

## LAB CHRONICLE

<b>OrderID:</b>	Q1242	<b>OrderDate:</b>	1/30/2025 3:02:00 PM
<b>Client:</b>	RU2 Engineering, LLC	<b>Project:</b>	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
<b>Contact:</b>	Rutu Manani	<b>Location:</b>	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>Q1242-01</b>	<b>JPP-6.2-013025</b>	<b>SOIL</b>			<b>01/30/25</b>			<b>01/30/25</b>
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
<b>Q1242-04</b>	<b>JPP-6.2-013025</b>	<b>TCLP</b>			<b>01/30/25</b>			<b>01/30/25</b>
			TCLP Herbicide	8151A		02/03/25	02/03/25	



# SAMPLE DATA

## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	81.5
Sample Wt/Vol:	30.01 Units: g	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052188.D	10	01/31/25 08:50	01/31/25 20:42	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
<b>TARGETS</b>						
DRO	DRO	66000		2270	20400	ug/kg
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	1.11		37 - 130	56%	SPK: 20

### Comments:

U = Not Detected

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# QC SUMMARY

**SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY**

Lab Name: Chemtech Client: RU2 Engineering, LLC  
Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FE052167.D	90				0
PIBLK-FE052179.D	82				0
PIBLK-FE052189.D	87				0
PB166415BL	87				0
PB166415BS	94				0
JPP-5.3-013025MS	64				0
JPP-5.3-013025MSD	62				0
JPP-6.2-013025	56				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

**SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

**Lab Name:** Chemtech **Client:** RU2 Engineering, LLC  
**Lab Code:** CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242  
**Client SampleID :** JPP-5.3-013025MS **Datafile:** FE052181.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7453	168000	150000	-242%	*	68-131

**SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

**Lab Name:** Chemtech **Client:** RU2 Engineering, LLC  
**Lab Code:** CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242  
**Client SampleID :** JPP-5.3-013025MSD **Datafile:** FE052182.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7460	168000	152000	-214%	*	68-131

**MS/MSD % Recovery RPD : 11.8**

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

**Lab Name:** Chemtech **Client:** RU2 Engineering, LLC  
**Lab Code:** CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242  
**Matrix Spike - EPA Sample No :** PB166415BS **Datafile:** FE052172.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6660	0	6353	95	68-131



4B  
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166415BL

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1242

SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: FE052171.D

Lab Sample ID: PB166415BL

Instrument ID: FE

Date Extracted: 01/31/2025

Matrix: (soil/water) Soil

Date Analyzed: 01/31/25

Level: (low/med) low

Time Analyzed: 12:08

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166415BS	PB166415BS	FE052172.D	01/31/25
JPP-5.3-013025MS	Q1241-05MS	FE052181.D	01/31/25
JPP-5.3-013025MSD	Q1241-05MSD	FE052182.D	01/31/25
JPP-6.2-013025	Q1242-01	FE052188.D	01/31/25

COMMENTS: \_\_\_\_\_



# QC SAMPLE DATA

## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BL	SDG No.:	Q1242
Lab Sample ID:	PB166415BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 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
FE052171.D	1	01/31/25 08:50	01/31/25 12:08	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
<b>TARGETS</b>						
DRO	DRO	1670	U	185	1670	ug/kg
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	17.4		37 - 130	87%	SPK: 20

### Comments:

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## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052167.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052167.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
FE052167.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
DRO	DRO	50.0	U	10.0	50.0	ug/L
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	18.1		29 - 130	90%	SPK: 20

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## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052179.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052179.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
FE052179.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
DRO	DRO	50.0	U	10.0	50.0	ug/L
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	16.3		29 - 130	82%	SPK: 20

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## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052189.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052189.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
FE052189.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
DRO	DRO	50.0	U	10.0	50.0	ug/L
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	17.5		29 - 130	87%	SPK: 20

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## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BS	SDG No.:	Q1242
Lab Sample ID:	PB166415BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052172.D	1	01/31/25 08:50	01/31/25 12:38	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
<b>TARGETS</b>						
DRO	DRO	6350		185	1670	ug/kg
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	18.8		37 - 130	94%	SPK: 20

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## Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MS	SDG No.:	Q1242
Lab Sample ID:	Q1241-05MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3
Sample Wt/Vol:	30.05 Units: g	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052181.D	1	01/31/25 08:50	01/31/25 17:10	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
<b>TARGETS</b>						
DRO	DRO	150000	E	207	1860	ug/kg
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	12.8		37 - 130	64%	SPK: 20

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Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MSD	SDG No.:	Q1242
Lab Sample ID:	Q1241-05MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3
Sample Wt/Vol:	30.02 Units: g	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052182.D	1	01/31/25 08:50	01/31/25 17:40	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
<b>TARGETS</b>						
DRO	DRO	152000	E	207	1870	ug/kg
<b>SURROGATES</b>						
16416-32-3	Tetracosane-d50	12.4		37 - 130	62%	SPK: 20

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# CALIBRATION SUMMARY

**DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY**

Lab Name: Chemtech Contract: RUTW01  
 ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR  
 Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D
AVG RF : 106182		% RSD : 6.169	AVG RT : 15.2554

**DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: RUTW01  
ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR  
Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242  
DataFile: FE052168.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	48882662	97765	106182	7.927

**DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: RUTW01  
ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR  
Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242  
DataFile: FE052180.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	46710313	93421	106182	12.018

**DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: RUTW01  
ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR  
Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242  
DataFile: FE052190.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47002499	94005	106182	11.468

## Analytical Sequence

**Client:** RU2 Engineering, LLC

**SDG No.:** Q1242

**Project:** NYCDDC SANTWOBR Brooklyn Bridge BBMCR

**Instrument ID:** FID\_E

**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 <b>15.2554</b>					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	31 Jan 2025 09:56	FE052167.D	15.274	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 10:26	FE052168.D	15.275	
PB166415BL	PB166415BL	31 Jan 2025 12:08	FE052171.D	15.271	
PB166415BS	PB166415BS	31 Jan 2025 12:38	FE052172.D	15.270	
PIBLK02	LBLK02	31 Jan 2025 16:09	FE052179.D	15.300	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 16:40	FE052180.D	15.300	
JPP-5.3-013025MS	Q1241-05MS	31 Jan 2025 17:10	FE052181.D	15.243	
JPP-5.3-013025MSD	Q1241-05MSD	31 Jan 2025 17:40	FE052182.D	15.248	
JPP-6.2-013025	Q1242-01	31 Jan 2025 20:42	FE052188.D	15.230	
PIBLK03	LBLK03	31 Jan 2025 21:12	FE052189.D	15.299	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 22:12	FE052190.D	15.300	