![Los Alamos National Laboratory logo]

Los Alamos
NATIONAL LABORATORY
—— EST.1943 ——

Environment Safety & Health
PO Box 1663, MS K491
Los Alamos, New Mexico 87545
(505) 667-4218/Fax (505) 665-3811

Date: **JAN 2 7 2015**
Symbol: ADESH-15-013
LAUR: LA-UR-15-20370
Locates Action No.: N/A

Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

Dear Compliance and Enforcement Manager:

Subject: **Semi-Annual Monitoring Report for July-December 2014 – Air Quality Title V Operating Permit P100-R1-M3, AI No. 856 – Los Alamos National Laboratory (LANL)**

Enclosed is Los Alamos National Laboratory's Title V Operating Permit Semi-Annual Monitoring Report for the period **July 1-December 31, 2014**. This submission is required by permit condition A109.A of Operating Permit P100-R1-M3 and is being submitted on or before February 14, 2015 as specified in the permit condition.

This semi-annual monitoring report includes:

- Title V Report Certification Form
- Title V Semi-Annual Monitoring Report for Permit P100-R1-M3
    - Part 1 – Monitoring Activity Reporting Requirements
    - Part 2 – Deviation Summary Report
- Monitoring Report Attachments A605.A through A1307.H

A permit deviation occurred during this reporting period and is described in this report. The deviation is with permit condition A607.A, which is an operational condition to continuously monitor the Asphalt Plant baghouse differential pressure readings. The differential pressure data-logger communication system failed on two occasions due to power fluctuations. Corrective action was taken to install a backup strip chart recorder. In addition, the pressure drop is manually read and recorded at the start and stop of operations each day. No excess emission occurred, and the data-logger communication system is scheduled for an upgrade to increase system reliability. Details on this deviation can be found in Part 2, Deviation Summary Report.

If you have any questions or comments regarding this submittal or would like to discuss this submittal in greater detail, please contact Steven L. Story at (505) 665-2169.

Sincerely,

Michael T. Brandt, DrPH, CIH
Associate Director
Environment, Safety, and Health

MTB/SLS:lm

Enclosure: (1). LANL Title V Semi-Annual Monitoring Report for July 1-December 31, 2014

Cy: Hai Shen, LASO-EP-SG, (E-File)
        Kirsten Laskey, LASO-GOV (E-File)
        Paul David Henry, DIR, (E-File)
        Michael A. Lansing, PADOPS, (E-File)
        Amy De Palma, PADOPS, (E-File)
        Alison M. Dorries, ENV-DO, (E-File)
        Steven L. Story, ENV-CP, (E-File)
        Kathleen Gorman, ENV-ES, (E-File)
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        ENV-CP Correspondence File, K940

New Mexico Environment Department
Air Quality Bureau
Compliance and Enforcement Section
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505
Phone (505) 476-4300 Fax (505) 476-4375

Version 05.02.13

NMED USE ONLY		**REPORTING SUBMITTAL FORM**	NMED USE ONLY	
TEMPO			Staff	
			Admin	

PLEASE NOTE: ® - Indicates required field

SECTION I - GENERAL COMPANY AND FACILITY INFORMATION

A. ® Company Name: Los Alamos National Security, LLC			**D. ® Facility Name:** Los Alamos National Laboratory		
B.1 ® Company Address: P.O Box 1663 MS J978			**E.1 ® Facility Address:** Same as Company		
B.2 ® City: Los Alamos	**B.3 ® State:** NM	**B.4 ® Zip:** 87545⌐	**E.2 ® City:**	**E.3 ® State:**	**E.4 ® Zip:**
C.1 ® Company Environmental Contact: Anthony R. Grieggs	**C.2 ® Title:** ENV-CP Group Leader		**F.1 ® Facility Contact:** Steven L. Story	**F.2 ® Title:** Air Quality Permitting and Compliance Programs Team Leader	
C.3 ® Phone Number: (505) 665-0451	**C.4 ® Fax Number:** (505) 665-8858		**F.3 ® Phone Number:** (505) 665-2169	**F.4 ® Fax Number:** (505) 665-8858	
C.5 ® Email Address: grieggst@lanl.gov			**F.5 ® Email Address:** story@lanl.gov		
G. Responsible Official: (Title V only): Michael T. Brandt	**H. Title:** Associate Director for ESH		**I. Phone Number:** (505) 667-4218	**J. Fax Number:** (505) 665-3811	
K. ® AI Number: 856	**L. Title V Permit Number:** P100-R1-M3	**M. Title V Permit Issue Date:** 04/26/2013	**N. NSR Permit Number:** 2195	**O. NSR Permit Issue Date:** Various	
P. Reporting Period: From: 07/01/2014 To: 12/31/2014					

