

**WEIRTON AREA WATER BOARD
BROOKE COUNTY, WEST VIRGINIA**

CONTRACT #1 – WATER TREATMENT PLANT

ADDENDUM #2

October 5, 2023

THRASHER PROJECT #010-01233

TO WHOM IT MAY CONCERN:

The following are clarifications and responses to questions posed by contractors for the above referenced project.

A. GENERAL

1. Last day for questions is 4:00 p.m. on Friday, October 13, 2023. The final addendum will be issued by COB Friday, October 20, 2023.
2. Bids will be opened at 11:00 a.m. on Thursday, October 26, 2023, in Room 201, 200 Municipal Plaza, Weirton, WV.

B. SPECIFICATIONS

1. **CHANGE** Section 465000 – Filter Equipment, Part 2.3.E.1.b to read, “4 ea Venturi flow meters (one for each filter effluent).”

C. DRAWINGS

1. Reference Sheet 5A: **CHANGE** Legend so that hatching corresponds to “ITEM TO BE REMOVED”.
2. **REPLACE** Sheet 5D, included with this Addendum #2.
3. Reference Sheet 5E: **CHANGE** Key Note 1 to read, “12” D.I. GATE VALVE W/ VALVE STEM AND STEM SUPPORT BRACKETS.”

D. QUESTIONS AND RESPONSES

QUESTION

1. “Section 465000: 2.3.E.1.b: This section states 5 Venturi meters (one for each effluent & one for backwash). The plans show the backwash line tying into the existing backwash system which will utilize the existing backwash Venturi meter. Can [you] confirm that a new backwash Venturi meter is not required?”

RESPONSE

A new backwash venturi meter is not required. Refer to Item #1 in the Specifications Section of this Addendum #2.

QUESTION

2. “Could you also please add [*Envirodyne Systems, Inc.*] to the Section 462500 thickener specs and Section 464200 clarifier specs?”

RESPONSE

Subject to compliance with technical requirements, Envirodyne Systems, Inc. will be considered an acceptable alternative manufacturer under Section 462500 – Sludge Thickener Mechanism and Section 464200 – Circular Clarifier Mechanisms. Contractors are advised that equipment provided under Section 464200 must be coordinated with tube settler equipment provided under Section 464373 – Tube Settlers.

QUESTION

3. “Per spec, 332100, Part 3.1B – Screen Installation, it specifies to install a length of blank pipe and directs us to look at the contract drawings. After looking at the contract drawings for the Ranney Caisson Well Improvement Sections and Well Lateral Improvement Plan (SHT# 5D & 5E), it doesn’t seem to specify the length desired.”

RESPONSE

Lateral lengths are given on the Site Lateral Plan on Sheet 5F.

QUESTION

4. “Are we able to pump our discharge water from our Pipe Projection and Lateral Development activities to the decant water tanks? If not, where would be an approved location for discharge?”

RESPONSE

Yes, but coordinate with Owner to prevent exceedances of Owner’s existing NPDES Permit. Requirements for discharges from the decant tanks to the Ohio River are included with this Addendum #2.

QUESTION

5. “Can we use Owner’s power for our Pipe Projection and Lateral Development activities?”

RESPONSE

Owner will make their site power available for Pipe Projection and Lateral Development activities but makes no guarantee as to the sufficiency of the existing services for these purposes. Under Section 015000 – Temporary Facilities and Controls, Part 1.4, Contractor is responsible for providing any supplemental power service needed for construction during the project.

QUESTION

6. “Per Spec, Section 332100, Part 2.6 – Valves, there is no mention of valve stems just that the valves must be fitted with a 2-in. wrench nut. However, per drawing 5A, it calls out in the legend that the valves and valve stems are to be replaced (I’m assuming on the new lateral being installed), per their highlighted designation. Then, further back on drawing 5D, there is no mention of the valve stems being installed.”

RESPONSE

Valve stems will need to be installed on the new well lateral valves. See Items #1-3 in the Drawings Section of this Addendum #2 and the revised Sheet 5D, also included with this Addendum #2. Requirements for valve stems are provided in Section 400561 – Gate Valves.

QUESTION

7. “[You] call for a new backwash control valve and air vent valve. Can [you] confirm [you] want new ones?”

RESPONSE

Backwash control valve and air vent valves will not be required.

