

LAB CHRONICLE

OrderID:	Q2484	OrderDate:	7/2/2025 9:23:00 AM
Client:	CDM Smith	Project:	South River WM Replacement
Contact:	Marcie Ann Encinas	Location:	--Select--,A12,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2484-01	TP-58	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/03/25	07/01/25
			Gasoline Range Organics	8015D			07/03/25	
			PCB	8082A		07/02/25	07/02/25	
			Pesticide-TCL	8081B		07/02/25	07/02/25	
Q2484-02	TP-57	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/02/25	07/01/25
			Gasoline Range Organics	8015D			07/03/25	
			PCB	8082A		07/02/25	07/02/25	
			Pesticide-TCL	8081B		07/02/25	07/02/25	
Q2484-03	TP-64	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/03/25	07/01/25
			Gasoline Range Organics	8015D			07/03/25	
			PCB	8082A		07/02/25	07/02/25	
			Pesticide-TCL	8081B		07/02/25	07/02/25	
Q2484-04	TP-107	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/02/25	07/01/25
			PCB	8082A		07/02/25	07/02/25	
			Pesticide-TCL	8081B		07/02/25	07/02/25	
Q2484-05	TP-106	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/02/25	07/01/25
			Gasoline Range Organics	8015D			07/03/25	
			PCB	8082A		07/02/25	07/02/25	
			Pesticide-TCL	8081B		07/02/25	07/02/25	
Q2484-06	TP-104	SOIL	Diesel Range Organics	8015D	07/01/25	07/02/25	07/02/25	07/01/25
			Gasoline Range Organics	8015D			07/03/25	

LAB CHRONICLE

PCB	8082A	07/02/25	07/02/25
Pesticide-TCL	8081B	07/02/25	07/02/25

A

B

C

D

E

F

G



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-58	SDG No.:	Q2484
Lab Sample ID:	Q2484-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	86.2
Sample Wt/Vol:	30.01	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
FG016220.D	5	07/02/25 09:17	07/03/25 10:47	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	84500		980	9660	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	4.15		37 - 130	104%	SPK: 20

Comments:

U = Not Detected

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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

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* = 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:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-57	SDG No.:	Q2484
Lab Sample ID:	Q2484-02	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	86
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
FG016206.D	1	07/02/25 09:17	07/02/25 18:06	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6690		196	1940	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.4		37 - 130	52%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-64	SDG No.:	Q2484
Lab Sample ID:	Q2484-03	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.4
Sample Wt/Vol:	30.07	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
FG016221.D	10	07/02/25 09:17	07/03/25 11:17	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	95400		1910	18800	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	0.53	*	37 - 130	26%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-107	SDG No.:	Q2484
Lab Sample ID:	Q2484-04	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83.8
Sample Wt/Vol:	30.02	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
FG016210.D	1	07/02/25 09:17	07/02/25 20:35	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	2810		202	1990	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	7.62		37 - 130	38%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-106	SDG No.:	Q2484
Lab Sample ID:	Q2484-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	87.9
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
FG016211.D	1	07/02/25 09:17	07/02/25 21:05	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	3000		192	1890	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	9.77		37 - 130	49%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	TP-104	SDG No.:	Q2484
Lab Sample ID:	Q2484-06	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	87.3
Sample Wt/Vol:	30.06	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
FG016212.D	1	07/02/25 09:17	07/02/25 21:35	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	2720		193	1910	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	7.73		37 - 130	39%	SPK: 20

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QC SUMMARY

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Alliance

Client: CDM Smith

Lab Code: ACE

SDG No.: Q2484

CLIENT ID	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF016073.D	80				0
PIBLK-FF016085.D	88				0
PIBLK-FG016199.D	85				0
PIBLK-FG016207.D	84				0
PIBLK-FG016213.D	84				0
PIBLK-FG016217.D	104				0
PIBLK-FG016222.D	83				0
PB168701BL	79				0
PB168701BS	76				0
TP-67MS	42				0
TP-67MSD	39				0
TP-58	104				0
TP-57	52				0
TP-64	26 *				1
TP-107	38				0
TP-106	49				0
TP-104	39				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: Alliance Client: CDM Smith
Lab Code: ACE SDG No: Q2484
Client Sample ID : TP-67MS Datafile: FF016081.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
DRO	7420	8110	10715	35%	*	68-131

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Alliance

Client: CDM Smith

Lab Code: ACE

SDG No: Q2484

Client Sample ID : TP-67MSD

Datafile: FF016082.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
DRO	7427	8110	10934	38%	*	68-131

MS/MSD % Recovery RPD : 7.9

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

Lab Name: Alliance

Client: CDM Smith

Lab Code: ACE

SDG No: Q2484

Client Sample ID : PB168701BS

Datafile: FF016076.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS (%)
DRO	6660	0	4984	75	68-131

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB168701BL

Lab Name: Alliance

Contract: CAMP02

Lab Code: ACE

SDG NO.: Q2484

Lab File ID: FF016075.D

Lab Sample ID: PB168701BL

Instrument ID: FF

Date Extracted: 07/02/2025

Matrix: (soil/water) Soil

Date Analyzed: 07/02/25

Level: (low/med) low

Time Analyzed: 19:06

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB168701BS	PB168701BS	FF016076.D	07/02/25
TP-67MS	Q2458-04MS	FF016081.D	07/02/25
TP-67MSD	Q2458-04MSD	FF016082.D	07/02/25
TP-57	Q2484-02	FG016206.D	07/02/25
TP-107	Q2484-04	FG016210.D	07/02/25
TP-106	Q2484-05	FG016211.D	07/02/25
TP-104	Q2484-06	FG016212.D	07/02/25
TP-58	Q2484-01	FG016220.D	07/03/25
TP-64	Q2484-03	FG016221.D	07/03/25

COMMENTS: _____



QC SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168701BL	SDG No.:	Q2484
Lab Sample ID:	PB168701BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
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
FF016075.D	1	07/02/25 09:17	07/02/25 19:06	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	169	U	169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	15.9		37 - 130	79%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/02/25
Project:	South River WM Replacement	Date Received:	07/02/25
Client Sample ID:	PIBLK-FF016073.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FF016073.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
FF016073.D	1		07/02/25	FF070225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.0		29 - 130	80%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/03/25
Project:	South River WM Replacement	Date Received:	07/03/25
Client Sample ID:	PIBLK-FF016085.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FF016085.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
FF016085.D	1		07/03/25	FF070225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.5		29 - 130	88%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/02/25
Project:	South River WM Replacement	Date Received:	07/02/25
Client Sample ID:	PIBLK-FG016199.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FG016199.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
FG016199.D	1		07/02/25	FG070225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.1		29 - 130	85%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/02/25
Project:	South River WM Replacement	Date Received:	07/02/25
Client Sample ID:	PIBLK-FG016207.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FG016207.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
FG016207.D	1		07/02/25	FG070225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.9		29 - 130	84%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/02/25
Project:	South River WM Replacement	Date Received:	07/02/25
Client Sample ID:	PIBLK-FG016213.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FG016213.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
FG016213.D	1		07/02/25	FG070225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.9		29 - 130	84%	SPK: 20

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Report of Analysis

Client:	CDM Smith	Date Collected:	07/03/25
Project:	South River WM Replacement	Date Received:	07/03/25
Client Sample ID:	PIBLK-FG016217.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FG016217.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
FG016217.D	1		07/03/25	FG070325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	20.7		29 - 130	104%	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

* = 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:	CDM Smith	Date Collected:	07/03/25
Project:	South River WM Replacement	Date Received:	07/03/25
Client Sample ID:	PIBLK-FG016222.D	SDG No.:	Q2484
Lab Sample ID:	I.BLK-FG016222.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
FG016222.D	1		07/03/25	FG070325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.6		29 - 130	83%	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

* = 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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168701BS	SDG No.:	Q2484
Lab Sample ID:	PB168701BS	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
FF016076.D	1	07/02/25 09:17	07/02/25 19:36	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	4980		169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	15.1		37 - 130	76%	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

* = 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:	CDM Smith	Date Collected:	06/27/25
Project:	South River WM Replacement	Date Received:	06/27/25
Client Sample ID:	TP-67MS	SDG No.:	Q2484
Lab Sample ID:	Q2458-04MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.7
Sample Wt/Vol:	30.05	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
FF016081.D	1	07/02/25 09:17	07/02/25 22:05	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	10700		188	1860	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	8.49		37 - 130	42%	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

* = 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:	CDM Smith	Date Collected:	06/27/25
Project:	South River WM Replacement	Date Received:	06/27/25
Client Sample ID:	TP-67MSD	SDG No.:	Q2484
Lab Sample ID:	Q2458-04MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.7
Sample Wt/Vol:	30.02	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
FF016082.D	1	07/02/25 09:17	07/02/25 22:35	PB168701

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	10900		188	1860	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	7.76		37 - 130	39%	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

* = 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



CALIBRATION SUMMARY

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Alliance Contract: CAMP02
 ProjectID: South River WM Replacement
 Lab Code: ACE SDG No.: Q2484

Calibration Sequence : FF061325			Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID	
1000	128762116	128762	FF015964.D	
500	64295722	128591	FF015965.D	
200	27169561	135848	FF015966.D	
100	13526499	135265	FF015967.D	
50	7306219	146124	FF015968.D	
AVG RF : 134918		% RSD : 5.299		AVG RT : 15.0944

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: CAMP02

ProjectID: South River WM Replacement

Lab Code: ACE

SDG No.: Q2484

Calibration Sequence : FG061325		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	121978597	121979	FG016063.D
500	61365081	122730	FG016064.D
200	26234834	131174	FG016065.D
100	13396741	133967	FG016066.D
50	7145066	142901	FG016067.D
AVG RF : 130550		% RSD : 6.625	AVG RT : 15.1972