SECTION II – TYPE OF SUBMITTAL (check one that applies)

A. ☐	**Title V Annual Compliance Certification**	**Permit Condition(s):**	**Description:**		
B. ☒	**Title V Semi-annual Monitoring Report**	**Permit Condition(s):** A109.A	**Description:** LANL Semi-Annual Monitoring Report for July-December 2014		
C. ☐	**NSPS Requirement (40CFR60)**	**Regulation:**	**Section(s):**	**Description:**	
D. ☐	**MACT Requirement (40CFR63)**	**Regulation:**	**Section(s):**	**Description:**	
E. ☐	**NMAC Requirement (20.2.xx) or NESHAP Requirement (40CFR61)**	**Regulation:**	**Section(s):**	**Description:**	
F. ☐	**Permit or Notice of Intent (NOI) Requirement**	**Permit No.** ☐ **: or NOI No.** ☐ **:**	**Condition(s):**	**Description:**	
G. ☐	**Requirement of an Enforcement Action**	**NOV No.** ☐ **: or SFO No.** ☐ **:** **or CD No.** ☐ **: or Other** ☐ **:**	**Section(s):**	**Description:**	

SECTION IV - CERTIFICATION

After reasonable inquiry, I _____ Michael T. Brandt _____ certify that the information in this submittal is true, accurate and complete.
(name of reporting official)

® Signature of Reporting Official:	® Title: Associate Director for ESH	® Date 1/27/15	® Responsible Official for Title V? ☒ Yes ☐ No

Reviewed By: _____   Date Reviewed: _____

ENCLOSURE 1

LANL Title V Semi-Annual Monitoring Report for
July - December 2014

ADESH-15-013

LAUR-15-20370

Date: _____ **JAN 2 7 2015** _____

Title V Report Certification Form

I. Report Type

☐ **Annual Compliance Certification**

☒ **Semi-Annual Monitoring Report**

☐ **Other Specify:**

II. Identifying Information

Facility Name: Los Alamos National Laboratory		
Facility Address: P.O. Box 1663, MS J978, Los Alamos	State: NM	Zip: 87545
Responsible Official (RO): Michael T. Brandt	Phone: 505-667-4218	Fax: 505-665-3811
RO Title: Associate Director, Environmental, Safety, & Health	RO e-mail: mtbrandt@lanl.gov	
Permit No.: P100-R1-M3	Date Permit Issued: April 26, 2013	
Report Due Date (as required by the permit): 02/14/2015	Permit AI number: 856	
Time period covered by this Report: From: July 1, 2014	To: December 31, 2014	

III. Certification of Truth, Accuracy, and Completeness

I am the Responsible Official indicated above. I, (Michael T. Brandt) certify that I meet the requirements of 20.2.70.7.AE NMAC. I certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached Title V report are true, accurate, and complete.

Signature _____ Date: 1/27/15

Title V Semi - Annual Monitoring Report for Permit P100R1M3

Part 1 – Monitoring Activity Reporting Requirements

A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month reporting period. The six month reporting periods start on **January** 1st and **July** 1st of each year.

A responsible official (as defined in 20.2.70.7.AD NMAC) shall certify the accuracy, truth and completeness of every report and compliance certification submitted to the Department as required by this permit. These certifications shall be part of each document. (20.2.70.300.E NMAC)

Compliance Certification Reports, Semi-Annual monitoring reports, compliance schedule progress reports, and any other compliance status information required by this permit shall be certified by the responsible official and submitted to:

Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

B108 General Monitoring Requirements
(20.2.70. 302.A and C NMAC)

A. These requirements do not supersede or relax requirements of federal regulations.

B. The following monitoring and/or testing requirements shall be used to determine compliance with applicable requirements and emission limits. Any sampling, whether by portable analyzer or EPA reference method, that measures an emission rate over the applicable averaging period greater than an emission limit in this permit constitutes noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit; but such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.

C. If the emission unit is shutdown at the time when periodic monitoring is due to be accomplished, the permittee is not required to restart the unit for the sole purpose of performing the monitoring. Using electronic or written mail, the permittee shall notify the Department's Enforcement Section of a delay in emission tests prior to the deadline for accomplishing the tests. Upon recommencing operation, the permittee shall submit any pertinent pre-test notification requirements set forth in the current version of the Department's Standard Operating Procedures For Use Of Portable Analyzers in Performance Test, and shall accomplish the monitoring.

D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke monitoring period exemptions at B108.D(2), hours of operation shall be monitored and recorded.

(1) If the emission unit has operated for more than 25% of a monitoring period, then the permittee shall conduct monitoring during that period.

