City of Flagstaff

CERTIFIED MAIL 7005 3110 0000 2034 3669

May 12, 2010

Linda Barajas Porter
Air 5
Environmental Protection Agency
75 Hawthorne St.
San Francisco, CA 94105

RE: Compliance Certification for the Cinder Lake Landfill October, 2009 thru March, 2010; Air Quality Class I Permit No. 36194 issued by Arizona Department of Environmental Quality
C.O.F. File No. 20-110-13

Dear Ms. Porter:

The City of Flagstaff has completed its semi-annual Compliance Certification for Cinder Lake Landfill as required by our Arizona Department of Environmental Quality issued Air Quality Class I Permit (Permit No. 36194). This compliance certification is for the time period October 1, 2009 thru March 31, 2010.

If any additional information is needed please, feel free to contact me at your convenience at (928) 527-9840 or by e-mail at krobinson@flagstaffaz.gov.

Sincerely,

Ken Robinson, G.I.T.
Project Manager

cc: Pat Bourque, Environmental Services Division Manager
Michael Gallegos, Landfill Manager
Landfill File 20-110-13

Cinder Lake Landfill Compliance Certification
October 1, 2009 Thru March 31, 2010

Attachment A: General Provisions

I. Permit Expiration and Renewal

The permit will expire April 13, 2011 and will require the submission of an application of permit renewal 6 months prior expiration.

II. Compliance with Permit Conditions

The following sections document the City of Flagstaff's (City) Cinder Lake Landfill (CLL) compliance with its Air Quality Class I Permit conditions for the period of October 1, 2009 thru March 31, 2010

III. Permit Revisions, Reopening, Revocation and Reissuance, or Termination for Cause

The CLL permit has not been revised, reopened, revoked, or terminated during the time period of October 1, 2009 to March 31, 2010.

IV. Posting of Permit

The certificate of permit issuance is posted in CLL's scale house and the complete permit is filed in CLL's administrative building.

V. Fee Payment

The annual fee for CLL's Air Quality Class I Permit was paid in January 2010.

VI. Annual Emissions Inventory Questionnaire

The annual air emissions inventory for 2009 was submitted by certified mail in March of 2010. This report includes information for the 2009 calendar year.

VII. Compliance Certification

This document serves as compliance certification for the time period of October 1, 2009 to March 31, 2010.

VIII. Certification of Truth, Accuracy and Completeness

All documents submitted by CLL pertaining to the conditions of this permit have contained a certification of truth, accuracy and completeness during the time period of October 1, 2009 to March 31, 2010.

IX. Inspection and Entry

No persons from regulatory agencies enforcing our Air Quality Class I Permit have requested nor have visited CLL during the time period of October 1, 2009 to March 31, 2010.

X. Permit Revision Pursuant to Federal Hazardous Air Pollutant Standard

CLL has not become subject to a standard promulgated pursuant to section 112 (d) of the Clean Air Act during the time period of October 1, 2009 to March 31, 2010.

XI. Accident Release Program

CLL has not become subject to the provisions of 40 CFR Part 68 during the time period of October 1, 2009 to March 31, 2010.

XII. Reporting of Excess Emissions, Permit Deviations, and Emergencies

CLL has not had any excess emissions, permit deviations, or emergencies during the time period of October 1, 2009 to March 31, 2010.

XIII. Record Keeping Requirements

All monitoring events have been documented and placed in the operating record during the time period of October 1, 2009 to March 31, 2010.

XIV. Reporting Requirements

A. Compliance Certification: This document serves as the compliance certification during the time period of October 1, 2009 to March 31, 2010.
B. Excess emissions, permit deviations, and emergency reports: CLL has not had any excess emissions, permit deviations, or emergencies during the time period.
C. Visible emissions surveys: **See Attached**.

XV. Duty to Provide Information

CLL shall furnish the Director with any information that he or she may request.

XVI. Permit Amendment or Revision

CLL has not applied for a permit amendment or revision for any changes during the time period of October 1, 2009 to March 31, 2010.

XVII. Facility Change without a Permit Revision

CLL has not made any changes to the facility that would require notification of permit revisions during the time period of October 1, 2009 to March 31, 2010..

XVIII. Testing Requirements

CLL does not have any units that require performance testing.

XIX. Property Rights

This Air Quality Class I Permit does not convey any property rights of any sort.

XX. Severability Clause

No portion of the CLL Air Quality Class I Permit has been challenged during this time period.

XXI. Permit Shield

CLL is in compliance with the conditions of the permit and therefore shall be deemed compliant with the applicable requirements identified in Attachment "C" of the permit. It is understood that the permit shield shall not apply to any changes made pursuant to Section XVI.B and Section XVII of the Attachment.

XXII. Protection of Stratospheric Ozone

CLL is not currently subject to the provisions of 40 CFR Part 82.

Attachment B: Specific Conditions

I. Facility Wide Requirements

The Permittee has a person on staff that is certified in EPA Reference Method 9. All applicable monitoring and recordkeeping activities that occurred during the time period of October 1, 2009 to March 31, 2010 and that is required by Section VII, Attachment A of CLL's Air Quality Class I Permit are submitted in this document as an attachment.

