

TECHNICAL MEMORANDUM

To: James (JD) Dotchin (NDEP)
Grant Evenson (NDEP)

From: Ranajit Sahu (BRC)
Mark Jones

cc: BMI Compliance Coordinator (NDEP)
Kirk Stowers (Broadbent & Associates)
Lee Farris (BRC)

Date: March 20, 2023

Subject: Technical Memorandum – Data Review for Cadence Sunset North Deep Samples,
Henderson, Nevada

1.0 Introduction

The objective of this Technical Memorandum is to present the results of deep (from 16 to 22 feet below ground surface [bgs]) soil samples Basic Remediation Company (BRC) recently collected from the Sunset North Commercial sub-area (Site; Figure 1). The Site is located immediately east of Pabco Road, and south of Galleria Drive and the City of Henderson wastewater treatment plant, in Henderson, Nevada. Based on the data collected, a No Further Action Determination (NFAD) is being sought from the Nevada Division of Environmental Protection (NDEP) in order to support future industrial/commercial use on this Site. No residential use is planned.

This Technical Memorandum, which has been prepared in support of the objective above, includes the following primary tasks:

- Conceptual site model (CSM);
- Summary of data, including evaluation to comparison levels; and
- Data evaluation, including the acceptability of data; and

Each of these tasks is discussed below.

2.0 Conceptual Site Model

The CSM is used to describe relationships between chemicals and potentially exposed human receptor populations, thereby delineating the relationships between the suspected sources of chemicals identified at the property, the mechanisms by which the chemicals might be released and transported in the environment, and the means by which the receptors could come in contact with the chemicals. The CSM provides a basis for defining data quality objectives and developing exposure scenarios.

The CSM considers current and potential future land-use conditions. Currently, the property is undeveloped. Current receptors that may use the property include on-site trespassers. Therefore, current exposures to native soils at the property are likely to be minimal. In addition, exposures to future on-site workers will be much greater than current exposures. For example, future receptors include commercial/industrial workers who are assumed to be exposed to soil at the property for 250 days per year for 25 years which is much greater than any current exposures.

U.S. Environmental Protection Agency (USEPA) (1989) guidance states that potential future land use should be considered in addition to current land use when evaluating the potential for human exposure at a site. Therefore, the CSM also considers other future land-uses. For example, the CSM includes the planned use of the property for redevelopment into commercial use.

Potential Human Exposure Scenarios

Given the planned development of the property, potential human receptors include on-site construction workers, on-site indoor commercial workers, on-site outdoor maintenance workers, and on-site visitors. However, as discussed below, not all of these receptors are evaluated in this Technical Memorandum. Although several potential human receptors may occur on the property in the future, the data review focuses on the commercial/industrial receptor, including construction workers and outdoor maintenance workers. These receptors are considered to have the highest level of exposure to subsurface soil at the property, as supported by the comparison levels that have been developed by the NDEP and BRC (see below). Other receptors generally have lower exposures, and thus lower risk estimates. Therefore, result comparisons for commercial/industrial receptors will be protective of other potential receptors at the property.

3.0 Data Summary

The chemical dataset compiled for this Site consists of analytical results associated with five sample locations collected from a single depth at each sample location. Sample depths for each

location were: SNC-1 = 16 ft bgs, SNC-2 = 18 ft bgs, and SNC-3,4,5 = 22 ft bgs. These sample depths translate to the following finish grade depths: SNC-1 = 9.44 ft bgs, SNC-2 = 12.77 ft bgs, and SNC-3 = 17.36 ft bgs, SNC-4 = 14.91 ft bgs, and SNC-5 = 15.61 ft bgs. Sample locations within the Site are shown on Figure 1.

Soil samples were analyzed for metals, organochlorine pesticides (OCPs) including hexachlorobenzene¹, and polyaromatic hydrocarbons (PAHs). These were the primary risk drivers for the Sunset North Commercial sub-area human health risk assessment (BRC, 2013). Soil analytes and all sample results are presented in Table 1. The field work was commissioned under the care of the project Certified Environmental Manager (CEM).

Because of the limited number of samples and only a qualitative comparison to soil screening levels was performed for the Site, and a formal data usability evaluation was not performed. Management of samples began at the time of collection and continued throughout the analytical process. Standard Operating Procedures (SOPs) were followed to ensure that samples were collected and managed properly and consistently and to optimize the likelihood that the resultant data are valid and representative.

Of particular concern for risk assessment is underestimation of risk, which could be associated with the use of data that are biased low. The data were evaluated and it was determined that estimated results are appropriate for use. There were no rejected data associated with the dataset for the Site. Therefore, the analytical results are considered adequate in terms of quality for use.

3.1 Soil

Compound-specific soil data for the Site are presented in Table 1 (soil data, all locations, all depths included) Sample locations are shown on Figure 1. Various applicable constituent-specific comparison levels are provided on the table for reference, specifically:

- NDEP Basic Comparison Levels (BCLs) for outdoor workers (NDEP, 2017); and
- BRC screening levels developed for construction workers, based on the calculations presented in the Sunset North Commercial sub-area closure report (BRC, 2013).

Note that NDEP BCLs were last updated in 2017. Since that time, toxicity values have been updated for several analytes, most notably benzo(a)pyrene. The updated toxicity value for

¹ Hexachlorobenzene was not originally included the OCP analysis but has been routinely included in in more recent sampling events for the project and was included here as well as a result of the current project analyte list for OCPs.

benzo(a)pyrene would result in a higher BCL (and for several other carcinogenic PAHs as well); however, given PAHs were all non-detect, the existing 2017 BCLs have not been updated in this Technical Memorandum. Construction worker screening levels were developed only for those analytes that were included as chemicals of potential concern (COPCs) in the Sunset North Commercial sub-area human health risk assessment. This includes all metal analysed for in the deep samples and a sub-set of the organic chemicals analysed for in the deep samples. However, given no organic chemicals were detected, and construction worker screening levels are greater than outdoor worker BCLs, the lack of construction worker screening levels for the remaining organic chemicals is not considered to be an issue. Because of the limited dataset, that a simple comparison to screening levels was performed, and the generally low concentrations detected at the Site, a statistical comparison of the Site data to background conditions was not deemed necessary.

Sample results indicate that all organic chemicals, organochlorine pesticides and PAHs, are non-detect, and as noted below, all detection limits are below screening levels. All metals, except for arsenic, are well below screening levels. Arsenic detections were above the outdoor worker BCL of 2.15 mg/kg, but below the construction worker screening level of 45.5 mg/kg. In addition, arsenic concentrations were consistent with background concentrations for the area. The maximum arsenic concentration of 14 mg/kg is equivalent to the maximum background arsenic concentration of 13.1 mg/kg generally used for the project. The arsenic concentration is also consistent with and within the range of concentrations detected during the 2009 Sunset North Commercial sub-area investigation (which had a maximum arsenic concentration of 19.8 mg/kg).

4.0 Data Evaluation

This section describes the procedures used to evaluate the acceptability of data for use in this Technical Memorandum. Overall quality of sample results is a function of proper sample management. Management of samples began at the time of collection and continued throughout the analytical process. SOPs were followed to ensure that samples were collected and managed properly and consistently and to optimize the likelihood that the resultant data are valid and representative.

The primary objective of the data usability evaluation was to identify appropriate data for use in the screening-level health risk assessment. The analytical data were reviewed for applicability and usability following procedures in USEPA's *Guidance for Data Usability in Risk Assessment (Part A)* (1992) and *Risk Assessment Guidance for Superfund: Volume I* (1989), and the NDEP's

Supplemental Guidance for Assessing Data Usability for Environmental Investigations at the BMI Complex and Common Areas (2008a). A quality assurance/quality control (QA/QC) review of the analytical results was conducted during the sampling events. According to the USEPA Data Usability Guidance, there are six principal evaluation criteria by which data are judged for usability in risk assessment. The six criteria are:

- Reports to risk assessor (availability of information associated with Site data);
- Documentation;
- Data sources;
- Analytical methods and detection limits;
- Data review; and
- Data quality indicators (DQIs), including precision, accuracy, representativeness, comparability, and completeness (PARCC).

A summary of these six criteria for determining data usability is provided below. In addition to the six principal evaluation criteria, the NDEP's Data Usability Guidance includes a step for data usability analysis, which is discussed after these six USEPA evaluation criteria.

4.1 Criterion I – Reports to Risk Assessor

The usability analysis of the site characterization data requires the availability of sufficient data for review. The required information is available from documentation associated with the Site data and data collection efforts. Data have been validated, but a data validation summary report was not prepared. The information sources and the availability of such information for the data usability process are as follows:

- A Site description provided in this Technical Memorandum identifies the location and features of the Site, the characteristics of the vicinity, and contaminant transport mechanisms.
- A Site map with sampling locations is provided on Figure 1.
- Analytical methods and sample quantitation limits (SQLs) are provided in the dataset file included on the CD in Appendix A.
- A complete dataset is provided in the dataset file included on the CD in Appendix A.
- A narrative of qualified data is provided with each analytical data package; the laboratory provided a narrative of QA/QC procedures and results.

