

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: NORTH TEXAS CEMENT COMPANY
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 308 DEVICE NAME: KILN NO. 2

EPA TXD007926496
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5. Type: FUEL

6. Description: COAL
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	308C1R1	5.00e+2 ug/g	4.99e+0 lbs/hr	CC
Chlorine	308C1R2	6.65e+2 ug/g	6.78e+0 lbs/hr	CC
Chlorine	308C1R3	6.56e+2 ug/g	4.45e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	308C1R1	1.53e+0 ug/g	1.53e-2 lbs/hr	CC
Antimony	308C1R2	1.50e+0 ug/g	1.53e-2 lbs/hr	CC
Antimony	308C1R3	2.25e+0 ug/g	1.53e-2 lbs/hr	CC
Arsenic	308C1R1	1.40e+0 ug/g	1.40e-2 lbs/hr	CC
Arsenic	308C1R2	1.44e+0 ug/g	1.47e-2 lbs/hr	CC
Arsenic	308C1R3	1.52e+0 ug/g	1.03e-2 lbs/hr	CC
Barium	308C1R1	9.00e+2 ug/g	8.98e+0 lbs/hr	CC
Barium	308C1R2	8.79e+2 ug/g	8.97e+0 lbs/hr	CC
Barium	308C1R3	1.32e+3 ug/g	8.97e+0 lbs/hr	CC
Beryllium	308C1R1	2.43e+0 ug/g	2.43e-2 lbs/hr	CC
Beryllium	308C1R2	2.23e+0 ug/g	2.28e-2 lbs/hr	CC
Beryllium	308C1R3	2.81e+0 ug/g	1.91e-2 lbs/hr	CC
Cadmium	308C1R1	4.42e-1 ug/g	4.41e-3 lbs/hr	CC
Cadmium	308C1R2	4.38e-1 ug/g	4.48e-3 lbs/hr	CC
Cadmium	308C1R3	4.45e-1 ug/g	3.02e-3 lbs/hr	CC
Chromium	308C1R1	1.70e+1 ug/g	1.70e-1 lbs/hr	CC
Chromium	308C1R2	1.70e+1 ug/g	1.74e-1 lbs/hr	CC
Chromium	308C1R3	1.70e+1 ug/g	1.15e-1 lbs/hr	CC
Lead	308C1R1	9.18e+1 ug/g	9.17e-1 lbs/hr	CC
Lead	308C1R2	1.10e+2 ug/g	1.12e+0 lbs/hr	CC
Lead	308C1R3	1.00e+2 ug/g	6.79e-1 lbs/hr	CC
Mercury	308C1R1	1.10e-1 ug/g	1.10e-3 lbs/hr	CC
Mercury	308C1R2	1.08e-1 ug/g	1.10e-3 lbs/hr	CC
Mercury	308C1R3	1.62e-1 ug/g	1.10e-3 lbs/hr	CC
Silver	308C1R1	2.72e-1 ug/g	2.71e-3 lbs/hr	CC
Silver	308C1R2	2.66e-1 ug/g	2.71e-3 lbs/hr	CC
Silver	308C1R3	3.99e-1 ug/g	2.71e-3 lbs/hr	CC
Thallium	308C1R1	4.06e+1 ug/g	4.06e-1 lbs/hr	CC
Thallium	308C1R2	3.98e+1 ug/g	4.06e-1 lbs/hr	CC
Thallium	308C1R3	5.98e+1 ug/g	4.06e-1 lbs/hr	CC

5. Type: RAW MATERIAL

6. Description: LIMESTONE
 Group: WET KILN Location: KILN Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	308C1R1	1.22e+2 ug/g	2.71e+1 lbs/hr	CC
Chlorine	308C1R2	2.47e+2 ug/g	5.49e+1 lbs/hr	CC
Chlorine	308C1R3	2.17e+2 ug/g	4.82e+1 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	308C1R1	1.32e+0 ug/g	2.93e-1 lbs/hr	CC
Antimony	308C1R2	1.32e+0 ug/g	2.94e-1 lbs/hr	CC
Antimony	308C1R3	1.32e+0 ug/g	2.93e-1 lbs/hr	CC
Arsenic	308C1R1	1.12e+1 ug/g	2.50e+0 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: NORTH TEXAS CEMENT COMPANY
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 308 DEVICE NAME: KILN NO. 2

EPA ID: TXD007926496
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 6

Arsenic	308C1R2	1.17e+1	ug/g	2.61e+0	lbs/hr	CC
Arsenic	308C1R3	1.17e+1	ug/g	2.59e+0	lbs/hr	CC
Barium	308C1R1	5.58e+1	ug/g	1.24e+1	lbs/hr	CC
Barium	308C1R2	5.58e+1	ug/g	1.24e+1	lbs/hr	CC
Barium	308C1R3	5.58e+1	ug/g	1.24e+1	lbs/hr	CC
Beryllium	308C1R1	4.49e-1	ug/g	9.99e-2	lbs/hr	CC
Beryllium	308C1R2	4.46e-1	ug/g	9.92e-2	lbs/hr	CC
Beryllium	308C1R3	6.44e-1	ug/g	1.43e-1	lbs/hr	CC
Cadmium	308C1R1	1.39e+0	ug/g	3.09e-1	lbs/hr	CC
Cadmium	308C1R2	1.38e+0	ug/g	3.06e-1	lbs/hr	CC
Cadmium	308C1R3	1.50e+0	ug/g	3.33e-1	lbs/hr	CC
Chromium	308C1R1	2.28e+1	ug/g	5.07e+0	lbs/hr	CC
Chromium	308C1R2	3.11e+1	ug/g	6.92e+0	lbs/hr	CC
Chromium	308C1R3	2.57e+1	ug/g	5.73e+0	lbs/hr	CC
Lead	308C1R1	2.31e+1	ug/g	5.15e+0	lbs/hr	CC
Lead	308C1R2	2.61e+1	ug/g	5.82e+0	lbs/hr	CC
Lead	308C1R3	2.49e+1	ug/g	5.55e+0	lbs/hr	CC
Mercury	308C1R1	9.44e-2	ug/g	2.10e-2	lbs/hr	CC
Mercury	308C1R2	9.44e-2	ug/g	2.10e-2	lbs/hr	CC
Mercury	308C1R3	9.44e-2	ug/g	2.10e-2	lbs/hr	CC
Silver	308C1R1	2.36e-1	ug/g	5.25e-2	lbs/hr	CC
Silver	308C1R2	2.36e-1	ug/g	5.25e-2	lbs/hr	CC
Silver	308C1R3	2.36e-1	ug/g	5.25e-2	lbs/hr	CC
Thallium	308C1R1	8.02e-1	ug/g	1.79e-1	lbs/hr	CC
Thallium	308C1R2	8.02e-1	ug/g	1.79e-1	lbs/hr	CC
Thallium	308C1R3	8.02e-1	ug/g	1.79e-1	lbs/hr	CC

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CD,CR3,CR6,PB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	308C1R1	2.14e+4 ug/g	1.74e+2 lbs/hr	CC
Chlorine	308C1R2	2.20e+4 ug/g	1.71e+2 lbs/hr	CC
Chlorine	308C1R3	2.18e+4 ug/g	1.67e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	308C1R1	5.46e+1 ug/g	4.45e-1 lbs/hr	CC
Antimony	308C1R2	5.72e+1 ug/g	4.45e-1 lbs/hr	CC
Antimony	308C1R3	5.82e+1 ug/g	4.45e-1 lbs/hr	CC
Arsenic	308C1R1	4.00e+1 ug/g	3.26e-1 lbs/hr	CC
Arsenic	308C1R2	3.99e+1 ug/g	3.11e-1 lbs/hr	CC
Arsenic	308C1R3	3.49e+1 ug/g	2.67e-1 lbs/hr	CC
Barium	308C1R1	8.74e+2 ug/g	7.13e+0 lbs/hr	CC
Barium	308C1R2	9.16e+2 ug/g	7.13e+0 lbs/hr	CC
Barium	308C1R3	9.31e+2 ug/g	7.13e+0 lbs/hr	CC
Beryllium	308C1R1	1.22e+1 ug/g	9.99e-2 lbs/hr	CC
Beryllium	308C1R2	1.30e+1 ug/g	1.01e-1 lbs/hr	CC
Beryllium	308C1R3	1.30e+1 ug/g	9.92e-2 lbs/hr	CC
Cadmium	308C1R1	8.89e+1 ug/g	7.25e-1 lbs/hr	CC
Cadmium	308C1R2	9.58e+1 ug/g	7.45e-1 lbs/hr	CC
Cadmium	308C1R3	9.45e+1 ug/g	7.23e-1 lbs/hr	CC
Chromium	308C1R1	6.81e+2 ug/g	5.55e+0 lbs/hr	CC
Chromium	308C1R2	7.51e+2 ug/g	5.85e+0 lbs/hr	CC
Chromium	308C1R3	7.17e+2 ug/g	5.49e+0 lbs/hr	CC
Chromium (Hex)	308C1R1	6.95e+1 ug/g	5.67e-1 lbs/hr	CC
Chromium (Hex)	308C1R2	6.94e+1 ug/g	5.40e-1 lbs/hr	CC
Chromium (Hex)	308C1R3	6.25e+1 ug/g	4.78e-1 lbs/hr	CC
Lead	308C1R1	6.48e+2 ug/g	5.28e+0 lbs/hr	CC
Lead	308C1R2	6.81e+2 ug/g	5.30e+0 lbs/hr	CC
Lead	308C1R3	6.92e+2 ug/g	5.30e+0 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: NORTH TEXAS CEMENT COMPANY
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 308 DEVICE NAME: KILN NO. 2

EPA ID: TXD007926496
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Mercury	308C1R1	1.86e+0	ug/g	1.51e-2	lbs/hr	CC
Mercury	308C1R2	1.95e+0	ug/g	1.51e-2	lbs/hr	CC
Mercury	308C1R3	1.98e+0	ug/g	1.51e-2	lbs/hr	CC
Silver	308C1R1	4.37e+1	ug/g	3.56e-1	lbs/hr	CC
Silver	308C1R2	4.58e+1	ug/g	3.56e-1	lbs/hr	CC
Silver	308C1R3	4.66e+1	ug/g	3.56e-1	lbs/hr	CC
Thallium	308C1R1	5.46e+1	ug/g	4.45e-1	lbs/hr	CC
Thallium	308C1R2	5.72e+1	ug/g	4.45e-1	lbs/hr	CC
Thallium	308C1R3	5.82e+1	ug/g	4.45e-1	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: RIVER CEMENT
 2. STATE: MO
 3. CITY: FESTUS
 4. EP ID: 309 DEVICE NAME: KILN NO. 1,2
 EPA MOD050232560
 SYSTEM TYPE: CEMENT KILN
 APC SYSTEM: MC/ESP
 REGION: 7

5. Type: FUEL

6. Description: COKE
 Group: DRY KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	309C1R1	1.00e+2 ug/g	1.79e+0 lbs/hr	CC
Chlorine	309C1R2	1.00e+2 ug/g	1.74e+0 lbs/hr	CC
Chlorine	309C1R3	1.00e+2 ug/g	1.81e+0 lbs/hr	CC
Chlorine	309C2R1	1.00e+2 ug/g	1.66e+0 lbs/hr	CC
Chlorine	309C2R2	1.00e+2 ug/g	1.66e+0 lbs/hr	CC
Chlorine	309C2R3	1.00e+2 ug/g	1.77e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	309C1R1	7.53e-1 ug/g	1.34e-2 lbs/hr	CC
Antimony	309C1R2	5.70e-1 ug/g	9.92e-3 lbs/hr	CC
Antimony	309C1R3	1.40e-1 ug/g	2.54e-3 lbs/hr	CC
Arsenic	309C1R1	7.78e-1 ug/g	1.39e-2 lbs/hr	CC
Arsenic	309C1R2	5.82e-1 ug/g	1.01e-2 lbs/hr	CC
Arsenic	309C1R3	8.51e-1 ug/g	1.54e-2 lbs/hr	CC
Barium	309C1R1	4.89e+0 ug/g	8.73e-2 lbs/hr	CC
Barium	309C1R2	3.89e+0 ug/g	6.77e-2 lbs/hr	CC
Barium	309C1R3	2.63e+0 ug/g	4.77e-2 lbs/hr	CC
Beryllium	309C1R1	9.10e+0 ug/g	1.62e-1 lbs/hr	CC
Beryllium	309C1R2	9.03e+0 ug/g	1.57e-1 lbs/hr	CC
Beryllium	309C1R3	7.33e+0 ug/g	1.33e-1 lbs/hr	CC
Cadmium	309C1R1	2.47e-1 ug/g	4.41e-3 lbs/hr	CC
Cadmium	309C1R2	2.41e-1 ug/g	4.19e-3 lbs/hr	CC
Cadmium	309C1R3	2.50e-1 ug/g	4.54e-3 lbs/hr	CC
Chromium	309C1R1	4.35e+0 ug/g	7.76e-2 lbs/hr	CC
Chromium	309C1R2	3.91e+0 ug/g	6.81e-2 lbs/hr	CC
Chromium	309C1R3	3.03e+0 ug/g	5.50e-2 lbs/hr	CC
Lead	309C1R1	7.65e-1 ug/g	1.37e-2 lbs/hr	CC
Lead	309C1R2	6.84e-1 ug/g	1.19e-2 lbs/hr	CC
Lead	309C1R3	8.39e-2 ug/g	1.52e-3 lbs/hr	CC
Mercury	309C1R1	9.88e-2 ug/g	1.76e-3 lbs/hr	CC
Mercury	309C1R2	1.00e-1 ug/g	1.74e-3 lbs/hr	CC
Mercury	309C1R3	9.97e-2 ug/g	1.81e-3 lbs/hr	CC
Silver	309C1R1	2.48e-1 ug/g	4.43e-3 lbs/hr	CC
Silver	309C1R2	2.41e-1 ug/g	4.19e-3 lbs/hr	CC
Silver	309C1R3	2.50e-1 ug/g	4.54e-3 lbs/hr	CC
Thallium	309C1R1	7.78e-1 ug/g	1.39e-2 lbs/hr	CC
Thallium	309C1R2	6.84e-1 ug/g	1.19e-2 lbs/hr	CC
Thallium	309C1R3	8.39e-2 ug/g	1.52e-3 lbs/hr	CC

5. Type: RAW MATERIAL

6. Description:
 Group: DRY KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	309C1R1	1.00e+2 ug/g	5.63e+1 lbs/hr	CC
Chlorine	309C1R2	1.00e+2 ug/g	5.79e+1 lbs/hr	CC
Chlorine	309C1R3	1.00e+2 ug/g	5.94e+1 lbs/hr	CC
Chlorine	309C2R1	1.00e+2 ug/g	5.54e+1 lbs/hr	CC
Chlorine	309C2R2	1.00e+2 ug/g	5.60e+1 lbs/hr	CC
Chlorine	309C2R3	1.00e+2 ug/g	5.62e+1 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: RIVER CEMENT
 2. STATE: MO
 3. CITY: FESTUS
 4. EP ID: 309 DEVICE NAME: KILN NO. 1,2

EPA ID: MOD050232560
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP

REGION: 7

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	309C1R1	1.47e+0	ug/g	8.27e-1 lbs/hr	CC
Antimony	309C1R2	1.19e+0	ug/g	6.89e-1 lbs/hr	CC
Antimony	309C1R3	1.35e+0	ug/g	8.00e-1 lbs/hr	CC
Arsenic	309C1R1	1.56e+0	ug/g	8.78e-1 lbs/hr	CC
Arsenic	309C1R2	1.42e+0	ug/g	8.22e-1 lbs/hr	CC
Arsenic	309C1R3	1.21e+0	ug/g	7.18e-1 lbs/hr	CC
Barium	309C1R1	6.22e+1	ug/g	3.50e+1 lbs/hr	CC
Barium	309C1R2	6.49e+1	ug/g	3.76e+1 lbs/hr	CC
Barium	309C1R3	6.62e+1	ug/g	3.93e+1 lbs/hr	CC
Beryllium	309C1R1	4.37e-1	ug/g	2.46e-1 lbs/hr	CC
Beryllium	309C1R2	3.86e-1	ug/g	2.23e-1 lbs/hr	CC
Beryllium	309C1R3	4.40e-1	ug/g	2.61e-1 lbs/hr	CC
Cadmium	309C1R1	2.50e-1	ug/g	1.41e-1 lbs/hr	CC
Cadmium	309C1R2	2.50e-1	ug/g	1.45e-1 lbs/hr	CC
Cadmium	309C1R3	2.50e-1	ug/g	1.48e-1 lbs/hr	CC
Chromium	309C1R1	4.17e+1	ug/g	2.35e+1 lbs/hr	CC
Chromium	309C1R2	4.21e+1	ug/g	2.44e+1 lbs/hr	CC
Chromium	309C1R3	4.41e+1	ug/g	2.62e+1 lbs/hr	CC
Lead	309C1R1	6.09e+1	ug/g	3.43e+1 lbs/hr	CC
Lead	309C1R2	6.03e+1	ug/g	3.49e+1 lbs/hr	CC
Lead	309C1R3	6.58e+1	ug/g	3.91e+1 lbs/hr	CC
Mercury	309C1R1	9.99e-2	ug/g	5.62e-2 lbs/hr	CC
Mercury	309C1R2	1.00e-1	ug/g	5.80e-2 lbs/hr	CC
Mercury	309C1R3	9.99e-2	ug/g	5.93e-2 lbs/hr	CC
Silver	309C1R1	8.34e-1	ug/g	4.69e-1 lbs/hr	CC
Silver	309C1R2	7.80e-1	ug/g	4.52e-1 lbs/hr	CC
Silver	309C1R3	7.84e-1	ug/g	4.65e-1 lbs/hr	CC
Thallium	309C1R1	4.57e-1	ug/g	2.57e-1 lbs/hr	CC
Thallium	309C1R2	5.10e-1	ug/g	2.95e-1 lbs/hr	CC
Thallium	309C1R3	1.19e+0	ug/g	7.06e-1 lbs/hr	CC

