

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. Ten (10) samples were collected from April 2 through April 3, 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 2, 2019 at 12:00 PM	Gate 13 Ditch on April 2, 2019 at 2:00 PM	Gate 13 Ditch on April 2, 2019 at 4:00 PM	Gate 13 Ditch on April 2, 2019 at 6:00 PM	Gate 13 Ditch on April 2, 2019 at 8:00 PM
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	112	111	111	112
Number of constituents detected above the method detection limit or quantitation limit	6	5	6	6	5
Number of constituents detected but below their known PCLs	0	0	0	0	0
Number of constituents that exceeded their known PCLs	6	5	6	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

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 2, 2019 at 10:00 PM	Gate 13 Ditch on April 2, 2019 at 11:59 PM	Gate 13 Ditch on April 3, 2019 at 2:00 AM	Gate 13 Ditch on April 3, 2019 at 4:00 AM	Gate 13 Ditch on April 3, 2019 at 6:00 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)	112	112	112	111	112
Number of constituents detected above the method detection limit or quantitation limit	5	5	5	6	5
Number of constituents detected but below their known PCLs	0	0	0	0	0
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 2, 2019 at 12:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	110000	581
COD	2750000	150000*
Naphthalene	640	125
Oil & Grease	32900	28000
Toluene	32000	1000
Xylenes, Total	6300	850

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

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	100000	581
COD	2900000	150000*
Oil & Grease	62900	28000
Toluene	29000	1000
Xylenes, Total	5700	850

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

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	100000	581
COD	2750000	150000*
Naphthalene	400	125
Oil & Grease	76700	28000
Toluene	28000	1000
Xylenes, Total	6000	850

Table 5. Summary of Constituents Exceeding PCLs for April 2, 2019 at 6:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	96000	581
COD	5650000	150000*
Naphthalene	420	125
Oil & Grease	32900	28000
Toluene	27000	1000
Xylenes, Total	5700	850

Table 6. Summary of Constituents Exceeding PCLs for April 2, 2019 at 8:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	96000	581
COD	2850000	150000*
Oil & Grease	86700	28000
Toluene	29000	1000
Xylenes, Total	6000	850

Table 7. Summary of Constituents Exceeding PCLs for April 2, 2019 at 10:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	89000	581
COD	2750000	150000*
Oil & Grease	43300	28000
Toluene	29000	1000
Xylenes, Total	7000	850

Table 8. Summary of Constituents Exceeding PCLs for April 2, 2019 at 11:59 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	81000	581
COD	3300000	150000*
Oil & Grease	91700	28000
Toluene	27000	1000
Xylenes, Total	8400	850

Table 9. Summary of Constituents Exceeding PCLs for April 3, 2019 at 2:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	74000	581
COD	2850000	150000*
Oil & Grease	62500	28000
Toluene	26000	1000
Xylenes, Total	7800	850

Table 10. Summary of Constituents Exceeding PCLs for April 3, 2019 at 4:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	76000	581
COD	2550000	150000*
Naphthalene	520	125
Oil & Grease	35400	28000
Toluene	28000	1000
Xylenes, Total	7800	850

Table 11. Summary of Constituents Exceeding PCLs for April 3, 2019 at 6:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	66000	581
COD	2400000	150000*
Oil & Grease	41700	28000
Toluene	25000	1000
Xylenes, Total	6500	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.