- QC results are provided by the laboratory, including blanks, replicates, and spikes.
- Data flags used by the laboratory were defined adequately.
- Electronic files containing the raw data were made available by the laboratory.

4.2 Criterion II – Documentation Review

The objective of the documentation review is to confirm that the analytical results provided are associated with a specific sampling location and collection procedure, using available documentation. For the purposes of this data usability analysis, the chain-of-custody forms prepared in the field were reviewed and compared to the analytical data results provided by the laboratory to ensure completeness of the dataset. Based on the documentation review, all samples analyzed by the laboratory were correlated to the correct geographic location at the Site, as shown on Figure 1. The samples were collected in accordance the SOPs developed for the BMI Common Areas as provided in BRC's *Field Sampling and Standard Operating Procedures* report (BRC, ERM, and MWH 2009). Field procedures included documentation of sample times, dates, and locations; other sample-specific information such as sample depth was also recorded. Information from field forms generated during sample collection activities was imported into the project database.

The analytical data were reported in a format that provides adequate information for evaluation, including appropriate QC measures and acceptance criteria. Each laboratory report describes the analytical method used, provides results on a sample-by-sample basis along with sample-specific SQLs, and provides the results of appropriate QC samples such as laboratory control spike samples, sample surrogates and internal standards, and matrix spike samples. All laboratory reports were prepared as provided by the documentation required by USEPA's Contract Laboratory Program which includes chain-of-custody records, calibration data, QC results for blanks, duplicates, and spike samples from the field and laboratory, and all supporting raw data generated during sample analysis were also included. Reported analytical results were imported into the project database.

4.3 Criterion III – Data Sources

The review of data sources is performed to determine whether the analytical techniques used in the site characterization process are appropriate for risk assessment purposes. The data collection activities were developed to characterize a broad spectrum of chemicals potentially present on the Site, including metals, PAHs, and organochlorine pesticides. Standards of practice in these

laboratories follow the quality program developed by the Nevada Revised Statutes and are within the guidelines of the analytical methodologies established by the USEPA. Based on the review of the available information, the data sources for chemical and physical parameter measurements are adequate for use in this Technical Memorandum.

4.4 Criterion IV – Analytical Methods and Detection Limits

In addition to the appropriateness of the analytical techniques evaluated as part of Criterion III, it is necessary to evaluate if the detection limits are low enough to allow adequate comparison to screening levels. At a minimum, this data usability criterion can be met through the determination that routine USEPA reference analytical methods were used in analyzing samples collected from the Site. The USEPA methods that were used in conducting the laboratory analysis of soil samples are identified in the dataset file included on the CD in Appendix A. Each of the identified methods is considered the most appropriate method for the respective constituent class. As recommended by NDEP's guidance on *Detection Limits and Data Reporting* (NDEP 2008b), the laboratory reported SQL was used in evaluating detection limits.

In accordance with respective laboratory SOPs, the analytical processes included performing instrument calibration, laboratory method blanks, and other verification standards used to ensure QC during the analyses of collected samples. The range of SQLs achieved in field samples was compared to NDEP outdoor worker BCLs (NDEP, 2017). As seen in the summary of the Site dataset provided in Table 1, of the standard analytes, none had an SQL that exceeded its respective outdoor worker soil BCLs.

4.5 Criterion V – Data Review

The data review portion of the data usability process focuses primarily on the quality of the analytical data received from the laboratory. Soil sample data were subject to data validation. The analytical data were validated according to the internal procedures using the principles of USEPA National Functional Guidelines and were designed to ensure completeness and adequacy of the dataset. Additionally, the NDEP's two *Supplemental Guidance on Data Validation* documents (NDEP 2009a,b) were utilized. Any analytical errors and/or limitations in the data have been addressed and an explanation for data qualification provided in the respective data tables. No data were rejected.

Holding Time Exceedances / Sample Condition Qualifications

Holding time refers to the period of time between sample collection and the preparation and/or analysis of the sample. The accuracy of analytical results may depend upon analysis within specified holding times and sample temperature. In general, a longer holding time is assumed to result in a less accurate measurement due to the potential for loss or degradation of the analyte over time. Sample temperature is of greatest concern for VOCs that may volatilize from the sample at higher temperatures. Sample results were reviewed for compliance with the method-prescribed preparation and analysis holding times. No data were qualified due to holding time exceedances. All samples were received at the laboratory within the required temperatures range of $4^{\circ}\pm 2^{\circ}$ Celsius. No sample results were qualified based on sample temperatures.

Blank Contamination

Blanks are artificial samples designed to evaluate the nature and extent of contamination of environmental samples that may be introduced by field or laboratory procedures. Field and laboratory blanks, consisting of contaminant-free water, were prepared and analyzed as part of standard QA/QC procedures to monitor for potential contamination of field equipment, laboratory process reagents, and sample containers. Four results were qualified as undetected (U) due to laboratory blank contamination, as discussed below. Detections of constituents qualified as non-detections due to comparable detections in laboratory blanks are known as “censored” data. In these cases, non-detections are represented in the database as “<[*result value*]” (NDEP, 2012). There were no analytes that were initially reported as detections in samples, but were later qualified as non-detections based on the presence of comparable concentrations of that analyte in blank samples.

Sample/Duplicate Differences Outside Permissible Range or Greater than Permissible Values

During the data validation process, sample/duplicate results are evaluated to determine whether differences in those results suggest potential issues with data quality. Specifically, the analyst evaluates the following:

- Matrix spike/matrix spike duplicate (MS/MSD) relative percent difference (RPDs), to determine if the RPDs are outside acceptance limits;
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) RPDs, to determine if the RPDs are outside acceptance limits;

- Sample/field duplicate results to determine if differences are greater than the permissible value; and
- Sample/laboratory duplicate results to determine if differences are greater than the permissible value.

In cases in which the recoveries were higher than the acceptance criteria, the results have the potential of being similarly biased high. Of more concern for risk assessment is underestimation of risk, which could be associated with the use of data that are biased low. Reported detections and non-detects for soil data were flagged as estimated (“J-” or “UJ,” respectively) due to low MS/MSD recoveries (*i.e.*, from 30 to 74 percent for metals). Non-detects associated with “very low” MS/MSD recoveries (*i.e.*, less than 30 percent for metals), are generally rejected as unusable. No results were rejected due to MS/MSD recoveries.

No results were qualified and no data were rejected due to LCS recoveries. No further review of LCS/LCSD results is necessary. Of the samples representing current conditions, no results had sample/laboratory duplicate differences greater than permissible values.

Internal Standards Outside Acceptance Criteria

Internal standards are prepared for certain organic gas chromatograph/mass spectrometry (GC/MS) and inductively coupled plasma/mass spectrometry analyses by adding compounds similar to target compounds of interest to sample aliquots. Internal standards are used in the quantitation of target compounds in the sample or sample extract. The evaluation of internal standards involved comparing the instrument response and retention time from the target compounds in the sample with the response and retention time of specific internal standards added to the sample extract prior to analysis. No data were qualified or rejected due to internal standard recoveries.

Surrogate Percent Recoveries Outside Laboratory Control Limit

Surrogate spikes were added to each of the samples submitted for organic analysis to monitor potential interferences from the matrix. Results associated with unacceptable surrogate recoveries were qualified as estimated (J+, J- or UJ). Generally, when surrogate recoveries are less than 10 percent, associated non-detect results are qualified as rejected (R) because false negatives are a possibility. No sample results were rejected due to surrogate recoveries.

4.6 Criterion VI – Data Quality Indicators

DQIs are used to verify that sampling and analytical systems used in support of project activities are in control and the quality of the data generated for this project is appropriate for making decisions affecting future activities. The DQIs address the field and analytical data quality aspects as they affect uncertainties in the data collected for site characterization and risk assessment. The DQIs include PARCC. The project QAPP provides the definitions and specific criteria for assessing DQIs using field and laboratory QC samples and is the basis for determining the overall quality of the dataset. Data validation activities included the evaluation of PARCC parameters, and all data not meeting the established PARCC criteria were qualified during the validation process using the guidelines presented in the various National Functional Guidelines for Laboratory Data Review.

Evaluation of Data Precision

Precision is a measure of the degree of agreement between replicate measurements of the same source or sample. Precision is expressed by RPD between replicate measurements. Replicate measurements can be made on the same sample or on two samples from the same source. Precision is generally assessed using a subset of the measurements made. The precision of the data was evaluated using several laboratory QA/QC procedures. Based on BRC's review of the results of these procedures, the overall level of precision for the Site data does not limit the usability of a particular analyte, sample, method, or dataset as a whole.