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CD,CR,PB,SB,HG)
 Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	309C1R1	2.23e+4	ug/g	9.44e+2 lbs/hr	CC
Chlorine	309C1R2	2.94e+4	ug/g	1.27e+3 lbs/hr	CC
Chlorine	309C1R3	1.71e+4	ug/g	6.81e+2 lbs/hr	CC
Chlorine	309C2R1	2.42e+4	ug/g	8.68e+2 lbs/hr	CC
Chlorine	309C2R2	2.32e+4	ug/g	8.53e+2 lbs/hr	CC
Chlorine	309C2R3	2.16e+4	ug/g	7.89e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	309C1R1	5.05e+2	ug/g	2.14e+1 lbs/hr	CC
Antimony	309C1R2	5.08e+2	ug/g	2.20e+1 lbs/hr	CC
Antimony	309C1R3	5.54e+2	ug/g	2.21e+1 lbs/hr	CC
Arsenic	309C1R1	3.02e+1	ug/g	1.28e+0 lbs/hr	CC
Arsenic	309C1R2	3.15e+1	ug/g	1.36e+0 lbs/hr	CC
Arsenic	309C1R3	3.38e+1	ug/g	1.35e+0 lbs/hr	CC
Barium	309C1R1	1.12e+3	ug/g	4.74e+1 lbs/hr	CC
Barium	309C1R2	1.16e+3	ug/g	5.02e+1 lbs/hr	CC
Barium	309C1R3	9.65e+2	ug/g	3.84e+1 lbs/hr	CC
Beryllium	309C1R1	1.57e+1	ug/g	6.63e-1 lbs/hr	CC
Beryllium	309C1R2	1.81e+1	ug/g	7.86e-1 lbs/hr	CC
Beryllium	309C1R3	1.72e+1	ug/g	6.85e-1 lbs/hr	CC
Cadmium	309C1R1	1.30e+2	ug/g	5.48e+0 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: RIVER CEMENT

2. STATE: MO

3. CITY: FESTUS

EPA MOD050232560

REGION: 7

4. EP ID: 309 DEVICE NAME: KILN NO. 1,2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP

Cadmium	309C1R2	1.36e+2	ug/g	5.88e+0	lbs/hr	CC
Cadmium	309C1R3	1.45e+2	ug/g	5.77e+0	lbs/hr	CC
Chromium	309C1R1	1.80e+3	ug/g	7.62e+1	lbs/hr	CC
Chromium	309C1R2	1.79e+3	ug/g	7.73e+1	lbs/hr	CC
Chromium	309C1R3	1.86e+3	ug/g	7.40e+1	lbs/hr	CC
Lead	309C1R1	1.61e+3	ug/g	6.83e+1	lbs/hr	CC
Lead	309C1R2	1.84e+3	ug/g	7.96e+1	lbs/hr	CC
Lead	309C1R3	1.59e+3	ug/g	6.32e+1	lbs/hr	CC
Mercury	309C1R1	1.67e+0	ug/g	7.08e-2	lbs/hr	CC
Mercury	309C1R2	1.85e+0	ug/g	8.00e-2	lbs/hr	CC
Mercury	309C1R3	2.39e+0	ug/g	9.52e-2	lbs/hr	CC
Silver	309C1R1	7.92e-1	ug/g	3.35e-2	lbs/hr	CC
Silver	309C1R2	9.27e-1	ug/g	4.01e-2	lbs/hr	CC
Silver	309C1R3	1.45e+0	ug/g	5.78e-2	lbs/hr	CC
Thallium	309C1R1	ND 8.13e-1	ug/g	3.44e-2	lbs/hr	CC
Thallium	309C1R2	ND 7.74e-1	ug/g	3.35e-2	lbs/hr	CC
Thallium	309C1R3	ND 7.92e-1	ug/g	3.15e-2	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: KY

3. CITY: KOSMOSDALE

EPA ID: KYD024111981

REGION: 4

4. EP ID: 317 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

5. Type: FUEL

6. Description: COAL

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	317C1R1	1.20e+3	ug/g	1.73e+1 lbs/hr	CE
Chlorine	317C1R2	1.20e+3	ug/g	1.59e+1 lbs/hr	CE
Chlorine	317C1R3	1.30e+3	ug/g	1.76e+1 lbs/hr	CE
Chlorine	317C2R1	1.30e+3	ug/g	1.75e+1 lbs/hr	CE
Chlorine	317C2R2	1.30e+3	ug/g	1.67e+1 lbs/hr	CE
Chlorine	317C2R3	2.10e+3	ug/g	2.60e+1 lbs/hr	CE
Chlorine	317C3R1	8.00e+2	ug/g	1.84e+1 lbs/hr	CE
Chlorine	317C3R2	8.00e+2	ug/g	1.84e+1 lbs/hr	CE
Chlorine	317C3R3	7.00e+2	ug/g	1.59e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	317C1R1	ND	5.00e-1 ug/g	7.20e-3 lbs/hr	CE
Antimony	317C1R2	ND	5.00e-1 ug/g	6.63e-3 lbs/hr	CE
Antimony	317C1R3	ND	5.00e-1 ug/g	6.78e-3 lbs/hr	CE
Antimony	317C2R1	ND	5.00e-1 ug/g	6.73e-3 lbs/hr	CE
Antimony	317C2R2	ND	5.00e-1 ug/g	6.43e-3 lbs/hr	CE
Antimony	317C2R3	ND	5.00e-1 ug/g	6.18e-3 lbs/hr	CE
Antimony	317C3R1	ND	5.00e-1 ug/g	1.15e-2 lbs/hr	CE
Antimony	317C3R2	ND	5.00e-1 ug/g	1.15e-2 lbs/hr	CE
Antimony	317C3R3	ND	5.00e-1 ug/g	1.14e-2 lbs/hr	CE
Arsenic	317C1R1	2.72e+0	ug/g	3.92e-2 lbs/hr	CE
Arsenic	317C1R2	3.43e+0	ug/g	4.55e-2 lbs/hr	CE
Arsenic	317C1R3	3.55e+0	ug/g	4.81e-2 lbs/hr	CE
Arsenic	317C2R1	1.63e+0	ug/g	2.19e-2 lbs/hr	CE
Arsenic	317C2R2	2.27e+0	ug/g	2.92e-2 lbs/hr	CE
Arsenic	317C2R3	2.99e+0	ug/g	3.70e-2 lbs/hr	CE
Arsenic	317C3R1	2.42e+0	ug/g	5.57e-2 lbs/hr	CE
Arsenic	317C3R2	2.37e+0	ug/g	5.44e-2 lbs/hr	CE
Arsenic	317C3R3	1.99e+0	ug/g	4.52e-2 lbs/hr	CE
Barium	317C1R1	3.96e+1	ug/g	5.70e-1 lbs/hr	CE
Barium	317C1R2	4.41e+1	ug/g	5.85e-1 lbs/hr	CE
Barium	317C1R3	3.82e+1	ug/g	5.18e-1 lbs/hr	CE
Barium	317C2R1	4.32e+1	ug/g	5.81e-1 lbs/hr	CE
Barium	317C2R2	5.49e+1	ug/g	7.06e-1 lbs/hr	CE
Barium	317C2R3	4.96e+1	ug/g	6.13e-1 lbs/hr	CE
Barium	317C3R1	5.08e+1	ug/g	1.17e+0 lbs/hr	CE
Barium	317C3R2	2.65e+1	ug/g	6.08e-1 lbs/hr	CE
Barium	317C3R3	1.30e+1	ug/g	2.95e-1 lbs/hr	CE
Beryllium	317C1R1	1.70e+0	ug/g	2.45e-2 lbs/hr	CE
Beryllium	317C1R2	1.25e+0	ug/g	1.66e-2 lbs/hr	CE
Beryllium	317C1R3	1.10e+0	ug/g	1.49e-2 lbs/hr	CE
Beryllium	317C2R1	1.37e+0	ug/g	1.84e-2 lbs/hr	CE
Beryllium	317C2R2	1.32e+0	ug/g	1.70e-2 lbs/hr	CE
Beryllium	317C2R3	1.34e+0	ug/g	1.66e-2 lbs/hr	CE
Beryllium	317C3R1	1.59e+0	ug/g	3.66e-2 lbs/hr	CE
Beryllium	317C3R2	1.00e+0	ug/g	2.29e-2 lbs/hr	CE
Beryllium	317C3R3	9.80e-1	ug/g	2.23e-2 lbs/hr	CE
Cadmium	317C1R1	ND	1.00e-1 ug/g	1.44e-3 lbs/hr	CE
Cadmium	317C1R2	ND	1.00e-1 ug/g	1.33e-3 lbs/hr	CE
Cadmium	317C1R3	ND	1.00e-1 ug/g	1.36e-3 lbs/hr	CE
Cadmium	317C2R1	ND	1.00e-1 ug/g	1.35e-3 lbs/hr	CE
Cadmium	317C2R2	ND	1.00e-1 ug/g	1.29e-3 lbs/hr	CE
Cadmium	317C2R3	ND	1.00e-1 ug/g	1.24e-3 lbs/hr	CE
Cadmium	317C3R1	ND	1.00e-1 ug/g	2.30e-3 lbs/hr	CE
Cadmium	317C3R2	ND	1.00e-1 ug/g	2.29e-3 lbs/hr	CE
Cadmium	317C3R3	ND	1.00e-1 ug/g	2.27e-3 lbs/hr	CE
Chromium	317C1R1	2.53e+1	ug/g	3.64e-1 lbs/hr	CE
Chromium	317C1R2	2.42e+1	ug/g	3.21e-1 lbs/hr	CE
Chromium	317C1R3	2.28e+1	ug/g	3.09e-1 lbs/hr	CE
Chromium	317C2R1	2.06e+1	ug/g	2.77e-1 lbs/hr	CE
Chromium	317C2R2	1.88e+1	ug/g	2.42e-1 lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF REGION: 4

Chromium	317C2R3	2.14e+1	ug/g	2.65e-1	lbs/hr	CE
Chromium	317C3R1	2.10e+1	ug/g	4.83e-1	lbs/hr	CE
Chromium	317C3R2	2.22e+1	ug/g	5.09e-1	lbs/hr	CE
Chromium	317C3R3	1.99e+1	ug/g	4.52e-1	lbs/hr	CE
Lead	317C1R1	9.63e+0	ug/g	1.39e-1	lbs/hr	CE
Lead	317C1R2	1.09e+1	ug/g	1.45e-1	lbs/hr	CE
Lead	317C1R3	9.93e+0	ug/g	1.35e-1	lbs/hr	CE
Lead	317C2R1	9.25e+0	ug/g	1.25e-1	lbs/hr	CE
Lead	317C2R2	6.25e+0	ug/g	8.04e-2	lbs/hr	CE
Lead	317C2R3	7.71e+0	ug/g	9.53e-2	lbs/hr	CE
Lead	317C3R1	7.31e+0	ug/g	1.68e-1	lbs/hr	CE
Lead	317C3R2	8.96e+0	ug/g	2.06e-1	lbs/hr	CE
Lead	317C3R3	6.18e+0	ug/g	1.40e-1	lbs/hr	CE
Mercury	317C1R1	3.11e-1	ug/g	4.48e-3	lbs/hr	CE
Mercury	317C1R2	2.70e-1	ug/g	3.58e-3	lbs/hr	CE
Mercury	317C1R3	1.51e-1	ug/g	2.05e-3	lbs/hr	CE
Mercury	317C2R1	1.52e-2	ug/g	2.05e-4	lbs/hr	CE
Mercury	317C2R2	2.08e-1	ug/g	2.67e-3	lbs/hr	CE
Mercury	317C2R3	8.20e-2	ug/g	1.01e-3	lbs/hr	CE
Mercury	317C3R1	1.90e-2	ug/g	4.37e-4	lbs/hr	CE
Mercury	317C3R2	1.07e-1	ug/g	2.45e-3	lbs/hr	CE
Mercury	317C3R3	7.10e-2	ug/g	1.61e-3	lbs/hr	CE
Silver	317C1R1	ND 1.00e-1	ug/g	1.44e-3	lbs/hr	CE
Silver	317C1R2	ND 1.00e-1	ug/g	1.33e-3	lbs/hr	CE
Silver	317C1R3	ND 1.00e-1	ug/g	1.36e-3	lbs/hr	CE
Silver	317C2R1	ND 1.00e-1	ug/g	1.35e-3	lbs/hr	CE
Silver	317C2R2	ND 1.00e-1	ug/g	1.29e-3	lbs/hr	CE
Silver	317C2R3	ND 1.00e-1	ug/g	1.24e-3	lbs/hr	CE
Silver	317C3R1	ND 1.00e-1	ug/g	2.30e-3	lbs/hr	CE
Silver	317C3R2	ND 1.00e-1	ug/g	2.29e-3	lbs/hr	CE
Silver	317C3R3	ND 1.00e-1	ug/g	2.27e-3	lbs/hr	CE
Thallium	317C1R1	ND 5.00e-1	ug/g	7.20e-3	lbs/hr	CE
Thallium	317C1R2	ND 5.00e-1	ug/g	6.63e-3	lbs/hr	CE
Thallium	317C1R3	ND 5.00e-1	ug/g	6.78e-3	lbs/hr	CE
Thallium	317C2R1	ND 5.00e-1	ug/g	6.73e-3	lbs/hr	CE
Thallium	317C2R2	ND 5.00e-1	ug/g	6.43e-3	lbs/hr	CE
Thallium	317C2R3	ND 5.00e-1	ug/g	6.18e-3	lbs/hr	CE
Thallium	317C3R1	ND 4.00e-1	ug/g	9.21e-3	lbs/hr	CE
Thallium	317C3R2	ND 5.00e-1	ug/g	1.15e-2	lbs/hr	CE
Thallium	317C3R3	ND 5.00e-1	ug/g	1.14e-2	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description:

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	317C1R1	1.60e+2	ug/g	5.31e+1	lbs/hr	CE
Chlorine	317C1R2	1.80e+2	ug/g	5.99e+1	lbs/hr	CE
Chlorine	317C1R3	1.80e+2	ug/g	6.03e+1	lbs/hr	CE
Chlorine	317C2R1	1.60e+2	ug/g	5.34e+1	lbs/hr	CE
Chlorine	317C2R2	1.30e+2	ug/g	4.34e+1	lbs/hr	CE
Chlorine	317C2R3	1.80e+2	ug/g	6.02e+1	lbs/hr	CE
Chlorine	317C3R1	2.20e+2	ug/g	7.38e+1	lbs/hr	CE
Chlorine	317C3R2	2.40e+2	ug/g	8.04e+1	lbs/hr	CE
Chlorine	317C3R3	1.30e+2	ug/g	4.36e+1	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	317C1R1	6.05e-1	ug/g	2.01e-1	lbs/hr	CE
Antimony	317C1R2	6.25e-1	ug/g	2.08e-1	lbs/hr	CE
Antimony	317C1R3	ND 5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Antimony	317C2R1	ND 5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Antimony	317C2R2	ND 5.50e-1	ug/g	1.84e-1	lbs/hr	CE
Antimony	317C2R3	ND 5.50e-1	ug/g	1.84e-1	lbs/hr	CE
Antimony	317C3R1	1.00e+0	ug/g	3.36e-1	lbs/hr	CE
Antimony	317C3R2	ND 5.00e-1	ug/g	1.67e-1	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF REGION: 4