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FF016074.D Analyst Name: YP\AJ Analyst Date: 07-02-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	65207896	130416	134918	3.337

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FF016086.D Analyst Name: YP\AJ Analyst Date: 07-03-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	72212687	144425	134918	7.047

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FG016200.D Analyst Name: YP\AJ Analyst Date: 07-02-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64913586	129827	130550	0.554

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FG016208.D Analyst Name: YP\AJ Analyst Date: 07-02-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	63999772	128000	130550	1.953

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FG016214.D Analyst Name: YP\AJ Analyst Date: 07-02-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64519521	129039	130550	1.157

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FG016218.D Analyst Name: YP\AJ Analyst Date: 07-03-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	65631043	131262	130550	0.545

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: ACE SDG No.: Q2484
DataFile: FG016223.D Analyst Name: YP\AJ Analyst Date: 07-03-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64854029	129708	130550	0.645

Analytical Sequence

Client: CDM Smith

SDG No.: Q2484

Project: South River WM Replacement

Instrument ID: FID_G

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 15.0944					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	02 Jul 2025 17:36	FF016073.D	15.092	
50 PPM TRPH STD	50 PPM TRPH STD	02 Jul 2025 18:06	FF016074.D	15.094	
PB168701BL	PB168701BL	02 Jul 2025 19:06	FF016075.D	15.092	
PB168701BS	PB168701BS	02 Jul 2025 19:36	FF016076.D	15.091	
TP-67MS	Q2458-04MS	02 Jul 2025 22:05	FF016081.D	15.096	
TP-67MSD	Q2458-04MSD	02 Jul 2025 22:35	FF016082.D	15.095	
PIBLK02	LBLK02	03 Jul 2025 00:04	FF016085.D	15.100	
50 PPM TRPH STD	50 PPM TRPH STD	03 Jul 2025 00:34	FF016086.D	15.102	
PIBLK03	LBLK03	02 Jul 2025 11:18	FG016199.D	15.199	
50 PPM TRPH STD	50 PPM TRPH STD	02 Jul 2025 11:53	FG016200.D	15.204	
TP-57	Q2484-02	02 Jul 2025 18:06	FG016206.D	15.203	
PIBLK04	LBLK04	02 Jul 2025 18:36	FG016207.D	15.204	
50 PPM TRPH STD	50 PPM TRPH STD	02 Jul 2025 19:06	FG016208.D	15.207	
TP-107	Q2484-04	02 Jul 2025 20:35	FG016210.D	15.209	
TP-106	Q2484-05	02 Jul 2025 21:05	FG016211.D	15.209	
TP-104	Q2484-06	02 Jul 2025 21:35	FG016212.D	15.208	
PIBLK05	LBLK05	02 Jul 2025 22:05	FG016213.D	15.208	
50 PPM TRPH STD	50 PPM TRPH STD	02 Jul 2025 22:35	FG016214.D	15.211	
PIBLK06	LBLK06	03 Jul 2025 08:38	FG016217.D	15.206	
50 PPM TRPH STD	50 PPM TRPH STD	03 Jul 2025 09:08	FG016218.D	15.209	
TP-58	Q2484-01	03 Jul 2025 10:47	FG016220.D	15.207	
TP-64	Q2484-03	03 Jul 2025 11:17	FG016221.D	15.206	
PIBLK07	LBLK07	03 Jul 2025 11:47	FG016222.D	15.207	
50 PPM TRPH STD	50 PPM TRPH STD	03 Jul 2025 12:17	FG016223.D	15.210	

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
Data File : FG016205.D
Signal(s) : FID1A.ch
Acq On : 02 Jul 2025 17:36
Operator : YP\AJ
Sample : Q2484-01
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TP-58

A
B
C
D
E
F
G

Integration File: autoint1.e
Quant Time: Jul 03 01:23:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
Quant Title :
QLast Update : Fri Jun 13 12:34:28 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.207	2444036	20.836 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

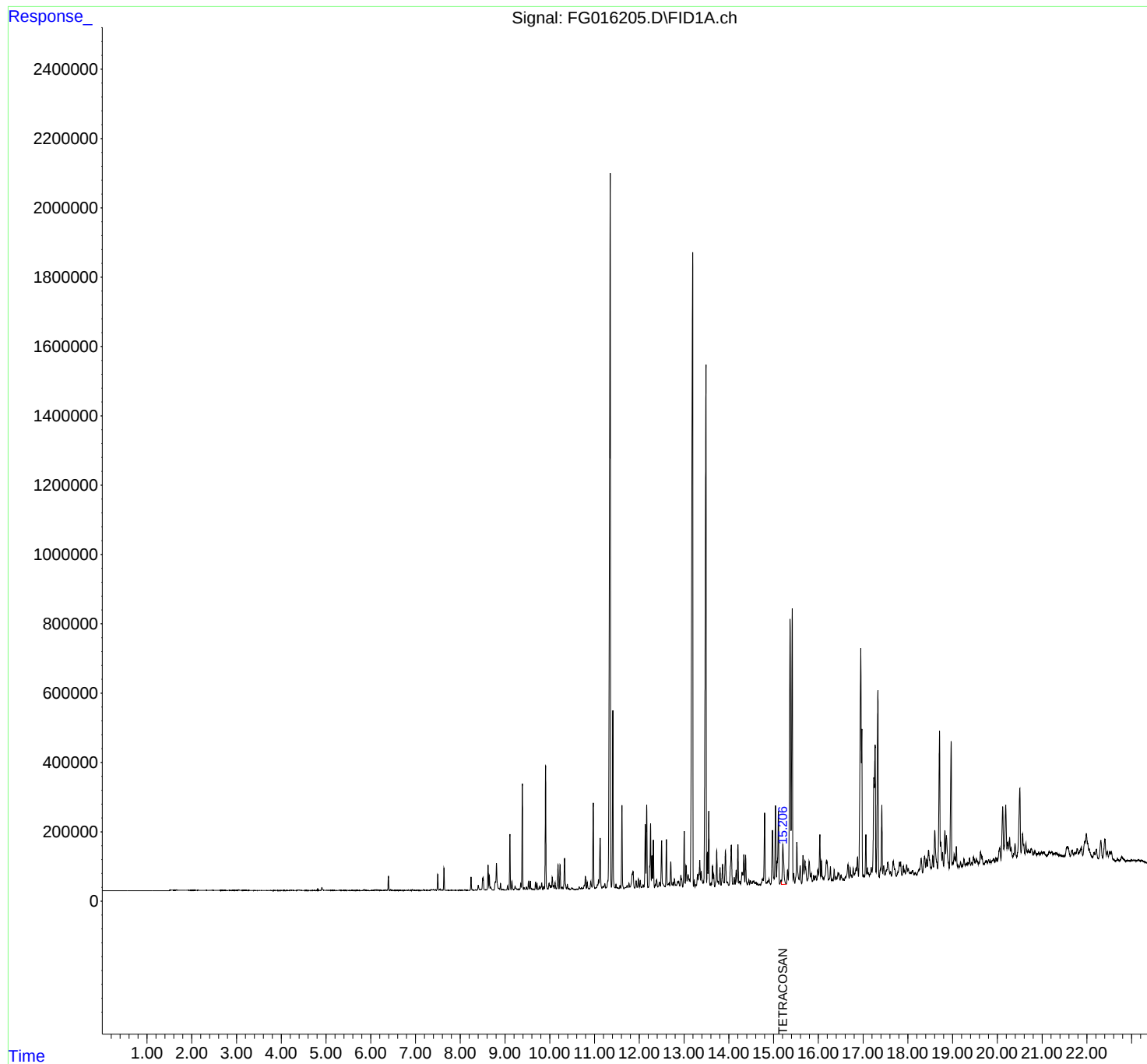
(m)=manual int.

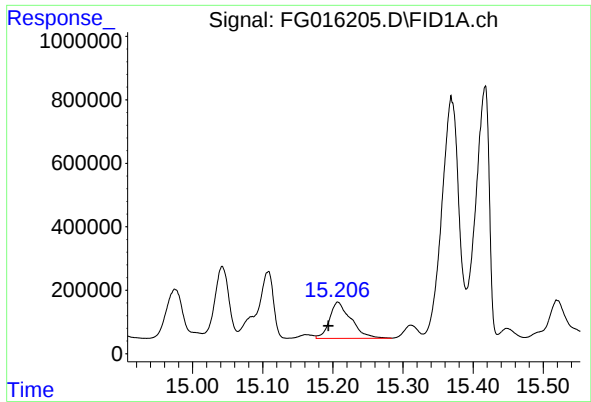
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
Data File : FG016205.D
Signal(s) : FID1A.ch
Acq On : 02 Jul 2025 17:36
Operator : YP\AJ
Sample : Q2484-01
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TP-58

Integration File: autoint1.e
Quant Time: Jul 03 01:23:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
Quant Title :
QLast Update : Fri Jun 13 12:34:28 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.207 min
Delta R.T.: 0.014 min
Response: 2444036
Conc: 20.84 ug/ml

