the peristaltic pump and tubing assembly. Each day, the recovered oil was transferred to a 55-gallon drum located inside the Remediation Building and the total volume was measured. The oil was then pumped to the 4,000-gallon temporary oil storage AST. Oil volumes collected and transferred in this manner were recorded, a Monthly Oil Recovery Summary for which is attached as **Exhibit D**.

7.0 2021 GROUNDWATER DEPRESSION / OIL COLLECTION SYSTEM STARTUP

On February 25, 2021, the new submersible groundwater depression pumps were started up in recovery wells RW-2, RW-5, and RW-6. At this time, the 1,150-gallon collection tank discharge was sent to the 18,000-gallon AST inside the Remediation Building for batch treatment with recovery trench water from the vacuum truck operations. By April 1, 2021, recovery wells RW-3, RW-4, and RW-8 were turned online, with the RW-5 submersible pump installed into RW-8. Recovery well RW-5 had stopped producing good oil quantities, and therefore the submersible pump was moved to RW-8. On April 1, 2021, upon receiving forecasts of above-freezing weather, the weir tank and frac tank array was reconnected, and re-joined to the GWT system. Water discharges from the vacuum truck oil/water skimming and the recovery well pumps were moved to the weir tank and frac tank 1, for oil separation and recovery. The 18,000-gallon AST was converted to carbon backwash water, iron oxidation, and oil separation duties.

Down-well oil recovery via AC Sipper No. 1 skimmers, with its controller mounted in the Remediation Building, was re-started on May 13, 2021. Two-inch monitoring wells ERT-4d, ERT-17d, ERT-19-d, and ERT-20d were reconnected to the AC Sipper No. 1 controller, along with recovery well RW-9. AC Sipper 2 was installed in the new groundwater depression / oil recovery conex on June 21, 2021, after a factory repair was completed on the unit by Geotech. AC Sipper No. 2 was initially connected to two-inch monitoring wells MW-14 and MW-37, ERT-5d and ERT 15d, and recovery wells RW-2 and RW-11.

Prior to the AC Sipper startups, oil was recovered daily from the oil-producing recovery wells using the peristaltic pump and tubing assembly. Currently, the AC Sipper No. 2 oil skimmers are installed in ERT-15d and recovery wells RW-1, RW-2, RW-3, RW-4, RW-7, and RW-11.

Recovery wells RW-6, RW-8, and RW-10 currently produce significant oil and are pumped of recovered oil daily using the peristaltic pump and tubing assembly.

The AC Sipper units require frequent maintenance. A new vacuum pump was installed in the AC Sipper 1 control box by NRC on July 9, 2021. The down-well AC Sipper skimmer assemblies are adjusted weekly, to account for oil/water level fluctuations and the oil inlet screens and the outer surfaces of the assemblies are wiped of scum and debris, to maintain optimum oil recovery.

Once the severe cold weather was deemed ended for the winter in the beginning of April 2021, the hoses were reconnected to the weir tank, frac tanks and the GWT system and the recovery trench and recovery well pump test water discharges were added to the weir and frac tank 1, respectively. The weir was discharged to the frac tank on an as-needed basis

8.0 APRIL TO SEPTEMBER 2021 WATER TREATMENT

On April1, 2021, with the risk of extreme cold weather over for the season, the weir tank and frac tanks were fully operational. The GWT system was operating and water from the recovery trench vacuum truck oil skimming, recovery well pump tests, and the new groundwater depression system were sent to the weir tank and frac tank 1. The GWT system began operating continuously, 24 hours a day, seven (7) days a week to handle recovery trench water, pump test water, and groundwater depression system water. The three (3) frac tanks were set up in a serial arrangement, followed by the GWT system. Treated water was sent to the Little River via the new, buried discharge pipe.

Shortly after the water treatment system was fully operational for the spring/summer season, it was realized that significant iron fouling was causing the bag filters to clog frequently and the activated carbon vessels required backwashing on a daily or two-day basis, to maintain flow. During previous years, the water passing through the treatment system had come from the recovery trench only, via vacuum truck oil/water skimming operations and recovery trench water pumps. Groundwater from these sources is visibly orange tinted, indicative of dissolved iron oxidation. The dissolved iron in the waters from vacuuming and pumping is oxidized by the vacuuming and pumping processes, and a significant portion of the iron is settled out of the water in the weir and frac tanks before entering the GWT system. This process has helped prevent fouling the bag filters and activated carbon vessels. The 2021 groundwater treatment system is receiving additional water from the recovery well pump tests and groundwater depression system submersible pumps. Water from these sources is clear, but becomes tinted yellow, then orange hues in minutes after being pumped above grade and exposed to the air.

To counter the iron problem, an aeration blower/diffuser and a circulation pump/sprayer nozzle were installed in frac tank 1 on April 21, 2021. The aeration equipment was intended to introduce oxygen

into the treatment water to oxidize the dissolved iron. In addition, frac tanks 2 and 3 were re-plumbed from a serial arrangement to a parallel arrangement, to slow the water passage through the frac tanks and provide additional retention time for oxidized iron settlement. An additional parallel pair of bag filter units was also installed by NRC, to incorporate 1 micron bag filters as the third step in precipitated iron particulate removal in the GWT system. The intent of these system changes was to remove iron before the water enters the GWT system, and particularly, the activated carbon vessels.

Upon consulting with water treatment specialists, it was determined that chemical treatment may be necessary to handle the dissolved (ferrous) iron load entering the GWT system. With consent of the NYSDEC, one (1) sample of groundwater from the recovery trench (RTM-10), two (2) composite water samples from select recovery wells, and pre-GWT and a post treatment water samples were sent to the NYSDEC contract laboratory for total iron analyses. The results revealed total iron concentrations of 47.10 ppm in the trench water sample and 52.7 ppm and 50.7 ppm in recovery well water samples. The pre-GWT (Bag Filter) and Post Treatment water samples revealed 9.5 ppm and 1.6 ppm total iron, respectfully.

These results show similar concentrations of total iron in the recovery trench and recovery well samples. The results also indicate significant iron reduction occurs as the water passes through the weir and frac tanks, and that iron continues to be removed within the carbon treatment system, which explains the fouling of the bag filters and carbon vessels by iron. The iron fouling in the activated carbon vessels causes flow to be reduced, which has hampered water processing operations at the site.

NRC conducted bench tests to determine if chlorine and sodium hydroxide/potassium hydroxide solutions, added to the pre-GWT system water to raise the pH of the water, would drop the iron out of solution, as ferric iron floc. Both tests showed visible evidence of ferric iron settlement. A photograph of one such bench test performed by NRC is contained in the **Exhibit B** Select Site Photographs.

On April 28, 2021, per the direction of the NYSDEC, NRC set up a trial sodium hypochlorite (chlorine) feed system into frac tank 1, where the recovery well water was being introduced into the system. The aeration blower/diffuser and circulation pump/spray nozzle provided mixing of the chlorine into the water in the tank. Within an hour, the water in the tank turned an orange color, indicating a chemical change from dissolved ferrous iron to suspended ferric iron. Improvement to the duration of the bag filters and lessening of the carbon backwash frequency was evident within a few days.

Through May and into June 2021, additional recovery well discharges were added to the system and adjustments to the chlorine feed rate were required. On June 9, 2021, NYSDEC authorized monthly bulk purchases of sodium hypochlorite from AgroChem, Inc., in Saratoga Springs, New York. Currently, three (3) 275-gallon totes of chlorine are purchased per order.

To optimize the oxidation of iron in the treatment water and to maximize iron settlement and retention time, all groundwater inputs into the treatment system were moved to the primary section of the weir tank on August 10, 2021. Additionally, an electric trash pump was installed in trench manhole RTM-9 to dewater the northern portion of the trench and the discharge water was added to the weir tank. To

maximize the chlorine's contact time and aeration of waters entering the system, the chemical feed tube, aeration blower, and circulation pump/spray nozzle equipment were moved to the middle (over dam) section of the weir tank on August 10, 2021. These changes are representative of the current setup of the facility groundwater treatment system.

In September 2021, NYSDEC authorized the laboratory analysis of select recovery wells' discharge water, to determine if some of the pumped recovery well water could be discharged to the ground surface on site, without passing through the GWT system. The intent was to possibly lessen the load of water being treated by the GWT system, and thereby lessen the dissolved iron load. Samples were collected by NRC on September 8, 2021, for EPA Method 624.1 BTEX plus MTBE and naphthalene. The results of the analyses of samples from recovery wells RW-2, RW-3, RW-4, RW-7, RW-8, RW-9, and RW-10 all revealed concentrations of BTEX compounds and/or naphthalene, that are above the respective NYSDEC surface water discharge standards. As such, NRC will continue to treat all pumped recovery well water. A copy of the laboratory results for the recovery well samples is included in the **Exhibit I** Laboratory Analytical Reports and Sample Custody Documentation.

9.0 APRIL TO SEPTEMBER 2021 OIL RECOVERY

From April 1, 2021, through September 2021, NRC continues to conduct evacuation of oil and groundwater via the recovery trench manholes with the vacuum truck. Oil from high producing recovery wells, such as RW-6, RW-8, and RW-10 is recovered using the peristaltic pump and tubing system. The AC Sipper 1 control unit and associated down-well oil skimmers are in operation in 2-inch monitoring wells ERT-4d, ERT-17d, ERT-19d, and 6-inch recovery well RW-9. The AC Sipper 2 control unit and associated down-well oil skimmers are operating in ERT-15d and recovery wells RW-1, RW-2, RW-3, RW-4, RW-7, and RW-11.

Recovered oil from the weir tank skimmer tote, the peristaltic pump receiving buckets, and the 55-gallon AC Sipper oil collection drums is measured and sent to the 4,000-gallon oil storage AST from the various collection containers, using a pneumatic, dual diaphragm pump. Oil recovered from the site is summarized on the **Exhibit D** J&L Steel Monthly Oil Recovery Summary.

From April to Early September 2021, consistent rains in the area resulted in elevated groundwater in the recovery trench through the summer months. Water flow in the Little River was also higher than normally observed by NRC during the period. The elevated groundwater in the trench resulted in difficulties in dewatering the trench, compared to previous years, as the water levels were consistently above the upper 8-inch horizontal perforated piping in the trench system, particularly on the north side of the site. As a result, oil recovery via the recovery trench was lower over the summer months when compared to previous years. It is thought by NRC that the high groundwater precluded access to the available oil.

It is noted that in during September 2021, after dewatering the southern portion of the trench beginning on August 10, 2021, vacuum truck oil and water skimming in the northern and southern portions of the

trench has yielded improved oil recovery. NRC anticipates favorable oil recovery from the trench through fall 2021.

10.0 TEST PIT INVESTIGATIONS

10.1 Benson Seep Test Pits

On September 19, 2018, under the supervision of NYSDEC and Benson Mines representatives, NRC excavated two (2) test pits adjacent to the source of observed oil sheens on the north side of the Little River. The source of the sheens has been described as the "Benson Seep". The oily seep area had been noted by NRC as the apparent cause of sheens emanating onto the surface of the Little River to the northwest of the main study area. Per NYSDEC direction, NRC deployed floating oil-absorbent boom along the river, in the vicinity of the seep, to contain the sheens. The boom has been maintained by NRC since that time.

The September 19, 2018 test pit investigation was conducted using typical field soil screening methods, consisting of examining excavated soil samples for characteristic petroleum staining and odors and screening the soil samples for measurable VOC, using a photoionization detector (PID), equipped with a 10.6 eV lamp. The soil encountered in the test pits, identified as TP-1 and TP-2, included gravel and sand, intermingled with small angular cobbles, and large pieces of fragmented rock, up to four (4) feet in dimension. Test Pit TP-1, located adjacent to the main seep, was excavated approximately two (2) feet from the shoreline and extended approximately 15 feet north, into the bank. Soil samples recovered form TP-1 revealed significant petroleum staining, odors, and PID readings over 400 ppm VOC, at approximately 11 feet below grade (fbg), which was approximately one (1) foot above the stream surface elevation at the time. TP-2 was excavated approximately 25 feet west of TP-1. The marsh mat was encountered in TP-2 at 10.5 to 11.5 fbg, at approximate stream surface elevation. The marsh mat material exhibited moderate petroleum odors and 50 ppm VOC with the PID. Coarse to fine sand and fine gravel was present under the marsh mat, with trace petroleum odors and <10 ppm VOC.

On May 25, 2021, NRC conducted a secondary test pit investigation, under direction of the NYSDEC and with permission of Benson Mines, in the periphery of the 2018 test pits. The intent of the secondary round of test pits was to identify if a petroleum "source area", underground tank, or other structure exists, which causes the periodic sheens on the river. The test pits were positioned radially to the north, northeast, and west of the 2018 test pits on the Benson Mines property. NRC provided a Komatsu 228 excavator and Operator to excavate the three (3) test pits, identified as TP-1, TP-2, and TP-3, respectively. Test pit TP-3 was excavated approximately 30 feet north of original test pit TP-1. TP-4 was excavated approximately 75 feet northwest of the original, impacted TP-1, and TP-5 was excavated approximately 45 feet west of TP-1. All three (3) of the test pits were excavated to and beneath the depth of groundwater saturation, which was approximately 7.5 fbg, 8.5 fbg, and 9.0 fbg, respectively, well above the elevation of the Little River at the time. Test pits TP3 and TP-4 revealed sands and gravels and rounded cobbles, with sand and silty soil at the termination depths of 11.5 and 12.5 fbg, respectively. No indications of the marsh mat were observed in the excavated soils from TP3 and TP-4. TP-5 revealed silty sands and fine gravel, with some rounded cobbles, extending to a depth

of approximately 11.5 fbg, where organic material indicative of the marsh mat was encountered. Groundwater intrusion at and beneath the various saturation depths resulted in numerous cave-ins, during the three (3) excavations.

No field-detectable indicators of petroleum products, and no measurable VOC were detected with the PID in any of the recovered soil samples from the May 25, 2021 test pits, TP-3, TP-4, and TP-5. The test pits were backfilled with the excavated material. No other intrusive actions have been requested of NRC by NYSDEC, pertaining to the Benson seep. NRC continues to maintain the oil absorbent boom on the Little River near the Benson seep, to capture residual sheens that may emanate into the river from the seep area. An edited version of the U.S. EPA's J&L Steel monitoring well location map was used by NRC to provide reference to the approximate locations of the Benson Seep and associated test pits TP-1 to TP-5. The Benson Seep Test Pit Location Map and photos of the 2018 and 2021 TP-1 to TP-5 excavation activities are presented in **Exhibit F**.

10.2 NATIONAL GRID POWER POLE LOCATION TEST PITS

Under the direction of NYSDEC, on May 25, 2021, NRC excavated two (2) test pits, identified as NGTP-1 and NGTP-2, at the proposed locations of an electric utility pole and a guy wire anchor, within the J&L Steel petroleum spill remediation area. The test pits were excavated approximately 100 feet west of the Remediation Building, at locations previously marked by National Grid, to determine if petroleum-impacted soil would be encountered during the future installations of a utility pole and anchor. NRC used the same heavy equipment and soil screening techniques described above for the Benson seep investigation.

Test pit NGTP-1, excavated at the future National Grid pole location, revealed fine sand and gravel to approximately 4 fbg, with slight petroleum odors and measurable VOC up to 41 ppm, beginning at approximately 2 fbg. Beyond 4 fbg, dark brown and black silty sand and gravel were encountered, with increasing petroleum odors and PID readings up to 185 ppm, at a depth of 12 fbg. Silts and fine sand with organic materials indicative of the marsh mat were encountered between 12.0 to 13.5 fbg, with a degraded petroleum odor and a PID reading of 90 ppm VOC. A layer of silty fine sand was observed under the marsh mat material, to a termination depth of 13.9 fbg. This layer had trace petroleum odors and no measurable VOC.

Test Pit NGTP-2 was excavated at the future National Grid guy wire anchor location, approximately 20 feet southeast of NGTP-1. NGTP-2 extended to a depth of approximately 6.5 fbg and exhibited light brown silty sand and gravel with no field-detectable petroleum odors or measurable VOC in the soil to a depth of 2.5 fbg. Below 2.5 fbg, medium to dark brown silty sand and gravel were encountered, revealing moderate petroleum odors and PID readings of 32 to 58 ppm at the termination depth of 6.5 fbg. An edited version of the U.S. EPA's J&L Steel monitoring well location map was used by NRC to provide reference to the approximate locations of the National Grid test pits NGTP-1 NGTP-2. The National Grid Test Pit Location Map is presented in **Exhibit G**.