II. Non-methane Organic Compounds (NMOC)

CLL calculates its NMOC emission rate (M_{NMOC}) using the equation specified in 40 CFR 60.754(a)(1)(i) for sites with known acceptance rates:

$$M_{NMOC} = \sum 2\ k\ L_o\ M\ (e^{-kt_i})(C_{NMOC})(3.595 \times 10^{-9})$$

In 2008 the City completed a Tier II analysis and obtained site-specific NMOC concentration (C_{NMOC}) of 92 ppmv as Hexane (40 CFR Subpart WWW § 60.754). This updated C_{NMOC} value was used to calculate CLL's 2009 M_{NMOC}. The 5-year projected landfill gas (LFG) and M_{NMOC} emission rates are summarized in the Table 1.

Table 1-Projected LFG and NMOC Generation Rates Cinder Lake Landfill, Flagstaff, AZ

Year	Disposal Rate (tons/yr)	Refuse In-Place (tons)	Disposal Rate (Mg/yr)	Refuse In-Place (Mg)	Methane Generation Rates (m^3/yr)	LFG Generation Rates (cfm)	LFG Generation Rates (10^6 ft^3/yr)	NMOC Generation Rates (tons/yr)	NMOC Generation Rates (Mg/yr)
2009	117,404	4,192,638	106,731	3,803,497	9.535E+06	1,281	673	6.93	6.29
2010	120,926	4,310,288	109,933	3,910,228	9.706E+06	1,304	686	7.06	6.40
2011	124,554	4,431,469	113,231	4,020,161	9.884E+06	1,328	698	7.19	6.52
2012	128,291	4,556,284	116,628	4,133,392	1.007E+07	1,353	711	7.32	6.64
2013	132,139	4,684,844	120,127	4,250,019	1.026E+07	1,379	725	7.46	6.77
2014	136,103	4,817,261	123,730	4,370,146	1.047E+07	1,406	739	7.61	6.90

III. Standards for Collection and Control System

The NMOC emission rate at CLL has not exceeded 50 Mg/yr; therefore, no collection and control system is required at this time.

IV. Asbestos

A. Emission Limits

The City only accepts non-friable asbestos waste. The City currently places non-friable asbestos waste materials in a designated area of the landfill and covers the waste with 6-8 inches of daily cover (dirt). The City has placed an asbestos warning sign at the entrance of the landfill. A 10-foot high perimeter fence deters access by the general public

B. Monitoring/Recordkeeping

1. The City has developed a record keeping system for maintaining records of all non-friable asbestos waste received at the CLL. This program includes keeping records of exceptional waste applications and completed waste shipment records including the CLL's signature noting acceptance of the waste. The City requires that all non-friable asbestos waste be wetted and contained in leak proof containers (waste bags, burrito wrap); if this requirement is not met, the load is rejected.

2. The City has records documenting the current location, depth and area, and quantity of all known non-friable asbestos waste materials within the CLL.

3. Upon closure of any active waste disposal area, the area will meet the specifications included in 40 CFR §61.151.

4. Upon closure of the landfill, the records of asbestos waste disposal locations and quantities will be submitted to the Arizona Department of Environmental Quality.

C. Reporting

CLL rejects all asbestos waste that is improperly enclosed or uncovered. If a discrepancy exists between the quantity of waste designated on the waste shipment record and the actual quantity of waste received, the CLL reconciles the discrepancy with the waste generator and notes the process on the waste shipment record.

V. Fugitive Dust Sources

A. Particulate Matter and Opacity Standards

1. Emission Standards

Visible Emissions (VE) from all operations at the CLL have not had a six minutes average opacity reading in excess of 40% as measured by the EPA Reference Method 9.

2. Air Pollution Controls
   CLL utilizes wetting of haul road surfaces as a reasonable precaution to prevent excess visible emissions.

B. Air Pollution Control Requirements
   A 3,000 Gallon Water Truck is utilized to wet service roads located throughout the site.

C. Monitoring/Recordkeeping/Reporting
   The City submitted a Visible Emissions Observation Plan (prepared by URS Consultants) on January 11, 2001. The plan was approved by ADEQ on March 16, 2001. The City's certified Method 9 observer began conducting bi-weekly visual surveys once the VE plan was approved. Records for these visual surveys are completed and maintained by Matt Morales, P.E., CLL Project Manager and Ken Robinson. G.I.T., CLL Project Manger

VI. Stationary Rotating Machinery

Not applicable. No Stationary Rotating Machinery is used at this site.

VII. Mobile Sources

Mobile Sources are those that either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. CLL does not operate any mobile sources.

VIII. Stratospheric Ozone

City maintenance personnel remove refrigerant from waste appliances prior to their being recycled by the Materials Recovery Facility. Maintenance personnel who perform the extractions are certified technicians and the records of the extractions are kept on file at the Environmental Services Department.

