

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
GENERAL CHEMISTRY
METALS
SEMI-VOLATILE ORGANICS

PROJECT NAME : FORMER SCHLUMBERGER SITE PRINCETON NJ

JACOBS ENGINEERING GROUP, INC.

412 Mt. Kemble Ave

Downtown Building

Morristown, NJ - 07960

Phone No: 9732670555

ORDER ID : P3657

ATTENTION : Mary I. Murphy



Laboratory Certification ID # 20012



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DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

1

Laboratory Name : Alliance Technical Group LLC Client : JACOBS Engineering Group, Inc.
 Project Location : Princeton Junction, NJ Project Number : D3779922
 Laboratory Sample ID(s) : P3657 Sampling Date(s) : 8/16/2024
 List DKQP Methods Used (e.g., 8260,8270, et Cetra) **6020B,7196A,7470A,8260-Low,8270-Modified,8270E**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified handling, preservation, and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (4±2° C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	a)Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt? b)Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

Cover Page

Order ID : P3657

Project ID : Former Schlumberger Site Princeton NJ

Client : JACOBS Engineering Group, Inc.

Lab Sample Number

P3657-01
P3657-02

Client Sample Number

917-J-WS-081624
TB-01-081624

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :

N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:11 am, Sep 06, 2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3657

Test Name: VOCMS Group6

A. Number of Samples and Date of Receipt:

2 Water samples were received on 08/16/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for VOCMS Group6.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868. The analysis of VOCMS Group6 was based on method 8260D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

E. Additional Comments:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:



284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

2

2.1

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:11 am, Sep 06, 2024

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3657

Test Name: SVOCMS Group3

A. Number of Samples and Date of Receipt:

2 Water samples were received on 08/16/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for SVOCMS Group3.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOCMS Group3 was based on method 8270-Modified and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

E. Additional Comments:

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.



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2
2.2

For sample # 917-J-WS-081624 some compounds below Method detection limits, therefore it is not reported as Hit in Form-1.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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Signature__

N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:12 am, Sep 06, 2024

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3657

Test Name: SVOCMS Group6

A. Number of Samples and Date of Receipt:

2 Water samples were received on 08/16/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for SVOCMS Group6.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOCMS Group6 was based on method 8270E and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for 917-J-WS-081624 [2,4 and6-Tribromophenol - 119%]. these compound did not meet the NJDKQP criteria but met the in-house criteria, Therefor no corrective action was required.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD for {PB162822BSD} with File ID: BP021569.D met criteria except for Benzaldehyde[24%], Due to result difference between BS and BSD, therefor no corrective action was required.

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration File ID BP021566.D met the requirements except for Pentachlorophenol, Failed high side and a sample does not have hit for this compound, therefor no corrective action was required.

The Continuous Calibration File ID BP021575.D met the requirements except for Pentachlorophenol . Failed high side and samples does not have hit for this compound, Therefor no corrective action was required.
The Tuning criteria met requirements.

E. Additional Comments:

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

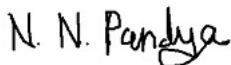
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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Signature_____



APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:12 am, Sep 06, 2024

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3657

Test Name: Metals Group4,Mercury

A. Number of Samples and Date of Receipt:

2 Water samples were received on 08/16/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for Metals Group4,Mercury.

C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6020B, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate (918-J-WS-081324-FDDUP) analysis met criteria for all samples except for Arsenic due to sample matrix interference.

The Matrix Spike (1027MS) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike (918-J-WS-081324-FDMS) analysis met criteria for all samples except for Molybdenum and Silver due to Chemical Interference during Digestion Process.

The Matrix Spike Duplicate (1027MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (918-J-WS-081324-FDMSD) analysis met criteria for all samples except for Molybdenum and Silver due to Chemical Interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution (918-J-WS-081324-FDL) met criteria for all samples except for Aluminum, Iron, and Manganese due to sample matrix interference.