Evaluation of Data Accuracy

Accuracy measures the level of bias that an analytical method or measurement exhibits. To measure accuracy, a standard or reference material containing a known concentration is analyzed or measured and the result is compared to the known value. Several QC parameters are used to evaluate the accuracy of reported analytical results, including:

- Holding times and sample temperatures;
- Calibration limits;
- LCS percent recovery;
- MS/MSD percent recovery;
- Spike sample recovery (inorganics);
- Surrogate spike recovery (organics); and

- Blank sample results.

As discussed above, because the qualifications with the potential for low bias were small in number, the data usability evaluation determined it was unlikely that they could lead to significant risk underestimation. Furthermore, the lack of rejected data points does not represent a significant data gap in terms of risk assessment. Therefore, all results were considered sufficiently accurate, as discussed below.

Evaluation of Data Representativeness

Representativeness is the degree to which data accurately and precisely represent a characteristic of the population at a sampling point or an environmental condition. There is no standard method or formula for evaluating representativeness, which is a qualitative term. Representativeness is achieved through selection of sampling locations that are appropriate relative to the objective of the specific sampling task, and by collection of an adequate number of samples from the relevant types of locations. The samples were analyzed for a broad spectrum of chemical classes across the Site. Samples were delivered to the laboratory in coolers packed with ice to minimize the loss of analytes. As previously noted, no sample results were qualified based on sample temperatures or preservation.

Evaluation of Data Completeness

Completeness is commonly expressed as a percentage of measurements that are valid and usable relative to the total number of measurements made. Analytical completeness is a measure of the number of overall accepted analytical results, including estimated values, compared to the total number of analytical results requested on samples submitted for analysis after review of the analytical data. None of the data were eliminated due to data usability concerns. The percent completeness for the Site is 100 percent.

Evaluation of Data Comparability

Comparability is a qualitative characteristic expressing the confidence with which one dataset can be compared with another. The desire for comparability is the basis for specifying the analytical methods; these methods are generally consistent with those used in previous investigations of the Site. The comparability goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units. The ranges of detected sample results from the current investigation are generally comparable to results from the previous Sunset North Commercial sub-area investigations.

Data Analysis

Data validation and usability evaluations tend to look at the data on a result-by-result basis. The data analysis step is intended to take a step back and look at the dataset as a whole. The intent of this is to identify any anomalies or unusual data trends that may indicate any potential laboratory issues. This is performed by reviewing summary statistics or other visual aids. The soil dataset used for the Technical Memorandum is summarized in tabular format in Table 1. No anomalies in the dataset were identified.

5.0 Summary

Based on the results of the Site investigation and this data review, exposures to residual levels of chemicals in deeper soil at the Sunset North Commercial sub-area should not result in adverse health effects to all future receptors. These additional five samples were collected below 10 ft bgs to ensure that deeper subsurface concentrations did not show any contamination, to support minimal potential exposures during any limited, short-term utilities installation. The results, and simple comparison to conservative screening levels (as noted, any potential exposures would be much less than those assumed for the screening levels), provide support for an NFAD for these deeper soils, given the lack of any contamination.

Note also that there is no reason to believe, and in fact it is doubtful, that any site-related contamination would have extended to these depths in this particular area of the BMI Common Areas, which is borne out by the results provided in this memorandum. Because contamination was not expected, nor found, the limited number of samples was deemed adequate (that is, limited samples have demonstrated an absence of contamination). In summary, BRC concludes and hereby requests that the NDEP grant an NFAD for the Site.

REFERENCES

- Basic Remediation Company (BRC). 2013. Human Health Risk Assessment and Closure Report for the Sunset North Commercial Sub-Area. BMI Common Areas (Eastside), Clark County, Nevada. November.
- BRC, ERM, and MWH. 2009. BRC Field Sampling and Standard Operating Procedures, BMI Common Areas, Clark County, Nevada. December.
- Nevada Division of Environmental Protection (NDEP). 2008a. Supplemental Guidance for Assessing Data Usability for Environmental Investigations at the BMI Complex and Common Areas in Henderson, Nevada. Bureau of Corrective Actions, Special Projects Branch.

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NDEP. 2009b. Supplemental Guidance on Data Validation. April 13.

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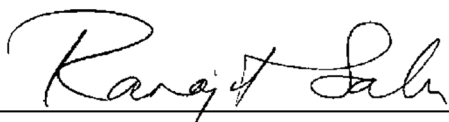
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U.S. Environmental Protection Agency (USEPA). 1989. Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual (Part A). Interim Final. Office of Emergency and Remedial Response, Washington, D.C. USEPA/540/1-89/002. December.

USEPA. 1992. Guidance for Data Usability in Risk Assessment. Part A. Office of Emergency and Remedial Response, Washington DC. Publication 9285.7-09A. PB92-963356. April.

Attachments: Figure 1 – Cadence Sunset North Site Location and Sample Locations
Table 1 – Soil Data Summary and Screening Level Comparisons
Appendix A – Cadence Sunset North Laboratory Reports

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.



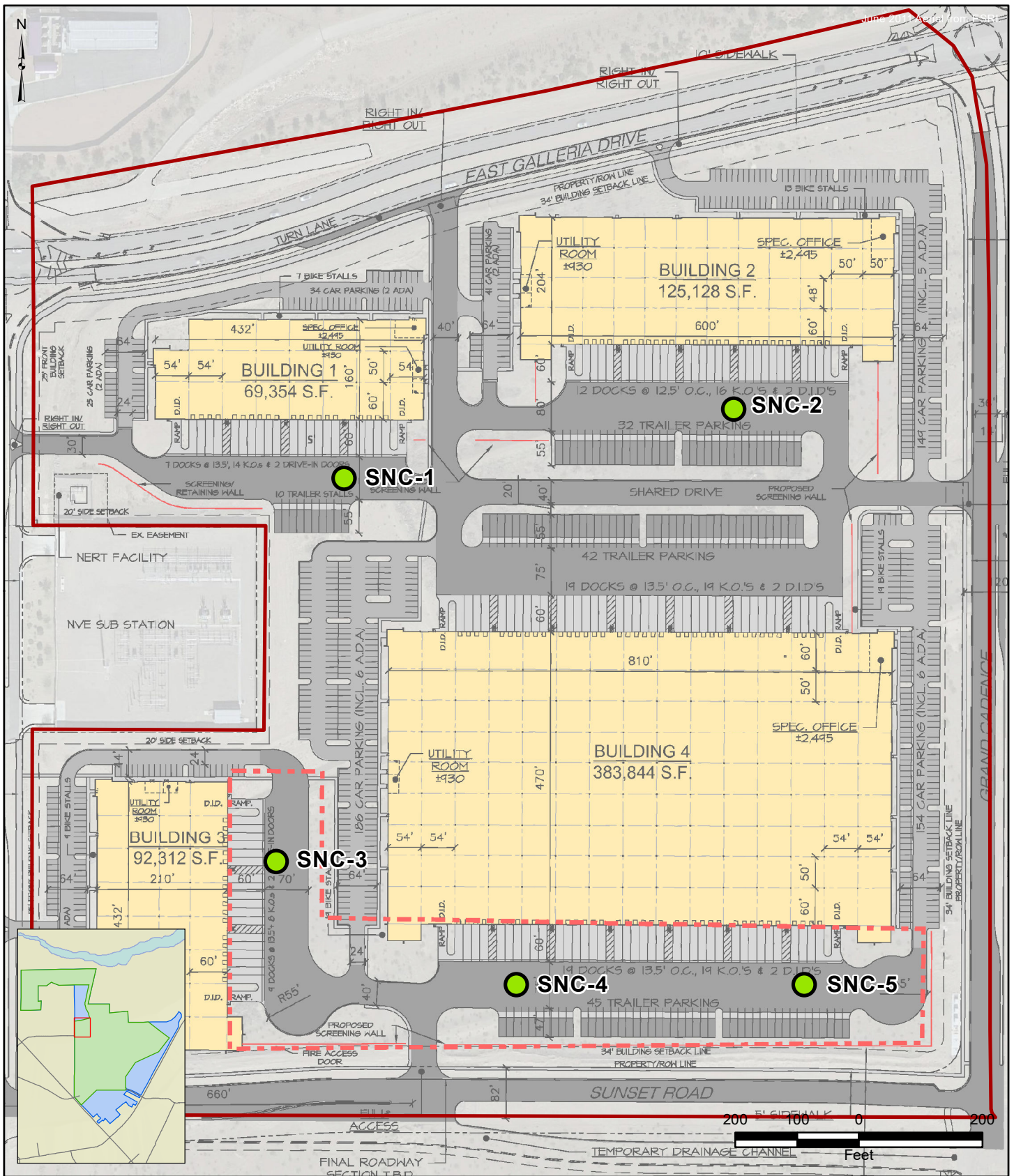
March 20, 2023

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2023)