QUESTION

8. “The Geotech report discusses that an undetermined amount of over excavation may be necessary due to the quality of the material at the site. How will the contractor be compensated for this underdetermined over excavation?”

RESPONSE

Refer to Section 312316 – Excavation, Part 3.4 – Removal of Unsuitable Materials. Over excavation greater than two (2) feet shall be paid for via change order.

QUESTION

9. Are mud mats required under the foundations and tankage as described in the Geotech report?

RESPONSE

Yes. New concrete structures including the pre-sedimentation basins, pre-sedimentation pump station, settling trains, filter building/clearwell expansion, backwash decant tank, and sludge thickener shall be provided with a 6” thick, lean concrete mud mat with a minimum strength of 1,000 psi.

QUESTION

10. Are there any deeper borings for the site available?

RESPONSE

Two borings to bedrock were conducted as part of the Ranney well hydrological assessment. Refer to “Test Borings for Ranney Collector Well Rehabilitation Planning”.

QUESTION

11. Does the Town or County have a site for excess excavation material generated on the project site?

RESPONSE

Neither the City nor the County have a site dedicated for excess material. Contractor shall be responsible for storage and/or removal of excess material.

E. CLARIFICATIONS

1. A copy of the NPDES discharge parameters for discharges from Weirton's backwash decant tanks to the Ohio River are included with this Addendum #2.

If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until 11:00 a.m. on Thursday, October 26, 2023, at Room 201, 200 Municipal Plaza, Weirton, WV. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.