(2) If the emission unit has operated for 25% or less of a monitoring period then the monitoring is not required. After two successive periods without monitoring, the permittee shall conduct monitoring during the next period regardless of the time operated during that period, except that for any monitoring period in which a unit has operated for less than 10% of the monitoring period, the period will not be considered as one of the two successive periods.

(3) If invoking the monitoring period exemption in B108.D(2), the actual operating time of a unit shall not exceed the monitoring period required by this permit before the required monitoring is performed. For example, if the monitoring period is annual, the operating hours of the unit shall not exceed 8760 hours before monitoring is conducted. Regardless of the time that a unit actually operates, a minimum of one of each type of monitoring activity shall be conducted during the five year term of this permit.

E. The permittee is not required to report a deviation for any monitoring or testing in a Specific Condition if the deviation was authorized in this General Condition B108.

F. For all periodic monitoring events, except when a federal or state regulation is more stringent, three test runs shall be conducted at 90% or greater of the unit's capacity as stated in this permit, or in the permit application if not in the permit, and at additional loads when requested by the Department. If the 90% capacity cannot be achieved, the monitoring will be conducted at the maximum achievable load under prevailing operating conditions except when a federal or state regulation requires more restrictive test conditions. The load and the parameters used to calculate it shall be recorded to document operating conditions and shall be included with the monitoring report.

G. When requested by the Department, the permittee shall provide schedules of testing and monitoring activities. Compliance tests from previous NSR and Title V permits may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions.

H. If monitoring is new or is in addition to monitoring imposed by an existing applicable requirement, it shall become effective 120 days after the date of permit issuance. For emission units that have not commenced operation, the associated new or additional monitoring shall not apply until 120 days after the units commence operation. All pre-existing

monitoring requirements incorporated in this permit shall continue to apply from the date of permit issuance. All monitoring periods, unless stated otherwise in the specific permit condition or federal requirement, shall commence at the beginning of the 12 month reporting period as defined at condition A109.B.

B109 General Recordkeeping Requirements
(20.2.70.302.D NMAC)

A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit. The minimum information to be included in these records is (20.2.70.302.D.1 NMAC):

(1) equipment identification (include make, model and serial number for all tested equipment and emission controls);

(2) date(s) and time(s) of sampling or measurements;

(3) date(s) analyses were performed;

(4) the company or entity that performed the analyses;

(5) analytical or test methods used;

(6) results of analyses or tests; and

(7) operating conditions existing at the time of sampling or measurement.

B. The permittee shall keep records of all monitoring data, equipment calibration, maintenance, and inspections, Data Acquisition and Handling System (DAHS) if used, reports, and other supporting information required by this permit for at least five (5) years from the time the data was gathered or the reports written. Each record shall clearly identify the emissions unit and/or monitoring equipment, and the date the data was gathered. (20.2.70.302.D.2 NMAC)

C. If the permittee has applied and received approval for an alternative operating scenario, then the permittee shall maintain a log at the facility, which documents, contemporaneously with any change from one operating scenario to another, the scenario under which the facility is operating. (20.2.70.302.A.3 NMAC)

D. The permittee shall keep a record describing off permit changes made at this source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. (20.2.70.302.I.2 NMAC)

E. Malfunction emissions and routine and predictable emissions during startup, shutdown, and scheduled maintenance (SSM):

(1) The permittee shall keep records of all events subject to the plan to minimize emissions during routine or predictable SSM. (20.2.7.14.A NMAC)

(2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, and a description of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source. The authorization of allowable SSM emissions does not supersede any applicable federal or state standard. The most stringent requirement applies.

(3) If the facility has allowable malfunction emission limits in this permit, the permittee shall record all malfunction events to be applied against these limits, including the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor

maintenance or careless operation are not malfunctions. (40 CFR 63.2, 20.2.7.7.E NMAC) The authorization of allowable malfunction emissions does not supersede any applicable federal or state standard. The most stringent requirement applies. This authorization only allows the permittee to avoid submitting reports under 20.2.7 NMAC for total annual emissions that are below the authorized limit.

B110 General Reporting Requirements
(20.2.70.302.E NMAC)

A. Reports of required monitoring activities for this facility shall be submitted to the Department on the schedule in section A109. Monitoring and recordkeeping requirements that are not required by a NSPS or
MACT shall be maintained on-site or (for unmanned sites) at the nearest company office, and summarized in the semi-annual reports, unless alternative reporting requirements are specified in the equipment specific requirements section of this permit.