Instrument :
FID_G
ClientSampleId :
TP-58

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
 Data File : FG016205.D
 Signal(s) : FID1A.ch
 Acq On : 02 Jul 2025 17:36
 Sample : Q2484-01
 Misc :
 ALS Vial : 24 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.586	4.565	4.603	PV	121	1175	0.00%	0.000%
2	4.619	4.603	4.626	VV	175	1261	0.00%	0.000%
3	4.635	4.626	4.653	VV	225	2393	0.01%	0.001%
4	4.674	4.653	4.697	VV	431	5565	0.02%	0.002%
5	4.715	4.697	4.732	VV	424	4324	0.01%	0.002%
6	4.746	4.732	4.765	PV	168	2218	0.01%	0.001%
7	4.770	4.765	4.781	VV	188	1130	0.00%	0.000%
8	4.786	4.781	4.800	VV	209	826	0.00%	0.000%
9	4.815	4.800	4.820	VV	5319	5578	0.02%	0.002%
10	4.839	4.820	4.875	VV	782	13037	0.04%	0.005%
11	4.908	4.875	5.019	VV	9051	160760	0.51%	0.059%
12	5.046	5.019	5.066	VV	821	16599	0.05%	0.006%
13	5.071	5.066	5.085	VV	535	5360	0.02%	0.002%
14	5.089	5.085	5.113	VV	502	6823	0.02%	0.002%
15	5.127	5.113	5.139	VV	396	5451	0.02%	0.002%
16	5.146	5.139	5.154	VV	504	3634	0.01%	0.001%
17	5.182	5.154	5.215	VV	617	15739	0.05%	0.006%
18	5.220	5.215	5.224	VV	297	1359	0.00%	0.000%
19	5.229	5.224	5.246	VV	277	3009	0.01%	0.001%
20	5.262	5.246	5.269	VV	369	3656	0.01%	0.001%
21	5.294	5.269	5.327	VV	1112	21419	0.07%	0.008%
22	5.331	5.327	5.356	VV	469	5283	0.02%	0.002%
23	5.360	5.356	5.365	VV	243	1295	0.00%	0.000%
24	5.384	5.365	5.395	VV	616	7486	0.02%	0.003%
25	5.399	5.395	5.414	VV	463	4119	0.01%	0.002%
26	5.437	5.414	5.457	VV	666	10994	0.03%	0.004%
27	5.470	5.457	5.486	VV	449	6146	0.02%	0.002%
28	5.498	5.486	5.511	VV	437	5263	0.02%	0.002%
29	5.525	5.511	5.542	VV	257	3830	0.01%	0.001%
30	5.564	5.542	5.577	VV	872	10504	0.03%	0.004%
31	5.581	5.577	5.605	VV	485	5683	0.02%	0.002%
32	5.622	5.605	5.650	VV	1033	13174	0.04%	0.005%
33	5.657	5.650	5.670	VV	274	2739	0.01%	0.001%
34	5.684	5.670	5.690	VV	309	2920	0.01%	0.001%
35	5.698	5.690	5.704	VV	230	1678	0.01%	0.001%
36	5.706	5.704	5.711	VV	241	922	0.00%	0.000%

					rt	er		
37	5.725	5.711	5.741	VV	441	5404	0.02%	0.002%
38	5.754	5.741	5.787	VV	331	4600	0.01%	0.002%
39	5.818	5.787	5.833	VV	859	10456	0.03%	0.004%
40	5.850	5.833	5.869	VV	3365	36947	0.12%	0.013%
41	5.873	5.869	5.907	VV	1062	14067	0.04%	0.005%
42	5.920	5.907	5.942	VV	733	9795	0.03%	0.004%
43	5.948	5.942	5.952	VV	244	1224	0.00%	0.000%
44	5.958	5.952	5.981	VV	260	2883	0.01%	0.001%
45	6.012	5.981	6.036	PV	599	9610	0.03%	0.004%
46	6.044	6.036	6.054	VV	309	2364	0.01%	0.001%
47	6.064	6.054	6.074	VV	490	4598	0.01%	0.002%
48	6.093	6.074	6.109	VV	2576	32724	0.10%	0.012%
49	6.135	6.109	6.151	VV	2926	45799	0.15%	0.017%
50	6.158	6.151	6.202	VV	1345	28951	0.09%	0.011%
51	6.212	6.202	6.264	VV	738	17244	0.05%	0.006%
52	6.279	6.264	6.306	VV	840	13384	0.04%	0.005%
53	6.327	6.306	6.346	VV	2079	25991	0.08%	0.009%
54	6.358	6.346	6.371	VV	850	10675	0.03%	0.004%
55	6.394	6.371	6.426	VV	41605	404144	1.29%	0.148%
56	6.445	6.426	6.483	VV	3049	41377	0.13%	0.015%
57	6.503	6.483	6.522	VV	638	10454	0.03%	0.004%
58	6.548	6.522	6.556	VV	453	6772	0.02%	0.002%
59	6.585	6.556	6.610	VV	515	11904	0.04%	0.004%
60	6.648	6.610	6.666	VV	609	12003	0.04%	0.004%
61	6.690	6.666	6.730	VV	1084	19098	0.06%	0.007%
62	6.745	6.730	6.754	VV	302	2819	0.01%	0.001%
63	6.771	6.754	6.783	VV	445	6555	0.02%	0.002%
64	6.797	6.783	6.812	VV	543	7899	0.03%	0.003%
65	6.813	6.812	6.824	VV	389	2222	0.01%	0.001%
66	6.840	6.824	6.902	VV	1560	29672	0.09%	0.011%
67	6.928	6.902	6.959	VV	3028	32551	0.10%	0.012%
68	6.976	6.959	6.995	VV	380	5546	0.02%	0.002%
69	7.011	6.995	7.029	VV	396	5851	0.02%	0.002%
70	7.045	7.029	7.082	VV	1659	22868	0.07%	0.008%
71	7.084	7.082	7.099	VV	166	835	0.00%	0.000%
72	7.112	7.099	7.129	PV	218	2006	0.01%	0.001%
73	7.143	7.129	7.157	VV	724	7190	0.02%	0.003%
74	7.179	7.157	7.219	VV	2217	36616	0.12%	0.013%
75	7.236	7.219	7.254	VV	758	13594	0.04%	0.005%
76	7.268	7.254	7.288	VV	1754	20931	0.07%	0.008%
77	7.303	7.288	7.324	VV	652	10785	0.03%	0.004%
78	7.347	7.324	7.382	VV	2419	58067	0.18%	0.021%
79	7.399	7.382	7.420	VV	3235	47741	0.15%	0.017%
80	7.440	7.420	7.465	VV	1728	36501	0.12%	0.013%
81	7.496	7.465	7.522	VV	46777	470209	1.50%	0.172%
82	7.546	7.522	7.568	VV	4139	56026	0.18%	0.020%
83	7.593	7.568	7.612	VV	2536	36969	0.12%	0.014%
84	7.635	7.612	7.663	VV	64688	607441	1.93%	0.222%
85	7.677	7.663	7.689	VV	362	4169	0.01%	0.002%
86	7.707	7.689	7.719	VV	579	7528	0.02%	0.003%
87	7.731	7.719	7.743	VV	571	6112	0.02%	0.002%
88	7.756	7.743	7.772	VV	579	6947	0.02%	0.003%
89	7.808	7.772	7.849	VV	1590	30084	0.10%	0.011%

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90	7.870	7.849	7.877	VV	580	6720	0.02%	0.002%
91	7.882	7.877	7.917	VV	568	9116	0.03%	0.003%
92	7.937	7.917	7.953	VV	554	6308	0.02%	0.002%
93	7.986	7.953	8.013	PV	914	14874	0.05%	0.005%
94	8.025	8.013	8.037	VV	440	5439	0.02%	0.002%
95	8.041	8.037	8.059	VV	441	3354	0.01%	0.001%
96	8.063	8.059	8.078	VV	203	1085	0.00%	0.000%
97	8.101	8.078	8.124	PV	1124	14886	0.05%	0.005%
98	8.140	8.124	8.177	VV	331	7338	0.02%	0.003%
99	8.188	8.177	8.198	VV	247	2321	0.01%	0.001%
100	8.203	8.198	8.214	VV	287	1790	0.01%	0.001%
101	8.240	8.214	8.262	VV	38836	378385	1.20%	0.138%
102	8.271	8.262	8.324	VV	1795	30913	0.10%	0.011%
103	8.343	8.324	8.363	VV	2260	23569	0.08%	0.009%
104	8.401	8.363	8.434	VV	14638	215109	0.68%	0.079%
105	8.446	8.434	8.460	VV	2708	33017	0.11%	0.012%
106	8.499	8.460	8.507	VV	34653	363201	1.16%	0.133%
107	8.514	8.507	8.557	VV	33790	341699	1.09%	0.125%
108	8.573	8.557	8.588	VV	1741	23661	0.08%	0.009%
109	8.621	8.588	8.637	VV	73010	793756	2.53%	0.290%
110	8.649	8.637	8.666	VV	43302	435169	1.38%	0.159%
111	8.676	8.666	8.723	VV	9935	170462	0.54%	0.062%
112	8.738	8.723	8.753	VV	1160	14774	0.05%	0.005%
113	8.784	8.753	8.792	VV	24710	334165	1.06%	0.122%
114	8.809	8.792	8.854	VV	77520	1159436	3.69%	0.423%
115	8.862	8.854	8.880	VV	5630	67741	0.22%	0.025%
116	8.900	8.880	8.933	VV	19812	219994	0.70%	0.080%
117	8.948	8.933	8.970	VV	2667	35106	0.11%	0.013%
118	8.973	8.970	9.002	VV	797	12007	0.04%	0.004%
119	9.006	9.002	9.010	VV	493	2332	0.01%	0.001%
120	9.025	9.010	9.034	VV	532	6429	0.02%	0.002%
121	9.056	9.034	9.083	VV	13045	138066	0.44%	0.050%
122	9.109	9.083	9.134	VV	161208	1584349	5.04%	0.579%
123	9.154	9.134	9.195	VV	26112	308738	0.98%	0.113%
124	9.226	9.195	9.241	VV	11291	153325	0.49%	0.056%
125	9.247	9.241	9.262	VV	5354	49172	0.16%	0.018%
126	9.273	9.262	9.287	VV	3146	35279	0.11%	0.013%
127	9.303	9.287	9.318	VV	3259	42559	0.14%	0.016%
128	9.353	9.318	9.365	VV	19160	246272	0.78%	0.090%
129	9.387	9.365	9.410	VV	306742	3058925	9.73%	1.117%
130	9.425	9.410	9.451	VV	7527	100186	0.32%	0.037%
131	9.478	9.451	9.495	VV	8933	118083	0.38%	0.043%
132	9.524	9.495	9.545	VV	24521	296846	0.94%	0.108%
133	9.564	9.545	9.605	VV	26050	321775	1.02%	0.118%
134	9.622	9.605	9.651	VV	4010	55916	0.18%	0.020%
135	9.682	9.651	9.699	VV	22578	255427	0.81%	0.093%
136	9.714	9.699	9.734	VV	19589	203079	0.65%	0.074%
137	9.767	9.734	9.784	VV	10267	137930	0.44%	0.050%
138	9.801	9.784	9.805	VV	8172	74045	0.24%	0.027%
139	9.821	9.805	9.843	VV	20406	247225	0.79%	0.090%
140	9.861	9.843	9.879	VV	9392	120678	0.38%	0.044%
141	9.907	9.879	9.959	VV	358349	3833013	12.20%	1.400%

