

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. Twelve (12) samples were collected from April 4 through April 5, 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 4, 2019 at 12:00 PM	Gate 13 Ditch on April 4, 2019 at 2:00 PM	Gate 13 Ditch on April 4, 2019 at 4:00 PM	Gate 13 Ditch on April 4, 2019 at 6:00 PM	Gate 13 Ditch on April 4, 2019 at 8:00 PM	Gate 13 Ditch on April 4, 2019 at 10:00 PM	Gate 13 Ditch on April 4, 2019 at 11:59 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)	113	112	112	111	111	111	111
Number of constituents detected above the method detection limit or quantitation limit	4	5	5	6	6	6	6
Number of constituents detected but below their known PCLs	1	1	1	1	1	1	1
Number of constituents that exceeded their known PCLs	3	4	4	5	5	5	5
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 5, 2019 at 2:00 AM	Gate 13 Ditch on April 5, 2019 at 4:00 AM	Gate 13 Ditch on April 5, 2019 at 6:00 AM	Gate 13 Ditch on April 5, 2019 at 8:00 AM	Gate 13 Ditch on April 5, 2019 at 10:00 AM
Number of Constituents	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	111	111	111	109	109
Number of constituents detected above the method detection limit or quantitation limit	6	6	6	8	8
Number of constituents detected but below their known PCLs	1	1	1	2	3
Number of constituents that exceeded their known PCLs	5	5	5	6	5
Number of constituents that are still pending further TCEQ evaluation	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

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 4, 2019 at 12:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	15000	581
COD	740000	150000*
Toluene	4900	1000

Table 3. Summary of Constituents Exceeding PCLs for April 4, 2019 at 2:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	18000	581
COD	560000	150000*
Toluene	6400	1000
Xylenes, Total	3100	850

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

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	16000	581
COD	520000	150000*
Toluene	6200	1000
Xylenes, Total	3100	850

Table 5. Summary of Constituents Exceeding PCLs for April 4, 2019 at 6:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	15000	581
COD	1380000	150000*
Naphthalene	450	125
Toluene	5900	1000
Xylenes, Total	3000	850

Table 6. Summary of Constituents Exceeding PCLs for April 4, 2019 at 8:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	13000	581
COD	1540000	150000*
Naphthalene	410	125
Toluene	5900	1000
Xylenes, Total	3300	850

Table 7. Summary of Constituents Exceeding PCLs for April 4, 2019 at 10:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	13000	581
COD	1220000	150000*
Naphthalene	300	125
Toluene	5600	1000
Xylenes, Total	3100	850

Table 8. Summary of Constituents Exceeding PCLs for April 4, 2019 at 11:59 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	11000	581
COD	1200000	150000*
Naphthalene	470	125
Toluene	5100	1000
Xylenes, Total	2900	850

Table 9. Summary of Constituents Exceeding PCLs for April 5, 2019 at 2:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	11000	581
COD	980000	150000*
Naphthalene	440	125
Toluene	5100	1000
Xylenes, Total	2900	850

Table 10. Summary of Constituents Exceeding PCLs for April 5, 2019 at 4:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	14000	581
COD	940000	150000*
Naphthalene	470	125
Toluene	6400	1000
Xylenes, Total	3700	850

Table 11. Summary of Constituents Exceeding PCLs for April 5, 2019 at 6:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	16000	581
COD	1150000	150000*
Naphthalene	450	125
Toluene	7100	1000
Xylenes, Total	4800	850

Table 12. Summary of Constituents Exceeding PCLs for April 5, 2019 at 8:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	28000	581
COD	1460000	150000*
Oil & Grease	28800	28000
Naphthalene	470	125
Toluene	11000	1000
Xylenes, Total	9100	850

Table 13. Summary of Constituents Exceeding PCLs for April 5, 2019 at 10:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	34000	581
COD	1640000	150000*
Naphthalene	590	125
Toluene	12000	1000
Xylenes, Total	9900	850

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.