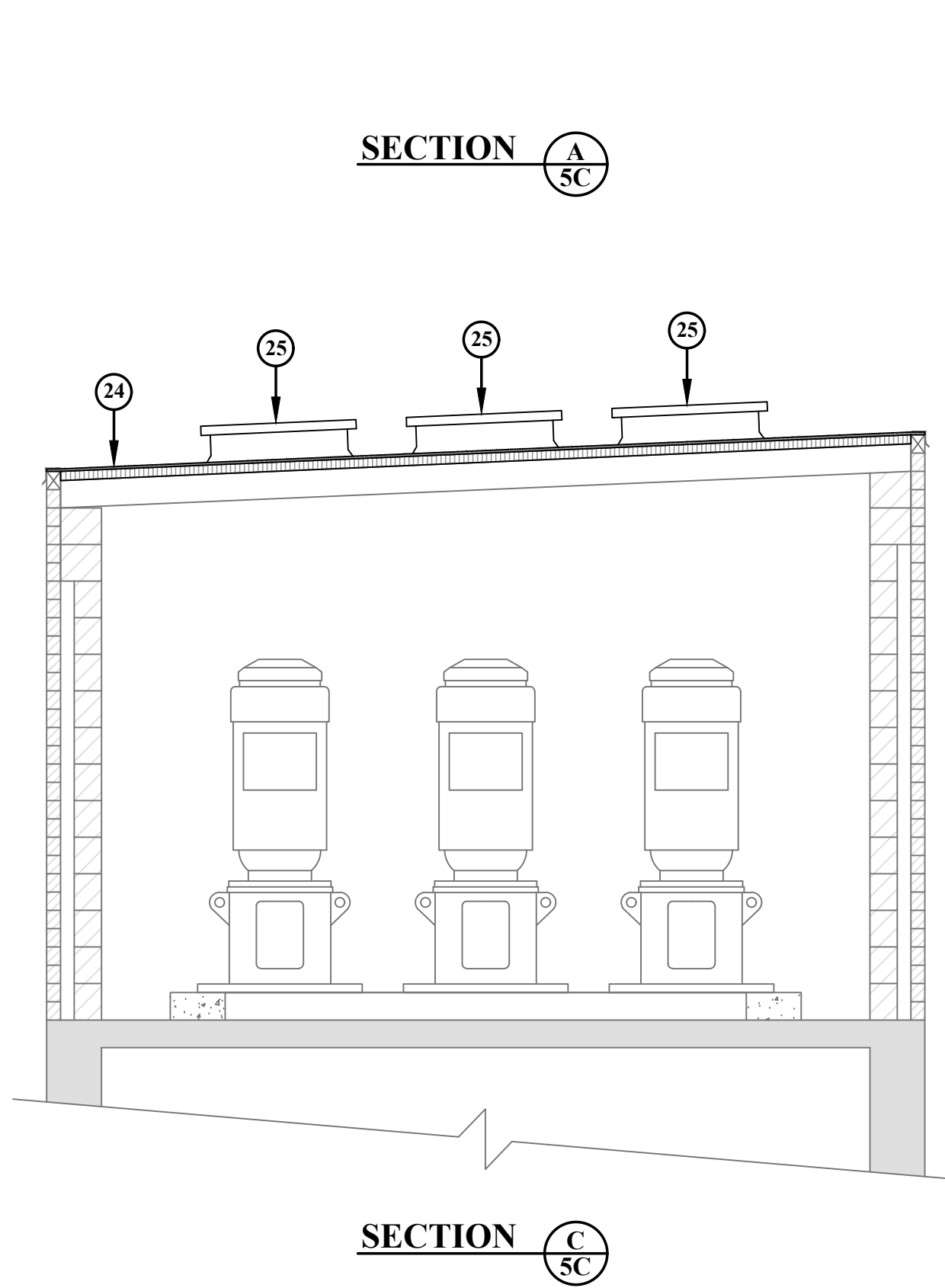
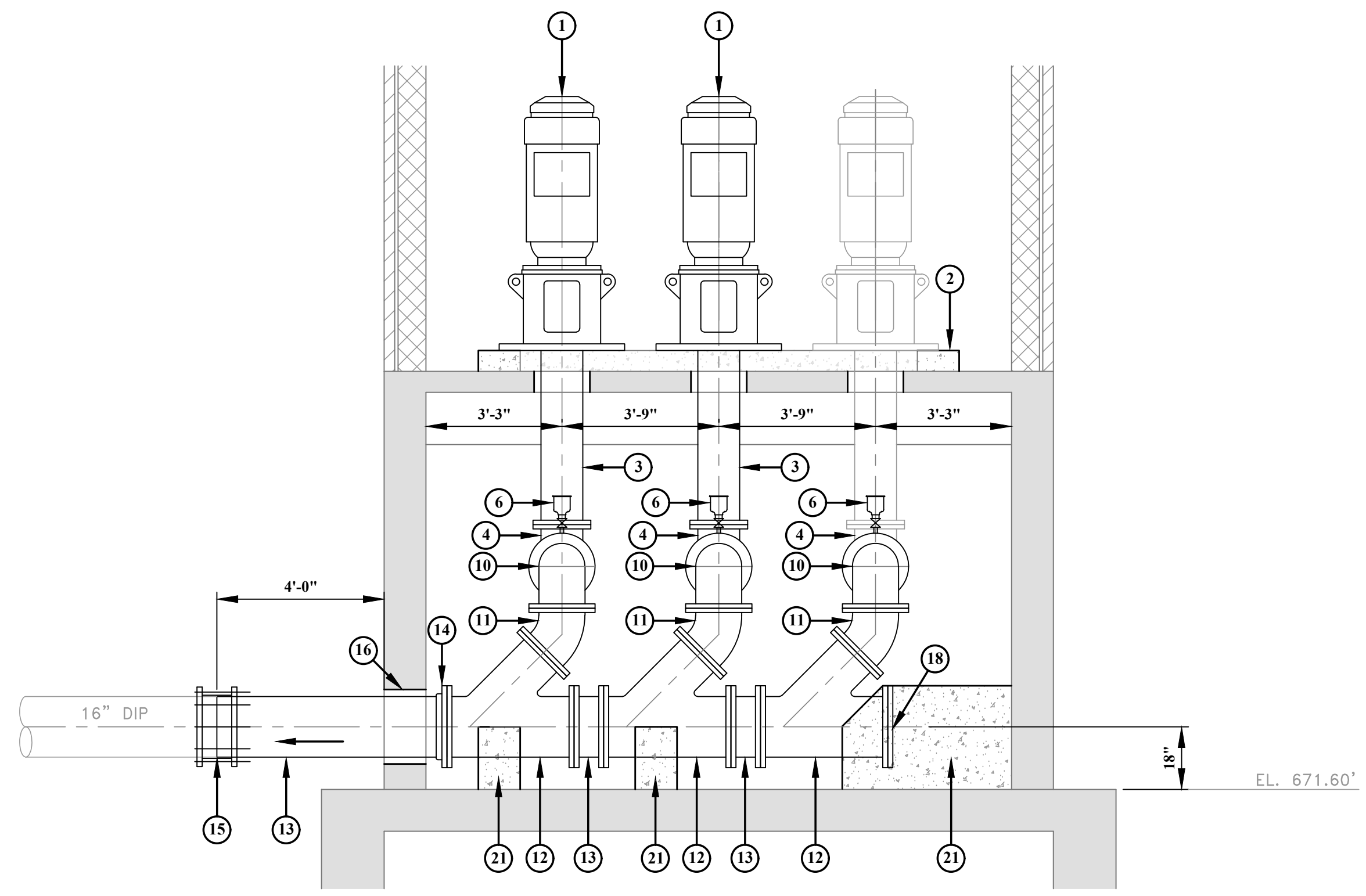