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142	9.984	9.959	9.997	VV	19717	256771	0.82%	0.094%
143	10.002	9.997	10.015	VV	12825	116582	0.37%	0.043%
144	10.027	10.015	10.036	VV	11757	116590	0.37%	0.043%
145	10.056	10.036	10.074	VV	37072	492796	1.57%	0.180%
146	10.083	10.074	10.099	VV	12923	137888	0.44%	0.050%
147	10.117	10.099	10.149	VV	21373	295701	0.94%	0.108%
148	10.184	10.149	10.206	VV	72854	875796	2.79%	0.320%
149	10.229	10.206	10.254	VV	72865	805727	2.56%	0.294%
150	10.277	10.254	10.297	VV	8129	146429	0.47%	0.053%
151	10.331	10.297	10.374	VV	90841	1295192	4.12%	0.473%
152	10.393	10.374	10.414	VV	15247	183628	0.58%	0.067%
153	10.428	10.414	10.458	VV	3545	56339	0.18%	0.021%
154	10.493	10.458	10.522	VV	5595	112525	0.36%	0.041%
155	10.529	10.522	10.552	VV	2165	21936	0.07%	0.008%
156	10.572	10.552	10.579	PV	435	4286	0.01%	0.002%
157	10.601	10.579	10.614	VV	2024	25454	0.08%	0.009%
158	10.625	10.614	10.636	VV	1362	16009	0.05%	0.006%
159	10.657	10.636	10.693	VV	7994	135176	0.43%	0.049%
160	10.710	10.693	10.729	VV	5920	80185	0.26%	0.029%
161	10.768	10.729	10.777	VV	12742	188429	0.60%	0.069%
162	10.795	10.777	10.817	VV	37705	471548	1.50%	0.172%
163	10.835	10.817	10.874	VV	21769	294208	0.94%	0.107%
164	10.915	10.874	10.943	VV	23385	395933	1.26%	0.145%
165	10.970	10.943	11.019	VV	249533	2847152	9.06%	1.040%
166	11.064	11.019	11.072	VV	12747	222404	0.71%	0.081%
167	11.088	11.072	11.097	VV	27117	308907	0.98%	0.113%
168	11.125	11.097	11.165	VV	147715	2132280	6.79%	0.779%
169	11.196	11.165	11.209	VV	7314	158231	0.50%	0.058%
170	11.230	11.209	11.250	VV	15770	244058	0.78%	0.089%
171	11.349	11.250	11.377	VV	2066877	30544393	97.21%	11.156%
172	11.408	11.377	11.462	VV	515224	5429791	17.28%	1.983%
173	11.478	11.462	11.512	VV	13466	186664	0.59%	0.068%
174	11.525	11.512	11.548	VV	3577	52998	0.17%	0.019%
175	11.568	11.548	11.585	VV	10325	117649	0.37%	0.043%
176	11.612	11.585	11.655	VV	240670	2517925	8.01%	0.920%
177	11.687	11.655	11.703	PV	4185	75481	0.24%	0.028%
178	11.728	11.703	11.746	VV	9276	161214	0.51%	0.059%
179	11.769	11.746	11.790	VV	15899	233931	0.74%	0.085%
180	11.840	11.790	11.847	VV	42610	666020	2.12%	0.243%
181	11.861	11.847	11.896	VV	50059	745422	2.37%	0.272%
182	11.929	11.896	11.951	VV	22585	330439	1.05%	0.121%
183	11.980	11.951	11.999	VV	27888	365069	1.16%	0.133%
184	12.020	11.999	12.043	VV	22819	310068	0.99%	0.113%
185	12.056	12.043	12.064	VV	4246	48764	0.16%	0.018%
186	12.086	12.064	12.104	VV	10818	164815	0.52%	0.060%
187	12.134	12.104	12.149	VV	184243	2159494	6.87%	0.789%
188	12.166	12.149	12.204	VV	240868	2655291	8.45%	0.970%
189	12.252	12.204	12.268	VV	186587	2622903	8.35%	0.958%
190	12.283	12.268	12.297	VV	93822	1033630	3.29%	0.378%
191	12.314	12.297	12.339	VV	139664	1584704	5.04%	0.579%
192	12.355	12.339	12.365	VV	10073	104578	0.33%	0.038%
193	12.388	12.365	12.413	VV	23462	395860	1.26%	0.145%
194	12.449	12.413	12.471	VV	18099	338193	1.08%	0.124%

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195	12.499	12.471	12.562	VV	136400	1940459	6.18%	0.709%
196	12.568	12.562	12.580	VV	5312	47843	0.15%	0.017%
197	12.606	12.580	12.630	VV	138992	1632313	5.19%	0.596%
198	12.640	12.630	12.648	VV	10469	107881	0.34%	0.039%
199	12.666	12.648	12.682	VV	13364	215555	0.69%	0.079%
200	12.704	12.682	12.735	VV	75292	1013805	3.23%	0.370%
201	12.754	12.735	12.768	VV	16517	227988	0.73%	0.083%
202	12.786	12.768	12.809	VV	25447	366993	1.17%	0.134%
203	12.820	12.809	12.831	VV	8273	99890	0.32%	0.036%
204	12.858	12.831	12.870	VV	18411	302942	0.96%	0.111%
205	12.882	12.870	12.904	VV	18978	257270	0.82%	0.094%
206	12.930	12.904	12.943	VV	35886	471597	1.50%	0.172%
207	12.947	12.943	12.970	VV	23630	219795	0.70%	0.080%
208	13.005	12.970	13.025	VV	162464	2085940	6.64%	0.762%
209	13.045	13.025	13.067	VV	62933	972417	3.09%	0.355%
210	13.091	13.067	13.134	VV	36511	1057643	3.37%	0.386%
211	13.193	13.134	13.211	VV	1833117	31422375	100.00%	11.476%
212	13.228	13.211	13.247	VV	21358	222863	0.71%	0.081%
213	13.261	13.247	13.275	VV	7517	93139	0.30%	0.034%
214	13.301	13.275	13.314	VV	37161	502411	1.60%	0.183%
215	13.329	13.314	13.335	VV	38387	420103	1.34%	0.153%
216	13.352	13.335	13.368	VV	78217	1018680	3.24%	0.372%
217	13.384	13.368	13.423	VV	45457	853756	2.72%	0.312%
218	13.432	13.423	13.440	VV	13500	128155	0.41%	0.047%
219	13.490	13.440	13.505	VV	1499762	23081944	73.46%	8.430%
220	13.522	13.505	13.534	VV	98892	1060544	3.38%	0.387%
221	13.552	13.534	13.584	VV	218633	2495825	7.94%	0.912%
222	13.603	13.584	13.615	VV	11261	160702	0.51%	0.059%
223	13.636	13.615	13.650	VV	61174	719563	2.29%	0.263%
224	13.661	13.650	13.685	VV	36297	426215	1.36%	0.156%
225	13.730	13.685	13.751	PV	104629	1360266	4.33%	0.497%
226	13.762	13.751	13.777	VV	16950	209043	0.67%	0.076%
227	13.803	13.777	13.826	VV	55592	766594	2.44%	0.280%
228	13.860	13.826	13.898	VV	64334	1102234	3.51%	0.403%
229	13.925	13.898	13.955	VV	103219	1671274	5.32%	0.610%
230	13.972	13.955	13.997	VV	12405	234123	0.75%	0.086%
231	14.055	13.997	14.092	VV	118215	2419134	7.70%	0.884%
232	14.121	14.092	14.140	VV	25681	389375	1.24%	0.142%
233	14.164	14.140	14.182	VV	46007	642615	2.05%	0.235%
234	14.204	14.182	14.226	VV	118649	1382928	4.40%	0.505%
235	14.243	14.226	14.262	VV	13956	227206	0.72%	0.083%
236	14.295	14.262	14.312	VV	40060	754040	2.40%	0.275%
237	14.335	14.312	14.355	VV	89862	1309301	4.17%	0.478%
238	14.375	14.355	14.414	VV	88186	1149124	3.66%	0.420%
239	14.448	14.414	14.465	VV	16488	291977	0.93%	0.107%
240	14.488	14.465	14.508	VV	13225	253150	0.81%	0.092%
241	14.515	14.508	14.522	VV	7341	63291	0.20%	0.023%
242	14.539	14.522	14.547	VV	12430	155703	0.50%	0.057%
243	14.558	14.547	14.577	VV	13366	186328	0.59%	0.068%
244	14.585	14.577	14.595	VV	6709	66936	0.21%	0.024%
245	14.610	14.595	14.627	VV	10040	128274	0.41%	0.047%
246	14.642	14.627	14.661	VV	6470	74129	0.24%	0.027%