The impacted soil excavated from the test pits was temporarily staged at the southeast corner of the study area, on two (2) layers of polyethylene sheeting and covered with a single layer of sheeting, for

subsequent waste characterization sampling, waste profiling, and off-site disposal. Soil deemed "clean" via the field soil screening was placed back into the respective excavations, and additional crusher-run stone was imported from the nearby Mitchell Stone Products, Inc. facility, to match existing grade. The clean backfill material will be the media for which the future power pole and guy wire anchor will be installed by National Grid. Samples of the impacted soil were submitted to the Eurofins/Test America laboratory in Buffalo, New York for waste characterization analyses, on September 28, 2021. Once the sample results are received and the material is profiled and accepted by the landfill, NRC will load the material into permitted dump trucks and transport it to the facility for disposal. It is anticipated that the soil will be disposed of in October, 2021.

11.0 SITE MONITORING WELL CLOSURES

Per the request of the NYSDEC, NRC permanently closed 24 of approximately 77 groundwater monitoring wells on the former J&L Steel property, during the period of May 24 to 27, 2021. The decommissioned wells were unused wells, outside of the target No. 2 fuel oil recovery area currently being worked on by NRC under NYSDEC direction. Seven (7) of the monitoring wells slated for decommissioning were either damaged or presumably destroyed and could not be located by NRC. The locations of the existing and decommissioned monitoring wells are presented on the Monitoring Well Decommissioning Map attached as a portion of **Exhibit H**.

NRC provided a Komatsu 228 excavator, miscellaneous power tools, and materials to perform the well closure project. Prior to decommissioning, each well was gauged using a sonic interface tape to measure depth to water and to determine if oil was present on the water surface. The wells were sampled with a bailer for visual and olfactory screening of the water for petroleum products and sheens. Water depths and field observations were recorded on a Monitoring Well Gauging Log for the project.

The wells were decommissioned in accordance with the NYSDEC's Water Well Decommissioning procedures, by grouting using coarse grade bentonite. 3/8-inch chip bentonite was poured into each well a rate of approximately five (5) minutes per 50 lb. bag, to avoiding bridging in the wells' water columns, as the bentonite chips sank to the bottom. A weighted measuring tape was periodically used to monitor the rising level the bentonite in each well, to determine if "bridging" of the bentonite chips occurred in the casing. With the slow pour rate, no notable bridging of the chips was observed. The well screens and casings were filled from the bottom to the ground surface in this fashion. Where necessary, water was added to the well at the end of the grouting process, to hydrate the bentonite pellets above the water table.

Once the designated wells were filled with bentonite, the aboveground steel well protectors and concrete pads were removed using the excavator. The concrete was separated from the well protectors and placed in a pile with other concrete debris from the J&L Steel building demolitions. After the steel protective pipes were removed, the PVC well riser pipes were cut at 12 to 24 inches below grade and capped with an appropriately sized PVC cap. The area was then backfilled to grade with clean soil and mechanically compacted using the excavator bucket. The cut PVC well risers and miscellaneous debris collected during the well decommissioning project were loaded into an NRC mini-dump truck and

disposed of at the Star Lake Transfer Station. All salvageable metal was staged in a pile until the completion of the well decommissioning project, and later transported by NRC to the West Parishville Metals scrap yard in Potsdam, New York, for scrap recycling. Copies of the Monitoring Well Gauging Log and a Well Abandonment Data Table, listing the site monitoring wells and bentonite quantities used for the grouted wells are attached in **Exhibit H**.

12.0 REPLACEMENT OF ACTIVATED CARBON

After incidents of breakthrough in VOC sample results in post-treatment water samples, and after exhausting reasonable alterations in the system to improve discharge water quality, NYSDEC directed NRC to replace all the carbon in the GWT system. During the period of August 11 to 18, 2021, NRC removed the spent carbon from the four (4) activated carbon vessels and replaced it with fresh virgin coal activated carbon. The carbon replacement was conducted without interruption of the water treatment process. The carbon was removed using the NRC vacuum truck and piled in a bermed area located east of the Remediation Building, on two (2) layers of 6-mil polyethylene sheeting. After overnight hydration of the new carbon in each vessel after filling, each carbon was placed back on-line. Per the NYSDEC, pre and post treatment samples were collected on September 7, 2021, and "clean" post treatment results were reported. The results of the GWT system sampling are presented in **Exhibit I** Laboratory Analytical Reports and Sample Custody Documentation.

Samples of the spent carbon were submitted to Eurofins/Test America in Buffalo, New York for waste characterization analyses on August 28, 2021. Once the sample results are received and the spent carbon is profiled and accepted by the landfill, NRC will load the material into a permitted dump truck and transport it to the disposal facility. It is anticipated that the soil will be disposed of in October, 2021.

13.0 JANUARY TO SEPTEMBER 2021 GROUNDWATER TREATMENT AND OIL RECOVERY TOTALS

From January 1, 2021 to September 30, 2021, NRC has treated a total of 11,432,500 gallons of combined groundwater from the recovery trench and the recovery wells. During this period, NRC has recovered a total of approximately 6,022 gallons of oil from the weir skimmer tote, the AC Sipper oil skimmers, and the peristaltic pump oil recovery operations. The average oil recovery rate per day of NRC operations to date in 2021 is approximately 38.6 gallons per day, based on the 8-hours per day, 4 days per week work schedule from January 1 to September 30, 2021. Since January 2021, NRC has transported a total of 4,859 gallons of oil to the Covanta Environmental Solutions, Inc. disposal facility (aka I.O.) for disposal/recycling. Approximately 1,587 gallons of the disposed oil was from 2020 oil collection activities. The 4,000-gallon oil storage tank currently contains approximately 2,750 gallons of recovered oil, which is slated for transport to the Covanta facility for disposal/recycling in October 2021 by NRC. Monthly oil collection totals are summarized on the **Exhibit D** J&L Steel Monthly Oil Recovery Summary table.

14.0 REMAINDER OF 2021 SEASON

- NRC plans to continue the current groundwater depression pumping, via the jet pumps and submersible groundwater depression pumps, with occasional movement of pump systems installed in low oil producing wells, to recovery wells that are currently off-line. In this way, groundwater can return to static conditions in recovery wells that are shut down and recovery wells that have been idle can again be employed to recover oil.

- Recovery well oil skimming will continue with the AC Sipper units and peristaltic pump and tubing assembly. As with the well pump repositioning described above, the AC Sipper oil skimmers will be moved to appropriate recovery wells to collect oil.

- Vacuum truck oil skimming will continue via the recovery trench, with anticipation of higher oil yields, considering the current, lower groundwater condition after the relatively wet summer in the area.

- NRC will schedule another load of oil to be transported from the 4,000-gallon oil storage AST to the disposal/recycling facility in October 2021.

- In early fall 2021, NRC will discuss with the NYSDEC options for weatherproofing the weir and frac tank array, to allow all-season, full operation of the GWT system. If a cost-effective sheltering and heating plan is requested by NYSDEC, NRC with put into action construction of such facilities. If the sheltering and heating plan is not accepted, the weir tank and frac tanks will be winterized.

- NRC will transport the National Grid test pit impacted soil and spent carbon to a licensed landfill for disposal in October 2021.

- Late season operations at the site will include preparations for snow and inclement weather. Wells, culverts, and other site amenities will be marked as necessary, and a loader will be mobilized to the site to plow snow. Insulated boxes will be fabricated at water pipe entry points into the conex and remediation buildings. Once freezing temperatures become consistent, AC Sipper 1 will be turned off and the down-well skimmers removed for cleaning and winter storage.

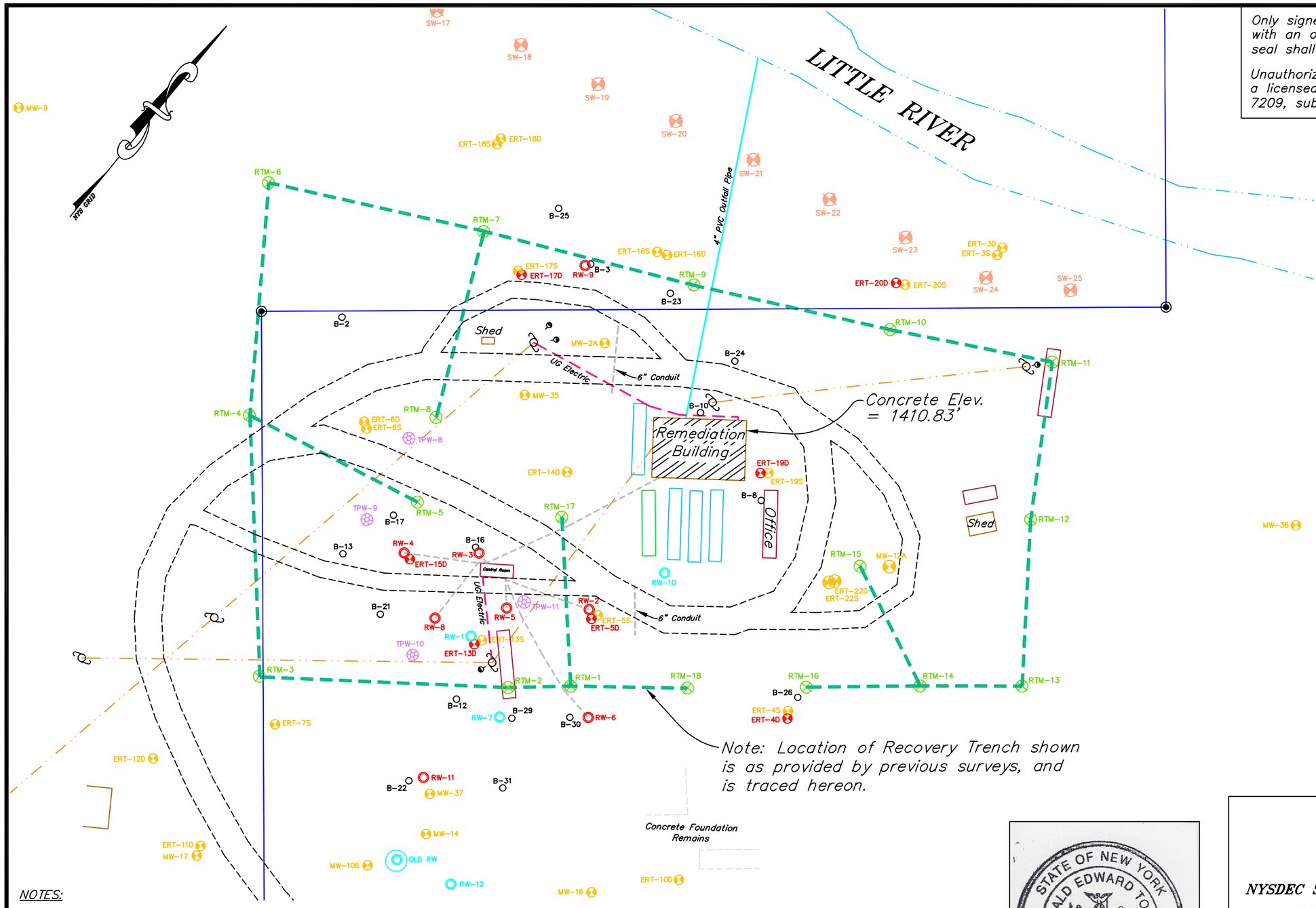
- NRC will prepare a December 2021 Site Summary report, detailing the oil collection, water treatment, and site winterization operations to be conducted during the period of October to December 2021. The report will be submitted to the NYSDEC in January 2022.

Prepared by:

NRC EAST ENVIRONMENTAL SERVICES, INC. / US ECOLOGY
Sean Smith, Project Manager

EXHIBIT A

2021 REMEDIATION PLAN



Only signed copies from the original of this survey marked with an original of the land surveyor's inked or 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, subdivision 2, of the New York State Education Law.

LEGEND

- PARCEL BOUNDARY LINE
- EDGE OF BUILDING
- EDGE OF WATER
- UTILITY LINE AND POLE
- GUY WIRE
- CONEX BOX
- FRAC TANK
- WEIR TANK
- RECOVERY TRENCH
- UTILITY TRENCH
- —W— WATER LINE
- —E— ELECTRIC LINE
- —A/O— AIR/OIL LINES
- 5/8" IRON ROD W/CAP
- MW-35 MONITORING WELL
- ERT-6S MONITORING WELL
- B-2 1" PVC WELL
- RW-1 RECOVERY WELL
- RTM-1 RECOVERY MANHOLE
- SW-25 SENTINEL WELL
- TPW-8 TEST PIT WELL
- RW-2 PRODUCT RECOVERY POINT
- ERT-4D PRODUCT RECOVERY POINT

SHEET 1 OF 2

2021 REMEDIATION PLAN

FORMER J & L STEEL COMPANY

NYSDEC OIL SPILL SITE

NYSDEC SITE NUMBERS 8706728, 645029 & S645029

PREPARED FOR US ECOLOGY & NYSDEC

SITUATE IN:
TOWN OF CLIFTON
COUNTY OF ST. LAWRENCE
STATE OF NEW YORK

DATE: February 22, 2021
SCALE: 1 inch = 60 feet
TAX MAP ID # 214.000-04-22.1
FILE # 121-021

NOTES:

1) This map is based on a field survey completed in January–February 2021 by WCT Surveyors, P.C.
2) Horizontal datum is NAD83 State Plane Grid North. Vertical datum is NAVD88.
3) This survey was completed with significant snow cover and therefore certain site features may not have been visible at the time of survey.
4) The edge of the access roads are shown in an approximate location as plowed at the time of survey.
5) Only utilities visible or known at the time of survey are shown. Additional underground utilities likely exist but are not part of this survey.

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STATE OF NEW YORK
RONALD EDWARD TOWNE
050331
LICENSED LAND SURVEYOR

Only signed copies from the original of this survey marked with an original of the land surveyor's inked or 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, subdivision 2, of the New York State Education Law.

MONITORING WELL					
				Ground	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(top of casing)
MW-2A	2" PVC	1944389.7	361631.0	1408.14	1410.54
MW-9	2" PVC	1944278.8	361279.9	1407.56	1410.44
MW-12A	2" PVC	1944394.3	361842.3	1409.61	1411.44
MW-14	2" PVC	1944102.5	361732.3	1423.70	1425.71
MW-16	2" PVC	1944137.4	361828.7	1426.56	1428.10
MW-17	2" PVC	1944007.7	361637.0	1422.21	1424.79
MW-18	2" PVC	1944011.8	361785.9	1435.60	1438.34
MW-35	2" PVC	1944337.0	361614.3	1407.79	1410.35
MW-36	2" PVC	1944563.7	362010.3	1409.86	1412.54
MW-37	2" PVC	1944122.0	361719.4	1423.23	1425.82
MW-106	2" PVC	1944066.6	361717.9	1423.00	1424.77
ERT-3D	2" PVC	1944580.2	361775.1	1405.44	1407.22
ERT-3S	2" PVC	1944575.3	361776.2	1405.47	1407.36
ERT-4D	2" PVC	1944288.3	361852.9	1412.56	1414.92
ERT-4S	2" PVC	1944292.0	361850.5	1412.56	1414.19
ERT-5D	2" PVC	1944260.4	361727.5	1409.68	1412.13
ERT-5S	2" PVC	1944264.8	361728.6	1409.89	1411.86
ERT-6D	2" PVC	1944265.5	361551.8	1407.75	1410.61
ERT-6S	2" PVC	1944263.0	361555.2	1407.78	1410.61
ERT-7S	2" PVC	1944096.0	361623.8	1416.90	1419.53
ERT-10D	2" PVC	1944175.3	361863.8	1426.28	1429.10
ERT-11D	2" PVC	1944013.6	361635.2	1421.83	1424.52
ERT-12D	2" PVC	1944034.9	361581.4	1418.91	1421.30
ERT-13D	2" PVC	1944206.0	361684.2	1408.47	1411.14
ERT-13S	2" PVC	1944210.5	361686.3	1408.49	1411.46
ERT-14D	2" PVC	1944317.6	361661.9	1407.61	1409.83
ERT-15D	2" PVC	1944220.5	361623.5	1407.45	1409.53
ERT-16D	2" PVC	1944452.7	361626.8	1405.78	1408.17
ERT-16S	2" PVC	1944450.4	361621.0	1406.12	1408.52
ERT-17D	2" PVC	1944390.0	361568.5	1406.38	1408.55
ERT-17S	2" PVC	1944390.5	361565.4	1406.04	1408.45
ERT-18D	2" PVC	1944443.8	361508.6	1404.13	1407.04
ERT-18S	2" PVC	1944439.9	361509.1	1404.18	1406.70
ERT-19D	2" PVC	1944389.3	361749.4	1410.51	1413.48
ERT-19S	2" PVC	1944392.3	361753.1	1410.36	1413.17
ERT-20D	2" PVC	1944525.2	361740.6	1405.93	1408.09
ERT-20S	2" PVC	1944527.9	361745.3	1405.89	1408.14
ERT-22D	2" PVC	1944367.6	361822.8	1410.07	1412.97
ERT-22S	2" PVC	1944365.4	361821.5	1410.13	1413.11

