CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

March 2019

TABLE OF CONTENTS

| COVER LETTER |
|---|
| A. BACKGROUND 2 |
| B. WELL PRODUCTION AND OPERATIONS 2 |
| C. OPERATIONAL INTERRUPTIONS |
| D. SAMPLE LOCATIONS 2 |
| E. WATER QUALITY MONITORING |
| E1. IRON, MANGANESE AND COLOR |
| E2. FREE AND TOTALCHLORINE RESIDUALS |
| E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE3 |
| E3-1 TOTAL DISSOLVED SOLIDS (TDS)3 |
| E3-2 HARDNESS |
| E3-3 DISSOLVED MATHANE (IN WATER)4 |
| E3-4 METHANE (IN AIR)4 |
| E3-5 ODOR4 |
| E3-6 TOTAL PHOSPHATE/ORTHOPHOSPHATE4 |
| E 3-7 1,2,3-TRICHLOROPROPANE MONITORING4 |
| E4. NITRIFICATION MONITORING4 |
| F TARIFS |

CITY COUNCIL

HENRY SANCHEZ, JR JIM GAZELEY MICHAEL SAVIDAN CINDY SEGAWA MARK WARONEK



ADMINISTRATION

RYAN SMOOT
CITY MANAGER

April 10, 2019

Mr. Dmitry Ginzburg, P.E.
District Engineer – Hollywood District
State Water Resources Control Board – Division of Drinking Water
500 North Central Avenue, Suite 500
Glendale, CA 91203

<u>Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility</u> (CWPF) for the period of March 1 through March 31, 2019.

Dear Mr. Ginzburg,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of March 2019.

If you should have any questions or concerns, please contact me at 310-325-7110 Ext. 310.

Sincerely,

Mark Andersen

Public Works Superintendent

A. BACKGROUND

On May 30, 2018, the City of Lomita received its Domestic Water Supply Permit Amendment from the State Water Resources Control Board, Division of Drinking Water to distribute blended water from the Cypress Water Production Facility (CWPF) Well No. 5 to the City's customers.

The CWPF is an iron-manganese greensand filtration treatment system designed to remove primarily iron, manganese, and color. The CWPF was recently modified to enable aeration and blending with Metropolitan Water District (MWD) imported water to address the aesthetic secondary issues of Total Dissolved Solids (TDS), Hardness (as Calcium Carbonate), and Taste/Odor.

The CWPF came online on April 1, 2013. The first week of operations from April 1 to April 5, 2013 was utilized for conducting routine startup activities. The distribution of blended water to the City's residents began on April 5, 2013.

B. WELL PRODUCTION

The CWPF operated continuously during the month of March 2019 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 365 gpm and 562 gpm from MWD. The blend ratio for month was 39% Well water and 61% MWD water. See Table 1 below for production totals for the month of March 2019.

Table 1. Monthly Production Totals.

| | | | for March 2019 |
|----------------|--------|-----------|-------------------------|
| - Well No. 5 | 39,58 | ac-ft | 12,896,679 (gallons) |
| : MWD | 60.69 | ao it | . 19,776,000 (cellons) |
| Combined Total | 100.27 | ac-ft | 32,672,679 (gallons) |
| Daily | 3.23 | ac-ft/day | 1,053,957 (gallons/day) |

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during this month. Routine and preventive maintenance was performed on various pieces of equipment as-needed. During this month, the greensand filter media was tested and results came back indicating the media is in good condition, see attached results in Appendix D.No major planned operational interruptions are anticipated for the following month.

D. SAMPLE LOCATIONS

Compliance monitoring is performed at the following sample locations: SP1, SP2, SP3, SP5, and SP6. The SP1 sample location is the raw well water sample location. The SP2 sample location is on the effluent side of the greensand filter (before ammonia injection or full chloramination). The SP3 sample location is downstream of the greensand filter after full chloramination and the static mixer before entering the reservoir. The SP5 sample location is the reservoir effluent sample location before entering the distribution system. The SP6 sample location is the MWD source sample location before blending occurs.

E. WATER QUALITY MONITORING

All water quality monitoring analyses were performed by laboratories certified by the Department of Health's Environmental Laboratory Accreditation Branch (ELAB). The CWPF has been continuously monitored, maintained and inspected, per the CWPF Operations Monitoring and Maintenance Plan. A brief discussion of the laboratory and/or monitoring results is provided below. Refer to Appendix A for laboratory results.

E1. IRON, MANGANESE AND COLOR

See Table 2 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color for raw water (SP1) was above the MCL level. Iron for raw water was below the MCL level and Manganese was above the MCL level for the month. Iron and Manganese levels before entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective.

E2. FREE AND TOTAL CHLORINE RESIDUALS

Daily free chlorine residuals were monitored at SP2, SP3, SP4 and SP5. Daily total chlorine residuals were monitored at SP3, SP4 and SP5. Free chlorine and total chlorine residuals, at all respective sample points, were monitored using a combination of continuous chlorine analyzers and SCADA. See Table 3 below for a weekly summary of results.

E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE

See Table 4 below for a summary of the results for the monitoring of Total Dissolved Solids (TDS), Odor (as measured by the Threshold Odor No. - T.O.N.), Total Hardness as Calcium Carbonate, and Methane levels in water at three sample locations SP1, SP5 and SP6.

E3-1 TOTAL DISSOLVED SOLIDS (TDS)

The sampling results indicate the TDS levels of the effluent blended water to be on average 565 mg/L. The TDS level of the effluent water <u>meets</u> the City's Water Quality Objective/Goal of 500 to 750 mg/L. The sampling results indicate the TDS levels in the raw water and MWD water source to be 810 mg/L and 390 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 210 mg/L. This hardness level <u>meets</u> the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

Staff continues to use an orthophosphate/polyphosphate additive to sequester calcium hardness. Orthophosphate/Polyphosphate is a food grade National Sanitation Foundation (NSF 60) approved additive which decreases iron tuberculation, diminishes calcium scale deposits, minimizes corrosion, reduces discoloration, reduces staining and mineral build-up resulting in fewer customer complaints.

E3-3 DISSOLVED METHANE (IN WATER)

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.31 mg/L.

E3-4 METHANE (IN AIR)

The methane levels in the reservoir headspace are monitored daily by staff using a handheld device. These readings have consistently read non-detect to low concentrations for methane in air. Available methane hand held monitoring instruments can only detect levels of 1% Lower Explosive Limit (LEL) or greater. The handheld methane readings during the month were below the 50,000 ppm LEL. See attached methane log for the month of March 2019 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 2.0 units for the month. Odor levels within the distribution system averaged 1.5 units for the month.

E3-6 TOTAL PHOSPHATE AND ORTHOPHOPHATE

See Table 5 below for a summary of the results for the monitoring of Orthophosphate and Total Phosphate both in the distribution system and CWPF.

E3-7 1,2,3-TRICHLOROPROPANE QUARTERLY MONITORING

The 1,2,3 TCP levels at Well No. 5 show ND for the first quarter in 2019.

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during this month following the City's Nitrification Monitoring Plan. Refer to Appendix C for results.

F. TABLES

Table 2. Monitoring Results for SP1, SP2, and SP3 Sample Locations.

| | | SP1, V | Vell Raw | Water | Discha | irge | | SP2, Combined Pressure Filter Effluent | | | SP3, After chloramination static mixer; reservoir entry | | | | | |
|---------------|------------|------------------|-----------------|----------------|--------|---------|----------------|--|----------------|---------|---|-----------------|-----------------|----------------|-------|---------|
| Date, week of | Iron, ug/L | *MCL = 3 00 ug/L | Manganese, ug/L | *MCL = 50 ug/L | Color | *MCL=15 | Total Coliform | Total Coliform | HPC, MPN/100mL | MCL=500 | Iron, mg/L | *MCL = 300 ug/L | Manganese, mg/L | *MCL = 50 ug/L | Color | *MCL=15 |
| 3/5/2019 | | | | | | | | | | | ND | 300 | ND | 50 | 5 | 15 |
| 3/12/2019 | 180 | 300 | 150 | 50 | 20 | 15 | Α | Α | ND | 500 | ND | 300 | ND | 50 | 10 | 15 |
| 3/19/2019 | | | | | | | | | | | ND | 300 | ND | 50 | 7.5 | 15 |
| 3/27/2019 | | | | | | | | | | | ND | 300 | ND | 50 | 10 | 15 |

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND - Non Detect

Table 3. Monitoring Results for Free and Total Chlorine at SP2, SP3, SP4 and SP5 Sample Locations.

| Date, SP2 | | | SP3 | | | SP4 | | SP5 | | | |
|-----------|---------|---------|----------|--------------------------|---------|----------|--------------------------|---------|----------|--------------------------|--|
| week of | Free CI | Free CI | Total CI | Total NH ₃ | Free CI | Total CI | Total NH ₃ | Free CI | Total CI | Total NH ₃ | |
| 3/5/2019 | 11.00 | 1.90 | 7.40 | 0.63 | 0.30 | 5.80 | 0.88 | 0.07 | 3.77 | 0.69 | |
| 3/12/2019 | 10.90 | 0.90 | 10.20 | 0.90 | 0.50 | 5.20 | 0.80 | 0.06 | 3.35 | 0.63 | |
| 3/19/2019 | 10.20 | 1.00 | 7.20 | 1.89 | 0.40 | 5.70 | 0.74 | 0.11 | 3.33 | 0.60 | |
| 3/27/2019 | 9.90 | 0.93 | 8.55 | 0.95 | 0.34 | 4.95 | 0.75 | 0.08 | 3.94 | 0.66 | |

^{*}Per the SWRCB Drinking Water "Chemicals and Contaminants in Drinking Water" Regulations

Table 4. Monitoring Requirements and Frequencies for SP1, SP5, and SP6.

| | | TDS, mg/L | | | | ٧. | Hardness, mg/L | | | | Methane (Water), mg/L | |
|---------------|----------------------|-----------------|--------------------------|----------------------|--------------------------|--------|----------------------|-----------------|--------------------------|----------------------|--------------------------|--------------------------|
| Date, week of | SP1 - Raw Well Water | SP6 - MWD Water | SP5 - Reservoir Effluent | Goal= 500 - 750 mg/L | SP5 - Reservoir Effluent | MCL= 3 | SP1 - Raw Well Water | SP6 - MWD Water | SP5 - Reservoir Effluent | Goal= 180 - 250 mg/L | SP1 - Raw Well Water | SP5 - Reservoir Effluent |
| 3/5/2019 | | | 610 | 500-750 | 2 | 3 | | | | | | 0.26 |
| 3/12/2019 | 810 | 390 | 580 | 500-750 | 2 | 3 | 360 | 160 | 210 | 180-250 | 2.8 | 0.33 |
| 3/19/2019 | | | 530 | 500-750 | 2 | 3 | | | | | | 0.38 |
| 3/27/2019 | | | 540 | 500-750 | 2 | 3 | | | | | | 0.28 |
| Average | | | 565 | 500-750 | 2 | 3 | | | | | | 0.31 |

Notes:

Monthly- Orange; Weekly- Yellow

ppm – parts per million

mg/L – milligram per liter T.O.N. - Threshold Odor Number

TDS - Total Dissolved Solids

Hardness - As total CaCO3

Methane (Water) - Methane dissolved in water

Table 5. Monitoring Requirements and Frequencies for Total Phosphate and Orthophosphate.

| Sample Location | Date, week of | Total Phosphate, mg/L | Orthophosphate, mg/L |
|-----------------------------|---------------|-----------------------|----------------------|
| 1948 W 252 nd St | | 0.45 | 0.78 |
| 24632 S Moon Ave | | 0.45 | 0.77 |
| 2450 W 247 th St | 3/12/19 | 0.45 | 0.70 |
| 2052 Dawn St | | 0.48 | 0.76 |
| CWPF SP5 | | 0.42 | |

Notes:

Monthly- <u>Orange;</u> mg/L – milligram per liter

Monthly CWPF Monitoring Report – MARCH 2019 Cypress Water Production Facility City of Lomita; System No. 1910073

| | _ | | | THE RESERVE TO SHARE THE PARTY OF THE PARTY | | | AND THE RESIDENCE OF THE PARTY | The second state of the second |
|--|--|--|--|--|--|----------------------------------|---|--|
| Sample Locations | Frequency | MCL/ | 3/5/19 | 3/12/19 | 3/19/19 | 3/27/19 | +la | Comments |
| and Parameters | | Goal | 1 st Wk | 2 nd Wk | 3 rd Wk | 4 th Wk | 5 th Wk | and/or |
| | | | or Mo | | | | | Other Info. |
| | | | or Mo. | | | | | |
| | | | Result | | | | | |
| 05/ 11 | | | (date) | | | | | |
| SP1 Also called | Ch. Ch. 2002. A STOCK ST | A STATE OF THE PARTY OF THE PAR | | | | | | |
| TDS, ppm | Monthly | See SP5 | 810 3/12/19 | Operations | Data/Inforn | nation: | | *Chlorine injected afte SP1, before entering |
| Hardness | Monthly | See SP5 | 360 | CWPF opera | tion days | | | the greensand filter. |
| Tiaraness | Wieriany | V. 1000000000000000000000000000000000000 | 3/12/19 | | | | | |
| CH4, ppm | Monthly | See SP5 | 2.8 | - 39.58 AF | Daily average f | 10w – 365 gpn | n; total prod. | |
| lana anh | Monthly | See SP3 | 3/12/19 | Combined V | Vell 5/MWD da | nta: Average V | Vell 5: MWD | |
| Iron, ppb | Worthing | 000 01 0 | 180 3/12/19 | blend Ratio – 100,27 AF | 39% WELL: 6 | 61% MWD; total | al prod | |
| Manganese, ppb | Monthly | See SP3 | 150 | 100.27 AF | | | | |
| | | | 3/12/19 | Chlorine Do | sage: N/A* | | | |
| Color, units | Monthly | See SP3 | 20 | | | | | |
| Total Coliform, P or A | Monthly | А | 3/12/19 A | | | | | |
| Total Comonn, T of A | Wieriany | | 3/12/19 | | | | | |
| SP2 Also called | Filter Efflu | ent or Si | te#3. | | | | | |
| Total Coliform, P or A | Monthly | Α | Α | | | | | *Ammonia added after |
| HPC,MPN/100 ml | Monthly | 500 | ND | Ammonia D | osage: N/A* | | | filter effluent |
| Free Cl Res, ppm | Continuous | Average: | 10.50 ; Rar | nge: 9.90 - | 11.00 | | | |
| SP3 Also called | the Site Af | ter Chlor | amination | & Before | MWD BI | ending or | Site#4. | |
| Iron, ppb | Weekly | ND | ND | ND | ND | ND | | I manufacture and the second |
| | | | | | | | | |
| Manganese, ppb | Weekly | 50 | ND | | ND | ND | | 1 |
| | Weekly Weekly | 50 15 | ND 5 | ND 10 | ND 7.5 | ND 10 | | |
| Color | Weekly Weekly Continuous | 15 | 5 | ND | 7.5 | ND 10 | | |
| Color Free and Total Cl Res, | Weekly | 15 Free CI: A Total CI: A | 5 Average: 1.18 Average: 8.3 | ND 10 3; Range: 0.9 4; Range: 7 | 7.5 90 – 1.90 .20 – 10.20 | | | |
| Color Free and Total Cl Res, ppm | Weekly Continuous | 15 Free Cl: A Total Cl: A Ammonia | 5 Average: 1.18 Average: 8.3 : Average: 1. | ND 10 8; Range: 0.9 4; Range: 7 09; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 | 10 | | |
| Color Free and Total CI Res, ppm SP4 Also called | Weekly Continuous | 15 Free CI: A Total CI: A Ammonia Influent | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site | ND 10 8; Range: 0.9 4; Range: 7 09; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 | 10 | oint/Phosp | phate Injection. |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection | Weekly Continuous Reservoir | 15 Free CI: A Total CI: A Ammonia Influent Phosphat | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site e Dosage: 0 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: • Well 5/M° | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water | 10 | int/Phosp | |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, | Weekly Continuous | 15 Free CI: A Total CI: A Ammonia Influent of Phosphat Free CI: A | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site e Dosage: 0.3 Average: 0.3 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M ¹ .55 mg/L 9; Range: 0.9 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 | 10 | int/Phosp | CI/NH3 Ratio: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, | Weekly Continuous Reservoir | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A | 5 Average: 1.18 Average: 1.2 or the Site e Dosage: 0.3 Average: 5.4 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: • Well 5/M ¹ .55 mg/L 9; Range: 0.3 3; Range: 4. | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 | 10 | oint/Phosp | |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm | Weekly Continuous Reservoir Continuous | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia | 5 Average: 1.18 Average: 1.2 Cor the Site Dosage: 0.3 Average: 0.3 Average: 5.4 Average: 0.2 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 4: Well 5/M ¹ .55 mg/L 9; Range: 0.3 3; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 | 10 Blend Po | | CI/NH3 Ratio: 6.77 |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called | Weekly Continuous Reservoir Continuous Reservoir | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent | 5 Average: 1.18 Average: 1.2 Cor the Site Dosage: 0.3 Average: 0.3 Average: 5.4 Average: 0.2 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 4: Well 5/M ¹ .55 mg/L 9; Range: 0.3 3; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 | 10 Blend Po | | CI/NH3 Ratio: 6.77 |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called | Weekly Continuous Reservoir Continuous | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia | 5 Average: 1.18 Average: 1.2 Cor the Site Dosage: 0.3 Average: 0.3 Average: 5.4 Average: 0.2 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 4: Well 5/M ¹ .55 mg/L 9; Range: 0.3 3; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 | 10 Blend Po | | CI/NH3 Ratio: 6.77 |
| Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness | Weekly Continuous Reservoir Continuous Reservoir Weekly | Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site e Dosage: 0.3 Average: 0.3 Average: 5.4 : Average: 0. or Site#5. | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 2 Well 5/M .55 mg/L 9; Range: 0.3; Range: 4.80; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 harges in | Blend Po | | CI/NH3 Ratio: 6.77 |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly | Total CI: A Ammonia Influent (Phosphat Free CI: A Total CI: A Ammonia Effluent (SI Goal: 500-750ppm | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site e Dosage: 0.3 Average: 0.3 Average: 5.4 : Average: 0. or Site#5. | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 7 9; Range: 9 9; Range: 0.3; Range: 4.80; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 harges in | Blend Po | | CI/NH3 Ratio: 6.77 tribution system |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm | Weekly Continuous Reservoir Continuous Reservoir Weekly | Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: | 5 Average: 1.18 Average: 8.3 : Average: 1. or the Site e Dosage: 0.3 Average: 0.3 Average: 5.4 : Average: 0. or Site#5. | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 2 Well 5/M .55 mg/L 9; Range: 0.3; Range: 4.80; Range: 4.80; Range: | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 harges in | Blend Po | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from | 5 Average: 1.18 Average: 1.20 Average: 1.20 Average: 0.3 Average: 0.3 Average: 0.4 : Average: 0.4 : Average: 0.4 : 0.26 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M 555 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 580 210 0.33 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 harges in 530 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from PA 1 | 5 Average: 1.18 Average: 1.20 The Site Dosage: 0.3 Average: 0.3 Average: 5.4 Average: 0.5 The Site One | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M .55 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 4.8 580 210 0.33 2 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water 30 – 0.50 95 – 5.80 0.74 – 0.88 harges in 530 0.38 | Blend Po | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Total CI: A | 5 Average: 1.18 Average: 1.20 Average: 1.20 Average: 0.30 Average: 0.30 Average: 0.40 Cor Site#5. 610 0.26 2 Average: 0.00 Average: 0.30 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M 555 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 4.8 0; Range: 4.8 0; Range: 4.8 0; Range: 3.3 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water .30 – 0.50 .95 – 5.80 0.74 – 0.88 .harges in 530 0.38 2 06 – 0.12 .33 – 3.94 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 180-250ppm Goal: from PA 1 Free CI: A Total CI: A Ammonia | 5 Average: 1.18 Average: 1.20 Average: 1.20 Average: 0.30 Average: 0.30 Average: 0.40 Cor Site#5. 610 0.26 2 Average: 0.00 Average: 0.30 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M 555 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 4.8 580 210 0.33 2 8; Range: 0.9 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water .30 – 0.50 .95 – 5.80 0.74 – 0.88 .harges in 530 0.38 2 06 – 0.12 .33 – 3.94 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 180-250ppm Goal: from PA 1 Free CI: A Total CI: A Ammonia | 5 Average: 1.18 Average: 1.20 Average: 1.20 Average: 0.30 Average: 0.30 Average: 0.40 Cor Site#5. 610 0.26 2 Average: 0.00 Average: 0.30 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M 555 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 4.8 0; Range: 4.8 0; Range: 4.8 0; Range: 3.3 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water .30 – 0.50 .95 – 5.80 0.74 – 0.88 .harges in 530 0.38 2 06 – 0.12 .33 – 3.94 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re | 15 Free CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal - | 5 Average: 1.18 Average: 1.20 Average: 1.20 Average: 0.30 Average: 0.30 Average: 0.40 Cor Site#5. 610 0.26 2 Average: 0.00 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 9 Well 5/M 555 mg/L 9; Range: 0.3 3; Range: 4.8 80; Range: 4.8 0; Range: 4.8 0; Range: 4.8 0; Range: 3.3 | 7.5 90 – 1.90 .20 – 10.20 0.63 – 1.89 WD Water .30 – 0.50 .95 – 5.80 0.74 – 0.88 .harges in 530 0.38 2 06 – 0.12 .33 – 3.94 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous | 15 Free CI: A Ammonia Influent Phosphat Free CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia 2 SERVOIT. | 5 Average: 1.18 Average: 1.2 Average: 1.2 Average: 1.2 Bor the Site E Dosage: 0.3 Average: 0.3 Average: 0.4 CH4 Average: 0.0 Average: 0.0 CH4 Average: 0.0 Average: 0.0 CH4 Average: 0.0 | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 7 09; Range: 0.9 3; Range: 4.80; Range: 4.80; Range: 4.80 210 0.33 28; Range: 0.0 0; Range: 3.664; Range: 0.0 | 7.5 90 - 1.90 .20 - 10.20 0.63 - 1.89 WD Water 30 - 0.50 95 - 5.80 0.74 - 0.88 harges in 530 0.38 2 06 - 0.12 33 - 3.94 0.59 - 0.69 | 10 Blend Po to Zone 1 540 0.28 | | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Total CI: A Ammonia eservoir. Goal- LEL | 5 Average: 1.18 Average: 1.2 Average: 1.2 For the Site E Dosage: 0.3 Average: 0.3 Average: 5.4 E Average: 0.0 Or Site#5. 610 0.26 2 Average: 0.0 Average: 0.0 Average: 0.0 CH4 Average: 0.0 CH4 Ran | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 7 09; Range: 9 Well 5/M 1.55 mg/L 9; Range: 4. 80; Range: 4. 80; Range: 4. 80; Range: 4. 210 0.33 28; Range: 0.0 0; Range: 3.3 64; Range: 0.0% ge: 0% - 0% | 7.5 90 - 1.90 .20 - 10.20 0.63 - 1.89 WD Water 30 - 0.50 95 - 5.80 0.74 - 0.88 harges in 530 0.38 2 06 - 0.12 33 - 3.94 0.59 - 0.69 | 10 Blend Po to Zone 1 540 0.28 2 | of the dis | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: 5.66 |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) | 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Total CI: A Ammonia eservoir. Goal- LEL | 5 Average: 1.18 Average: 1.2 Average: 1.2 For the Site E Dosage: 0.3 Average: 0.3 Average: 5.4 E Average: 0.0 Or Site#5. 610 0.26 2 Average: 0.0 Average: 0.0 Average: 0.0 CH4 Average: 0.0 CH4 Ran | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 7 09; Range: 9 Well 5/M 1.55 mg/L 9; Range: 4. 80; Range: 4. 80; Range: 4. 80; Range: 4. 210 0.33 28; Range: 0.0 0; Range: 3.3 64; Range: 0.0% ge: 0% - 0% | 7.5 90 - 1.90 .20 - 10.20 0.63 - 1.89 WD Water 30 - 0.50 95 - 5.80 0.74 - 0.88 harges in 530 0.38 2 06 - 0.12 33 - 3.94 0.59 - 0.69 | 10 Blend Po to Zone 1 540 0.28 2 | of the dis | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: 5.66 |
| Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device SP 6 MWD Source | Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) Ce Feeding | 15 Free CI: A Ammonia Influent Phosphat Free CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia SI Goal: 180-250ppm Goal: from PA 1 Free CI: A Ammonia Servoir. Goal - LEL CWPF. | 5 Average: 1.18 Average: 1.2 Average: 1.2 For the Site E Dosage: 0.3 Average: 0.3 Average: 5.4 E Average: 0.0 Or Site#5. 610 0.26 2 Average: 0.0 Average: 0.0 Average: 0.0 CH4 Average: 0.0 CH4 Ran | ND 10 3; Range: 0.9 4; Range: 7 09; Range: 0.9 7 9; Range: 0.9 7 80; Range: 0.9 7 80; Range: 4.8 | 7.5 90 - 1.90 .20 - 10.20 0.63 - 1.89 WD Water 30 - 0.50 95 - 5.80 0.74 - 0.88 harges in 530 0.38 2 06 - 0.12 33 - 3.94 0.59 - 0.69 | 10 Blend Po to Zone 1 540 0.28 2 | of the dis | CI/NH3 Ratio: 6.77 tribution system % CH4 Removal: 88.8% CI/NH3 Ratio: 5.66 |