B. Reports shall clearly identify the subject equipment showing the emission unit ID number according to this operating permit. In addition, all instances of deviations from permit requirements, including those that occur during emergencies, shall be clearly identified in the reports required by section A109.
(20.2.70.302.E.1 NMAC)

C. The permittee shall submit reports of all deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. These reports shall be submitted as follows:

(1) Deviations resulting in excess emissions as defined in 20.2.7.7 NMAC (including those classified as emergencies as defined in section B114.A) shall be reported in accordance with the timelines specified by 20.2.7.110 NMAC and in the semi-annual reports required in section A109. (20.270.302.E.2 NMAC)

(2) All other deviations shall be reported in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC).

D. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.

E. Results of emission tests and monitoring for each pollutant (except opacity) shall be reported in pounds per hour (unless otherwise specified) and tons per year. Opacity shall be reported in percent. The number of significant figures corresponding to the full accuracy inherent in the testing instrument or Method test used to obtain the data shall be used to calculate and report test results in accordance with 20.2.1.116.B and C NMAC. Upon request by the Department, CEMS and other tabular data shall be submitted in editable, MS Excel format.

F. At such time as new units are installed as authorized by the applicable NSR Permit, the permittee shall fulfill the notification requirements in the NSR permit.

G. Periodic Emissions Test Reporting: The permittee shall report semi-annually a summary of the test results.

H. The permittee shall submit an emissions inventory for this facility annually. The emissions inventory shall be submitted by the later of April 1 or within 90 days after the Department makes such request.
(20.2.73 NMAC and 20.2.70.302.A.1 NMAC)

I. Emissions trading within a facility (20.2.70.302.H.2 NMAC)

(1) For each such change, the permittee shall provide written notification to the department and the administrator at least seven (7) days in advance of the proposed changes. Such notification shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

(2) The permittee and department shall attach each such notice to their copy of the relevant permit.

Unit Specific Monitoring Reports:

A605 **Fuel Requirements – Asphalt Production**
A. Asphalt Plant Combustion Sources

Requirement: Combustion sources located at the asphalt plant shall only use propane as fuel.   **Monitoring:** N/A   **Recordkeeping:** The permittee shall maintain records in accordance with Section B109.   **Reporting:** The permittee shall submit reports described in Section A109 and in accordance with Section B110.
Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.
☐ **Yes**   **Date report submitted:**   **Tracking Number:**
☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**
Comments: Pipeline quality natural gas was used at the Asphalt Plant during this certification period.   In March 2014, the Asphalt Plant was connected to pipeline quality natural gas, and NMED-AQB was notified of this change in a letter dated September 17, 2013; this letter is included in this report as **ATTACHMENT A605.A**. The draft Operating Permit P100-R2 dated Dec 16, 2014, changes this requirement to, "combust only those fuels allowed under condition III.A.3 of the NSR permit GCP-3-2195G." Both propane and natural gas are allowed by this condition.   Records are maintained in accordance with Section B109.   A109.A: This semi-annual monitoring report is submitted within the allowed 45 days of this reporting period.   A109.B: The semi-annual emissions report submitted during this reporting period will be submitted within the allowed 90 days. This report for the period July through December 2014 will be submitted prior to March 30, 2015. The report will include a comparison of actual emissions with the allowable emission limits.   A109.C: The 2014 Annual Compliance Certification Report was submitted to NMED-AQB and EPA within 30 days of the end of the 12-month reporting period. The report was submitted to NMED and EPA on January 29, 2015.   All reporting requirements are completed and submitted in accordance with Section B110.

A607   Asphalt Production - Other
A.   Asphalt Plant Baghouse – Differential Pressure

Requirement: The baghouse shall be equipped with a device to continually measure the pressure drop across the baghouse.

Monitoring: The permittee shall monitor the differential pressure (inches of water) across the filters by the use of a differential pressure gauge. Pressure gauge readings and the time period the rotary dryer drum operates shall be recorded by a datalogger each time the rotary dryer drum is operating. The pressure data shall confirm whether the filter(s) are operating within the unit's specifications.

Recordkeeping: The permittee shall maintain records of all baghouse differential pressure readings in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The differential pressure information is used to confirm proper operation of the baghouse. The differential pressure across the baghouse filters during rotary dryer drum operation is measured by the following:

1. A data-logger records differential pressure readings every two minutes and transmits the pressure drop data through a leased phone-line to a remote terminal unit.
2. The plant operator manually records the differential pressure readings at each start-up and shut-down daily.

Recordkeeping conditions are met using the data-logger and operator's manual differential pressure entries at the start and end of each operation daily.

One permit deviation occurred in the asphalt batch plant data-logger communication system that transmits baghouse pressure drop data to a remote terminal unit (RTU) located at TA-03. The remote communication failed on two (2) days, September 19, 2014 and September 24, 2014, when the asphalt plant was operating; the cause of deviation was due to power fluctuations that resulted in loss of configuration programming of the RTU; the asphalt plant operated a combined total of less than three (3) hours during the remote communication failure. This is noted as a deviation in Part 2 "Deviation Summary Report". There were no excess emissions during this period.