Date

BRC Project Manager

FIGURES



Sunset North Commercial Sub-Area

Deep Soil Sample Location

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

CADENCE SUNSET
NORTH SITE LOCATION
AND SAMPLE LOCATIONS



Prepared by
MKJ

Date
03/20/23

FILE: GIS/BRC/SUNSETNORTH/CADENCE_FIGURE1.MXD

TABLES

TABLE 1

SOIL DATA SUMMARY AND SCREENING LEVEL COMPARISONS

Method	Analyte	Outdoor Worker BCL	Construction Worker SL ^a	Maximum Background	SNC-1	SNC-2	SNC-3	SNC-4	SNC-5
SW6020A	Aluminum	100,000	100,000	15,300	12,000	9,500	10,000	5,500	11,000
	Arsenic	2.15	45.5	13.1	14	6.9	9	12	8.7
	Barium	100,000	100,000	445	220	500	160	93	340
	Cobalt	385	71.4	16.3	8.6	7.1	8.1	3.2	8
	Lithium	2,600	620	26.5	34	21	35	29	30
	Manganese	28,100	1,910	863	440	360	340	150	390
	Thallium	13	21.7	1.8	< 0.53 U	< 0.49 U	< 0.52 U	< 0.59 U	< 0.5 U
	Vanadium	6,420	1,550	59.1	60	40	51	22	52
SW8081B	2,4'-DDD	--	--	--	< 0.0002 U	< 0.00019 U	< 0.00019 U	< 0.00022 U	< 0.00019 U
	2,4'-DDE	--	--	--	< 0.00036 U	< 0.00034 U	< 0.00035 U	< 0.00039 U	< 0.00034 U
	4,4'-DDD	15.1	--	--	< 0.0006 U	< 0.00057 U	< 0.00058 U	< 0.00066 U	< 0.00057 U
	4,4'-DDE	9.5	58.4	--	< 0.00026 U	< 0.00025 U	< 0.00025 U	< 0.00029 U	< 0.00025 U
	4,4'-DDT	7.5	58.4	--	< 0.00065 U	< 0.00062 U	< 0.00063 U	< 0.00071 U	< 0.00062 U
	Aldrin	0.214	--	--	< 0.00028 U	< 0.00026 U	< 0.00027 U	< 0.0003 U	< 0.00026 U
	alpha-BHC	0.494	--	--	< 0.00024 U	< 0.00022 U	< 0.00023 U	< 0.00026 U	< 0.00023 U
	beta-BHC	1.73	--	--	< 0.0003 U	< 0.00029 U	< 0.00029 U	< 0.00033 U	< 0.00029 U
	Chlordane	7.3	--	--	< 0.0086 U	< 0.0081 U	< 0.0083 U	< 0.0094 U	< 0.0082 U
	cis-Chlordane	--	--	--	< 0.00036 U	< 0.00034 U	< 0.00034 U	< 0.00039 U	< 0.00034 U
	delta-BHC	334	--	--	< 0.00044 U	< 0.00042 U	< 0.00043 U	< 0.00048 U	< 0.00042 U
	Dieldrin	0.16	--	--	< 0.00023 U	< 0.00022 U	< 0.00022 U	< 0.00025 U	< 0.00022 U
	Endosulfan I	5,500	--	--	< 0.00019 U	< 0.00018 U	< 0.00019 U	< 0.00021 U	< 0.00019 U
	Endosulfan II	5,500	--	--	< 0.00032 U	< 0.0003 U	< 0.00031 U	< 0.00035 U	< 0.0003 U
	Endosulfan sulfate	--	--	--	< 0.0003 U	< 0.00029 U	< 0.00029 U	< 0.00033 U	< 0.00029 U
	Endrin	30.2	--	--	< 0.00034 U	< 0.00032 U	< 0.00033 U	< 0.00037 U	< 0.00032 U
	Endrin aldehyde	--	--	--	< 0.00019 U	< 0.00018 U	< 0.00018 U	< 0.00021 U	< 0.00018 U
	Endrin ketone	--	--	--	< 0.00054 U	< 0.00051 U	< 0.00052 U	< 0.00059 U	< 0.00051 U
	gamma-BHC	2.83	--	--	< 0.00051 U	< 0.00049 U	< 0.00049 U	< 0.00056 U	< 0.00049 U
	Heptachlor	0.807	--	--	< 0.00024 U	< 0.00022 U	< 0.00023 U	< 0.00026 U	< 0.00023 U
	Heptachlor epoxide	0.399	--	--	< 0.00047 U	< 0.00045 U	< 0.00045 U	< 0.00051 U	< 0.00045 U
	Hexachlorobenzene	0.23	--	--	< 0.00031 U	< 0.00029 U	< 0.0003 U	< 0.00034 U	< 0.00029 U
	Methoxychlor	4,580	--	--	< 0.0005 U	< 0.00047 U	< 0.00048 U	< 0.00054 U	< 0.00047 U
	Toxaphene	2.33	--	--	< 0.017 U	< 0.017 U	< 0.017 U	< 0.019 U	< 0.017 U
	trans-Chlordane	--	--	--	< 0.00029 U	< 0.00028 U	< 0.00028 U	< 0.00032 U	< 0.00028 U

TABLE 1

SOIL DATA SUMMARY AND SCREENING LEVEL COMPARISONS

Method	Analyte	Outdoor Worker BCL	Construction Worker SL ^a	Maximum Background	SNC-1	SNC-2	SNC-3	SNC-4	SNC-5
SW8270C SIM	Acenaphthene	118	--	--	< 0.00035 U	< 0.00033 U	< 0.00033 U	< 0.00038 U	< 0.0003 U
	Acenaphthylene	--	--	--	< 0.00037 U	< 0.00035 U	< 0.00035 U	< 0.00041 U	< 0.00032 U
	Anthracene	4.26	--	--	< 0.0016 U	< 0.0015 U	< 0.0015 U	< 0.0017 U	< 0.0014 U
	Benzo[a]anthracene	3.23	21.4	--	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0022 U	< 0.0017 U
	Benzo[a]pyrene	0.323	2.14	--	< 0.0016 U	< 0.0015 U	< 0.0015 U	< 0.0018 U	< 0.0014 U
	Benzo[b]fluoranthene	3.23	21.4	--	< 0.0026 U	< 0.0025 U	< 0.0025 U	< 0.0029 U	< 0.0023 U
	Benzo[g,h,i]perylene	25,300	--	--	< 0.0024 U	< 0.0023 U	< 0.0023 U	< 0.0026 U	< 0.0021 U
	Benzo[k]fluoranthene	32.3	214	--	< 0.0022 U	< 0.0021 U	< 0.002 U	< 0.0024 U	< 0.0019 U
	Chrysene	323	2,140	--	< 0.0022 U	< 0.0021 U	< 0.002 U	< 0.0024 U	< 0.0019 U
	Dibenz(a,h)anthracene	0.323	2.14	--	< 0.0028 U	< 0.0027 U	< 0.0027 U	< 0.0031 U	< 0.0025 U
	Indeno[1,2,3-cd]pyrene	3.23	21.4	--	< 0.0024 U	< 0.0023 U	< 0.0023 U	< 0.0026 U	< 0.0021 U
	Phenanthrene	24.5	--	--	< 0.0024 U	< 0.0023 U	< 0.0023 U	< 0.0026 U	< 0.0021 U
	Pyrene	44	--	--	< 0.0024 U	< 0.0023 U	< 0.0023 U	< 0.0026 U	< 0.0021 U

All units in milligrams per kilogram (mg/kg).

^aConstruction worker screening levels only developed for the chemicals of potential concern (COPCs) in the Sunset North Commercial sub-area risk assessment.

APPENDIX A

CADENCE SUNSET NORTH LABORATORY REPORTS

ANALYTICAL REPORT

Eurofins TestAmerica, St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

Laboratory Job ID: 160-42991-1
Client Project/Site: Sunset North

For:

Basic Remediation Company
875 West Warm Springs Road
Henderson, Nevada 89011

Attn: Ranajit Sahu

Rhonda Ridenhower

Authorized for release by:
8/23/2021 1:01:19 PM

Rhonda Ridenhower, Client Service Manager
(314)298-8566
Rhonda.Ridenhower@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Job ID: 160-42991-1

Laboratory: Eurofins TestAmerica, St. Louis

Narrative

CASE NARRATIVE

Client: Basic Remediation Company

Project: Sunset North

Report Number: 160-42991-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, St. Louis attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 08/05/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.9 C.

Receipt Exceptions: The following samples were received at the laboratory outside the required temperature criteria: SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5) @10.9° C from St. Louis to Denver.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS SIM)

Samples SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5) were analyzed for Semivolatile Organic Compounds (GC/MS SIM) in accordance with SW-846 Method 8270 SIM. The samples were prepared on 08/09/2021 and analyzed on 08/16/2021.

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

ORGANOCHLORINE PESTICIDES (GC)

Case Narrative

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Job ID: 160-42991-1 (Continued)

Laboratory: Eurofins TestAmerica, St. Louis (Continued)

Samples SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5) were analyzed for Organochlorine Pesticides (GC) in accordance with EPA SW-846 Method 8081B. The samples were prepared on 08/09/2021 and analyzed on 08/17/2021.