Attachment C: Revised Equipment List for the time period of October 1, 2009 to March 31, 2010

Equipment Type	Max. Capacity	Make	Model	Serial Number	Manufacture Date
4WD Pickup Truck	210 hp	Ford	¾ ton	1FTHX26HBE B26511	1997
Motor Grader	240 hp	Caterpillar	14H	72V11972	1989
4WD Pickup Truck	150 hp	Ford	½ ton	2FTEF14NXPC A32022	1993

Equipment Type	Max. Capacity	Make	Model	Serial Number	Manufacture Date
Tub Grinder	600 hp	Komptech	Crambo 6000	CEX00270	2006
Dozer	305 hp	Caterpilllar	D8R	7XM03295	1998
14CY Dump Truck	250 hp	International	S-2500	1HTZJURIHH A23520	1987
Compactor	340 hp	Caterpillar	826-G	AYH00633	2004
Compactor	340 hp	Caterpillar	826	7LN00363	1998
Water Truck	250 hp	Ford	Tanker	A90AVFA7277	1978
5-YD Loader	253 hp	Caterpillar	966F	4YG01302	1993
Scraper Auger	249 hp	Caterpillar	627 E	IDL00517	1998
Backhoe	88hP	Komatsu	WB 146	A24028	2007
4WD Pickup Truck	202 hp	Ford	½ ton	1FTRX14W16 KC17836	2006
2WD Pickup Truck	150 hp	Ford	½ ton	2FTEF15N1RC A70028	1994
4WD Pickup Truck	202 hp	Ford	½ ton	1FTRF18W53N B39391	2003
Tractor	425 HP	Kenworth	T800	1XKDD09X99J 25681	2009
Tractor	425 HP	Kenworth	T800	1XKDD09X99J 25680	2009

Certificate of Truth, Accuracy & Completeness

I certify that I have knowledge of the facts set forth in this compliance certification, and that all the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Arizona Department of Environmental Quality as public record.

Name of Responsible Official PATRICK D. BOURQUE

Title ENV. SVCS. OPS. MGR.

Signature [signature] Date 5/12/10

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd.
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	3,000 gal H2O Truck
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	Fugitive dust from tire contact w/ road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT (DEGREES 0-360)	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT DEGREES (0-360)	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START -NA- END -NA-
DESCRIBE EMISSIONS	START Fugitive dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START AZC END same
BACKGROUND COLOR	START White END same
SKY CONDITIONS	START Clear END same
WIND SPEED	START 6.9 mph 7.4 mph END ~~same~~
WIND DIRECTION	START ~~NE~~ N ⇒ S END same
AMBIENT TEMP	START 65°F END same
WET BULB TEMP	-NA-
RH (0-100)	

OBSERVATION DATE	START TIME	END TIME
10/16/09	14:28	14:38

MIN \ SEC	0	15	30	45	COMMENTS	
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		0
6	0	0	0	0		0
7	0	0	0	0		0
8	0	0	0	0		0
9	15	0	0	0	Trash truck	15
10	0	0	0	0		0
						15
11					Opacity = 15/24	
12					= 0.625%	
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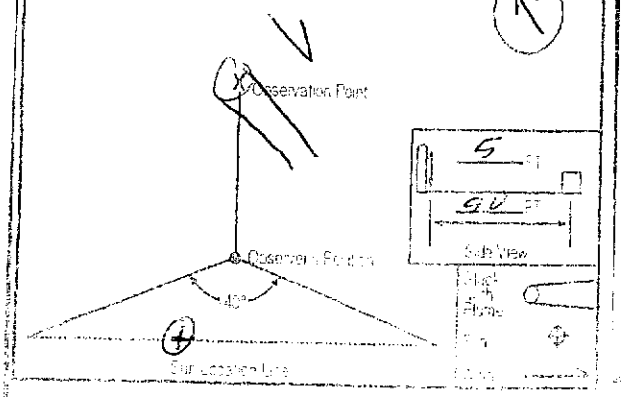
Source Layout Sketch

