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SCS FIELD SERVICES

November 28, 2013
File No. 07212027.00

Mr. Randy Watkins
Landfill Manager
Santa Fe Solid Waste Management Agency
Caja del Rio Landfill
149 Wildlife Way
Santa Fe, NM 87506

Subject: Caja del Rio Landfill – Santa Fe, New Mexico
NSPS Surface Emissions Monitoring Fourth Quarter 2013

Dear Mr. Watkins:

On November 5, 2013, SCS Field Services (SCS-FS) performed routine quarterly Surface Emissions Monitoring (SEM) at the subject facility. This monitoring was performed in accordance with regulations set forth in the New Source Performance Standards (NSPS), Title 40 Code of Federal Regulations Section 60.755 (c) and (d) (40 CFR §60.755 (c) and (d)) and 40 CFR Part 60, Appendix A, Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

Monitoring Procedures

A Thermal Scientific TVA-1000 flame ionization detector (FID) was used to perform the emissions monitoring. The FID was calibrated at the beginning of the day, prior to use, in accordance with Method 21 compliance requirements. A calibration log was completed by the field technician performing the work and is included in Attachment A.

The monitoring route provided coverage of all disposal areas served by portions of the active landfill gas collection system installed for NSPS compliance purposes, except in areas were staff personnel may encounter dangerous conditions. If noted during the monitoring, special attention was given to locations with unusual cover conditions (i.e., stressed vegetation, cracks, etc.) and any areas with unusual odors. A map of the monitoring route is included in Attachment B.

Weather Conditions

Weather conditions recorded during the monitoring event were as follows:

- Cloudy and raining.
- Temperature approximately 47 degrees Fahrenheit.
- Wind speed was 16 miles per hour from the southwest.
- Barometric pressure of 29.89 inches Hg and falling.

In accordance with NSPS regulations, the monitoring event was performed during typical meteorological conditions.

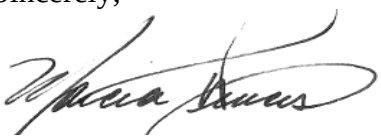
Monitoring Summary

During the monitoring event, SCS-FS observed that the ground surface which appeared to be in good condition and that there were no unusual odors. No exceedances (i.e., FID readings of methane concentrations greater than 500 ppm above background measurements) were detected during the monitoring event.

Closing

SCS-FS appreciates the opportunity to provide quarterly SEM services to the Santa Fe Solid Waste Management Agency for the subject facility. If you have any questions or comments concerning this report of SEM results please contact Marcia Pincus at 505-514-8759.

Sincerely,



Marcia Pincus, PE
Project Manager
SCS FIELD SERVICES

MAP/ew

cc: Randall Kippenbrock, SFSWMA
David Mezzacappa, SCS Engineers
Ron Wilks, SCS-FS
Kathlene Ewing, SCS-FS

Enclosures

ATTACHMENT A
DAILY CALIBRATION LOG

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: Caja del Rio

MONITORING DATE: 11/5/2013 **PERFORMED BY:** M. Ferryman

WEATHER: Cloudy and Rainy

TEMP (^{0}F): 47 **WIND (MPH):** 16

BAROMETERIC (IN HG): 29.89 **WIND DIRECTION:** SW

EXPIRATION DATE (3 MOS.): NA **TIME:** 12:30 PM

INSTRUMENT MAKE: Thermal Scientific **MODEL:** TVA1000 **S/N:** **S/N:** 0817531135

CALIBRATION GAS STANDARD: 500.0 ppm CH4 (STD)

MEASUREMENT #1:

Meter Reading for Zero Air: -1.04 ppm (1)

Meter Reading for Calibration Gas: 480 ppm (2)

MEASUREMENT #2:

Meter Reading for Zero Air: 0.52 ppm (3)

Meter Reading for Calibration Gas: 498 ppm (4)

MEASUREMENT #3:

Meter Reading for Zero Air: 0.71 ppm (5)

Meter Reading for Calibration Gas: 499 ppm (6)

CALCULATE PRECISION:

$$\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \quad \frac{100}{1}$$

= 1.53 % (must be less than 10%)

INSTRUMENT RESPONSE TIME TEST RECORD

LANDFILL NAME: Caja del Rio

MONITORING DATE: 11/5/2013 **TIME:** 12:30 PM

INSTRUMENT MAKE: Thermal Scientific **MODEL:** TVA1000 **S/N:** 0817531135

MEASUREMENT #1:

Stabilized Reading Using Calibration Gas: 780 ppm*

90% of the Stabilized Reading: 702 ppm

Time to Reach 90% of Stabilized reading
After switching from Zero Air to
Calibration Gas 2 seconds (1)

MEASUREMENT #2:

Stabilized Reading Using Calibration Gas: 798 ppm

90% of the Stabilized Reading: 718 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 3 seconds (2)

MEASUREMENT #3:

Stabilized Reading Using Calibration Gas: 799 ppm

90% of the Stabilized Reading: 719 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 2 seconds (3)

CALCULATE RESPONSE TIME:

$$\frac{(1) + (2) + (3)}{3} = 2.33$$ SECONDS (MUST BE LESS THAN 30 SECONDS)

PERFORMED BY: M. Ferryman

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

LANDFILL NAME: Caja del Rio

INSTRUMENT MAKE: Thermal Scientific **MODEL:** TVA1000 **S/N:** 0817531135

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.

2. Introduce the calibration gas into the probe.
   Stable reading = 500.0 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 1.25 ppm (1)

2. Downwind Reading (highest in 30 seconds): 1.79 ppm (2)

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = 1.52 ppm

PERFORMED BY: M. Ferryman **TIME:** 12:30 PM

DATE: 11/5/2013

QUARTERLY SURFACE MONITORING LOG

PERFORMED BY: M. Ferryman

START TIME: 12:30 PM

MONITORING DATE: 11/5/2013

LANDFILL NAME: Caja Del Rio Landfill

Exceedance Identifier	Location and Time	Methane Concentration (ppm)
	No exceedances	