RECOVERY WELL					
				Ground	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(top of casing)
RW-1	6" STEEL	1944208.5	361680.1	1408.57	1410.92
RW-2	6" STEEL	1944264.2	361723.1	1409.63	1411.29
RW-3	6" STEEL	1944249.2	361652.6	1408.45	1410.43
RW-4	6" STEEL	1944221.0	361618.3	1407.33	1409.26
RW-5	6" STEEL	1944234.1	361685.1	1408.22	1411.98
RW-6	6" STEEL	1944215.0	361762.5	1410.00	1413.48
RW-7	6" STEEL	1944182.3	361722.2	1409.50	1411.05
RW-8	6" STEEL	1944202.7	361656.6	1408.02	1408.98
RW-9	6" STEEL	1944417.9	361593.5	1405.70	1407.79
RW-10	6" STEEL	1944308.6	361743.5	1411.01	1412.31
RW-11	6" STEEL	1944126.5	361710.2	1422.38	1423.52
RW-12	6" STEEL	1944088.9	361762.2	1424.03	1426.46
RW-OLD	PVC IN MH	1944079.9	361728.8	1422.57	1420.34

SENTINEL WELL					
				Ground	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(top of casing)
SW-1	6" PVC	1944125.2	360746.1	1409.81	1411.88
SW-2	6" PVC	1944155.9	360785.5	1408.76	1410.97
SW-3	6" PVC	1944196.1	360816.3	1407.41	1409.62
SW-4	6" PVC	1944235.2	360847.2	1406.31	1408.49
SW-5	6" PVC	1944274.6	360876.8	1406.15	1408.84
SW-6	6" PVC	1944310.6	360911.9	1405.46	1407.85
SW-7	6" PVC	1944322.1	360959.3	1405.19	1407.50
SW-8	6" PVC	1944333.6	361007.4	1404.89	1406.98
SW-9	6" PVC	1944345.1	361054.6	1404.87	1406.84
SW-10	6" PVC	1944357.5	361102.1	1405.08	1407.66
SW-11	6" PVC	1944364.3	361135.4	1405.03	1408.12
SW-12	6" PVC	1944382.6	361198.3	1405.26	1407.95
SW-13	6" PVC	1944402.2	361244.7	1404.45	1406.81
SW-14	6" PVC	1944419.5	361287.0	1404.20	1406.94
SW-15	6" PVC	1944439.2	361335.7	1403.42	1406.26
SW-16	6" PVC	1944458.3	361384.6	1403.28	1405.28
SW-17	6" PVC	1944477.9	361432.9	1403.60	1405.85
SW-18	6" PVC	1944493.4	361483.0	1403.72	1405.89
SW-19	6" PVC	1944504.6	361532.4	1403.96	1406.47
SW-20	6" PVC	1944516.7	361581.1	1404.07	1406.64
SW-21	6" PVC	1944527.9	361630.6	1404.18	1406.96
SW-22	6" PVC	1944538.2	361679.5	1403.94	1406.35
SW-23	6" PVC	1944549.1	361727.9	1404.90	1407.63
SW-24	6" PVC	1944560.6	361779.3	1405.37	1407.77
SW-25	6" PVC	1944586.7	361822.3	1404.37	1406.51

RECOVERY MANHOLE					
				Top	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(marker)
RTM-1	MANHOLE	1944222.6	361743.0	1410.69	1410.15
RTM-2	MANHOLE	INSIDE CONEX BOX			
RTM-3	MANHOLE	1944111.7	361598.9	1413.11	1412.49
RTM-4	MANHOLE	1944225.8	361497.8	1410.21	1409.65
RTM-5	MANHOLE	1944248.8	361605.7	1409.02	1408.48
RTM-6	MANHOLE	1944337.8	361420.2	1408.12	1407.60
RTM-7	MANHOLE	1944395.5	361535.3	1406.85	1406.17
RTM-8	MANHOLE	1944293.9	361582.7	1409.53	1408.99
RTM-9	MANHOLE	1944449.2	361650.0	1407.95	1407.43
RTM-10	MANHOLE	1944501.7	361755.0	1408.37	1407.85
RTM-11	MANHOLE	INSIDE CONEX BOX			
RTM-12	MANHOLE	1944468.2	361888.7	1410.63	1410.10
RTM-13	MANHOLE	1944389.8	361946.5	1411.37	1410.87
RTM-14	MANHOLE	1944352.2	361900.5	1411.83	1411.29
RTM-15	MANHOLE	1944383.9	361829.1	1412.10	1411.52
RTM-16	MANHOLE	1944309.5	361849.6	1412.23	1411.67
RTM-17	MANHOLE	1944295.5	361676.4	1411.02	1410.49
RTM-18	MANHOLE	1944265.0	361796.3	1411.25	1410.54

1" PVC MONITORING WELL					
				Ground	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(top of pvc)
B-2	2" PVC	1944304.4	361503.0	1406.93	1410.46
B-3	2" PVC	1944420.6	361595.9	1405.70	1406.49
B-8	2" PVC	1944376.9	361760.3	1410.18	1412.54
B-10	2" PVC	1944393.9	361700.3	1410.48	1411.61
B-12	2" PVC	1944174.1	361696.4	1408.23	1408.23
B-13	2" PVC	1944197.9	361591.2	1408.04	1409.29
B-16	2" PVC	1944249.9	361648.6	1408.25	1410.38
B-17	2" PVC	1944234.3	361599.7	1407.09	1409.60
B-21	2" PVC	1944184.6	361630.1	1408.39	1410.71
B-22	2" PVC	1944120.1	361705.1	1422.40	1424.61
B-23	2" PVC	1944436.8	361642.5	1406.69	1407.94
B-24	2" PVC	1944430.1	361696.6	1409.68	1411.73
B-25	2" PVC	1944433.8	361560.5	1404.55	1406.36
B-26	2" PVC	1944301.7	361849.6	1410.79	1412.85
B-29	2" PVC	1944186.3	361728.4	1409.37	1411.38
B-30	2" PVC	1944208.1	361754.2	1408.98	1410.23
B-31	2" PVC	1944151.6	361750.3	1415.55	1418.92

TEST PIT WELL					
				Ground	Reference
ID	Description	Northing	Easting	Elevation	Elevation
					(top)
TPW-8	48" CMP	1944274.5	361578.1	1407.20	1409.13
TPW-9	48" CMP	1944222.3	361589.4	1407.80	1410.78
TPW-10	48" CMP	1944178.2	361660.1	1408.70	1412.18
TPW-11	48" CMP	1944243.3	361690.8	1407.90	1410.03

PREPARED BY

WCT SURVEYORS, P.C.

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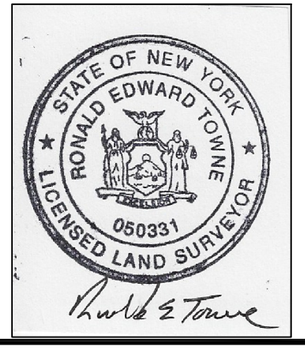

SHEET 2 OF 2

2021 REMEDIATION PLAN

FORMER J & L STEEL COMPANY

NYSDEC OIL SPILL SITE

NYSDEC SITE NUMBERS 8706728, 645029 & S645029

PREPARED FOR US ECOLOGY & NYSDEC

SITUATE IN:
TOWN OF CLIFTON
COUNTY OF ST. LAWRENCE
STATE OF NEW YORK

DATE: February 22, 2021 *SCALE: 1 inch = 60 feet*
TAX MAP ID # 214.000-04-22.1 *FILE # 121-021*

EXHIBIT B

SELECT SITE PHOTOGRAPHS

SELECT SITE PHOTOGRAPHS

PHOTOGRAPH 1: Southerly view of weir tank and frac tanks (foreground), with the "clean water" frac tank and Remediation Building visible in the background.

PHOTOGRAPH 2: View of groundwater treatment system components inside the Remediation Building, including water treatment pumps and control box, bag filter units, and activated carbon vessels. The 4,000-gallon oil storage AST and 18,000-gallon AST are visible.

PHOTOGRAPH 3: View of vacuum truck recovery trench oil/water offloading operations. The weir tank oil recovery tote is in the foreground.

PHOTOGRAPH 4: View down the RTM-2 manhole, depicting vacuum truck oil skimming using a 2-inch vac hose.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

NYSDEC – REGION 6
FORMER J+L STEEL SITE
4669 STATE HIGHWAY 3, STAR LAKE NY
NRC PROJECT NO: 123065
NYSDEC SPILL NO: 8706728

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PHOTOGRAPH 5: Southern view of winter jet pump recovery well water depression operations. RW-2 in the foreground and RW-6 in the background.

PHOTOGRAPH 6: Southwest view of winter peristaltic pump oil recovery operations. RW-3, RW-4, and RW-8 are visible in the photo.

PHOTOGRAPH 7: Northerly view of new treated water discharge line from Remediation building to the Little River, during insulating and backfilling of excavated trench.

PHOTOGRAPH 8: Installation of new electrical supply line from existing pole and panel box to the groundwater pump controls conex building.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

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PHOTOGRAPH 9: Northeast view from pump controls conex to Remediation Building, showing installation of two layers of rigid insulation over the recovery well water transfer pipe.

PHOTOGRAPH 10: East view of installation of RW-4 waterline and submersible pump power and AC Sipper air and oil line conduits.

PHOTOGRAPH 11: RW-5 pitless adapter and water line installation. Waterline and conduits for RW-6 are also visible, coming from the left.

PHOTOGRAPH 12: Westerly view of pump controls conex, depicting waterlines and electrical supply and Sipper air and oil line conduits.

OIL RECOVERY ACTIVITIES
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PHOTOGRAPH 13: Northwest view of backfilled trenches for recovery wells RW-2, RW-6, and RW-6 waterlines and conduits.

PHOTOGRAPH 14: Interior view of conex, showing submersible pump controllers, electrical conduits and incoming waterlines.

PHOTOGRAPH 15: Loading the new 1,150-gallon recovery well water transfer tank into the conex.

PHOTOGRAPH 16: View inside conex showing (left and right) recovery well waterlines, electrical conduits and pump control boxes.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

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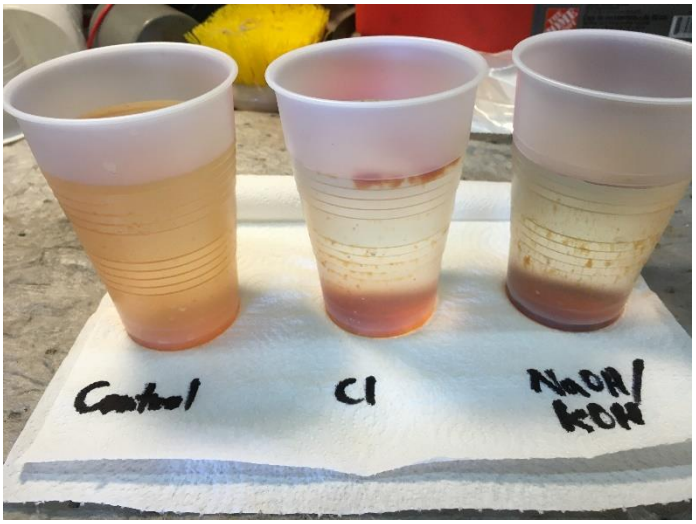
PHOTOGRAPH 17: Westerly view of newly reconnected hoses and initiation of frac tanks for oil/water and iron separation for the 2021 season. The Groundwater depression system pump controls conex building is visible in the background.



PHOTOGRAPH 18: Photograph of recovery well water iron separation bench testing, taken moments after the test was initiated, with control sample and chlorine solution added and sodium hydroxide/potassium hydroxide solution added samples. Note slow oxidation in the control sample and fast settlement of ferric iron in the treated samples.

PHOTOGRAPH 19: April 28, 2021 view of water inlet chamber of weir, showing floating oil and emulsified oil. Ambar belt skimmer is operating in foreground.

PHOTOGRAPH 20: Photo of additional parallel bag filter pair added for use of 1 micron bag filters to prevent iron precipitate from impacting the carbon vessels.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

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PHOTOGRAPH 21: AC Sipper Controller 2 installed in the groundwater depression pump controls conex building.

PHOTOGRAPH 22: Peristaltic pump oil recovery operations at RW-6.

PHOTOGRAPH 23: North view of treated water discharge point at the Little River.

PHOTOGRAPH 24: NRC workers loading carbon from a super sack suspended by an excavator, into a tube auger for elevation of the carbon into the carbon vessel.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

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PHOTOGRAPH 25: Inside view of the tube auger loading activated carbon into carbon vessel number 4.

PHOTOGRAPH 26: view atop weir tank, showing adjacent frac tanks and remediation building.

PHOTOGRAPH 27: September 8, 2021 photo of inlet chamber of weir. The photo shows dark free product introduced primarily by recovery trench pumping and vacuum truck skimming operations.

PHOTOGRAPH 4: Top view of central chamber of the weir tank, depicting the aeration blower/diffuser action, the pump sprayer nozzle, and chlorine injection tube.

OIL RECOVERY ACTIVITIES
DATE: January 2021 – September 2021

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EXHIBIT C

2021 TABULATION OF MONTHLY WATER TREATMENT VOLUMES

J+L Steel Monthly Water Treatment and Discharge Summary

Month	FLOW METER READING AT START/STOP	GALLONS TREATED
JANUARY	4169400	75,400
	4244800	
FEBRUARY	4244800	133,200
	4378000	
MARCH	4378000	688,624
	5066624	
APRIL	5066624	2,109,921
	7176545	
MAY	7176545	2,646,596
	9823141	
JUNE	9823141	562,059
	10385200	
JULY	10385200	1,804,286
	12189486	
AUGUST	12189486	1,801,788
	13991274	
SEPTEMBER	13991274	1,610,626
	15,601,900	
Total Water Treated Through 9/30/2021		**11,**432,500

EXHIBIT D

J&L MONTHLY OIL RECOVERY SUMMARY

NRC East Environmental Services, Inc. (A US Ecology Company)
NYSDEC Region 6 - J+L Steel Spill Remediation Site, Star Lake NY

J&L Steel Monthly Oil Recovery Summary

Month	Date / Year	Rec Wells Total	RTM Vac Skimming	Month Total	Running Total Current Onsite Oil Stored in 4K Tank	Disposal To I.O.
December	12/7-12/31 2020	707.16	200	907.16	1,845	1,977 gallons Trans to I.O. on 1/11/21
January	1/4/-1/27 2021	697.13	301.85	998.98	455	
February	2/1/-2/25 2021	544.37	198.22	742.59	1,188	
March	3/1/21-3/31/21	585.25	127.09	712.34	1,926	
April	4/1/21-4/30/21	563.2	6.85	570.05	2,466	
May	5/1/21-5/31/21	489.27	Oil Collecting	489.27	264	2,882 Gallons Trans to I.O. on 5/12/21
June	6/1/21-6/30/21	359.68	Oil Collecting	359.68	700 approx.	
July	7/1/21-7/31/21	486.55	251.25	737.80	1,635 approx.	
August	8/1/21-8/31/21	387.12	Oil Collecting	387.12	2,078	
September	9/1/21-10/1/21	563.67	165.25	728.92	2,750	

Total Oil Quantities To Date in 2021 (Gallons)

Total Oil Collected	6,022
Total Oil Disposed at I.O. *	4,859
Total Oil Contained onsite in 4K AST	2,750

* Includes approximately 1,587 gallons oil from 2020

EXHIBIT E

J&L STEEL JANUARY TO SEPTEMBER 2021 WATER TREATMENT LOG

NRC East Environmental Services, Inc. (A US Ecology Company)
NYSDEC Region 6 - J+L Steel Spill Remediation Site, Star Lake NY

J+L Steel January to September 2021 Water Treatment Log

DATE	FLOW METER READING AT START/STOP	GALLONS TREATED	Effluent PID READING (PPM)	LAB SAMPLE COLLECTED
1/7/2021	4169400	12,100	0	N
	4181500		0	
1/11/2021	4181500	9,200	0	N
	4190700		0	
1/12/2021	4190700	11,100	0.4	N
	4201800		0.7	
1/13/2021	4201800	11,500	0	N
	4213300		0	
1/18/2021	4213300	10,100	0	N
	4223400		0	
1/19/2021	4223400	11,200	0	N
	4234600		0.4	
1/20/2021	4234600	10,200	0.6	N
	4244800		0	
2/3/2021	4244800	8,200	0	N
	4253000		0.4	
2/4/2021	4253000	8,700	0	N
	4261700		0	
2/5/2021	4261700	10,300	0	N
	4272000		0	
2/8/2021	4272000	6,800	0.3	N
	4278800		1.1	
2/9/2021	4278800	11,200	0	Y
	4290000		0	
2/10/2021	4290000	11,000	0	N
	4301000		0.4	
2/11/2021	4301000	11,000	0	N
	4312000		0.4	
2/15/2021	4312000	11,000	0.75	N
	4323000		0	
2/19/2021	4323000	11,000	0	N
	4334000		0	
2/22/2021	4334000	11,000	0	N
	4345000		0	
2/23/2021	4345000	11,000	0	N
	4356000		0	
2/24/2021	4356000	11,000	0	N
	4367000		0	
2/25/2021	4367000	11,000	0	N
	4378000		0	
3/3/1931	4378000	8,200	0	N
	4386200		0	
3/4/2021	4386200	3,800	0	N
	4390000		0	
3/10/2021	4390000	10,000	0	N
	4400000		0	
3/10/2021 - 4/1/2021	4400000	666,624		N
	5066624			
4/1/2021	5066624	267,376	0	N
	5334000		0	
4/5/2021	5334000	71,000	0	N
	5405000		0	
4/6/2021	5405000	77,000	0	N
	5482000		0	
4/7/2021	5482000	90,000	0	N
	5572000		0	
4/8/2021	5572000	81,500	0	N
	5653500		0	
4/9/2021	5653500	158,200	0	N
	5811700		0	
4/11/2021	5811700	76,300	0	N
	5888000		0	
4/12/2021	5888000	87,200	0	N
	5975200		0	
4/13/2021	5975200	73,600	0	N
	6048800		0	