Draw North Arrow ☐ TL ☐ MN

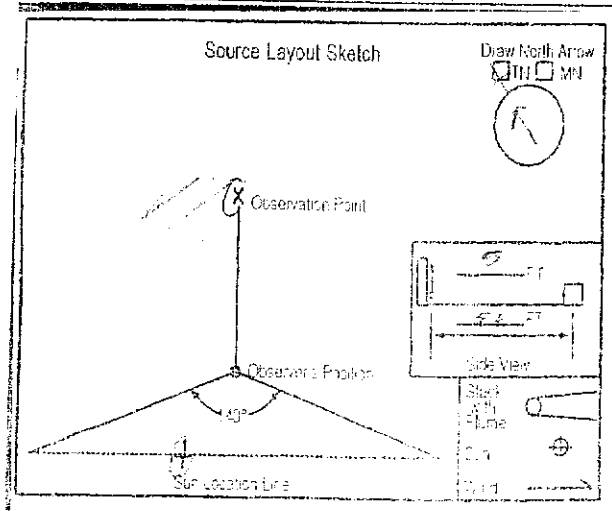


ADDITIONAL INFORMATION

OBSERVER'S NAME (PRINT)	Ken Robinson
SIGNATURE	DATE 10/16/09
ORGANIZATION	City of Flagstaff
CERTIFIED BY	ADEQ
DATE	10/9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E Landfill Rd
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	3,000 gal H2O Truck
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	Fugitive [illegible]
	[illegible] surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START [illegible] END Same
DISTANCE TO EMISSION POINT	START [illegible] END Same
DIRECTION TO EMISSION PT (DEGREES (0-360))	START [illegible] END [illegible]
VERTICAL ANGLE TO OBSERVATION POINT	START [illegible] END [illegible]
DIRECTION TO OBSERVATION POINT DEGREES (0-360))	START [illegible] END [illegible]
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START [illegible] END [illegible]
DESCRIBE EMISSIONS	START [illegible] END [illegible]
EMISSION COLOR	START [illegible] END [illegible]
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START [illegible] END [illegible]
BACKGROUND COLOR	START [illegible] END Same
SKY CONDITIONS	START cloudy END Same
WIND SPEED	START [illegible] END 7.9mph
WIND DIRECTION	START E [illegible] END Same
AMBIENT TEMP	START 35°F END Same
WET BULB TEMP	RH percent -NA-



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
10/28/09	14:45	14:55

MIN \ SEC	0	15	30	45	COMMENTS
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2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	Trash truck 0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	Roll-off truck 0
11					0
12					Over [illegible]
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OBSERVER'S NAME (PRINT)	[illegible]
OBSERVER'S SIGNATURE	[signature]
DATE	10/28/09
ORGANIZATION	[illegible]
CERTIFIED BY	ADEQ
DATE	9/[illegible]

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	[illegible]
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 AM - [illegible]
CONTROL EQUIPMENT	3,000 gal Water Truck
OPERATING MODE	10 AM - [illegible]
DESCRIBE EMISSION POINT	Fugitive dust from [illegible] w/wood surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT (DEGREES 0-360)	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES 0-360)	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START - NA - END - NA -
DESCRIBE EMISSIONS	START Fugitive dust END same
EMISSION COLOR	START N/A END [illegible]
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START N/A END same
BACKGROUND COLOR	START White END same
SKY CONDITIONS	START Clear END same
WIND SPEED	START 0-5 mph END same
WIND DIRECTION	START SE→NW END same
AMBIENT TEMP	START [illegible] END same
WET BULB TEMP	- NA -

OBSERVATION DATE	START TIME	END TIME
11/4/09	15:29	15:41

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	
2	0	0	0	0	
3	10	0	0	0	Transient [illegible] 10
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13					10
14					Opacity = 0.42%
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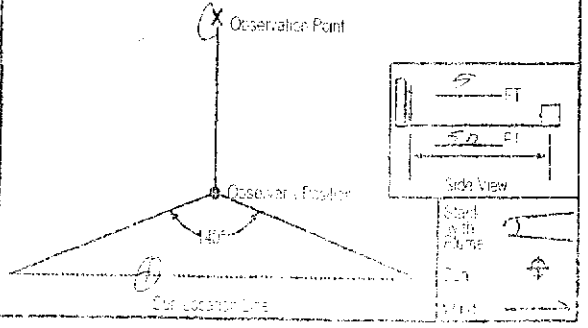
Source Layout Sketch

Draw North Arrow ☒ TN ☐ MN



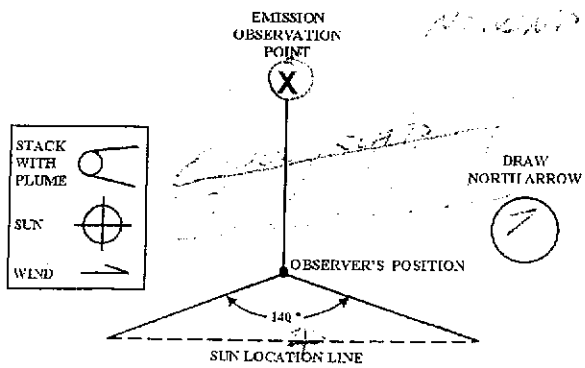
ADDITIONAL INFORMATION

OBSERVER'S NAME (PRINT)	Karl [illegible]
OBSERVER'S SIGNATURE	[signature]
DATE	11/4/09
ORGANIZATION	[illegible]
CERTIFIED BY	[illegible]
DATE	[illegible]