E. Additional Comments:

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

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Signature N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:12 am, Sep 06, 2024



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CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3657

Test Name: Hexavalent Chromium

A. Number of Samples and Date of Receipt:

2 Water samples were received on 08/16/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for Hexavalent Chromium.

C. Analytical Techniques:

The analysis of Hexavalent Chromium was based on method 7196A.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

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N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:13 am, Sep 06, 2024

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: <ul style="list-style-type: none"> (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P3657

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

1st Level QA Review Signature: SOHIL JODHANI

Date: 09/05/2024

2nd Level QA Review Signature:

N. N. Pandya

APPROVED

By Nimisha Pandya QA/QC Supervisor at 9:13 am, Sep 06, 2024

Hit Summary Sheet
SW-846

SDG No.: P3657
Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	917-J-WS-081624							
P3657-01	917-J-WS-081624	Water	Acetone	7.30		1.40	5.00	ug/L
			Total Voc :	7.30				
			Total Concentration:	7.30				

A

B

C

D



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group6
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN083379.D	1		08/19/24 17:53	VN081924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
67-64-1	Acetone	7.30		1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	0.45	U	0.45	3.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group6
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN083379.D	1		08/19/24 17:53	VN081924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.3		70 (74) - 130 (125)	107%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	48.9		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		70 (77) - 130 (121)	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	139000	8.224			
540-36-3	1,4-Difluorobenzene	273000	9.106			
3114-55-4	Chlorobenzene-d5	284000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	127000	13.794			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	TB-01-081624	SDG No.:	P3657
Lab Sample ID:	P3657-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group6
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN083378.D	1		08/19/24 17:29	VN081924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	0.45	U	0.45	3.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	TB-01-081624	SDG No.:	P3657
Lab Sample ID:	P3657-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group6
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN083378.D	1		08/19/24 17:29	VN081924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.1		70 (74) - 130 (125)	106%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		70 (75) - 130 (124)	97%	SPK: 50
2037-26-5	Toluene-d8	46.7		70 (86) - 130 (113)	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		70 (77) - 130 (121)	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	134000	8.224			
540-36-3	1,4-Difluorobenzene	268000	9.106			
3114-55-4	Chlorobenzene-d5	272000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	120000	13.794			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

LAB CHRONICLE

OrderID:	P3657	OrderDate:	8/16/2024 2:45:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	G11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3657-01	917-J-WS-081624	Water	VOCMS Group6	8260-Low	08/16/24		08/19/24	08/16/24
P3657-02	TB-01-081624	Water	VOCMS Group6	8260-Low	08/16/24		08/19/24	08/16/24

Hit Summary Sheet SW-846

SDG No.: P3657
Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	RDL	Units
Client ID : 917-J-WS-081624							
P3657-01	917-J-WS-081624	WATER Fluorene	0.070	J	0.02	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Phenanthrene	0.050	J	0.02	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Fluoranthene	0.090	J	0.02	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Pyrene	0.060	J	0.02	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Benzo(a)anthracene	0.050	J	0.02	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Chrysene	0.080	J	0.03	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Benzo(b)fluoranthene	0.070	J	0.03	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Benzo(k)fluoranthene	0.050	J	0.04	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Indeno(1,2,3-cd)pyrene	0.050	J	0.04	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Dibenzo(a,h)anthracene	0.040	J	0.04	0.1	ug/L
P3657-01	917-J-WS-081624	WATER Benzo(g,h,i)perylene	0.050	J	0.04	0.1	ug/L
Total Svoc :					0.66		
Total Concentration:					0.66		



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group3
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN033501.D	1	08/19/24 09:50	08/20/24 12:11	PB162821