For Method 8081B, the continuing calibration verification (CCV) associated with batch 280-546766 recovered outside of the control limits (20%) for Methoxychlor low at -27.1% but was reported from the front column, which was within limits. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4), SNC-5 (160-42991-5) and (CCV 280-546766/22).

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

METALS (ICPMS)

Samples SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 08/17/2021 and analyzed on 08/18/2021.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-523005 and analytical batch 160-523220 were outside control limits for Aluminum, Arsenic, Barium, Cobalt, Manganese, Thallium, Vanadium and Lithium. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (280-151468-E-3-B MS ^5) and (280-151468-E-3-C MSD ^5)

The post digestion spike % recovery for Manganese was outside of control limits indicating a potential matrix interference. (280-151468-E-3-A PDS ^5)

The following samples were diluted to bring the concentration of target analytes within the calibration range: SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5). 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.

PERCENT SOLIDS

Samples SNC-1 (160-42991-1), SNC-2 (160-42991-2), SNC-3 (160-42991-3), SNC-4 (160-42991-4) and SNC-5 (160-42991-5) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/09/2021.

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

[illegible]

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Ridenhower, Rhonda E		State of Origin: Nevada		160-217199.1	
Company: TestAmerica Laboratories, Inc.		E-Mail: Rhonda.Ridenhower@Eurofinset.com		Page 1 of 1			
Address: 4955 Yarrow Street, City: Arvada State, Zip: CO, 80002 Phone: 303-736-0100(Tel) 303-431-7171(Fax) Email:		Accreditations Required (See note): State - Nevada		Job #:		160-42991-1	
Due Date Requested: 8/25/2021 TAT Requested (days):		Analysis Requested		Preservation Codes:			
PO #:		8081B/3550C TCL Pesticides w/Hexachlorobenzene-		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 Other:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
WO #:		8081B/3550C TCL Pesticides w/Hexachlorobenzene-		Total Number of containers			
Project #: 16005346 SSOW#:		Perform MS/MSD (Yes or No)		Special Instructions/Note:			
Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix (W=Water, S=solid, O=Other, A=Air)	
8/4/21		07:42 Pacific		Solid			
8/4/21		09:25 Pacific		Solid			
8/4/21		08:13 Pacific		Solid			
8/4/21		08:37 Pacific		Solid			
8/4/21		08:59 Pacific		Solid			
8/4/21							
SNC-1 (160-42991-1)							
SNC-2 (160-42991-2)							
SNC-3 (160-42991-3)							
SNC-4 (160-42991-4)							
SNC-5 (160-42991-5)							

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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/test/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

Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

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: _____

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

Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact:
☐ Yes ☐ No
 Cooler Temperature(s) °C and Other Remarks: 10.9 CF-0.6 !R #11

Login Sample Receipt Checklist

Client: Basic Remediation Company

Job Number: 160-42991-1

Login Number: 42991

List Source: Eurofins TestAmerica, St. Louis

List Number: 1

Creator: Korrinhizer, Micha L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Basic Remediation Company

Job Number: 160-42991-1

Login Number: 42991

List Number: 2

Creator: Kazenga, Oliver M

List Source: Eurofins TestAmerica, Denver

List Creation: 08/06/21 03:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
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.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
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.	False	COC not relinquished.
Is the Field Sampler's name present on COC?	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Method Summary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
8081B	Organochlorine Pesticides (GC)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL DEN
3050B	Preparation, Metals	SW846	TAL SL
3546	Microwave Extraction	SW846	TAL DEN
3550C	Ultrasonic Extraction	SW846	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-42991-1	SNC-1	Solid	08/04/21 07:42	08/05/21 08:44
160-42991-2	SNC-2	Solid	08/04/21 09:25	08/05/21 08:44
160-42991-3	SNC-3	Solid	08/04/21 08:13	08/05/21 08:44
160-42991-4	SNC-4	Solid	08/04/21 08:37	08/05/21 08:44
160-42991-5	SNC-5	Solid	08/04/21 08:59	08/05/21 08:44

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Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-1

Lab Sample ID: 160-42991-1

Date Collected: 08/04/21 07:42

Matrix: Solid

Date Received: 08/05/21 08:44

Percent Solids: 86.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.011	0.00035	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Acenaphthylene	ND		0.011	0.00037	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Anthracene	ND		0.011	0.0016	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Benzo[a]anthracene	ND		0.011	0.0020	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Benzo[a]pyrene	ND		0.011	0.0016	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Benzo[b]fluoranthene	ND		0.011	0.0026	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Benzo[g,h,i]perylene	ND		0.011	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Benzo[k]fluoranthene	ND		0.011	0.0022	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Chrysene	ND		0.011	0.0022	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Dibenz(a,h)anthracene	ND		0.011	0.0028	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Indeno[1,2,3-cd]pyrene	ND		0.011	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Phenanthrene	ND		0.011	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1
Pyrene	ND		0.011	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	47		35 - 97	08/09/21 07:27	08/16/21 17:40	1
Terphenyl-d14	44		36 - 104	08/09/21 07:27	08/16/21 17:40	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9	0.28	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
alpha-BHC	ND		1.9	0.24	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
beta-BHC	ND		1.9	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
delta-BHC	ND		1.9	0.44	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
gamma-BHC (Lindane)	ND		1.9	0.51	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
cis-Chlordane	ND		1.9	0.36	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
trans-Chlordane	ND		1.9	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Chlordane (technical)	ND		28	8.6	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
4,4'-DDD	ND		1.9	0.60	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
2,4'-DDD	ND		1.9	0.20	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
4,4'-DDE	ND		1.9	0.26	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
2,4'-DDE	ND		1.9	0.36	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
4,4'-DDT	ND		1.9	0.65	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Dieldrin	ND		1.9	0.23	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endosulfan I	ND		1.9	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endosulfan II	ND		1.9	0.32	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endosulfan sulfate	ND		1.9	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endrin	ND		1.9	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endrin aldehyde	ND		1.9	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Endrin ketone	ND		1.9	0.54	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Heptachlor	ND		1.9	0.24	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Heptachlor epoxide	ND		1.9	0.47	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Hexachlorobenzene	ND		1.9	0.31	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Methoxychlor	ND		3.6	0.50	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1
Toxaphene	ND		74	17	ug/Kg	☆	08/09/21 08:27	08/17/21 21:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		59 - 115	08/09/21 08:27	08/17/21 21:57	1

Eurofins TestAmerica, St. Louis

Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-1

Date Collected: 08/04/21 07:42

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-1

Matrix: Solid

Percent Solids: 86.1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		13	5.3	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Arsenic	14		2.6	1.1	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Barium	220		5.3	1.3	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Cobalt	8.6		0.53	0.20	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Lithium	34		2.6	1.1	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Manganese	440		1.3	0.53	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Thallium	ND		1.3	0.53	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5
Vanadium	60		2.6	1.1	mg/Kg	☆	08/17/21 18:26	08/18/21 23:41	5

Client Sample ID: SNC-2

Date Collected: 08/04/21 09:25

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-2

Matrix: Solid

Percent Solids: 93.5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.010	0.00033	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Acenaphthylene	ND		0.010	0.00035	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Anthracene	ND		0.010	0.0015	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Benzo[a]anthracene	ND		0.010	0.0019	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Benzo[a]pyrene	ND		0.010	0.0015	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Benzo[b]fluoranthene	ND		0.010	0.0025	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Benzo[g,h,i]perylene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Benzo[k]fluoranthene	ND		0.010	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Chrysene	ND		0.010	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Dibenz(a,h)anthracene	ND		0.010	0.0027	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Indeno[1,2,3-cd]pyrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Phenanthrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1
Pyrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	71		35 - 97	08/09/21 07:27	08/16/21 18:07	1
Terphenyl-d14	70		36 - 104	08/09/21 07:27	08/16/21 18:07	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.8	0.26	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
alpha-BHC	ND		1.8	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
beta-BHC	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
delta-BHC	ND		1.8	0.42	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
gamma-BHC (Lindane)	ND		1.8	0.49	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
cis-Chlordane	ND		1.8	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
trans-Chlordane	ND		1.8	0.28	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Chlordane (technical)	ND		26	8.1	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
4,4'-DDD	ND		1.8	0.57	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
2,4'-DDD	ND		1.8	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
4,4'-DDE	ND		1.8	0.25	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
2,4'-DDE	ND		1.8	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
4,4'-DDT	ND		1.8	0.62	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Dieldrin	ND		1.8	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Endosulfan I	ND		1.8	0.18	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1