VISIBLE EMISSION OBSERVATION FORM

Company Name	City of Flagstaff
Location	6770 EAST LANDFILL ROAD
City	FLAGSTAFF
State	AZ
Zip	86004
Process Equipment	TIRE CONTACT W/ROADWAY
Operating Mode	10 MPH
Control Equipment	3,000 GAL WATER TRUCK
Operating Mode	10 MPH
Describe Emission Point	[illegible] FINE OF LANDFILL
Height of Emission Point	[illegible]
Height Relative to Observer	Start [illegible] End SAME
Distance to Emission Point	Start [illegible] End SAME
Direction to Emission Point	Start [illegible] End 338° (NNW)
Vertical Angle to Observation Pt.	Start [illegible] End SAME
Direction to Observation Point	Start [illegible] End 338° (NNW)
Describe Emissions	Start DUST FROM ROADS End SAME
Emission Color	Start [illegible] End SAME
If Water Droplet Plume (Circle)	Attached Detached N/A
Point In The Plume At Which Opacity Was Determined	Start SAME End SAME
Describe Plume Background	Start [illegible] End SAME
Background Color	Start [illegible] End SAME
Sky Condition	Start [illegible] End SAME
Wind Speed	Start [illegible] End SAME
Wind Direction	Start N/A End N/A
Ambient Temp	Start [illegible] End SAME
Wet Bulb Temp	N/A
RH Percent	N/A

SOURCE LAYOUT SKETCH



Observation Date	Start Time	End Time
11/27/09	8:52 AM	9:04

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	-	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
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12	0	0	0	0	0
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Observer's Name (Print)	MIKE T MORALES
Observer's Signature	[signature]
Date	11/27/09
Organization	CITY OF FLAGSTAFF
Certified by	ADEQ
Date	4/09

Additional Information

Continue on reverse side

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E Landfill Rd
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	Normal
CONTROL EQUIPMENT	Water and H2O Truck
OPERATING MODE	As Req'd
DESCRIBE EMISSION POINT	Fugitive dust from vehicular traffic w/ wind action
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0 END same
DISTANCE TO EMISSION POINT	START 50 END same
DIRECTION TO EMISSION PT (DEGREES 0-360)	START 25 END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0 END same
DIRECTION TO OBSERVATION POINT DEGREES (0-360)	START 25 END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START -NA- END -NA-
DESCRIBE EMISSIONS	START Fugitive dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START ADL END same
BACKGROUND COLOR	START white END same
SKY CONDITIONS	START partly cloudy END same
WIND SPEED	START 0 mph END 0 mph
WIND DIRECTION	START -NA- END -NA-
AMBIENT TEMP.	START 40°F END same
WET BULB TEMP. / RH percent	-NA-

OBSERVATION DATE	START TIME	END TIME
12/11/09	10:00	10:45

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	fuel truck
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	trash truck
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
11					0
12					Ufac. Z = 0%
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Source Layout Sketch

Draw North Arrow ☒ TN ☐ MN

(to scale)

Observation Point

5 FT

Side View

Observer Position

Stack with Plume

Sun Location

ADDITIONAL INFORMATION

OBSERVER'S NAME (PRINT) [illegible]

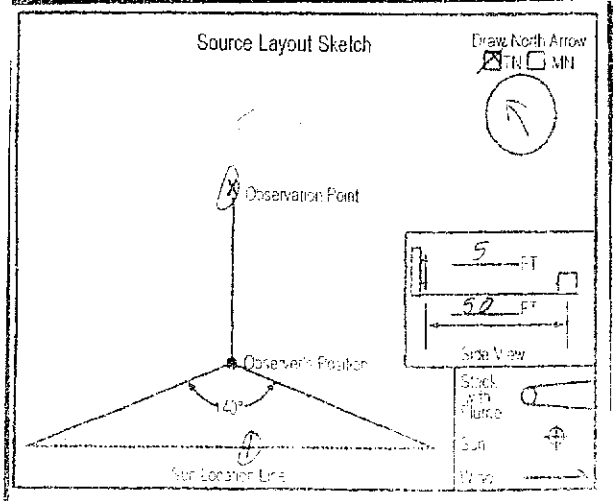
OBSERVER'S SIGNATURE [illegible] DATE 12/11/09

ORGANIZATION City of Flagstaff

SIGNATURE [illegible] DATE 12/11/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	2,000 gal H_2O truck
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	Fugitive dust from tire contact w/road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END Same
DISTANCE TO EMISSION POINT	START 50' END Same
DIRECTION TO EMISSION PT (DEGREES 0-360)	START 25° END Same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END Same
DIRECTION TO OBSERVATION POINT (DEGREES 0-360)	START 25° END Same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START - NA - END - NA -
DESCRIBE EMISSIONS	START fugitive dust END Same
EMISSION COLOR	START tan END Same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START ADC END Same
BACKGROUND COLOR	START white END Same
SKY CONDITIONS	START cloudy END Same
WIND SPEED	START 7.0 mph END 5.4 mph
WIND DIRECTION	START SW→NE END Same
AMBIENT TEMP	START 28°F END Same
WET BULB TEMP	- NA -
RH percent	



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
12/21/09	11:27 a.m.	11:37 a.m.

