

TCEQ Analysis of ITC Water Quality Sampling Data (Final Lab results)

The Texas Commission on Environmental Quality (TCEQ) assessed final water quality data for 117 constituents at one site. Fourteen (14) samples were collected from April 3 through April 4, 2019 by Intercontinental Terminal Company (ITC). The constituents consist of organics, chemical oxygen demand (COD), and oil and grease in water. The sampling site was the following:

- Gate 13 Ditch

This assessment is based on final results received from the laboratory. As additional water quality sampling is completed, the data will be assessed, and results made available.

The TCEQ used the Texas Water Quality Standards and the Texas Risk Reduction Program as references for determining the known health protective concentration levels (PCLs) in surface water. PCLs are very conservative and below levels where we would expect any health impacts. The TCEQ is using these PCLs to evaluate impacts to aquatic life and human health. No public drinking water system draws its source water from the Houston Ship Channel. This methodology was also used for previously reviewed data from samples collected by ITC and will be used to review samples from the TCEQ contractor. The TCEQ used the PCLs listed in the tables below to assess the surface water quality data

Table 1. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 3, 2019 at 8:00 AM	Gate 13 Ditch on April 3, 2019 at 10:00 AM	Gate 13 Ditch on April 3, 2019 at 12:00 PM	Gate 13 Ditch on April 3, 2019 at 2:00 PM	Gate 13 Ditch on April 3, 2019 at 4:00 PM	Gate 13 Ditch on April 3, 2019 at 6:00 PM	Gate 13 Ditch on April 3, 2019 at 8:00 PM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	112	111	112	112	111	111	111
Number of constituents detected above the method detection limit or quantitation limit	5	6	5	5	6	6	6
Number of constituents detected but below their known PCLs	1	0	1	1	0	0	0
Number of constituents that exceeded their known PCLs	4	6	4	4	6	6	6
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 3, 2019 at 10:00 PM	Gate 13 Ditch on April 3, 2019 at 11:59 PM	Gate 13 Ditch on April 4, 2019 at 2:00 AM	Gate 13 Ditch on April 4, 2019 at 4:00 AM	Gate 13 Ditch on April 4, 2019 at 6:00 AM	Gate 13 Ditch on April 4, 2019 at 8:00 AM	Gate 13 Ditch on April 4, 2019 at 10:00 AM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	110	111	112	111	113	113	113
Number of constituents detected above the method detection limit or quantitation limit	7	6	5	6	4	4	4
Number of constituents detected but below their known PCLs	1	0	1	0	1	1	1
Number of constituents that exceeded their known PCLs	6	6	4	6	3	3	3
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Below are tables of constituents that exceeded their known PCLs at each of the sampling times.

Table 2. Summary of Constituents Exceeding PCLs for April 3, 2019 at 8:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	74000	581
COD	2150000	150000*
Toluene	28000	1000
Xylenes, Total	8500	850

Table 3. Summary of Constituents Exceeding PCLs for April 3, 2019 at 10:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	68000	581
COD	2300000	150000*
2,6-Dinitrotoluene	5000	30
Oil & Grease	35400	28000
Toluene	26000	1000
Xylenes, Total	8100	850

Table 4. Summary of Constituents Exceeding PCLs for April 3, 2019 at 12:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	59000	581
COD	2400000	150000*
Toluene	24000	1000
Xylenes, Total	7600	850

Table 5. Summary of Constituents Exceeding PCLs for April 3, 2019 at 2:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	54000	581
COD	2500000	150000*
Toluene	23000	1000
Xylenes, Total	7200	850

Table 6. Summary of Constituents Exceeding PCLs for April 3, 2019 at 4:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	51000	581
COD	2400000	150000*
Naphthalene	760	125
Oil & Grease	38300	28000
Toluene	22000	1000
Xylenes, Total	7400	850

Table 7. Summary of Constituents Exceeding PCLs for April 3, 2019 at 6:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	49000	581
COD	2250000	150000*
Naphthalene	640	125
Oil & Grease	35000	28000
Toluene	20000	1000
Xylenes, Total	7200	850

Table 8. Summary of Constituents Exceeding PCLs for April 3, 2019 at 8:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	51000	581
COD	2100000	150000*
Naphthalene	520	125
Oil & Grease	30800	28000
Toluene	21000	1000
Xylenes, Total	7600	850

Table 9. Summary of Constituents Exceeding PCLs for April 3, 2019 at 10:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	46000	581
COD	1950000	150000*
2,6-Dinitrotoluene	730	30
Naphthalene	540	125
Toluene	19000	1000
Xylenes, Total	7000	850

Table 10. Summary of Constituents Exceeding PCLs for April 3, 2019 at 11:59 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	47000	581
COD	1700000	150000*
Oil & Grease	43300	28000
Naphthalene	2100	125
Toluene	18000	1000
Xylenes, Total	7100	850

Table 11. Summary of Constituents Exceeding PCLs for April 4, 2019 at 2:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	45000	581
COD	1600000	150000*
Toluene	17000	1000
Xylenes, Total	73000	850

Table 12. Summary of Constituents Exceeding PCLs for April 4, 2019 at 4:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	42000	581
COD	2000000	150000*
Oil & Grease	66700	28000
Naphthalene	680	125
Toluene	15000	1000
Xylenes, Total	7900	850

Table 13. Summary of Constituents Exceeding PCLs for April 4, 2019 at 6:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	17000	581
COD	700000	150000*
Toluene	6300	1000

Table 14. Summary of Constituents Exceeding PCLs for April 4, 2019 at 8:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	19000	581
COD	800000	150000*
Toluene	6100	1000

Table 15. Summary of Constituents Exceeding PCLs for April 4, 2019 at 10:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	22000	581
COD	900000	150000*
Toluene	6700	1000

Footnote:

*COD is a measure of the oxygen demand exerted by chemical constituents in water. There was not a known PCL for COD, therefore the permitted technology-based limit was used for comparison purposes. Although COD levels for treated process wastewater vary 150000 micrograms/L for noncontact stormwater was provided for comparison purposes.