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## CEMEX Lyons - Q3 2022 C-Pit Monitoring Report

1 message

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**Scott A Harcus** <scotta.harcus@cemex.com>

Wed, Nov 2, 2022 at 9:25 AM

To: "patrick.lennberg@state.co.us" <patrick.lennberg@state.co.us>

Cc: Maribel B Aguilos <maribelb.aguilos@cemex.com>

Hello Patrick Lennberg –

Please find the attached Lyons Quarry, C-pit monitoring report for 3<sup>rd</sup> Quarter of 2022.

A hard copy will not be mailed unless specifically requested.

Let me know if you have any questions.

Regards,

Scott



**Scott A. Harcus**

Environmental Manager - Environmental - United States of America

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 **CMX Lyons\_C-Pit GW Rpt\_Y22Q3 Results\_Fnl-signed\_2022.11.02.pdf**  
465K



November 2, 2022

Patrick Lennberg  
Division of Reclamation, Mining and Safety  
Environmental Protection Specialist  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

Re: CEMEX Lyons Mine Permit M-1977-208  
Technical Revision No. 12, Revised Groundwater Monitoring Plan  
Third Quarter (Q3) 2022 Monitoring Data

Dear Patrick Lennberg:

This letter transmits the surface water and groundwater data associated with the sampling of the cement kiln dust disposal area (C-Pit). This report includes data from the C-Pit ponded water and related groundwater monitoring for Q3 2022, covering the reporting period from July 1, 2022 to September 30, 2022. Table 1 presents data for the last four quarters.

Groundwater samples were collected on September 6, 2022 from the CEM-001 and CEM-004 groundwater monitoring wells and from the C-Pit ponded water. The inspection of groundwater monitoring well CEM-005 on September 7, 2022 indicated that there was not enough water volume to collect a representative sample.

The samples collected from C-Pit ponded water and the groundwater monitoring wells were analyzed for pH, chloride, sulfate, total dissolved solids, selenium, and thallium. The reported pH data are based on the pH analyses performed at the time of sample collection in the field (Table 1). The measured pH at groundwater monitoring well CEM-004 and analytical results for chloride, sulfate, total dissolved solids (TDS), selenium and thallium from the September 6, 2022 groundwater sample were within the target levels prescribed by TR-12, as shown in Table 1.

In addition, a Stiff Diagram of the groundwater cation/anion data from CEM-004 compared to the average and 90<sup>th</sup> percentile of the cation/anion concentrations from the last four quarterly samples of C-Pit data is provided in Figure 1 for reference. As shown in Figure 1 and consistent with past reports, the signature for CEM-004 continues to be significantly different from that of C-Pit.

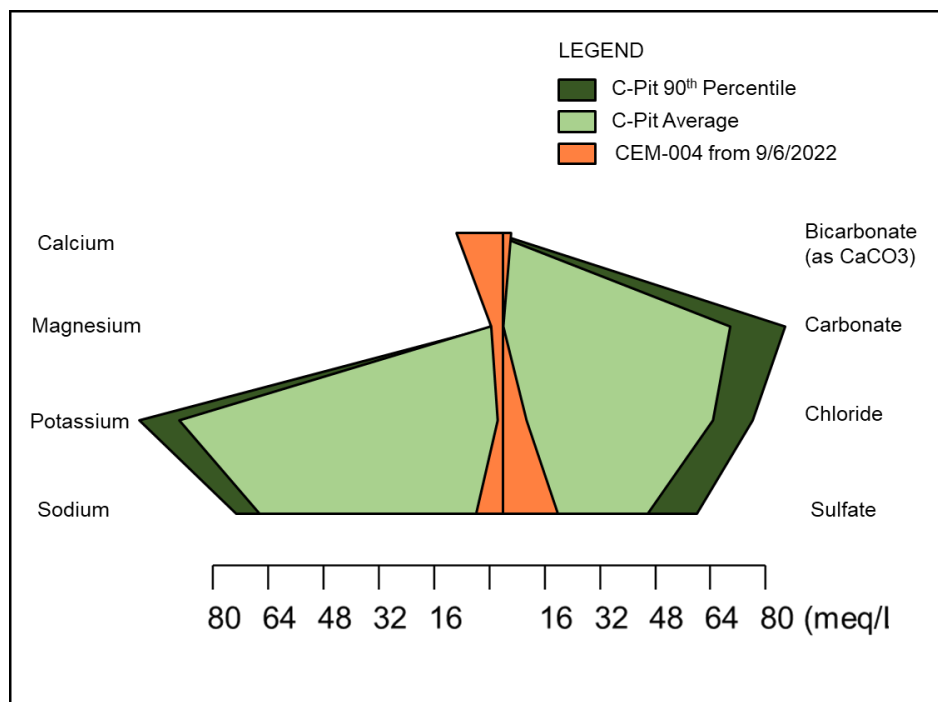


Figure 1: Third quarter 2022 cation/anion data for CEM-004 compared to C-Pit

Please contact me at 303-823-2124 or by email at [scotta.harcus@cemex.com](mailto:scotta.harcus@cemex.com) for any questions or concerns regarding this submittal.

Sincerely,

Scott A. Harcus  
Environmental Manager

Encs. Y22Q3C-Pit Monitoring Report and associated Stiff Plot (Fig.1), and Summary of Analytical Results (Table 1)

Table 1  
Summary of Analytical Results

Parameter	Units	C-Pit				CEM-001				CEM-004				CEM-005				CEM-004, CEM-005 Triggers (TR-12)
		2021 Q4	2022 Q1	2022 Q2	2022 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	
		11/10/2021	3/15/2022	5/18/2022	9/6/2022	11/10/2021	3/15/2022	5/18/2022	9/6/2022	11/10/2021	3/15/2022	5/18/2022	9/6/2022	a See dates below	a See dates below	a See dates below	<sup>a</sup> See dates below	
		value	value	value	value	value	value	value	value	value	value	value	value	value	value	value	value	
pH (On-site)	su	12.4	11.41	11.81	11	8.24	8.24	7.85	7.86	8.8	7.48	7.72	6.97	insufficient water to sample	insufficient water to sample	insufficient water to sample	insufficient water to sample	6.5-8.5
Chloride	mg/L	2440	1580	2270	2660	1610	1610	1580	1700	58.1	129	5.6	234					1,053
Sulfate	mg/L	2030	1550	1910	3060	7	7	3.2	18.5	428	880	12.4	744					2,641
Total Dissolved Solids	mg/L	8550	8360	11100	11000	4460	4460	3930	3730	776	1800	66	1560					501-10,000 or 1.25 times background
Selenium	mg/L	0.787	0.475	0.688	0.793	<0.005	<0.005	<0.0008	<0.004	0.0020	<0.005	<0.0008	<0.0008					0.05
Thallium	mg/L	0.0025	<0.004	0.0020	0.0048	<0.004	<0.004	<0.0004	<0.002	<0.0004	<0.004	<0.0004	<0.0004					0.002

Notes and Qualifiers:

H

U

UJ

X

NA

value

Sample analyzed beyond recommended hold time

Detection limit is estimated

Estimated low

Data may not be representative due to nonstandard field sampling protocol

Not analyzed.

Exceeds trigger

aCEM 005 Y21 Q4Well Sounding: 11/10/2021
a CEM 005 Y22 Q1 Well Sounding: 3/15/2022
a CEM 005 Y22 Q2Well Sounding: 5/18/2022
<sup>a</sup> CEM 005 Y22 Q3Well Sounding: 9/6/2022