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
91-20-3	Naphthalene	0.030	U	0.030	0.10	ug/L
91-57-6	2-Methylnaphthalene	0.030	U	0.030	0.10	ug/L
208-96-8	Acenaphthylene	0.020	U	0.020	0.10	ug/L
83-32-9	Acenaphthene	0.020	U	0.020	0.10	ug/L
86-73-7	Fluorene	0.070	J	0.020	0.10	ug/L
85-01-8	Phenanthrene	0.050	J	0.020	0.10	ug/L
120-12-7	Anthracene	0.030	U	0.030	0.10	ug/L
206-44-0	Fluoranthene	0.090	J	0.020	0.10	ug/L
129-00-0	Pyrene	0.060	J	0.020	0.10	ug/L
56-55-3	Benzo(a)anthracene	0.050	J	0.020	0.10	ug/L
218-01-9	Chrysene	0.080	J	0.030	0.10	ug/L
205-99-2	Benzo(b)fluoranthene	0.070	J	0.030	0.10	ug/L
207-08-9	Benzo(k)fluoranthene	0.050	J	0.040	0.10	ug/L
50-32-8	Benzo(a)pyrene	0.060	U	0.060	0.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.050	J	0.040	0.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.040	J	0.040	0.10	ug/L
191-24-2	Benzo(g,h,i)perylene	0.050	J	0.040	0.10	ug/L
123-91-1	1,4-Dioxane	0.070	U	0.070	0.21	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.31		30 (20) - 150 (139)	77%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 (30) - 150 (150)	93%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.29		30 (27) - 130 (123)	73%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.31		30 (34) - 130 (132)	78%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		30 (35) - 130 (157)	115%	SPK: 0.4
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	7400	7.552			
1146-65-2	Naphthalene-d8	19900	10.314			
15067-26-2	Acenaphthene-d10	10400	14.189			
1517-22-2	Phenanthrene-d10	21000	16.942			

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group3
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN033501.D	1	08/19/24 09:50	08/20/24 12:11	PB162821

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1719-03-5	Chrysene-d12	13100	21.148			
1520-96-3	Perylene-d12	12700	23.323			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

LAB CHRONICLE

OrderID:	P3657	OrderDate:	8/16/2024 2:45:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	G11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3657-01	917-J-WS-081624	Water			08/16/24			08/16/24
			SVOCMS Group3	8270-Modified		08/19/24	08/20/24	
			SVOCMS Group6	8270E		08/19/24	08/21/24	



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: P3657
Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :			0.00		
			Total Concentration:			0.00		



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group6
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BP021589.D	1	08/19/24 09:40	08/21/24 02:44	PB162822

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	1.60	U	1.60	5.20	ug/L
100-52-7	Benzaldehyde	4.20	U	4.20	10.4	ug/L
95-48-7	2-Methylphenol	1.20	U	1.20	5.20	ug/L
98-86-2	Acetophenone	1.10	U	1.10	5.20	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.4	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.20	ug/L
120-83-2	2,4-Dichlorophenol	0.92	U	0.92	5.20	ug/L
91-20-3	Naphthalene	1.10	U	1.10	5.20	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.20	ug/L
91-57-6	2-Methylnaphthalene	1.20	U	1.20	5.20	ug/L
88-06-2	2,4,6-Trichlorophenol	0.93	U	0.93	5.20	ug/L
95-95-4	2,4,5-Trichlorophenol	1.10	U	1.10	5.20	ug/L
208-96-8	Acenaphthylene	1.10	U	1.10	5.20	ug/L
83-32-9	Acenaphthene	0.84	U	0.84	5.20	ug/L
132-64-9	Dibenzofuran	0.97	U	0.97	5.20	ug/L
86-73-7	Fluorene	1.00	U	1.00	5.20	ug/L
118-74-1	Hexachlorobenzene	1.20	U	1.20	5.20	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.4	ug/L
85-01-8	Phenanthrene	0.93	U	0.93	5.20	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.20	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.20	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.20	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.20	ug/L
56-55-3	Benzo(a)anthracene	0.98	U	0.98	5.20	ug/L
218-01-9	Chrysene	0.90	U	0.90	5.20	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	2.00	U	2.00	5.20	ug/L
205-99-2	Benzo(b)fluoranthene	1.20	U	1.20	5.20	ug/L
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.20	ug/L
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.20	ug/L

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group6
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BP021589.D	1	08/19/24 09:40	08/21/24 02:44	PB162822