APPENDIX A

LABORATORY RESULTS



15 March 2019 Clinical Lab No.: 19C0461

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis

Sub Project: CWPF 1st Week of March, 2019

Enclosed are the results of the analyses for samples received at the laboratory on 03/05/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProject:Standard AnalysisWork Order:19C046124373 Walnut AvenueSub Project:CWPF 1st Week of March, 2019Received:03/05/19 17:47Lomita CA, 91717Project Manager:Mark AndersenReported:03/15/19

| Reservoir Influent Site #3 | | 19C0461- | 01 (Water) | | Sample Da | te: 03/05/1 | 9 6:05 Sa : | mpler: P.1 | M. |
|------------------------------|-------------|----------|------------|------|-------------|--------------------|--------------------|------------|-----------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 10.2 | | N/A | mg/L | 03/05/19 | 03/05/19 | 1910147 | |
| pH (Field) | Field | 7.8 | | N/A | pH Units | 03/05/19 | 03/05/19 | 1910147 | |
| Temperature (Field) | Field | 20.3 | | N/A | °C | 03/05/19 | 03/05/19 | 1910147 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 5.0 | 3.0 | 15 | Color Units | 03/05/19 | 03/05/19 | 1910106 | |
| <u>Metals</u> | | | | | | | | | |
| Iron (Fe) | EPA 200.7 | ND | 100 | 300 | ug/L | 03/08/19 | 03/08/19 | 1910180 | |
| Manganese (Mn) | EPA 200.7 | ND | 20 | 50 | ug/L | 03/08/19 | 03/08/19 | 1910180 | |
| Reservoir Effluent Site #5 | | 19C0461- | 02 (Water) | | Sample Da | te: 03/05/1 | 9 11:30 Sa | mpler: P.1 | M. |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 3.26 | | N/A | mg/L | 03/05/19 | 03/05/19 | 1910147 | |
| pH (Field) | Field | 8.07 | | N/A | pH Units | 03/05/19 | 03/05/19 | 1910147 | |
| Temperature (Field) | Field | 18.1 | | N/A | °C | 03/05/19 | 03/05/19 | 1910147 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | ND | 3.0 | 15 | Color Units | 03/05/19 | 03/05/19 | 1910106 | |
| Odor Threshold | EPA 140.1-M | 2 | 1 | 3 | TON | 03/05/19 | 03/05/19 | 1910106 | |
| General Chemical Analyses | | | | | | | | | |
| General Chemical Analyses | | | | | | | | | |
| Total Filterable Residue/TDS | SM 2540C | 610 | 5.0 | 1000 | mg/L | 03/11/19 | 03/12/19 | 1911019 | |

March 14, 2019

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods TO14A, TO15

UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

Clinical Laboratory of San Bernardino ATTN: Stu Styles 21881 Barton Rd. Grand Terrace, CA 92313

LABORATORY TEST RESULTS

Project Reference: 19C0461

Lab Number:

K030701-01

Enclosed are results for sample(s) received 3/07/19 by Air Technology Laboratories. Samples were received intact and chilled to 4° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson

Operations Manager

MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

2 of 4 K030701

Clinical Laboratory of San Bernardino 19C0461

16030701-01

| SENDING LABORATORY: | RECEIVING LABORATORY: | |
|--|--|----------------|
| Clinical Laboratory of San Bernar 21881 Barton Road Grand Terrace, CA 92313 Phone: 909.825.7693 Fax: 909.825.7696 Project Manager: Stu Styles | Air Technology Labs 18501 East Gale Avenue Suite 130 City of Industry, CA 91748 Phone :(626) 964-4032 Fax: | , |
| Please email results to Project Ma [] glaubig@clinical-lab.com [] | nagér: Stu Styles Styles@clinical-lab.com [] bernstein@clinical-lab.com | |
| California EDT transfer th Water Trax Upload Client: | nose samples with PS codes provided [] Yes [V] No : [] Yes [V] No | |
| Turn Around Time [] 10 Da Subcontract Comments: | ays [1 5 Days [] Other Days | |
| | | |
| Analysis | | Comments |
| Sample ID: Reservoir Effluent Site | e #5 / 19C0461-02 Sampled: 03/05/19 11:30 PS Code: Water WTX ID: | : |
| 0 | |) |
| Methane RSK175 | r. | Report in mg/L |
| Containers Supplied: | 10 14 1 W 1 (0) | |
| 40ml Amber Vial (B) | 40ml Amber Vial (C) | |

480

Released By

Date / Time

Date / Time

Date / Time

Received By

Date / Time

Date / Time

Date / Time

Date / Time

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

19C0461

Date Received:

03/07/19

Matrix:

Water

Reporting Units: mg/L

| - | ~ | | - | |
|---|----|---|----|-------|
| D | C | K | 17 | 75 |
| | 13 | | | / _ 7 |

| Lab No.: | V02070 | 11 01 | | - | | |
|---------------------|---------------|--------------|---|---|--|--|
| Lab No.: | K030701-01 | | | | | |
| | Reservoir | Effluent | | | | |
| Client Sample I.D.: | Site #5 / 19 | 9C0461- | | | | |
| | 02 | | | | | |
| Date/Time Sampled: | 3/5/19 1 | 3/5/19 11:30 | | | | |
| Date/Time Analyzed: | 3/11/19 11:25 | | 7 | | | |
| QC Batch No.: | 190311GC8A1 | | | | | |
| Analyst Initials: | CM/ | AS | | | | |
| Dilution Factor: | 1.0 |) | | | | |
| | Result | RL | | | | |
| ANALYTE | mg/L | mg/L | | | | |
| Methane | 0.26 | 0.0010 | | | | |
| | | | | _ | | |

| ND = | Not | Detected | (below | RIA |
|------|------|----------|--------|-----|
| 110 | 1101 | Dettettu | (DCION | |

RL = Reporting Limit

| Reviewed/Approved By: | MACA- 1 | Date 3 /14 |
|-----------------------|--------------|------------|
| | Mark Johnson | |

Operations Manager

The cover letter is an integral part of this analytical report

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 190311GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

| ANALYTE | Result mg/L | RL mg/L | AMT. mg/L | Result mg/L | % Rec. | mg/L | % Rec. | RPD | %Rec | %Rec | RPD |
|---|-----------------------|------------|--------------|----------------|---------------|--------|---------|-----|------|------|------|
| Bilution Factor. | | DI | SPIKE | | | Result | | | Low | High | Max. |
| Dilution Factor: | | | | | .0 | | .0 | | | | |
| Date/Time Analyzed: Analyst Initials: | | | | | I/AS | | 1/AS | | | | |
| , | METHOD I 3/11/19 1 | | | | CS 19 9:51 | | 9 10:07 | | | | |

ND= Not Detected (below RL) RL = Reporting Limit

Reviewed/Approved By: ___

Mark Johnson

Operations Manager

Date _

Date 3/14/19

The cover letter is an integral part of this analytical report

14 C OUI-61 Chain of Custody

1/2/0

| Client | | City of Lomita | Sys | System Nu | umber | ina. | | | Analy | Analysis Requested | sanbe | ted | | | | |
|---------------------------|---|--|-------------|-------------------|-----------------------|-------------------------|--------------|---|--|--------------------|----------|-------------------|---------------------------------------|----------|--------------------------|------------------------------|
| Address | \$100 to 100 to 1 | 24373 Walnut Avenue | | | 7 | 4040072 | | | | - | | | | | | |
| | | Lomita, CA 91717 | | | 2 | 00/0 | | | | | M | | | | | |
| Phone # | | (310)903-2243 | | 7 | estinatio | Destination Laboratory | ory. | | | | leth | | | | | |
| Fax# | | | | | X] Clinic | [X] Clinical Laboratory | ory | | | Tota | ane | | | | | |
| Project | | Standard Analysis | | | RWQCB | RWQCB Compliance | | | | | | O | | | | |
| Sub Project | ب | CWPF 1st week of March, 2019 Compliance Sampling | | | 回 | yes ELAP# | | | langanes | olor olved So | iter) (R | dor | | | | |
| Comments | | For TC/EC/BACT see weekly Distro CoC | | | • | 000 | | | | lids | SKI | | | | | |
| Sampled by | > | P.M. | | | _ | 000 | | : | | | 175) | | | | | |
| Date | Time | Sample Idenitification | Matrix | Type | Preserv | Hd | Temp. | Total Chlorine | | | | | | | Comments | Comments / P.S. Codes |
| 3/5/2019 | 5090 | OGO 5 Reservoir Influent Site #3 | DW | 18 | N/A | 3.2 | 3 | 10.7 | × | × | | | | | | |
| 3/5/2019 | 061 | Reservoir Effluent Site #5 | M | ¥ | A/N | 6 | d e | 171 | | × | | x | + | | | |
| | 2 | Doctorio Efficant Cito #5 | | 1 | , | | 2 | 9 | \downarrow | ╁ | > | + | 1 | T | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | + | \prod | + | - | | | |
| | | ١, | | | | | | | | | | | - | | | |
| | | | | | | | | | | | | $\mid \cdot \mid$ | | | | |
| | | | | | | | | | | - | | | - | | | |
| | | | | | | | | | | + | | + | | | | |
| | | | Moteric. Di | V Originalization | 14/0402 | 14/4/ 14/2014 | O Water | Modelle DM Deinking Makes MAK Makes CM Canned Makes A At- | | | | v | - - - - - - - - - - - - - | | F | , 4 De 14: 2 |
| Freservatives (5) H2S(| 3: (1) Na, | Freservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na ₂ SO3 (7) Cold (8) Other: | Mau's Di | - | , marer, | 3604-444 | , (191844.5) | Repla | Replacement, 4-Special W-Well D- Dist. | t, 4-Sp | ecial V | V-Well | D- Dist. | | 46. | ıype- ı-noumle, z-nepeat, 3- |
| Reling | wished | Relinquished By (Sign) Print Name / Company | | | | Date / Time | ime | | 7 | 1 | | | | | Print Nam | Print Name / Company |
| かられる | Sm | Patrick McCue / City of Lomita | Т | 3/5/2019 | | 22 | 0 | | 1/2 | 120 | 100 | 7/40 | 1 | | O Charanco | 1453 |
| Wiggins | 2000 | V | a | 2 | | 74 | 77 | | | | 1 | | Sea Con | <u> </u> | Repecca | |
| Comments: | ⊗ .; | | | _ | J ₁ | amples r | eceived | Samples received: (AOn ice (VIntact (| ice (§ | Ź | act | • | ustod | y seal |) Custody seals Temp 8,2 | ()F()C |
| Shipped Via | | Fed X Golden State | [] UPS | Clie | ient | Other | | | | | Pa | Page 1 | 1 fo | | | |
| | | | | | | | | | , | | | | | | | |



26 March 2019 Clinical Lab No.: 19C1056

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis

Sub Project: CWPF Monthly Compliance Samples, 2nd Wk of March

Enclosed are the results of the analyses for samples received at the laboratory on 03/12/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProject:Standard AnalysisWork Order:19C105624373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of MarReceived:03/12/19 18:40

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 03/26/19

| Raw Water Site #1 | | 19C1056-0 | 01 (Water) | | Sample Da | te: 03/12/19 | 6:05 S | Sampler: P | atrick McCue |
|---|------------|-----------|------------|------|-------------|---------------------|----------|------------|--------------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 0 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| pH (Field) | Field | 7.77 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Temperature (Field) | Field | 20 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| Microbiology Analyses | | | | | | | | | |
| Total Coliform | SM 9223 | A | | N/A | P/A | 03/12/19 | 03/13/19 | 1911126 | |
| E. Coli | SM 9223 | A | | N/A | P/A | 03/12/19 | 03/13/19 | 1911126 | |
| Plate Count | SM9215B | 65 | 1 | 500 | CFU/ml | 03/12/19 | 03/14/19 | 1911163 | HT-08 |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 20.0 | 3.0 | 15 | Color Units | 03/12/19 | 03/12/19 | 1911159 | |
| General Chemical Analyses | | | | | | | | | |
| Hardness, Total (as CaCO3) | Calculated | 360 | 6.6 | N/A | mg/L | 03/19/19 | 03/19/19 | [CALC] | |
| Total Filterable Residue/TDS | SM 2540C | 810 | 5.0 | 1000 | mg/L | 03/14/19 | 03/18/19 | 1911144 | |
| <u>Metals</u> | | | | | | | | | |
| Calcium (Ca) | EPA 200.7 | 95 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |
| Iron (Fe) | EPA 200.7 | 180 | 100 | 300 | ug/L | 03/20/19 | 03/20/19 | 1912092 | |
| Magnesium (Mg) | EPA 200.7 | 29 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |
| Manganese (Mn) | EPA 200.7 | 150 | 20 | 50 | ug/L | 03/20/19 | 03/20/19 | 1912092 | |
| Filter Effluent (Free Chlorine) Site #2 | | 19C1056-0 | 02 (Water) | | Sample Da | te: 03/12/19 | 6:07 S | Sampler: P | atrick McCue |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 10.9 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| pH (Field) | Field | 7.82 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Temperature (Field) | Field | 20 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| Microbiology Analyses | | | | | | | | | |
| Total Coliform | SM 9223 | A | | N/A | P/A | 03/12/19 | 03/13/19 | 1911126 | |
| E. Coli | SM 9223 | A | | N/A | P/A | 03/12/19 | 03/13/19 | 1911126 | |
| Plate Count | SM9215B | ND | 1 | 500 | CFU/ml | 03/12/19 | 03/14/19 | 1911163 | HT-08 |



Lomita, City ofProject:Standard AnalysisWork Order:19C105624373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of MarReceived:03/12/19 18:40