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NYSDEC Region 6 - J+L Steel Spill Remediation Site, Star Lake NY

J+L Steel January to September 2021 Water Treatment Log

DATE	FLOW METER READING AT START/STOP	GALLONS TREATED	Effluent PID READING (PPM)	LAB SAMPLE COLLECTED
4/14/2021	6048800	90,600	0	N
	6139400		0	
4/15/2021	6139400	83,200	0	N
	6222600		0	
4/16/2021	6222600	85,900	0	N
	6308500		0	
4/17/2021	6308500	211,000	0	N
	6519500		0	
4/20/2021	6519500	135,800	0	N
	6655300		0	
4/22/2021	6655300	60,900	0	N
	6716200		0	
4/23/2021	6716200	134,400	0	N
	6850600		0	
4/24/2021	6850600	61,900	0	N
	6912500		0	
4/26/2021	6912500	67,400	0	N
	6979900		0	
4/27/2021	6979900	58,400	0	N
	7038300		0	
4/28/2021	7038300	66,700	0	N
	7105000		0	
4/29/2021	7105000	71,545	0	N
	7176545		0	
5/3/2021	7176545	165,855	0	N
	7342400		0	
5/4/2021	7342400	62,000	0	N
	7404400		0	
5/5/2021	7404400	144,000	0	Y
	7548400		0	
5/6/2021	7548400	276,300	0	N
	7824700		0	
5/10/2021	7824700	60,500	0	N
	7885200		0	
5/11/2021	7885200	125,300	0	N
	8010500		0	
5/13/2021	8010500	85,300	0	Y
	8095800		0	
5/17/2021 - 6/16/2021	8095800	1,727,341	0	Y (5/20/21, 6/7/21)
	9823141		0	
6/16/2021	9823141	45,201	0	N
	9868342		0	
6/17/2021	9868342	23,413	0	N
	9891755		0	
6/21/2021	9891755	44,489	0	N
	9936244		0	
6/22/2021	9936244	55,656	0	N
	9991900		0	
6/23/2021	9991900	17,699	0	N
	10009599		0	
6/24/2021	10009599	148,482	0	N
	10158081		0	
6/26/2021	10158081	31,919	0	N
	10190000		0	
6/28/2021	10190000	90,552	0	N
	10280552		0	
6/29/2021	10280552	47,862	0	N
	10328414		0	
6/30/2021	10328414	56,786	0	N
	10385200		0	
7/1/2021	10385200	272,855	0	N
	10658055		0	
7/6/2021	10658055	56,492	0	N
	10714547		0	
7/7/2021	10714547	56,736	0	N
	10771283		0	

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J+L Steel January to September 2021 Water Treatment Log

DATE	FLOW METER READING AT START/STOP	GALLONS TREATED	Effluent PID READING (PPM)	LAB SAMPLE COLLECTED
7/8/2021	10771283	73,189	0	N
	10844472		0	
7/9/2021	10844472	148,887	0	N
	10993359		0	
7/12/2021	10993359	58,138	0	N
	11051497		0	
7/13/2021	11051497	40,144	0	N
	11091641		0	
7/14/2021	11091641	58,690	0	Y
	11150331		0	
7/15/2021	11150331	231,657	0	N
	11381988		0	
7/19/2021	11381988	64,037	0	Y
	11446025		0	
7/20/2021	11446025	53,849	0	N
	11499874		0	
7/21/2021	11499874	55,051	0	N
	11554925		0	
7/22/2021	11554925	200,775	0	N
	11755700		0	
7/26/2021	11755700	85,000	0	N
	11840700		0	
7/27/2021	11840700	58,000	0	N
	11898700		0	
7/28/2021	11898700	128,787	0	N
	12027487		0	
7/30/2021	12027487	161,999	0	N
	12189486		0	
8/2/2021	12189486	106,314	0	N
	12295800		0	
8/4/2021	12295800	64,000	0	N
	12359800		0	
8/5/2021 - 8/10/2021	12359800	361,336	0	N
	12721136		0	
8/17/2021	12721136	491,555	0	N
	13212691		0	
8/18/2021	13212691	66,609	0	N
	13279300		0	
8/19/2021	13279300	82,900	0	N
	13362200		0	
8/20/2021	13362200	89,400	0	N
	13451600		0	
8/21/2021	13451600	11,132	0	N
	13462732		0	
8/23/2021	13462732	76,463	0	N
	13539195		0	
8/24/2021	13539195	185,305	0	N
	13724500		0	
8/25/2021 - 8/28/2021	13724500	56,800	0	N
	13781300		0	
8/30/2021	13781300	140,584	0	N
	13921884		0	
8/31/2021	13921884	69,390	0	N
	13991274		0	
9/1/2021	13991274	58,791	0	N
	14050065		0	
9/2/2021	14050065	71,108	0	N
	14121173		0	
9/3/2021	14121173	66,953	0	N
	14188126		0	
9/6/2021	14188126	158,203	0	N
	14346329		0	
9/7/2021	14346329	44,629	0	Y
	14390958		0	
9/8/2021	14390958	46,321	0	Y
	14437279		0	

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J+L Steel January to September 2021 Water Treatment Log

DATE	FLOW METER READING AT START/STOP	GALLONS TREATED	Effluent PID READING (PPM)	LAB SAMPLE COLLECTED
9/15/2021	14437279	272,201	0	N
	14709480		0	
9/20/2021	14709480	230,310	0	N
	14939790		0	
9/21/2021	14939790	51,211	0	N
	14991001		0	
9/22/2021	14991001	78,238	0	N
	15069239		0	
9/23/2021	15069239	80,954	0	N
	15150193		0	
9/24/2021	15150193	65,111	0	N
	15215304		0	
9/26/2021	15215304	138,003	0	N
	15353307		0	
9/27/2021	15353307	70,984	0	N
	15424291		0	
9/29/2021	15424291	111,809	0	N
	15536100		0	
9/30/2021	15536100	65,800	0	N
	15601900		0	
	Total Flow	**11,432,500**		

EXHIBIT F

Benson Seep Test Pit Location Map
and
2018 and 2021 Test Pit Photographs

Map created using high resolution imagery data from NY state, sampling data in 2015, 2016.

Map Creation Date: 13 June 2017

Coordinate system: State Plane New York East
FIPS: 3101
Datum: NAD83
Units: Feet

MXD file: g:\arcinfoprojects\SERAS01\SER00245_JnL_SteelFuelOilSite\CSM_Report_2017\SEC5\245_CSM2017_SEC5_Historical_Newly_Installed_MW_f5-2.mxd

0 200 400
Feet

U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
EP-W-09-031
W.A.# SERAS-245

Benson Seep Test Pit Locations Map

J & L Steel Fuel Oil Site
Clifton, New York

September 2018 Benson Seep Test Pit Photographs; TP-1 and TP-2

PHOTOGRAPH 1: Westerly view of Benson Seep test pit TP-1, depicting gravelly soil with large, angular rock fragments and grey, petroleum-stained soil at the bottom of the excavation. The Little River is immediately south (left) of the excavation.

PHOTOGRAPH 2: Southwest view of TP-1 depicting its proximity to the Little River at the location of the Benson Seep.

PHOTOGRAPH 4: South view of the TP-2 excavation, approximately 25 feet east of TP-1. Dark brown stained soil is visible at the bottom of the excavation, near river level.

Test Pit Excavation Photos
DATE: MAY 25, 2021

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September 2021 Benson Seep Test Pit Photographs; TP-3

PHOTOGRAPH 1: Northwest view of test pit TP-3 upon contacting the groundwater saturation depth.

PHOTOGRAPH 2: Southwest view of TP-3 with excavated groundwater saturated soil pile in foreground.

PHOTOGRAPH 3: View into the depth of TP-3. Frequent cave-ins occurred due to groundwater saturation and loose, sand and gravel soil.

PHOTOGRAPH 4: Southwest View of backfilled TP-3 excavation.

Test Pit Excavation Photos
DATE: MAY 25, 2021

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September 2021 Benson Seep Test Pit Photographs; TP-4

PHOTOGRAPH 1: Northerly view of test pit TP-4. Groundwater saturation resulted in cave-ins during the excavation process.

PHOTOGRAPH 2: View of TP-4 showing the various soil strata, including miscellaneous fill materials deposited during historical mine operations.

PHOTOGRAPH 3: Southwest view of the TP-4 restoration area.

Test Pit Excavation Photos
DATE: MAY 25, 2021

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September 2021 Benson Seep Test Pit Photographs; TP-5

PHOTOGRAPH 1: Westerly view of test pit TP-5 excavation. The Little River's north bank is located immediately left of the photo.

PHOTOGRAPH 2: Easterly view of TP-5, showing excavated sands and gravels with cobbles. The Little River is visible in the background.

PHOTOGRAPH 3: Evidence of **"**marsh mat" material encountered at approximately 11.5 feet below grade in the TP-5 excavation.

PHOTOGRAPH 4: Westerly view of restored TP-5 area. The Little River is visible in the background.

Test Pit Excavation Photos
DATE: MAY 25, 2021

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EXHIBIT G

National Grid Test Pit Location Map

Map created using high resolution imagery data from NY state, sampling data in 2015, 2016.

Map Creation Date: 13 June 2017

Coordinate system: State Plane New York East
FIPS: 3101
Datum: NAD83
Units: Feet

MXD file: g:\arcinfoprojects\SERAS01\SER00245_JnL_SteelFuelOilSite\CSM_Report_2017\SEC5\245_CSM2017_SEC5_Historical_Newly_Installed_MW_f5-2.mxd

0 200 400 Feet

U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
EP-W-09-031
W.A.# SERAS-245

National Grid Test Pit Locations Map

J & L Steel Fuel Oil Site
Clifton, New York

EXHIBIT H

Monitoring Well Decommissioning Map,
Monitoring Well Gauging Log,
and
Well Abandonment Data Table

Map created using high resolution imagery data from NY state, sampling data in 2015, 2016.

Map Creation Date: 13 June 2017

Coordinate system: State Plane New York East
FIPS: 3101
Datum: NAD83
Units: Feet

MXD file: g:\arcinfoprojects\SERAS01\SER00245_JnL_SteelFuelOilSite\CSM_Report_2017\SEC5\245_CSM2017_SEC5_Historical_Newly_Installed_MW_f5-2.mxd

0 200 400 Feet

U.S. EPA Environmental Response Team
Scientific Engineering Response and Analytical Services
EP-W-09-031
W.A.# SERAS-245

Monitoring Well Decommissioning Map

J & L Steel Fuel Oil Site
Clifton, New York

J&L Steel Monitoring Well Gauging Log Period: 5/24/21- 5/27/21

NRC Representative: Andrew Bender

Depths measured from top of well casing (PVC or Stainless Steel)

Well ID:	Oil Present (Y/N)	DTW (ft.)	Observations
MW-19	N	34.6	Rusty film- no sheen, no odor.
MW-105	N	34.9	Clear water, no odor.
A*	N	33.8	Not mapped. Clear water, no odor.
MW-101	N	39.2	Rusty film- no sheen, no odor.
MW-20	N	36.4	Clear water, sulfur odor.
B*	N	34.4	Not mapped. Rusty film, no odor.
ERT-9D	N	35.8	Clear water, no odor.
MW-30	N	37.3	Clear water, no odor.
MW-31	N	36.8	Clear water, no odor.
MW-32	N	37.4	Clear water, no odor.
MW-5	N	37.1	Rusty film- no sheen, no odor.
MWS-2MH	N	15.7	Double casing. Clear water, no odor
MW-17	N	16.8	Steel casing pulled, no interior well.
MW-21	N	19.8	Rusty film- no sheen, sulfur odor.
C*	N	8.7	Not mapped. Clear water, no odor.
MW-13	N	17.6	Rusty film- no sheen, sulfur odor.
MW-109	N	18.2	Clear water, no odor.
MW-104	N	16.0	Clear water, no odor.
ERT-1S	N	7.3	Clear water, no odor.
ERT-1D	N	7.1	Clear water, no odor.
MW-103	N	9.5	Rusty film- no sheen, sulfur odor.
MW-22	N	10.6	Clear water, slight sulfur odor.
ERT-2S	N	7.5	Rusty film- no sheen, no odor.
ERT-2D	N	6.7	Dark tint, petrol odor. Kept well.
MW-8	N	12.5	4" well. Rusty film, no odor.
MW-35	N	13.75	Rusty film- no sheen, no odor.
MW-2A	N	10.5	Rusty film- no sheen, no odor.
MW-12A	N	9.0	Clear water, no odor.

J & L Steel Monitoring Well Decommissioning Table 5/24/2021 to 5/27/2021				
KEY:	Decommissioned Well	Well Not Decommissioned due to well damage, or missing.		
Well Identification	Well depths measured from top of well casing (PVC or Stainless)			
	Well Depth (ft-TOC)	**Well Volume (cu.ft)**	**Bentonite Required (lbs.)**	**Amount Used (Est lbs.)**
ERT-1 S	11.80	0.26	18.88	15.00
ERT-1 D	23.20	0.51	37.12	30.00
ERT-2 S	9.50	0.21	15.20	15.00
ERT-2 D	Well Remains in Service			
ERT-3 S	Well Remains in Service			
ERT-3 D	Well Remains in Service			
ERT-4 S	Well Remains in Service			
ERT-4 D	Well Remains in Service			
ERT-5 S	Well Remains in Service			
ERT-5 D	Well Remains in Service			
ERT-6 S	Well Remains in Service			
ERT-6 D	Well Remains in Service			
ERT-7 S	Well Remains in Service			
ERT-8 D	Damaged			
ERT-9 D	50.00	1.09	80.00	75.00
ERT-10 D	Well Remains in Service			
ERT-11 D	Well Remains in Service			
ERT-12 D	Well Remains in Service			
ERT-13 S	Well Remains in Service			
ERT-13 D	Well Remains in Service			
ERT-14 D	Well Remains in Service			
ERT-15 D	Well Remains in Service			
ERT-16 S	Well Remains in Service			
ERT-16 D	Well Remains in Service			
ERT-17 S	Well Remains in Service			
ERT-17 D	Well Remains in Service			
ERT-18 S	Well Remains in Service			
ERT-18 D	Well Remains in Service			
ERT-19 S	Well Remains in Service			
ERT-19 D	Well Remains in Service			
ERT-20 S	Well Remains in Service			

ERT-20 D	Well Remains in Service			
ERT-21 D	Well Remains in Service			
ERT-22 S	Well Remains in Service			
ERT-22 D	Well Remains in Service			
ERT-23 D	Well Remains in Service			
MW 3	Not Located			
MW 5	Damaged			
MW 6A	9.90	0.22	15.84	Kept
MW 7	17.10	0.37	27.36	Kept
MW 8	18.20	0.40	29.12	60.00
MW 9	Well Remains in Service			
MW 10	Not Located			
MW 11	Well Remains in Service			
MW 12A	Well Remains in Service			
MW 13	35.90	0.78	57.44	55.00
MW 14	Well Remains in Service			
MW 15	Well Remains in Service			
MW 16	Well Remains in Service			
MW 17	Damaged			
MW 18	Well Remains in Service			
MW 19	44.40	0.97	71.04	70.00
MW 20	44.70	0.97	71.52	70.00
MW 21	34.10	0.74	54.56	50.00
MW 22	15.30	0.33	24.48	25.00
MW 23	Damaged			
MW 28	Not Located			
MW 29	Well Remains in Service			
MW 30	40.60	0.89	64.96	65.00
MW 31	42.10	0.92	67.36	65.00
MW 32	42.20	0.92	67.52	70.00
MW 33	Well Remains in Service			
MW 34	Well Remains in Service			
MW 35	14.50	0.32	23.20	25.00
MW 36	Well Remains in Service			
MW 37	Well Remains in Service			
MW 101	44.50	0.97	71.20	65.00
MW 102	Damaged			

MW 103	19.30	0.42	30.88	25.00
MW 104	19.50	0.43	31.20	25.00
MW 105	39.40	0.86	63.04	60.00
MW 109	34.10	0.74	54.56	50.00
A*	65	1.42	104.00	100.00
B*	33.5	0.73	53.60	50.00
MWS2-MH	25.5	0.56	40.80	30.00
C*	12	0.26	19.20	15.00
MW-2A	14	0.31	22.40	25.00

EXHIBIT I

Laboratory Analytical Reports
and
Sample Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-178992-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
317 Washington Street
Watertown, New York 13601

Attn: Mr. Matt W Duffany

Authorized for release by:
12/14/2020 10:18:21 AM
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Wyatt Watson
Project Management Assistant I
12/14/2020 10:18:21 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-178992-1

Job ID: 480-178992-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-178992-1

Comments
No additional comments.