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
193-39-5	Indeno(1,2,3-cd)pyrene	1.10	U	1.10	5.20	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.20	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.20	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.20	ug/L
90-12-0	1-Methylnaphthalene	0.90	U	0.90	5.20	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	52.1		15 (10) - 110 (139)	35%	SPK: 150
13127-88-3	Phenol-d6	32.9		15 (10) - 110 (134)	22%	SPK: 150
4165-60-0	Nitrobenzene-d5	82.0		30 (49) - 130 (133)	82%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.3		30 (52) - 130 (132)	76%	SPK: 100
118-79-6	2,4,6-Tribromophenol	179	*	15 (44) - 110 (137)	119%	SPK: 150
1718-51-0	Terphenyl-d14	96.0		30 (48) - 130 (125)	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	353000	7.805			
1146-65-2	Naphthalene-d8	1460000	10.599			
15067-26-2	Acenaphthene-d10	957000	14.457			
1517-22-2	Phenanthrene-d10	2100000	17.269			
1719-03-5	Chrysene-d12	1960000	21.727			
1520-96-3	Perylene-d12	2260000	25.168			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

LAB CHRONICLE

OrderID:	P3657	OrderDate:	8/16/2024 2:45:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	G11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3657-01	917-J-WS-081624	Water	SVOCMS Group6	8270E	08/16/24	08/19/24	08/21/24	08/16/24

Hit Summary Sheet
SW-846

SDG No.: P3657 **Order ID:** P3657
Client: JACOBS Engineering Group, Inc. **Project ID:** Former Schlumberger Site Princeton NJ

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : 917-J-WS-081624								
P3657-01	917-J-WS-081624	Water	Aluminum	92.1		1.98	20.0	ug/L
P3657-01	917-J-WS-081624	Water	Antimony	0.23	J	0.11	2.00	ug/L
P3657-01	917-J-WS-081624	Water	Arsenic	1.85		0.090	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Barium	58.0		0.30	10.0	ug/L
P3657-01	917-J-WS-081624	Water	Calcium	19400		62.5	500	ug/L
P3657-01	917-J-WS-081624	Water	Chromium	1.48	J	0.40	2.00	ug/L
P3657-01	917-J-WS-081624	Water	Cobalt	0.60	J	0.062	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Copper	2.68		0.40	2.00	ug/L
P3657-01	917-J-WS-081624	Water	Iron	3070		9.60	50.0	ug/L
P3657-01	917-J-WS-081624	Water	Lead	1.67		0.11	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Magnesium	3500		26.6	500	ug/L
P3657-01	917-J-WS-081624	Water	Manganese	362		0.24	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Nickel	2.83		0.18	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Potassium	2760		46.1	500	ug/L
P3657-01	917-J-WS-081624	Water	Tin	0.23	J	0.12	5.00	ug/L
P3657-01	917-J-WS-081624	Water	Sodium	72200		85.8	500	ug/L
P3657-01	917-J-WS-081624	Water	Vanadium	0.94	J	0.072	5.00	ug/L
P3657-01	917-J-WS-081624	Water	Zinc	11.7		0.56	5.00	ug/L
P3657-01	917-J-WS-081624	Water	Strontium	133		0.35	1.00	ug/L
P3657-01	917-J-WS-081624	Water	Titanium	1.91	J	0.26	5.00	ug/L