Antimony	317C3R3	ND	5.00e-1	ug/g	1.68e-1	lbs/hr	CE
Arsenic	317C1R1		6.55e+0	ug/g	2.17e+0	lbs/hr	CE
Arsenic	317C1R2		6.18e+0	ug/g	2.06e+0	lbs/hr	CE
Arsenic	317C1R3		7.10e+0	ug/g	2.38e+0	lbs/hr	CE
Arsenic	317C2R1		6.55e+0	ug/g	2.19e+0	lbs/hr	CE
Arsenic	317C2R2		6.95e+0	ug/g	2.32e+0	lbs/hr	CE
Arsenic	317C2R3		6.25e+0	ug/g	2.09e+0	lbs/hr	CE
Arsenic	317C3R1		6.00e+0	ug/g	2.01e+0	lbs/hr	CE
Arsenic	317C3R2		6.75e+0	ug/g	2.26e+0	lbs/hr	CE
Arsenic	317C3R3		6.85e+0	ug/g	2.30e+0	lbs/hr	CE
Barium	317C1R1		1.05e+2	ug/g	3.49e+1	lbs/hr	CE
Barium	317C1R2		1.11e+2	ug/g	3.69e+1	lbs/hr	CE
Barium	317C1R3		1.12e+2	ug/g	3.75e+1	lbs/hr	CE
Barium	317C2R1		1.31e+2	ug/g	4.37e+1	lbs/hr	CE
Barium	317C2R2		1.24e+2	ug/g	4.14e+1	lbs/hr	CE
Barium	317C2R3		1.52e+2	ug/g	5.08e+1	lbs/hr	CE
Barium	317C3R1		1.11e+2	ug/g	3.73e+1	lbs/hr	CE
Barium	317C3R2		1.16e+2	ug/g	3.88e+1	lbs/hr	CE
Barium	317C3R3		1.25e+2	ug/g	4.20e+1	lbs/hr	CE
Beryllium	317C1R1		1.51e-1	ug/g	5.01e-2	lbs/hr	CE
Beryllium	317C1R2		1.25e-1	ug/g	4.16e-2	lbs/hr	CE
Beryllium	317C1R3		1.67e-1	ug/g	5.59e-2	lbs/hr	CE
Beryllium	317C2R1		1.32e-1	ug/g	4.41e-2	lbs/hr	CE
Beryllium	317C2R2		1.22e-1	ug/g	4.08e-2	lbs/hr	CE
Beryllium	317C2R3		1.38e-1	ug/g	4.61e-2	lbs/hr	CE
Beryllium	317C3R1		3.27e-1	ug/g	1.10e-1	lbs/hr	CE
Beryllium	317C3R2		1.26e-1	ug/g	4.22e-2	lbs/hr	CE
Beryllium	317C3R3		1.29e-1	ug/g	4.33e-2	lbs/hr	CE
Cadmium	317C1R1		4.05e-1	ug/g	1.34e-1	lbs/hr	CE
Cadmium	317C1R2		4.45e-1	ug/g	1.48e-1	lbs/hr	CE
Cadmium	317C1R3		4.80e-1	ug/g	1.61e-1	lbs/hr	CE
Cadmium	317C2R1		4.45e-1	ug/g	1.49e-1	lbs/hr	CE
Cadmium	317C2R2		4.30e-1	ug/g	1.44e-1	lbs/hr	CE
Cadmium	317C2R3		4.85e-1	ug/g	1.62e-1	lbs/hr	CE
Cadmium	317C3R1	ND	2.00e-1	ug/g	6.71e-2	lbs/hr	CE
Cadmium	317C3R2		3.50e-1	ug/g	1.17e-1	lbs/hr	CE
Cadmium	317C3R3		3.55e-1	ug/g	1.19e-1	lbs/hr	CE
Chromium	317C1R1		4.19e+1	ug/g	1.39e+1	lbs/hr	CE
Chromium	317C1R2		4.81e+1	ug/g	1.60e+1	lbs/hr	CE
Chromium	317C1R3		4.42e+1	ug/g	1.48e+1	lbs/hr	CE
Chromium	317C2R1		5.87e+1	ug/g	1.96e+1	lbs/hr	CE
Chromium	317C2R2		5.17e+1	ug/g	1.73e+1	lbs/hr	CE
Chromium	317C2R3		4.51e+1	ug/g	1.51e+1	lbs/hr	CE
Chromium	317C3R1		4.40e+1	ug/g	1.48e+1	lbs/hr	CE
Chromium	317C3R2		4.26e+1	ug/g	1.43e+1	lbs/hr	CE
Chromium	317C3R3		4.31e+1	ug/g	1.45e+1	lbs/hr	CE
Lead	317C1R1		7.05e+0	ug/g	2.34e+0	lbs/hr	CE
Lead	317C1R2		6.83e+0	ug/g	2.27e+0	lbs/hr	CE
Lead	317C1R3		7.05e+0	ug/g	2.36e+0	lbs/hr	CE
Lead	317C2R1		7.15e+0	ug/g	2.39e+0	lbs/hr	CE
Lead	317C2R2		7.35e+0	ug/g	2.46e+0	lbs/hr	CE
Lead	317C2R3		1.26e+1	ug/g	4.21e+0	lbs/hr	CE
Lead	317C3R1		6.20e+0	ug/g	2.08e+0	lbs/hr	CE
Lead	317C3R2		6.60e+0	ug/g	2.21e+0	lbs/hr	CE
Lead	317C3R3		6.45e+0	ug/g	2.16e+0	lbs/hr	CE
Mercury	317C1R1	ND	1.70e-2	ug/g	5.64e-3	lbs/hr	CE
Mercury	317C1R2	ND	1.70e-2	ug/g	5.65e-3	lbs/hr	CE
Mercury	317C1R3	ND	1.80e-2	ug/g	6.03e-3	lbs/hr	CE
Mercury	317C2R1	ND	1.70e-2	ug/g	5.67e-3	lbs/hr	CE
Mercury	317C2R2	ND	1.70e-2	ug/g	5.68e-3	lbs/hr	CE
Mercury	317C2R3	ND	1.70e-2	ug/g	5.68e-3	lbs/hr	CE
Mercury	317C3R1	ND	2.50e-2	ug/g	8.39e-3	lbs/hr	CE
Mercury	317C3R2	ND	1.70e-2	ug/g	5.69e-3	lbs/hr	CE
Mercury	317C3R3	ND	1.80e-2	ug/g	6.04e-3	lbs/hr	CE
Silver	317C1R1	ND	5.00e-1	ug/g	1.66e-1	lbs/hr	CE
Silver	317C1R2	ND	5.00e-1	ug/g	1.66e-1	lbs/hr	CE
Silver	317C1R3	ND	5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Silver	317C2R1	ND	5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Silver	317C2R2	ND	5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Silver	317C2R3	ND	5.00e-1	ug/g	1.67e-1	lbs/hr	CE
Silver	317C3R1	ND	3.53e-1	ug/g	1.18e-1	lbs/hr	CE
Silver	317C3R2	ND	5.00e-1	ug/g	1.67e-1	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF REGION: 4

Silver	317C3R3	ND	5.00e-1	ug/g	1.68e-1	lbs/hr	CE
Thallium	317C1R1		1.40e+0	ug/g	4.65e-1	lbs/hr	CE
Thallium	317C1R2		1.00e+0	ug/g	3.33e-1	lbs/hr	CE
Thallium	317C1R3		1.00e+0	ug/g	3.35e-1	lbs/hr	CE
Thallium	317C2R1		1.25e+0	ug/g	4.17e-1	lbs/hr	CE
Thallium	317C2R2		1.25e+0	ug/g	4.18e-1	lbs/hr	CE
Thallium	317C2R3		2.40e+0	ug/g	8.02e-1	lbs/hr	CE
Thallium	317C3R1	ND	2.00e-2	ug/g	6.71e-3	lbs/hr	CE
Thallium	317C3R2		1.30e+0	ug/g	4.35e-1	lbs/hr	CE
Thallium	317C3R3		1.35e+0	ug/g	4.53e-1	lbs/hr	CE

6. Description: Group: DRY KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	317C2R1	2.70e+2	ug/g	8.32e+1	lbs/hr	CE
Chlorine	317C2R2	2.80e+2	ug/g	8.62e+1	lbs/hr	CE
Chlorine	317C2R3	2.20e+2	ug/g	6.78e+1	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Antimony	317C2R1	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Antimony	317C2R2	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Antimony	317C2R3	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Arsenic	317C2R1		5.10e+0	ug/g	1.57e+0	lbs/hr	CE
Arsenic	317C2R2		4.80e+0	ug/g	1.48e+0	lbs/hr	CE
Arsenic	317C2R3		5.30e+0	ug/g	1.63e+0	lbs/hr	CE
Barium	317C2R1		7.77e+1	ug/g	2.39e+1	lbs/hr	CE
Barium	317C2R2		6.21e+1	ug/g	1.91e+1	lbs/hr	CE
Barium	317C2R3		6.51e+1	ug/g	2.01e+1	lbs/hr	CE
Beryllium	317C2R1	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Beryllium	317C2R2	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Beryllium	317C2R3	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Cadmium	317C2R1		5.70e-1	ug/g	1.76e-1	lbs/hr	CE
Cadmium	317C2R2	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Cadmium	317C2R3		5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Chromium	317C2R1		1.40e+1	ug/g	4.31e+0	lbs/hr	CE
Chromium	317C2R2		8.60e+0	ug/g	2.65e+0	lbs/hr	CE
Chromium	317C2R3		7.20e+0	ug/g	2.22e+0	lbs/hr	CE
Lead	317C2R1		8.55e+0	ug/g	2.63e+0	lbs/hr	CE
Lead	317C2R2		9.70e+0	ug/g	2.99e+0	lbs/hr	CE
Lead	317C2R3		6.90e+0	ug/g	2.13e+0	lbs/hr	CE
Mercury	317C2R1	ND	1.90e-2	ug/g	5.85e-3	lbs/hr	CE
Mercury	317C2R2	ND	1.90e-2	ug/g	5.85e-3	lbs/hr	CE
Mercury	317C2R3	ND	2.00e-2	ug/g	6.16e-3	lbs/hr	CE
Silver	317C2R1	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Silver	317C2R2	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Silver	317C2R3	ND	5.00e-1	ug/g	1.54e-1	lbs/hr	CE
Thallium	317C2R1		4.20e+0	ug/g	1.29e+0	lbs/hr	CE
Thallium	317C2R2		1.00e+0	ug/g	3.08e-1	lbs/hr	CE
Thallium	317C2R3		1.35e+0	ug/g	4.16e-1	lbs/hr	CE

5. Type: SPIKE

6. Description: METALS (AS) Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Arsenic	317C1R1	3.09e+5	ug/g	1.74e+0	lbs/hr	CE
Arsenic	317C1R2	2.26e+5	ug/g	1.30e+0	lbs/hr	CE
Arsenic	317C1R3	2.23e+5	ug/g	1.26e+0	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: KY
 3. CITY: KOSMOSDALE
 4. EP ID: 317 DEVICE NAME: KILN NO. 1

EPA ID: KYD024111981
 SYSTEM TYPE: CEMENT KILN

REGION: 4
 APC SYSTEM: FF

Arsenic	317C2R1	8.61e+4	ug/g	4.25e-1	lbs/hr	CE
Arsenic	317C2R2	1.11e+5	ug/g	5.93e-1	lbs/hr	CE
Arsenic	317C2R3	1.36e+5	ug/g	7.26e-1	lbs/hr	CE

6. Description: METALS (BE)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Beryllium	317C1R1	1.88e+4	ug/g	6.02e-2	lbs/hr	CE
Beryllium	317C1R2	1.86e+4	ug/g	6.14e-2	lbs/hr	CE
Beryllium	317C1R3	1.79e+4	ug/g	6.62e-2	lbs/hr	CE
Beryllium	317C2R1	1.84e+4	ug/g	5.89e-2	lbs/hr	CE
Beryllium	317C2R2	1.77e+4	ug/g	5.66e-2	lbs/hr	CE
Beryllium	317C2R3	1.77e+4	ug/g	5.66e-2	lbs/hr	CE

6. Description: METALS (CD)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Cadmium	317C1R1	3.68e+4	ug/g	1.76e+0	lbs/hr	CE
Cadmium	317C1R2	4.03e+4	ug/g	2.18e+0	lbs/hr	CE
Cadmium	317C1R3	3.46e+4	ug/g	1.87e+0	lbs/hr	CE
Cadmium	317C2R1	3.43e+4	ug/g	1.34e+0	lbs/hr	CE
Cadmium	317C2R2	3.51e+4	ug/g	1.39e+0	lbs/hr	CE
Cadmium	317C2R3	3.59e+4	ug/g	1.42e+0	lbs/hr	CE

6. Description: METALS (CR)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chromium	317C1R1	9.67e+4	ug/g	1.57e+1	lbs/hr	CE
Chromium	317C1R2	9.78e+4	ug/g	1.58e+1	lbs/hr	CE
Chromium	317C1R3	9.85e+4	ug/g	1.60e+1	lbs/hr	CE
Chromium	317C2R1	9.48e+4	ug/g	1.51e+1	lbs/hr	CE
Chromium	317C2R2	9.43e+4	ug/g	1.50e+1	lbs/hr	CE
Chromium	317C2R3	9.62e+4	ug/g	1.34e+1	lbs/hr	CE

6. Description: METALS (PB)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Lead	317C1R1	3.81e+5	ug/g	1.72e+1	lbs/hr	CE
Lead	317C1R2	3.79e+5	ug/g	1.74e+1	lbs/hr	CE
Lead	317C1R3	3.56e+5	ug/g	1.63e+1	lbs/hr	CE
Lead	317C2R1	3.54e+5	ug/g	1.51e+1	lbs/hr	CE
Lead	317C2R2	4.02e+5	ug/g	1.75e+1	lbs/hr	CE
Lead	317C2R3	3.74e+5	ug/g	1.63e+1	lbs/hr	CE

6. Description: ORGANICS (TRICHLOROBENZENE)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	317C1R1	5.58e+5	ug/g	4.75e+1	lbs/hr	CE
Chlorine	317C1R2	5.68e+5	ug/g	4.84e+1	lbs/hr	CE
Chlorine	317C1R3	5.76e+5	ug/g	4.88e+1	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: KY

3. CITY: KOSMOSDALE

EPA ID: KYD024111981

REGION: 4

4. EP ID: 317 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Trichlorobenzene	317C1R1	9.67e+5 ug/g	8.24e+1 lbs/hr	CE
Trichlorobenzene	317C1R2	9.85e+5 ug/g	8.39e+1 lbs/hr	CE
Trichlorobenzene	317C1R3	9.99e+5 ug/g	8.47e+1 lbs/hr	CE

6. Description: ORGANICS (PERCHLOROETHYLENE)

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	317C2R1	8.55e+5 ug/g	1.00e+2 lbs/hr	CE
Chlorine	317C2R2	8.53e+5 ug/g	1.06e+2 lbs/hr	CE
Chlorine	317C2R3	8.37e+5 ug/g	1.08e+2 lbs/hr	CE

5. Type: WASTE

6. Description:

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	317C1R1	8.40e+2 ug/g	5.96e+0 lbs/hr	CE
Chlorine	317C1R2	8.35e+2 ug/g	5.94e+0 lbs/hr	CE
Chlorine	317C1R3	1.10e+3 ug/g	7.81e+0 lbs/hr	CE
Chlorine	317C2R1	9.50e+2 ug/g	6.74e+0 lbs/hr	CE
Chlorine	317C2R2	6.80e+2 ug/g	4.82e+0 lbs/hr	CE
Chlorine	317C2R3	9.70e+2 ug/g	6.90e+0 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	317C1R1	6.65e+0 ug/g	4.72e-2 lbs/hr	CE
Antimony	317C1R2	5.68e+0 ug/g	4.04e-2 lbs/hr	CE
Antimony	317C1R3	5.85e+0 ug/g	4.16e-2 lbs/hr	CE
Antimony	317C2R1	3.85e+0 ug/g	2.73e-2 lbs/hr	CE
Antimony	317C2R2	4.85e+0 ug/g	3.44e-2 lbs/hr	CE
Antimony	317C2R3	8.95e+0 ug/g	6.36e-2 lbs/hr	CE
Arsenic	317C1R1	ND 1.00e+0 ug/g	7.10e-3 lbs/hr	CE
Arsenic	317C1R2	ND 1.00e+0 ug/g	7.11e-3 lbs/hr	CE
Arsenic	317C1R3	1.20e+0 ug/g	8.52e-3 lbs/hr	CE
Arsenic	317C2R1	1.30e+0 ug/g	9.22e-3 lbs/hr	CE
Arsenic	317C2R2	ND 1.00e+0 ug/g	7.09e-3 lbs/hr	CE
Arsenic	317C2R3	2.85e+0 ug/g	2.03e-2 lbs/hr	CE
Barium	317C1R1	2.20e+0 ug/g	1.56e-2 lbs/hr	CE
Barium	317C1R2	5.43e+0 ug/g	3.86e-2 lbs/hr	CE
Barium	317C1R3	2.05e+0 ug/g	1.46e-2 lbs/hr	CE
Barium	317C2R1	3.76e+1 ug/g	2.67e-1 lbs/hr	CE
Barium	317C2R2	1.47e+1 ug/g	1.04e-1 lbs/hr	CE
Barium	317C2R3	8.98e+1 ug/g	6.38e-1 lbs/hr	CE
Beryllium	317C1R1	ND 1.00e+0 ug/g	7.10e-3 lbs/hr	CE
Beryllium	317C1R2	ND 1.00e+0 ug/g	7.11e-3 lbs/hr	CE
Beryllium	317C1R3	ND 1.00e+0 ug/g	7.10e-3 lbs/hr	CE
Beryllium	317C2R1	ND 1.00e+0 ug/g	7.09e-3 lbs/hr	CE
Beryllium	317C2R2	ND 1.00e+0 ug/g	7.09e-3 lbs/hr	CE
Beryllium	317C2R3	ND 1.00e+0 ug/g	7.11e-3 lbs/hr	CE
Cadmium	317C1R1	ND 1.00e+0 ug/g	7.10e-3 lbs/hr	CE
Cadmium	317C1R2	ND 1.00e+0 ug/g	7.11e-3 lbs/hr	CE
Cadmium	317C1R3	ND 1.00e+0 ug/g	7.10e-3 lbs/hr	CE
Cadmium	317C2R1	ND 1.00e+0 ug/g	7.09e-3 lbs/hr	CE
Cadmium	317C2R2	ND 1.00e+0 ug/g	7.09e-3 lbs/hr	CE
Cadmium	317C2R3	ND 1.00e+0 ug/g	7.11e-3 lbs/hr	CE
Chromium	317C1R1	2.15e+0 ug/g	1.53e-2 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: KY

3. CITY: KOSMOSDALE

EPA ID: KYD024111981

REGION: 4

4. EP ID: 317 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Chromium	317C1R2	3.03e+0	ug/g	2.15e-2	lbs/hr	CE
Chromium	317C1R3	4.35e+0	ug/g	3.09e-2	lbs/hr	CE
Chromium	317C2R1	6.25e+0	ug/g	4.43e-2	lbs/hr	CE
Chromium	317C2R2	4.00e+0	ug/g	2.84e-2	lbs/hr	CE
Chromium	317C2R3	2.67e+1	ug/g	1.90e-1	lbs/hr	CE
Lead	317C1R1	3.60e+0	ug/g	2.56e-2	lbs/hr	CE
Lead	317C1R2	3.70e+0	ug/g	2.63e-2	lbs/hr	CE
Lead	317C1R3	2.10e+0	ug/g	1.49e-2	lbs/hr	CE
Lead	317C2R1	2.19e+1	ug/g	1.55e-1	lbs/hr	CE
Lead	317C2R2	7.65e+0	ug/g	5.43e-2	lbs/hr	CE
Lead	317C2R3	1.36e+2	ug/g	9.67e-1	lbs/hr	CE
Mercury	317C1R1	ND 1.16e-1	ug/g	8.23e-4	lbs/hr	CE
Mercury	317C1R2	ND 1.14e-1	ug/g	8.11e-4	lbs/hr	CE
Mercury	317C1R3	ND 1.16e-1	ug/g	8.24e-4	lbs/hr	CE
Mercury	317C2R1	ND 1.14e-1	ug/g	8.08e-4	lbs/hr	CE
Mercury	317C2R2	ND 1.14e-1	ug/g	8.08e-4	lbs/hr	CE
Mercury	317C2R3	ND 1.14e-1	ug/g	8.11e-4	lbs/hr	CE
Silver	317C1R1	ND 1.00e+0	ug/g	7.10e-3	lbs/hr	CE
Silver	317C1R2	ND 1.00e+0	ug/g	7.11e-3	lbs/hr	CE
Silver	317C1R3	ND 1.00e+0	ug/g	7.10e-3	lbs/hr	CE
Silver	317C2R1	ND 1.00e+0	ug/g	7.09e-3	lbs/hr	CE
Silver	317C2R2	ND 1.00e+0	ug/g	7.09e-3	lbs/hr	CE
Silver	317C2R3	ND 1.00e+0	ug/g	7.11e-3	lbs/hr	CE
Thallium	317C1R1	ND 1.00e+0	ug/g	7.10e-3	lbs/hr	CE
Thallium	317C1R2	ND 1.00e+0	ug/g	7.11e-3	lbs/hr	CE
Thallium	317C1R3	ND 1.00e+0	ug/g	7.10e-3	lbs/hr	CE
Thallium	317C2R1	ND 1.00e+0	ug/g	7.09e-3	lbs/hr	CE
Thallium	317C2R2	ND 1.00e+0	ug/g	7.09e-3	lbs/hr	CE
Thallium	317C2R3	ND 1.00e+0	ug/g	7.11e-3	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