A chart-recorder was set up in November 2014 to record differential pressure readings, and will serve as a backup when there is remote data-transmission failure.

The differential pressure readings are provided in **ATTACHMENT A607.A.**
Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Asphalt Plant Baghouse - Stack Height (Unit TA-60-BDM)

Requirement: The rotary dryer/baghouse exhaust stack shall be no less than 10 meters in height.
Monitoring: N/A
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**
☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**
Comments: The height of the asphalt plant stack has been measured and is not less than 10 meters. The stack is a permanent structure attached to the baghouse fan outlet and its height does not change. Records are maintained in accordance with Section B109. Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. Asphalt Plant Baghouse – Opacity

Requirement: Visible emissions from the rotary dryer/baghouse exhaust stack shall not exhibit an opacity of 20% or greater averaged over a (6) minute period.

Monitoring: The permittee shall perform six (6) minute opacity readings on the rotary dryer/baghouse stack at least once per month. The observations shall be conducted according to 40 CFR 60, Appendix A, Method 9.

Recordkeeping: The permittee shall maintain records of all opacity observations and in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

LANL has certified visible emission (opacity) readers on-site who perform monthly six minute readings using 40 CFR Part 60, Appendix A, Reference Method 9 to determine compliance with the opacity limitation. No visible emissions exhibited an opacity of 20% or greater during this reporting period. Method 9 opacity reports for July through December 2014 are provided in **ATTACHMENT A607.C.**

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

D. Asphalt Plant Baghouse – Fines Cleanout

Requirement: The permittee shall sequester or remove particulates collected by the control equipment to prevent wind-blown particulate emissions. Recycled baghouse fines shall be recycled into the drum mixer via a closed-loop system.

Monitoring: N/A

Recordkeeping: The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Baghouse fines are removed from the baghouse and cyclone by a screw conveyor. The removed fines are recycled into the asphalt production process via a closed loop system. Visible emissions from this system were not observed during this reporting period.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

E. Asphalt Plant Production Rate (Unit TA-60-BDM)

<table>
<tr><td>

Requirement: Production shall not exceed 13,000 tons per year.

Monitoring: The permittee shall monitor the total daily production rate.

Recordkeeping: The permittee shall calculate a weekly rolling, 12-month total production rate and maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

</td></tr>
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Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

</td></tr>
<tr><td>

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

</td></tr>
<tr><td>

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Asphalt production is monitored and recorded on a daily basis. The weekly rolling 12- month total is calculated and compared against the production limit set in this permit condition. Data on asphalt production is recorded daily on an operation log. The daily operation logs and 12-month rolling totals are provided in **ATTACHMENT A607.E.**

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

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F. Asphalt Plant Operations – General

Requirement: The permittee shall:
1) Install, operate, and maintain equipment in accordance with standard operating procedures, and
2) Equip and operate the asphalt processing equipment such as screens, conveyor belts, and conveyor transfer points with dust control systems to control particulate matter emissions, and
3) Operate the Plant in accordance with NSR Permit GCP-3-2195G, Section III, A, B, C, D, E, F, and H.
4) Ensure that no visible emissions from the facility are observed crossing the perimeter of the restricted area for no more than 5 minutes during any 2 consecutive hours during facility operations.

Monitoring: The permittee shall perform all monitoring required under NSR Permit GCP-3-2195G.

Recordkeeping: The permittee shall maintain records of all standard operating procedures, records of all maintenance and/or replacement of dust control systems, and all records required under NSR Permit GCP-3-2195G, Section IV.B, and including records of actual hours of operation, records of all required monitoring, daily and weekly total asphalt production and the weekly rolling 12 month total production, number of haul truck trips daily including materials delivery and product, frequency of haul road sweeping, and copies of the applicant's proposed maintenance requirements and records demonstrating conformance with said requirements. The permittee shall maintain records of all compliance test results for total suspended particulates (TSP), particulate matter (PM_{10}), nitrogen oxides, carbon monoxide, and records of all opacity/visible emissions observations performed.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

1) An existing chart-recorder was setup to monitor differential pressure readings. No other new equipment was installed during this monitoring period. Operation and maintenance requirements are contained in internal plant procedures that are followed by plant operation staff. Equipment calibration was conducted on the baghouse Magnehelic® differential pressure gage, chart- recorders, and pressure transmitter to the remote terminal unit.

2) Dust collection and control systems are in place on screens, conveyor belts, and transfer points to control particulate matter emissions.

3) The Asphalt Plant is operated in accordance with NSR Permit GCP-3-2195G.