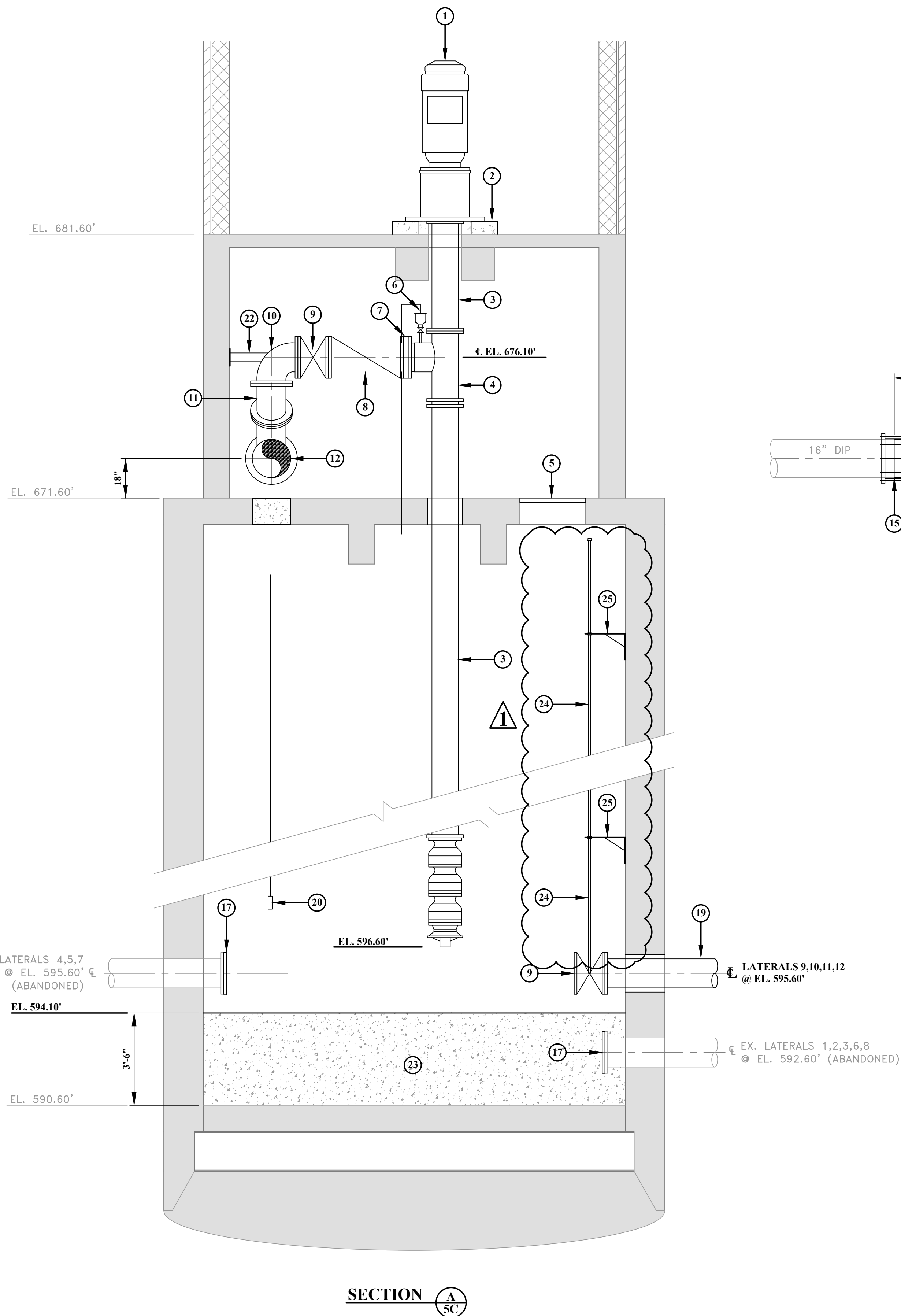
JESSE ALDEN, P.E.
Project Manager