SEC / MIN	0	15	30	45	COMMENTS	
1	0	0	0	0	pick-up truck	
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		0
6	0	0	0	0	Roll-off truck	0
7	0	0	0	0		0
8	0	0	0	0	Trash truck	0
9	0	0	0	0		0
10	0	0	0	0	Roll-off truck	0
11						0
12					Opacity - 0%	
13						
14						
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29						
30						

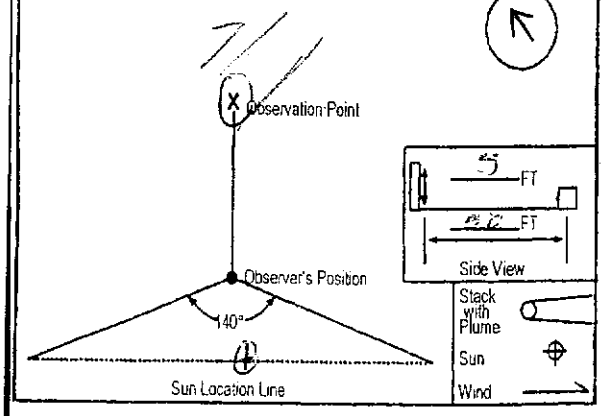
OBSERVER'S NAME (PRINT)	Alex Robinson
OBSERVER'S SIGNATURE	DATE 12/21/09
ORGANIZATION	City of Flagstaff
CERTIFIED BY	ADEQ DATE 9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd.
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	3,000 gal H_2O truck
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	Fugative dust from tire contact w/road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT. (DEGREES (0-360))	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START - NA - END - NA -
DESCRIBE EMISSIONS	START fugative dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START ADC END same
BACKGROUND COLOR	START white END same
SKY CONDITIONS	START cloudy END same
WIND SPEED	START 10.0 mph END 8.5 mph
WIND DIRECTION	START SW→NE END same
AMBIENT TEMP	START 45° F END same
WET BULB TEMP / RH percent	- NA -

Source Layout Sketch

Draw North Arrow ☒ TN ☐ MN



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
1/13/~~09~~10 K.K.	12:07	12:17

MIN \ SEC	0	15	30	45	COMMENTS	
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		0
6	0	10	10	0	Trash truck	20
7	0	0	0	0		0
8	0	0	0	0		0
9	0	0	0	0		0
10	0	5	0	0	Roll-off truck	5
11						25
12						
13					Opacity = 1.04%	
14						
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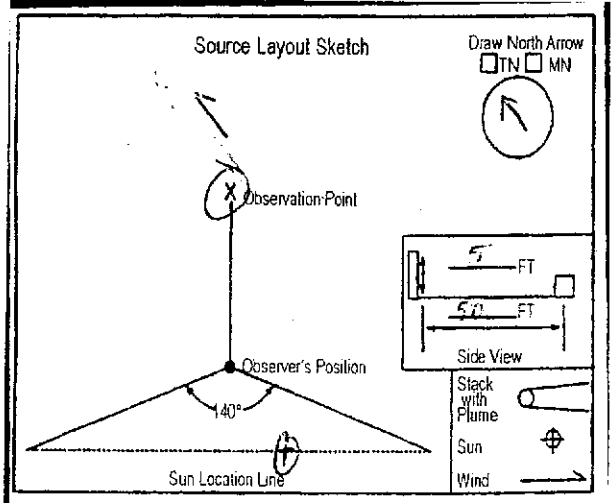
29						
30						

OBSERVER'S NAME (PRINT)	Ken Robinson
OBSERVER'S SIGNATURE	DATE 1/13/09
ORGANIZATION	City of Flagstaff
CERTIFIED BY ADEQ	DATE 9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd.
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	None (Freezing weather prevent use of H_2O truck)
OPERATING MODE	-NA-
DESCRIBE EMISSION POINT	Fugative dust from tire contact w/ road surface
HEIGHT OF EMISSION POINT	6640'
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT. (DEGREES (0-360))	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START -NA- END -NA-
DESCRIBE EMISSIONS	START fugative dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START Snow END same
BACKGROUND COLOR	START white END same
SKY CONDITIONS	START cloudy END same
WIND SPEED	START 3.1 mph END 1.4 mph
WIND DIRECTION	START S→N END same
AMBIENT TEMP	START 30°F END same
WET BULB TEMP	-NA-
RH percent	