4) Both EPA reference methods 9 and 22 are used at the plant to determine the extent of visible emissions.

The asphalt plant did not emit fugitive dust that exceeded the 5 minute limit of visible emissions during any 2 consecutive hours of operation. EPA Reference Method 9 reports are attached in A.607.C and EPA Reference Method 22 reports are attached in A607.G.

All monitoring required under NSR Permit GCP-3-2195G was performed during this reporting period.

Recordkeeping conditions are met using the following methods: Standard operating procedures are in place and available on site. Maintenance on the plant is performed periodically and records for this reporting period are provided in **ATTACHMENTA607.F.** The plant operation logs contains the start time, stop time and total hours of operation; production amounts summed daily, weekly; and number of truck trips. The rolling 12 month totals for production are calculated on the emission calculation spreadsheet. The operation logs and rolling 12 month totals are provided in **ATTACHMENT A607.E.** Records located at the facility include fuel delivery tickets, frequency of road sweeping, calibration procedures, and a procedure that outlines required maintenance.

All compliance test results have been provided to NMED and are available on site.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

G. Asphalt Plant Fugitive Dust

Requirement: Fugitive dust emissions from asphalt processing equipment, including the system used to recycle fabric filter fines, shall exhibit no more than five (5) minutes of visible emissions during any two consecutive hours. This condition does not apply to fugitive dust emissions from other support operations such as storage piles, front end loaders, or materials handling around the asphalt process equipment.

Monitoring: The permittee shall perform a Method 22 test at least once per month on all screens, conveyor drop points, and hoppers. The duration of the test shall be a minimum of ten (10) minutes. If visible emissions are observed for more than two (2) minutes, the Method 22 test shall continue for two (2) hours or until scheduled operation of the plant ends.

Recordkeeping: The permittee shall maintain records of all equipment standard operating procedures, records of all maintenance and/or replacement of dust control systems, results of all visible emissions observations, and all records required under NSR Permit GCP-3-2195G.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**　　　**Date report submitted:**　　　　　　　　**Tracking Number:**

☒ **No**　　　**Provide comments and identify any supporting documentation as an attachment.**

Comments:

Both EPA reference methods 9 and 22 are used at the plant to determine the extent of visible emissions. During this reporting period, the asphalt plant did not emit fugitive dust that exceeded 5 minutes of visible emissions during any 2 consecutive hours.

Method 22 readings are taken once per month. The Method 22 readings for July through December 2014 are provided in **ATTACHMENTA607.G.** No visible emissions were observed for more than two minutes during any Method 22 test during this reporting period.

The plant standard operating procedure, maintenance and repair records, and visible emission observations are maintained on site. All other records required under the NSR permit are also available on site.

Emission and monitoring reports are submitted on a 6-month basis, and compliance certification on an annual basis, in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A707   Other – Beryllium Activities
A. Operational Requirements – Beryllium Activities

Source	Operating Requirements	Process Limits	Control Equipment Requirements
Sigma Facility TA-3-66	Beryllium operations will consist of registered polishing, electroplating /chemical milling, and relocated machining, and arc melting/casting sources.	None	Polishing and electroplating /chemical milling operations shall be conducted in aqueous solution or lubricant bath. Emissions from machining and arc melting/casting operations shall be exhausted through a HEPA filtration system prior to entering the atmosphere.
Beryllium Technology Facility TA-3-141	The continuous emission monitor will be maintained in accordance with the Laboratory's quality program.	Beryllium processed by the facility will not exceed 10,000 pounds per calendar year. Beryllium processed by the facility will not exceed 1000 pounds per day.	All processes shall be exhausted through a HEPA filtration system prior to entering the atmosphere. Powder operations, other than closed glovebox operations, and machining operations, other than the processes used in metallographic preparation shall be exhausted through a cartridge filtration system then through the HEPA filtration system. Metallographic preparation activities shall be conducted in lubricating baths or equivalent.
Target Fabrication Facility TA-35-213	Beryllium operations will consist of only beryllium machining and associated cleanup activities.	None	All processes shall be exhausted through a HEPA filtration system prior to entering the atmosphere.
Plutonium Facility TA-55-PF4	Regulated beryllium activities will be ducted through the pollution control equipment and out the north or south stack of PF-4. (NSR Permit 1081-M1-R3, Specific Condition 1.b., partial, revised) The electric furnace shall be enclosed in a glove box, have a maximum operating temperature of 1600 degrees centigrade, and an inside volume space less than 1.1 cubic feet. (NSR Permit 1081-M1-R6, Specific Condition 1.d., partial, revised)	44 pounds of beryllium (20 kg) in any 24 hour period; 1100 pounds/year (500 kg/year) using a rolling total. (NSR Permit 1081-M1-R3, Specific Condition 1.c.)	Weld cutting, weld dressing, metallography, and electric furnace operations shall be controlled with 4 HEPA filters with a control efficiency of 99.95% each. (NSR Permit 1081-M1-R1, Condition 3, partial, revised) The non-accessible filters shall be replaced when the pressure drop across the filter either falls to levels indicating filter breakthrough or increases to levels indicative of excessive loading. (NSR Permit 1081-M1-R1, Condition 3, partial, revised)

Has this reporting requirement been met during this reporting period with a separate report submittal?
Answer Yes or No below.