*Enclosures: NPDES Discharge Limits
Revised Plan Sheet 5D*



10-5-2023

CAD FILE: R:\010\010-1233-WTP IMPROVEMENTS-WEIRTON-\Drawing-\Contract 1\CI-011-Ex Ranney Well.dwg
 PLOT DATE/TIME: 10/5/2023 12:01 PM
 LAYOUT: Sheet 5D
 USER: robert.stowers



- GENERAL NOTES:**
- CONTRACTOR SHALL PROVIDE ALL NECESSARY MOUNTING HARDWARE.
 - EQUIPMENT LAYOUT BASED ON PRELIMINARY INFORMATION PROVIDED BY CANDIDATE MANUFACTURER. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL WORK AND MODIFICATIONS REQUIRED TO PROVIDE COMPLETE AND OPERATIONAL SYSTEM AT NO ADDITIONAL COST TO THE OWNER. MODIFICATIONS TO LAYOUT SHOWN SHALL BE SUBMITTED FOR APPROVAL BY ENGINEER AND OWNER.
 - CONTRACTOR SHALL CLEAN EXISTING RANNEY WELL BY REMOVING ALL SLUDGE AND OTHER MATERIAL IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. CONCRETE SHALL BE CLEANED AND PRESSURE WASHED FOLLOWING REMOVAL ACTIVITIES.

- PAINTING NOTE:**
- PAINT ALL EXPOSED PIPING, FITTINGS AND VALVES IN THE WET WELL AND VALVE VAULT PER SPECIFICATION 099010.

- KEY NOTES:**
- THREE (3) VERTICAL TURBINE WELL PUMPS.
 - CONTRACTOR SHALL MODIFY CONCRETE BASE AS REQUIRED FOR PUMP INSTALLATION.
 - VERTICAL TURBINE PUMP SHAFT.
 - 12" VERTICAL TURBINE PUMP DISCHARGE.
 - CONTRACTOR SHALL INSTALL NEW ALUMINUM 30" x 48" DOUBLE ACCESS HATCH.
 - 1" AIR RELEASE VALVE W/ 1" DRAIN PIPING. (TYP. OF 2)
 - 12" D.I. 2-1/2" FILLER FLANGE.
 - 12" D.I. HYDRAULIC CHECK VALVE, FL.
 - 12" D.I. GATE VALVE.
 - 12" D.I. 90° FITTING, FL.
 - 12" D.I. 45° FITTING, FL.
 - 16" x 12" D.I. WYE FITTING, FL.
 - 16" D.I. DISCHARGE PIPING.
 - 16" D.I. MEGAFLANGE ADAPTER.
 - CONTRACTOR SHALL CONNECT TO EXISTING PIPING W/ 16" D.I. COUPLING, FL.
 - 12" BLIND FLANGE.
 - CONTRACTOR SHALL CORE DRILL EXISTING OPENING AS REQUIRED AND SEAL WITH LINK SEALS BOTH SIDES.
 - 12" D.I. BLIND FLANGE.
 - 16" D.I. BLIND FLANGE.
 - PROPOSED 12"Ø STAINLESS STEEL WIRE WRAPPED CONTINUOUS SLOT SCREEN WELL LATERAL PIPE.
 - PUMP LEVEL AND CONTROL SYSTEM. SEE ELECTRICAL SHEETS AS REQUIRED.
 - CONTRACTOR SHALL INSTALL CONCRETE PIPE SUPPORTS AS REQUIRED.
 - STEEL KICKER PIPE SUPPORT AS REQUIRED.
 - CONTRACTOR SHALL RAISE EXISTING CONCRETE BOTTOM BY 3'-6" BY FILLING WITH CONCRETE.
 - VALVE STEM. (TYP. OF 4) MATCH TO EXISTING ELEVATION OF EXISTING VALVE STEMS TO BE REMOVED. CONTRACTOR SHALL CORE EXISTING FLOOR AT STEM LOCATION.
 - SUPPORT BRACKETS INSTALLED EVERY 15'. (TYP.)