Receipt
The samples were received on 12/4/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Pre-Treatment (480-178992-1), Secondary-Treatment (480-178992-2), Tertiary-Treatment (480-178992-3) and Post-Treatment (480-178992-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-178992-1
Date Collected: 11/30/20 08:05
Matrix: Water
Date Received: 12/04/20 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.2		1.0	0.43	ug/L			12/08/20 04:53	1
Ethylbenzene	9.1		1.0	0.30	ug/L			12/08/20 04:53	1
m,p-Xylene	31		1.0	0.30	ug/L			12/08/20 04:53	1
Methyl tert-butyl ether	3.3		1.0	0.20	ug/L			12/08/20 04:53	1
Naphthalene	59		1.0	0.68	ug/L			12/08/20 04:53	1
o-Xylene	7.6		1.0	0.36	ug/L			12/08/20 04:53	1
Toluene	4.2		1.0	0.38	ug/L			12/08/20 04:53	1
Xylenes, Total	39		2.0	0.65	ug/L			12/08/20 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*60 - 140*		*12/08/20 04:53*	*1*
4-Bromofluorobenzene	*88*		*60 - 140*		*12/08/20 04:53*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*12/08/20 04:53*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*12/08/20 04:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6	HF	0.1	0.1	SU			12/11/20 14:57	1
Temperature	22.0	HF	0.001	0.001	Degrees C			12/11/20 14:57	1

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-178992-2
Date Collected: 11/30/20 07:53
Matrix: Water
Date Received: 12/04/20 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.3		1.0	0.43	ug/L			12/08/20 05:16	1
Ethylbenzene	4.5		1.0	0.30	ug/L			12/08/20 05:16	1
m,p-Xylene	14		1.0	0.30	ug/L			12/08/20 05:16	1
Methyl tert-butyl ether	2.9		1.0	0.20	ug/L			12/08/20 05:16	1
Naphthalene	22		1.0	0.68	ug/L			12/08/20 05:16	1
o-Xylene	4.6		1.0	0.36	ug/L			12/08/20 05:16	1
Toluene	2.2		1.0	0.38	ug/L			12/08/20 05:16	1
Xylenes, Total	18		2.0	0.65	ug/L			12/08/20 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*12/08/20 05:16*	*1*
4-Bromofluorobenzene	*92*		*60 - 140*		*12/08/20 05:16*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*12/08/20 05:16*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*12/08/20 05:16*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF	0.1	0.1	SU			12/11/20 14:59	1
Temperature	22.0	HF	0.001	0.001	Degrees C			12/11/20 14:59	1

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-178992-3
Date Collected: 11/30/20 07:45
Matrix: Water
Date Received: 12/04/20 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.9		1.0	0.43	ug/L			12/08/20 05:38	1
Ethylbenzene	1.4		1.0	0.30	ug/L			12/08/20 05:38	1
m,p-Xylene	4.0		1.0	0.30	ug/L			12/08/20 05:38	1
Methyl tert-butyl ether	2.5		1.0	0.20	ug/L			12/08/20 05:38	1
Naphthalene	6.5		1.0	0.68	ug/L			12/08/20 05:38	1
o-Xylene	1.5		1.0	0.36	ug/L			12/08/20 05:38	1
Toluene	0.56	J	1.0	0.38	ug/L			12/08/20 05:38	1
Xylenes, Total	5.6		2.0	0.65	ug/L			12/08/20 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*12/08/20 05:38*	*1*
4-Bromofluorobenzene	*97*		*60 - 140*		*12/08/20 05:38*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*12/08/20 05:38*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*12/08/20 05:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3	HF	0.1	0.1	SU			12/11/20 15:00	1
Temperature	22.0	HF	0.001	0.001	Degrees C			12/11/20 15:00	1

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Post-Treatment
Lab Sample ID: 480-178992-4
Date Collected: 11/30/20 07:37
Matrix: Water
Date Received: 12/04/20 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.43	ug/L			12/08/20 12:55	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/08/20 12:55	1
m,p-Xylene	ND		1.0	0.30	ug/L			12/08/20 12:55	1
Methyl tert-butyl ether	**1.1**		1.0	0.20	ug/L			12/08/20 12:55	1
Naphthalene	**0.91**	**J**	1.0	0.68	ug/L			12/08/20 12:55	1
o-Xylene	ND		1.0	0.36	ug/L			12/08/20 12:55	1
Toluene	ND		1.0	0.38	ug/L			12/08/20 12:55	1
Xylenes, Total	ND		2.0	0.65	ug/L			12/08/20 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*		*12/08/20 12:55*	*1*
4-Bromofluorobenzene	*94*		*60 - 140*		*12/08/20 12:55*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*12/08/20 12:55*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*12/08/20 12:55*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.1**	**HF**	0.1	0.1	SU			12/11/20 15:01	1
Temperature	**22.0**	**HF**	0.001	0.001	Degrees C			12/11/20 15:01	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-178992-1
Date Collected: 11/30/20 08:05
Matrix: Water
Date Received: 12/04/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745119	12/08/20 04:53	MZS	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	562977	12/11/20 14:57	KMF	TAL BUF

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-178992-2
Date Collected: 11/30/20 07:53
Matrix: Water
Date Received: 12/04/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745119	12/08/20 05:16	MZS	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	562977	12/11/20 14:59	KMF	TAL BUF

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-178992-3
Date Collected: 11/30/20 07:45
Matrix: Water
Date Received: 12/04/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745119	12/08/20 05:38	MZS	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	562977	12/11/20 15:00	KMF	TAL BUF

Client Sample ID: Post-Treatment
Lab Sample ID: 480-178992-4
Date Collected: 11/30/20 07:37
Matrix: Water
Date Received: 12/04/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745253	12/08/20 12:55	MZS	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	562977	12/11/20 15:01	KMF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene

Method Summary

Client: New York State D.E.C.
Job ID: 480-178992-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-178992-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-178992-1	Pre-Treatment	Water	11/30/20 08:05	12/04/20 10:00	
480-178992-2	Secondary-Treatment	Water	11/30/20 07:53	12/04/20 10:00	
480-178992-3	Tertiary-Treatment	Water	11/30/20 07:45	12/04/20 10:00	
480-178992-4	Post-Treatment	Water	11/30/20 07:37	12/04/20 10:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Rob SANDERSON	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150670-33454.1
Client Contact: Danielle Benati	Phone: 315-244-8506	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: NRC Environmental Services				Job #: 123056

Address: 63 Trade Road	Due Date Requested:	
City: Massena	TAT Requested (days): 3 Day TAT	
State, Zip: NY, 13662		
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079	
Email: ~~dbenati@nrec.com~~ Sean.Smith@usecology.com	WO #:	
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
Pre-Treatment	11/30/20	8:05	G	Water			X	X		
Secondary-Treatment	11/30/20	7:57	G	Water			X	X		
Tertiary-Treatment	11/30/20	7:45	G	Water			X	X		
Post-Treatment	11/30/20	7:37	G	Water			X	X		

480-178992 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Robert SANDERSON	11/30/20 15:20	USE	Received by: USE Fridge	11/30/20 17:00	USE
Relinquished by: Sean Smith NRC/USE	12/3/20 15:30	USE	Received by: Fed Ex Shipper	12/3/20 15:30	Fed Ex
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 12/4/20 1000	Company TAS

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.4

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-60759.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-178992-1
Address: 777 New Durham Road, ,	Due Date Requested: 12/17/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC/624_Prep (MOD) Pick a reference price	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Pre-Treatment (480-178992-1)	11/30/20	08:05 Eastern		Water			X	3	
Secondary-Treatment (480-178992-2)	11/30/20	07:53 Eastern		Water			X	3	
Tertiary-Treatment (480-178992-3)	11/30/20	07:45 Eastern		Water			X	3	
Post-Treatment (480-178992-4)	11/30/20	07:37 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Matthew Cikolb	12/4/20 1700	TA	(Fedex)	12/5/20 1100	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 142723, 210, 211	Cooler Temperature(s) °C and Other Remarks: IR 1 1.1°C 0.9 0.5

Ver: 11/01/2020

12/14/2020

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-178992-1

Login Number: 178992 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-178992-1

Login Number: 178992
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 12/07/20 01:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1427213, 1427210, 1427211
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1, 0.9, 0.5°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-181041-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
317 Washington Street
Watertown, New York 13601

Attn: Mr. Matt W Duffany

Authorized for release by:
2/18/2021 6:06:42 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Judy Stone
Senior Project Manager
2/18/2021 6:06:42 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-181041-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-181041-1

Receipt
The samples were received on 2/10/2021 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

GC/MS VOA
Method 624.1: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Post-Treatment (480-181041-4). Elevated reporting limits (RLs) are provided.

Method 624.1: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Treatment (480-181041-1). Elevated reporting limits (RLs) are provided.

Method 624.1: The following samples were diluted due to the nature of the sample matrix: Secondary-Treatment (480-181041-2) and Tertiary-Treatment (480-181041-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Pre-Treatment (480-181041-1), Secondary-Treatment (480-181041-2), Tertiary-Treatment (480-181041-3) and Post-Treatment (480-181041-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-181041-1
Date Collected: 02/09/21 07:15
Matrix: Water
Date Received: 02/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.3**	**J**	20	2.4	ug/L			02/11/21 13:11	4
Ethylbenzene	**8.2**	**J**	20	1.9	ug/L			02/11/21 13:11	4
m,p-Xylene	**81**		40	4.3	ug/L			02/11/21 13:11	4
Methyl tert-butyl ether	ND		20	1.4	ug/L			02/11/21 13:11	4
Naphthalene	**220**		20	0.44	ug/L			02/11/21 13:11	4
o-Xylene	**15**	**J**	20	1.7	ug/L			02/11/21 13:11	4
Toluene	ND		20	1.8	ug/L			02/11/21 13:11	4
Xylenes, Total	**96**		40	4.3	ug/L			02/11/21 13:11	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 130*		*02/11/21 13:11*	*4*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*02/11/21 13:11*	*4*
Toluene-d8 (Surr)	*101*		*77 - 120*		*02/11/21 13:11*	*4*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*02/11/21 13:11*	*4*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.7**	**HF**	0.1	0.1	SU			02/16/21 10:38	1
Temperature	**21.7**	**HF**	0.001	0.001	Degrees C			02/16/21 10:38	1

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-181041-2
Date Collected: 02/09/21 07:05
Matrix: Water
Date Received: 02/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.5	J	10	1.2	ug/L			02/11/21 13:35	2
Ethylbenzene	1.8	J	10	0.93	ug/L			02/11/21 13:35	2
m,p-Xylene	12	J	20	2.2	ug/L			02/11/21 13:35	2
Methyl tert-butyl ether	ND		10	0.71	ug/L			02/11/21 13:35	2
Naphthalene	19		10	0.22	ug/L			02/11/21 13:35	2
o-Xylene	4.6	J	10	0.86	ug/L			02/11/21 13:35	2
Toluene	ND		10	0.91	ug/L			02/11/21 13:35	2
Xylenes, Total	17	J	20	2.2	ug/L			02/11/21 13:35	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 130*		*02/11/21 13:35*	*2*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*02/11/21 13:35*	*2*
Toluene-d8 (Surr)	*96*		*77 - 120*		*02/11/21 13:35*	*2*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*02/11/21 13:35*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.8	HF	0.1	0.1	SU			02/16/21 10:39	1
Temperature	21.7	HF	0.001	0.001	Degrees C			02/16/21 10:39	1

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-181041-3
Date Collected: 02/09/21 06:53
Matrix: Water
Date Received: 02/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.7**	**J**	10	1.2	ug/L			02/11/21 13:58	2
Ethylbenzene	ND		10	0.93	ug/L			02/11/21 13:58	2
m,p-Xylene	**3.9**	**J**	20	2.2	ug/L			02/11/21 13:58	2
Methyl tert-butyl ether	ND		10	0.71	ug/L			02/11/21 13:58	2
Naphthalene	**5.7**	**J**	10	0.22	ug/L			02/11/21 13:58	2
o-Xylene	**1.6**	**J**	10	0.86	ug/L			02/11/21 13:58	2
Toluene	ND		10	0.91	ug/L			02/11/21 13:58	2
Xylenes, Total	**5.5**	**J**	20	2.2	ug/L			02/11/21 13:58	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*02/11/21 13:58*	*2*
4-Bromofluorobenzene (Surr)	*95*		*76 - 123*		*02/11/21 13:58*	*2*
Toluene-d8 (Surr)	*95*		*77 - 120*		*02/11/21 13:58*	*2*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*02/11/21 13:58*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.8**	**HF**	0.1	0.1	SU			02/16/21 10:40	1
Temperature	**21.8**	**HF**	0.001	0.001	Degrees C			02/16/21 10:40	1

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Post-Treatment
Lab Sample ID: 480-181041-4
Date Collected: 02/09/21 06:44
Matrix: Water
Date Received: 02/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		10	1.2	ug/L			02/11/21 14:22	2
Ethylbenzene	ND		10	0.93	ug/L			02/11/21 14:22	2
m,p-Xylene	ND		20	2.2	ug/L			02/11/21 14:22	2
Methyl tert-butyl ether	ND		10	0.71	ug/L			02/11/21 14:22	2
Naphthalene	ND		10	0.22	ug/L			02/11/21 14:22	2
o-Xylene	ND		10	0.86	ug/L			02/11/21 14:22	2
Toluene	ND		10	0.91	ug/L			02/11/21 14:22	2
Xylenes, Total	ND		20	2.2	ug/L			02/11/21 14:22	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*68 - 130*		*02/11/21 14:22*	*2*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*		*02/11/21 14:22*	*2*
Toluene-d8 (Surr)	*99*		*77 - 120*		*02/11/21 14:22*	*2*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*02/11/21 14:22*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.8**	**HF**	0.1	0.1	SU			02/16/21 10:42	1
Temperature	**21.8**	**HF**	0.001	0.001	Degrees C			02/16/21 10:42	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-181041-1

Date Collected: 02/09/21 07:15
Matrix: Water
Date Received: 02/10/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		4	569099	02/11/21 13:11	WJD	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	569677	02/16/21 10:38	KEB	TAL BUF

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-181041-2

Date Collected: 02/09/21 07:05
Matrix: Water
Date Received: 02/10/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		2	569099	02/11/21 13:35	WJD	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	569677	02/16/21 10:39	KEB	TAL BUF

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-181041-3

Date Collected: 02/09/21 06:53
Matrix: Water
Date Received: 02/10/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		2	569099	02/11/21 13:58	WJD	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	569677	02/16/21 10:40	KEB	TAL BUF

Client Sample ID: Post-Treatment
Lab Sample ID: 480-181041-4

Date Collected: 02/09/21 06:44
Matrix: Water
Date Received: 02/10/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		2	569099	02/11/21 14:22	WJD	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	569677	02/16/21 10:42	KEB	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: New York State D.E.C.
Job ID: 480-181041-1
Project/Site: J&L Steel #8706728 PIN 97403

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-181041-1	Pre-Treatment	Water	02/09/21 07:15	02/10/21 09:30	
480-181041-2	Secondary-Treatment	Water	02/09/21 07:05	02/10/21 09:30	
480-181041-3	Tertiary-Treatment	Water	02/09/21 06:53	02/10/21 09:30	
480-181041-4	Post-Treatment	Water	02/09/21 06:44	02/10/21 09:30	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Rob Sanderson	Lab PM: Stone, Judy L	Carrier Tracking No(s):
Client Contact: ~~Danielle Benati~~ Sean Smith	Phone: 315-764-1917	E-Mail: Judy.Stone@Eurofinset.com	COC No: 480-150672-33454.1
Company: NRC Environmental Services / US Ecology			Page: Page 1 of 1
Address: 63 Trade Road	Due Date Requested:		Job #: 123065
City: Massena	TAT Requested (days): Normal		
State, Zip: NY, 13662			
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079		
Email: ~~dbenati@nrcc.com~~ Sean.Smith@usecology.com	WO #:		
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622		
Site:	SSOW#:		

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A	N		
Pre-Treatment	2/9/21	0715	G	Water			X	X		
Secondary-Treatment	2/9/21	0705	G	Water			X	X		
Tertiary-Treatment	2/9/21	0653	G	Water			X	X		
Post-Treatment	2/9/21	0644	G	Water			X	X		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