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247	14.694	14.661	14.710	VV	3829	54669	0.17%	0.020%
248	14.751	14.710	14.770	PV	17156	379717	1.21%	0.139%
249	14.800	14.770	14.831	VV	208231	2809344	8.94%	1.026%
250	14.841	14.831	14.854	VV	7604	87812	0.28%	0.032%
251	14.870	14.854	14.881	VV	11851	152930	0.49%	0.056%
252	14.898	14.881	14.934	VV	16429	264471	0.84%	0.097%
253	14.975	14.934	15.014	VV	155065	2706472	8.61%	0.988%
254	15.042	15.014	15.065	VV	228470	3209944	10.22%	1.172%
255	15.108	15.065	15.135	VV	210120	3482280	11.08%	1.272%
256	15.161	15.135	15.176	VV	12145	174414	0.56%	0.064%
257	15.207	15.176	15.284	VV	114593	2444036	7.78%	0.893%
258	15.311	15.284	15.328	VV	41326	561634	1.79%	0.205%
259	15.369	15.328	15.391	VV	758936	12790573	40.71%	4.671%
260	15.417	15.391	15.435	VV	795559	10587288	33.69%	3.867%
261	15.448	15.435	15.474	VV	30521	392310	1.25%	0.143%
262	15.520	15.474	15.569	VV	119225	2321377	7.39%	0.848%
263	15.594	15.569	15.627	VV	52057	811257	2.58%	0.296%
264	15.658	15.627	15.680	PV	81635	1224376	3.90%	0.447%
265	15.700	15.680	15.751	VV	64449	1561938	4.97%	0.570%
266	15.795	15.751	15.825	VV	62585	1376120	4.38%	0.503%
267	15.842	15.825	15.865	VV	27864	428581	1.36%	0.157%
268	15.897	15.865	15.914	VV	21383	333152	1.06%	0.122%
269	15.945	15.914	15.964	VV	18538	420672	1.34%	0.154%
270	15.989	15.964	16.007	VV	37049	612504	1.95%	0.224%
271	16.034	16.007	16.054	VV	137350	1911917	6.08%	0.698%
272	16.070	16.054	16.109	VV	61441	958843	3.05%	0.350%
273	16.116	16.109	16.124	VV	10067	84194	0.27%	0.031%
274	16.181	16.124	16.227	VV	59937	1962621	6.25%	0.717%
275	16.271	16.227	16.297	VV	43122	660126	2.10%	0.241%
276	16.311	16.297	16.331	VV	6108	83307	0.27%	0.030%
277	16.354	16.331	16.375	VV	33363	427080	1.36%	0.156%
278	16.394	16.375	16.411	VV	13822	199074	0.63%	0.073%
279	16.441	16.411	16.451	VV	22378	362767	1.15%	0.132%
280	16.461	16.451	16.487	VV	22367	312948	1.00%	0.114%
281	16.508	16.487	16.549	VV	16872	336478	1.07%	0.123%
282	16.562	16.549	16.577	VV	3891	42335	0.13%	0.015%
283	16.604	16.577	16.615	PV	9195	129609	0.41%	0.047%
284	16.662	16.615	16.688	VV	45114	988008	3.14%	0.361%
285	16.710	16.688	16.733	VV	35550	545245	1.74%	0.199%
286	16.740	16.733	16.757	VV	13192	155706	0.50%	0.057%
287	16.780	16.757	16.799	VV	33008	510488	1.62%	0.186%
288	16.842	16.799	16.854	VV	32766	731237	2.33%	0.267%
289	16.876	16.854	16.898	VV	63249	982686	3.13%	0.359%
290	16.949	16.898	16.964	VV	661945	12760374	40.61%	4.660%
291	16.973	16.964	16.997	VV	431772	3957977	12.60%	1.446%
292	17.012	16.997	17.035	VV	10034	163052	0.52%	0.060%
293	17.063	17.035	17.082	VV	125173	1530849	4.87%	0.559%
294	17.095	17.082	17.112	VV	29191	364814	1.16%	0.133%
295	17.122	17.112	17.140	VV	14597	195342	0.62%	0.071%
296	17.154	17.140	17.164	VV	10644	131115	0.42%	0.048%
297	17.183	17.164	17.199	VV	29051	434999	1.38%	0.159%
298	17.242	17.199	17.251	VV	284167	4220609	13.43%	1.541%
299	17.268	17.251	17.291	VV	383302	5611649	17.86%	2.050%

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300	17.331	17.291	17.360	VV	534842	8122539	25.85%	2.967%
301	17.386	17.360	17.393	PV	21216	247104	0.79%	0.090%
302	17.419	17.393	17.441	VV	204627	2478747	7.89%	0.905%
303	17.461	17.441	17.490	VV	28177	426046	1.36%	0.156%
					Sum of corrected areas:	273801462		

FG061325.M Thu Jul 03 01:58:21 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
Data File : FG016209.D
Signal(s) : FID1A.ch
Acq On : 02 Jul 2025 20:06
Operator : YP\AJ
Sample : Q2484-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TP-64

A
B
C
D
E
F
G

Integration File: autoint1.e
Quant Time: Jul 03 01:24:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
Quant Title :
QLast Update : Fri Jun 13 12:34:28 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.204	634080	5.406 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

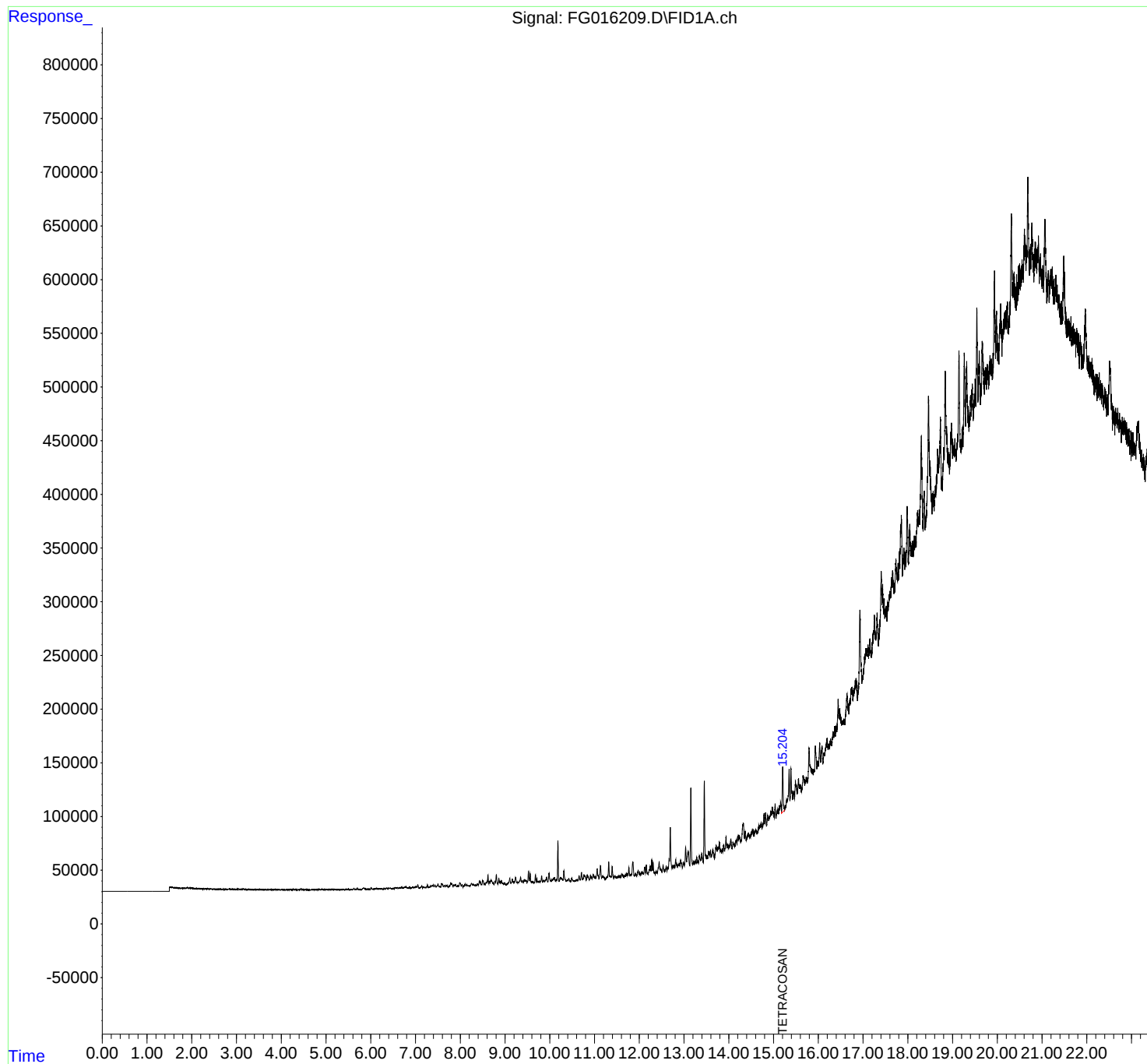
(m)=manual int.