LEGEND



ADDENDUM No.2

NO.	BY	DATE	DESCRIPTION
1	JLA	10-5-23	ADDENDUM No.1 - ADDED VALVE STEMS AND SUPPORT BRACKETS

NO.	BY	DATE	DESCRIPTION

SCALE: 3/8" = 1'-0"
DRAWN: R. STOWERS DATE: 3/2022
CHECKED: J. ALDEN DATE: 3/2022
APPROVED: J. ALDEN DATE: 3/2022
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

300 ASSOCIATION DRIVE
 CHARLESTON, WV 25311
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PHASE No.
CONTRACT No.
PROJECT No.
010-1233

WEIRTON AREA WATER BOARD
BROOKE COUNTY, WEST VIRGINIA
WATER TREATMENT PLANT UPGRADE
EXISTING RANNEY COLLECTOR WELL
IMPROVEMENT SECTIONS

SHEET No.
5D

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Informational Water Quality Report

WaterCheck Deluxe

Client:

Ordered By:
Veltri, Lori 3031 Birch Dr. Weirton, WV 26062 ATTN: Kelsey Ptaszek



6571 Wilson Mills Rd
Cleveland, Ohio 44143
1-800-458-3330

Sample Number: 912471

Location: Well Pump #3 Tap
Type of Water: Well Water
Collection Date and Time: 7/13/2020 1:10 PM
Received Date and Time: 7/14/2020 10:30 AM
Date Completed: 7/28/2020

Definition and Legend

This informational water quality report compares the actual test result to national standards as defined in the EPA's Primary and Secondary Drinking Water Regulations.

Primary Standards: Are expressed as the maximum contaminant level (MCL) which is the highest level of contaminant that is allowed in drinking water. MCLs are enforceable standards.

Secondary standards: Are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. Individual states may choose to adopt them as enforceable standards.


Action levels: Are defined in treatment techniques which are required processes intended to reduce the level of a contaminant in drinking water.


mg/L (ppm): Unless otherwise indicated, results and standards are expressed as an amount in milligrams per liter or parts per million.


Minimum Detection Level (MDL): The lowest level that the laboratory can detect a contaminant.


ND: The contaminant was not detected above the minimum detection level.


NA: The contaminant was not analyzed.

 The contaminant was not detected in the sample above the minimum detection level.

 The contaminant was detected at or above the minimum detection level, but not above the referenced standard.

 The contaminant was detected above the standard, which is not an EPA enforceable MCL.

 The contaminant was detected above the EPA enforceable MCL.

 These results may be invalid.

A.1 Discharge Limitations and Monitoring Requirements - Limitation Category I: Outlet 001 (*treated discharges into large receiving streams)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, permittees who have been assigned to Limitation Category I are authorized to discharge from the point source. The discharge shall comply with the following:

Effluent Characteristic	Discharge Limitations			Monitoring Requirements		
	Quantity (lbs/day)	Other Units (Specify)		Measurement Frequency	Sample Type	
	Avg. Monthly	Max.	Avg. Monthly	Max. Daily		
Flow**	N/A	N/A	N/A	Monitor	MGD	1/Quarter Estimated
Total Suspended Solids	N/A	N/A	30	60	mg/l	1/Quarter Grab
Total Recoverable Aluminum	N/A	N/A	0.75	1.5	mg/l	1/Quarter Grab
Total Recoverable Iron	N/A	N/A	3.7	6.6	mg/l	1/Quarter Grab
Total Recoverable Manganese	N/A	N/A	3.0	4.38	mg/l	1/Quarter Grab
Total Fluoride	N/A	N/A	4.2	6.13	mg/l	1/Quarter Grab
Total Residual Chlorine (TRC)***	N/A	N/A	28	57	µg/l	1/Quarter Grab

* Instream waste concentration is <10%

** See Section B.5.

*** See Sections B.3. & B.4.

The pH shall not be less than 6.0 standard units and not more than 9.0 standard units and shall be monitored 1/Quarter by grab samples.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Effluent samples shall be collected at or as near as possible to the point of discharge.

This discharge shall comply with Appendix A-1 Management Conditions 1-12.