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 03/26/19

| Filter Effluent (Total Chlorine) Site #3 | | 19C1056-0 | 03 (Water) | | Sample Da | te: 03/12/19 | 6:10 Sa | mpler: P | atrick McCue |
|--|------------|-----------|------------|------|-------------|--------------|----------------|----------|--------------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 10 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| pH (Field) | Field | 7.89 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Temperature (Field) | Field | 20 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 10.0 | 3.0 | 15 | Color Units | 03/12/19 | 03/12/19 | 1911159 | |
| <u>Metals</u> | | | | | | | | | |
| Iron (Fe) | EPA 200.7 | ND | 100 | 300 | ug/L | 03/20/19 | 03/20/19 | 1912092 | |
| Manganese (Mn) | EPA 200.7 | ND | 20 | 50 | ug/L | 03/20/19 | 03/20/19 | 1912092 | |
| Zone #2 Site #6 | | 19C1056-0 | 04 (Water) | | Sample Da | te: 03/12/19 | 6:15 Sa | mpler: P | atrick McCue |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 2.09 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| pH (Field) | Field | 8.38 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Temperature (Field) | Field | 16.4 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| General Chemical Analyses | | | | | | | | | |
| Hardness, Total (as CaCO3) | Calculated | 160 | 6.6 | N/A | mg/L | 03/19/19 | 03/19/19 | [CALC] | |
| Total Filterable Residue/TDS | SM 2540C | 390 | 5.0 | 1000 | mg/L | 03/14/19 | 03/18/19 | 1911144 | |
| <u>Metals</u> | | | | | | | | | |
| Calcium (Ca) | EPA 200.7 | 37 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |
| Magnesium (Mg) | EPA 200.7 | 16 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |



Lomita, City ofProject:Standard AnalysisWork Order:19C105624373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of MarReceived:03/12/19 18:40Lomita CA, 91717Project Manager:Mark AndersenReported:03/26/19

| | 19C1056-0 | 05 (Water) | | Sample Da | ote: 03/12/19 | 9:05 Sa | mpler: Pa | trick McCue |
|-------------|---|--|---|--|--|--|--|---|
| Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| | | | | | | | | |
| Field | 3 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| Field | 8.04 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Field | 17 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| | | | | | | | | |
| EPA 140.1-M | 2 | 1 | 3 | TON | 03/12/19 | 03/12/19 | 1911159 | |
| | | | | | | | | |
| Calculated | 210 | 6.6 | N/A | mg/L | 03/19/19 | 03/19/19 | [CALC] | |
| SM 2540C | 580 | 5.0 | 1000 | mg/L | 03/14/19 | 03/18/19 | 1911144 | |
| | | | | | | | | |
| EPA 200.7 | 53 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |
| EPA 200.7 | 20 | 1.0 | N/A | mg/L | 03/19/19 | 03/19/19 | 1912046 | |
| | Field Field Field EPA 140.1-M Calculated SM 2540C EPA 200.7 | Method Result Field 3 Field 8.04 Field 17 EPA 140.1-M 2 Calculated 210 SM 2540C 580 EPA 200.7 53 | Field 3 Field 8.04 Field 17 EPA 140.1-M 2 1 Calculated 210 6.6 SM 2540C 580 5.0 EPA 200.7 53 1.0 | Method Result Rep. Limit MCL Field 3 N/A Field 8.04 N/A Field 17 N/A EPA 140.1-M 2 1 3 Calculated 210 6.6 N/A SM 2540C 580 5.0 1000 EPA 200.7 53 1.0 N/A | Method Result Rep. Limit MCL Units Field 3 N/A mg/L Field 8.04 N/A pH Units Field 17 N/A °C EPA 140.1-M 2 1 3 TON Calculated 210 6.6 N/A mg/L SM 2540C 580 5.0 1000 mg/L EPA 200.7 53 1.0 N/A mg/L | Method Result Rep. Limit MCL Units Prepared Field 3 N/A mg/L 03/12/19 Field 8.04 N/A pH Units 03/12/19 Field 17 N/A °C 03/12/19 EPA 140.1-M 2 1 3 TON 03/12/19 Calculated 210 6.6 N/A mg/L 03/19/19 SM 2540C 580 5.0 1000 mg/L 03/14/19 EPA 200.7 53 1.0 N/A mg/L 03/19/19 | Method Result Rep. Limit MCL Units Prepared Analyzed Field 3 N/A mg/L 03/12/19 03/12/19 Field 8.04 N/A pH Units 03/12/19 03/12/19 Field 17 N/A °C 03/12/19 03/12/19 EPA 140.1-M 2 1 3 TON 03/12/19 03/12/19 Calculated 210 6.6 N/A mg/L 03/19/19 03/19/19 SM 2540C 580 5.0 1000 mg/L 03/14/19 03/18/19 EPA 200.7 53 1.0 N/A mg/L 03/19/19 03/19/19 | Method Result Rep. Limit MCL Units Prepared Analyzed Batch Field 3 N/A mg/L 03/12/19 03/12/19 1911143 Field 8.04 N/A pH Units 03/12/19 03/12/19 1911143 Field 17 N/A °C 03/12/19 03/12/19 1911143 EPA 140.1-M 2 1 3 TON 03/12/19 03/12/19 1911159 Calculated 210 6.6 N/A mg/L 03/19/19 03/19/19 1911144 EPA 200.7 53 1.0 N/A mg/L 03/19/19 03/19/19 1912046 |

HT-08 Analysis performed outside of recommended 8 hour hold time but within required 24 hour hold time.

ND Analyte NOT DETECTED at or above the reporting limit



March 21, 2019

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

Clinical Laboratory of San Bernardino ATTN: Stu Styles 21881 Barton Rd. Grand Terrace, CA 92313

TX Cert T104704450-14-6 EPA Methods TO14A, TO15 UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 19C1056

Lab Number:

K031403-01

Enclosed are results for sample(s) received 3/14/19 by Air Technology Laboratories. Samples were received intact and chilled to 4° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson

Operations Manager

MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino 19C1056

K03403-01/02

| SENDING LABORATORY: | RECEIVING LABORATORY: |
|--|--|
| Clinical Laboratory of San Bernardino | Air Technology Labs |
| 21881 Barton Road | 18501 East Gale Avenue Suite 130 |
| Grand Terrace, CA 92313 | City of Industry, CA 91748 |
| Phone: 909.825.7693 | Phone :(626) 964-4032 |
| Fax: 909.825.7696 | Fax: |
| Project Manager: Stu Styles | rax. |
| 110joet Managor. Sta Styles | |
| Please email results to Project Manager: Stu Styles [] glaubig@clinical-lab.com [] styles@clinical-lab.com | [] bernstein@clinical-lab.com |
| California EDT transfer those samples with PS codes pr Water Trax Upload Client: | ovided [] Yes [v] No [] Yes [v] No |
| Turn Around Time [] 10 Days [\] 5 Days [] Othe | |
| Subcontract Comments: | |
| | |
| | |
| Analysis | Comments |
| Analysis | D Comments |
| Sample ID: Raw Water Site #1 / 19C1056-01 Sa | mpled: 03/12/19 06:05 PS Code: |
| Wa | wtx id: |
| er grad of grade | The second of th |
| Methane RSK175 | Report in mg/L |
| Containers Supplied: | |
| 40mL Amber Vial pH<2 w/HCl (A) 40mL Amber Vial p | H<2 w/HCl (B) |
| | mpled: 03/12/19 09:05 PS Code: |
| W: | eter WTX ID: |
| M41 DSV 175 | Report in mg/L |
| Methane RSK175 | |
| Containers Supplied: | |
| 40mL Amber Vial pH<2 w/HCl (B) 40mL Amber Vial p | H<2 w/HCl (C) |
| | |
| | *4 |
| | |
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| | |
| to a set of the set of | AND THE REAL PROPERTY AND THE PROPERTY A |
| | 7 |
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| | 10 1 |
| | 10 |
| | 400 |
| A STATE OF THE STA | 400 |
| | |
| BJ My 03/14/10 07 | 30 Michael Solvan 8/14/19 8:00 |
| BJ M 03/14/19 07 Released By Date / Time | 130 Michael Salegar S/H/19 8-00 Received By Pate / Time |
| By Dwy 03/14/19 07 Released By Date / Time Manual Laboratory 2/15/19 11:11 | 30 Michael Salgar S/H/19 8-00 Received By Date / Time 3/14/19 11:11 |

Client:

Clinical Labs

Attn:

Stu Styles

Project Name:

NA

Project No.:

19C1056

Date Received:

03/14/19

Matrix:

Water

Reporting Units: mg/L

RSK175

| Lab No.: | K0314 | 03-01 | K0314 | 03-02 | | | |
|---------------------|-------------------|------------|-------------------------|---------------------|---|--|---|
| Client Sample I.D.: | Raw Wa #1/19C1 | ter Site | Reservoir Site #5/19 | Effluent 9C1056- | | | ۵ |
| Date/Time Sampled: | 3/12/19 | 6:05 | 3/12/19 | 9:05 | | | |
| Date/Time Analyzed: | 3/21/19 | 10:50 | 3/21/19 | 11:06 | | | |
| QC Batch No.: | 1903210 | GC8A1 | 1903210 | GC8A1 | | | |
| Analyst Initials: | CM/ | AS | CM/ | 'AS | | | |
| Dilution Factor: | 1.0 |) | 1.0 | 0 | | | |
| ANALYTE | Result mg/L | RL mg/L | Result mg/L | RL mg/L | | | |
| Methane | 2.8 | 0.0010 | 0.33 | 0.0010 | | | |
| | | | | | • | | |

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 3.21-19

The cover letter is an integral part of this analytical report

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 190321GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

| Lab No.: | METHOD | BLANK | | L | CS | LO | CSD | | | | |
|---------------------|----------------|------------|-----------------------|----------------|---------|----------------|---------|-----|-------------|--------------|-------------|
| Date/Time Analyzed: | 3/21/19 1 | 10:36 | | 3/21/1 | 9 10:05 | 3/21/1 | 9 10:20 | | | | |
| Analyst Initials: | CM/A | S | | CM | I/AS | CM | 1/AS | | | | |
| Dilution Factor: | 1.0 | | | 1 | .0 | 1 | 0.0 | | | | |
| ANALYTE | Result mg/L | RL mg/L | SPIKE AMT. mg/L | Result mg/L | % Rec. | Result mg/L | % Rec. | RPD | Low %Rec | High %Rec | Max. RPD |
| Methane | ND | 0.0010 | 0.654 | 0.704 | 108 | 0.710 | 108 | 0.8 | 70 | 130 | 30 |
| | | | | | | | | | | | |

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 3-21-19

The cover letter is an integral part of this analytical report

Chain of Custody <

2/2/15

| Client | | | City of Lomita | Sys | System Number | ımber | | | 1 | Analysis Requested | s Req | ueste | | 4.5 | | | | | |
|---|---|--|---|-----------|---------------|------------|-------------------------|--|-------------------|--|----------|------------|--------------------|-----------|------|-------|----------------------|------------|----------------------------|
| Address | | 24 | 24373 Walnut Avenue | | | 7 | 10072 | _ | | | | | | L | | | | | |
| | | | Lomita, CA 91717 | | | <u>n</u> | 2700161 | _ | | | Fot: |] | | | | | | | |
| Phone # | | | (310)903-2243 | | | Destineth | Destination Laboratory | Şā. | | | al C | Met | | | | | | | |
| Fax# | | | | | | [X] Clinic | [X] Clinical Laboratory | tot | | | olif | han | | | | | | | |
| Project | ্রা ইউনি ক্রি | | Standard Analysis | | | RWQCB | RWGCB Compliance | 8 | | | | | | | | | | | |
| Sub Broipet | | | CWPF Monthly Compliance Samples; | | | | YES | | | | | Vat ard | Vitra | Od Col | | | | | |
| ano riojeci | | | 2nd week of March, 2019 | | | Ē | ELAP# | Ship. | | _ | | | | | | | | | |
| Comments | | ್ಷಾಪ್ತ್ಯ | | | | 7 | 7000 | | | anese Solid | oli P-2 | (RSK | | | | | | | |
| Sampled by | | | Patrick McCue | | | - | 000 | | - - | ls | A / H | 175) | | | | | | | |
| Date | Time | Sal | Sample Idenitification | Matrix | Type | Preserv | Temp. | Hd | Total Chiorine | | PC | | | | | | | | |
| 3/12/2019 | 5090 | | Raw Water Site #1 | ΝS | <u>≥</u> | Z/Z | 20.c° | 7.77 | - | × | | - | | × | | | | | |
| 3/12/2019 | 5000 | | Raw Water Site #1 | δ | 3 | 1, 2, 7 | 30:07 | 777 | R | | × | × | | | | | | | |
| | | | | | | | | | | | | | | <u> </u> | | | | | |
| 3/12/2019 | 6000 | Filter Eft | Filter Effluent (Free Chlorine) Site#2 | DW | W. | 1,7 | 20,05 | 7.85 | 6.01 | | × | - | | _ | | | | | |
| 3/12/2019 | 0190 | Filter Eff | Filter Effluent (Total Chlorine) Site#3 | MQ | W. | N/A | 20.05 | 68' | 10.0 | × | | | | × | | | | | |
| 3/12/2019 | 5190 | | Zone #2 Site #6 | MQ | 10 | N/A | 16.4° | 828 | 60. 2 | × | | × | | - | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 3/12/2019 | ५०८० | Res | Reservoir Effluent Site #5 | ΜŒ | 9 | N/A | 10.2 | 8.0% | 5 0 | × | | × | | × | | | | | |
| 3/12/2019 | <u> </u> | Res | Reservoir Effluent Site #5 | WQ | £ | 2,7 | 17.00 | 8.0 ¹ | 3.0 | | | × | | <u> </u> | | | | | |
| Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI | : (1) Na ₂ S ₂ O ₃ | (2) HCI (3) HR | 403 (4) NH4CI | Matrix: L | W-Drink | dng Wate | r, WW-Wa | Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air | SW-Storm | Nater, G | W- Groi | ind Wa | ter, A-4 | Nr. | | | Type-1 | 1-Routine, | Type- 1-Routine, 2-Repeat, |
| (5) H2SO | 14 (6) Na2SO3 | (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other: | Other: | | | | | | 3-Repla | 3-Replacement, 4-Special W-Well D- Dist. | 4-Spec | ial W- | Well D. | . Dist. | | | | | |
| Reling | Relinquished By (Sign) | Sign) | Print Name / Company | y | | | Date / Time | Time | | | 2 | ceived | Received By (Sign) | (uš | | | Print Name / Company | re/Com | pany |
| Pakrine | atrich Mcas | 9 | Patrick McCue /City of Lomita 3/12/2019 | omita | 3/12/20 | 61 | | 245 | , | B. | 10 | 4 | 3 | • | | 120 | 7 CV 6 | Ą | |
| Melyon | Mooning | 0 | (Marano/ CLSB 3/12) | cs8 | 3/12/ | 61/ | \ | ر ا ا | 05:4 | # | 1/4 | F3 | \ <u>``</u> | 35 | Here | enous | × | 中 | CIST |
| | | | 1 | | | | | | | | F | - | | | 1 | | 1 | | |

