

## **ANALYTICAL RESULTS SUMMARY**

VOLATILE ORGANICS  
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 : N6070**

**ATTENTION : Doug Scott**



**Laboratory Certification ID # 20012**



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# DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

1

Laboratory Name : CHEMTECH

Client : JACOBS Engineering Group, Inc.

Project Location : Princeton Junction

Project Number : D3662225

Laboratory Sample ID(s) : N6070

Sampling Date(s) : 12/14/2022

List DKQP Methods Used (e.g., 8260,8270, et Cetra) **8260D,8270-Modified,SMO**

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 checked="" type="checkbox"/> Yes <input 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 :** N6070

**Project ID :** Former Schlumberger Site Princeton NJ

**Client :** JACOBS Engineering Group, Inc.

**Lab Sample Number**

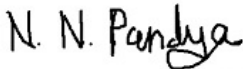
N6070-02  
N6070-03  
N6070-04  
N6070-05

**Client Sample Number**

TB-01-121422  
OWBR-01-160-180-121422-H  
OWBR-02-160-180-121422-H  
OWBR-03-128-148-121422-H

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 :



**APPROVED**

By Nimisha Pandya QA/QC Supervisor at 11:48 am, Jul 13, 2023

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 # N6070**

**Test Name: VOCMS Group3**

**A. Number of Samples and Date of Receipt:**

4 Water samples were received on 12/14/2022.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for VOCMS Group3.

**C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI The analysis of VOCMS Group3 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.

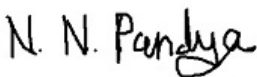
**F. Manual Integration Comments:**

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 11:49 am, Jul 13, 2023*

**CASE NARRATIVE**

**JACOBS Engineering Group, Inc.**

**Project Name: Former Schlumberger Site Princeton NJ**

**Project # N/A**

**Chemtech Project # N6070**

**Test Name: SVOC-SIMGroup1**

**A. Number of Samples and Date of Receipt:**

4 Water samples were received on 12/14/2022.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for SVOC-SIMGroup1.

**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 SVOC-SIMGroup1 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 except for OWBR-03-128-148-121422 [Terphenyl-d14 - 142%] this compound did not meet the NJDKQP criteria but met the in-house 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 File ID BN023280.D met the requirements except for 2-Fluorophenol and Phenol-d6 , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken. 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.

---

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 11:49 am, Jul 13, 2023



**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: (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 #: N6070

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 Castody

✓

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: 07/13/2023

2nd Level QA Review Signature:

*N. N. Pandya*

**APPROVED**

By Nimisha Pandya QA/QC Supervisor at 11:49 am, Jul 13, 2023

Date:

## Hit Summary Sheet

SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
<b>Client ID:</b> N6070-03	<b>OWBR-01-160-180-121422-H</b> OWBR-01-160-180	Water	Trichloroethene	0.64	J	0.27	1.00	ug/L
			<b>Total Voc :</b>	0.64				
			<b>Total Concentration:</b>	0.64				
<b>Client ID:</b> N6070-05	<b>OWBR-03-128-148-121422-H</b> OWBR-03-128-148	Water	Benzene	1.60		0.16	1.00	ug/L
			<b>Total Voc :</b>	1.60				
			<b>Total Concentration:</b>	1.60				

# SAMPLE DATA

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	TB-01-121422	SDG No.:	N6070
Lab Sample ID:	N6070-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX033434.D	1		12/15/22 12:09	VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	46.7		70 (74) - 130 (125)	93%	SPK: 50
1868-53-7	Dibromofluoromethane	47.0		70 (75) - 130 (124)	94%	SPK: 50
2037-26-5	Toluene-d8	45.7		70 (86) - 130 (113)	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.2		70 (64) - 130 (133)	88%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	128000	5.556			
540-36-3	1,4-Difluorobenzene	204000	6.763			
3114-55-4	Chlorobenzene-d5	177000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	78600	12.024			