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
Microbiologicals					
✓	Total Coliform by P/A	Total Coliform and E.coli were ABSENT in this sample.			
Inorganic Analytes - Metals					
✓	Aluminum	ND	mg/L	0.2	EPA Secondary 0.1
✓	Arsenic	ND	mg/L	0.010	EPA Primary 0.005
✓	Barium	ND	mg/L	2	EPA Primary 0.30
✓	Cadmium	ND	mg/L	0.005	EPA Primary 0.002
●	Calcium	120.0	mg/L	--	2.0
✓	Chromium	ND	mg/L	0.1	EPA Primary 0.010
●	Copper	0.019	mg/L	1.3	EPA Action Level 0.004
▲	Iron	0.308	mg/L	0.3	EPA Secondary 0.020
✓	Lead	ND	mg/L	0.015	EPA Action Level 0.002
●	Lithium	0.006	mg/L	--	0.001
●	Magnesium	21.25	mg/L	--	0.10
●	Manganese	0.025	mg/L	0.05	EPA Secondary 0.004
✓	Mercury	ND	mg/L	0.002	EPA Primary 0.001
✓	Nickel	ND	mg/L	--	0.020
●	Potassium	3.2	mg/L	--	1.0
✓	Selenium	ND	mg/L	0.05	EPA Primary 0.020
●	Silica	9.4	mg/L	--	0.1
✓	Silver	ND	mg/L	0.100	EPA Secondary 0.002
●	Sodium	53	mg/L	--	1
●	Strontium	0.272	mg/L	--	0.001
✓	Uranium	ND	mg/L	0.030	EPA Primary 0.001
●	Zinc	0.062	mg/L	5	EPA Secondary 0.004
Physical Factors					
●	Alkalinity (Total as CaCO3)	210	mg/L	--	20
▲	Hardness	390	mg/L	100	NTL Internal 10

Status	Contaminant	Results	Units	National Standards		Min. Detection Level
✓	pH	7.2	pH Units	6.5 to 8.5	EPA Secondary	
▲	Total Dissolved Solids	600	mg/L	500	EPA Secondary	20
▲	Turbidity	1.9	NTU	1.0	EPA Action Level	0.1
Inorganic Analytes - Other						
✓	Bromide	ND	mg/L	--		0.5
●	Chloride	91.0	mg/L	250	EPA Secondary	5.0
✓	Fluoride	ND	mg/L	4.0	EPA Primary	0.5
✓	Nitrate as N	ND	mg/L	10	EPA Primary	0.5
✓	Nitrite as N	ND	mg/L	1	EPA Primary	0.5
✓	Ortho Phosphate	ND	mg/L	--		2.0
●	Sulfate	180.0	mg/L	250	EPA Secondary	5.0
Organic Analytes - Trihalomethanes						
✓	Bromodichloromethane	ND	mg/L	--		0.002
✓	Bromoform	ND	mg/L	--		0.004
✓	Chloroform	ND	mg/L	--		0.002
✓	Dibromochloromethane	ND	mg/L	--		0.004
✓	Total THMs	ND	mg/L	0.080	EPA Primary	0.002
Organic Analytes - Volatiles						
✓	1,1,1,2-Tetrachloroethane	ND	mg/L	--		0.002
✓	1,1,1-Trichloroethane	ND	mg/L	0.2	EPA Primary	0.001
✓	1,1,2,2-Tetrachloroethane	ND	mg/L	--		0.002
✓	1,1,2-Trichloroethane	ND	mg/L	0.005	EPA Primary	0.002
✓	1,1-Dichloroethane	ND	mg/L	--		0.002
✓	1,1-Dichloroethene	ND	mg/L	0.007	EPA Primary	0.001
✓	1,1-Dichloropropene	ND	mg/L	--		0.002
✓	1,2,3-Trichlorobenzene	ND	mg/L	--		0.002
✓	1,2,3-Trichloropropane	ND	mg/L	--		0.002
✓	1,2,4-Trichlorobenzene	ND	mg/L	0.07	EPA Primary	0.002