Samples received: (XOn ice (XIntact)) Custody seals Temp_(q_)

| | Fed X | | Golden State | | UPS | | Cilent | | Other

Comments:

Shipped Via



01 April 2019 Clinical Lab No.: 19C1497

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis

Sub Project: CWPF 3rd Week of March, 2019

Enclosed are the results of the analyses for samples received at the laboratory on 03/19/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProject:Standard AnalysisWork Order:19C149724373 Walnut AvenueSub Project:CWPF 3rd Week of March, 2019Received:03/19/19 16:50Lomita CA, 91717Project Manager:Mark AndersenReported:04/01/19

| Reservoir Influent Site #3 | | 19C1497- | 01 (Water) | | Sample Da | te: 03/19/1 | 9 6:05 Sa | mpler: P. | M. |
|------------------------------|-------------|----------|------------|------|-------------|--------------------|------------------|-----------|-----------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 10.4 | | N/A | mg/L | 03/19/19 | 03/19/19 | 1912089 | |
| pH (Field) | Field | 7.84 | | N/A | pH Units | 03/19/19 | 03/19/19 | 1912089 | |
| Temperature (Field) | Field | 21.1 | | N/A | °C | 03/19/19 | 03/19/19 | 1912089 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 7.5 | 3.0 | 15 | Color Units | 03/19/19 | 03/19/19 | 1912104 | |
| <u>Metals</u> | | | | | | | | | |
| Iron (Fe) | EPA 200.7 | ND | 100 | 300 | ug/L | 03/22/19 | 03/22/19 | 1912162 | |
| Manganese (Mn) | EPA 200.7 | ND | 20 | 50 | ug/L | 03/22/19 | 03/22/19 | 1912162 | |
| Reservoir Effluent Site #5 | | 19C1497- | 02 (Water) | | Sample Da | te: 03/19/1 | 9 9:10 Sa | mpler: P. | M. |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 3.17 | | N/A | mg/L | 03/19/19 | 03/19/19 | 1912089 | |
| pH (Field) | Field | 8.1 | | N/A | pH Units | 03/19/19 | 03/19/19 | 1912089 | |
| Temperature (Field) | Field | 17.4 | | N/A | °C | 03/19/19 | 03/19/19 | 1912089 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 5.0 | 3.0 | 15 | Color Units | 03/19/19 | 03/19/19 | 1912104 | |
| Odor Threshold | EPA 140.1-M | 2 | 1 | 3 | TON | 03/19/19 | 03/19/19 | 1912104 | |
| General Chemical Analyses | | | | | | | | | |
| Total Filterable Residue/TDS | SM 2540C | 530 | 5.0 | 1000 | mg/L | 03/21/19 | 03/26/19 | 1912127 | |
| ND Analyte NOT DETECTED at o | 1 4 4 4 1 4 | | | | | | | | |



March 27, 2019

LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

Clinical Laboratory of San Bernardino ATTN: Stu Styles 21881 Barton Rd. Grand Terrace, CA 92313

TX Cert T104704450-14-6 EPA Methods TO14A, TO15 UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 19C1497

Lab Number:

K032003-01

Enclosed are results for sample(s) received 3/20/19 by Air Technology Laboratories. Samples were received intact and chilled to 6° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson

Operations Manager

MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino 19C1497

4032003-01

| | 1901497 | |
|--|---|-----------------------------------|
| SENDING LABORATORY: | RECEIVING LABORATORY: | 1 4 |
| Clinical Laboratory of San Bernardino | Air Technology Labs | |
| 21881 Barton Road | 18501 East Gale Avenue Suite 130 | |
| Grand Terrace, CA 92313 | City of Industry, CA 91748 | |
| Phone: 909.825.7693 | Phone :(626) 964-4032 | |
| Fax: 909.825.7696 | Fax: | |
| Project Manager: Stu Styles | | |
| Please email results to Project Manager: Stu Styles | | 30 H |
| [] glaubig@clinical-lab.com [√] styles@clinical- | -lab.com [] bernstein@clinical-lab.com | |
| California EDT transfer those samples with P Water Trax Upload Client: | PS codes provided [] Yes [V] No [] Yes [V] No | |
| Turn Around Time [] 10 Days [] 5 Days Subcontract Comments: | [] Other Days | |
| | | |
| | Comments | |
| Analysis | Comments | Name of the second |
| Sample ID: Reservoir Effluent Site #5 / 19C1497-02 | Sampled: 03/19/19 09:10 PS Code: Water WTX ID: | pel Lance Carabanese a la I |
| | | |
| Methane RSK175 | Report in mg/L | 1 |

40ml Amber Vial (C)

Containers Supplied: 40ml Amber Vial (B)

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

19C1497

Date Received:

03/20/19

Matrix:

Water

Reporting Units: mg/L

RSK175

| Lab No.: | K0320 | 03-01 | | | | | Ī | |
|---------------------|-------------|----------|---|--|--|--|---|---|
| | Reservoir | Effluent | | | | | | ± |
| Client Sample I.D.: | Site #5 / 1 | 9C1497- | | | | | | |
| <u> </u> | 02 | , | | | | | | |
| Date/Time Sampled: | 3/19/19 | 9:10 | | | | | | |
| Date/Time Analyzed: | 3/21/19 | 11:20 | | | | | | |
| QC Batch No.: | 1903210 | GC8A1 | | | | | | |
| Analyst Initials: | CM/AS | | | | | | | |
| Dilution Factor: | 1.0 | 1.0 | | | | | | |
| | Result | RL | | | | | | |
| ANALYTE | mg/L | mg/L | | | | | | |
| Methane | 0.38 | 0.0010 | · | | | | | |
| | | V | | | | | | |

| | | | | | - |
|------|------|----------|--------|----|---|
| ND = | Not. | Detected | (below | RL |) |

RL = Reporting Limit

| keviewed/Approved By: | 1/1/1/ | | 1 |
|-----------------------|--------|--------------|---|
| | | Mark Johnson | n |

Date _____

Operations Manager

The cover letter is an integral part of this analytical report

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 190321GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

| Lab No.: | METHOD | BLANK | | L | CS | LO | CSD | | | | |
|---------------------|----------------|------------|-----------------------|----------------|---------|----------------|---------|-----|-------------|--------------|-------------|
| Date/Time Analyzed: | 3/21/19 1 | 0:36 | | 3/21/1 | 9 10:05 | 3/21/1 | 9 10:20 | | | | |
| Analyst Initials: | CM/A | S | | CN | I/AS | CM | 1/AS | | | | |
| Dilution Factor: | 1.0 | | | 1 | .0 | 1 | .0 | | | | |
| ANALYTE | Result mg/L | RL mg/L | SPIKE AMT. mg/L | Result mg/L | % Rec. | Result mg/L | % Rec. | RPD | Low %Rec | High %Rec | Max. RPD |
| Methane | ND | 0.0010 | 0.654 | 0.704 | 108 | 0.710 | 108 | 0.8 | 70 | 130 | 30 |
| | | | | | | | | | | | |

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 3/27/19

The cover letter is an integral part of this analytical report

19C1497 Chain of Custody 0/3/4

| Samples received: (1) Na ₃ S ₃ O ₃ (2) HCl (3) HNO3 (4) NH4Cl Matrix: DW-Drinking Water, WW-Waste Water, Storm Water, Ground Water, A-Air Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist. Print Name / Company Patrick McCue / City of Lomita 3/19/2019 13/20 13/ | Address Phone # Fax # Project Comments Sampled by Date 3/19/2019 3/19/2019 3/19/2019 5/10 | | Cuy of Lomita 24373 Walnut Avenue Lomita, CA 91717 (310)903-2243 Standard Analysis Standard Analysis CWPF 3rd week of March, 2019 Compliance Sampling For TC/EC/BACT see weekly Distro CoC P.M. Time Sample Idenitification O⇔6 & Reservoir Effluent Site #3 ○⇔10 Reservoir Effluent Site #5 ○⇔10 Reservoir Effluent Site #5 | DW DW DW | 1 W W W W W W W W W W | 191 Destination Destination N/A N/A 2 2 2 2 | 1910073 Destination Laboratory RWGCB Compliance yes ELAP# 1088 N/A 7.84 7 2 N/A 8.10 1 | Ce Temp. 7.4° | Total Chlorine (C.4) | Iron / Manganese | Color × × Total Dissolved Solids | Odor Methane (Water) (RSK175) Color Total Dissolved Solids Iron / Manganese | Odor × | | | CO | nments / F | Comments / P.S. Codes | |
|--|---|--|--|-----------|---|---|--|---------------|----------------------|------------------|----------------------------------|---|-----------|----------|----------------------------|-----|------------|-----------------------|-------------|
| (6) Na25O3 (7) Cold (8) Other: Shed By (Sign) Print Name / Company Samples received: (**On ice (***Nutact (**) Custody seals Temp_67 (**) F (*)) | ives: (1) Na | a ₂ S ₂ O ₃ (2) HCI (| (4) NH4CI | Matrix: D | | g Water, | WW-Was | te Water, | SW-Storm | Water, (| GW- Gr | V buno | Vater, A. | Air | | | Type- 1 | -Routine, 2 | -Repeat, 3- |
| Samples received: (**Monte Company) Patrick McCue / City of Lomita 3/19/2019 Patrick McCue / City of Lomita 3/19/2019 Samples received: (**Monte (**) Custody seals Temp 6.7 (**) F (**) | H2SO4 (6) N | Va2SO3 (7) Cold | ان | | | | | | Rep | laceme | nt, 4-Sp | ecial | W-Well | D. Dist. | | | | | |
| OMCS Patrick McCue/City of Lomita 3/19/2019 130 Whymish Clark Clark Construction of Longian 1 Clark Cl | elinguished | 1 By (Sign) | | | | | Date/ | Time | | State Visit | 6 | | | | 35 (3) 35 (4) 37 (4) | J. | nt Name / | Company | |
| Samples received: (X On ice (Xintact () Custody seals Temp 6,7 () F () | of on | 77. | Patrick McCue / City of Lo | | 119/201 | | | | 120 | | 4 | row | { | 1 | Č | | 101 | , '.K | |
| Samples received: (X) On ice (Mintact () Custody seals Temp 6.7 () F () | Maroca | 1 | Stage Call | Т | ىر | | | | 500 | | | 7/3 | | | | | . ∤ | 200 | X |
| | nents: | | 4 | | | S | amples | received | [0,X):: | ice (| X | tact | | ustody | seals T | dua |) |) F (|) C |
| Chimmed 13a 1 Goldon State 1 Client 1 Other Page of | 1179 | | 1 1 Coldon State | 5477 | | | | | . | | 7 | 1 | | | | | | | |



05 April 2019 Clinical Lab No.: 19C2237

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis

Sub Project: CWPF 4th Week of March, 2019

Enclosed are the results of the analyses for samples received at the laboratory on 03/27/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProject:Standard AnalysisWork Order:19C223724373 Walnut AvenueSub Project:CWPF 4th Week of March, 2019Received:03/27/19 15:00Lomita CA, 91717Project Manager:Mark AndersenReported:04/05/19

| Reservoir Influent Site #3 | | 19C2237-0 | 01 (Water) | | Sample Da | te: 03/27/19 | 6:15 Sa | mpler: P.1 | M. |
|---------------------------------|-------------|-----------|------------|------|-------------|--------------|----------------|------------|-----------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 10.2 | | N/A | mg/L | 03/27/19 | 03/27/19 | 1913109 | |
| pH (Field) | Field | 7.9 | | N/A | pH Units | 03/27/19 | 03/27/19 | 1913109 | |
| Temperature (Field) | Field | 21.4 | | N/A | °C | 03/27/19 | 03/27/19 | 1913109 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 10.0 | 3.0 | 15 | Color Units | 03/27/19 | 03/27/19 | 1913099 | |
| Metals | | | | | | | | | |
| Iron (Fe) | EPA 200.7 | ND | 100 | 300 | ug/L | 04/01/19 | 04/02/19 | 1914032 | |
| Manganese (Mn) | EPA 200.7 | ND | 20 | 50 | ug/L | 04/01/19 | 04/02/19 | 1914032 | |
| Reservoir Effluent Site #5 | | 19C2237-0 | 02 (Water) | | Sample Da | te: 03/27/19 | 9:20 Sa | mpler: P.1 | M. |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 4 | | N/A | mg/L | 03/27/19 | 03/27/19 | 1913109 | |
| pH (Field) | Field | 8.2 | | N/A | pH Units | 03/27/19 | 03/27/19 | 1913109 | |
| Temperature (Field) | Field | 17.9 | | N/A | °C | 03/27/19 | 03/27/19 | 1913109 | |
| General Physical Analyses | | | | | | | | | |
| Apparent Color | SM 2120BM | 7.5 | 3.0 | 15 | Color Units | 03/27/19 | 03/27/19 | 1913099 | |
| Odor Threshold | EPA 140.1-M | 2 | 1 | 3 | TON | 03/27/19 | 03/27/19 | 1913099 | |
| General Chemical Analyses | | | | | | | | | |
| Total Filterable Residue/TDS | SM 2540C | 540 | 5.0 | 1000 | mg/L | 03/29/19 | 04/02/19 | 1913134 | |
| ND Analyte NOT DETECTED at or a | | | | | | | | | |