480-181041 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Robert Sanderson	2/9/21 14:30	USE	~~USE~~ FedEx	2/9/21 1630	USE
			[signature]	2/10/21 0930	TAS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #1 2.4

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-181041-1

Login Number: 181041

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-184291-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
5/13/2021 4:39:05 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Judy Stone
Senior Project Manager
5/13/2021 4:39:05 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-184291-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-184291-1

Receipt
The samples were received on 5/6/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Pre-Treatment (480-184291-1), Secondary-Treatment (480-184291-2), Tertiary-Treatment (480-184291-3) and Post-Treatment (480-184291-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-184291-1
Date Collected: 05/05/21 11:34
Matrix: Water
Date Received: 05/06/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.8**		1.0	0.43	ug/L			05/12/21 09:23	1
Ethylbenzene	ND		1.0	0.30	ug/L			05/12/21 09:23	1
m,p-Xylene	ND		1.0	0.30	ug/L			05/12/21 09:23	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/12/21 09:23	1
Naphthalene	ND		1.0	0.68	ug/L			05/12/21 09:23	1
o-Xylene	ND		1.0	0.36	ug/L			05/12/21 09:23	1
Toluene	ND		1.0	0.38	ug/L			05/12/21 09:23	1
Xylenes, Total	ND		2.0	0.65	ug/L			05/12/21 09:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*60 - 140*		*05/12/21 09:23*	*1*
4-Bromofluorobenzene	*109*		*60 - 140*		*05/12/21 09:23*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*05/12/21 09:23*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*05/12/21 09:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.4**	**HF**	0.1	0.1	SU			05/13/21 12:25	1
Temperature	**17.7**	**HF**	0.001	0.001	Degrees C			05/13/21 12:25	1

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-184291-2
Date Collected: 05/05/21 11:21
Matrix: Water
Date Received: 05/06/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.1**		1.0	0.43	ug/L			05/11/21 23:30	1
Ethylbenzene	**18**		1.0	0.30	ug/L			05/11/21 23:30	1
m,p-Xylene	**15**		1.0	0.30	ug/L			05/11/21 23:30	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 23:30	1
Naphthalene	**52**		1.0	0.68	ug/L			05/11/21 23:30	1
o-Xylene	**5.6**		1.0	0.36	ug/L			05/11/21 23:30	1
Toluene	**1.6**		1.0	0.38	ug/L			05/11/21 23:30	1
Xylenes, Total	**20**		2.0	0.65	ug/L			05/11/21 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*60 - 140*		*05/11/21 23:30*	*1*
4-Bromofluorobenzene	*109*		*60 - 140*		*05/11/21 23:30*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*05/11/21 23:30*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*05/11/21 23:30*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.4**	**HF**	0.1	0.1	SU			05/13/21 12:28	1
Temperature	**17.7**	**HF**	0.001	0.001	Degrees C			05/13/21 12:28	1

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-184291-3
Date Collected: 05/05/21 11:14
Matrix: Water
Date Received: 05/06/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.6**		1.0	0.43	ug/L			05/11/21 23:05	1
Ethylbenzene	**16**		1.0	0.30	ug/L			05/11/21 23:05	1
m,p-Xylene	**27**		1.0	0.30	ug/L			05/11/21 23:05	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 23:05	1
Naphthalene	**100**		1.0	0.68	ug/L			05/11/21 23:05	1
o-Xylene	**5.8**		1.0	0.36	ug/L			05/11/21 23:05	1
Toluene	**1.4**		1.0	0.38	ug/L			05/11/21 23:05	1
Xylenes, Total	**33**		2.0	0.65	ug/L			05/11/21 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*60 - 140*		*05/11/21 23:05*	*1*
4-Bromofluorobenzene	*108*		*60 - 140*		*05/11/21 23:05*	*1*
Toluene-d8 (Surr)	*96*		*60 - 140*		*05/11/21 23:05*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*05/11/21 23:05*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.4**	**HF**	0.1	0.1	SU			05/13/21 12:31	1
Temperature	**17.6**	**HF**	0.001	0.001	Degrees C			05/13/21 12:31	1

Client Sample ID: Post-Treatment
Lab Sample ID: 480-184291-4
Date Collected: 05/05/21 11:08
Matrix: Water
Date Received: 05/06/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.4**		1.0	0.43	ug/L			05/11/21 22:39	1
Ethylbenzene	**13**		1.0	0.30	ug/L			05/11/21 22:39	1
m,p-Xylene	**28**		1.0	0.30	ug/L			05/11/21 22:39	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 22:39	1
Naphthalene	**87**		1.0	0.68	ug/L			05/11/21 22:39	1
o-Xylene	**5.1**		1.0	0.36	ug/L			05/11/21 22:39	1
Toluene	**1.3**		1.0	0.38	ug/L			05/11/21 22:39	1
Xylenes, Total	**33**		2.0	0.65	ug/L			05/11/21 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*60 - 140*		*05/11/21 22:39*	*1*
4-Bromofluorobenzene	*109*		*60 - 140*		*05/11/21 22:39*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*05/11/21 22:39*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*05/11/21 22:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.5**	**HF**	0.1	0.1	SU			05/13/21 12:34	1
Temperature	**17.7**	**HF**	0.001	0.001	Degrees C			05/13/21 12:34	1

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: CONEX RW
Lab Sample ID: 480-184291-5
Date Collected: 05/05/21 12:10
Matrix: Water
Date Received: 05/06/21 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	52.7		0.050	0.019	mg/L		05/11/21 09:45	05/11/21 16:21	1

Client Sample ID: FRAC RW
Lab Sample ID: 480-184291-6
Date Collected: 05/05/21 12:25
Matrix: Water
Date Received: 05/06/21 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	50.7		0.050	0.019	mg/L		05/11/21 09:45	05/11/21 14:26	1

Client Sample ID: MANHOLE 10
Lab Sample ID: 480-184291-7
Date Collected: 05/05/21 12:40
Matrix: Water
Date Received: 05/06/21 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	47.5		0.050	0.019	mg/L		05/11/21 09:45	05/11/21 14:30	1

Client Sample ID: POST TREATMENT
Lab Sample ID: 480-184291-8
Date Collected: 05/05/21 13:10
Matrix: Water
Date Received: 05/06/21 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.6		0.050	0.019	mg/L		05/11/21 09:45	05/11/21 14:33	1

Client Sample ID: BAG FILTER
Lab Sample ID: 480-184291-9
Date Collected: 05/05/21 13:27
Matrix: Water
Date Received: 05/06/21 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	9.5		0.050	0.019	mg/L		05/11/21 09:45	05/11/21 14:37	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 480-184291-1
Date Collected: 05/05/21 11:34
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	777367	05/12/21 09:23	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	580770	05/13/21 12:25	DLG	TAL BUF

Client Sample ID: Secondary-Treatment
Lab Sample ID: 480-184291-2
Date Collected: 05/05/21 11:21
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	777285	05/11/21 23:30	KLB	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	580770	05/13/21 12:28	DLG	TAL BUF

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 480-184291-3
Date Collected: 05/05/21 11:14
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	777285	05/11/21 23:05	KLB	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	580770	05/13/21 12:31	DLG	TAL BUF

Client Sample ID: Post-Treatment
Lab Sample ID: 480-184291-4
Date Collected: 05/05/21 11:08
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	777285	05/11/21 22:39	KLB	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	580770	05/13/21 12:34	DLG	TAL BUF

Client Sample ID: CONEX RW
Lab Sample ID: 480-184291-5
Date Collected: 05/05/21 12:10
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			580150	05/11/21 09:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	580531	05/11/21 16:21	LMH	TAL BUF

Client Sample ID: FRAC RW
Lab Sample ID: 480-184291-6
Date Collected: 05/05/21 12:25
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			580150	05/11/21 09:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	580385	05/11/21 14:26	LMH	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: MANHOLE 10
Lab Sample ID: 480-184291-7

Date Collected: 05/05/21 12:40
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			580150	05/11/21 09:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	580385	05/11/21 14:30	LMH	TAL BUF

Client Sample ID: POST TREATMENT
Lab Sample ID: 480-184291-8

Date Collected: 05/05/21 13:10
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			580150	05/11/21 09:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	580385	05/11/21 14:33	LMH	TAL BUF

Client Sample ID: BAG FILTER
Lab Sample ID: 480-184291-9

Date Collected: 05/05/21 13:27
Matrix: Water
Date Received: 05/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			580150	05/11/21 09:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	580385	05/11/21 14:37	LMH	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene

Method Summary

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
6010C	Metals (ICP)	SW846	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater ", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Job ID: 480-184291-1
Project/Site: J&L Steel #8706728 PIN 97403

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-184291-1	Pre-Treatment	Water	05/05/21 11:34	05/06/21 10:00	
480-184291-2	Secondary-Treatment	Water	05/05/21 11:21	05/06/21 10:00	
480-184291-3	Tertiary-Treatment	Water	05/05/21 11:14	05/06/21 10:00	
480-184291-4	Post-Treatment	Water	05/05/21 11:08	05/06/21 10:00	
480-184291-5	CONEX RW	Water	05/05/21 12:10	05/06/21 10:00	
480-184291-6	FRAC RW	Water	05/05/21 12:25	05/06/21 10:00	
480-184291-7	MANHOLE 10	Water	05/05/21 12:40	05/06/21 10:00	
480-184291-8	POST TREATMENT	Water	05/05/21 13:10	05/06/21 10:00	
480-184291-9	BAG FILTER	Water	05/05/21 13:27	05/06/21 10:00	

rofins TestAmerica, Edison
New Durham Road
on, NJ 08817
ne: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

ent Information	Sampler: Rob SANDERSON	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-159801-35164.1
Contact: n Smith	Phone: 315-244-9506	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 2
pany: Environmental Services	OFF - 315-764-1917 PWSID:			Job #:
ess: rade Road	Due Date Requested:			
sena	TAT Requested (days):			
Zip: 13662	Compliance Project: Δ Yes Δ No			
e: 785-2614(Tel)	PO #: CallOut ID: 136079			
ith@nrcc.com	WO #:			
t Name: Steel #8706728 PIN 97403	Project #: 48017622			
	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

ple Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total IRON	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N			
Treatment	5/5/21	11:34	G	Water			X	X			
ndary-Treatment	5/5/21	11:21	G	Water			X	X			
ary-treatment	5/5/21	11:14	G	Water			X	X			
Treatment	5/5/21	11:08	G	Water			X	X			
ONex RW	5/5/21	12:10	G	Water					X		
rAC RW	5/5/21	12:25	G	Water					X		
AN Hole 10	5/5/21	12:40	G	Water					X		
ost Treatment	5/5/21	13:10	G	Water					X		
BAG Filter 1	5/5/21	1327	G	Water					X		
			G	Water							
				Water							

ible Hazard Identification
Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological
erable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Kit Relinquished by:	Date:	Time:	Method of Shipment:
ished by: Rob SANDERSON	Date/Time: 5/5/21 15:05	Company VSS	Received by: WA Greens FEDEX
ished by:	Date/Time:	Company	Received by: Unknow 1 1kolb
ished by:	Date/Time:	Company	Received by:

Date/Time:	Company	Date/Time:	Company
Date/Time: 5/6/21 1050	Company TA		
Date/Time:	Company		

tody Seals Intact: Custody Seal No.:
Yes Δ No

Cooler Temperature(s) °C and Other Remarks: 2.7 # ICE

Ver: 11/01/2020

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5/13/2021

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-63543.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-184291-1
Address: 777 New Durham Road, ,	Due Date Requested: 5/12/2021			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC/624_Prep (MOD) Pick a reference price	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Pre-Treatment (480-184291-1)	5/5/21	11:34 Eastern		Water			X	3	
Secondary-Treatment (480-184291-2)	5/5/21	11:21 Eastern		Water			X	3	
Tertiary-Treatment (480-184291-3)	5/5/21	11:14 Eastern		Water			X	3	
Post-Treatment (480-184291-4)	5/5/21	11:08 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Yama	5-10-21 17:00	ETA	Adriemo via Fedex	5/11/21 0850	TAE
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 145.2923	Cooler Temperature(s) °C and Other Remarks: 3.8C/3.3C

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-184291-1

Login Number: 184291

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-184291-1

Login Number: 184291
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 05/11/21 12:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1452923
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-234488-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
5/19/2021 1:27:36 PM
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Wyatt Watson
Project Management Assistant I
5/19/2021 1:27:36 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 460-234488-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-234488-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-234488-1

Comments
No additional comments.

Receipt
The samples were received on 5/15/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.0º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: Blue Tank

Lab Sample ID: 460-234488-1
Matrix: Water
Date Collected: 05/14/21 09:05
Date Received: 05/15/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6.0**		1.0	0.43	ug/L			05/18/21 11:57	1
Ethylbenzene	**34**		1.0	0.30	ug/L			05/18/21 11:57	1
m,p-Xylene	**63**		1.0	0.30	ug/L			05/18/21 11:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 11:57	1
Naphthalene	**220**		1.0	0.68	ug/L			05/18/21 11:57	1
o-Xylene	**12**		1.0	0.36	ug/L			05/18/21 11:57	1
Toluene	**3.2**		1.0	0.38	ug/L			05/18/21 11:57	1
Xylenes, Total	**75**		2.0	0.65	ug/L			05/18/21 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*60 - 140*		*05/18/21 11:57*	*1*
4-Bromofluorobenzene	*114*		*60 - 140*		*05/18/21 11:57*	*1*
Toluene-d8 (Surr)	*114*		*60 - 140*		*05/18/21 11:57*	*1*
Dibromofluoromethane (Surr)	*123*		*60 - 140*		*05/18/21 11:57*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.0**	**HF**			SU			05/18/21 15:03	1

Client Sample ID: Secondary-Treatment

Lab Sample ID: 460-234488-2
Matrix: Water
Date Collected: 05/14/21 09:20
Date Received: 05/15/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.1**		1.0	0.43	ug/L			05/19/21 09:43	1
Ethylbenzene	**0.31**	**J**	1.0	0.30	ug/L			05/19/21 09:43	1
m,p-Xylene	ND		1.0	0.30	ug/L			05/19/21 09:43	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/19/21 09:43	1
Naphthalene	ND		1.0	0.68	ug/L			05/19/21 09:43	1
o-Xylene	ND		1.0	0.36	ug/L			05/19/21 09:43	1
Toluene	ND		1.0	0.38	ug/L			05/19/21 09:43	1
Xylenes, Total	ND		2.0	0.65	ug/L			05/19/21 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*127*		*60 - 140*		*05/19/21 09:43*	*1*
4-Bromofluorobenzene	*114*		*60 - 140*		*05/19/21 09:43*	*1*
Toluene-d8 (Surr)	*114*		*60 - 140*		*05/19/21 09:43*	*1*
Dibromofluoromethane (Surr)	*121*		*60 - 140*		*05/19/21 09:43*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**			SU			05/18/21 15:06	1

Client Sample ID: Tertiary-Treatment

Lab Sample ID: 460-234488-3
Matrix: Water
Date Collected: 05/14/21 09:13
Date Received: 05/15/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.3**		1.0	0.43	ug/L			05/19/21 09:18	1

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 460-234488-3
Date Collected: 05/14/21 09:13
Matrix: Water
Date Received: 05/15/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**7.2**		1.0	0.30	ug/L			05/19/21 09:18	1
m,p-Xylene	ND		1.0	0.30	ug/L			05/19/21 09:18	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/19/21 09:18	1
Naphthalene	ND		1.0	0.68	ug/L			05/19/21 09:18	1
o-Xylene	ND		1.0	0.36	ug/L			05/19/21 09:18	1
Toluene	**0.56**	**J**	1.0	0.38	ug/L			05/19/21 09:18	1
Xylenes, Total	ND		2.0	0.65	ug/L			05/19/21 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*60 - 140*		*05/19/21 09:18*	*1*
4-Bromofluorobenzene	*112*		*60 - 140*		*05/19/21 09:18*	*1*
Toluene-d8 (Surr)	*116*		*60 - 140*		*05/19/21 09:18*	*1*
Dibromofluoromethane (Surr)	*123*		*60 - 140*		*05/19/21 09:18*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**			SU			05/18/21 15:09	1