Status	Contaminant	Results	Units	National Standards		Min. Detection Level
✓	1,2-Dichlorobenzene	ND	mg/L	0.6	EPA Primary	0.001
✓	1,2-Dichloroethane	ND	mg/L	0.005	EPA Primary	0.001
✓	1,2-Dichloropropane	ND	mg/L	0.005	EPA Primary	0.002
✓	1,3-Dichlorobenzene	ND	mg/L	--		0.001
✓	1,3-Dichloropropane	ND	mg/L	--		0.002
✓	1,4-Dichlorobenzene	ND	mg/L	0.075	EPA Primary	0.001
✓	2,2-Dichloropropane	ND	mg/L	--		0.002
✓	2-Chlorotoluene	ND	mg/L	--		0.001
✓	4-Chlorotoluene	ND	mg/L	--		0.001
✓	Acetone	ND	mg/L	--		0.01
✓	Benzene	ND	mg/L	0.005	EPA Primary	0.001
✓	Bromobenzene	ND	mg/L	--		0.002
✓	Bromomethane	ND	mg/L	--		0.002
✓	Carbon Tetrachloride	ND	mg/L	0.005	EPA Primary	0.001
✓	Chlorobenzene	ND	mg/L	0.1	EPA Primary	0.001
✓	Chloroethane	ND	mg/L	--		0.002
✓	Chloromethane	ND	mg/L	--		0.002
●	cis-1,2-Dichloroethene	0.003	mg/L	0.07	EPA Primary	0.002
✓	cis-1,3-Dichloropropene	ND	mg/L	--		0.002
✓	DBCP	ND	mg/L	--		0.001
✓	Dibromomethane	ND	mg/L	--		0.002
✓	Dichlorodifluoromethane	ND	mg/L	--		0.002
✓	Dichloromethane	ND	mg/L	0.005	EPA Primary	0.002
✓	EDB	ND	mg/L	--		0.001
✓	Ethylbenzene	ND	mg/L	0.7	EPA Primary	0.001
✓	Methyl Tert Butyl Ether	ND	mg/L	--		0.004
✓	Methyl-Ethyl Ketone	ND	mg/L	--		0.01
✓	Styrene	ND	mg/L	0.1	EPA Primary	0.001

Status	Contaminant	Results	Units	National Standards		Min. Detection Level
✓	Tetrachloroethene	ND	mg/L	0.005	EPA Primary	0.002
✓	Tetrahydrofuran	ND	mg/L	--		0.01
✓	Toluene	ND	mg/L	1	EPA Primary	0.001
✓	trans-1,2-Dichloroethene	ND	mg/L	0.1	EPA Primary	0.002
✓	trans-1,3-Dichloropropene	ND	mg/L	--		0.002
●	Trichloroethene	0.002	mg/L	0.005	EPA Primary	0.001
✓	Trichlorofluoromethane	ND	mg/L	--		0.002
✓	Vinyl Chloride	ND	mg/L	0.002	EPA Primary	0.001
✓	Xylenes (Total)	ND	mg/L	10	EPA Primary	0.001
Organic Analytes - Others						
✓	2,4-D	ND	mg/L	0.07	EPA Primary	0.010
✓	Alachlor	ND	mg/L	0.002	EPA Primary	0.001
✓	Aldrin	ND	mg/L	--		0.002
✓	Atrazine	ND	mg/L	0.003	EPA Primary	0.002
✓	Chlordane	ND	mg/L	0.002	EPA Primary	0.001
✓	Dichloran	ND	mg/L	--		0.002
✓	Dieldrin	ND	mg/L	--		0.001
✓	Endrin	ND	mg/L	0.002	EPA Primary	0.0001
✓	Heptachlor	ND	mg/L	0.0004	EPA Primary	0.0004
✓	Heptachlor Epoxide	ND	mg/L	0.0002	EPA Primary	0.0001
✓	Hexachlorobenzene	ND	mg/L	0.001	EPA Primary	0.0005
✓	Hexachlorocyclopentadiene	ND	mg/L	0.05	EPA Primary	0.001
✓	Lindane	ND	mg/L	0.0002	EPA Primary	0.0002
✓	Methoxychlor	ND	mg/L	0.04	EPA Primary	0.002
✓	Pentachloronitrobenzene	ND	mg/L	--		0.002
✓	Silvex 2,4,5-TP	ND	mg/L	0.05	EPA Primary	0.005
✓	Simazine	ND	mg/L	0.004	EPA Primary	0.002
✓	Total PCBs	ND	mg/L	0.0005	EPA Primary	0.0005

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
✓	Toxaphene	ND	mg/L	0.003 EPA Primary	0.001
✓	Trifluralin	ND	mg/L	--	0.002

We certify that the analyses performed for this report are accurate, and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency or variations of these EPA methods.

These test results are intended to be used for informational purposes only and may not be used for regulatory compliance.

National Testing Laboratories, Ltd.

NATIONAL TESTING LABORATORIES, LTD