



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	O1232	OrderDate:	1/19/2023 1:44:00 PM
Client:	Louis Berger U.S., Inc., A WSP Company	Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR
Contact:	Jonathan Ganz	Location:	N11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1232-03	WC-17	SOIL	Diesel Range Organics	8015D	01/18/23	01/20/23	01/20/23	01/19/23

SAMPLE DATA

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	WC-17	SDG No.:	O1232
Lab Sample ID:	O1232-03	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.4
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011895.D	1	01/20/23 13:10	01/20/23 17:29	PB150379

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1920		239	1820	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.4		37 - 130	52%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

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D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

QC SUMMARY



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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG No.: O1232

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF011890.D	68				0
PIBLK-FF011899.D	68				0
WC-17	52				0
WC-17MS	83				0
WC-17MSD	74				0
PB150379BL	71				0
PB150379BS	63				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130
For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

A
B
C
D
E
F



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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Cas No: O1232 SAS No : O1232 SDG No: O1232
Client SampleID : WC-17MS Datafile: FF011896.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7272	1920	10471	118%		68-131



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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Cas No: O1232 SAS No : O1232 SDG No: O1232
Client SampleID : WC-17MSD Datafile: FF011897.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7277	1920	9258	101%		68-131

MS/MSD % Recovery RPD : 15.4

A
B
C
D
E
F



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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name:

Chemtech

Client:

Louis Berger U.S., Inc., A WSP Company

Lab Code:

CHEM

Cas No:

O1232

SAS No :

O1232

SDG No:

O1232

Matrix Spike - EPA Sample No :

PB150379BS

Datafile:

FF011894.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6660	0	5212	78	68-131



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4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB150379BL

Lab Name: CHEMTECH

Contract: louis01

Lab Code: CHEM Case No.: 01232

SAS No.: 01232 SDG NO.: 01232

Lab File ID: FF011893.D

Lab Sample ID: PB150379BL

Instrument ID: FF

Date Extracted: 01/20/2023

Matrix: (soil/water) Soil

Date Analyzed: 01/20/23

Level: (low/med) low

Time Analyzed: 16:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB150379BS	PB150379BS	FF011894.D	01/20/23
WC-17	01232-03	FF011895.D	01/20/23
WC-17MS	01232-03MS	FF011896.D	01/20/23
WC-17MSD	01232-03MSD	FF011897.D	01/20/23

COMMENTS:

QC SAMPLE DATA

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150379BL	SDG No.:	O1232
Lab Sample ID:	PB150379BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011893.D	1	01/20/23 13:10	01/20/23 16:30	PB150379

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	219	U	219	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.2		37 - 130	71%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-FF011890.D	SDG No.:	O1232
Lab Sample ID:	I.BLK-FF011890.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011890.D	1		01/20/23	FF012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	7.00	U	7.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	13.6		29 - 130	68%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-FF011899.D	SDG No.:	O1232
Lab Sample ID:	I.BLK-FF011899.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011899.D	1		01/20/23	FF012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	7.00	U	7.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	13.6		29 - 130	68%	SPK: 20

Comments:

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MDL = Method Detection Limit

LOD = Limit of Detection

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B = Analyte Found in Associated Method Blank

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() = Laboratory InHouse Limit

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150379BS	SDG No.:	O1232
Lab Sample ID:	PB150379BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011894.D	1	01/20/23 13:10	01/20/23 17:00	PB150379

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	5210		219	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.6		37 - 130	63%	SPK: 20

Comments:

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Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	WC-17MS	SDG No.:	O1232
Lab Sample ID:	O1232-03MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.4
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011896.D	1	01/20/23 13:10	01/20/23 17:59	PB150379

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	10500		239	1820	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	16.6		37 - 130	83%	SPK: 20

Comments:

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D = Dilution

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	WC-17MSD	SDG No.:	O1232
Lab Sample ID:	O1232-03MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.4
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF011897.D	1	01/20/23 13:10	01/20/23 18:28	PB150379

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	9260		239	1820	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.8		37 - 130	74%	SPK: 20

Comments:

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LOD = Limit of Detection

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Q = indicates LCS control criteria did not meet requirements

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B = Analyte Found in Associated Method Blank

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CALIBRATION SUMMARY



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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG No.: O1232

Calibration Sequence : FF123022		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	150435250	150435	FF011840.D
500	78485683	156971	FF011841.D
200	33452553	167263	FF011842.D
100	18725781	187258	FF011843.D
50	9861875	197238	FF011844.D
AVG RF : 171833		% RSD : 11.577	AVG RT : 15.0486



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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG No.: O1232
DataFile: FF011891.D Analyst Name: YP\AJ Analyst Date: 01-20-2023

Conc. (PPM)	Area Count	RF	Average RF	%D
500	90909856	181820	171833	5.812

A
B
C
D
E
F



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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG No.: O1232
DataFile: FF011900.D Analyst Name: YP\AJ Analyst Date: 01-20-2023

Conc. (PPM)	Area Count	RF	Average RF	%D
500	90844238	181688	171833	5.735

A
B
C
D
E
F

Analytical Sequence

Client: Louis Berger U.S., Inc., A WSP Company

SDG No.: O1232

Project: NYCDDC Phase II SCI Arthur Kill Road CEQR

Instrument ID: FID_F

GC Column: RXI-1MS ID: 0.18 (mm)

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,
AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.0486					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	20 Jan 2023 15:00	FF011890.D	15.046	
50 PPM TRPH STD	50 PPM TRPH STD	20 Jan 2023 15:29	FF011891.D	15.053	
PB150379BL	PB150379BL	20 Jan 2023 16:30	FF011893.D	15.050	
PB150379BS	PB150379BS	20 Jan 2023 17:00	FF011894.D	15.050	
WC-17	O1232-03	20 Jan 2023 17:29	FF011895.D	15.049	
WC-17MS	O1232-03MS	20 Jan 2023 17:59	FF011896.D	15.050	
WC-17MSD	O1232-03MSD	20 Jan 2023 18:28	FF011897.D	15.050	
PIBLK02	LBLK02	20 Jan 2023 19:57	FF011899.D	15.049	
50 PPM TRPH STD	50 PPM TRPH STD	20 Jan 2023 20:56	FF011900.D	15.054	

Column used to flag RT values with an * values outside of QC limits

QC Limits
(± 0.10 minutes)

Lower Limit
14.9486

Upper Limits
15.1486