EPA ID: OHD981195779

REGION: 5

4. EP ID: 315 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

5. Type: CLINKER

6. Description: PRODUCT

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	315C1R1	1.21e+0	ug/g	1.83e-1 lbs/hr	CE
Antimony	315C1R2	9.75e-1	ug/g	1.47e-1 lbs/hr	CE
Antimony	315C1R3	9.18e-1	ug/g	1.39e-1 lbs/hr	CE
Antimony	315C2R1	1.84e+0	ug/g	3.07e-1 lbs/hr	CE
Antimony	315C2R2	8.87e-1	ug/g	1.48e-1 lbs/hr	CE
Antimony	315C2R3	8.24e-1	ug/g	1.37e-1 lbs/hr	CE
Antimony	315C3R1	8.13e-1	ug/g	0.00e+0	
Antimony	315C3R2	7.75e-1	ug/g	0.00e+0	
Antimony	315C3R3	8.01e-1	ug/g	0.00e+0	
Arsenic	315C1R1	1.32e+1	ug/g	1.99e+0 lbs/hr	CE
Arsenic	315C1R2	1.23e+1	ug/g	1.86e+0 lbs/hr	CE
Arsenic	315C1R3	1.32e+1	ug/g	1.99e+0 lbs/hr	CE
Arsenic	315C2R1	1.63e+1	ug/g	2.72e+0 lbs/hr	CE
Arsenic	315C2R2	1.56e+1	ug/g	2.60e+0 lbs/hr	CE
Arsenic	315C2R3	1.58e+1	ug/g	2.63e+0 lbs/hr	CE
Arsenic	315C3R1	1.26e+1	ug/g	0.00e+0	
Arsenic	315C3R2	1.17e+1	ug/g	0.00e+0	
Arsenic	315C3R3	1.12e+1	ug/g	0.00e+0	
Barium	315C1R1	2.31e+2	ug/g	3.49e+1 lbs/hr	CE
Barium	315C1R2	2.22e+2	ug/g	3.35e+1 lbs/hr	CE
Barium	315C1R3	2.32e+2	ug/g	3.51e+1 lbs/hr	CE
Barium	315C2R1	2.53e+2	ug/g	4.21e+1 lbs/hr	CE
Barium	315C2R2	2.60e+2	ug/g	4.33e+1 lbs/hr	CE
Barium	315C2R3	2.53e+2	ug/g	4.21e+1 lbs/hr	CE
Barium	315C3R1	2.31e+2	ug/g	0.00e+0	
Barium	315C3R2	2.44e+2	ug/g	0.00e+0	
Barium	315C3R3	2.32e+2	ug/g	0.00e+0	
Beryllium	315C1R1	1.61e+0	ug/g	2.43e-1 lbs/hr	CE
Beryllium	315C1R2	7.72e-1	ug/g	1.17e-1 lbs/hr	CE
Beryllium	315C1R3	7.88e-1	ug/g	1.19e-1 lbs/hr	CE
Beryllium	315C2R1	8.64e-1	ug/g	1.44e-1 lbs/hr	CE
Beryllium	315C2R2	7.78e-1	ug/g	1.30e-1 lbs/hr	CE
Beryllium	315C2R3	7.31e-1	ug/g	1.22e-1 lbs/hr	CE
Beryllium	315C3R1	7.40e-1	ug/g	0.00e+0	
Beryllium	315C3R2	7.09e-1	ug/g	0.00e+0	
Beryllium	315C3R3	6.74e-1	ug/g	0.00e+0	
Cadmium	315C1R1	ND 2.00e-1	ug/g	3.02e-2 lbs/hr	CE
Cadmium	315C1R2	ND 2.00e-1	ug/g	3.02e-2 lbs/hr	CE
Cadmium	315C1R3	ND 2.00e-1	ug/g	3.02e-2 lbs/hr	CE
Cadmium	315C2R1	ND 2.00e-1	ug/g	3.33e-2 lbs/hr	CE
Cadmium	315C2R2	ND 2.00e-1	ug/g	3.33e-2 lbs/hr	CE
Cadmium	315C2R3	ND 2.00e-1	ug/g	3.33e-2 lbs/hr	CE
Cadmium	315C3R1	ND 2.00e-1	ug/g	0.00e+0	
Cadmium	315C3R2	ND 2.00e-1	ug/g	0.00e+0	
Cadmium	315C3R3	ND 2.00e-1	ug/g	0.00e+0	
Chromium	315C1R1	1.41e+2	ug/g	2.13e+1 lbs/hr	CE
Chromium	315C1R2	1.31e+2	ug/g	1.98e+1 lbs/hr	CE
Chromium	315C1R3	1.30e+2	ug/g	1.96e+1 lbs/hr	CE
Chromium	315C2R1	1.33e+2	ug/g	2.22e+1 lbs/hr	CE
Chromium	315C2R2	1.43e+2	ug/g	2.38e+1 lbs/hr	CE
Chromium	315C2R3	1.30e+2	ug/g	2.17e+1 lbs/hr	CE
Chromium	315C3R1	1.31e+2	ug/g	0.00e+0	
Chromium	315C3R2	1.21e+2	ug/g	0.00e+0	
Chromium	315C3R3	1.20e+2	ug/g	0.00e+0	
Lead	315C1R1	2.53e+1	ug/g	3.82e+0 lbs/hr	CE
Lead	315C1R2	3.28e+1	ug/g	4.96e+0 lbs/hr	CE
Lead	315C1R3	3.26e+1	ug/g	4.93e+0 lbs/hr	CE
Lead	315C2R1	3.69e+1	ug/g	6.15e+0 lbs/hr	CE
Lead	315C2R2	3.67e+1	ug/g	6.11e+0 lbs/hr	CE
Lead	315C2R3	4.15e+1	ug/g	6.91e+0 lbs/hr	CE
Lead	315C3R1	4.41e+1	ug/g	0.00e+0	
Lead	315C3R2	4.06e+1	ug/g	0.00e+0	
Lead	315C3R3	5.00e+1	ug/g	0.00e+0	
Mercury	315C1R1	ND 2.70e-2	ug/g	4.08e-3 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: OH
 3. CITY: FAIRBORN
 4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF
 REGION: 5

Mercury	315C1R2	ND	3.00e-2	ug/g	4.53e-3	lbs/hr	CE
Mercury	315C1R3	ND	2.90e-2	ug/g	4.38e-3	lbs/hr	CE
Mercury	315C2R1	ND	2.90e-2	ug/g	4.83e-3	lbs/hr	CE
Mercury	315C2R2	ND	2.80e-2	ug/g	4.66e-3	lbs/hr	CE
Mercury	315C2R3	ND	2.90e-2	ug/g	4.83e-3	lbs/hr	CE
Mercury	315C3R1	ND	2.90e-2	ug/g	0.00e+0		
Mercury	315C3R2	ND	2.90e-2	ug/g	0.00e+0		
Mercury	315C3R3	ND	2.90e-2	ug/g	0.00e+0		
Silver	315C1R1		6.63e-1	ug/g	1.00e-1	lbs/hr	CE
Silver	315C1R2		3.94e-1	ug/g	5.95e-2	lbs/hr	CE
Silver	315C1R3		3.68e-1	ug/g	5.56e-2	lbs/hr	CE
Silver	315C2R1		6.58e-1	ug/g	1.10e-1	lbs/hr	CE
Silver	315C2R2		4.22e-1	ug/g	7.03e-2	lbs/hr	CE
Silver	315C2R3		4.16e-1	ug/g	6.93e-2	lbs/hr	CE
Silver	315C3R1		5.98e-1	ug/g	0.00e+0		
Silver	315C3R2		3.17e-1	ug/g	0.00e+0		
Silver	315C3R3		2.73e-1	ug/g	0.00e+0		
Thallium	315C1R1		1.37e+0	ug/g	2.07e-1	lbs/hr	CE
Thallium	315C1R2	ND	2.00e-1	ug/g	3.02e-2	lbs/hr	CE
Thallium	315C1R3	ND	2.00e-1	ug/g	3.02e-2	lbs/hr	CE
Thallium	315C2R1		1.41e+0	ug/g	2.35e-1	lbs/hr	CE
Thallium	315C2R2	ND	2.00e-1	ug/g	3.33e-2	lbs/hr	CE
Thallium	315C2R3	ND	2.00e-1	ug/g	3.33e-2	lbs/hr	CE
Thallium	315C3R1	ND	2.00e-1	ug/g	0.00e+0		
Thallium	315C3R2	ND	2.00e-1	ug/g	0.00e+0		
Thallium	315C3R3	ND	2.00e-1	ug/g	0.00e+0		

5. Type: FF ASH

6. Description: NONRECYCLE
 Group: DRY KILN

Location: FF-BYPASS

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	315C1R1	8.82e-1	ug/g	0.00e+0	
Antimony	315C1R2	7.94e-1	ug/g	0.00e+0	
Antimony	315C1R3	7.32e-1	ug/g	0.00e+0	
Antimony	315C2R1	9.94e-1	ug/g	0.00e+0	
Antimony	315C2R2	8.68e-1	ug/g	0.00e+0	
Antimony	315C2R3	7.94e-1	ug/g	0.00e+0	
Antimony	315C3R1	8.41e-1	ug/g	0.00e+0	
Antimony	315C3R2	7.12e-1	ug/g	0.00e+0	
Antimony	315C3R3	6.82e-1	ug/g	0.00e+0	
Arsenic	315C1R1	1.44e+1	ug/g	0.00e+0	
Arsenic	315C1R2	1.39e+1	ug/g	0.00e+0	
Arsenic	315C1R3	1.62e+1	ug/g	0.00e+0	
Arsenic	315C2R1	1.56e+1	ug/g	0.00e+0	
Arsenic	315C2R2	2.32e+1	ug/g	0.00e+0	
Arsenic	315C2R3	1.87e+1	ug/g	0.00e+0	
Arsenic	315C3R1	1.30e+1	ug/g	0.00e+0	
Arsenic	315C3R2	1.33e+1	ug/g	0.00e+0	
Arsenic	315C3R3	1.28e+1	ug/g	0.00e+0	
Barium	315C1R1	1.76e+2	ug/g	0.00e+0	
Barium	315C1R2	1.80e+2	ug/g	0.00e+0	
Barium	315C1R3	1.91e+2	ug/g	0.00e+0	
Barium	315C2R1	2.00e+2	ug/g	0.00e+0	
Barium	315C2R2	2.21e+2	ug/g	0.00e+0	
Barium	315C2R3	2.03e+2	ug/g	0.00e+0	
Barium	315C3R1	1.88e+2	ug/g	0.00e+0	
Barium	315C3R2	1.99e+2	ug/g	0.00e+0	
Barium	315C3R3	1.93e+2	ug/g	0.00e+0	
Beryllium	315C1R1	6.26e-1	ug/g	0.00e+0	
Beryllium	315C1R2	5.82e-1	ug/g	0.00e+0	
Beryllium	315C1R3	6.13e-1	ug/g	0.00e+0	
Beryllium	315C2R1	1.05e+0	ug/g	0.00e+0	
Beryllium	315C2R2	8.29e-1	ug/g	0.00e+0	
Beryllium	315C2R3	7.80e-1	ug/g	0.00e+0	
Beryllium	315C3R1	8.11e-1	ug/g	0.00e+0	
Beryllium	315C3R2	6.36e-1	ug/g	0.00e+0	
Beryllium	315C3R3	7.00e-1	ug/g	0.00e+0	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

EPA OHD981195779

REGION: 5

4. EP ID: 315 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Cadmium	315C1R1	3.96e+1	ug/g	0.00e+0	
Cadmium	315C1R2	3.20e+1	ug/g	0.00e+0	
Cadmium	315C1R3	3.38e+1	ug/g	0.00e+0	
Cadmium	315C2R1	3.41e+1	ug/g	0.00e+0	
Cadmium	315C2R2	3.28e+1	ug/g	0.00e+0	
Cadmium	315C2R3	3.68e+1	ug/g	0.00e+0	
Cadmium	315C3R1	2.66e+1	ug/g	0.00e+0	
Cadmium	315C3R2	2.45e+1	ug/g	0.00e+0	
Cadmium	315C3R3	2.34e+1	ug/g	0.00e+0	
Chromium	315C1R1	1.26e+2	ug/g	0.00e+0	
Chromium	315C1R2	1.09e+2	ug/g	0.00e+0	
Chromium	315C1R3	1.05e+2	ug/g	0.00e+0	
Chromium	315C2R1	1.22e+2	ug/g	0.00e+0	
Chromium	315C2R2	1.33e+2	ug/g	0.00e+0	
Chromium	315C2R3	1.14e+2	ug/g	0.00e+0	
Chromium	315C3R1	1.28e+2	ug/g	0.00e+0	
Chromium	315C3R2	1.00e+2	ug/g	0.00e+0	
Chromium	315C3R3	8.89e+1	ug/g	0.00e+0	
Lead	315C1R1	9.58e+2	ug/g	0.00e+0	
Lead	315C1R2	8.05e+2	ug/g	0.00e+0	
Lead	315C1R3	7.92e+2	ug/g	0.00e+0	
Lead	315C2R1	8.69e+2	ug/g	0.00e+0	
Lead	315C2R2	8.92e+2	ug/g	0.00e+0	
Lead	315C2R3	8.62e+2	ug/g	0.00e+0	
Lead	315C3R1	7.59e+2	ug/g	0.00e+0	
Lead	315C3R2	6.57e+2	ug/g	0.00e+0	
Lead	315C3R3	6.05e+2	ug/g	0.00e+0	
Mercury	315C1R1	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C1R2	ND	3.00e-2	ug/g	0.00e+0
Mercury	315C1R3	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C2R1	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C2R2	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C2R3	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C3R1	ND	3.00e-2	ug/g	0.00e+0
Mercury	315C3R2	ND	2.90e-2	ug/g	0.00e+0
Mercury	315C3R3	ND	2.90e-2	ug/g	0.00e+0
Silver	315C1R1	6.47e-1	ug/g	0.00e+0	
Silver	315C1R2	6.13e-1	ug/g	0.00e+0	
Silver	315C1R3	6.27e-1	ug/g	0.00e+0	
Silver	315C2R1	8.19e-1	ug/g	0.00e+0	
Silver	315C2R2	8.30e-1	ug/g	0.00e+0	
Silver	315C2R3	6.21e-1	ug/g	0.00e+0	
Silver	315C3R1	5.70e-1	ug/g	0.00e+0	
Silver	315C3R2	9.78e-1	ug/g	0.00e+0	
Silver	315C3R3	4.90e-1	ug/g	0.00e+0	
Thallium	315C1R1	1.95e+0	ug/g	0.00e+0	
Thallium	315C1R2	1.49e+0	ug/g	0.00e+0	
Thallium	315C1R3	1.87e+0	ug/g	0.00e+0	
Thallium	315C2R1	4.57e+0	ug/g	0.00e+0	
Thallium	315C2R2	2.26e+0	ug/g	0.00e+0	
Thallium	315C2R3	3.79e+0	ug/g	0.00e+0	
Thallium	315C3R1	3.06e+0	ug/g	0.00e+0	
Thallium	315C3R2	2.33e+0	ug/g	0.00e+0	
Thallium	315C3R3	2.49e+0	ug/g	0.00e+0	

5. Type: FUEL

6. Description: COAL

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	315C1R1	8.98e+2 ug/g	1.23e+1 lbs/hr	CC
Chlorine	315C1R2	7.99e+2 ug/g	1.11e+1 lbs/hr	CC
Chlorine	315C1R3	1.00e+3 ug/g	1.47e+1 lbs/hr	CC
Chlorine	315C2R1	7.95e+2 ug/g	1.20e+1 lbs/hr	CC
Chlorine	315C2R2	1.39e+3 ug/g	1.98e+1 lbs/hr	CC
Chlorine	315C2R3	1.40e+3 ug/g	2.00e+1 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