Client Sample ID: Post-Treatment
Lab Sample ID: 460-234488-4
Date Collected: 05/14/21 09:10
Matrix: Water
Date Received: 05/15/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.9**		1.0	0.43	ug/L			05/18/21 13:10	1
Ethylbenzene	**17**		1.0	0.30	ug/L			05/18/21 13:10	1
m,p-Xylene	**12**		1.0	0.30	ug/L			05/18/21 13:10	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 13:10	1
Naphthalene	**15**		1.0	0.68	ug/L			05/18/21 13:10	1
o-Xylene	**4.5**		1.0	0.36	ug/L			05/18/21 13:10	1
Toluene	**1.5**		1.0	0.38	ug/L			05/18/21 13:10	1
Xylenes, Total	**17**		2.0	0.65	ug/L			05/18/21 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*127*		*60 - 140*		*05/18/21 13:10*	*1*
4-Bromofluorobenzene	*111*		*60 - 140*		*05/18/21 13:10*	*1*
Toluene-d8 (Surr)	*116*		*60 - 140*		*05/18/21 13:10*	*1*
Dibromofluoromethane (Surr)	*123*		*60 - 140*		*05/18/21 13:10*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**			SU			05/18/21 15:11	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-234488-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Blue Tank
Lab Sample ID: 460-234488-1
Date Collected: 05/14/21 09:05
Matrix: Water
Date Received: 05/15/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	778589	05/18/21 11:57	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	778705	05/18/21 15:03	YAH	TAL EDI

Client Sample ID: Secondary-Treatment
Lab Sample ID: 460-234488-2
Date Collected: 05/14/21 09:20
Matrix: Water
Date Received: 05/15/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	778823	05/19/21 09:43	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	778705	05/18/21 15:06	YAH	TAL EDI

Client Sample ID: Tertiary-Treatment
Lab Sample ID: 460-234488-3
Date Collected: 05/14/21 09:13
Matrix: Water
Date Received: 05/15/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	778823	05/19/21 09:18	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	778705	05/18/21 15:09	YAH	TAL EDI

Client Sample ID: Post-Treatment
Lab Sample ID: 460-234488-4
Date Collected: 05/14/21 09:10
Matrix: Water
Date Received: 05/15/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	778589	05/18/21 13:10	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	778705	05/18/21 15:11	YAH	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 460-234488-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene
SM 4500 H+ B		Water	pH

Method Summary

Client: New York State D.E.C.
Job ID: 460-234488-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 460-234488-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-234488-1	Blue Tank	Water	05/14/21 09:05	05/15/21 10:30	
460-234488-2	Secondary-Treatment	Water	05/14/21 09:20	05/15/21 10:30	
460-234488-3	Tertiary-Treatment	Water	05/14/21 09:13	05/15/21 10:30	
460-234488-4	Post-Treatment	Water	05/14/21 09:10	05/15/21 10:30	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Sean Smith	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150671-33454.1
Client Contact: ~~Danielle Ronsti~~ Sean Smith	Phone: 315-212-4803	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: NRC Environmental Services				Job #: 234488
Address: 63 Trade Road	Due Date Requested:			
City: Massena	TAT Requested (days): 3-Day			
State, Zip: NY, 13662				
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079			
Email: ~~dbonsti@nrcc...~~ Sean.Smith@USecology.com	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
~~Pre-Treatment~~ Blue Tank	5/14/21	9:05	G	Water			3	1		-1
Secondary-Treatment		9:20	G	Water			3	1		-2
Tertiary-Treatment		9:13	G	Water			3	1		-3
Post-Treatment		9:10	G	Water			3	1		-4

460-234488 Chain of Custody

3-Day RUSH

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Sean Smith NRC	15:45 5/14/21	NRC	Fed Ex Shipper	5/14/21 15:55	FedEx
Relinquished by:	Date/Time:	Company	Received by: Jeanette via Fedex	Date/Time: 5/15/21 1030	Company DTA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.5°C / 4.0°C

Ver: 01/16/2019

5/19/2021

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 234488

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	4.5 °C	4.0 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: JA Date: 5/15/21

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 460-234488-1

Login Number: 234488 **List Source: Eurofins TestAmerica, Edison**
List Number: 1
Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-234877-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
5/27/2021 1:37:23 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Judy Stone
Senior Project Manager
5/27/2021 1:37:23 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-234877-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-234877-1

Receipt
The sample was received on 5/21/2021 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: River Discharge
Lab Sample ID: 460-234877-1
Date Collected: 05/20/21 08:40
Matrix: Water
Date Received: 05/21/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.6		1.0	0.43	ug/L			05/25/21 13:25	1
Ethylbenzene	13		1.0	0.30	ug/L			05/25/21 13:25	1
m,p-Xylene	25		1.0	0.30	ug/L			05/25/21 13:25	1
o-Xylene	4.9		1.0	0.36	ug/L			05/25/21 13:25	1
Toluene	1.3		1.0	0.38	ug/L			05/25/21 13:25	1
Xylenes, Total	30		2.0	0.65	ug/L			05/25/21 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*60 - 140*		*05/25/21 13:25*	*1*
4-Bromofluorobenzene	*105*		*60 - 140*		*05/25/21 13:25*	*1*
Toluene-d8 (Surr)	*106*		*60 - 140*		*05/25/21 13:25*	*1*
Dibromofluoromethane (Surr)	*118*		*60 - 140*		*05/25/21 13:25*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF			SU			05/26/21 12:50	1
Temperature	24.0	HF			Degrees C			05/26/21 12:50	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: River Discharge
Lab Sample ID: 460-234877-1
Date Collected: 05/20/21 08:40
Matrix: Water
Date Received: 05/21/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	780071	05/25/21 13:25	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	780395	05/26/21 12:50	AAP	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Job ID: 460-234877-1
Project/Site: J&L Steel #8706728 PIN 97403

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-234877-1	River Discharge	Water	05/20/21 08:40	05/21/21 09:30	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

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Client Information	Sampler: Rob SANDYSON	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-159801-35164.1
Client Contact: Sean Smith	Phone: 315 244-8506	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: NRC Environmental Services	PWSID:			Job #: 234877
Address: 63 Trade Road	Due Date Requested:			
City: Massena	TAT Requested (days): RUSH TAT			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079			
Email: sssmith@nrcc.com	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
~~Pre-Treatment~~ River Discharge	5/20/21	8:40	G	Water			X	X		1
~~Secondary Treatment~~				Water						
~~Tertiary Treatment~~				Water						
~~Post Treatment~~				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

460-234877 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Robert SANDYSON	5/20/21	USEcology	Fed ex	5/20/21	Fed ex
Relinquished by:	Date/Time:	Company	Received by: Adrienne via Fedex	Date/Time: 5/21/21 930	Company UAE
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6°C/2.1°C

Ver: 11/01/2020

5/27/2021

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 234872

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.0 °C	2.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials: AG Date: 5/21/21

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-234877-1

Login Number: 234877

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: DiGuardia, Joseph L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-236024-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
6/16/2021 4:55:54 PM
Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Ryan VanDette
Project Manager II
6/16/2021 4:55:54 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-236024-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-236024-1

Comments
No additional comments.

Receipt
The sample was received on 6/8/2021 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Discharge Pipe (2)
Lab Sample ID: 460-236024-1
Date Collected: 06/07/21 12:40
Matrix: Water
Date Received: 06/08/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.0	0.43	ug/L			06/10/21 12:28	1
Ethylbenzene	**1.0**		1.0	0.30	ug/L			06/10/21 12:28	1
m,p-Xylene	ND		1.0	0.30	ug/L			06/10/21 12:28	1
o-Xylene	ND		1.0	0.36	ug/L			06/10/21 12:28	1
Toluene	ND		1.0	0.38	ug/L			06/10/21 12:28	1
Xylenes, Total	ND		2.0	0.65	ug/L			06/10/21 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*60 - 140*		*06/10/21 12:28*	*1*
4-Bromofluorobenzene	*86*		*60 - 140*		*06/10/21 12:28*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*06/10/21 12:28*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*06/10/21 12:28*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.1**	**HF**			SU			06/11/21 13:54	1
Temperature	**22.5**	**HF**			Degrees C			06/11/21 13:54	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Discharge Pipe (2)
Lab Sample ID: 460-236024-1

Date Collected: 06/07/21 12:40
Matrix: Water
Date Received: 06/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	783377	06/10/21 12:28	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	783724	06/11/21 13:54	YAH	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 460-236024-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 460-236024-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-236024-1	Discharge Pipe (2)	Water	06/07/21 12:40	06/08/21 10:00	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Rob SANDERSON	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-159801-35164.2
Client Contact: Sean Smith	Phone: 315-212-4803	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: NRC Environmental Services	PWSID:			Job #: 236024
Address: 63 Trade Road	Due Date Requested:			
City: Massena	TAT Requested (days): RUSH (3) DAY			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079			
Email: sssmith@nrcc.com	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
Discharge pipe (2)	6/7/21	12:40	G	Water			X	X		-
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

3-Day RUSH

460-236024 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rob SANDERSON	6/7/21 14:30	FEDEX	FEDEX WALGREENS	6/7/21 14:30	
Relinquished by: FedEx	Date/Time: 6/8/21 1000	Company	Received by: [signature]	Date/Time: 6/8/21 1000	Company TX Edison
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: tape | Cooler Temperature(s) °C and Other Remarks: 3.3/2.8 @ IR#9

Ver: 11/01/2020

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 236024

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.3 °C	2.8 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: SV Date: 6/8/21

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 460-236024-1

Login Number: 236024 **List Source: Eurofins TestAmerica, Edison**
List Number: 1
Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	tape
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-236024-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
6/16/2021 4:55:54 PM
Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Ryan VanDette
Project Manager II
6/16/2021 4:55:54 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-236024-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-236024-1

Comments
No additional comments.

Receipt
The sample was received on 6/8/2021 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Discharge Pipe (2)
Lab Sample ID: 460-236024-1
Date Collected: 06/07/21 12:40
Matrix: Water
Date Received: 06/08/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.0	0.43	ug/L			06/10/21 12:28	1
Ethylbenzene	**1.0**		1.0	0.30	ug/L			06/10/21 12:28	1
m,p-Xylene	ND		1.0	0.30	ug/L			06/10/21 12:28	1
o-Xylene	ND		1.0	0.36	ug/L			06/10/21 12:28	1
Toluene	ND		1.0	0.38	ug/L			06/10/21 12:28	1
Xylenes, Total	ND		2.0	0.65	ug/L			06/10/21 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*60 - 140*		*06/10/21 12:28*	*1*
4-Bromofluorobenzene	*86*		*60 - 140*		*06/10/21 12:28*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*06/10/21 12:28*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*06/10/21 12:28*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.1**	**HF**			SU			06/11/21 13:54	1
Temperature	**22.5**	**HF**			Degrees C			06/11/21 13:54	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Discharge Pipe (2)
Lab Sample ID: 460-236024-1

Date Collected: 06/07/21 12:40
Matrix: Water
Date Received: 06/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	783377	06/10/21 12:28	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	783724	06/11/21 13:54	YAH	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 460-236024-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 460-236024-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 460-236024-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-236024-1	Discharge Pipe (2)	Water	06/07/21 12:40	06/08/21 10:00	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Rob SANDERSON	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-159801-35164.2
Client Contact: Sean Smith	Phone: 315-212-4803	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: NRC Environmental Services	PWSID:			Job #: 236024
Address: 63 Trade Road	Due Date Requested:			
City: Massena	TAT Requested (days): RUSH (3) DAY			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079			
Email: sssmith@nrcc.com	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
Discharge pipe (2)	6/7/21	12:40	G	Water			X	X		-
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

3-Day RUSH

460-236024 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rob SANDERSON	6/7/21 14:30	FEDEX	FEDEX WALGREENS	6/7/21 14:30	
Relinquished by: FedEx	Date/Time: 6/8/21 1000	Company	Received by: [signature]	Date/Time: 6/8/21 1000	Company TX Edison
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: tape | Cooler Temperature(s) °C and Other Remarks: 3.3/2.8 @ IR#9

Ver: 11/01/2020

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 236024

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.3 °C	2.8 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: SV Date: 6/8/21

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 460-236024-1

Login Number: 236024 **List Source: Eurofins TestAmerica, Edison**
List Number: 1
Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	tape
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-239205-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
7/26/2021 12:16:18 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Judy Stone
Senior Project Manager
7/26/2021 12:16:18 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 460-239205-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-239205-1

Comments
No additional comments.

Receipt
The samples were received on 7/21/2021 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 460-239205-1
Date Collected: 07/19/21 15:10
Matrix: Water
Date Received: 07/21/21 09:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.43	ug/L			07/23/21 12:16	1
Ethylbenzene	ND		1.0	0.30	ug/L			07/23/21 12:16	1
m,p-Xylene	ND		1.0	0.30	ug/L			07/23/21 12:16	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			07/23/21 12:16	1
Naphthalene	ND		1.0	0.68	ug/L			07/23/21 12:16	1
o-Xylene	ND		1.0	0.36	ug/L			07/23/21 12:16	1
Toluene	ND		1.0	0.38	ug/L			07/23/21 12:16	1
Xylenes, Total	ND		2.0	0.65	ug/L			07/23/21 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*60 - 140*		*07/23/21 12:16*	*1*
4-Bromofluorobenzene	*97*		*60 - 140*		*07/23/21 12:16*	*1*
Toluene-d8 (Surr)	*78*		*60 - 140*		*07/23/21 12:16*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*07/23/21 12:16*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**			SU			07/25/21 11:52	1
Temperature	**22.7**	**HF**			Degrees C			07/25/21 11:52	1

Client Sample ID: Post-Treatment
Lab Sample ID: 460-239205-2
Date Collected: 07/19/21 15:02
Matrix: Water
Date Received: 07/21/21 09:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.8**		1.0	0.43	ug/L			07/23/21 02:22	1
Ethylbenzene	ND		1.0	0.30	ug/L			07/23/21 02:22	1
m,p-Xylene	ND		1.0	0.30	ug/L			07/23/21 02:22	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			07/23/21 02:22	1
Naphthalene	ND		1.0	0.68	ug/L			07/23/21 02:22	1
o-Xylene	ND		1.0	0.36	ug/L			07/23/21 02:22	1
Toluene	ND		1.0	0.38	ug/L			07/23/21 02:22	1
Xylenes, Total	ND		2.0	0.65	ug/L			07/23/21 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*60 - 140*		*07/23/21 02:22*	*1*
4-Bromofluorobenzene	*95*		*60 - 140*		*07/23/21 02:22*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*07/23/21 02:22*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*07/23/21 02:22*	*1*

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.1**	**HF**			SU			07/25/21 11:54	1
Temperature	**22.8**	**HF**			Degrees C			07/25/21 11:54	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Pre-Treatment
Lab Sample ID: 460-239205-1

Date Collected: 07/19/21 15:10
Matrix: Water
Date Received: 07/21/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	792089	07/23/21 12:16	CJM	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	792477	07/25/21 11:52	DMT	TAL EDI

Client Sample ID: Post-Treatment
Lab Sample ID: 460-239205-2

Date Collected: 07/19/21 15:02
Matrix: Water
Date Received: 07/21/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	791973	07/23/21 02:22	AMS	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	792477	07/25/21 11:54	DMT	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: New York State D.E.C.
Job ID: 460-239205-1
Project/Site: J&L Steel #8706728 PIN 97403

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-239205-1	Pre-Treatment	Water	07/19/21 15:10	07/21/21 09:55
460-239205-2	Post-Treatment	Water	07/19/21 15:02	07/21/21 09:55

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Sean Smith	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-145626-32392.1
Client Contact: Danielle Benati	Phone: 315-212-4803	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: OP-TECH Environmental				Job #: 239205
Address: 63 Trade Road Building 4	Due Date Requested:			
City: Massena	TAT Requested (days): 3 Day TAT			
State, Zip: NY, 13662				
Phone: 315-785-2614(Tel)	PO #: CallOut ID: 136079			
Email: [redacted] Seansmith@usecology.com	WO #:			
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_H+ - pH	624.1 - BTEX+Napth+MTBE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Pre-Treatment	7/19/21	15:10	G	Water	N	N	X	X		1
~~Secondary-Treatment~~ 555				Water						
~~Tertiary-Treatment~~ 555				Water						
Post-Treatment	7/19/21	15:02	G	Water	N	N	X	X		2

3-Day RUSH

460-239205 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Sean Smith (USE)	7/20/21 16:00	USE	Fed Ex Shipper	7/20/21 16:00	Fed Ex
2				Via Fedex	7/21/21 09:55	DA
3						

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: 152112S

Cooler Temperature(s) °C and Other Remarks: ID#9-3.9=2.9

Ver: 01/16/2019

7/26/2021

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 239205

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.4 °C	2.9 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: _____ Date: 7/21/21

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-239205-1

Login Number: 239205

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: DiGuardia, Joseph L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-189417-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
9/14/2021 5:22:39 PM

Steve Hartmann, Project Manager I
(413)572-4000
Steve.Hartmann@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Steve Hartmann
Project Manager I
9/14/2021 5:22:39 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-189417-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-189417-1

Job ID: 480-189417-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-189417-1

Comments
No additional comments.

Receipt
The samples were received on 9/10/2021 3:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method 624.1: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: PRE-TREATMENT (480-189417-1) and POST-TREATMENT (480-189417-2). Elevated reporting limits (RLs) are provided.