April 4, 2019

Clinical Laboratory of San Bernardino ATTN: Stu Styles 21881 Barton Rd. Grand Terrace, CA 92313



LABORATORY TEST RESULTS

Project Reference: 19C2237

Lab Number:

K032902-01

Enclosed are results for sample(s) received 3/29/19 by Air Technology Laboratories. Samples were received intact and chilled to 7° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Operations Manager

MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino 19C2237

K032982-01

| SENDING LABORATORY: | RECEIVING | G LABORATORY: | | |
|--|--|-----------------------|---------------|---------|
| Clinical Laboratory of San Bernardino | Air Technol | ogy Labs | | |
| 21881 Barton Road | | Gale Avenue Suite 130 | • | |
| Grand Terrace, CA 92313 | | stry, CA 91748 | | |
| Phone: 909.825.7693 | Phone :(626 | | | |
| Fax: 909.825.7696 | Fax: |) 501 1052 | | |
| Project Manager: Stu Styles | I u.A. | | | |
| | | 11 | | |
| Please email results to Project Manager: Stu S [] glaubig@clinical-lab.com [√] styles@cl | tyles inical-lab.com [] bernstein@cl | linical-lab.com | | e e |
| California EDT transfer those samples | with PS codes provided [] Yes | s MNo | | |
| Water Trax Upload Client: | . [] Yes | L. 1 / | 9 | |
| Turn Around Time [] 10 Days [\ \] 5 3 Subcontract Comments: | Days [] Other Days | v.e | | ē |
| g viện | | | | |
| | Wa . Wa . | | | |
| A T | × į | | omments | |
| Analysis | | 50.0 | / / | * * |
| Sample ID: Reservoir Effluent Site #5 / 19C223' | 7-02 Sampled: 03/27/19 0 | 9:20 PS Code: | e: e | |
| | Water | WTX ID: | | |
| | | | | |
| Methane RSK175 | | Re | eport in mg/L | |
| Containers Supplied: | | | | |
| 40ml Amber Vial (B) 40ml | ml Amber Vial (C) | | | |
| | | | | |
| * | 91 W 51 M 64 M 5 S S S | . 97 | | |
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| | \wedge | | | |
| D. M | 11/1 | 6 100 12 0 | 2/20/10 | ()20 |
| 13) Day 03/28/10 | 1 12:30 N | 10/1-0-7 | 3/29/19 | 830 |
| Released By Date / C | Time Received By | /_ | Date / Time | 10 at - |
| W/Stopane 3/29/19 9 | 47 | 3/2 | 7/17 | 0947 |
| Released By Date / 1 | Γime Received By | 7 | Date / Time | |
| | 4 1 | | | |

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

19C2237

Date Received:

03/29/19

Matrix:

Water

Reporting Units: mg/L

| | RSK175 | | | |
|---|---------------|------|--|--|
| _ | | | | |
| _ | | | | |

| Lab No.: | K0329 | 02-01 | | | | |
|---------------------|-----------|----------------------|--|--|--|---|
| | Reservoir | Effluent | | | | - |
| Client Sample I.D.: | Site | 4 5 / | | | | |
| u . | 19C22 | 37-02 | | | | |
| Date/Time Sampled: | 3/27/19 | 9:20 | | | | |
| Date/Time Analyzed: | 4/1/19 | 13:45 | | | | |
| QC Batch No.: | 1904010 | 190401GC8A1 CM/AS | | | | |
| Analyst Initials: | CM/ | | | | | |
| Dilution Factor: | 1.0 |) | | | | |
| | Result | RL | | | | |
| ANALYTE | mg/L | mg/L | | | | |
| Methane | 0.28 | 0.0010 | | | | |
| | | | | | | |

| ND = Not Dete | cted (below | RL) |
|---------------|-------------|-----|
|---------------|-------------|-----|

RL = Reporting Limit

Reviewed/Approved By: _

Operations Manager

The cover letter is an integral part of this analytical report

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 190401GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

| Methane | ND | 0.0010 | 0.654 | 0.625 | 95.5 | 0.660 | 101 | 5.4 | 70 | 130 | 30 |
|---------------------|----------------|------------|-----------------------|----------------|--------|----------------|--------|-----|-------------|--------------|-------------|
| ANALYTE | Result mg/L | RL mg/L | SPIKE AMT. mg/L | Result mg/L | % Rec. | Result mg/L | % Rec. | RPD | Low %Rec | High %Rec | Max. RPD |
| Dilution Factor: | 1.0 | | | 1 | .0 | 1 | .0 | | | | 8 |
| Analyst Initials: | CM/A | S | | CM | I/AS | CN | I/AS | | | | |
| Date/Time Analyzed: | 4/1/19 1 | 0:27 | | 4/1/19 | 10:55 | 4/1/19 | 11:48 | | | | |
| Lab No.: | METHOD | BLANK | | L | CS | LO | CSD | | | | |

ND= Not Detected (below RL) RL = Reporting Limit

Reviewed/Approved By: ______ Mark Johnson
Operations Manager

Date 4/3/19

The cover letter is an integral part of this analytical report

Chain of Custody

6/3

| | 3, | | | | | | | | | | | _ | | |
|------------------------|---|--------------------|-------------|---|--|------------|--|---------------------------|----------|-------------|---------|-----------------|-----------------------------|--------------|
| Client | City of Lomita | System N | umber | | JC A | | Analy | Analysis Requested | edne | sted | | | | |
| Address | 24373 Walnut Avenue | | 707 | 000 | | | | - | Ļ | L | H | | | |
| | Lomita, CA 91717 | | 181 | 1910073 | | | | | ľ | | | , | | |
| Phone # | (310)903-2243 | | Sestination | Destination Laboration | Š | | _ | | Met | | | | | |
| Fax# | | | X] Clinica | [X] Clinical Laboratory | 2 | | | Tot | han | | | | | |
| Project | Standard Analysis | 2.75 | RWOCB | RWOCB Compliance | 25.4 | | | | e (W | (| | | | |
| Sub Project | CWPF 4th week of March, 2019 Compliance Sampling | | Ī | 768 FIAD# | Si S | | Mangan | olor solved S | ater) (|)dor | | | | |
| Comments | For TC/EC/BACT see weekly Distro CoC | | | | 56 | | | olids | RSF | | | | | |
| Sampled by | P.M. | | = | 1088 | | | | | (175 | | | | | |
| Date Time | Sample Idenitification | Matrix Type | Preserv | Hd | Temp. | Total | | |) | | | | | |
| 3/27/2019 0615 | 이야년 Reservoir Influent Site #3 | DW 1W | N/A | 7.90 | 21.4 | 7 | × | × | | | | | Comments / P.S. Codes | |
| 3/27/2019 09/2/2/ | 3777019 0977 December Efficient City #E | \dashv | | 1 1 | | (| | ╁╌┼ | | | H | | | |
| | אבספו אמון דווותפוון סווב #5 | DW IW | X | 3 | 1.7 | 7.0 | ^ | X | | X | | | | |
| 3/2/12019 CY CL | 3/27/2019 〇子乙 Reservoir Effluent Site #5 | DW IW | 7 | | | | | | × | - | _ | | | |
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| | | | | | | | $\frac{1}{2}$ | + | | \dagger | 1 | | | |
| | | | | | | | + | + | | + | - | | | |
| Preservatives: (1) Na. | Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO3 (4) NH4Cl | Matrix: DW-Drinkir | a Water | nd Water, WW: Waste Water SW. Storm Water GW. Ground Water A 4: | Water St | W. Storm M | /ater | _ 8 | | - | - ; | | | |
| (5) H2SO4 (6) Ni | (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other: | | | | | Repla | Replacement, 4-Special W-Well D- Dist. | 4-Spe | cial V | V-Well | D- Dist | | lype-1-Kouune, 2-Kepeat, 3- | 3at, 3- |
| Relinquished By (Sign) | By (Sign) Print Name / Company | | | Date / Time | me | | | | | | | | Print Name / Common. | |
| tation of | PACCus Patrick McCue / City of Lomita | 3/27/201 | 11/6 | 767 | | | 4 | 7 | 1 | | 11 | 1 | | |
| | | | 0 | 0 | 0 | A. | C | | | | | 1 | | M |
| Comments: | | | S | Samples received: On ice | eceived: | Ž | ီ |) Int | Intact (| | ustod | Custody seals T | Temp 6. () F X C | \downarrow |
| Shipped Via | Fed X Golden State | UPS Clie | ma | Other | | | | | Pa | Page 1 of 1 | I fo | | | |
| | | | | | | | | | | | | | | |



28 March 2019 Clinical Lab No.: 19C0934

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis

Sub Project: Lomita Distribution Ortho, 2nd Week March 2019

Enclosed are the results of the analyses for samples received at the laboratory on 03/12/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProject:Standard AnalysisWork Order:19C093424373 Walnut AvenueSub Project:Lomita Distribution Ortho, 2nd Week March 2019Received:03/12/19 18:40Lomita CA, 91717Project Manager:Mark AndersenReported:03/28/19

| 1948 252nd St. | | 19C0934-0 | 01 (Water) | | Sample Da | nte: 03/12/19 | 7:40 Sa | mpler: P.1 | M. |
|---------------------------|-----------|-----------|------------|-----|-----------|---------------|-----------------|-------------|-----------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 2.7 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911097 | |
| pH (Field) | Field | 8.04 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911097 | |
| Temperature (Field) | Field | 16.6 | | N/A | °C | 03/12/19 | 03/12/19 | 1911097 | |
| General Chemical Analyses | | | | | | | | | |
| Ortho-Phosphate (PO4) | HACH 8048 | 0.78 | 0.020 | N/A | mg/L | 03/13/19 | 03/13/19 | 1911084 | |
| Phosphorus (Total as P) | HACH 8190 | 0.45 | 0.0067 | N/A | mg/L | 03/19/19 | 03/28/19 | 1912059 | |
| 24632 S. Moon | | 19C0934-0 | 02 (Water) | | Sample Da | ote: 03/12/19 | 8:05 Sa | impler: P.1 | M. |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 2.6 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911097 | |
| pH (Field) | Field | 7.99 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911097 | |
| Temperature (Field) | Field | 17.2 | | N/A | °C | 03/12/19 | 03/12/19 | 1911097 | |
| General Chemical Analyses | | | | | | | | | |
| Ortho-Phosphate (PO4) | HACH 8048 | 0.77 | 0.020 | N/A | mg/L | 03/13/19 | 03/13/19 | 1911084 | |
| Phosphorus (Total as P) | HACH 8190 | 0.45 | 0.0067 | N/A | mg/L | 03/19/19 | 03/28/19 | 1912059 | |
| 2450 W. 247th St. | | 19C0934-0 | 03 (Water) | | Sample Da | ote: 03/12/19 | 8:15 S a | mpler: P.1 | M. |
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 0.64 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911097 | |
| pH (Field) | Field | 7.93 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911097 | |
| Temperature (Field) | Field | 17.7 | | N/A | °C | 03/12/19 | 03/12/19 | 1911097 | |
| General Chemical Analyses | | | | | | | | | |
| Ortho-Phosphate (PO4) | HACH 8048 | 0.70 | 0.020 | N/A | mg/L | 03/13/19 | 03/13/19 | 1911084 | |
| Phosphorus (Total as P) | HACH 8190 | 0.45 | 0.0067 | | - | 03/19/19 | 03/28/19 | 1912059 | |



Lomita, City ofProject:Standard AnalysisWork Order:19C093424373 Walnut AvenueSub Project:Lomita Distribution Ortho, 2nd Week March 2019Received:03/12/19 18:40Lomita CA, 91717Project Manager:Mark AndersenReported:03/28/19