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
1/27/10	10:26	10:32

MIN \ SEC	0	15	30	45	COMMENTS	
1	0	0	0	0		0
2	0	0	0	0		0
3	0	0	0	0	Fuel truck	0
4	0	0	0	0	Trash truck	0
5	0	0	0	0		0
6	0	0	0	0	Trash truck	0
7						0
8						
9					Opacity = 0%	
10						
11						
12						
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29						
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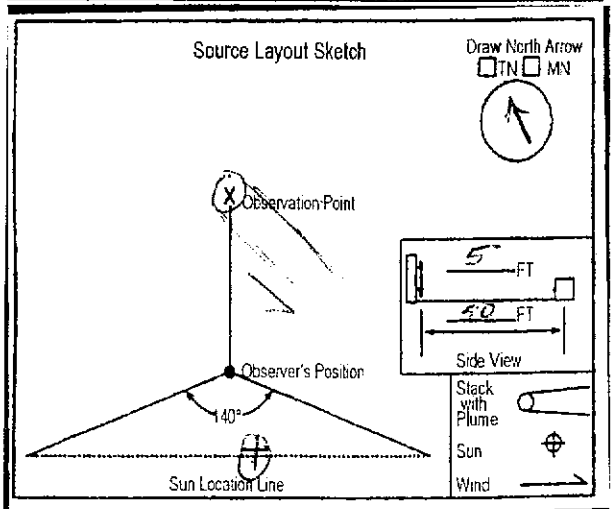
OBSERVER'S NAME (PRINT)	Ken Robinson
OBSERVER'S SIGNATURE	[signature]
DATE	1/27/10
ORGANIZATION	City of Flagstaff
CERTIFIED BY	ADEQ
DATE	9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS/EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	None (freezing weather prevents use of H2O truck)
OPERATING MODE	-NA-
DESCRIBE EMISSION POINT	Fugative dust from tire contact w/ road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT. (DEGREES 0-360))	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START -NA- END -NA-
DESCRIBE EMISSIONS	START fugative dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START snow END same
BACKGROUND COLOR	START white END same
SKY CONDITIONS	START cloudy END same
WIND SPEED	START 8.3 mph END 5.1 mph
WIND DIRECTION	START N→S END same
AMBIENT TEMP	START 28°F END same
WET BULB TEMP	-NA-
RH percent	



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
2/10/10	11:20	11:26

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7					0
8					Opacity = 0%
9					
10					
11					
12					
13					
14					
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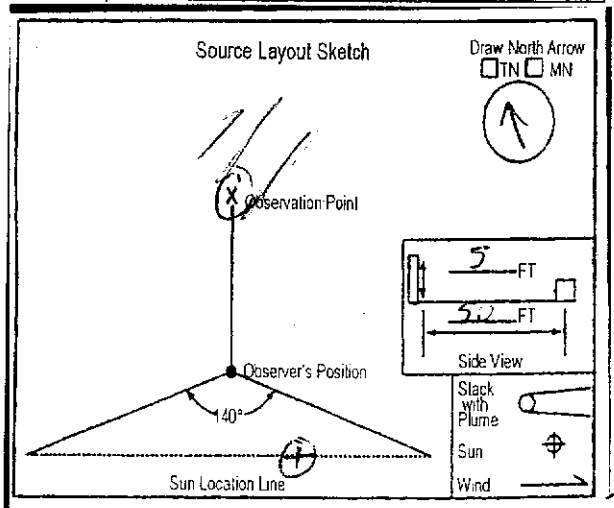
29					
30					

OBSERVER'S NAME (PRINT)	Ken Robinson
OBSERVER'S SIGNATURE	[signature]
DATE	2/10/10
ORGANIZATION	City of Flagstaff
CERTIFIED BY	ADEQ
DATE	9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 E. Landfill Rd
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Vehicular Equipment
OPERATING MODE	10 mph
CONTROL EQUIPMENT	None (freezing weather prevents use of H2O truck)
OPERATING MODE	-NA-
DESCRIBE EMISSION POINT	Fugative dust from tire contact w/ road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0' END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT. (DEGREES (0-360))	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START -NA- END -NA-
DESCRIBE EMISSIONS	START fugative dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START ADC END same
BACKGROUND COLOR	START white END same
SKY CONDITIONS	START cloudy END same
WIND SPEED	START 14.1mph END 11.8mph
WIND DIRECTION	START SW→NE END same
AMBIENT TEMP	START 31°F END same
WET BULB TEMP	-NA-
RH percent	



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
2/24/10	11:03	11:09

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	Pickup truck 0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7					0
8					
9					Opacity = 0%
10					
11					
12					
13					
14					
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23					
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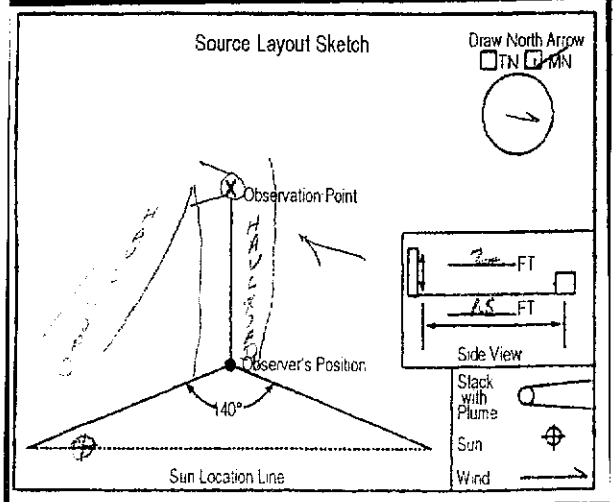
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)	Ken Robinson
OBSERVER'S SIGNATURE	[signature]
DATE	2/24/10
ORGANIZATION	City of Flagstaff
CERTIFIED BY	ADEQ
DATE	9/09

