

# CEM - 2023 (Quarterly)

Parkland Refining (B.C.) Ltd.  
Permit: 1217 / Due Date: July 31, 2023

<b>19R - Fluid catalytic cracker (FCC) regenerator and waste heat boiler (WHB)</b>	
<b>Nitrogen Oxides</b>	
<b>Test Date Range:</b>	April 1 - June 30
<b>Total Hours of Data Collected:</b>	1875.00 hours
<b>Permitted Flow Limit:</b>	2450.00 m3/min
<b>Contaminant Permit Limit:</b>	500.0000 kg/d
<b>Minimum Hourly Average Test Result:</b>	29.000 kg/d
<b>Date/Time of Minimum Hourly Average Test Result:</b>	May 18, 2023
<b>Maximum Hourly Average Test Result:</b>	323.000 kg/d
<b>Date/Time of Maximum Hourly Average Test Result:</b>	April 14, 2023
<b>Average of Test Results Over the Quarter:</b>	230.000 kg/d
<b>98th Percentile Value:</b>	307.000 kg/d
<b>Data Recovery:</b>	94.000 %
<b>Comments:</b>	
<b>Opacity</b>	
<b>Test Date Range:</b>	April 1 - June 30
<b>Total Hours of Data Collected:</b>	1989.00 hours
<b>Permitted Flow Limit:</b>	2450.00 m3/min
<b>Contaminant Permit Limit:</b>	20.0000 %
<b>Minimum Hourly Average Test Result:</b>	1.000 %
<b>Date/Time of Minimum Hourly Average Test Result:</b>	May 19, 2023
<b>Maximum Hourly Average Test Result:</b>	28.000 %
<b>Date/Time of Maximum Hourly Average Test Result:</b>	April 01, 2023
<b>Average of Test Results Over the Quarter:</b>	7.000 %
<b>98th Percentile Value:</b>	13.000 %
<b>Data Recovery:</b>	100.000 %
<b>Comments:</b>	

<b>Sulphur Oxides</b>	
<b>Test Date Range:</b>	April 1 - June 30
<b>Total Hours of Data Collected:</b>	1875.00 hours
<b>Permitted Flow Limit:</b>	2450.00 m3/min
<b>Contaminant Permit Limit:</b>	400.0000 mg/m3
<b>Minimum Hourly Average Test Result:</b>	1.000 mg/m3
<b>Date/Time of Minimum Hourly Average Test Result:</b>	June 19, 2023
<b>Maximum Hourly Average Test Result:</b>	589.000 mg/m3
<b>Date/Time of Maximum Hourly Average Test Result:</b>	May 21, 2023
<b>Average of Test Results Over the Quarter:</b>	289.000 mg/m3
<b>98th Percentile Value:</b>	388.000 mg/m3
<b>Data Recovery:</b>	94.000 %
<b>Comments:</b>	Maximum occurred during torch oil operation with throughput of less than 10,000 BPD