☐ **Yes   Date report submitted:**   **Tracking Number:**

☒ **No   Provide comments and identify any supporting documentation as an attachment.**

Comments:

TA-3-66 - Emissions from machining and arc melt/casting operations are exhausted through a HEPA filtration system prior to entering the atmosphere. Polishing and electroplating/ chemical milling operations are conducted in aqueous solution or lubricant bath.

TA-3-141 - The continuous emission monitor is maintained in accordance with the Laboratory's quality program. Records of beryllium process records are available on-site for inspection. No process limits were exceeded during this certification period.

All processes are exhausted through a HEPA filtration system prior to entering the atmosphere. Powder operations, other than closed glovebox operations, and machining operations, other than metallographic preparation, are exhausted through a cartridge filtration system then through HEPA filtration. Metallographic preparation activities are conducted in lubricating baths or equivalent.

TA-35-213 - All processes are exhausted through a HEPA filtration system prior to entering the atmosphere.

TA-55-PF4 - All beryllium activities are ducted through the facility's pollution control equipment and out the north or south stack of PF-4. Weld cutting, weld dressing, and metallography operations are controlled using 4 HEPA filters with a control efficiency of 99.95% each. The non-accessible filter is replaced when the pressure differential across the filter indicates breakthrough or excessive loading.

No process limits were exceeded during this reporting period.

The electric furnace did not operate during this reporting period.

B. Emissions Monitoring Requirements – Beryllium Activities

Source	Monitoring Requirements
Sigma Facility TA-3-66	A log shall be maintained during operations, which shows the number of metallographic specimens used in the polishing operation and the weight or volume of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations.
Beryllium Technology Facility TA-3-141	Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions. Cartridge and HEPA filters shall be equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans are in operation.
Target Fabrication Facility TA-35-213	Records of the stack emission test results (see Condition 2 of NSR Permit No. 632) and other data needed to determine total emissions shall be retained at the source and made available for inspection by the Department.
Plutonium Facility TA-55-PF4	The HEPA filtration systems shall be equipped with a differential pressure gauge that measures the differential pressure (inches of water) across the HEPA filters while the exhaust fans are in operation. (NSR Permit 1081-M1-R3, Condition 11) Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters. (NSR Permit 1081-M1-R1, Condition 3, partial, revised) The furnace temperature shall be continuously monitored and the flow rate from the glove box containing the furnace shall be measured once during each metal melt operation. (NSR Permit 1081-M1-R6, Condition 11, revised)

Has this reporting requirement been met during this reporting period with a separate report submittal?
Answer Yes or No below.

☐ **Yes   Date report submitted: Tracking Number:**

☒ **No   Provide comments and identify any supporting documentation as an attachment.**

Comments:

TA-3-66 – Log books are maintained for monitoring the number of metallographic specimens used in the polishing operation and the weight or volume of samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations. The log books are available on-site and are available for inspection. Data from the log books are included in **ATTACHMENT A707.B.a.**

TA-3-141 – The exhaust stack has a built-in sampling system used to continuously sample beryllium emissions. Cartridge and HEPA filters are equipped with differential pressure gauges that measure differential pressure when exhaust fans are in operation.

TA-35-213 – A copy of stack emission test results as well as other data needed to determine total emissions are retained at the source and are available for inspection. Log books documenting beryllium processing are on-site and are available for inspection. Data from the beryllium processing logs are included in **ATTACHMENT A707.B.b.**

TA-55-PF4 – The HEPA filtration system contains a differential pressure gauge that measures differential pressure across the HEPA filters while the exhaust fans are in operation. The control efficiency is verified by daily HEPA filter pressure drop tests.

Annual HEPA filter challenge tests are performed to verify filter control efficiency.

The electric furnace did not operate during this certification period.