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	CITY OF FLAGSTAFF
LOCATION	6770 E. LANDFILL ROAD
LOCATION	
CITY	FLAGSTAFF
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	TIRE CONTACT W/ROAD
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	3,000 GAL H2O TRUCK
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	HAUL ROAD FOR VEHICULAR TRAFFIC
HEIGHT OF EMISSION POINT	6,645
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START -15' END SAME
DISTANCE TO EMISSION POINT	START 300' END SAME
DIRECTION TO EMISSION PT. (DEGREES (0-360))	START 240° END SAME
VERTICAL ANGLE TO OBSERVATION POINT	START -10° END SAME
DIRECTION TO OBSERVATION POINT DEGREES (0-360))	START 235° END SAME
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START 2,000 SOUTH OF EMISSION END
DESCRIBE EMISSIONS	NON-POINT FUGITIVE DUST
START	END SAME
EMISSION COLOR	START TAN END SAME
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☑
DESCRIBE PLUME BACKGROUND	START HILLSIDE END SAME
BACKGROUND COLOR	START BROWN END SAME
SKY CONDITIONS	START CLOUDY END SAME
WIND SPEED	START 10.6 MPH END 9.6 MPH
WIND DIRECTION	START N/NE END SAME
AMBIENT TEMP	START 50.0°F END 51.3°F
WET BULB TEMP	NA
RH percent	NA



ADDITIONAL INFORMATION: ALL ELEMENTS MADE READING DIFFICULT DUE TO WIND

OBSERVATION DATE	START TIME	END TIME
3/19/10	10:15 am	10:26 am

MIN \ SEC	0	15	30	45	COMMENTS	
1	0	0	0	0	D.T.	0
2	0	0	0	0	R.O.	0
3	0	0	0	0	P.U	0
4	0	0	0	0	R.O, AUTO	0
5	0	0	0	0	D.T., W.T.	0
6	0	0	0	0		0
7	0	0	0	0		0
8	0	0	0	0	R.O.	0
9	0	0	0	0		0
10	0	0	0	0		0
11	0	0	0	0		0
12	0	0	0	0	R.O.	0
13						
14					0% OPACITY	
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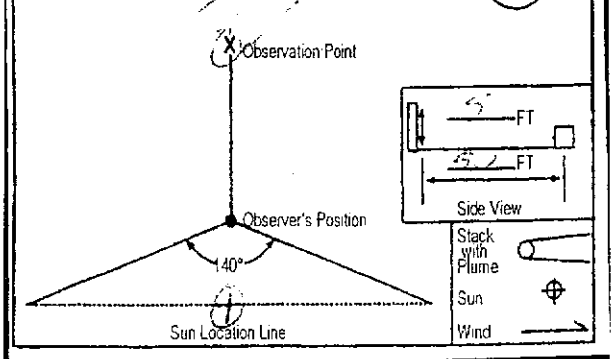
OBSERVER'S NAME (PRINT)	MATTHEW MORALES
OBSERVER'S SIGNATURE	Matt Morales
DATE	3/19/2010
ORGANIZATION	CITY OF FLAGSTAFF
CERTIFIED BY	ADEQ - ASU
DATE	5/2010

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	City of Flagstaff
LOCATION	Cinder Lake Landfill
LOCATION	6770 Landfill Rd.
CITY	Flagstaff
STATE	AZ
ZIP	86004
PROCESS EQUIPMENT	Tire contact w/road
OPERATING MODE	10 MPH
CONTROL EQUIPMENT	3,000 gal H_2O truck
OPERATING MODE	10 MPH
DESCRIBE EMISSION POINT	Fugative dust from tire contact w/road surface
HEIGHT OF EMISSION POINT	6640
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	START 0° END same
DISTANCE TO EMISSION POINT	START 50' END same
DIRECTION TO EMISSION PT. (DEGREES (0-360))	START 25° END same
VERTICAL ANGLE TO OBSERVATION POINT	START 0° END same
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	START 25° END same
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	START - NA - END - NA -
DESCRIBE EMISSIONS	START Fugative dust END same
EMISSION COLOR	START tan END same
WATER DROPLET PLUME	ATTACHED ☐ DETACHED ☐ NONE ☒
DESCRIBE PLUME BACKGROUND	START ADC END same
BACKGROUND COLOR	START White END same
SKY CONDITIONS	START clear END same
WIND SPEED	START 15.3 mph END 17 mph
WIND DIRECTION	START W→E END same
AMBIENT TEMP	START 62°F END same
WET BULB TEMP	- NA -
RH percent	

Source Layout Sketch

Draw North Arrow ☐TN ☐MN



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
3/30/10	12:36	12:42

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	Trash truck 0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7					0
8					
9					Opacity = 0%
10					
11					
12					
13					
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OBSERVER'S NAME (PRINT)	Ken Robinson
OBSERVER'S SIGNATURE	DATE 3/30/10
ORGANIZATION	City of Flagstaff
CERTIFIED BY ADEQ	DATE 9/09