REGION: 5

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	315C1R1	ND	4.99e-1	ug/g	6.83e-3	lbs/hr	CC
Antimony	315C1R2	ND	5.01e-1	ug/g	6.96e-3	lbs/hr	CC
Antimony	315C1R3	ND	4.99e-1	ug/g	7.34e-3	lbs/hr	CC
Antimony	315C2R1	ND	4.98e-1	ug/g	7.52e-3	lbs/hr	CC
Antimony	315C2R2	ND	4.98e-1	ug/g	7.07e-3	lbs/hr	CC
Antimony	315C2R3	ND	4.99e-1	ug/g	7.13e-3	lbs/hr	CC
Arsenic	315C1R1		2.69e+0	ug/g	3.69e-2	lbs/hr	CC
Arsenic	315C1R2		2.71e+0	ug/g	3.77e-2	lbs/hr	CC
Arsenic	315C1R3		2.22e+0	ug/g	3.26e-2	lbs/hr	CC
Arsenic	315C2R1		2.67e+0	ug/g	4.03e-2	lbs/hr	CC
Arsenic	315C2R2		1.88e+0	ug/g	2.67e-2	lbs/hr	CC
Arsenic	315C2R3		1.01e+0	ug/g	1.44e-2	lbs/hr	CC
Barium	315C1R1		1.63e+1	ug/g	2.23e-1	lbs/hr	CC
Barium	315C1R2		4.73e+1	ug/g	6.57e-1	lbs/hr	CC
Barium	315C1R3		1.65e+1	ug/g	2.42e-1	lbs/hr	CC
Barium	315C2R1		2.96e+1	ug/g	4.47e-1	lbs/hr	CC
Barium	315C2R2		2.41e+1	ug/g	3.42e-1	lbs/hr	CC
Barium	315C2R3		3.83e+1	ug/g	5.47e-1	lbs/hr	CC
Beryllium	315C1R1		7.18e-1	ug/g	9.83e-3	lbs/hr	CC
Beryllium	315C1R2		7.77e-1	ug/g	1.08e-2	lbs/hr	CC
Beryllium	315C1R3	ND	2.50e-2	ug/g	3.67e-4	lbs/hr	CC
Beryllium	315C2R1	ND	2.49e-2	ug/g	3.76e-4	lbs/hr	CC
Beryllium	315C2R2	ND	2.50e-2	ug/g	3.55e-4	lbs/hr	CC
Beryllium	315C2R3	ND	2.49e-2	ug/g	3.56e-4	lbs/hr	CC
Cadmium	315C1R1	ND	4.99e-2	ug/g	6.83e-4	lbs/hr	CC
Cadmium	315C1R2	ND	5.01e-2	ug/g	6.96e-4	lbs/hr	CC
Cadmium	315C1R3	ND	5.00e-2	ug/g	7.35e-4	lbs/hr	CC
Cadmium	315C2R1	ND	4.98e-2	ug/g	7.52e-4	lbs/hr	CC
Cadmium	315C2R2	ND	4.99e-2	ug/g	7.08e-4	lbs/hr	CC
Cadmium	315C2R3	ND	4.99e-2	ug/g	7.13e-4	lbs/hr	CC
Chromium	315C1R1		2.64e+1	ug/g	3.61e-1	lbs/hr	CC
Chromium	315C1R2		2.02e+1	ug/g	2.81e-1	lbs/hr	CC
Chromium	315C1R3		2.52e+1	ug/g	3.71e-1	lbs/hr	CC
Chromium	315C2R1		1.88e+1	ug/g	2.84e-1	lbs/hr	CC
Chromium	315C2R2		1.95e+1	ug/g	2.77e-1	lbs/hr	CC
Chromium	315C2R3		1.97e+1	ug/g	2.82e-1	lbs/hr	CC
Lead	315C1R1		8.54e+0	ug/g	1.17e-1	lbs/hr	CC
Lead	315C1R2		9.35e+0	ug/g	1.30e-1	lbs/hr	CC
Lead	315C1R3		8.23e+0	ug/g	1.21e-1	lbs/hr	CC
Lead	315C2R1		9.01e+0	ug/g	1.36e-1	lbs/hr	CC
Lead	315C2R2		1.08e+1	ug/g	1.53e-1	lbs/hr	CC
Lead	315C2R3		9.44e+0	ug/g	1.35e-1	lbs/hr	CC
Mercury	315C1R1		1.26e-1	ug/g	1.72e-3	lbs/hr	CC
Mercury	315C1R2		1.26e-1	ug/g	1.75e-3	lbs/hr	CC
Mercury	315C1R3		7.55e-2	ug/g	1.11e-3	lbs/hr	CC
Mercury	315C2R1		1.85e-1	ug/g	2.80e-3	lbs/hr	CC
Mercury	315C2R2		9.08e-2	ug/g	1.29e-3	lbs/hr	CC
Mercury	315C2R3		1.19e-1	ug/g	1.70e-3	lbs/hr	CC
Silver	315C1R1	ND	1.00e-1	ug/g	1.37e-3	lbs/hr	CC
Silver	315C1R2	ND	1.00e-1	ug/g	1.39e-3	lbs/hr	CC
Silver	315C1R3	ND	1.00e-1	ug/g	1.47e-3	lbs/hr	CC
Silver	315C2R1	ND	4.98e-1	ug/g	7.52e-3	lbs/hr	CC
Silver	315C2R2	ND	9.93e-2	ug/g	1.41e-3	lbs/hr	CC
Silver	315C2R3	ND	9.93e-2	ug/g	1.42e-3	lbs/hr	CC
Thallium	315C1R1	ND	4.99e-1	ug/g	6.83e-3	lbs/hr	CC
Thallium	315C1R2	ND	5.01e-1	ug/g	6.96e-3	lbs/hr	CC
Thallium	315C1R3	ND	4.99e-1	ug/g	7.34e-3	lbs/hr	CC
Thallium	315C2R1	ND	4.98e-1	ug/g	7.52e-3	lbs/hr	CC
Thallium	315C2R2	ND	4.98e-1	ug/g	7.07e-3	lbs/hr	CC
Thallium	315C2R3	ND	4.99e-1	ug/g	7.13e-3	lbs/hr	CC

5. Type: RAW MATERIAL

6. Description:

Group: DRY KILN

Location: KILN

Phase: SOLID

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

REGION: 5

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	315C1R1	2.51e+2	ug/g	6.14e+1	lbs/hr	CC
Chlorine	315C1R2	1.70e+2	ug/g	4.26e+1	lbs/hr	CC
Chlorine	315C1R3	2.10e+2	ug/g	5.72e+1	lbs/hr	CC
Chlorine	315C2R1	2.10e+2	ug/g	5.73e+1	lbs/hr	CC
Chlorine	315C2R2	2.70e+2	ug/g	7.86e+1	lbs/hr	CC
Chlorine	315C2R3	2.10e+2	ug/g	5.94e+1	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	315C1R1	3.96e-1	ug/g	9.69e-2	lbs/hr	CC	
Antimony	315C1R2	4.26e-1	ug/g	1.07e-1	lbs/hr	CC	
Antimony	315C1R3	4.04e-1	ug/g	1.10e-1	lbs/hr	CC	
Antimony	315C2R1	7.47e-1	ug/g	2.04e-1	lbs/hr	CC	
Antimony	315C2R2	4.88e-1	ug/g	1.42e-1	lbs/hr	CC	
Antimony	315C2R3	4.56e-1	ug/g	1.29e-1	lbs/hr	CC	
Arsenic	315C1R1	6.29e+0	ug/g	1.54e+0	lbs/hr	CC	
Arsenic	315C1R2	8.61e+0	ug/g	2.16e+0	lbs/hr	CC	
Arsenic	315C1R3	5.81e+0	ug/g	1.58e+0	lbs/hr	CC	
Arsenic	315C2R1	7.25e+0	ug/g	1.98e+0	lbs/hr	CC	
Arsenic	315C2R2	9.28e+0	ug/g	2.70e+0	lbs/hr	CC	
Arsenic	315C2R3	1.07e+1	ug/g	3.03e+0	lbs/hr	CC	
Barium	315C1R1	1.63e+2	ug/g	4.00e+1	lbs/hr	CC	
Barium	315C1R2	1.55e+2	ug/g	3.89e+1	lbs/hr	CC	
Barium	315C1R3	1.62e+2	ug/g	4.41e+1	lbs/hr	CC	
Barium	315C2R1	1.69e+2	ug/g	4.61e+1	lbs/hr	CC	
Barium	315C2R2	1.77e+2	ug/g	5.15e+1	lbs/hr	CC	
Barium	315C2R3	1.75e+2	ug/g	4.95e+1	lbs/hr	CC	
Beryllium	315C1R1	3.60e-1	ug/g	8.83e-2	lbs/hr	CC	
Beryllium	315C1R2	3.66e-1	ug/g	9.18e-2	lbs/hr	CC	
Beryllium	315C1R3	2.25e-1	ug/g	6.12e-2	lbs/hr	CC	
Beryllium	315C2R1	7.18e-1	ug/g	1.96e-1	lbs/hr	CC	
Beryllium	315C2R2	4.85e-1	ug/g	1.41e-1	lbs/hr	CC	
Beryllium	315C2R3	3.82e-1	ug/g	1.08e-1	lbs/hr	CC	
Cadmium	315C1R1	ND	2.00e-1	ug/g	4.91e-2	lbs/hr	CC
Cadmium	315C1R2	ND	2.00e-1	ug/g	5.02e-2	lbs/hr	CC
Cadmium	315C1R3	ND	2.00e-1	ug/g	5.44e-2	lbs/hr	CC
Cadmium	315C2R1	ND	2.00e-1	ug/g	5.46e-2	lbs/hr	CC
Cadmium	315C2R2	ND	2.00e-1	ug/g	5.82e-2	lbs/hr	CC
Cadmium	315C2R3	ND	2.00e-1	ug/g	5.66e-2	lbs/hr	CC
Chromium	315C1R1	2.47e+1	ug/g	6.06e+0	lbs/hr	CC	
Chromium	315C1R2	2.43e+1	ug/g	6.09e+0	lbs/hr	CC	
Chromium	315C1R3	2.46e+1	ug/g	6.70e+0	lbs/hr	CC	
Chromium	315C2R1	2.48e+1	ug/g	6.77e+0	lbs/hr	CC	
Chromium	315C2R2	2.54e+1	ug/g	7.39e+0	lbs/hr	CC	
Chromium	315C2R3	2.58e+1	ug/g	7.30e+0	lbs/hr	CC	
Lead	315C1R1	1.27e+1	ug/g	3.12e+0	lbs/hr	CC	
Lead	315C1R2	7.25e+0	ug/g	1.82e+0	lbs/hr	CC	
Lead	315C1R3	7.17e+0	ug/g	1.95e+0	lbs/hr	CC	
Lead	315C2R1	8.57e+0	ug/g	2.34e+0	lbs/hr	CC	
Lead	315C2R2	7.42e+0	ug/g	2.16e+0	lbs/hr	CC	
Lead	315C2R3	7.42e+0	ug/g	2.10e+0	lbs/hr	CC	
Mercury	315C1R1	ND	2.91e-2	ug/g	7.12e-3	lbs/hr	CC
Mercury	315C1R2	ND	2.90e-2	ug/g	7.27e-3	lbs/hr	CC
Mercury	315C1R3	ND	2.90e-2	ug/g	7.89e-3	lbs/hr	CC
Mercury	315C2R1	ND	2.80e-2	ug/g	7.64e-3	lbs/hr	CC
Mercury	315C2R2	ND	2.80e-2	ug/g	8.15e-3	lbs/hr	CC
Mercury	315C2R3	ND	2.90e-2	ug/g	8.21e-3	lbs/hr	CC
Silver	315C1R1	ND	2.00e-1	ug/g	4.91e-2	lbs/hr	CC
Silver	315C1R2	ND	2.00e-1	ug/g	5.02e-2	lbs/hr	CC
Silver	315C1R3	ND	2.00e-1	ug/g	5.44e-2	lbs/hr	CC
Silver	315C2R1	ND	3.81e-1	ug/g	1.04e-1	lbs/hr	CC
Silver	315C2R2	ND	2.00e-1	ug/g	5.82e-2	lbs/hr	CC
Silver	315C2R3	ND	2.00e-1	ug/g	5.66e-2	lbs/hr	CC
Thallium	315C1R1	1.26e+0	ug/g	3.09e-1	lbs/hr	CC	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN
 2. STATE: OH
 3. CITY: FAIRBORN
 4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF REGION: 5

Thallium	315C1R2	1.22e+0	ug/g	3.06e-1	lbs/hr	CC
Thallium	315C1R3	1.30e+0	ug/g	3.54e-1	lbs/hr	CC
Thallium	315C2R1	3.33e+0	ug/g	9.08e-1	lbs/hr	CC
Thallium	315C2R2	1.77e+0	ug/g	5.15e-1	lbs/hr	CC
Thallium	315C2R3	1.53e+0	ug/g	4.33e-1	lbs/hr	CC

5. Type: SPIKE

6. Description: METALS (AS)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Arsenic	315C1R1	4.09e+4	ug/g	2.08e+0	lbs/hr	
Arsenic	315C1R2	3.65e+4	ug/g	2.13e+0	lbs/hr	
Arsenic	315C1R3	3.19e+4	ug/g	2.70e+0	lbs/hr	
Arsenic	315C2R1	3.95e+4	ug/g	2.46e+0	lbs/hr	
Arsenic	315C2R2	4.51e+4	ug/g	2.18e+0	lbs/hr	
Arsenic	315C2R3	4.43e+4	ug/g	2.16e+0	lbs/hr	
Arsenic	315C3R1	3.16e+4	ug/g	0.00e+0		
Arsenic	315C3R2	3.51e+4	ug/g	0.00e+0		
Arsenic	315C3R3	3.85e+4	ug/g	0.00e+0		

6. Description: METALS (BE)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Beryllium	315C1R1	2.01e+4	ug/g	1.82e+0	lbs/hr	
Beryllium	315C1R2	2.09e+4	ug/g	2.01e+0	lbs/hr	
Beryllium	315C1R3	2.02e+4	ug/g	2.20e+0	lbs/hr	
Beryllium	315C2R1	2.01e+4	ug/g	1.88e+0	lbs/hr	
Beryllium	315C2R2	2.00e+4	ug/g	1.94e+0	lbs/hr	
Beryllium	315C2R3	2.08e+4	ug/g	1.84e+0	lbs/hr	
Beryllium	315C3R1	2.09e+4	ug/g	0.00e+0		
Beryllium	315C3R2	2.09e+4	ug/g	0.00e+0		
Beryllium	315C3R3	2.09e+4	ug/g	0.00e+0		

6. Description: METALS (CD)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Cadmium	315C1R1	3.95e+4	ug/g	1.12e+1	lbs/hr	
Cadmium	315C1R2	4.05e+4	ug/g	1.13e+1	lbs/hr	
Cadmium	315C1R3	3.89e+4	ug/g	1.12e+1	lbs/hr	
Cadmium	315C2R1	3.71e+4	ug/g	1.09e+1	lbs/hr	
Cadmium	315C2R2	3.90e+4	ug/g	1.11e+1	lbs/hr	
Cadmium	315C2R3	3.84e+4	ug/g	1.11e+1	lbs/hr	
Cadmium	315C3R1	3.73e+4	ug/g	0.00e+0		
Cadmium	315C3R2	3.88e+4	ug/g	0.00e+0		
Cadmium	315C3R3	3.89e+4	ug/g	0.00e+0		

6. Description: METALS (CR)
 Group: DRY KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chromium	315C1R1	9.26e+4	ug/g	7.20e+1	lbs/hr	
Chromium	315C1R2	9.06e+4	ug/g	6.88e+1	lbs/hr	
Chromium	315C1R3	8.90e+4	ug/g	7.20e+1	lbs/hr	
Chromium	315C2R1	9.67e+4	ug/g	7.11e+1	lbs/hr	
Chromium	315C2R2	9.84e+4	ug/g	7.17e+1	lbs/hr	
Chromium	315C2R3	9.75e+4	ug/g	7.19e+1	lbs/hr	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

EPA ID: OHD981195779

REGION: 5

4. EP ID: 315 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Chromium	315C3R1	9.80e+4	ug/g	0.00e+0	
Chromium	315C3R2	9.55e+4	ug/g	0.00e+0	
Chromium	315C3R3	8.74e+4	ug/g	0.00e+0	

6. Description: METALS (PB)

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Lead	315C1R1	4.19e+5	ug/g	2.87e+1	lbs/hr	
Lead	315C1R2	4.06e+5	ug/g	2.87e+1	lbs/hr	
Lead	315C1R3	4.19e+5	ug/g	2.67e+1	lbs/hr	
Lead	315C2R1	4.19e+5	ug/g	2.94e+1	lbs/hr	
Lead	315C2R2	4.20e+5	ug/g	2.89e+1	lbs/hr	
Lead	315C2R3	4.11e+5	ug/g	2.86e+1	lbs/hr	
Lead	315C3R1	4.16e+5	ug/g	0.00e+0		
Lead	315C3R2	4.22e+5	ug/g	0.00e+0		
Lead	315C3R3	4.19e+5	ug/g	0.00e+0		

6. Description: ORGANICS (PERCHLOROETHYLENE)

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Tetrachloroethene	315C1R1	1.00e+6	ug/g	1.50e+2	lbs/hr	CE
Tetrachloroethene	315C1R2	1.00e+6	ug/g	1.50e+2	lbs/hr	CE
Tetrachloroethene	315C1R3	1.00e+6	ug/g	0.00e+0		
Tetrachloroethene	315C2R1	1.00e+6	ug/g	1.38e+2	lbs/hr	CE
Tetrachloroethene	315C2R2	1.00e+6	ug/g	1.19e+2	lbs/hr	CE
Tetrachloroethene	315C2R3	1.00e+6	ug/g	1.12e+2	lbs/hr	CE