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:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-01-160-180-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX033436.D	1		12/15/22 12:55	VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.64	J	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	47.8		70 (74) - 130 (125)	96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		70 (75) - 130 (124)	96%	SPK: 50
2037-26-5	Toluene-d8	46.7		70 (86) - 130 (113)	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		70 (64) - 130 (133)	91%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	113000	5.556			
540-36-3	1,4-Difluorobenzene	180000	6.763			
3114-55-4	Chlorobenzene-d5	158000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	73100	12.024			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

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E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

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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:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-02-160-180-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX033437.D	1		12/15/22 13:18	VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	44.4		70 (74) - 130 (125)	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		70 (75) - 130 (124)	89%	SPK: 50
2037-26-5	Toluene-d8	43.7		70 (86) - 130 (113)	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.0		70 (64) - 130 (133)	84%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	111000	5.55			
540-36-3	1,4-Difluorobenzene	177000	6.763			
3114-55-4	Chlorobenzene-d5	155000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	69600	12.024			

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## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-03-128-148-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX033438.D	1		12/15/22 13:41	VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	1.60		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	49.3		70 (74) - 130 (125)	99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	47.3		70 (86) - 130 (113)	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		70 (64) - 130 (133)	93%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	118000	5.55			
540-36-3	1,4-Difluorobenzene	187000	6.763			
3114-55-4	Chlorobenzene-d5	166000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	76400	12.024			

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A = Aldol-Condensation Reaction Products





284 Sheffield Street, Mountainside, New Jersey - 07092

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

## LAB CHRONICLE

<b>OrderID:</b>	N6070	<b>OrderDate:</b>	12/14/2022 4:13:00 PM
<b>Client:</b>	JACOBS Engineering Group, Inc.	<b>Project:</b>	Former Schlumberger Site Princeton NJ
<b>Contact:</b>	Doug Scott	<b>Location:</b>	M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
N6070-02	TB-01-121422	Water	VOCMS Group3	8260-Low	12/14/22		12/15/22	12/14/22
N6070-03	OWBR-01-160-180-12 1422-H	Water	VOCMS Group3	8260-Low	12/14/22		12/15/22	12/14/22
N6070-04	OWBR-02-160-180-12 1422-H	Water	VOCMS Group3	8260-Low	12/14/22		12/15/22	12/14/22
N6070-05	OWBR-03-128-148-12 1422-H	Water	VOCMS Group3	8260-Low	12/14/22		12/15/22	12/14/22

Hit Summary Sheet  
SW-846

SDG No.: N6070  
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:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-01-160-180-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-03	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
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
BN023283.D	1	12/16/22 08:59	12/19/22 13:16	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.060	U	0.060	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	63%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 (30) - 150 (150)	80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		30 (11) - 130 (175)	88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		30 (10) - 130 (175)	85%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		30 (54) - 130 (171)	91%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7610	8.006			
1146-65-2	Naphthalene-d8	24600	10.819			
15067-26-2	Acenaphthene-d10	15900	14.645			
1517-22-2	Phenanthrene-d10	34000	17.39			
1719-03-5	Chrysene-d12	27200	21.58			
1520-96-3	Perylene-d12	19600	24.027			

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:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-02-160-180-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-04	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
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
BN023284.D	1	12/16/22 08:59	12/19/22 13:53	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.060	U	0.060	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		30 (11) - 130 (175)	82%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		30 (10) - 130 (175)	83%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.23		30 (54) - 130 (171)	56%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7230	7.999			
1146-65-2	Naphthalene-d8	23800	10.818			
15067-26-2	Acenaphthene-d10	14600	14.645			
1517-22-2	Phenanthrene-d10	32600	17.39			
1719-03-5	Chrysene-d12	25100	21.58			
1520-96-3	Perylene-d12	17900	24.027			