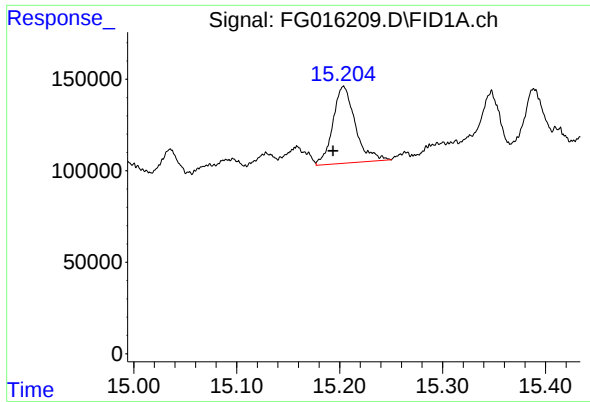
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
Data File : FG016209.D
Signal(s) : FID1A.ch
Acq On : 02 Jul 2025 20:06
Operator : YP\AJ
Sample : Q2484-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TP-64

Integration File: autoint1.e
Quant Time: Jul 03 01:24:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
Quant Title :
QLast Update : Fri Jun 13 12:34:28 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.204 min
Delta R.T.: 0.010 min
Response: 634080
Conc: 5.41 ug/ml

Instrument :
FID_G
ClientSampleId :
TP-64

A
B
C
D
E
F
G

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG070225\
 Data File : FG016209.D
 Signal(s) : FID1A.ch
 Acq On : 02 Jul 2025 20:06
 Sample : Q2484-03
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG061325.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.517	4.500	4.521	BH	-17	-553	-0.00%	-0.000%
2	4.540	4.521	4.565	PH	240	2009	0.02%	0.001%
3	4.573	4.565	4.596	PH	56	-877	-0.01%	-0.000%
4	4.616	4.596	4.646	PH	20	-2507	-0.02%	-0.001%
5	4.653	4.646	4.658	PH	-91	-942	-0.01%	-0.000%
6	4.676	4.658	4.694	PH	171	640	0.01%	0.000%
7	4.715	4.694	4.734	PH	161	495	0.00%	0.000%
8	4.751	4.734	4.771	PH	174	1028	0.01%	0.000%
9	4.802	4.771	4.819	PH	419	3752	0.03%	0.001%
10	4.843	4.819	4.878	PH	563	8410	0.07%	0.003%
11	4.906	4.878	4.943	HH	554	9213	0.07%	0.003%
12	4.962	4.943	4.980	PH	299	2077	0.02%	0.001%
13	4.993	4.980	5.003	PH	293	2050	0.02%	0.001%
14	5.010	5.003	5.014	HH	87	280	0.00%	0.000%
15	5.021	5.014	5.026	HH	136	488	0.00%	0.000%
16	5.043	5.026	5.066	HH	202	2750	0.02%	0.001%
17	5.085	5.066	5.110	PH	214	2069	0.02%	0.001%
18	5.123	5.110	5.148	PH	476	5549	0.04%	0.002%
19	5.155	5.148	5.159	HH	310	1177	0.01%	0.000%
20	5.195	5.159	5.227	HH	528	9501	0.07%	0.003%
21	5.234	5.227	5.248	PH	107	451	0.00%	0.000%
22	5.260	5.248	5.283	PH	143	1009	0.01%	0.000%
23	5.290	5.283	5.319	PH	155	1027	0.01%	0.000%
24	5.331	5.319	5.348	PH	96	399	0.00%	0.000%
25	5.360	5.348	5.378	PH	297	2798	0.02%	0.001%
26	5.388	5.378	5.416	HH	433	4344	0.03%	0.001%
27	5.438	5.416	5.449	PH	266	2707	0.02%	0.001%
28	5.467	5.449	5.478	HH	701	6707	0.05%	0.002%
29	5.493	5.478	5.512	HH	534	7032	0.06%	0.002%
30	5.518	5.512	5.543	HH	199	1007	0.01%	0.000%
31	5.563	5.543	5.581	PH	155	825	0.01%	0.000%
32	5.623	5.581	5.649	PH	1532	22987	0.18%	0.007%
33	5.665	5.649	5.676	HH	502	7062	0.06%	0.002%
34	5.696	5.676	5.716	HH	1422	18746	0.15%	0.006%
35	5.725	5.716	5.741	HH	463	4429	0.03%	0.001%
36	5.755	5.741	5.789	HH	376	5396	0.04%	0.002%

					rteres			
37	5.795	5.789	5.803	HH	175	656	0.01%	0.000%
38	5.839	5.803	5.866	HH	1806	41989	0.33%	0.013%
39	5.873	5.866	5.890	HH	759	8711	0.07%	0.003%
40	5.893	5.890	5.905	HH	500	3714	0.03%	0.001%
41	5.920	5.905	5.924	HH	545	4935	0.04%	0.002%
42	5.942	5.924	5.984	HH	713	16433	0.13%	0.005%
43	6.008	5.984	6.047	HH	2075	34395	0.27%	0.011%
44	6.065	6.047	6.078	HH	724	10589	0.08%	0.003%
45	6.092	6.078	6.098	HH	816	8162	0.06%	0.003%
46	6.114	6.098	6.128	HH	1465	19030	0.15%	0.006%
47	6.134	6.128	6.157	HH	1277	17423	0.14%	0.005%
48	6.170	6.157	6.186	HH	1378	16258	0.13%	0.005%
49	6.211	6.186	6.226	HH	1247	19341	0.15%	0.006%
50	6.249	6.226	6.277	HH	946	20904	0.16%	0.007%
51	6.303	6.277	6.320	HH	1318	21481	0.17%	0.007%
52	6.359	6.320	6.378	HH	1931	41747	0.33%	0.013%
53	6.398	6.378	6.417	HH	1688	29866	0.23%	0.009%
54	6.433	6.417	6.444	HH	1381	20534	0.16%	0.006%
55	6.447	6.444	6.467	HH	1354	14496	0.11%	0.005%
56	6.502	6.467	6.524	HH	1531	37131	0.29%	0.012%
57	6.545	6.524	6.572	HH	2241	46041	0.36%	0.015%
58	6.586	6.572	6.611	HH	2064	40582	0.32%	0.013%
59	6.626	6.611	6.639	HH	2050	28148	0.22%	0.009%
60	6.650	6.639	6.673	HH	2071	36061	0.28%	0.011%
61	6.691	6.673	6.713	HH	2868	49667	0.39%	0.016%
62	6.756	6.713	6.763	HH	2071	54126	0.42%	0.017%
63	6.782	6.763	6.796	HH	3052	51667	0.41%	0.016%
64	6.803	6.796	6.821	HH	2155	28124	0.22%	0.009%
65	6.832	6.821	6.839	HH	1773	17210	0.14%	0.005%
66	6.854	6.839	6.868	HH	2224	34037	0.27%	0.011%
67	6.869	6.868	6.887	HH	2170	20589	0.16%	0.006%
68	6.911	6.887	6.915	HH	1761	27576	0.22%	0.009%
69	6.936	6.915	6.940	HH	2551	33625	0.26%	0.011%
70	6.945	6.940	6.960	HH	2544	27255	0.21%	0.009%
71	6.971	6.960	6.979	HH	2162	23522	0.18%	0.007%
72	6.988	6.979	6.996	HH	2280	21668	0.17%	0.007%
73	7.010	6.996	7.027	HH	3311	49900	0.39%	0.016%
74	7.052	7.027	7.075	HH	4691	87189	0.68%	0.027%
75	7.085	7.075	7.097	HH	1781	21464	0.17%	0.007%
76	7.141	7.097	7.159	HH	3466	91390	0.72%	0.029%
77	7.175	7.159	7.184	HH	2449	32818	0.26%	0.010%
78	7.187	7.184	7.193	HH	2416	13853	0.11%	0.004%
79	7.196	7.193	7.214	HH	2433	26622	0.21%	0.008%
80	7.228	7.214	7.238	HH	2273	29600	0.23%	0.009%
81	7.267	7.238	7.291	HH	4733	93701	0.74%	0.030%
82	7.302	7.291	7.322	HH	2557	44383	0.35%	0.014%
83	7.341	7.322	7.354	HH	3461	59458	0.47%	0.019%
84	7.370	7.354	7.380	HH	4073	56564	0.44%	0.018%
85	7.395	7.380	7.415	HH	4519	78465	0.62%	0.025%
86	7.433	7.415	7.464	HH	4673	101890	0.80%	0.032%
87	7.502	7.464	7.540	HH	5404	165463	1.30%	0.052%
88	7.545	7.540	7.561	HH	2961	35064	0.28%	0.011%
89	7.583	7.561	7.590	HH	5627	72515	0.57%	0.023%

