WECK LABORATORIES, INC.

# Certificate of Analysis

FINAL REPORT

**Work Orders:** 7H28099

**Project:** Carlsbad Desal Plant - WEEKLY/ DAILY

**Attn:** Peter Shen

**Client:** IDE Americas, Inc. - Carlsbad CA
4590 Carlsbad Blvd
Carlsbad, CA 92008

**Report Date:** 8/30/2017
**Received Date:** 8/28/2017
**Turnaround Time:** 1 workday
**Phones:** 1(619) 487-0760
**Fax:**
**P.O. #:**
**Billing Code:**

**DoD-ELAP #L2457 ● ELAP-CA #1132 ● EPA-UCMR #CA00211 ● Guam-EPA #17-008R ● HW-DOH # ● ISO 17025 #L2457.01 ● LACSD #10143 ● NELAP-OR #4047 ● NJ-DEP #CA015 ● SCAQMD #93LA1006**

*This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.*

Dear Peter Shen,

Enclosed are the results of analyses for samples received 8/28/17 with the Chain-of-Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

**Reviewed by:**

Kim G. Tu
Project Manager



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**Project Manager:** Peter Shen

**Reported:**
08/30/2017 09:17

## Sample Summary

| Sample Name | Sampled By | Lab ID | Matrix | Sampled | Qualifiers |
|---|---|---|---|---|---|
| M-001 (17-2723) | Kevin Curry / Vanessa Hayes | 7H28099-01 | Water | 08/25/17 08:00 | |
| M-INF (17-2726) | Kevin Curry / Vanessa Hayes | 7H28099-02 | Water | 08/25/17 09:10 | |
| M-002 (17-2727) | Kevin Curry / Vanessa Hayes | 7H28099-03 | Water | 08/25/17 09:15 | |

## Not Certified Analyses Summary

| Analyte | CAS # | Not Accredited By |
|---|---|---|
| ***Field in Water*** | | |
| pH | PH | NELAP |
| Temperature, Degrees F | | NELAP |
| ***SM 2520B in Water*** | | |
| Salinity | | NELAP |



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## Sample Results

Sample: M-001 (17-2723)
7H28099-01 (Water)

Sampled: 08/25/17 8:00 by Kevin Curry / Vanessa Hayes

| Analyte | Result | MDL | MRL | Units | Dil | Analyzed | Qualifier |
|---|---|---|---|---|---|---|---|
| **Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods** | | | | | | | |
| **Method:** EPA 1664B | **Batch ID:** W7H1743 | | **Prepared:** 08/29/17 09:26 | | | | **Analyst:** joh |
| **Oil & Grease (HEM)** | **1.5** | 1.3 | 5.0 | mg/l | 1 | 08/29/17 13:54 | J |
| **Method:** SM 2520B | **Batch ID:** W7H1754 | | **Prepared:** 08/29/17 10:56 | | | | **Analyst:** stg |
| **Salinity** | **33** | | | ppt | 1 | 08/29/17 11:30 | |
| **Method:** SM 2540D | **Batch ID:** W7H1739 | | **Prepared:** 08/29/17 09:17 | | | | **Analyst:** ajk |
| **Total Suspended Solids** | **42** | | 5 | mg/l | 1 | 08/29/17 10:10 | |
| **Field Determinations** | | | | | | | |
| **Method:** Field | **Batch ID:** W7H1716 | | **Prepared:** 08/25/17 08:00 | | | | **Analyst:** _clnt |
| **pH** | **7.78** | | | pH Units | 1 | 08/25/17 08:00 | |
| **Temperature, Degrees F** | **69.0** | | | °F | 1 | 08/28/17 08:00 | |

Sample: M-INF (17-2726)
7H28099-02 (Water)

Sampled: 08/25/17 9:10 by Kevin Curry / Vanessa Hayes

| Analyte | Result | MDL | MRL | Units | Dil | Analyzed | Qualifier |
|---|---|---|---|---|---|---|---|
| **Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods** | | | | | | | |
| **Method:** SM 2520B | **Batch ID:** W7H1754 | | **Prepared:** 08/29/17 10:56 | | | | **Analyst:** stg |
| **Salinity** | **33** | | | ppt | 1 | 08/29/17 11:30 | |
| **Field Determinations** | | | | | | | |
| **Method:** Field | **Batch ID:** W7H1716 | | **Prepared:** 08/25/17 09:10 | | | | **Analyst:** _clnt |
| **Temperature, Degrees F** | **80.1** | | | °F | 1 | 08/28/17 09:10 | |

Sample: M-002 (17-2727)
7H28099-03 (Water)

Sampled: 08/25/17 9:15 by Kevin Curry / Vanessa Hayes

| Analyte | Result | MDL | MRL | Units | Dil | Analyzed | Qualifier |
|---|---|---|---|---|---|---|---|
| **Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods** | | | | | | | |
| **Method:** SM 2520B | **Batch ID:** W7H1754 | | **Prepared:** 08/29/17 10:56 | | | | **Analyst:** stg |
| **Salinity** | **33** | | | ppt | 1 | 08/29/17 11:30 | |



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## Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

| Analyte | Result | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: W7H1739 - SM 2540D** | | | | | | | | | | |
| **Blank (W7H1739-BLK1)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Total Suspended Solids | ND | | mg/l | | | | | | | |
| **LCS (W7H1739-BS1)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Total Suspended Solids | 63.0 | | mg/l | 57.7 | | 109 | 90-110 | | | |
| **Duplicate (W7H1739-DUP1)** | **Source: 7H21001-02** | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Total Suspended Solids | 2.00 | | mg/l | | 3.00 | | | 40 | 20 | R-03, J |
| **Duplicate (W7H1739-DUP2)** | **Source: 7H21001-03** | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Total Suspended Solids | ND | | mg/l | | 1.00 | | | 200 | 20 | R-03 |
| **Batch: W7H1743 - EPA 1664B** | | | | | | | | | | |
| **Blank (W7H1743-BLK1)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Oil & Grease (HEM) | ND | 1.3 | mg/l | | | | | | | |
| **LCS (W7H1743-BS1)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Oil & Grease (HEM) | 16.9 | 1.3 | mg/l | 20.0 | | 84 | 78-114 | | | |
| **LCS (W7H1743-BS2)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Oil & Grease (HEM) | 4.30 | 1.3 | mg/l | 5.00 | | 86 | 78-114 | | | J |
| **LCS Dup (W7H1743-BSD1)** | | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Oil & Grease (HEM) | 17.1 | 1.3 | mg/l | 20.0 | | 86 | 78-114 | 1 | 18 | |
| **Batch: W7H1754 - SM 2520B** | | | | | | | | | | |
| **Duplicate (W7H1754-DUP1)** | **Source: 7H28099-01** | | | **Prepared & Analyzed: 08/29/17** | | | | | | |
| Salinity | 32.9 | | ppt | | 32.9 | | | 0.002 | 20 | |



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## Notes and Definitions

| Item | Definition |
|---|---|
| J | Estimated conc. detected <MRL and >MDL. |
| R-03 | The RPD is not applicable for result below the reporting limit (either ND or J value). |
| ND | NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL. |
| Dil | Dilution |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |
| % Rec | Percent Recovery |
| Source | Sample that was matrix spiked or duplicated. |
| MDL | Method Detection Limit |
| MRL | The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR) |
| MDA | Minimum Detectable Activity |
| NR | Not Reportable |
| TIC | Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown. |

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.



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