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	92.1		1	1.98	20.0	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-36-0	Antimony	0.23	J	1	0.11	2.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-38-2	Arsenic	1.85	*	1	0.090	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-39-3	Barium	58.0		1	0.30	10.0	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-41-7	Beryllium	0.16	U	1	0.16	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-43-9	Cadmium	0.30	U	1	0.30	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-70-2	Calcium	19400		1	62.5	500	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-47-3	Chromium	1.48	J	1	0.40	2.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-48-4	Cobalt	0.60	J	1	0.062	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-50-8	Copper	2.68		1	0.40	2.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7439-89-6	Iron	3070		1	9.60	50.0	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7439-92-1	Lead	1.67		1	0.11	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7439-95-4	Magnesium	3500		1	26.6	500	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7439-96-5	Manganese	362		1	0.24	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7439-97-6	Mercury	0.081	UN	1	0.081	0.20	ug/L	08/21/24 15:15	08/22/24 15:53	SW7470A	
7439-98-7	Molybdenum	0.93	UN	1	0.93	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-02-0	Nickel	2.83		1	0.18	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-09-7	Potassium	2760		1	46.1	500	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7782-49-2	Selenium	1.38	U	1	1.38	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-22-4	Silver	0.077	UN	1	0.077	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-23-5	Sodium	72200		1	85.8	500	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-24-6	Strontium	133		1	0.35	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-28-0	Thallium	0.085	U	1	0.085	1.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-31-5	Tin	0.23	J	1	0.12	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-32-6	Titanium	1.91	J	1	0.26	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-62-2	Vanadium	0.94	J	1	0.072	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A
7440-66-6	Zinc	11.7		1	0.56	5.00	ug/L	09/04/24 12:30	09/04/24 16:16	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Mercury			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

LAB CHRONICLE

OrderID:	P3657	OrderDate:	8/16/2024 2:45:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	G11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3657-01	917-J-WS-081624	Water			08/16/24			08/16/24
			Mercury	7470A		08/21/24	08/22/24	
			Metals Group4	6020B		09/04/24	09/04/24	



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/16/24 09:30
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/16/24
Client Sample ID:	917-J-WS-081624	SDG No.:	P3657
Lab Sample ID:	P3657-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Dissolved Hexavalent Chromium	0.0030	U	1	0.0030	0.010	mg/L		08/16/24 17:34	7196A

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

LAB CHRONICLE

OrderID:	P3657	OrderDate:	8/16/2024 2:45:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	G11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3657-01	917-J-WS-081624	WATER	Hexavalent Chromium	7196A	08/16/24 09:30		08/16/24 17:34	08/16/24



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Jacobs

ADDRESS: 412 Mt Kable Ave Suite H100

CITY Morrisstown STATE: NJ ZIP: 07960

ATTENTION: John Yufante

PHONE: (281) 414-1719

FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: STL PTC

PROJECT NO.: D3779922 LOCATION: Princeton Junction

PROJECT MANAGER: Mary Murphy

e-mail: Mary.Murphy@Jacobs.com

PHONE: (201) 936-0586

FAX:

CLIENT BILLING INFORMATION

BILL TO: Mary Murphy

PO#:

ADDRESS:

CITY

STATE:

ZIP:

ATTENTION:

PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard TAT DAYS*

HARDCOPY (DATA PACKAGE): DAYS*

EDD: DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP☒ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B

+ Raw Data

☐ Other☐ EDD FORMAT

VOCs 8260D
SVOCs 8260E
PAHs 8270E
Metals 6020B, Hg
Cr 2007, Pb 6013
Cu 2007, Zn 6013

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		A/E	F	B/E	E						
1.	717-J-WS-081624	WS		X	8-16-24	0930	8	2	4	1	1						
2.	TB-01-081624	DI		X	8-16-24	1055	1	1									TB is unpreserved!
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 8-16-24 1245	RECEIVED BY: 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input checked="" type="checkbox"/> COOLER TEMP 2.9 °C
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	Comments: See attached table for his required analytes list
RELINQUISHED BY SAMPLER: 3.	DATE/TIME:	RECEIVED BY: 3.	

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ OtherCHEMTECH: ☒ Picked Up ☐ Field Sampling

Shipment Complete

☒ YES ☐ NO

Table 3. Surface Water Target Analytes, Methods, Action Levels, and Control Limits
 Site Sampling Plan for Ecological Evaluation
 Princeton Technology Center, West Windsor Township, New Jersey