03/12/19 7:55 19C0934-04 (Water) **Sample Date:** P.M. 2052 Dawn St. Sampler: Analyte Method Result Rep. Limit MCL Units Prepared Analyzed Batch Qualifier Field Analyses Field 03/12/19 03/12/19 1911097 1.76 Cl Res Total (Field) N/A mg/LpH (Field) Field 8.01 N/A pH Units 03/12/19 03/12/19 1911097 Field 17.1 03/12/19 03/12/19 1911097 Temperature (Field) $^{\circ}\mathrm{C}$ N/A**General Chemical Analyses** Ortho-Phosphate (PO4) **HACH 8048** 0.76 0.020 03/13/19 03/13/19 1911084 N/A mg/L Phosphorus (Total as P) HACH 8190 0.48 03/19/19 03/28/19 1912059 0.0067 N/A mg/L **CWPF SP5** 19C0934-05 (Water) Sample Date: 03/12/19 9:05 Sampler: Analyte Method Result Prepared Analyzed Batch MCL Qualifier Rep. Limit Units Field Analyses Field 3 03/12/19 03/12/19 1911097 Cl Res Total (Field) N/A mg/LpH (Field) Field 1911097 8.04 pH Units 03/12/19 03/12/19 N/A 1911097 Temperature (Field) Field 17 03/12/19 03/12/19 N/A °C **General Chemical Analyses** Ortho-Phosphate (PO4) HACH 8048 0.67 0.020 03/13/19 03/13/19 1911084 N/A mg/LHACH 8190 0.4203/19/19 03/28/19 1912059 Phosphorus (Total as P) 0.0067 N/Amg/L ND Analyte NOT DETECTED at or above the reporting limit

19CO931) Chain of Custody

| Client | City of Lomita | | System | ystem Number | | | | | Anal | Analysis Requested | 8 |
|--|---|-------------|-------------|--------------|-----------------------------|-------------------------|--------------------------------|--------------------------|----------------|--|--------------------------|
| Address | 24373 Walnut Avenue | | | | 7070 | 17.5 | | | | | |
| | Lomita, CA 91717 | | | • | 1910013 | 22 | | | (| | |
| Phone # | (310) 903-2243 | | | Des | Destination Laboratory | boratory | | (4) | ORT | гот | |
| Fax# | (310) 325-3627 | | | X | [X] Clinical Laboratory | boratory | | | но і | [AL | |
| Project | Standard Analysis | | | Æ | RWQCB Compliance | pliance | | چار | РНО | PHO | |
| Sub Drollant | Lomita Distribution Ortho, 2nd Week March, | arch, | | | No | | | | SPH | OSPE | |
| | 2019 | | | n i Was | ELAP# | * | | | ATE | IAT | |
| Comments | | | | | 4000 | ٥ | | | E (o- F | E (PC | |
| Sampled by | P.M. | | | | <u> </u> | ٥ | | | PO4) | D4) | , |
| Date Time | Sample Idenitification | Matrix | ix Type | Preserv | Bottle Number | Temp. | Total | Hd | | | Comments / P.S. Codes |
| | | | | | | | | | | | |
| 3/12/2019 O74K | の子仏 1948 252ND ST. | DW | 10 / | N/A | 3 | 16.6 | 7.7 | 8.04 | × | × | |
| 3/12/2019 0805 | 0805 24632 S. MOON | DW | DI / | N/A | 4 | 17.2 | 2 | 7.39 | × | × | |
| 3/12/2019 106/5 | 2450 W. 247th ST. | DW |) DI | N/A | 9 | 17.70 | 40,0 | 7.93 | × | × | |
| 3/12/2019 OJCE | 0755 2052 DAWN ST. | DW | / D1 | N/A | 7 | 17.1 | 1.76 | 0 | × | × | |
| 3/12/2019 OGCS | OPOS CWPF SP5 | DW | / D1 | N/A | 8 | 17.cs | 3.0 | 8.03 | × | × | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Preservatives: (1) Na (5) H2SO4 (6) N | Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na ₂ SO ₃ (7) Cold (8) Other: | | | Matrix: DW | -Drinking Type- 1-Ro | Water, Wr utine. 2-R | <i>N-Waste M</i> epeat, 3-R | /ater, SW-S eplacemen | t. 4-Sp | Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist | nd Water, A-Air Dist |
| Relinguished By (Sign) | By (Sign) Print Name / Company | ıpany | _ | | Di | Date / Time | | | | Received By (Sign) | en) Print Name / Company |
| Fatingth Miles | Patrick McCue / City of Lomita | y of Lomit | а 3/12/2019 | 2019 | 845 | | | 8 | 1 | 677.00 | |
| Monasino | 7 | 456 | 7 | | 040 | | | | 1/3/ | S any | 13 |
| | | ` | | Sample | Samples received: (MOn ice | ed: (X | On ice (| MIntact |), 1: |) Custody seals Temp | als Temp 4.2 () |
| 3 | | | | | | | | 124 | | 7. | |
| Shipped Via | Fed X Golden State | ate UP; | _ `^ | Client | Other | | | ŀ | | Page_1_of_1 | _ |
| | | | | | | | | | | | |



19 March 2019 Clinical Lab No.: 19C1052

Mark Andersen Lomita, City of 24373 Walnut Avenue Lomita, CA 91717

Project Name: Standard Analysis Sub Project: Well TCP, Quarterly

Enclosed are the results of the analyses for samples received at the laboratory on 03/12/19 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProjectStandard AnalysisWork Order:19C105224373 Walnut AvenueSub Project:Well TCP, QuarterlyReceived:03/12/19 18:40Lomita CA, 91717Project Manager:Mark AndersenReported:03/19/19

| CWPF SP1 | | 19C1052-0 | 01 (Water) | | Sample Da | ite: 03/12/19 | 6:05 Sa | ampler: PM | |
|--|--------------------|-----------|------------|-------|-----------|---------------|----------|------------|-----------|
| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
| Field Analyses | | | | | | | | | |
| Cl Res Total (Field) | Field | 0 | | N/A | mg/L | 03/12/19 | 03/12/19 | 1911143 | |
| pH (Field) | Field | 7.77 | | N/A | pH Units | 03/12/19 | 03/12/19 | 1911143 | |
| Temperature (Field) | Field | 20 | | N/A | °C | 03/12/19 | 03/12/19 | 1911143 | |
| Synthetic Organic Analyses / 1,2,3-TCP | | | | | | | | | |
| 1,2,3-Trichloropropane | SRL 524M-TCP | ND | 0.0050 | 0.005 | ug/L | 03/13/19 | 03/15/19 | 1911154 | |
| ND Analyte NOT DETECTED at or above | the reporting limi | t | | | | | | | |

EDT Transfer Confirmation 1



Work Order: 19C1052 Report Date: 03/19/2019

Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

LOMITA-CITY, WATER DEPT. User ID: 4TH System: 1910073

WELL 05 Station No.: 1910073-003 Sampled: 190312 06:05

1,2,3-TRICHLOROPROPANE Result: ND Units: UG/L Entry No.: 77443 Analyzed: 190315

1961052

| Client | | | City of Lomita | S | System Number | umber | | | | Ana | Analysis Requested | Inested | | | |
|---------------|-----------|--|--|--------------|---------------|-------------|-------------------------|-------------|--|--------------|--|--------------|-------------|---------|---|
| Address | | 200 | 24373 Walnut Avenue | | | 101 | 1010072 | | | | | | | | |
| | | | Lomita, CA 91717 | | | <u>.</u> | 200 | | | | | | | | |
| Phone # | | | (310)903-2243 | | | Destination | Destination Laboratory | tory | | , | | | | | |
| Fax# | | | | | | [X] Clinic | [X] Clinical Laboratory | tory | | | | | | | |
| Project | | | Standard Analysis | | | RWQCB | RWQCB Compliance | 90 | | T | . , | | | | |
| Sub Project | | IM | WELL TCP, QUARTERLY | | | | yes ELAP# | | | CP | | | | | |
| Comments | | WEI | WELL TCP, 2nd quarter 2019 | | | \ \ | 000 | | | | | | | | |
| Sampled by | > | | PM | Ι | | | 0001 | | | | | | | | |
| Date | Time | | Sample Idenitification | Matrix | Type | Preserv | 围 | Temp. | Total Chlorine | | | | | | Comments / P.S. Codes |
| 3/12/2019 | 5096 | CWPF SP1 | | DW | W. | 2 | 17.7 | 20.06 | Ø | X | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | - | | | | | | | ļ | |
| | | | | \downarrow | | _ | _ | | | I | + | $ar{\Gamma}$ | \pm | 1 | |
| | | | | _ | | - | | | | \perp | + | F | \pm | ‡ | |
| | | | | | | | _ | | | $oxed{\Box}$ | | | \perp | 1 | |
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| | | | | _ | | | | | | | | | | | |
| | | | | | | | | | | | | | | 1 | |
| Preservatives | 1 (1) Na | ,S ₂ O ₃ (2) HCl (3) | Preservatives: (1) Na,S,20, (2) HCI (3) HNO3 (4) NH4Ci | Matrix. | DW-Drink | ing Water, | WW-Was | te Water, S | Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air | Vater, | GW- Grou | nd Water, | A-Air | 1 | Type- 1-Routine, 2-Repeat, 3- |
| (5) H2SC | D4 (6) Na | (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other: | (8) Other: | | | | | | Repl | aceme | Replacement, 4-Special W-Well D- Dist. | ial W-We | II D-Di | st | |
| Reling | uished | Relinquished By (Sign) | Print Name / Company | ń | | | Date / Time | Time | | | , | C | | | Print Name / Company |
| Tatane | 9 | atruck maline | Patrick McCue / City of Lomita | Lomita | 03/12/2018 | / 810 | | | 245 | | LIXUL | 19091 | 3 | | Delassava (1458 |
| 1/1/4 | 000 | Grassa ms | 1 Sugarod cusp | | 75 | | | | 040 | | 40 | water | K . | eus | solk th |
| Comments: | : > :: | , ` | | | | 4 1 | samples | received | Samples received: (🏹 On ice | _ | - Juta | ct () | Custo | dy seal | (Antact () Custody seals Temp 6./ ()F () C |
| Shinned Via | | | Fed X Golden State | San | | liemt [] | Other | | | | | Page 1 | Page 1 of 1 | | |
| Junppen | 1 | | | - | | | | | | | | 1 | | | |

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA PUBLIC WORKS DEPARTMENT

CYPRESS WATER PRODUCTION FACILITY HANDHELD METHANE LOG READINGS

| DATE DAY METHANE HANDHELD COMMENTS 3/1/2019 Fri CH4- 0% Oxy- 20.9% 3/2/2019 Sat CH4- Oxy- 3/3/2019 Sun CH4- Oxy- 3/4/2019 Mon CH4- 0% Oxy- 20.9% 3/5/2019 Tue CH4- Oxy- 20.9% 3/7/2019 Thu CH4- Oxy- 20.9% 3/8/2019 Fri CH4- Oxy- 20.9% 3/10/2019 Sat CH4- Oxy- 20.9% 3/11/2019 Mon CH4- Oxy- 20.9% 3/12/2019 Tue CH4- O% Oxy- 20.9% 3/13/2019 Wed CH4- O% Oxy- 20.9% 3/15/2019 Fri CH4- O% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/18/2019 | | | | MA | RCH 2019 | |
|--|------|-----------|-----|---------|-------------|----------|
| 3/2/2019 Sat CH4- Oxy- 3/3/2019 Sun CH4- Oxy- 3/4/2019 Mon CH4- 0% Oxy- 3/5/2019 Tue CH4- Oxy- 3/6/2019 Wed CH4- Oxy- 3/7/2019 Thu CH4- 0% Oxy- 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- O% Oxy- 3/13/2019 Tue CH4- O% Oxy- 20.9% 3/14/2019 Thu CH4- O% Oxy- 20.9% 3/15/2019 Fri CH4- O% Oxy- 20.9% 3/16/2019 Sat CH4- O% Oxy- 20.9% 3/17/2019 Sun CH4- Oxy- 20.9% | E | DATE | DAY | METHAN | NE HANDHELD | COMMENTS |
| 3/3/2019 Sun CH4- Oxy- 3/4/2019 Mon CH4- 0% Oxy- 3/5/2019 Tue CH4- Oxy- 3/6/2019 Wed CH4- Oxy- 3/7/2019 Thu CH4- Oxy- 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- O% Oxy- 3/13/2019 Wed CH4- O% Oxy- 3/14/2019 Thu CH4- O% Oxy- 3/15/2019 Fri CH4- O% Oxy- 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/1/2019 | Fri | CH4- 0% | Oxy- 20.9% | |
| 3/4/2019 Mon CH4- 0% Oxy- 20.9% 3/5/2019 Tue CH4- Oxy- 3/6/2019 Wed CH4- Oxy- 3/7/2019 Thu CH4- 0% 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 20.9% 3/17/2019 Sun CH4- Oxy- | 019 | 3/2/2019 | Sat | CH4- | Оху- | |
| 3/5/2019 Tue CH4- Oxy- 3/6/2019 Wed CH4- Oxy- 3/7/2019 Thu CH4- 0% Oxy- 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/3/2019 | Sun | CH4- | Оху- | |
| 3/6/2019 Wed CH4- Oxy- 3/7/2019 Thu CH4- 0% Oxy- 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 20.9% 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/4/2019 | Mon | CH4- 0% | Oxy- 20.9% | |
| 3/7/2019 Thu CH4- 0% Oxy- 20.9% 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 20.9% 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/5/2019 | Tue | CH4- | Оху- | |
| 3/8/2019 Fri CH4- Oxy- 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/6/2019 | Wed | CH4- | Оху- | |
| 3/9/2019 Sat CH4- Oxy- 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 20.9% 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/7/2019 | Thu | CH4- 0% | Oxy- 20.9% | |
| 3/10/2019 Sun CH4- Oxy- 3/11/2019 Mon CH4- 0% Oxy- 20.9% 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/8/2019 | Fri | CH4- | Оху- | |
| 3/11/2019 Mon CH4- 0% Oxy- 20.9% 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/9/2019 | Sat | CH4- | Оху- | |
| 3/12/2019 Tue CH4- 0% Oxy- 20.9% 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/10/2019 | Sun | CH4- | Оху- | |
| 3/13/2019 Wed CH4- 0% Oxy- 20.9% 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | .019 | 3/11/2019 | Mon | CH4- 0% | Oxy- 20.9% | |
| 3/14/2019 Thu CH4- 0% Oxy- 20.9% 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/12/2019 | Tue | CH4- 0% | Oxy- 20.9% | |
| 3/15/2019 Fri CH4- 0% Oxy- 20.9% 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | 019 | 3/13/2019 | Wed | CH4- 0% | Oxy- 20.9% | |
| 3/16/2019 Sat CH4- Oxy- 3/17/2019 Sun CH4- Oxy- | .019 | 3/14/2019 | Thu | CH4- 0% | Oxy- 20.9% | |
| 3/17/2019 Sun CH4- Oxy- | .019 | 3/15/2019 | Fri | CH4- 0% | Oxy- 20.9% | |
| | .019 | 3/16/2019 | Sat | CH4- | Оху- | |
| 3/18/2019 Mon CH4- Oxy- | .019 | 3/17/2019 | Sun | CH4- | Оху- | |
| | .019 | 3/18/2019 | Mon | CH4- | Оху- | |
| 3/19/2019 Tue CH4- Oxy- | .019 | 3/19/2019 | Tue | CH4- | Оху- | |
| 3/20/2019 Wed CH ₄ - 0% Oxy- 20.9% | .019 | 3/20/2019 | Wed | CH4- 0% | Oxy- 20.9% | |
| 3/21/2019 Thu CH ₄ - 0% Oxy- 20.9% | .019 | 3/21/2019 | Thu | CH4- 0% | Oxy- 20.9% | |
| 3/22/2019 Fri CH4- Oxy- | .019 | 3/22/2019 | Fri | CH4- | Оху- | |
| 3/23/2019 Sat CH ₄ - Oxy- | .019 | 3/23/2019 | Sat | CH4- | Оху- | |
| 3/24/2019 Sun CH4- Oxy- | .019 | 3/24/2019 | Sun | CH4- | Оху- | |
| 3/25/2019 Mon CH4- Oxy- | .019 | 3/25/2019 | Mon | CH4- | Оху- | |
| 3/26/2019 Tue CH4- Oxy- | .019 | 3/26/2019 | Tue | CH4- | Оху- | |
| 3/27/2019 Wed CH4- 0% Oxy- 20.9% | .019 | 3/27/2019 | Wed | CH4- 0% | Oxy- 20.9% | |
| 3/28/2019 Thu CH4- 0% Oxy- 20.9% | 019 | 3/28/2019 | Thu | CH4- 0% | Oxy- 20.9% | |
| 3/29/2019 Fri CH4- 0% Oxy- 20.9% | 019 | 3/29/2019 | Fri | CH4- 0% | Oxy- 20.9% | |
| 3/30/2019 Sat CH4- Oxy- | 019 | 3/30/2019 | Sat | CH4- | Оху- | |
| 3/31/2019 Sun CH4- Oxy- | 019 | 3/31/2019 | Sun | CH4- | Оху- | |