Eurofins TestAmerica, St. Louis

Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-2

Date Collected: 08/04/21 09:25

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-2

Matrix: Solid

Percent Solids: 93.5

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		1.8	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Endosulfan sulfate	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Endrin	ND		1.8	0.32	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Endrin aldehyde	ND		1.8	0.18	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Endrin ketone	ND		1.8	0.51	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Heptachlor	ND		1.8	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Heptachlor epoxide	ND		1.8	0.45	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Hexachlorobenzene	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Methoxychlor	ND		3.5	0.47	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Toxaphene	ND		70	17	ug/Kg	☆	08/09/21 08:27	08/17/21 22:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		59 - 115				08/09/21 08:27	08/17/21 22:14	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9500		12	4.9	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Arsenic	6.9		2.5	0.99	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Barium	500		4.9	1.2	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Cobalt	7.1		0.49	0.18	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Lithium	21		2.5	0.99	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Manganese	360		1.2	0.49	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Thallium	ND		1.2	0.49	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5
Vanadium	40		2.5	0.99	mg/Kg	☆	08/17/21 18:26	08/18/21 23:44	5

Client Sample ID: SNC-3

Date Collected: 08/04/21 08:13

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-3

Matrix: Solid

Percent Solids: 91.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.010	0.00033	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Acenaphthylene	ND		0.010	0.00035	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Anthracene	ND		0.010	0.0015	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Benzo[a]anthracene	ND		0.010	0.0018	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Benzo[a]pyrene	ND		0.010	0.0015	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Benzo[b]fluoranthene	ND		0.010	0.0025	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Benzo[g,h,i]perylene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Benzo[k]fluoranthene	ND		0.010	0.0020	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Chrysene	ND		0.010	0.0020	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Dibenz(a,h)anthracene	ND		0.010	0.0027	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Indeno[1,2,3-cd]pyrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Phenanthrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Pyrene	ND		0.010	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 18:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	70		35 - 97				08/09/21 07:27	08/16/21 18:33	1
Terphenyl-d14	66		36 - 104				08/09/21 07:27	08/16/21 18:33	1

Eurofins TestAmerica, St. Louis

Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-3

Date Collected: 08/04/21 08:13

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-3

Matrix: Solid

Percent Solids: 91.6

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.8	0.27	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
alpha-BHC	ND		1.8	0.23	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
beta-BHC	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
delta-BHC	ND		1.8	0.43	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
gamma-BHC (Lindane)	ND		1.8	0.49	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
cis-Chlordane	ND		1.8	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
trans-Chlordane	ND		1.8	0.28	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Chlordane (technical)	ND		27	8.3	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
4,4'-DDD	ND		1.8	0.58	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
2,4'-DDD	ND		1.8	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
4,4'-DDE	ND		1.8	0.25	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
2,4'-DDE	ND		1.8	0.35	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
4,4'-DDT	ND		1.8	0.63	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Dieldrin	ND		1.8	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endosulfan I	ND		1.8	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endosulfan II	ND		1.8	0.31	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endosulfan sulfate	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endrin	ND		1.8	0.33	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endrin aldehyde	ND		1.8	0.18	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Endrin ketone	ND		1.8	0.52	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Heptachlor	ND		1.8	0.23	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Heptachlor epoxide	ND		1.8	0.45	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Hexachlorobenzene	ND		1.8	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Methoxychlor	ND		3.5	0.48	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1
Toxaphene	ND		71	17	ug/Kg	☆	08/09/21 08:27	08/17/21 22:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		59 - 115	08/09/21 08:27	08/17/21 22:31	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10000		13	5.2	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Arsenic	9.0		2.6	1.0	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Barium	160		5.2	1.3	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Cobalt	8.1		0.52	0.20	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Lithium	35		2.6	1.0	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Manganese	340		1.3	0.52	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Thallium	ND		1.3	0.52	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5
Vanadium	51		2.6	1.0	mg/Kg	☆	08/17/21 18:26	08/18/21 23:47	5

Client Sample ID: SNC-4

Date Collected: 08/04/21 08:37

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-4

Matrix: Solid

Percent Solids: 80.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.012	0.00038	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Acenaphthylene	ND		0.012	0.00041	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Anthracene	ND		0.012	0.0017	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Benzo[a]anthracene	ND		0.012	0.0022	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1

Eurofins TestAmerica, St. Louis

Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-4

Lab Sample ID: 160-42991-4

Date Collected: 08/04/21 08:37

Matrix: Solid

Date Received: 08/05/21 08:44

Percent Solids: 80.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.012	0.0018	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Benzo[b]fluoranthene	ND		0.012	0.0029	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Benzo[g,h,i]perylene	ND		0.012	0.0026	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Benzo[k]fluoranthene	ND		0.012	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Chrysene	ND		0.012	0.0024	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Dibenz(a,h)anthracene	ND		0.012	0.0031	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Indeno[1,2,3-cd]pyrene	ND		0.012	0.0026	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Phenanthrene	ND		0.012	0.0026	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Pyrene	ND		0.012	0.0026	mg/Kg	☆	08/09/21 07:27	08/16/21 18:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		35 - 97				08/09/21 07:27	08/16/21 18:59	1
Terphenyl-d14	77		36 - 104				08/09/21 07:27	08/16/21 18:59	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
alpha-BHC	ND		2.0	0.26	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
beta-BHC	ND		2.0	0.33	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
delta-BHC	ND		2.0	0.48	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
gamma-BHC (Lindane)	ND		2.0	0.56	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
cis-Chlordane	ND		2.0	0.39	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
trans-Chlordane	ND		2.0	0.32	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Chlordane (technical)	ND		30	9.4	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
4,4'-DDD	ND		2.0	0.66	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
2,4'-DDD	ND		2.0	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
4,4'-DDE	ND		2.0	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
2,4'-DDE	ND		2.0	0.39	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
4,4'-DDT	ND		2.0	0.71	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Dieldrin	ND		2.0	0.25	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endosulfan I	ND		2.0	0.21	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endosulfan II	ND		2.0	0.35	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endosulfan sulfate	ND		2.0	0.33	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endrin	ND		2.0	0.37	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endrin aldehyde	ND		2.0	0.21	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Endrin ketone	ND		2.0	0.59	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Heptachlor	ND		2.0	0.26	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Hexachlorobenzene	ND		2.0	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Methoxychlor	ND		4.0	0.54	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Toxaphene	ND		81	19	ug/Kg	☆	08/09/21 08:27	08/17/21 22:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		59 - 115				08/09/21 08:27	08/17/21 22:48	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5500		15	5.9	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Arsenic	12		3.0	1.2	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Barium	93		5.9	1.5	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5

Eurofins TestAmerica, St. Louis

Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-4

Date Collected: 08/04/21 08:37

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-4

Matrix: Solid

Percent Solids: 80.7

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	3.2		0.59	0.22	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Lithium	29		3.0	1.2	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Manganese	150		1.5	0.59	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Thallium	ND		1.5	0.59	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5
Vanadium	22		3.0	1.2	mg/Kg	☆	08/17/21 18:26	08/18/21 23:51	5

Client Sample ID: SNC-5

Date Collected: 08/04/21 08:59

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-5

Matrix: Solid

Percent Solids: 94.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0095	0.00030	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Acenaphthylene	ND		0.0095	0.00032	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Anthracene	ND		0.0095	0.0014	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Benzo[a]anthracene	ND		0.0095	0.0017	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Benzo[a]pyrene	ND		0.0095	0.0014	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Benzo[b]fluoranthene	ND		0.0095	0.0023	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Benzo[g,h,i]perylene	ND		0.0095	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Benzo[k]fluoranthene	ND		0.0095	0.0019	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Chrysene	ND		0.0095	0.0019	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Dibenz(a,h)anthracene	ND		0.0095	0.0025	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Indeno[1,2,3-cd]pyrene	ND		0.0095	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Phenanthrene	ND		0.0095	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1
Pyrene	ND		0.0095	0.0021	mg/Kg	☆	08/09/21 07:27	08/16/21 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		35 - 97	08/09/21 07:27	08/16/21 19:25	1
Terphenyl-d14	73		36 - 104	08/09/21 07:27	08/16/21 19:25	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.8	0.26	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
alpha-BHC	ND		1.8	0.23	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
beta-BHC	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
delta-BHC	ND		1.8	0.42	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
gamma-BHC (Lindane)	ND		1.8	0.49	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
cis-Chlordane	ND		1.8	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
trans-Chlordane	ND		1.8	0.28	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Chlordane (technical)	ND		26	8.2	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
4,4'-DDD	ND		1.8	0.57	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
2,4'-DDD	ND		1.8	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
4,4'-DDE	ND		1.8	0.25	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
2,4'-DDE	ND		1.8	0.34	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
4,4'-DDT	ND		1.8	0.62	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Dieldrin	ND		1.8	0.22	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Endosulfan I	ND		1.8	0.19	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Endosulfan II	ND		1.8	0.30	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Endosulfan sulfate	ND		1.8	0.29	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1
Endrin	ND		1.8	0.32	ug/Kg	☆	08/09/21 08:27	08/17/21 23:05	1

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Client Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Client Sample ID: SNC-5