Method	Analyte	CAS Number	Units	Higher of PQL and Ground Water Quality Criterion ^a	Fresh Surface Water Chronic NJDEP Ecological Criterion ^b
ECO-SVOCs					
SW8270E	1,4-Dioxane	123-91-1	µg/L	0.4	--
SW8270E	1-Methylnaphthalene	90-12-0	µg/L	--	
SW8270E	2,4,5-Trichlorophenol	95-95-4	µg/L	700	
SW8270E	2,4,6-Trichlorophenol	88-06-2	µg/L	20	
SW8270E	2,4-Dinitrotoluene	121-14-2	µg/L	10	
SW8270E	2-Methylnaphthalene	91-57-6	µg/L	30	
SW8270E	2-Methylphenol	95-48-7	µg/L	--	
SW8270E	3 & 4-Methylphenol (m,p-Cresols)	65794-96-9	µg/L	--	
SW8270E	Acenaphthene	83-32-9	µg/L	400	
SW8270E	Acenaphthylene	208-96-8	µg/L	--	
SW8270E	Anthracene	120-12-7	µg/L	2000	
SW8270E	Benzaldehyde	100-52-7	µg/L	--	
SW8270E	Benzo(a)anthracene	56-55-3	µg/L	--	
SW8270E	Benzo(a)pyrene	50-32-8	µg/L	0.1	
SW8270E	Benzo(b)fluoranthene	205-99-2	µg/L	0.5	
SW8270E	Benzo(g,h,i)perylene	191-24-2	µg/L	--	
SW8270E	Benzo(k)fluoranthene	207-08-9	µg/L	0.5	
SW8270E	Bis (2-ethylhexyl) phthalate	117-81-7	µg/L	--	
SW8270E	Carbazole	86-74-8	µg/L	--	
SW8270E	Chrysene	218-01-9	µg/L	5	
SW8270E	Dibenzo(a,h)anthracene	53-70-3	µg/L	0.3	
SW8270E	Dibenzofuran	132-64-9	µg/L	--	
SW8270E	Di-N-Butylphthalate	84-74-2	µg/L	--	
SW8270E	Fluoranthene	206-44-0	µg/L	300	
SW8270E	Fluorene	86-73-7	µg/L	300	
SW8270E	Hexachlorobenzene	118-74-1	µg/L	0.02	
SW8270E	Hexachlorobutadiene	87-68-3	µg/L	1	
SW8270E	Hexachloroethane	67-72-1	µg/L	7	
SW8270E	Indeno(1,2,3-Cd)Pyrene	193-39-5	µg/L	0.2	
SW8270E	Naphthalene	91-20-3	µg/L	300	
SW8270E	Nitrobenzene	98-95-3	µg/L	6	
SW8270E	Pentachlorophenol	87-86-5	µg/L	0.3	
SW8270E	Phenanthrene	85-01-8	µg/L	--	
SW8270E	Pyrene	129-00-0	µg/L	200	
SW8270E	Pyridine	110-86-1	µg/L	--	
ECO-VOCs					
SW8260D	1,1,1-Trichloroethane	71-55-6	µg/L	30	76

Table 3. Surface Water Target Analytes, Methods, Action Levels, and Control Limits
 Site Sampling Plan for Ecological Evaluation
 Princeton Technology Center, West Windsor Township, New Jersey