5. Type: WASTE

6. Description: TIRES

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	315C1R1	7.44e+3	ug/g	9.90e+0	lbs/hr	CC
Chlorine	315C1R2	6.93e+2	ug/g	9.22e-1	lbs/hr	CC
Chlorine	315C1R3	9.05e+2	ug/g	8.21e-1	lbs/hr	CC
Chlorine	315C2R1	2.21e+2	ug/g	2.00e-1	lbs/hr	CC
Chlorine	315C2R2	2.00e+2	ug/g	1.81e-1	lbs/hr	CC
Chlorine	315C2R3	1.82e+2	ug/g	1.65e-1	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	315C1R1	4.28e+0	ug/g	5.69e-3	lbs/hr	CC
Antimony	315C1R2	4.05e-1	ug/g	5.38e-4	lbs/hr	CC
Antimony	315C1R3	3.81e+0	ug/g	3.46e-3	lbs/hr	CC
Antimony	315C2R1	3.31e+0	ug/g	3.00e-3	lbs/hr	CC
Antimony	315C2R2	1.80e-1	ug/g	1.63e-4	lbs/hr	CC
Antimony	315C2R3	5.71e+0	ug/g	5.18e-3	lbs/hr	CC
Arsenic	315C1R1	1.69e+0	ug/g	2.25e-3	lbs/hr	CC
Arsenic	315C1R2	1.73e+0	ug/g	2.30e-3	lbs/hr	CC
Arsenic	315C1R3	2.06e+1	ug/g	1.87e-2	lbs/hr	CC
Arsenic	315C2R1	5.85e-1	ug/g	5.31e-4	lbs/hr	CC
Arsenic	315C2R2	2.77e-1	ug/g	2.51e-4	lbs/hr	CC
Arsenic	315C2R3	2.04e+0	ug/g	1.85e-3	lbs/hr	CC
Barium	315C1R1	1.08e+1	ug/g	1.44e-2	lbs/hr	CC
Barium	315C1R2	1.21e+0	ug/g	1.61e-3	lbs/hr	CC
Barium	315C1R3	1.57e+0	ug/g	1.42e-3	lbs/hr	CC
Barium	315C2R1	5.42e+0	ug/g	4.92e-3	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

4. EP ID: 315 DEVICE NAME: KILN NO. 1

EPA ID: OHD981195779

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

REGION: 5

Barium	315C2R2	6.76e+0	ug/g	6.13e-3	lbs/hr	CC
Barium	315C2R3	4.25e+0	ug/g	3.86e-3	lbs/hr	CC
Beryllium	315C1R1	ND 9.55e-1	ug/g	1.27e-3	lbs/hr	CC
Beryllium	315C1R2	ND 8.95e-1	ug/g	1.19e-3	lbs/hr	CC
Beryllium	315C1R3	ND 8.96e-1	ug/g	8.13e-4	lbs/hr	CC
Beryllium	315C2R1	ND 8.97e-1	ug/g	8.14e-4	lbs/hr	CC
Beryllium	315C2R2	ND 8.97e-1	ug/g	8.14e-4	lbs/hr	CC
Beryllium	315C2R3	ND 8.97e-1	ug/g	8.14e-4	lbs/hr	CC
Cadmium	315C1R1	ND 1.92e+0	ug/g	2.55e-3	lbs/hr	CC
Cadmium	315C1R2	ND 1.04e+0	ug/g	1.38e-3	lbs/hr	CC
Cadmium	315C1R3	ND 1.20e+0	ug/g	1.09e-3	lbs/hr	CC
Cadmium	315C2R1	ND 1.73e+0	ug/g	1.57e-3	lbs/hr	CC
Cadmium	315C2R2	1.16e+0	ug/g	1.05e-3	lbs/hr	CC
Cadmium	315C2R3	1.25e+0	ug/g	1.13e-3	lbs/hr	CC
Chromium	315C1R1	3.26e+1	ug/g	4.34e-2	lbs/hr	CC
Chromium	315C1R2	1.71e+1	ug/g	2.27e-2	lbs/hr	CC
Chromium	315C1R3	5.60e+1	ug/g	5.08e-2	lbs/hr	CC
Chromium	315C2R1	2.35e+1	ug/g	2.13e-2	lbs/hr	CC
Chromium	315C2R2	5.35e+1	ug/g	4.85e-2	lbs/hr	CC
Chromium	315C2R3	4.29e+1	ug/g	3.89e-2	lbs/hr	CC
Lead	315C1R1	2.06e+1	ug/g	2.74e-2	lbs/hr	CC
Lead	315C1R2	2.53e+0	ug/g	3.37e-3	lbs/hr	CC
Lead	315C1R3	2.51e+0	ug/g	2.28e-3	lbs/hr	CC
Lead	315C2R1	2.11e+0	ug/g	1.91e-3	lbs/hr	CC
Lead	315C2R2	1.35e+0	ug/g	1.22e-3	lbs/hr	CC
Lead	315C2R3	6.11e+0	ug/g	5.54e-3	lbs/hr	CC
Mercury	315C1R1	1.03e+0	ug/g	1.37e-3	lbs/hr	CC
Mercury	315C1R2	ND 1.04e+0	ug/g	1.38e-3	lbs/hr	CC
Mercury	315C1R3	ND 1.20e+0	ug/g	1.09e-3	lbs/hr	CC
Mercury	315C2R1	ND 1.73e+0	ug/g	1.57e-3	lbs/hr	CC
Mercury	315C2R2	ND 1.40e+0	ug/g	1.27e-3	lbs/hr	CC
Mercury	315C2R3	ND 1.58e+0	ug/g	1.43e-3	lbs/hr	CC
Silver	315C1R1	ND 1.92e+0	ug/g	2.55e-3	lbs/hr	CC
Silver	315C1R2	ND 1.04e+0	ug/g	1.38e-3	lbs/hr	CC
Silver	315C1R3	ND 1.20e+0	ug/g	1.09e-3	lbs/hr	CC
Silver	315C2R1	ND 1.73e+0	ug/g	1.57e-3	lbs/hr	CC
Silver	315C2R2	ND 1.40e+0	ug/g	1.27e-3	lbs/hr	CC
Silver	315C2R3	ND 1.58e+0	ug/g	1.43e-3	lbs/hr	CC
Thallium	315C1R1	ND 1.92e+0	ug/g	2.55e-3	lbs/hr	CC
Thallium	315C1R2	ND 1.04e+0	ug/g	1.38e-3	lbs/hr	CC
Thallium	315C1R3	ND 1.20e+0	ug/g	1.09e-3	lbs/hr	CC
Thallium	315C2R1	ND 1.86e+0	ug/g	1.68e-3	lbs/hr	CC
Thallium	315C2R2	ND 1.40e+0	ug/g	1.27e-3	lbs/hr	CC
Thallium	315C2R3	ND 1.58e+0	ug/g	1.43e-3	lbs/hr	CC

6. Description: LHWF

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	315C1R1	2.76e+4 ug/g	1.48e+2 lbs/hr	CC
Chlorine	315C1R2	2.72e+4 ug/g	1.46e+2 lbs/hr	CC
Chlorine	315C1R3	2.71e+4 ug/g	1.45e+2 lbs/hr	CC
Chlorine	315C2R1	2.42e+4 ug/g	1.28e+2 lbs/hr	CC
Chlorine	315C2R2	3.00e+4 ug/g	1.60e+2 lbs/hr	CC
Chlorine	315C2R3	1.93e+4 ug/g	1.03e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	315C1R1	2.10e+0 ug/g	1.13e-2 lbs/hr	CC
Antimony	315C1R2	2.09e+0 ug/g	1.12e-2 lbs/hr	CC
Antimony	315C1R3	1.96e+0 ug/g	1.05e-2 lbs/hr	CC
Antimony	315C2R1	7.37e-1 ug/g	3.90e-3 lbs/hr	CC
Antimony	315C2R2	6.10e-1 ug/g	3.25e-3 lbs/hr	CC
Antimony	315C2R3	9.00e-1 ug/g	4.80e-3 lbs/hr	CC
Arsenic	315C1R1	1.72e+1 ug/g	9.26e-2 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: OH

3. CITY: FAIRBORN

EPA OHD981195779

REGION: 5

4. EP ID: 315 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Arsenic	315C1R2		1.57e+1	ug/g	8.39e-2	lbs/hr	CC
Arsenic	315C1R3		1.71e+1	ug/g	9.17e-2	lbs/hr	CC
Arsenic	315C2R1		2.44e+1	ug/g	1.29e-1	lbs/hr	CC
Arsenic	315C2R2		2.23e+1	ug/g	1.19e-1	lbs/hr	CC
Arsenic	315C2R3		1.84e+1	ug/g	9.79e-2	lbs/hr	CC
Barium	315C1R1		6.54e+1	ug/g	3.51e-1	lbs/hr	CC
Barium	315C1R2		6.81e+1	ug/g	3.65e-1	lbs/hr	CC
Barium	315C1R3		7.24e+1	ug/g	3.88e-1	lbs/hr	CC
Barium	315C2R1		1.98e+1	ug/g	1.05e-1	lbs/hr	CC
Barium	315C2R2		1.88e+1	ug/g	1.00e-1	lbs/hr	CC
Barium	315C2R3		1.97e+1	ug/g	1.05e-1	lbs/hr	CC
Beryllium	315C1R1		6.82e+0	ug/g	3.66e-2	lbs/hr	CC
Beryllium	315C1R2		7.84e+0	ug/g	4.20e-2	lbs/hr	CC
Beryllium	315C1R3		8.28e+0	ug/g	4.44e-2	lbs/hr	CC
Beryllium	315C2R1		7.41e+0	ug/g	3.92e-2	lbs/hr	CC
Beryllium	315C2R2		1.32e+1	ug/g	7.03e-2	lbs/hr	CC
Beryllium	315C2R3		7.18e+0	ug/g	3.83e-2	lbs/hr	CC
Cadmium	315C1R1		8.27e+1	ug/g	4.44e-1	lbs/hr	CC
Cadmium	315C1R2		8.54e+1	ug/g	4.58e-1	lbs/hr	CC
Cadmium	315C1R3		8.15e+1	ug/g	4.37e-1	lbs/hr	CC
Cadmium	315C2R1		7.77e+1	ug/g	4.11e-1	lbs/hr	CC
Cadmium	315C2R2		9.92e+1	ug/g	5.29e-1	lbs/hr	CC
Cadmium	315C2R3		7.97e+1	ug/g	4.25e-1	lbs/hr	CC
Chromium	315C1R1		1.27e+3	ug/g	6.84e+0	lbs/hr	CC
Chromium	315C1R2		1.20e+3	ug/g	6.41e+0	lbs/hr	CC
Chromium	315C1R3		1.23e+3	ug/g	6.59e+0	lbs/hr	CC
Chromium	315C2R1		1.33e+3	ug/g	7.05e+0	lbs/hr	CC
Chromium	315C2R2		1.40e+3	ug/g	7.48e+0	lbs/hr	CC
Chromium	315C2R3		1.33e+3	ug/g	7.07e+0	lbs/hr	CC
Lead	315C1R1		2.33e+3	ug/g	1.25e+1	lbs/hr	CC
Lead	315C1R2		2.28e+3	ug/g	1.22e+1	lbs/hr	CC
Lead	315C1R3		2.20e+3	ug/g	1.18e+1	lbs/hr	CC
Lead	315C2R1		2.36e+3	ug/g	1.25e+1	lbs/hr	CC
Lead	315C2R2		2.42e+3	ug/g	1.29e+1	lbs/hr	CC
Lead	315C2R3		2.23e+3	ug/g	1.19e+1	lbs/hr	CC
Mercury	315C1R1		1.19e-1	ug/g	6.39e-4	lbs/hr	CC
Mercury	315C1R2		1.68e-1	ug/g	9.00e-4	lbs/hr	CC
Mercury	315C1R3	ND	1.09e-1	ug/g	5.84e-4	lbs/hr	CC
Mercury	315C2R1	ND	1.11e-1	ug/g	5.87e-4	lbs/hr	CC
Mercury	315C2R2	ND	1.11e-1	ug/g	5.92e-4	lbs/hr	CC
Mercury	315C2R3		1.38e-1	ug/g	7.36e-4	lbs/hr	CC
Silver	315C1R1	ND	1.99e-1	ug/g	1.07e-3	lbs/hr	CC
Silver	315C1R2	ND	2.00e-1	ug/g	1.07e-3	lbs/hr	CC
Silver	315C1R3	ND	2.00e-1	ug/g	1.07e-3	lbs/hr	CC
Silver	315C2R1	ND	2.00e-1	ug/g	1.06e-3	lbs/hr	CC
Silver	315C2R2	ND	2.01e-1	ug/g	1.07e-3	lbs/hr	CC
Silver	315C2R3	ND	2.01e-1	ug/g	1.07e-3	lbs/hr	CC
Thallium	315C1R1		1.33e+0	ug/g	7.14e-3	lbs/hr	CC
Thallium	315C1R2		1.28e+0	ug/g	6.86e-3	lbs/hr	CC
Thallium	315C1R3	ND	2.00e-1	ug/g	1.07e-3	lbs/hr	CC
Thallium	315C2R1	ND	2.00e-1	ug/g	1.06e-3	lbs/hr	CC
Thallium	315C2R2	ND	2.01e-1	ug/g	1.07e-3	lbs/hr	CC
Thallium	315C2R3	ND	2.01e-1	ug/g	1.07e-3	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

5. Type: FF ASH

6. Description: NONRECYCLE

Group: DRY KILN

Location: FF-BYPASS

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	316C1R1	2.95e+0	ug/g	0.00e+0	
Antimony	316C1R2	3.13e+0	ug/g	0.00e+0	
Antimony	316C1R3	3.10e+0	ug/g	0.00e+0	
Antimony	316C2R1	3.40e+0	ug/g	0.00e+0	
Antimony	316C2R2	2.30e+0	ug/g	0.00e+0	
Antimony	316C2R3	2.40e+0	ug/g	0.00e+0	
Arsenic	316C1R1	6.14e+1	ug/g	0.00e+0	
Arsenic	316C1R2	6.50e+1	ug/g	0.00e+0	
Arsenic	316C1R3	6.44e+1	ug/g	0.00e+0	
Arsenic	316C2R1	7.14e+1	ug/g	0.00e+0	
Arsenic	316C2R2	4.95e+1	ug/g	0.00e+0	
Arsenic	316C2R3	3.88e+1	ug/g	0.00e+0	
Barium	316C1R1	3.53e+1	ug/g	0.00e+0	
Barium	316C1R2	7.20e+1	ug/g	0.00e+0	
Barium	316C1R3	6.57e+1	ug/g	0.00e+0	
Barium	316C2R1	9.35e+1	ug/g	0.00e+0	
Barium	316C2R2	6.65e+1	ug/g	0.00e+0	
Barium	316C2R3	6.65e+1	ug/g	0.00e+0	
Beryllium	316C1R1	1.50e+0	ug/g	0.00e+0	
Beryllium	316C1R2	2.28e+1	ug/g	0.00e+0	
Beryllium	316C1R3	1.80e+0	ug/g	0.00e+0	
Beryllium	316C2R1	2.20e+0	ug/g	0.00e+0	
Beryllium	316C2R2	1.60e+0	ug/g	0.00e+0	
Beryllium	316C2R3	1.50e+0	ug/g	0.00e+0	
Cadmium	316C1R1	3.13e+2	ug/g	0.00e+0	
Cadmium	316C1R2	4.18e+2	ug/g	0.00e+0	
Cadmium	316C1R3	4.94e+1	ug/g	0.00e+0	
Cadmium	316C2R1	4.51e+2	ug/g	0.00e+0	
Cadmium	316C2R2	4.53e+2	ug/g	0.00e+0	
Cadmium	316C2R3	3.76e+2	ug/g	0.00e+0	
Chromium	316C1R1	2.05e+2	ug/g	0.00e+0	
Chromium	316C1R2	2.32e+2	ug/g	0.00e+0	
Chromium	316C1R3	2.57e+2	ug/g	0.00e+0	
Chromium	316C2R1	2.56e+2	ug/g	0.00e+0	
Chromium	316C2R2	1.63e+2	ug/g	0.00e+0	
Chromium	316C2R3	1.36e+2	ug/g	0.00e+0	
Lead	316C1R1	3.45e+3	ug/g	0.00e+0	
Lead	316C1R2	4.46e+3	ug/g	0.00e+0	
Lead	316C1R3	5.28e+3	ug/g	0.00e+0	
Lead	316C2R1	4.57e+3	ug/g	0.00e+0	
Lead	316C2R2	3.81e+3	ug/g	0.00e+0	
Lead	316C2R3	3.08e+3	ug/g	0.00e+0	
Mercury	316C1R1	1.17e-1	ug/g	0.00e+0	
Mercury	316C1R2	9.30e-2	ug/g	0.00e+0	
Mercury	316C1R3	1.30e-1	ug/g	0.00e+0	
Mercury	316C2R1	2.36e-1	ug/g	0.00e+0	
Mercury	316C2R2	3.14e-1	ug/g	0.00e+0	
Mercury	316C2R3	2.67e-1	ug/g	0.00e+0	
Silver	316C1R1	2.65e+0	ug/g	0.00e+0	
Silver	316C1R2	4.23e+0	ug/g	0.00e+0	
Silver	316C1R3	5.00e+0	ug/g	0.00e+0	
Silver	316C2R1	6.25e+0	ug/g	0.00e+0	
Silver	316C2R2	5.80e+0	ug/g	0.00e+0	
Silver	316C2R3	4.85e+0	ug/g	0.00e+0	
Thallium	316C1R1	7.10e+0	ug/g	0.00e+0	
Thallium	316C1R2	7.85e+0	ug/g	0.00e+0	
Thallium	316C1R3	7.15e+0	ug/g	0.00e+0	
Thallium	316C2R1	5.35e+0	ug/g	0.00e+0	
Thallium	316C2R2	5.95e+0	ug/g	0.00e+0	
Thallium	316C2R3	7.05e+0	ug/g	0.00e+0	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