Date Collected: 08/04/21 08:59

Date Received: 08/05/21 08:44

Lab Sample ID: 160-42991-5

Matrix: Solid

Percent Solids: 94.1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		1.8	0.18	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Endrin ketone	ND		1.8	0.51	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Heptachlor	ND		1.8	0.23	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Heptachlor epoxide	ND		1.8	0.45	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Hexachlorobenzene	ND		1.8	0.29	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Methoxychlor	ND		3.5	0.47	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1
Toxaphene	ND		70	17	ug/Kg	✱	08/09/21 08:27	08/17/21 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		59 - 115	08/09/21 08:27	08/17/21 23:05	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		13	5.0	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Arsenic	8.7		2.5	1.0	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Barium	340		5.0	1.3	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Cobalt	8.0		0.50	0.19	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Lithium	30		2.5	1.0	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Manganese	390		1.3	0.50	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Thallium	ND		1.3	0.50	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5
Vanadium	52		2.5	1.0	mg/Kg	✱	08/17/21 18:26	08/18/21 23:54	5

QC Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-545783/1-A

Matrix: Solid

Analysis Batch: 546567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 545783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.010	0.00032	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Acenaphthylene	ND		0.010	0.00034	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Anthracene	ND		0.010	0.0014	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Benzo[a]anthracene	ND		0.010	0.0018	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Benzo[a]pyrene	ND		0.010	0.0015	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Benzo[b]fluoranthene	ND		0.010	0.0024	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Benzo[g,h,i]perylene	ND		0.010	0.0022	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Benzo[k]fluoranthene	ND		0.010	0.0020	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Chrysene	ND		0.010	0.0020	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Dibenz(a,h)anthracene	ND		0.010	0.0026	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Indeno[1,2,3-cd]pyrene	ND		0.010	0.0022	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Phenanthrene	ND		0.010	0.0022	mg/Kg		08/09/21 07:27	08/16/21 16:22	1
Pyrene	ND		0.010	0.0022	mg/Kg		08/09/21 07:27	08/16/21 16:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73		35 - 97	08/09/21 07:27	08/16/21 16:22	1
Terphenyl-d14	67		36 - 104	08/09/21 07:27	08/16/21 16:22	1

Lab Sample ID: LCS 280-545783/2-A

Matrix: Solid

Analysis Batch: 546567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 545783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0600	0.0464		mg/Kg		77	35 - 120
Acenaphthylene	0.0600	0.0484		mg/Kg		81	41 - 120
Anthracene	0.0600	0.0451		mg/Kg		75	43 - 120
Benzo[a]anthracene	0.0600	0.0492		mg/Kg		82	36 - 120
Benzo[a]pyrene	0.0600	0.0440		mg/Kg		73	20 - 120
Benzo[b]fluoranthene	0.0600	0.0462		mg/Kg		77	37 - 120
Benzo[g,h,i]perylene	0.0600	0.0442		mg/Kg		74	20 - 123
Benzo[k]fluoranthene	0.0600	0.0485		mg/Kg		81	46 - 120
Chrysene	0.0600	0.0506		mg/Kg		84	34 - 120
Dibenz(a,h)anthracene	0.0600	0.0473		mg/Kg		79	20 - 120
Indeno[1,2,3-cd]pyrene	0.0600	0.0445		mg/Kg		74	20 - 127
Phenanthrene	0.0600	0.0506		mg/Kg		84	44 - 120
Pyrene	0.0600	0.0485		mg/Kg		81	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	78		35 - 97
Terphenyl-d14	75		36 - 104

Lab Sample ID: LCSD 280-545783/3-A

Matrix: Solid

Analysis Batch: 546567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 545783

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.0600	0.0429		mg/Kg		72	35 - 120	8	50
Acenaphthylene	0.0600	0.0452		mg/Kg		75	41 - 120	7	50

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QC Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 280-545783/3-A

Matrix: Solid

Analysis Batch: 546567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 545783

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	0.0600	0.0414		mg/Kg		69	43 - 120	9	50
Benzo[a]anthracene	0.0600	0.0448		mg/Kg		75	36 - 120	9	40
Benzo[a]pyrene	0.0600	0.0387		mg/Kg		64	20 - 120	13	30
Benzo[b]fluoranthene	0.0600	0.0409		mg/Kg		68	37 - 120	12	28
Benzo[g,h,i]perylene	0.0600	0.0383		mg/Kg		64	20 - 123	14	30
Benzo[k]fluoranthene	0.0600	0.0415		mg/Kg		69	46 - 120	16	28
Chrysene	0.0600	0.0467		mg/Kg		78	34 - 120	8	41
Dibenz(a,h)anthracene	0.0600	0.0395		mg/Kg		66	20 - 120	18	25
Indeno[1,2,3-cd]pyrene	0.0600	0.0372		mg/Kg		62	20 - 127	18	50
Phenanthrene	0.0600	0.0462		mg/Kg		77	44 - 120	9	42
Pyrene	0.0600	0.0446		mg/Kg		74	43 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Nitrobenzene-d5	69		35 - 97
Terphenyl-d14	69		36 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-545784/1-A

Matrix: Solid

Analysis Batch: 546766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 545784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.7	0.25	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
alpha-BHC	ND		1.7	0.21	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
beta-BHC	ND		1.7	0.28	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
delta-BHC	ND		1.7	0.40	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
cis-Chlordane	ND		1.7	0.32	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
trans-Chlordane	ND		1.7	0.27	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Chlordane (technical)	ND		25	7.8	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
4,4'-DDD	ND		1.7	0.55	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
2,4'-DDD	ND		1.7	0.18	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
4,4'-DDE	ND		1.7	0.24	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
2,4'-DDE	ND		1.7	0.33	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
4,4'-DDT	ND		1.7	0.59	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Dieldrin	ND		1.7	0.21	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endosulfan I	ND		1.7	0.18	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endosulfan II	ND		1.7	0.29	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endosulfan sulfate	ND		1.7	0.28	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endrin	ND		1.7	0.31	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endrin aldehyde	ND		1.7	0.17	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Endrin ketone	ND		1.7	0.49	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Heptachlor	ND		1.7	0.21	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Hexachlorobenzene	ND		1.7	0.28	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Methoxychlor	ND		3.3	0.45	ug/Kg		08/09/21 08:27	08/17/21 21:06	1
Toxaphene	ND		67	16	ug/Kg		08/09/21 08:27	08/17/21 21:06	1

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QC Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 280-545784/1-A
Matrix: Solid
Analysis Batch: 546766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 545784

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		59 - 115	08/09/21 08:27	08/17/21 21:06	1

Lab Sample ID: LCS 280-545784/2-A
Matrix: Solid
Analysis Batch: 546766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 545784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	16.7	14.9		ug/Kg		90	69 - 109
alpha-BHC	16.7	15.4		ug/Kg		92	65 - 109
beta-BHC	16.7	14.3		ug/Kg		86	62 - 113
delta-BHC	16.7	15.6		ug/Kg		94	67 - 110
gamma-BHC (Lindane)	16.7	15.3		ug/Kg		92	66 - 110
cis-Chlordane	16.7	15.9		ug/Kg		95	71 - 112
trans-Chlordane	16.7	16.3		ug/Kg		98	69 - 114
4,4'-DDD	16.7	15.8		ug/Kg		95	69 - 116
4,4'-DDE	16.7	16.0		ug/Kg		96	71 - 116
4,4'-DDT	16.7	14.9		ug/Kg		90	67 - 122
Dieldrin	16.7	15.5		ug/Kg		93	71 - 115
Endosulfan I	16.7	15.0		ug/Kg		90	67 - 108
Endosulfan II	16.7	14.4		ug/Kg		87	69 - 111
Endosulfan sulfate	16.7	16.4		ug/Kg		99	69 - 117
Endrin	16.7	16.8		ug/Kg		101	69 - 119
Endrin aldehyde	16.7	14.2		ug/Kg		85	47 - 113
Endrin ketone	16.7	14.4		ug/Kg		86	65 - 111
Heptachlor	16.7	15.8		ug/Kg		95	68 - 116
Heptachlor epoxide	16.7	15.9		ug/Kg		95	71 - 112
Hexachlorobenzene	16.7	16.0		ug/Kg		96	50 - 130
Methoxychlor	16.7	15.2		ug/Kg		91	65 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	89		59 - 115

Lab Sample ID: LCSD 280-545784/3-A
Matrix: Solid
Analysis Batch: 546766

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 545784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	16.7	14.4		ug/Kg		86	69 - 109	3	50
alpha-BHC	16.7	14.8		ug/Kg		89	65 - 109	4	17
beta-BHC	16.7	13.8		ug/Kg		83	62 - 113	3	17
delta-BHC	16.7	15.0		ug/Kg		90	67 - 110	4	19
gamma-BHC (Lindane)	16.7	14.8		ug/Kg		89	66 - 110	3	24
cis-Chlordane	16.7	15.4		ug/Kg		93	71 - 112	3	18
trans-Chlordane	16.7	15.8		ug/Kg		95	69 - 114	3	21
4,4'-DDD	16.7	14.9		ug/Kg		89	69 - 116	6	20
4,4'-DDE	16.7	15.2		ug/Kg		91	71 - 116	5	15
4,4'-DDT	16.7	14.6		ug/Kg		87	67 - 122	3	29
Dieldrin	16.7	14.9		ug/Kg		90	71 - 115	3	25