Method	Analyte	CAS Number	Units	Higher of PQL and Ground Water Quality Criterion ^a	Fresh Surface Water Chronic NDEP Ecological Criterion ^b
SW8260D	1,1,2-Trichloroethane	79-00-5	µg/L	3	500
SW8260D	1,1-Dichloroethane	75-34-3	µg/L	50	--
SW8260D	1,1-Dichloroethene	75-35-4	µg/L	1	65
SW8260D	1,2-Dichlorobenzene	95-50-1	µg/L	600	14
SW8260D	1,2-Dichloroethane	107-06-2	µg/L	2	910
SW8260D	1,2-Dichloroethene (Total)	540-59-0	µg/L		
SW8260D	1,4-Dichlorobenzene	106-46-7	µg/L	75	9.4
SW8260D	2-Butanone	78-93-3	µg/L	300	--
SW8260D	Acetone	67-64-1	µg/L	6000	--
SW8260D	Benzene	71-43-2	µg/L	1	114
SW8260D	Bromodichloromethane	75-27-4	µg/L	1	--
SW8260D	Bromomethane	74-83-9	µg/L	10	--
SW8260D	Carbon disulfide	75-15-0	µg/L	700	--
SW8260D	Carbon tetrachloride	56-23-5	µg/L	1	240
SW8260D	Chlorobenzene	108-90-7	µg/L	50	47
SW8260D	Chloroethane	75-00-3	µg/L	--	--
SW8260D	Chloroform	67-66-3	µg/L	70	140
SW8260D	Chloromethane	74-87-3	µg/L	--	--
SW8260D	cis-1,2-Dichloroethene	156-59-2	µg/L	70	--
SW8260D	Cyclohexane	110-82-7	µg/L	--	--
SW8260D	Dibromochloromethane	124-48-1	µg/L	1	--
SW8260D	Dichlorodifluoromethane	75-71-8	µg/L	1000	--
SW8260D	Ethylbenzene	100-41-4	µg/L	700	14
SW8260D	Freon TF	76-13-1	µg/L	20000	--
SW8260D	Isopropylbenzene	98-82-8	µg/L	700	--
SW8260D	m&p-Xylene	179601-23-1	µg/L	1000	27
SW8260D	Methylcyclohexane	108-87-2	µg/L	--	--
SW8260D	Methylene Chloride	75-09-2	µg/L	3	940
SW8260D	MTBE	1634-04-4	µg/L	70	51000
SW8260D	o-Xylene	95-47-6	µg/L	1000	27
SW8260D	Tetrachloroethene	127-18-4	µg/L	1	45
SW8260D	Toluene	108-88-3	µg/L	600	253
SW8260D	trans-1,2-Dichloroethene	156-60-5	µg/L	100	970
SW8260D	Trichloroethene	79-01-6	µg/L	1	47
SW8260D	Vinyl chloride	75-01-4	µg/L	1	930
SW8260D	Xylenes, Total	1330-20-7	µg/L		
ECO-PAHs					
SW8270E SIM	1,4-Dioxane	123-91-1	µg/L	0.4	--

Table 3. Surface Water Target Analytes, Methods, Action Levels, and Control Limits

Site Sampling Plan for Ecological Evaluation

Princeton Technology Center, West Windsor Township, New Jersey

Method	Analyte	CAS Number	Units	Higher of PQL and Ground Water Quality Criterion ^a	Fresh Surface Water Chronic NJDEP Ecological Criterion ^b
SW8270E SIM	2-Methylnaphthalene	91-57-6	µg/L	30	330
SW8270E SIM	Acenaphthene	83-32-9	µg/L	400	38
SW8270E SIM	Acenaphthylene	208-96-8	µg/L	--	4840
SW8270E SIM	Anthracene	120-12-7	µg/L	2000	0.035
SW8270E SIM	Benzo(a)anthracene	56-55-3	µg/L	0.1	0.025
SW8270E SIM	Benzo(a)pyrene	50-32-8	µg/L	0.1	0.014
SW8270E SIM	Benzo(b)fluoranthene	205-99-2	µg/L	0.2	9.07
SW8270E SIM	Benzo(g,h,i)perylene	191-24-2	µg/L	--	7.64
SW8270E SIM	Benzo(k)fluoranthene	207-08-9	µg/L	0.5	--
SW8270E SIM	Chrysene	218-01-9	µg/L	5	--
SW8270E SIM	Dibenz(a,h)anthracene	53-70-3	µg/L	0.3	--
SW8270E SIM	Fluoranthene	206-44-0	µg/L	300	1.9
SW8270E SIM	Fluorene	86-73-7	µg/L	300	19
SW8270E SIM	Indeno[1,2,3-cd]pyrene	193-39-5	µg/L	0.2	4.31
SW8270E SIM	Naphthalene	91-20-3	µg/L	300	13
SW8270E SIM	Phenanthrene	85-01-8	µg/L	--	3.6
SW8270E SIM	Pyrene	129-00-0	µg/L	200	0.3
ECO-Metals					
SW3060A/7196A	Hexavalent Chromium	18540-29-9	µg/L	--	10
SW7470A	Mercury	7439-97-6	µg/L	2	0.77
SW6020B	Aluminum	7429-90-5	µg/L	--	--
SW6020B	Antimony	7440-36-0	µg/L	6	80
SW6020B	Arsenic	7440-38-2	µg/L	3	150
SW6020B	Barium	7440-39-3	µg/L	6000	220
SW6020B	Beryllium	7440-41-7	µg/L	1	3.6
SW6020B	Cadmium	7440-43-9	µg/L	4	--
SW6020B	Calcium	7440-70-2	µg/L	--	--
SW6020B	Chromium	7440-47-3	µg/L	--	42
SW6020B	Cobalt	7440-48-4	µg/L	100	24
SW6020B	Copper	7440-50-8	µg/L	1300	--
SW6020B	Iron	7439-89-6	µg/L	--	--
SW6020B	Lead	7439-92-1	µg/L	5	5.4
SW6020B	Magnesium	7439-95-4	µg/L	--	--
SW6020B	Manganese	7439-96-5	µg/L	--	--
SW6020B	Nickel	7440-02-0	µg/L	100	--
SW6020B	Potassium	7440-09-7	µg/L	--	--
SW6020B	Selenium	7782-49-2	µg/L	40	5
EPA 200.7	Silica	7631-86-9	µg/L	--	--

