



January 31, 2014

Mr. Michael Cunningham
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

Via FEDEX
TRK 7977 8958 1757

Re: CEMEX Lyons Mine Permit M-1977-208
Technical Revision No. 11, C-Pit Hydrogeologic Investigations
Fourth Quarter 2013 Monitoring Data

Dear Mr. Cunningham:

This letter transmits surface water and groundwater data associated with the sampling of cement kiln dust disposal area (C-Pit). The report covers the C-Pit ponded water and related monitoring well water for the fourth quarter of 2013, covering the reporting period October 1, 2013 to December 31, 2013. Table 1 presents data for the last four quarters.

For the fourth quarter compliance monitoring water samples were collected on December 2, 2013 from CEM-001; December 20, 2013 from CEM 004; and December 20, 2013 from the C-Pit ponded water. The C-Pit ponded water and well groundwater samples taken were analyzed for pH, chloride, sulfate, dissolved solids, dissolved selenium and dissolved thallium, with the reported pH data based on the pH analysis performed at the time of collection (Table 1).

Except for sulfate and chloride, analytes from CEM 004 were within the target levels. Inspection of CEM 005 that was conducted on December 19, 2013 indicated that the well did not produce any water.

An addendum to this report will be submitted, discussing in more detail the CEM 004 issue regarding levels of sulfate and chloride that exceed the target level of 250 mg/L.

If there are any questions regarding the above information or the attachments, please contact me at (303) 823-2115.

Sincerely,


Denise Arthur, Ph.D.
Environmental Manager
5134 Ute Hwy PO Box 529
Lyon, CO 80540

Encls.\ Summary of Analytical Results (Table 1)

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CEMEX LYONS PLANT
DRMS CEMEX M1977-208

Table 1
Summary of Analytical Results

Quarterly Report Y13Q4
01/31/2014

Parameter	Unit	C-PIT										CEM 001									
		2/7/2013	4/8/2013	4/25/2013	8/22/2013	12/2/19/2013	2/7/13	4/8/13	8/22/13	12/2/2013	2/7/2013	2/21/2013	3/6/2013	4/10/2013	4/25/2013	8/22/2013	12/20/2013				
pH (On-site)	su	11.6	10.2		9.48	10.81	8.60	7.50	7.56	7.70	7.5				7.4	7			8	7.1	
Chloride	mg/L	837	1090	1250	1220	985.5	2060	1820	1810	2010	478	554	123	157	27	2	338				
Sulfate	mg/L	1660	2670	2860	2880	1955	24	25	11	7	1630	1820	458	542	161	8	1580				
Dissolved Solids	mg/L	4420	6920		8230	5895	4420	4340	4370	4440	3490	3830		1260		100	3030				
Selenium, Dissolved	mg/L	0.107	0.101	0.137	0.1755	<0.0008	0.0016	<0.0008	<0.0008	0.0025	0.0021		0.0047			<0.0008	0.0052				
Thallium, Dissolved	mg/L	0.001	<0.0004	0.0012	<0.0044	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004		<0.0004		<0.0004	<0.001				
Calcium	mg/L				21.1													459			
Magnesium	mg/L				6.93													88.4			
Potassium	mg/L				1500													87.4			
Sodium	mg/L				67.1													286			
Carbonate	mg/L				303													309			
Bicarbonate	mg/L				<5.0													172			

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