					rters			
90	7.598	7.590	7.624	HH	5453	84535	0.66%	0.027%
91	7.638	7.624	7.663	HH	4008	80121	0.63%	0.025%
92	7.678	7.663	7.700	HH	4302	83207	0.65%	0.026%
93	7.708	7.700	7.733	HH	3841	63916	0.50%	0.020%
94	7.788	7.733	7.799	HH	6665	164610	1.29%	0.052%
95	7.809	7.799	7.837	HH	5658	106875	0.84%	0.034%
96	7.856	7.837	7.872	HH	4337	82358	0.65%	0.026%
97	7.889	7.872	7.919	HH	4336	110972	0.87%	0.035%
98	7.947	7.919	7.968	HH	3625	98740	0.78%	0.031%
99	7.988	7.968	8.023	HH	6652	167747	1.32%	0.053%
100	8.041	8.023	8.061	HH	4967	86532	0.68%	0.027%
101	8.107	8.061	8.121	HH	5435	143293	1.13%	0.045%
102	8.128	8.121	8.136	HH	4425	38793	0.30%	0.012%
103	8.147	8.136	8.165	HH	4857	74353	0.58%	0.023%
104	8.178	8.165	8.188	HH	3774	50795	0.40%	0.016%
105	8.204	8.188	8.217	HH	3700	61454	0.48%	0.019%
106	8.252	8.217	8.276	HH	6070	171477	1.35%	0.054%
107	8.291	8.276	8.317	HH	4851	111807	0.88%	0.035%
108	8.337	8.317	8.361	HH	4691	112131	0.88%	0.035%
109	8.385	8.361	8.408	HH	5293	132303	1.04%	0.042%
110	8.428	8.408	8.442	HH	8345	135058	1.06%	0.043%
111	8.448	8.442	8.483	HH	6757	137640	1.08%	0.043%
112	8.498	8.483	8.507	HH	8854	100818	0.79%	0.032%
113	8.512	8.507	8.530	HH	8095	97459	0.77%	0.031%
114	8.540	8.530	8.555	HH	5414	76040	0.60%	0.024%
115	8.577	8.555	8.594	HH	6984	144461	1.13%	0.046%
116	8.619	8.594	8.637	HH	13744	234448	1.84%	0.074%
117	8.649	8.637	8.662	HH	7803	105175	0.83%	0.033%
118	8.680	8.662	8.684	HH	8450	98617	0.77%	0.031%
119	8.695	8.684	8.728	HH	8667	197305	1.55%	0.062%
120	8.736	8.728	8.757	HH	6300	100124	0.79%	0.032%
121	8.775	8.757	8.786	HH	8185	120502	0.95%	0.038%
122	8.807	8.786	8.838	HH	14018	284138	2.23%	0.090%
123	8.863	8.838	8.879	HH	10625	187844	1.47%	0.059%
124	8.885	8.879	8.904	HH	6979	102553	0.81%	0.032%
125	8.920	8.904	8.943	HH	8573	163106	1.28%	0.051%
126	8.946	8.943	8.960	HH	6158	61700	0.48%	0.019%
127	8.970	8.960	8.983	HH	5788	78557	0.62%	0.025%
128	8.988	8.983	9.018	HH	5822	111959	0.88%	0.035%
129	9.106	9.018	9.133	HH	10771	455369	3.58%	0.144%
130	9.164	9.133	9.195	HH	10142	285415	2.24%	0.090%
131	9.206	9.195	9.213	HH	7154	76949	0.60%	0.024%
132	9.236	9.213	9.263	HH	11621	272561	2.14%	0.086%
133	9.272	9.263	9.287	HH	7230	95876	0.75%	0.030%
134	9.301	9.287	9.311	HH	7076	98743	0.78%	0.031%
135	9.325	9.311	9.332	HH	8396	97372	0.76%	0.031%
136	9.349	9.332	9.371	HH	11805	223665	1.76%	0.071%
137	9.386	9.371	9.408	HH	8778	174015	1.37%	0.055%
138	9.424	9.408	9.434	HH	8883	125708	0.99%	0.040%
139	9.444	9.434	9.465	HH	9158	160264	1.26%	0.051%
140	9.474	9.465	9.491	HH	8585	121501	0.95%	0.038%
141	9.525	9.491	9.545	HH	17119	341482	2.68%	0.108%

rteres								
142	9.563	9.545	9.585	HH	14990	256672	2.02%	0.081%
143	9.589	9.585	9.606	HH	7530	90207	0.71%	0.028%
144	9.623	9.606	9.648	HH	7718	179117	1.41%	0.056%
145	9.681	9.648	9.697	HH	13999	274073	2.15%	0.086%
146	9.712	9.697	9.727	HH	10639	154764	1.22%	0.049%
147	9.739	9.727	9.751	HH	7417	100278	0.79%	0.032%
148	9.766	9.751	9.780	HH	8345	134552	1.06%	0.042%
149	9.819	9.780	9.839	HH	13182	321635	2.53%	0.101%
150	9.864	9.839	9.891	HH	8632	246626	1.94%	0.078%
151	9.905	9.891	9.914	HH	9433	123262	0.97%	0.039%
152	9.929	9.914	9.958	HH	11723	243940	1.92%	0.077%
153	9.984	9.958	10.018	HH	15443	387418	3.04%	0.122%
154	10.051	10.018	10.066	HH	9873	256616	2.01%	0.081%
155	10.088	10.066	10.097	HH	10857	185169	1.45%	0.058%
156	10.108	10.097	10.127	HH	11532	179408	1.41%	0.057%
157	10.148	10.127	10.161	HH	9623	182898	1.44%	0.058%
158	10.182	10.161	10.208	HH	45680	595530	4.68%	0.188%
159	10.249	10.208	10.295	HH	11260	516146	4.05%	0.163%
160	10.315	10.295	10.371	HH	17719	514950	4.04%	0.162%
161	10.392	10.371	10.407	HH	8857	181753	1.43%	0.057%
162	10.425	10.407	10.467	HH	10216	314494	2.47%	0.099%
163	10.492	10.467	10.543	HH	10838	405917	3.19%	0.128%
164	10.559	10.543	10.569	HH	8376	128631	1.01%	0.041%
165	10.593	10.569	10.609	HH	9460	208277	1.64%	0.066%
166	10.654	10.609	10.684	HH	13138	451316	3.54%	0.142%
167	10.707	10.684	10.732	HH	15971	345554	2.71%	0.109%
168	10.763	10.732	10.781	HH	14177	344296	2.70%	0.109%
169	10.790	10.781	10.818	HH	12987	246564	1.94%	0.078%
170	10.834	10.818	10.852	HH	13904	247512	1.94%	0.078%
171	10.857	10.852	10.883	HH	12383	201662	1.58%	0.064%
172	10.909	10.883	10.925	HH	12827	285289	2.24%	0.090%
173	10.930	10.925	10.946	HH	11552	141975	1.11%	0.045%
174	10.969	10.946	11.003	HH	13955	419537	3.29%	0.132%
175	11.013	11.003	11.027	HH	12083	164948	1.30%	0.052%
176	11.059	11.027	11.099	HH	19408	601202	4.72%	0.190%
177	11.132	11.099	11.165	HH	22525	598069	4.70%	0.189%
178	11.188	11.165	11.244	HH	12450	543635	4.27%	0.171%
179	11.281	11.244	11.290	HH	12270	306923	2.41%	0.097%
180	11.317	11.290	11.337	HH	25797	487909	3.83%	0.154%
181	11.350	11.337	11.370	HH	12756	238790	1.87%	0.075%
182	11.394	11.370	11.434	HH	21532	562834	4.42%	0.177%
183	11.455	11.434	11.481	HH	13059	342926	2.69%	0.108%
184	11.501	11.481	11.508	HH	11987	191545	1.50%	0.060%
185	11.535	11.508	11.553	HH	12248	323775	2.54%	0.102%
186	11.569	11.553	11.588	HH	12579	256320	2.01%	0.081%
187	11.605	11.588	11.619	HH	14871	249644	1.96%	0.079%
188	11.630	11.619	11.653	HH	13910	257244	2.02%	0.081%
189	11.713	11.653	11.723	HH	13958	552230	4.34%	0.174%
190	11.737	11.723	11.748	HH	14643	205887	1.62%	0.065%
191	11.767	11.748	11.788	HH	20717	406256	3.19%	0.128%
192	11.799	11.788	11.812	HH	14106	192642	1.51%	0.061%
193	11.821	11.812	11.828	HH	14146	139402	1.09%	0.044%
194	11.853	11.828	11.891	HH	25379	709668	5.57%	0.224%