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QC Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 280-545784/3-A

Matrix: Solid

Analysis Batch: 546766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 545784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan I	16.7	14.4		ug/Kg		86	67 - 108	4	26
Endosulfan II	16.7	13.8		ug/Kg		83	69 - 111	5	20
Endosulfan sulfate	16.7	15.6		ug/Kg		94	69 - 117	5	22
Endrin	16.7	16.2		ug/Kg		97	69 - 119	3	30
Endrin aldehyde	16.7	13.8		ug/Kg		83	47 - 113	3	29
Endrin ketone	16.7	13.4		ug/Kg		80	65 - 111	7	20
Heptachlor	16.7	15.5		ug/Kg		93	68 - 116	2	18
Heptachlor epoxide	16.7	15.5		ug/Kg		93	71 - 112	3	18
Hexachlorobenzene	16.7	14.7		ug/Kg		88	50 - 130	9	25
Methoxychlor	16.7	14.4		ug/Kg		86	65 - 130	5	23

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Tetrachloro-m-xylene	83		59 - 115

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-523005/1-A ^2

Matrix: Solid

Analysis Batch: 523220

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 523005

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		4.8	1.9	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Arsenic	ND		0.97	0.39	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Barium	ND		1.9	0.48	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Cobalt	ND		0.19	0.072	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Lithium	ND		0.97	0.39	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Manganese	ND		0.48	0.19	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Thallium	ND		0.48	0.19	mg/Kg		08/17/21 18:26	08/18/21 22:46	2
Vanadium	ND		0.97	0.39	mg/Kg		08/17/21 18:26	08/18/21 22:46	2

Lab Sample ID: LCS 160-523005/2-A ^2

Matrix: Solid

Analysis Batch: 523220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 523005

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	963	1040		mg/Kg		108	44 - 155
Arsenic	96.3	99.1		mg/Kg		103	70 - 131
Barium	96.3	97.3		mg/Kg		101	74 - 125
Cobalt	96.3	100		mg/Kg		104	74 - 125
Lithium	9.63	9.88		mg/Kg		103	80 - 120
Manganese	96.3	98.7		mg/Kg		102	77 - 124
Thallium	19.3	20.0		mg/Kg		104	68 - 131
Vanadium	96.3	98.4		mg/Kg		102	67 - 132

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QC Sample Results

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-151468-E-3-B MS ^5

Matrix: Solid

Analysis Batch: 523220

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 523005

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2200	F1	1000	7660	F1	mg/Kg	⊛	544	75 - 125
Arsenic	ND	F1	100	133	F1	mg/Kg	⊛	133	75 - 125
Barium	20	F1	100	152	F1	mg/Kg	⊛	132	75 - 125
Cobalt	1.1	F1	100	139	F1	mg/Kg	⊛	137	75 - 125
Lithium	1.4	J F1	10.0	15.1	F1	mg/Kg	⊛	137	75 - 125
Manganese	82	F1	100	225	F1	mg/Kg	⊛	142	75 - 125
Thallium	ND	F1	20.1	26.7	F1	mg/Kg	⊛	133	75 - 125
Vanadium	6.5	F1	100	137	F1	mg/Kg	⊛	130	75 - 125

Lab Sample ID: 280-151468-E-3-C MSD ^5

Matrix: Solid

Analysis Batch: 523220

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 523005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	2200	F1	1030	8480	F1	mg/Kg	⊛	609	75 - 125	10	30
Arsenic	ND	F1	103	123		mg/Kg	⊛	119	75 - 125	8	30
Barium	20	F1	103	152	F1	mg/Kg	⊛	128	75 - 125	0	30
Cobalt	1.1	F1	103	129		mg/Kg	⊛	124	75 - 125	8	30
Lithium	1.4	J F1	10.3	13.9		mg/Kg	⊛	121	75 - 125	9	30
Manganese	82	F1	103	220	F1	mg/Kg	⊛	134	75 - 125	2	30
Thallium	ND	F1	20.6	24.8		mg/Kg	⊛	120	75 - 125	7	30
Vanadium	6.5	F1	103	128		mg/Kg	⊛	117	75 - 125	7	30

QC Association Summary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

GC/MS Semi VOA

Prep Batch: 545783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	3546	
160-42991-2	SNC-2	Total/NA	Solid	3546	
160-42991-3	SNC-3	Total/NA	Solid	3546	
160-42991-4	SNC-4	Total/NA	Solid	3546	
160-42991-5	SNC-5	Total/NA	Solid	3546	
MB 280-545783/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-545783/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 280-545783/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 546567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	8270C SIM	545783
160-42991-2	SNC-2	Total/NA	Solid	8270C SIM	545783
160-42991-3	SNC-3	Total/NA	Solid	8270C SIM	545783
160-42991-4	SNC-4	Total/NA	Solid	8270C SIM	545783
160-42991-5	SNC-5	Total/NA	Solid	8270C SIM	545783
MB 280-545783/1-A	Method Blank	Total/NA	Solid	8270C SIM	545783
LCS 280-545783/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	545783
LCSD 280-545783/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	545783

GC Semi VOA

Prep Batch: 545784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	3550C	
160-42991-2	SNC-2	Total/NA	Solid	3550C	
160-42991-3	SNC-3	Total/NA	Solid	3550C	
160-42991-4	SNC-4	Total/NA	Solid	3550C	
160-42991-5	SNC-5	Total/NA	Solid	3550C	
MB 280-545784/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 280-545784/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 280-545784/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 546766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	8081B	545784
160-42991-2	SNC-2	Total/NA	Solid	8081B	545784
160-42991-3	SNC-3	Total/NA	Solid	8081B	545784
160-42991-4	SNC-4	Total/NA	Solid	8081B	545784
160-42991-5	SNC-5	Total/NA	Solid	8081B	545784
MB 280-545784/1-A	Method Blank	Total/NA	Solid	8081B	545784
LCS 280-545784/2-A	Lab Control Sample	Total/NA	Solid	8081B	545784
LCSD 280-545784/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	545784

Metals

Prep Batch: 523005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	3050B	
160-42991-2	SNC-2	Total/NA	Solid	3050B	
160-42991-3	SNC-3	Total/NA	Solid	3050B	
160-42991-4	SNC-4	Total/NA	Solid	3050B	

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QC Association Summary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Metals (Continued)

Prep Batch: 523005 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-5	SNC-5	Total/NA	Solid	3050B	
MB 160-523005/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 160-523005/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
280-151468-E-3-B MS ^5	Matrix Spike	Total/NA	Solid	3050B	
280-151468-E-3-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 523220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	6020A	523005
160-42991-2	SNC-2	Total/NA	Solid	6020A	523005
160-42991-3	SNC-3	Total/NA	Solid	6020A	523005
160-42991-4	SNC-4	Total/NA	Solid	6020A	523005
160-42991-5	SNC-5	Total/NA	Solid	6020A	523005
MB 160-523005/1-A ^2	Method Blank	Total/NA	Solid	6020A	523005
LCS 160-523005/2-A ^2	Lab Control Sample	Total/NA	Solid	6020A	523005
280-151468-E-3-B MS ^5	Matrix Spike	Total/NA	Solid	6020A	523005
280-151468-E-3-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6020A	523005

General Chemistry

Analysis Batch: 545870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-42991-1	SNC-1	Total/NA	Solid	Moisture	
160-42991-2	SNC-2	Total/NA	Solid	Moisture	
160-42991-3	SNC-3	Total/NA	Solid	Moisture	
160-42991-4	SNC-4	Total/NA	Solid	Moisture	
160-42991-5	SNC-5	Total/NA	Solid	Moisture	
160-42991-1 DU	SNC-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Basic Remediation Company
Project/Site: Sunset North

Job ID: 160-42991-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ	TPHL
		(35-97)	(36-104)
160-42991-1	SNC-1	47	44
160-42991-2	SNC-2	71	70
160-42991-3	SNC-3	70	66
160-42991-4	SNC-4	80	77
160-42991-5	SNC-5	77	73
LCS 280-545783/2-A	Lab Control Sample	78	75
LCSD 280-545783/3-A	Lab Control Sample Dup	69	69
MB 280-545783/1-A	Method Blank	73	67

Surrogate Legend

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1
		(59-115)
160-42991-1	SNC-1	92
160-42991-2	SNC-2	88
160-42991-3	SNC-3	89
160-42991-4	SNC-4	92
160-42991-5	SNC-5	93
LCS 280-545784/2-A	Lab Control Sample	89
LCSD 280-545784/3-A	Lab Control Sample Dup	83
MB 280-545784/1-A	Method Blank	88

Surrogate Legend

TCX = Tetrachloro-m-xylene