6. Description: RECYCLE

Group: DRY KILN

Location: FF-MAIN

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	316C1R1	ND	1.00e+0 ug/g	0.00e+0	
Antimony	316C1R2	ND	1.00e+0 ug/g	0.00e+0	
Antimony	316C1R3		1.00e+0 ug/g	0.00e+0	
Antimony	316C2R1	ND	1.00e+0 ug/g	0.00e+0	
Antimony	316C2R2	ND	1.00e+0 ug/g	0.00e+0	
Antimony	316C2R3	ND	1.00e+0 ug/g	0.00e+0	
Arsenic	316C1R1		1.03e+1 ug/g	0.00e+0	
Arsenic	316C1R2		1.22e+1 ug/g	0.00e+0	
Arsenic	316C1R3		1.06e+1 ug/g	0.00e+0	
Arsenic	316C2R1		9.60e+0 ug/g	0.00e+0	
Arsenic	316C2R2		1.06e+1 ug/g	0.00e+0	
Arsenic	316C2R3		1.03e+1 ug/g	0.00e+0	
Barium	316C1R1		4.73e+1 ug/g	0.00e+0	
Barium	316C1R2		1.35e+2 ug/g	0.00e+0	
Barium	316C1R3		1.84e+2 ug/g	0.00e+0	
Barium	316C2R1		4.56e+1 ug/g	0.00e+0	
Barium	316C2R2		3.98e+1 ug/g	0.00e+0	
Barium	316C2R3		3.48e+1 ug/g	0.00e+0	
Beryllium	316C1R1	ND	1.00e+0 ug/g	0.00e+0	
Beryllium	316C1R2	ND	1.00e+0 ug/g	0.00e+0	
Beryllium	316C1R3	ND	1.00e+0 ug/g	0.00e+0	
Beryllium	316C2R1	ND	1.00e+0 ug/g	0.00e+0	
Beryllium	316C2R2	ND	1.00e+0 ug/g	0.00e+0	
Beryllium	316C2R3	ND	1.00e+0 ug/g	0.00e+0	
Cadmium	316C1R1		2.20e+0 ug/g	0.00e+0	
Cadmium	316C1R2		2.40e+0 ug/g	0.00e+0	
Cadmium	316C1R3		2.65e+0 ug/g	0.00e+0	
Cadmium	316C2R1		3.55e+0 ug/g	0.00e+0	
Cadmium	316C2R2		3.65e+0 ug/g	0.00e+0	
Cadmium	316C2R3		3.55e+0 ug/g	0.00e+0	
Chromium	316C1R1		2.94e+1 ug/g	0.00e+0	
Chromium	316C1R2		3.16e+1 ug/g	0.00e+0	
Chromium	316C1R3		2.80e+1 ug/g	0.00e+0	
Chromium	316C2R1		2.54e+1 ug/g	0.00e+0	
Chromium	316C2R2		2.57e+1 ug/g	0.00e+0	
Chromium	316C2R3		2.50e+1 ug/g	0.00e+0	
Lead	316C1R1		7.27e+1 ug/g	0.00e+0	
Lead	316C1R2		7.11e+1 ug/g	0.00e+0	
Lead	316C1R3		7.18e+1 ug/g	0.00e+0	
Lead	316C2R1		6.49e+1 ug/g	0.00e+0	
Lead	316C2R2		5.19e+1 ug/g	0.00e+0	
Lead	316C2R3		5.46e+1 ug/g	0.00e+0	
Mercury	316C1R1	ND	2.70e-2 ug/g	0.00e+0	
Mercury	316C1R2	ND	2.50e-2 ug/g	0.00e+0	
Mercury	316C1R3		4.40e-2 ug/g	0.00e+0	
Mercury	316C2R1		8.40e-2 ug/g	0.00e+0	
Mercury	316C2R2		1.51e-1 ug/g	0.00e+0	
Mercury	316C2R3		1.20e-1 ug/g	0.00e+0	
Silver	316C1R1	ND	1.00e+0 ug/g	0.00e+0	
Silver	316C1R2	ND	1.00e+0 ug/g	0.00e+0	
Silver	316C1R3	ND	1.00e+0 ug/g	0.00e+0	
Silver	316C2R1	ND	1.00e+0 ug/g	0.00e+0	
Silver	316C2R2	ND	1.00e+0 ug/g	0.00e+0	
Silver	316C2R3	ND	1.00e+0 ug/g	0.00e+0	
Thallium	316C1R1		2.34e+1 ug/g	0.00e+0	
Thallium	316C1R2		2.64e+1 ug/g	0.00e+0	
Thallium	316C1R3		3.26e+1 ug/g	0.00e+0	
Thallium	316C2R1		2.20e+1 ug/g	0.00e+0	
Thallium	316C2R2		2.54e+1 ug/g	0.00e+0	
Thallium	316C2R3		2.38e+1 ug/g	0.00e+0	

5. Type: FUEL

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

6. Description: COAL

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	316C1R1	6.00e+2	ug/g	8.26e+0 lbs/hr	CC
Chlorine	316C1R2	6.00e+2	ug/g	8.41e+0 lbs/hr	CC
Chlorine	316C1R3	6.00e+2	ug/g	8.81e+0 lbs/hr	CC
Chlorine	316C2R1	6.00e+2	ug/g	8.40e+0 lbs/hr	CC
Chlorine	316C2R2	6.00e+2	ug/g	8.40e+0 lbs/hr	CC
Chlorine	316C2R3	6.00e+2	ug/g	9.60e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	316C1R1	ND	5.00e-1 ug/g	6.88e-3 lbs/hr	CC
Antimony	316C1R2	ND	5.00e-1 ug/g	7.01e-3 lbs/hr	CC
Antimony	316C1R3	ND	5.00e-1 ug/g	7.34e-3 lbs/hr	CC
Antimony	316C2R1	ND	5.00e-1 ug/g	7.00e-3 lbs/hr	CC
Antimony	316C2R2	ND	2.20e+1 ug/g	3.08e-1 lbs/hr	CC
Antimony	316C2R3	ND	5.00e-1 ug/g	8.00e-3 lbs/hr	CC
Arsenic	316C1R1		5.41e+0 ug/g	7.44e-2 lbs/hr	CC
Arsenic	316C1R2		4.94e+0 ug/g	6.93e-2 lbs/hr	CC
Arsenic	316C1R3		5.44e+0 ug/g	7.99e-2 lbs/hr	CC
Arsenic	316C2R1		5.76e+0 ug/g	8.06e-2 lbs/hr	CC
Arsenic	316C2R2		5.50e+0 ug/g	7.70e-2 lbs/hr	CC
Arsenic	316C2R3		5.43e+0 ug/g	8.69e-2 lbs/hr	CC
Barium	316C1R1		7.20e+1 ug/g	9.91e-1 lbs/hr	CC
Barium	316C1R2		7.49e+1 ug/g	1.05e+0 lbs/hr	CC
Barium	316C1R3		7.22e+1 ug/g	1.06e+0 lbs/hr	CC
Barium	316C2R1		7.86e+1 ug/g	1.10e+0 lbs/hr	CC
Barium	316C2R2		5.47e+1 ug/g	7.66e-1 lbs/hr	CC
Barium	316C2R3		6.09e+1 ug/g	9.74e-1 lbs/hr	CC
Beryllium	316C1R1	ND	4.00e-2 ug/g	5.50e-4 lbs/hr	CC
Beryllium	316C1R2	ND	4.00e-2 ug/g	5.61e-4 lbs/hr	CC
Beryllium	316C1R3	ND	4.00e-2 ug/g	5.87e-4 lbs/hr	CC
Beryllium	316C2R1	ND	4.00e-2 ug/g	5.60e-4 lbs/hr	CC
Beryllium	316C2R2	ND	4.00e-2 ug/g	5.60e-4 lbs/hr	CC
Beryllium	316C2R3	ND	4.00e-2 ug/g	6.40e-4 lbs/hr	CC
Cadmium	316C1R1	ND	5.00e-2 ug/g	6.88e-4 lbs/hr	CC
Cadmium	316C1R2	ND	5.00e-2 ug/g	7.01e-4 lbs/hr	CC
Cadmium	316C1R3	ND	5.00e-2 ug/g	7.34e-4 lbs/hr	CC
Cadmium	316C2R1	ND	5.00e-2 ug/g	7.00e-4 lbs/hr	CC
Cadmium	316C2R2	ND	5.00e-2 ug/g	7.00e-4 lbs/hr	CC
Cadmium	316C2R3	ND	5.00e-2 ug/g	8.00e-4 lbs/hr	CC
Chromium	316C1R1		4.47e+1 ug/g	6.15e-1 lbs/hr	CC
Chromium	316C1R2		4.34e+1 ug/g	6.09e-1 lbs/hr	CC
Chromium	316C1R3		4.23e+1 ug/g	6.21e-1 lbs/hr	CC
Chromium	316C2R1		4.72e+1 ug/g	6.61e-1 lbs/hr	CC
Chromium	316C2R2		3.23e+1 ug/g	4.52e-1 lbs/hr	CC
Chromium	316C2R3		4.47e+1 ug/g	7.15e-1 lbs/hr	CC
Lead	316C1R1		1.99e+1 ug/g	2.74e-1 lbs/hr	CC
Lead	316C1R2		1.74e+1 ug/g	2.44e-1 lbs/hr	CC
Lead	316C1R3		1.74e+1 ug/g	2.55e-1 lbs/hr	CC
Lead	316C2R1		1.74e+1 ug/g	2.44e-1 lbs/hr	CC
Lead	316C2R2		1.74e+1 ug/g	2.44e-1 lbs/hr	CC
Lead	316C2R3		1.37e+1 ug/g	2.19e-1 lbs/hr	CC
Mercury	316C1R1	ND	5.00e-1 ug/g	6.88e-3 lbs/hr	CC
Mercury	316C1R2	ND	5.00e-1 ug/g	7.01e-3 lbs/hr	CC
Mercury	316C1R3	ND	5.00e-1 ug/g	7.34e-3 lbs/hr	CC
Mercury	316C2R1	ND	5.94e-1 ug/g	8.32e-3 lbs/hr	CC
Mercury	316C2R2	ND	5.00e-1 ug/g	7.00e-3 lbs/hr	CC
Mercury	316C2R3	ND	5.00e-1 ug/g	8.00e-3 lbs/hr	CC
Silver	316C1R1	ND	1.00e-1 ug/g	1.38e-3 lbs/hr	CC
Silver	316C1R2	ND	9.99e-2 ug/g	1.40e-3 lbs/hr	CC
Silver	316C1R3	ND	1.00e-1 ug/g	1.47e-3 lbs/hr	CC
Silver	316C2R1	ND	1.00e-1 ug/g	1.40e-3 lbs/hr	CC
Silver	316C2R2	ND	1.00e-1 ug/g	1.40e-3 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Silver	316C2R3	ND	1.00e-1	ug/g	1.60e-3	lbs/hr	CC
Thallium	316C1R1	ND	5.00e-1	ug/g	6.88e-3	lbs/hr	CC
Thallium	316C1R2	ND	5.00e-1	ug/g	7.01e-3	lbs/hr	CC
Thallium	316C1R3	ND	5.00e-1	ug/g	7.34e-3	lbs/hr	CC
Thallium	316C2R1	ND	5.00e-1	ug/g	7.00e-3	lbs/hr	CC
Thallium	316C2R2	ND	5.00e-1	ug/g	7.00e-3	lbs/hr	CC
Thallium	316C2R3	ND	5.00e-1	ug/g	8.00e-3	lbs/hr	CC

5. Type: RAW MATERIAL

6. Description:

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	316C1R1	3.70e+2	ug/g	1.15e+2	lbs/hr	CC
Chlorine	316C1R2	4.39e+2	ug/g	1.35e+2	lbs/hr	CC
Chlorine	316C1R3	4.00e+2	ug/g	1.23e+2	lbs/hr	CC
Chlorine	316C2R1	4.19e+2	ug/g	1.29e+2	lbs/hr	CC
Chlorine	316C2R2	3.41e+2	ug/g	1.05e+2	lbs/hr	CC
Chlorine	316C2R3	3.80e+2	ug/g	1.17e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	316C1R1	ND	2.00e-1	ug/g	6.21e-2	lbs/hr	CC
Antimony	316C1R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Antimony	316C1R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Antimony	316C2R1	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Antimony	316C2R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Antimony	316C2R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Arsenic	316C1R1		8.86e+0	ug/g	2.75e+0	lbs/hr	CC
Arsenic	316C1R2		7.96e+0	ug/g	2.45e+0	lbs/hr	CC
Arsenic	316C1R3		8.84e+0	ug/g	2.72e+0	lbs/hr	CC
Arsenic	316C2R1		8.64e+0	ug/g	2.66e+0	lbs/hr	CC
Arsenic	316C2R2		7.69e+0	ug/g	2.37e+0	lbs/hr	CC
Arsenic	316C2R3		7.60e+0	ug/g	2.34e+0	lbs/hr	CC
Barium	316C1R1		4.25e+1	ug/g	1.32e+1	lbs/hr	CC
Barium	316C1R2		8.45e+1	ug/g	2.60e+1	lbs/hr	CC
Barium	316C1R3		8.45e+1	ug/g	2.60e+1	lbs/hr	CC
Barium	316C2R1		3.06e+1	ug/g	9.42e+0	lbs/hr	CC
Barium	316C2R2		6.04e+1	ug/g	1.86e+1	lbs/hr	CC
Barium	316C2R3		4.71e+1	ug/g	1.45e+1	lbs/hr	CC
Beryllium	316C1R1	ND	5.19e-1	ug/g	1.61e-1	lbs/hr	CC
Beryllium	316C1R2		4.29e-1	ug/g	1.32e-1	lbs/hr	CC
Beryllium	316C1R3		4.65e-1	ug/g	1.43e-1	lbs/hr	CC
Beryllium	316C2R1	ND	5.91e-1	ug/g	1.82e-1	lbs/hr	CC
Beryllium	316C2R2		4.51e-1	ug/g	1.39e-1	lbs/hr	CC
Beryllium	316C2R3		4.06e-1	ug/g	1.25e-1	lbs/hr	CC
Cadmium	316C1R1	ND	2.00e-1	ug/g	6.21e-2	lbs/hr	CC
Cadmium	316C1R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Cadmium	316C1R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Cadmium	316C2R1	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Cadmium	316C2R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Cadmium	316C2R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Chromium	316C1R1		2.61e+1	ug/g	8.10e+0	lbs/hr	CC
Chromium	316C1R2		2.32e+1	ug/g	7.14e+0	lbs/hr	CC
Chromium	316C1R3		2.29e+1	ug/g	7.05e+0	lbs/hr	CC
Chromium	316C2R1		2.10e+1	ug/g	6.47e+0	lbs/hr	CC
Chromium	316C2R2		2.16e+1	ug/g	6.65e+0	lbs/hr	CC
Chromium	316C2R3		2.20e+1	ug/g	6.78e+0	lbs/hr	CC
Lead	316C1R1		1.11e+1	ug/g	3.45e+0	lbs/hr	CC
Lead	316C1R2		1.37e+1	ug/g	4.22e+0	lbs/hr	CC
Lead	316C1R3		1.20e+1	ug/g	3.70e+0	lbs/hr	CC
Lead	316C2R1		1.10e+1	ug/g	3.39e+0	lbs/hr	CC
Lead	316C2R2		1.23e+1	ug/g	3.79e+0	lbs/hr	CC
Lead	316C2R3		1.27e+1	ug/g	3.91e+0	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Mercury	316C1R1	ND	2.60e-1	ug/g	8.07e-2	lbs/hr	CC
Mercury	316C1R2	ND	2.70e-2	ug/g	8.31e-3	lbs/hr	CC
Mercury	316C1R3	ND	2.60e-2	ug/g	8.00e-3	lbs/hr	CC
Mercury	316C2R1	ND	2.27e-2	ug/g	7.00e-3	lbs/hr	CC
Mercury	316C2R2	ND	2.70e-2	ug/g	8.32e-3	lbs/hr	CC
Mercury	316C2R3	ND	2.70e-2	ug/g	8.32e-3	lbs/hr	CC
Silver	316C1R1	ND	2.00e-1	ug/g	6.21e-2	lbs/hr	CC
Silver	316C1R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Silver	316C1R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Silver	316C2R1	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Silver	316C2R2	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Silver	316C2R3	ND	2.00e-1	ug/g	6.16e-2	lbs/hr	CC
Thallium	316C1R1		3.45e+0	ug/g	1.07e+0	lbs/hr	CC
Thallium	316C1R2		3.41e+0	ug/g	1.05e+0	lbs/hr	CC
Thallium	316C1R3		3.41e+0	ug/g	1.05e+0	lbs/hr	CC
Thallium	316C2R1		5.10e+0	ug/g	1.57e+0	lbs/hr	CC
Thallium	316C2R2		3.86e+0	ug/g	1.19e+0	lbs/hr	CC
Thallium	316C2R3		3.51e+0	ug/g	1.08e+0	lbs/hr	CC