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Table 3. Surface Water Target Analytes, Methods, Action Levels, and Control Limits
Site Sampling Plan for Ecological Evaluation
Princeton Technology Center, West Windsor Township, New Jersey

Method	Analyte	CAS Number	Units	Higher of PQL and Ground Water Quality Criterion ^a	Fresh Surface Water Chronic NUDEP Ecological Criterion ^b
SW6020B	Silver	7440-22-4	µg/L	40	0.12
SW6020B	Sodium	7440-23-5	µg/L	--	--
SW6020B	Thallium	7440-28-0	µg/L	--	10
SW6020B	Vanadium	7440-62-2	µg/L	--	12
SW6020B	Zinc	7440-66-6	µg/L	2000	--

Notes:

^a New Jersey Department of Environmental Protection (NJDEP) Ground Water Quality Standards - Class IIA by Constituent. May 2021. New Jersey Administration Code 7:9C-1.4; Remediation Standards.

^b NJDEP Ground Water Quality Standards - Class IIA by Constituent. May 2021. New Jersey Administration Code 7:9C-1.4; Remediation Standards. NJDEP Ecological Surface Water SSLs. March 2009.

Bold = MDL and RL exceed screening criteria.

-- = not available (no standard)

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service

Freon TF = 1,1,2-Trichloro-1,2,2-trifluoroethane

MDL = method detection limit

MTBE = methyl tert butyl ether

NJDEP = New Jersey Department of Environmental Protection

PAH = polycyclic aromatic hydrocarbon

PQL = Practical Quantitation Level as defined in N.J.A.C. 7:9C-1.4

RL = reporting limit

SIM = selected ion method

SVOC = semivolatile organic compound

VOC = volatile organic compound

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P3657 JACO05

Order Date : 8/16/2024 2:45:00 PM

Project Mgr :

Client Name : JACOBS Engineering Grou

Project Name : Former Schlumberger Site I

Report Type : Level 4

Client Contact : Mary I. Murphy

Receive DateTime : 8/16/2024 12:00:00 AM

EDD Type : CH2MHILL

Invoice Name : JACOBS Engineering Grou

Purchase Order :

12:45

Hard Copy Date :

Invoice Contact : Mary I. Murphy

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P3657-01	717 -J-WS-O81624 917	Water	08/16/2024	09:30					
					VOCMS Group6		8260-Low	10 Bus. Days	
P3657-02	TB-01-081624	Water	08/16/2024	10:55					
					VOCMS Group6		8260-Low	10 Bus. Days	

Relinquished By :

2M

Received By :

Sam

Date / Time :

08-16-24 1524

Date / Time :

8/16/24 15:27

Storage Area : VOA Refridgerator Room