Method 624.1: The following sample contained residual chlorine upon receipt: PRE-TREATMENT (480-189417-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: PRE-TREATMENT (480-189417-1) and POST-TREATMENT (480-189417-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: New York State D.E.C.
Job ID: 480-189417-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: PRE-TREATMENT
Lab Sample ID: 480-189417-1
Date Collected: 09/07/21 13:54
Matrix: Water
Date Received: 09/10/21 15:45

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		20	2.4	ug/L			09/10/21 17:33	4
Ethylbenzene	ND		20	1.9	ug/L			09/10/21 17:33	4
m,p-Xylene	ND		40	4.3	ug/L			09/10/21 17:33	4
Methyl tert-butyl ether	ND		20	1.4	ug/L			09/10/21 17:33	4
Naphthalene	ND		20	0.44	ug/L			09/10/21 17:33	4
o-Xylene	ND		20	1.7	ug/L			09/10/21 17:33	4
Toluene	ND		20	1.8	ug/L			09/10/21 17:33	4
Xylenes, Total	ND		40	4.3	ug/L			09/10/21 17:33	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 130*		*09/10/21 17:33*	*4*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*09/10/21 17:33*	*4*
Toluene-d8 (Surr)	*88*		*77 - 120*		*09/10/21 17:33*	*4*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*09/10/21 17:33*	*4*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.9**	**HF**	0.1	0.1	SU			09/14/21 14:48	1
Temperature	**17.6**	**HF**	0.001	0.001	Degrees C			09/14/21 14:48	1

Client Sample ID: POST-TREATMENT
Lab Sample ID: 480-189417-2
Date Collected: 09/07/21 14:12
Matrix: Water
Date Received: 09/10/21 15:45

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		10	1.2	ug/L			09/10/21 17:56	2
Ethylbenzene	ND		10	0.93	ug/L			09/10/21 17:56	2
m,p-Xylene	ND		20	2.2	ug/L			09/10/21 17:56	2
Methyl tert-butyl ether	ND		10	0.71	ug/L			09/10/21 17:56	2
Naphthalene	ND		10	0.22	ug/L			09/10/21 17:56	2
o-Xylene	ND		10	0.86	ug/L			09/10/21 17:56	2
Toluene	ND		10	0.91	ug/L			09/10/21 17:56	2
Xylenes, Total	ND		20	2.2	ug/L			09/10/21 17:56	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*09/10/21 17:56*	*2*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*09/10/21 17:56*	*2*
Toluene-d8 (Surr)	*101*		*77 - 120*		*09/10/21 17:56*	*2*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*09/10/21 17:56*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.5**	**HF**	0.1	0.1	SU			09/14/21 14:49	1
Temperature	**17.6**	**HF**	0.001	0.001	Degrees C			09/14/21 14:49	1

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-189417-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: PRE-TREATMENT
Lab Sample ID: 480-189417-1
Date Collected: 09/07/21 13:54
Matrix: Water
Date Received: 09/10/21 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		4	595857	09/10/21 17:33	ATG	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	596309	09/14/21 14:48	JPS	TAL BUF

Client Sample ID: POST-TREATMENT
Lab Sample ID: 480-189417-2
Date Collected: 09/07/21 14:12
Matrix: Water
Date Received: 09/10/21 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		2	595857	09/10/21 17:56	ATG	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	596309	09/14/21 14:49	JPS	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-189417-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-189417-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-189417-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-189417-1	PRE-TREATMENT	Water	09/07/21 13:54	09/10/21 15:45
480-189417-2	POST-TREATMENT	Water	09/07/21 14:12	09/10/21 15:45

Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins

Client Information	Sampler: Rob Sanderson	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-159801-35164.2
Client Contact: Sean Smith	Phone: 315-212-4803	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: NRC Environmental Services	PWSID:			Job #:

Address: 63 Trade Road	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Massena	TAT Requested (days): 3 Day TAT		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No		
Phone: ~~315-785-2614(Tel)~~ 315-212-4803	PO #: CallOut ID: 136079		
Email: sssmith@nrcc.com	WO #:		
Project Name: J&L Steel #8706728 PIN 97403	Project #: 48017622		
Site:	SSOW#:		

480-189417 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - BTEX	SM4500_H+ - pH	Total Num	Special Instructions/Note:
			Preservation Code:				A	N		
Pre-Treatment	9/7/21	1354		Water			X	X		
~~Secondary Treatment~~	~~9/7/21~~	~~14:02~~		Water			X	X		Do not Analyze Per Mike McLean. Removed Samples from Coolers. SS
~~tertiary Treatment~~	~~9/7/21~~	~~14:05~~		Water			X	X		
Post-Treatment	9/7/21	14:15		Water			X	X		
				Water						
				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9/7/21 14:45	NRC	Sean Smith	9/7/21 14:45	NRC
2	Sean Smith	9/9/21	NRC	Fed Ex Shipper	9/9/21 15:45	Fed Ex
3				[signature]	9/10/21 1030	TAS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.7

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-189417-1

Login Number: 189417 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Stopa, Erik S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	NRC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-189418-1
Client Project/Site: J&L Steel #8706728 PIN 97403

For:
New York State D.E.C.
1115 Route 86
PO BOX 296
Ray Brook, New York 12977

Attn: Mike P McLean

Authorized for release by:
9/15/2021 9:05:56 AM

Steve Hartmann, Project Manager I
(413)572-4000
Steve.Hartmann@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Steve Hartmann
Project Manager I
9/15/2021 9:05:56 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Field Blank
Lab Sample ID: 480-189418-1
Date Collected: 09/08/21 12:45
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			09/10/21 18:20	1
Ethylbenzene	ND		5.0	0.46	ug/L			09/10/21 18:20	1
m,p-Xylene	ND		10	1.1	ug/L			09/10/21 18:20	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			09/10/21 18:20	1
Naphthalene	ND		5.0	0.11	ug/L			09/10/21 18:20	1
o-Xylene	ND		5.0	0.43	ug/L			09/10/21 18:20	1
Toluene	ND		5.0	0.45	ug/L			09/10/21 18:20	1
Xylenes, Total	ND		10	1.1	ug/L			09/10/21 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*09/10/21 18:20*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*09/10/21 18:20*	*1*
Toluene-d8 (Surr)	*102*		*77 - 120*		*09/10/21 18:20*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*09/10/21 18:20*	*1*

Client Sample ID: RW-10
Lab Sample ID: 480-189418-2
Date Collected: 09/08/21 12:57
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		50	6.0	ug/L			09/10/21 18:44	10
Ethylbenzene	**26**	**J**	50	4.6	ug/L			09/10/21 18:44	10
m,p-Xylene	**42**	**J**	100	11	ug/L			09/10/21 18:44	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 18:44	10
Naphthalene	**150**		50	1.1	ug/L			09/10/21 18:44	10
o-Xylene	ND		50	4.3	ug/L			09/10/21 18:44	10
Toluene	ND		50	4.5	ug/L			09/10/21 18:44	10
Xylenes, Total	**42**	**J**	100	11	ug/L			09/10/21 18:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 130*		*09/10/21 18:44*	*10*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*09/10/21 18:44*	*10*
Toluene-d8 (Surr)	*102*		*77 - 120*		*09/10/21 18:44*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*09/10/21 18:44*	*10*

Client Sample ID: RW-7
Lab Sample ID: 480-189418-3
Date Collected: 09/08/21 13:10
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		50	6.0	ug/L			09/10/21 19:08	10
Ethylbenzene	**40**	**J**	50	4.6	ug/L			09/10/21 19:08	10
m,p-Xylene	**110**		100	11	ug/L			09/10/21 19:08	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 19:08	10
Naphthalene	**340**		50	1.1	ug/L			09/10/21 19:08	10
o-Xylene	**30**	**J**	50	4.3	ug/L			09/10/21 19:08	10
Toluene	ND		50	4.5	ug/L			09/10/21 19:08	10
Xylenes, Total	**140**		100	11	ug/L			09/10/21 19:08	10

Client Sample ID: RW-7

Lab Sample ID: 480-189418-3

Date Collected: 09/08/21 13:10

Matrix: Water

Date Received: 09/10/21 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 130*		*09/10/21 19:08*	*10*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*09/10/21 19:08*	*10*
Toluene-d8 (Surr)	*102*		*77 - 120*		*09/10/21 19:08*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*09/10/21 19:08*	*10*

Client Sample ID: RW-8

Lab Sample ID: 480-189418-4

Date Collected: 09/08/21 13:15

Matrix: Water

Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5.5**	**J**	10	1.2	ug/L			09/13/21 14:22	2
Ethylbenzene	**23**		10	0.93	ug/L			09/13/21 14:22	2
m,p-Xylene	**48**		20	2.2	ug/L			09/13/21 14:22	2
Methyl tert-butyl ether	ND		10	0.71	ug/L			09/13/21 14:22	2
Naphthalene	**110**		10	0.22	ug/L			09/13/21 14:22	2
o-Xylene	**12**		10	0.86	ug/L			09/13/21 14:22	2
Toluene	**2.8**	**J**	10	0.91	ug/L			09/13/21 14:22	2
Xylenes, Total	**60**		20	2.2	ug/L			09/13/21 14:22	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*09/13/21 14:22*	*2*
4-Bromofluorobenzene (Surr)	*105*		*76 - 123*		*09/13/21 14:22*	*2*
Toluene-d8 (Surr)	*101*		*77 - 120*		*09/13/21 14:22*	*2*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*09/13/21 14:22*	*2*

Client Sample ID: RW-2

Lab Sample ID: 480-189418-5

Date Collected: 09/08/21 13:26

Matrix: Water

Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.9**	**J**	50	6.0	ug/L			09/10/21 19:54	10
Ethylbenzene	**50**		50	4.6	ug/L			09/10/21 19:54	10
m,p-Xylene	**89**	**J**	100	11	ug/L			09/10/21 19:54	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 19:54	10
Naphthalene	**320**		50	1.1	ug/L			09/10/21 19:54	10
o-Xylene	**12**	**J**	50	4.3	ug/L			09/10/21 19:54	10
Toluene	ND		50	4.5	ug/L			09/10/21 19:54	10
Xylenes, Total	**100**		100	11	ug/L			09/10/21 19:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*09/10/21 19:54*	*10*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*09/10/21 19:54*	*10*
Toluene-d8 (Surr)	*101*		*77 - 120*		*09/10/21 19:54*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*09/10/21 19:54*	*10*

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: RW-3
Lab Sample ID: 480-189418-6
Date Collected: 09/08/21 13:38
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		50	6.0	ug/L			09/10/21 20:18	10
Ethylbenzene	**11**	**J**	50	4.6	ug/L			09/10/21 20:18	10
m,p-Xylene	**11**	**J**	100	11	ug/L			09/10/21 20:18	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 20:18	10
Naphthalene	**62**		50	1.1	ug/L			09/10/21 20:18	10
o-Xylene	ND		50	4.3	ug/L			09/10/21 20:18	10
Toluene	ND		50	4.5	ug/L			09/10/21 20:18	10
Xylenes, Total	**11**	**J**	100	11	ug/L			09/10/21 20:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 130*		*09/10/21 20:18*	*10*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*09/10/21 20:18*	*10*
Toluene-d8 (Surr)	*102*		*77 - 120*		*09/10/21 20:18*	*10*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*09/10/21 20:18*	*10*

Client Sample ID: RW-4
Lab Sample ID: 480-189418-7
Date Collected: 09/08/21 13:45
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		50	6.0	ug/L			09/10/21 20:42	10
Ethylbenzene	**7.5**	**J**	50	4.6	ug/L			09/10/21 20:42	10
m,p-Xylene	**15**	**J**	100	11	ug/L			09/10/21 20:42	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 20:42	10
Naphthalene	**61**		50	1.1	ug/L			09/10/21 20:42	10
o-Xylene	ND		50	4.3	ug/L			09/10/21 20:42	10
Toluene	ND		50	4.5	ug/L			09/10/21 20:42	10
Xylenes, Total	**15**	**J**	100	11	ug/L			09/10/21 20:42	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*09/10/21 20:42*	*10*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*09/10/21 20:42*	*10*
Toluene-d8 (Surr)	*101*		*77 - 120*		*09/10/21 20:42*	*10*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*09/10/21 20:42*	*10*

Client Sample ID: RW-9
Lab Sample ID: 480-189418-8
Date Collected: 09/08/21 15:10
Matrix: Water
Date Received: 09/10/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8.9**	**J**	50	6.0	ug/L			09/10/21 21:05	10
Ethylbenzene	**8.3**	**J**	50	4.6	ug/L			09/10/21 21:05	10
m,p-Xylene	ND		100	11	ug/L			09/10/21 21:05	10
Methyl tert-butyl ether	ND		50	3.5	ug/L			09/10/21 21:05	10
Naphthalene	**51**		50	1.1	ug/L			09/10/21 21:05	10
o-Xylene	ND		50	4.3	ug/L			09/10/21 21:05	10
Toluene	ND		50	4.5	ug/L			09/10/21 21:05	10
Xylenes, Total	ND		100	11	ug/L			09/10/21 21:05	10

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: RW-9
Lab Sample ID: 480-189418-8
Date Collected: 09/08/21 15:10
Matrix: Water
Date Received: 09/10/21 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*09/10/21 21:05*	*10*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*09/10/21 21:05*	*10*
Toluene-d8 (Surr)	*101*		*77 - 120*		*09/10/21 21:05*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*09/10/21 21:05*	*10*

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: Field Blank
Lab Sample ID: 480-189418-1
Date Collected: 09/08/21 12:45
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	595857	09/10/21 18:20	ATG	TAL BUF

Client Sample ID: RW-10
Lab Sample ID: 480-189418-2
Date Collected: 09/08/21 12:57
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 18:44	ATG	TAL BUF

Client Sample ID: RW-7
Lab Sample ID: 480-189418-3
Date Collected: 09/08/21 13:10
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 19:08	ATG	TAL BUF

Client Sample ID: RW-8
Lab Sample ID: 480-189418-4
Date Collected: 09/08/21 13:15
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		2	596066	09/13/21 14:22	ATG	TAL BUF

Client Sample ID: RW-2
Lab Sample ID: 480-189418-5
Date Collected: 09/08/21 13:26
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 19:54	ATG	TAL BUF

Client Sample ID: RW-3
Lab Sample ID: 480-189418-6
Date Collected: 09/08/21 13:38
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 20:18	ATG	TAL BUF

Client Sample ID: RW-4
Lab Sample ID: 480-189418-7
Date Collected: 09/08/21 13:45
Matrix: Water
Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 20:42	ATG	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Client Sample ID: RW-9
Lab Sample ID: 480-189418-8

Date Collected: 09/08/21 15:10
Matrix: Water

Date Received: 09/10/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		10	595857	09/10/21 21:05	ATG	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	Naphthalene

Method Summary

Client: New York State D.E.C.
Project/Site: J&L Steel #8706728 PIN 97403

Job ID: 480-189418-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: New York State D.E.C.
Job ID: 480-189418-1
Project/Site: J&L Steel #8706728 PIN 97403

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-189418-1	Field Blank	Water	09/08/21 12:45	09/10/21 10:30
480-189418-2	RW-10	Water	09/08/21 12:57	09/10/21 10:30
480-189418-3	RW-7	Water	09/08/21 13:10	09/10/21 10:30
480-189418-4	RW-8	Water	09/08/21 13:15	09/10/21 10:30
480-189418-5	RW-2	Water	09/08/21 13:26	09/10/21 10:30
480-189418-6	RW-3	Water	09/08/21 13:38	09/10/21 10:30
480-189418-7	RW-4	Water	09/08/21 13:45	09/10/21 10:30
480-189418-8	RW-9	Water	09/08/21 15:10	09/10/21 10:30

Eurofins Test America

Address: Amherst

Chain of Custody Record

421605

eurofins | Environment Testing TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Sean Smith	Site Contact: Sean Smith	Date: 9/8/21	COC No:
Company Name: NRC EAST Env. Services/USE	Tel/Email: 315 212 4803	Lab Contact: Judy Stone	Carrier: Fed Ex	1 of 1 COCs
Address: 63 Trade Rd, Bldg 4	Analysis Turnaround Time			Sampler:
City/State/Zip: Massena NY 13662	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 315 764 1917	TAT if different from Below ____			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: JTL Steel Remediation Site	☐ 1 week			
Site: DEC Spill 8706728	☐ 2 days			Job / SDG No.:
PO # TA Callout # 136079	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 624.1-PREC-BTEX	Sample Specific Notes:
Field Blank	9/8/21	12:45	G	GW	2	N	N		
RW-10		12:57	G	GW	3				
RW-7		13:10	G	GW	3				
RW-8		13:15	G	GW	3				
RW-2		13:26	G	GW	3				
RW-3		13:38	G	GW	3				
RW-4		13:45	G	GW	3				
RW-9		15:10	G	GW	3				

480-189418 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Ht 3.7

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Sean Smith	NRC/US Ecology	9/8/21	Fed Ex Shipper	Fed Ex	9/9/21 15:45
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TAS	9/10/21 1030
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-189418-1

Login Number: 189418

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	