ND- Non Detect

CH4- Methane

Oxy- Oxygen

Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

¹ MONTHLY NITRIFICATION MONITORING SUMMARY REPORT CITY OF LOMITA, System No. 1910073 --- Month, Year: MARCH 2019

| # (| Code | Sample ID | Location | Sample Date | Temp | рН | Total Chlorine | Free Chlorine | Total Free Nitrite Ammonia | Nitrate | Coliform ² | НРС | Zone | Comments |
|-----|-------|--------------------|---------------------------------------|-------------|--------------|------|-------------------|---------------|--|---------|-----------------------|--------|------|----------------|
| Uni | its/O | thers $ ightarrow$ | | MM/DD/YYYY | ٥C | | mg/L | ⋅mg/L | mg/L mg/L mg/L mg/L | mg/L | P/A | CFU/ml | | |
| 1 | D | S13-003 | 1948 W 252nd St | 3/5/2019 | 16.9 | 8.03 | 2.80 | 0.04 | 0.53 2 2 0.00 2 0.006 | ND | Α | ND | - | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave | 3/5/2019 | 17.8 | 7.93 | 2.20 | 80.0 | 0.41 0.00 0.007 | ND | Α | 3 | 1_ | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave | 3/5/2019 | 18.0 | 8.03 | 3.60 | 0.05 | 0.60 0.00 0.007 | ND | Α | 2 | 1 | Well/MWD Blend |
| 4 | D | Α | 2052 Dawn St | 3/5/2019 | 17.8 | 7.99 | 1.81 | 0.04 | 0.33 0.00 0.009 | . ND | Α | 52 | 1 | Well/MWD Blend |
| 5 | D | | Reservoir SP5 | 3/5/2019 | 18.1 | 8.07 | 3.26 | ∙0.06 | 0.65 0.00 0.004 | ND | A | ND | 1 | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St | 3/5/2019 | 14.9 | 8.54 | 2.01 | 80.0 | 0.00 0.006 | ND | . A | ND | 2 | MWD Only |
| 7 | D_ | S13-002 | 26314 S Monte Vista Ave | 3/5/2019 | 15.1 | 8.43 | 2.02 | 0.07 | 0.37 0.00 0.005 | ND | Α | ND | 3 | MWD Only |
| 8 | D | S13-005 | 2500 PCH | 3/5/2019 | 16.7 | 8.30 | 2.02 | 0.07 | 0.45 0.00 0.005 | ND | Α | ND | 2 | MWD Only |
| | | | | | | | | | | - | | | , | |
| 1 | D | S13-003 | 1948 W 252nd St | 3/12/2019 | 16.6 | 8.04 | 2.70 | 0.07 | - 0.43 0.00 0.00 | ND | A | 1 | 1 | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave | 3/12/2019 | 17.2 | 7.99 | 2.60 | 0.04 | 0.000 2000 | ND | A | . 5 | 1 | Well/MWD Blend |
| 3: | D | \$13-008 | 25417 Pennsylvania Ave | 3/12/2019 | 17.4 | 8.01 | 3.00 | 0.10 | 0.46 0.02 0.007 | ND_ | A | ND_ | 1 | Well/MWD Blend |
| 4 | D | A | 2052 Dawn St | 3/12/2019 | 17.1 | 8.01 | 1.76 | 0.02 | 0.09 - 0.007 | לוא | A | 30 | 1 | Well/MWD Blend |
| 5 | D. | | Reservoir SP5 | 3/12/2019 | 17.0 | 8.04 | 3.00 | 0.06 | 0.00 0.003 | ND | Α | ND | 1 | Well/MWD Blend |
| 6 | D | S13-001_ | 1912 W 259th St | 3/12/2019 | 15.0 | 8.43 | 2.01 | 0.05 | 0:40 0.04 0.007 | - DO | A | ND | 2 | MWD Only |
| 7 | D | \$13-002 | 26314 S Monte Vista Ave | 3/12/2019 | 15.4 | 8.41 | 1.84 | 0.06 | 0.46 0.06 0.011 | ND_ | A | ND | 3 | MWD Only |
| 8 | D | S13-005 | 2500 PCH | 3/12/2019 | 15.8 | 8.46 | 1.98 | 0.06 | 0.050 0.05 0.011 | ND ND | Α . | NĐ | 2 | MWD Only |
| | | | · · · · · · · · · · · · · · · · · · · | | | | | | In course, species belongs as the first party of the first bank and th | | | | | |
| 1 | D | S13-003 | 1948 W 252nd St | 3/19/2019 | 17.3 | 8.10 | 2.10 | 0.06 | 0.49 0.00 0.004 | ND | Α | ND | _ | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave | 3/19/2019 | 18.6 | 7.93 | 1.76 | 0.07 | 0.49 5 0.00 0.010 | ND | Α | 2 | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave | 3/19/2019 | 18.7 | 8.05 | 3.10 | 0.05 | 0.47 0.00 0.008 | ND ND | A | 1 | 1 | Well/MWD Blend |
| 4 | D | Α | 2052 Dawn St | 3/19/2019 | 18.1 | 7.97 | 1.30 | 0.02 | 0.29 0.13 | ND | Α | 110 | 1 | Well/MWD Blend |
| 5 | D | | Reservoir SP5 | 3/19/2019 | 17.4 | 8.10 | 3.17 | 0.04 | 0.60 0.00 1 0.008 | ND | Α | NĎ | | Well/MWD Blend |
| 6 | D | 513-001 | 1912 W 259th St | 3/19/2019 | 1 5.4 | 8.87 | 2.07 | 0.07 | 0.008 | 0.45 | A | ND . | 2 | MWD Only |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | 3/19/2019 | 15.3 | 8.86 | 2.12 | 0.05 | 0.045 0.04 0.010 | 0.47 | Α . | 1 | 3 | MWD Only |
| 8 | D | S13-005 | 2500 PCH | 3/19/2019 | 16.7 | 8.79 | 2.09 | 0.05 | 0.46 0.06 0.010 | 0.45 | A | ND | 2 | MWD Only |
| | | | | | <u></u> | | | | to the second | | | | | |
| 1 | D | S13-003 | 1948 W 252nd St | 3/27/2019 | 17.7 | 8.15 | 3.10 | 0.04 | 0.68 0.09 0.004 | ND ND | A | 2 | 1 | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave | 3/27/2019 | 18.6 | 8.10 | 3.60 | 0.10 | 2 0.61 0.07 0.010 | ND | Α | ND | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave | 3/27/2019 | 18.9 | 8.12 | 3.90 | 0.09 | 0.64 \$ 0.01 \$ 0.009 \$ | ND | Α | 3 | 1 | Well/MWD Blend |
| 4 | D | A | 2052 Dawn St | 3/27/2019 | 18.9 | 8.05 | 1.94 | 0.03 | 0:45 | 0.41 | A | 47 | 1 | Well/MWD Blend |
| 5 | D | | Reservoir SP5 | 3/27/2019 | 17.9 | 8.20 | 4.00 | 0.07 | 0.000 | ND | 4 | ND | 1 | Well/MWD Blend |
| 6 | D. | S13-001 | 1912 W 259th St | 3/27/2019 | 15.9 | 8.58 | 2.10 | 0.04 | 0.10 0.006 | ND | A | ND | 2 | MWD Only |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | 3/27/2019 | 16.0 | 8.55 | 2.05 | 0.05 | 0.004 | 0.45 | A | 2 | 3 | MWD Only |
| 8 | D | S13-005 | 2500 PCH | 3/27/2019 | 17.3 | 8.64 | 2.01 | 0.10 | 0.07 0.007 | 0.44 | <u> </u> | 11 | 2 | MWD Only |
| | | | | | | | · | | No. 2019 See See See See See See See See See Se | | | I | | |
| 1 | D | S13-003 | 1948 W 252nd St | | | | | _ | | | <u> </u> | | 1 | Well/MWD Blend |
| 2 | D | \$13-004 | 24632 S Moon Ave | | | | | | | | _ | | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave | | | | | | | | | | 1 | Weli/MWD Blend |
| 4 | D | Α | 2052 Dawn St | | | | | 1 | | | | | 1 | Well/MWD Blend |
| 5 | D | | Reservoir | | | | | | | | | | - | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St | | | | | | BOOKER PROPERTY TO SERVICE | | <u> </u> | | _ | MWD Only |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | | | | | | | | | | _ | MWD Only |
| 8 | D | S13-005 | 2500 PCH | | | | | | material both be readed | | <u> </u> | | 2 ` | MWD Only |

^{&#}x27;Notes: Report Due to DDW by the 10th of the following month. This Report can be used for the routine weekly monitoring (one Report per month) as well as for daily monitoring when there is actual and potential for nitrification (about four or five Reports per month, in this case).

²Coliform results are part of weekly Bacti sampling results.

³The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Due to elevated reads additional hydrant flushing has been implemented.

APPENDIX D

RESULTS FOR TESTING OF GREENSAND FILTER MEDIA



ORIGINAL DEVELOPERS OF MANGANESE GREENSAND AND GREENSAND PLUS

P.O. BOX 650 • CLAYTON, NEW JERSEY 08312 (856) 881-2345 FAX (856) 881-6859 Email: mail@inversand.com

March 12, 2019

Loprest Water Treatment Co. 2825 Franklin Canyon Road Rodeo, CA 94572

Order # X7186L Phone: 888-228-5982

Fax: 510-799-7433

Attention: Brad Davidson (brad@loprest.com)

Reference: Media Sample

Dear Mr. Davidson,

We have completed our evaluation on the received core samples of GreensandPlus. The chart below compares the results with the known standards of new material.

Our Results:

| Test Performed | Standard | Filter #1 |
|-------------------------------|-------------------------|-----------------|
| Effective Size | 0.30 - 0.35 | 0.36 mm |
| Uniformity Coefficient | =1.60</th <th>1.44</th> | 1.44 |
| Grain Hardness | Excellent | Good |
| Coating | Like New | Almost like new |

The media is in good condition in regard to size, uniformity, hardness, and coating. The sample, as received, was clean with no clumps, mudballs, or any foreign debris. Under microscopic examination, the media's coating was intact with evidence of some very minor iron-staining. In conclusion, as long as you are getting good water quality and satisfactory run lengths without high pressure differentials, the media is suitable for future service.

Very truly yours, INVERSAND COMPANY

Steve Mackay

Technical Department