5. Type: WASTE

6. Description: SPIKED METALS (BE,CD,CR,AS,PB)

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	316C1R1	3.73e+4	ug/g	1.57e+2	lbs/hr	CC
Chlorine	316C1R2	3.69e+4	ug/g	1.55e+2	lbs/hr	CC
Chlorine	316C1R3	3.35e+4	ug/g	1.41e+2	lbs/hr	CC
Chlorine	316C2R1	2.31e+4	ug/g	9.70e+1	lbs/hr	CC
Chlorine	316C2R2	9.55e+3	ug/g	4.01e+1	lbs/hr	CC
Chlorine	316C2R3	1.44e+4	ug/g	5.96e+1	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Antimony	316C1R1	1.66e+1	ug/g	6.98e-2	lbs/hr	CC
Antimony	316C1R2	1.89e+1	ug/g	7.93e-2	lbs/hr	CC
Antimony	316C1R3	1.54e+1	ug/g	6.48e-2	lbs/hr	CC
Antimony	316C2R1	2.10e+0	ug/g	8.82e-3	lbs/hr	CC
Antimony	316C2R2	1.13e+1	ug/g	4.75e-2	lbs/hr	CC
Antimony	316C2R3	3.74e+0	ug/g	1.55e-2	lbs/hr	CC
Arsenic	316C1R1	3.52e+2	ug/g	1.48e+0	lbs/hr	CC
Arsenic	316C1R2	4.04e+2	ug/g	1.70e+0	lbs/hr	CC
Arsenic	316C1R3	3.02e+2	ug/g	1.27e+0	lbs/hr	CC
Arsenic	316C2R1	3.79e+2	ug/g	1.59e+0	lbs/hr	CC
Arsenic	316C2R2	2.07e+2	ug/g	8.70e-1	lbs/hr	CC
Arsenic	316C2R3	1.71e+2	ug/g	7.08e-1	lbs/hr	CC
Barium	316C1R1	8.46e+2	ug/g	3.56e+0	lbs/hr	CC
Barium	316C1R2	8.87e+2	ug/g	3.73e+0	lbs/hr	CC
Barium	316C1R3	8.11e+2	ug/g	3.41e+0	lbs/hr	CC
Barium	316C2R1	6.79e+1	ug/g	2.85e-1	lbs/hr	CC
Barium	316C2R2	5.88e+1	ug/g	2.47e-1	lbs/hr	CC
Barium	316C2R3	1.16e+2	ug/g	4.80e-1	lbs/hr	CC
Beryllium	316C1R1	5.18e+1	ug/g	2.18e-1	lbs/hr	CC
Beryllium	316C1R2	5.33e+1	ug/g	2.24e-1	lbs/hr	CC
Beryllium	316C1R3	4.45e+1	ug/g	1.87e-1	lbs/hr	CC
Beryllium	316C2R1	2.67e+1	ug/g	1.12e-1	lbs/hr	CC
Beryllium	316C2R2	2.43e+1	ug/g	1.02e-1	lbs/hr	CC
Beryllium	316C2R3	2.56e+1	ug/g	1.06e-1	lbs/hr	CC
Cadmium	316C1R1	3.50e+1	ug/g	1.47e-1	lbs/hr	CC
Cadmium	316C1R2	5.99e+2	ug/g	2.52e+0	lbs/hr	CC
Cadmium	316C1R3	5.63e+2	ug/g	2.37e+0	lbs/hr	CC
Cadmium	316C2R1	5.43e+2	ug/g	2.28e+0	lbs/hr	CC
Cadmium	316C2R2	4.55e+2	ug/g	1.91e+0	lbs/hr	CC
Cadmium	316C2R3	4.90e+2	ug/g	2.03e+0	lbs/hr	CC
Chromium	316C1R1	3.92e+3	ug/g	1.65e+1	lbs/hr	CC
Chromium	316C1R2	4.71e+3	ug/g	1.98e+1	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Chromium	316C1R3	4.66e+3	ug/g	1.96e+1	lbs/hr	CC	
Chromium	316C2R1	2.93e+3	ug/g	1.23e+1	lbs/hr	CC	
Chromium	316C2R2	2.98e+3	ug/g	1.25e+1	lbs/hr	CC	
Chromium	316C2R3	2.87e+3	ug/g	1.19e+1	lbs/hr	CC	
Lead	316C1R1	5.83e+3	ug/g	2.45e+1	lbs/hr	CC	
Lead	316C1R2	4.42e+3	ug/g	1.86e+1	lbs/hr	CC	
Lead	316C1R3	4.61e+3	ug/g	1.94e+1	lbs/hr	CC	
Lead	316C2R1	3.83e+3	ug/g	1.61e+1	lbs/hr	CC	
Lead	316C2R2	2.71e+3	ug/g	1.14e+1	lbs/hr	CC	
Lead	316C2R3	3.36e+3	ug/g	1.39e+1	lbs/hr	CC	
Mercury	316C1R1	6.56e-1	ug/g	2.76e-3	lbs/hr	CC	
Mercury	316C1R2	6.75e-1	ug/g	2.84e-3	lbs/hr	CC	
Mercury	316C1R3	6.47e-1	ug/g	2.72e-3	lbs/hr	CC	
Mercury	316C2R1	1.80e-1	ug/g	7.56e-4	lbs/hr	CC	
Mercury	316C2R2	3.64e-1	ug/g	1.53e-3	lbs/hr	CC	
Mercury	316C2R3	6.86e-1	ug/g	2.84e-3	lbs/hr	CC	
Silver	316C1R1	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Silver	316C1R2	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Silver	316C1R3	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Silver	316C2R1	ND	1.00e+0	ug/g	4.20e-3	lbs/hr	CC
Silver	316C2R2	ND	1.00e+0	ug/g	4.20e-3	lbs/hr	CC
Silver	316C2R3	ND	1.00e+0	ug/g	4.14e-3	lbs/hr	CC
Thallium	316C1R1	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Thallium	316C1R2	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Thallium	316C1R3	ND	1.00e+0	ug/g	4.21e-3	lbs/hr	CC
Thallium	316C2R1	ND	1.00e+0	ug/g	4.20e-3	lbs/hr	CC
Thallium	316C2R2	ND	1.00e+0	ug/g	4.20e-3	lbs/hr	CC
Thallium	316C2R3	ND	1.00e+0	ug/g	4.14e-3	lbs/hr	CC

6. Description: TIRES

Group: DRY KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	316C1R1	1.02e+4	ug/g	6.65e+1	lbs/hr	CC
Chlorine	316C1R2	1.23e+4	ug/g	8.01e+1	lbs/hr	CC
Chlorine	316C1R3	1.43e+4	ug/g	9.31e+1	lbs/hr	CC
Chlorine	316C2R1	6.54e+3	ug/g	4.28e+1	lbs/hr	CC
Chlorine	316C2R2	8.03e+3	ug/g	5.25e+1	lbs/hr	CC
Chlorine	316C2R3	2.32e+4	ug/g	1.52e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	316C1R1	1.17e+1	ug/g	7.62e-2	lbs/hr	CC	
Antimony	316C1R2	1.00e+1	ug/g	6.54e-2	lbs/hr	CC	
Antimony	316C1R3	6.37e+1	ug/g	4.15e-1	lbs/hr	CC	
Antimony	316C2R1	1.00e+1	ug/g	6.54e-2	lbs/hr	CC	
Antimony	316C2R2	2.61e+1	ug/g	1.71e-1	lbs/hr	CC	
Antimony	316C2R3	1.23e+1	ug/g	8.04e-2	lbs/hr	CC	
Arsenic	316C1R1	5.40e+0	ug/g	3.52e-2	lbs/hr	CC	
Arsenic	316C1R2	3.58e+0	ug/g	2.33e-2	lbs/hr	CC	
Arsenic	316C1R3	4.95e+0	ug/g	3.22e-2	lbs/hr	CC	
Arsenic	316C2R1	4.05e+0	ug/g	2.65e-2	lbs/hr	CC	
Arsenic	316C2R2	4.20e+0	ug/g	2.75e-2	lbs/hr	CC	
Arsenic	316C2R3	3.70e+0	ug/g	2.42e-2	lbs/hr	CC	
Barium	316C1R1	4.31e+2	ug/g	2.81e+0	lbs/hr	CC	
Barium	316C1R2	3.61e+2	ug/g	2.35e+0	lbs/hr	CC	
Barium	316C1R3	3.23e+2	ug/g	2.10e+0	lbs/hr	CC	
Barium	316C2R1	3.59e+2	ug/g	2.35e+0	lbs/hr	CC	
Barium	316C2R2	3.15e+2	ug/g	2.06e+0	lbs/hr	CC	
Barium	316C2R3	3.20e+2	ug/g	2.09e+0	lbs/hr	CC	
Beryllium	316C1R1	ND	1.00e+0	ug/g	6.52e-3	lbs/hr	CC
Beryllium	316C1R2	ND	1.00e+0	ug/g	6.51e-3	lbs/hr	CC
Beryllium	316C1R3	ND	1.00e+0	ug/g	6.51e-3	lbs/hr	CC
Beryllium	316C2R1	1.30e+0	ug/g	8.50e-3	lbs/hr	CC	
Beryllium	316C2R2	ND	1.00e+0	ug/g	6.54e-3	lbs/hr	CC
Beryllium	316C2R3	ND	1.00e+0	ug/g	6.54e-3	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: SOUTHDOWN

2. STATE: TN

3. CITY: KNOXVILLE

EPA ID: TND106203375

REGION: 4

4. EP ID: 316 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: FF

Cadmium	316C1R1	2.33e+1	ug/g	1.52e-1	lbs/hr	CC	
Cadmium	316C1R2	1.80e+1	ug/g	1.17e-1	lbs/hr	CC	
Cadmium	316C1R3	1.60e+1	ug/g	1.04e-1	lbs/hr	CC	
Cadmium	316C2R1	2.23e+1	ug/g	1.46e-1	lbs/hr	CC	
Cadmium	316C2R2	3.07e+1	ug/g	2.01e-1	lbs/hr	CC	
Cadmium	316C2R3	2.54e+1	ug/g	1.66e-1	lbs/hr	CC	
Chromium	316C1R1	2.01e+2	ug/g	1.31e+0	lbs/hr	CC	
Chromium	316C1R2	1.29e+2	ug/g	8.40e-1	lbs/hr	CC	
Chromium	316C1R3	1.44e+2	ug/g	9.36e-1	lbs/hr	CC	
Chromium	316C2R1	2.11e+2	ug/g	1.38e+0	lbs/hr	CC	
Chromium	316C2R2	1.79e+2	ug/g	1.17e+0	lbs/hr	CC	
Chromium	316C2R3	1.37e+2	ug/g	8.96e-1	lbs/hr	CC	
Lead	316C1R1	1.18e+3	ug/g	7.71e+0	lbs/hr	CC	
Lead	316C1R2	5.68e+2	ug/g	3.70e+0	lbs/hr	CC	
Lead	316C1R3	5.76e+2	ug/g	3.75e+0	lbs/hr	CC	
Lead	316C2R1	9.68e+2	ug/g	6.33e+0	lbs/hr	CC	
Lead	316C2R2	1.01e+3	ug/g	6.63e+0	lbs/hr	CC	
Lead	316C2R3	7.35e+2	ug/g	4.81e+0	lbs/hr	CC	
Mercury	316C1R1	1.63e+0	ug/g	1.06e-2	lbs/hr	CC	
Mercury	316C1R2	1.77e+0	ug/g	1.15e-2	lbs/hr	CC	
Mercury	316C1R3	2.00e+0	ug/g	1.30e-2	lbs/hr	CC	
Mercury	316C2R1	9.50e+0	ug/g	6.21e-2	lbs/hr	CC	
Mercury	316C2R2	6.27e+0	ug/g	4.10e-2	lbs/hr	CC	
Mercury	316C2R3	3.36e+0	ug/g	2.20e-2	lbs/hr	CC	
Silver	316C1R1	7.90e+0	ug/g	5.15e-2	lbs/hr	CC	
Silver	316C1R2	5.22e+0	ug/g	3.40e-2	lbs/hr	CC	
Silver	316C1R3	5.50e+0	ug/g	3.58e-2	lbs/hr	CC	
Silver	316C2R1	4.14e+0	ug/g	2.71e-2	lbs/hr	CC	
Silver	316C2R2	6.25e+0	ug/g	4.09e-2	lbs/hr	CC	
Silver	316C2R3	8.00e+0	ug/g	5.23e-2	lbs/hr	CC	
Thallium	316C1R1	ND	1.00e+0	ug/g	6.52e-3	lbs/hr	CC
Thallium	316C1R2	ND	1.00e+0	ug/g	6.51e-3	lbs/hr	CC
Thallium	316C1R3	ND	1.00e+0	ug/g	6.51e-3	lbs/hr	CC
Thallium	316C2R1	ND	1.00e+0	ug/g	6.54e-3	lbs/hr	CC
Thallium	316C2R2	ND	1.00e+0	ug/g	6.54e-3	lbs/hr	CC
Thallium	316C2R3	ND	1.00e+0	ug/g	6.54e-3	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: TEXAS INDUSTRIES
 2. STATE: TX
 3. CITY: MIDLOTHIAN
 4. EP ID: 318 DEVICE NAME: KILN NO. 1
 EPA ID: TXD007349327
 SYSTEM TYPE: CEMENT KILN
 APC SYSTEM: ESP
 REGION: 6

5. Type: FUEL

6. Description: COAL
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	318C1R1	0.00e+0	3.70e+1 lbs/hr	
Chlorine	318C1R2	0.00e+0	3.66e+1 lbs/hr	
Chlorine	318C1R3	0.00e+0	3.62e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	318C2R1	3.10e+1 ug/g	4.26e-1 lbs/hr	CC
Antimony	318C2R2	3.10e+1 ug/g	4.15e-1 lbs/hr	CC
Antimony	318C2R3	3.10e+1 ug/g	4.21e-1 lbs/hr	CC
Cadmium	318C2R1	1.20e+1 ug/g	1.65e-1 lbs/hr	CC
Cadmium	318C2R2	1.20e+1 ug/g	1.61e-1 lbs/hr	CC
Cadmium	318C2R3	1.20e+1 ug/g	1.63e-1 lbs/hr	CC
Lead	318C2R1	1.00e+1 ug/g	1.37e-1 lbs/hr	CC
Lead	318C2R2	1.00e+1 ug/g	1.34e-1 lbs/hr	CC
Lead	318C2R3	1.00e+1 ug/g	1.36e-1 lbs/hr	CC
Thallium	318C2R1	1.30e+1 ug/g	1.79e-1 lbs/hr	CC
Thallium	318C2R2	1.30e+1 ug/g	1.74e-1 lbs/hr	CC
Thallium	318C2R3	1.30e+1 ug/g	1.77e-1 lbs/hr	CC

5. Type: RAW MATERIAL

6. Description:
 Group: WET KILN Location: KILN Phase: SLURRY

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Barium	318C2R1	2.40e+1 ug/g	3.56e+0 lbs/hr	CC
Barium	318C2R2	2.50e+1 ug/g	3.75e+0 lbs/hr	CC
Barium	318C2R3	2.40e+1 ug/g	3.57e+0 lbs/hr	CC
Beryllium	318C2R1	3.60e-1 ug/g	5.35e-2 lbs/hr	CC
Beryllium	318C2R2	3.90e-1 ug/g	5.85e-2 lbs/hr	CC
Beryllium	318C2R3	3.70e-1 ug/g	5.50e-2 lbs/hr	CC
Cadmium	318C2R1	1.70e+0 ug/g	2.53e-1 lbs/hr	CC
Cadmium	318C2R2	1.80e+0 ug/g	2.70e-1 lbs/hr	CC
Cadmium	318C2R3	1.70e+0 ug/g	2.53e-1 lbs/hr	CC
Lead	318C2R1	9.71e+0 ug/g	1.44e+0 lbs/hr	CC
Lead	318C2R2	1.10e+1 ug/g	1.65e+0 lbs/hr	CC
Lead	318C2R3	1.40e+1 ug/g	2.08e+0 lbs/hr	CC

5. Type: SPIKE

6. Description: METALS (AS,AG,BA,BE,CD,CR6,HG,SB,PB,TL)
 Group: WET KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	318C2R1	5.35e+3 ug/g	3.48e+0 lbs/hr	CC
Antimony	318C2R2	5.35e+3 ug/g	3.58e+0 lbs/hr	CC
Antimony	318C2R3	5.35e+3 ug/g	3.41e+0 lbs/hr	CC
Arsenic	318C2R1	4.29e+1 ug/g	2.80e-2 lbs/hr	CC
Arsenic	318C2R2	4.29e+1 ug/g	2.87e-2 lbs/hr	CC
Arsenic	318C2R3	4.29e+1 ug/g	2.74e-2 lbs/hr	CC
Barium	318C2R1	8.00e+4 ug/g	5.21e+1 lbs/hr	CC
Barium	318C2R2	8.00e+4 ug/g	5.36e+1 lbs/hr	CC
Barium	318C2R3	8.00e+4 ug/g	5.11e+1 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: TEXAS INDUSTRIES

2. STATE: TX

3. CITY: MIDLOTHIAN

EPA ID: TXD007349327

REGION: 6

4. EP ID: 318 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Beryllium	318C2R1	3.69e+1	ug/g	2.40e-2	lbs/hr	CC
Beryllium	318C2R2	3.69e+1	ug/g	2.47e-2	lbs/hr	CC
Beryllium	318C2R3	3.69e+1	ug/g	2.35e-2	lbs/hr	CC
Cadmium	318C2R1	3.93e+3	ug/g	2.56e+0	lbs/hr	CC
Cadmium	318C2R2	3.93e+3	ug/g	2.63e+0	lbs/hr	CC
Cadmium	318C2R3	3.93e+3	ug/g	2.51e+0	lbs/hr	CC
Chromium (Hex)	318C2R1	1.75e+4	ug/g	1.14e+1	lbs/hr	CC
Chromium (Hex)	318C2R2	1.75e+4	ug/g	1.17e+1	lbs/hr	CC
Chromium (Hex)	318C2R3	1.75e+4	ug/g	1.12e+1	lbs/hr	CC
Lead	318C2R1	3.53e+4	ug/g	2.30e+1	lbs/hr	CC
Lead	318C2R2	3.53e+4	ug/g	2.36e+1	lbs/hr	CC
Lead	318C2R3	3.53e+4	ug/g	2.25e+1	lbs/hr	CC
Thallium	318C2R1	5.39e+2	ug/g	3.51e-1	lbs/hr	CC
Thallium	318C2R2	5.39e+2	ug/g	3.61e-1	lbs/hr	CC
Thallium	318C2R3	5.39e+2	ug/g	3.44e-1	lbs/hr	CC

6. Description: ORGANICS (PERCHLOROETHYLENE)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	318C1R1	8.55e+5 ug/g	1.24e+2 lbs/hr	CE
Chlorine	318C1R2	8.55e+5 ug/g	1.51e+2 lbs/hr	CE
Chlorine	318C1R3	8.55e+5 ug/g	1.26e+2 lbs/hr	CE

6. Description: ORGANICS (PERCHLOROETHYLENE,CB)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	318C1R1	3.15e+5 ug/g	3.38e+1 lbs/hr	CE
Chlorine	318C1R2	3.15e+5 ug/g	3.69e+1 lbs/hr	CE
Chlorine	318C1R3	3.15e+5 ug/g	3.25e+1 lbs/hr	CE

5. Type: TIER I

6. Description: METALS FEED LIMIT

Group: WET KILN

Location: KILN

Phase: SLURRY

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Mercury	318C1R1	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C1R2	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C1R3	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C2R1	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C2R2	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C2R3	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C3R1	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C3R2	0.00e+0	1.49e-1 lbs/hr	
Mercury	318C3R3	0.00e+0	1.49e-1 lbs/hr	