rteres								
195	11.922	11.891	11.941	HH	14530	408368	3.21%	0.129%
196	11.975	11.941	11.996	HH	17968	515138	4.04%	0.162%
197	12.013	11.996	12.031	HH	15379	305011	2.39%	0.096%
198	12.067	12.031	12.098	HH	16548	612488	4.81%	0.193%
199	12.123	12.098	12.142	HH	21119	489637	3.84%	0.154%
200	12.158	12.142	12.181	HH	23259	434469	3.41%	0.137%
201	12.191	12.181	12.197	HH	15257	145295	1.14%	0.046%
202	12.246	12.197	12.262	HH	21707	704886	5.53%	0.222%
203	12.278	12.262	12.295	HH	28095	451904	3.55%	0.142%
204	12.309	12.295	12.335	HH	25271	478878	3.76%	0.151%
205	12.342	12.335	12.355	HH	15838	188722	1.48%	0.059%
206	12.375	12.355	12.400	HH	17045	434153	3.41%	0.137%
207	12.444	12.400	12.462	HH	25780	760759	5.97%	0.240%
208	12.467	12.462	12.507	HH	19801	495445	3.89%	0.156%
209	12.532	12.507	12.553	HH	22819	549109	4.31%	0.173%
210	12.572	12.553	12.583	HH	18023	319620	2.51%	0.101%
211	12.602	12.583	12.619	HH	22260	428107	3.36%	0.135%
212	12.635	12.619	12.646	HH	21068	313933	2.46%	0.099%
213	12.668	12.646	12.676	HH	28540	437710	3.44%	0.138%
214	12.694	12.676	12.734	HH	58225	1187979	9.33%	0.374%
215	12.747	12.734	12.767	HH	22467	421978	3.31%	0.133%
216	12.780	12.767	12.797	HH	23277	393626	3.09%	0.124%
217	12.814	12.797	12.848	HH	28019	747818	5.87%	0.236%
218	12.861	12.848	12.873	HH	22928	334244	2.62%	0.105%
219	12.889	12.873	12.907	HH	23909	464435	3.65%	0.146%
220	12.924	12.907	12.964	HH	27811	830278	6.52%	0.262%
221	12.984	12.964	13.003	HH	26271	541488	4.25%	0.171%
222	13.037	13.003	13.058	HH	39602	989926	7.77%	0.312%
223	13.095	13.058	13.129	HH	35883	1264554	9.93%	0.399%
224	13.153	13.129	13.197	HH	94947	1741674	13.67%	0.549%
225	13.213	13.197	13.228	HH	25548	459826	3.61%	0.145%
226	13.231	13.228	13.239	HH	25022	164489	1.29%	0.052%
227	13.258	13.239	13.268	HH	26736	455620	3.58%	0.144%
228	13.284	13.268	13.306	HH	30210	625170	4.91%	0.197%
229	13.312	13.306	13.323	HH	26241	260961	2.05%	0.082%
230	13.347	13.323	13.373	HH	31813	864936	6.79%	0.273%
231	13.398	13.373	13.428	HH	32809	974832	7.65%	0.307%
232	13.454	13.428	13.500	HH	100797	2079899	16.33%	0.656%
233	13.514	13.500	13.529	HH	31950	522379	4.10%	0.165%
234	13.547	13.529	13.559	HH	35841	605896	4.76%	0.191%
235	13.563	13.559	13.573	HH	33966	282617	2.22%	0.089%
236	13.588	13.573	13.608	HH	35579	697851	5.48%	0.220%
237	13.645	13.608	13.683	HH	37500	1497960	11.76%	0.472%
238	13.719	13.683	13.736	HH	41102	1159800	9.11%	0.366%
239	13.763	13.736	13.772	HH	39585	817244	6.42%	0.258%
240	13.788	13.772	13.820	HH	43798	1152871	9.05%	0.363%
241	13.824	13.820	13.840	HH	36934	429023	3.37%	0.135%
242	13.853	13.840	13.865	HH	38128	549053	4.31%	0.173%
243	13.885	13.865	13.904	HH	42128	911455	7.16%	0.287%
244	13.939	13.904	13.966	HH	48648	1543157	12.12%	0.486%
245	13.979	13.966	13.992	HH	41955	631451	4.96%	0.199%
246	14.009	13.992	14.025	HH	40781	800023	6.28%	0.252%

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247	14.047	14.025	14.076	HH	47289	1309366	10.28%	0.413%
248	14.097	14.076	14.114	HH	44190	962432	7.56%	0.303%
249	14.121	14.114	14.138	HH	42729	593632	4.66%	0.187%
250	14.162	14.138	14.183	HH	46180	1168276	9.17%	0.368%
251	14.198	14.183	14.215	HH	49615	917552	7.20%	0.289%
252	14.227	14.215	14.245	HH	50681	877635	6.89%	0.277%
253	14.249	14.245	14.269	HH	48515	674371	5.29%	0.213%
254	14.276	14.269	14.280	HH	45412	294112	2.31%	0.093%
255	14.324	14.280	14.352	HH	62054	2333708	18.32%	0.736%
256	14.368	14.352	14.387	HH	53703	1058485	8.31%	0.334%
257	14.439	14.387	14.470	HH	52812	2480401	19.47%	0.782%
258	14.493	14.470	14.496	HH	51632	786347	6.17%	0.248%
259	14.510	14.496	14.525	HH	54396	908612	7.13%	0.286%
260	14.537	14.525	14.556	HH	56063	999243	7.85%	0.315%
261	14.600	14.556	14.625	HH	54691	2209159	17.34%	0.696%
262	14.636	14.625	14.650	HH	54304	806175	6.33%	0.254%
263	14.671	14.650	14.686	HH	60256	1229346	9.65%	0.388%
264	14.701	14.686	14.708	HH	60299	766256	6.02%	0.242%
265	14.722	14.708	14.743	HH	62486	1278369	10.04%	0.403%
266	14.788	14.743	14.805	HH	71044	2361989	18.54%	0.745%
267	14.822	14.805	14.845	HH	71719	1576991	12.38%	0.497%
268	14.867	14.845	14.887	HH	69050	1633672	12.83%	0.515%
269	14.910	14.887	14.915	HH	68722	1139599	8.95%	0.359%
270	14.935	14.915	14.952	HH	72783	1551905	12.18%	0.489%
271	14.973	14.952	14.990	HH	77235	1695260	13.31%	0.534%
272	14.995	14.990	15.018	HH	73154	1184666	9.30%	0.373%
273	15.036	15.018	15.056	HH	80197	1658356	13.02%	0.523%
274	15.096	15.056	15.110	HH	74896	2309310	18.13%	0.728%
275	15.129	15.110	15.140	HH	78396	1347080	10.58%	0.425%
276	15.159	15.140	15.177	HH	81654	1729627	13.58%	0.545%
277	15.204	15.177	15.250	HH	114636	3820341	29.99%	1.204%
278	15.264	15.250	15.272	HH	78062	998185	7.84%	0.315%
279	15.347	15.272	15.366	HH	112325	5005220	39.30%	1.578%
280	15.389	15.366	15.427	HH	113051	3442335	27.03%	1.085%
281	15.449	15.427	15.467	HH	91309	2155070	16.92%	0.679%
282	15.490	15.467	15.498	HH	101622	1744689	13.70%	0.550%
283	15.507	15.498	15.528	HH	98305	1659543	13.03%	0.523%
284	15.557	15.528	15.582	HH	102566	3122092	24.51%	0.984%
285	15.585	15.582	15.593	HH	95453	617483	4.85%	0.195%
286	15.598	15.593	15.619	HH	96989	1515119	11.90%	0.478%
287	15.663	15.619	15.697	HH	106163	4625685	36.32%	1.458%
288	15.712	15.697	15.719	HH	102348	1349766	10.60%	0.425%
289	15.732	15.719	15.739	HH	104277	1231400	9.67%	0.388%
290	15.743	15.739	15.761	HH	103810	1321937	10.38%	0.417%
291	15.795	15.761	15.838	HH	131631	5324974	41.81%	1.679%
292	15.849	15.838	15.859	HH	112441	1444072	11.34%	0.455%
293	15.870	15.859	15.890	HH	111623	2059092	16.17%	0.649%
294	15.903	15.890	15.912	HH	110700	1402508	11.01%	0.442%
295	15.934	15.912	15.967	HH	133970	4041956	31.73%	1.274%
296	15.981	15.967	16.003	HH	120187	2501342	19.64%	0.788%
297	16.031	16.003	16.052	HH	136774	3699443	29.05%	1.166%
298	16.085	16.052	16.101	HH	134251	3757510	29.50%	1.184%
299	16.124	16.101	16.128	HH	126718	1972102	15.48%	0.622%

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300	16.136	16.128	16.143	HH	127787	1137576	8.93%	0.359%
301	16.173	16.143	16.177	HH	134352	2676159	21.01%	0.844%
302	16.201	16.177	16.217	HH	141424	3213192	25.23%	1.013%
303	16.234	16.217	16.253	HH	135808	2868727	22.52%	0.904%
304	16.276	16.253	16.292	HH	140732	3205107	25.16%	1.010%
305	16.331	16.292	16.348	HH	147280	4802824	37.71%	1.514%
306	16.367	16.348	16.382	HH	151757	2947813	23.14%	0.929%
307	16.396	16.382	16.408	HH	152651	2381514	18.70%	0.751%
308	16.443	16.408	16.462	HH	176806	5188868	40.74%	1.636%
309	16.476	16.462	16.499	HH	168493	3645515	28.62%	1.149%
310	16.506	16.499	16.520	HH	160568	1967857	15.45%	0.620%
311	16.530	16.520	16.543	HH	157031	2094536	16.45%	0.660%
312	16.549	16.543	16.558	HH	156979	1453599	11.41%	0.458%
313	16.568	16.558	16.574	HH	158122	1481987	11.64%	0.467%
314	16.579	16.574	16.600	HH	158118	2460285	19.32%	0.776%
315	16.641	16.600	16.665	HH	182299	6711956	52.70%	2.116%
316	16.676	16.665	16.684	HH	170796	1901022	14.93%	0.599%
317	16.707	16.684	16.712	HH	177911	2845404	22.34%	0.897%
318	16.734	16.712	16.738	HH	186953	2842060	22.31%	0.896%
319	16.759	16.738	16.773	HH	188071	3876479	30.44%	1.222%
320	16.847	16.773	16.876	HH	196464	11502467	90.31%	3.626%
321	16.931	16.876	16.975	HH	260351	12554218	98.57%	3.957%
322	16.979	16.975	16.984	HH	197892	1079606	8.48%	0.340%
323	17.008	16.984	17.019	HH	205428	4214299	33.09%	1.328%
324	17.038	17.019	17.043	HH	219402	3054082	23.98%	0.963%
325	17.065	17.043	17.083	HH	223547	5313500	41.72%	1.675%
326	17.091	17.083	17.099	HH	221665	2090282	16.41%	0.659%
327	17.113	17.099	17.137	HH	227008	5020946	39.42%	1.583%
328	17.153	17.137	17.186	HH	232459	6607612	51.88%	2.083%
329	17.255	17.186	17.276	HH	254777	12736606	100.00%	4.015%
330	17.280	17.276	17.286	HH	235956	1414321	11.10%	0.446%
331	17.314	17.286	17.349	HH	257974	9073271	71.24%	2.860%
332	17.408	17.349	17.426	HH	295700	12034471	94.49%	3.794%
333	17.438	17.426	17.457	HH	284389	5117942	40.18%	1.613%
334	17.469	17.457	17.488	HH	270815	4785378	37.57%	1.508%
335	17.496	17.488	17.500	HHA	260864	1990375	15.63%	0.627%

Sum of corrected areas: 317235694

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