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

# Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-03-128-148-121422-H	SDG No.:	N6070
Lab Sample ID:	N6070-05	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
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
BN023285.D	1	12/16/22 08:59	12/19/22 14:30	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.060	U	0.060	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.26		30 (30) - 150 (150)	66%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.28		30 (30) - 150 (150)	70%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		30 (11) - 130 (175)	89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		30 (10) - 130 (175)	99%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.57	*	30 (54) - 130 (171)	142%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7020	7.999			
1146-65-2	Naphthalene-d8	23000	10.819			
15067-26-2	Acenaphthene-d10	14500	14.645			
1517-22-2	Phenanthrene-d10	30800	17.39			
1719-03-5	Chrysene-d12	23600	21.58			
1520-96-3	Perylene-d12	16700	24.027			

U = Not Detected

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MDL = Method Detection Limit

LOD = Limit of Detection

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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



284 Sheffield Street, Mountainside, New Jersey - 07092

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

## LAB CHRONICLE

<b>OrderID:</b>	N6070	<b>OrderDate:</b>	12/14/2022 4:13:00 PM
<b>Client:</b>	JACOBS Engineering Group, Inc.	<b>Project:</b>	Former Schlumberger Site Princeton NJ
<b>Contact:</b>	Doug Scott	<b>Location:</b>	M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>N6070-01</b>	<b>GW-BR-04-226-245-1 21422-H</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-03</b>	<b>OWBR-01-160-180-12 1422-H</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-04</b>	<b>OWBR-02-160-180-12 1422-H</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-05</b>	<b>OWBR-03-128-148-12 1422-H</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	

# SHIPPING DOCUMENTS



# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 • Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. **16070**  
QUOTE NO. **16070**  
COC Number **2035954**

7  
7.1

### CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: **Jacobs**  
ADDRESS: **10 10th Street Suite 1400**  
CITY: **Atlanta** STATE: **GA** ZIP: **30309**  
ATTENTION: **Melissa Warren**  
PHONE: FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: **Princeton Site**  
PROJECT NO.: **D3662225** LOCATION: **Princeton Junction NJ**  
PROJECT MANAGER: **Chris English**  
e-mail: **Chris.English@Jacobs.com**  
PHONE: FAX:

### CLIENT BILLING INFORMATION

BILL TO: **Chris English** PO#:  
ADDRESS:  
CITY STATE: ZIP:  
ATTENTION: PHONE:

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX (RUSH) **Rush!** DAYS\*  
HARDCOPY (DATA PACKAGE): **24 Hr VOC** DAYS\*  
EDD: **48 Hr 1.4 DDX** 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

Side Specific VOCs  
1.4 DDX

### PRESERVATIVES

### COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		A	E								
1.	GW-BR-04-226-245-121422	GW		X	12-14-22	1030	3	X	X								Rush!
2.	TB-01-121422	DI		X	12-14-22	1035	2	X									
3.	QWBR-01-160-180-121422	GW		X	12-14-22	800	3	X	X								Rush!
4.	OWBR-02-160-180-121422	GW		X	12-14-22	900	3	X	X								Rush!
5.	QWBR-03-128-148-121422	GW		X	12-14-22	1000	3	X	X								Rush!
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: 1. <b>TS</b>	DATE/TIME: <b>12-14-22/1600</b>	RECEIVED BY: <b>[Signature]</b> <b>1600</b>	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <b>4.2</b> °C
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY:	Comments: <b>See work order for site specific VOC list</b>
RELINQUISHED BY SAMPLER: 3. <b>[Signature]</b>	DATE/TIME: <b>12-14-22</b>	RECEIVED BY: <b>SB</b>	

Page 1 of 1

CLIENT: ☒ Hand Delivered ☐ Other  
CHEMTECH: ☒ Picked Up ☐ Field Sampling

Shipment Complete  
☒ YES ☐ NO

---

**From:** Ynfante, John <John.Ynfante@jacobs.com>  
**Sent:** Thursday, December 22, 2022 10:14 PM  
**To:** Jordan Hedvat; Samantha@chemtech.net  
**Cc:** CHEMTECH-Data@chemtech.net  
**Subject:** RE: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.