ATTACHMENT B
SEM ROUTE MAP

LEGEND

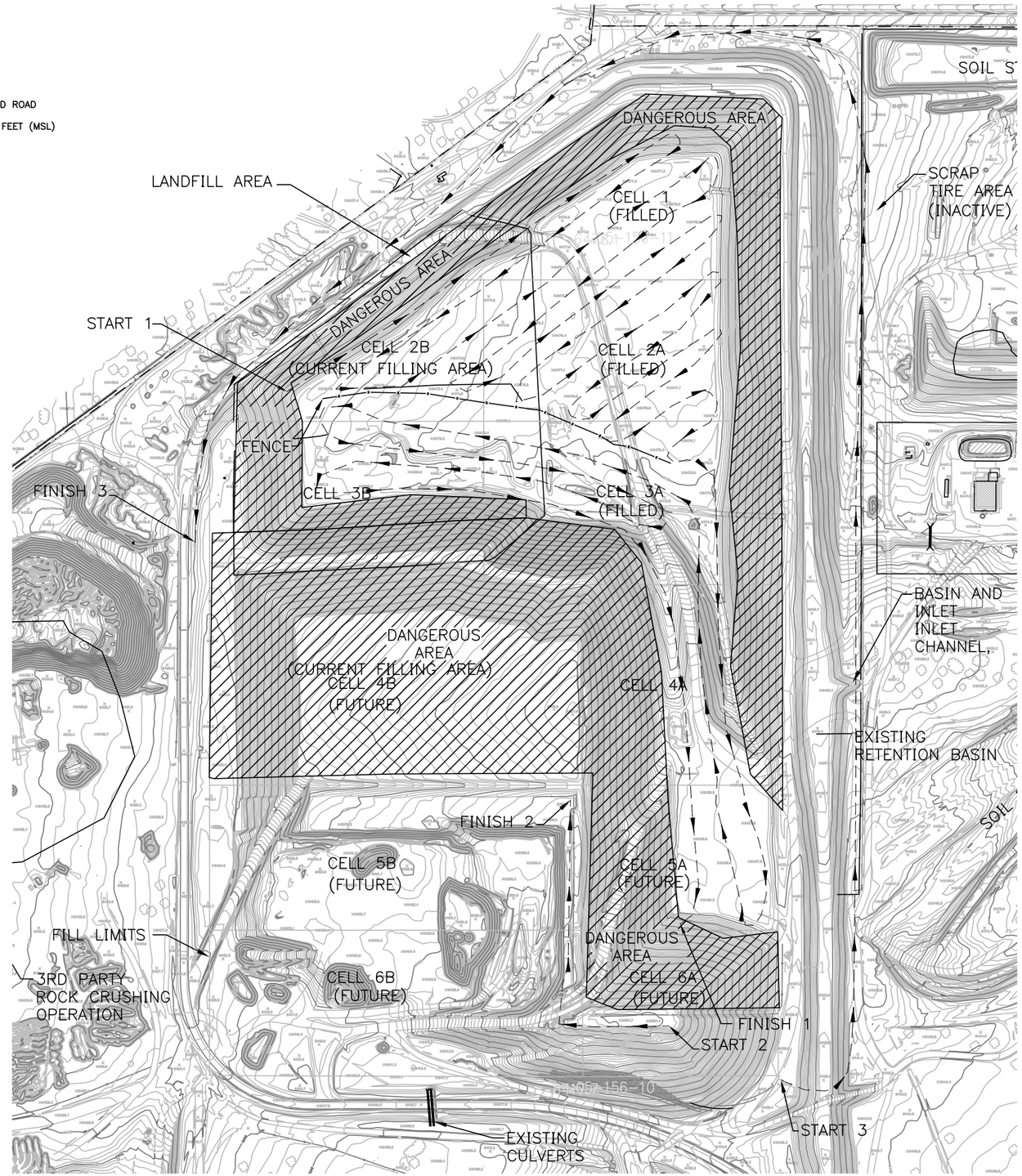
EXISTING DIRT/UNIMPROVED ROAD

5910 — 10' CONTOUR ELEVATION, FEET (MSL)

2' CONTOUR

ROUTE OF SEM

NOTES:
1. THE BACKGROUND TOPOGRAPHY SHOWN ON THIS PLAN IS DATED MARCH 3, 2009.
2. THE HORIZONTAL COORDINATE SYSTEM IS LOCAL GROUND MODIFIED FROM NEW MEXICO STATE PLANE COORDINATES, CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983. ELEVATIONS SHOWN ARE BASED ON THE NATIONAL AMERICAN VERTICAL DATUM OF 1988. THE COMBINED SCALE FACTOR FOR GROUND TO GRID TRANSFORMATION OF THE HORIZONTAL COORDINATES IS 0.99959867.



N

0 350' 700'

SCALE IN FEET

CLIENT

SANTA FE SOLID WASTE MANAGEMENT AGENCY
149 WILDLIFE WAY
SANTA FE, NM 87506-8342
PH: (505) 421-1850

SEM ROUTE MAP

CAJA DEL RIO LANDFILL

PROJ. NO. 07.212027.00 | DWN. BY: TOM | Q/A RVW BY: DM/MAP
DSN. BY: AKB | CHK. BY: AKB | APP. BY: DM

SCS ENGINEERS - FIELD SERVICES
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3351 CANDELARIA NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107
PH. (505) 349-8060 FAX (505) 349-8061

CADD FILE: Figure 1 SEM
DATE: AUGUST 2013
SCALE: AS SHOWN
FIGURE NO. 1