Jordan and Samantha,

It was brought to my attention that this report N6070 has some incorrect sample IDs. The first sample GW-BR-04-226-245-121422 is correct, but the other 3 samples need to be corrected to match the chain as listed below:  
GW-BR-01-160-180-121422 should be "OWBR-01-160-180-121422"  
GW-BR-02-160-180-121422 should be "OWBR-02-160-180-121422"  
GW-BR-03-128-148-121422 should be "OWBR-03-128-148-121422"

Please revise and reissue the data. Thanks!

- John Y.

---

**From:** CHEMTECH-Data@chemtech.net <CHEMTECH-Data@chemtech.net>  
**Sent:** Monday, December 19, 2022 5:35 PM  
**To:** Murphy, Mary <Mary.Murphy@jacobs.com>; Warren, Melissa <Melissa.Warren@jacobs.com>; Scott, Doug <Doug.Scott@jacobs.com>; Bingeman, Ian <Ian.Bingeman@jacobs.com>; Jones, Philip <Philip.Jones1@jacobs.com>; Garvey, Bethany <Bethany.Garvey@jacobs.com>; khummmler@chemtech.net; Ynfante, John <John.Ynfante@jacobs.com>  
**Subject:** [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.



To Doug Scott;

Please see the attached Summary Report for the following project, or download the file using your login credentials from the link below.

**Order ID** : N6070  
**Project ID** : Former Schlumberger Site Princeton NJ  
**Download File** : <https://chemtech.net/secureLogin.aspx>  
**Order Date** : 12/14/2022 4:13:00 PM

**CHEMTECH's Project Manager** : Samantha Beazley , [Samantha@chemtech.net](mailto:Samantha@chemtech.net) , Ext :

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey [//chemtech.net/ClientSurvey.aspx](http://chemtech.net/ClientSurvey.aspx).

**Thank you,**

**CHEMTECH**

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**Laboratory Certification**

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255422
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-23-16

<b>Order ID :</b> N6070	JACO05	<b>Order Date :</b> 12/14/2022 4:13:00 PM	<b>Project Mgr :</b>
<b>Client Name :</b> JACOBS Engineering Grou		<b>Project Name :</b> Former Schlumberger Site F	<b>Report Type :</b> Level 4
<b>Client Contact :</b> Doug Scott		<b>Receive DateTime :</b> 12/14/2022 12:00:00 AM	<b>EDD Type :</b> CH2MHILL
<b>Invoice Name :</b> JACOBS Engineering Grou		<b>Purchase Order :</b> 5:30pm	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Doug Scott		(50) 12-19	<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
N6070-01	GW-BR-04-226-245-121422	Water	12/14/2022	10:30					
					VOCMS Group3		8260-Low	1 Bus. Day	
N6070-02	TB-01-121422	Water	12/14/2022	10:35					
					VOCMS Group3		8260-Low	10 Bus. Days	
N6070-03	OWBR <del>GW-BR</del> -01-160-180-121422	Water	12/14/2022	08:00					
					VOCMS Group3		8260-Low	1 Bus. Day	
N6070-04	OWBR <del>GW-BR</del> -02-160-180-121422	Water	12/14/2022	09:00					
					VOCMS Group3		8260-Low	1 Bus. Day	
N6070-05	OWBR <del>GW-BR</del> -03-128-148-121422	Water	12/14/2022	10:00					
	SB 12/28/2022				VOCMS Group3		8260-Low	1 Bus. Day	

Relinquished By:   
 Date / Time : 12-14-22 1740

Received By:   
 Date / Time : 12/14/22 1740  
 Storage Area : VOA Refridgerator Room