C. Recordkeeping Requirements – Beryllium Activities

Source	Recordkeeping Requirements
Sigma Facility TA-3-66	Recordkeeping for this source is specified in Condition A707.B.
Beryllium Technology Facility TA-3-141	Generate and maintain beryllium inventory records to demonstrate compliance with the 10,000 pounds of beryllium per calendar year and the 1000 pounds of beryllium per day processing limit. Record pressure drop across the cartridge and HEPA filters once per day that the exhaust fans are in operation and the facility is occupied. Record control equipment maintenance and repair activities.
Target Fabrication Facility TA-35-213	Recordkeeping for this source is specified in Condition A707.B.
Plutonium Facility TA-55-PF4	Stack emission test results and facility operating parameters including a daily record of the pressure drop measured across each appropriate HEPA plenum filtration stage, when the exhaust fans are operating. (NSR Permit 1081-M1-R3, Condition 9, partial, revised) A copy of the annual HEPA test, a log of the daily pressure drop readings and a control equipment maintenance log shall be kept. This documentation shall be provided upon request. (NSR Permit 1081-M1-R1, Condition 3, partial, revised) A log of the filter replacement shall be kept and shall be made available to the Department personnel upon request. (NSR Permit 1081-M1-R1, Condition 3, partial, revised) The permittee shall keep records of the number and weight of classified parts processed during a 24-hour period and year using a rolling total. Records shall be made available to properly cleared Department personnel upon request. (NSR Permit 1081-M1-R3, Condition 9, partial, revised) The permittee shall for each use of the furnace record the following operating parameters: metal type, theoretical melting point of the metal, metal melt duration once melting is commenced, maximum furnace temperature and glove box flow rate. (NSR Permit 1081-M1-R6, Condition 9, partial, revised) A record of the furnace's internal volume shall be maintained at the facility. (NSR Permit 1081-M1-R6, Condition 9, partial, revised)

Has this reporting requirement been met during this reporting period with a separate report submittal?
Answer Yes or No below.

☐ **Yes   Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

TA-3-66 – Recordkeeping for this source is specified in condition A707.B.

TA-3-141– Inventory records are maintained to demonstrate compliance with beryllium process limits. Records of pressure drop across the cartridge and HEPA filters are performed daily when the exhaust fans are in operation and the facility is occupied. Control equipment maintenance and repair activities are recorded. HEPA filter differential pressure readings are included in **ATTACHMENT A707.C.a.**

TA-35-213 – Recordkeeping for this source is specified in condition A707.B.

TA-55-PF4 – A copy of the stack emission test results are retained at the source and available for inspection. HEPA filter challenge tests are performed annually and are provided in **ATTACHMENT A707.C.b**. Daily differential pressure readings are provided in **ATTACHMENT A707.C.c.** Filter replacement and control equipment maintenance and repair records are kept and available on site for inspection. Process records are available that contain the number and weight of classified parts processed during a 24-hour period and annual rolling total.

The electric furnace did not operate during this reporting period.

D. Reporting Requirements – Beryllium Activities

Source	Reporting Requirements
Sigma Facility TA-3-66	The permittee shall report in accordance with Conditions A109.A, A109.C, and Section B110.
Beryllium Technology Facility TA-3-141	Anticipated date of initial startup of each new or modified source not less than thirty (30) days prior to the date.
	Actual date of initial startup of each new or modified source within fifteen (15) days after the startup date.
	Provide the date when each new or modified emission source reaches the maximum production rate at which it will operate within fifteen (15) days after that date.
	Notify the Department within 60 days after each calendar quarter of the facility's compliance status with the permitted emission rate from the continuous monitoring system.
	Provide any data generated by activities described in the Quality Assurance Project Plan (QAPP) that will assist the Air Quality Bureau's Enforcement Section in determining the reliability of the methodology used for demonstrating compliance with the permitted emission rate within 45 days of such a request.
	The permittee shall submit reports described in Section A109 and in accordance with Section B110.
Target Fabrication Facility TA-35-213	The permittee shall submit reports described in Section A109 and in accordance with Section B110.
Plutonium Facility TA-55-PF4	Stack emission test results and facility operating parameters will be made available to Department personnel upon request.
	Reports may be required to be submitted to the Department if inspections of the source indicate noncompliance with this permit or as a means of determining compliance.
	The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☒ **Yes Date report submitted:** 07/24/2014, 10/24/2014 **Tracking Number:** SBR20140006 & SBR20140009

☐ **No Provide comments and identify any supporting documentation as an attachment.**

Comments:

All Beryllium Sources - Reports are submitted in accordance with permit conditions A109 and B110. For

more information, see Section A605 in this report.

There were no new or modified emission sources during the reporting period.

TA-3-141 Quarterly beryllium reports, containing continuous monitoring system data from the Beryllium Technology Facility, are also submitted to NMED. Reports during this reporting period were submitted within 60 days following each calendar quarter. The reports were submitted on July 24, 2014 and October 24, 2014 for this reporting period (July 1, 2014 to December 31, 2014).

A805 Fuel Sulfur Requirements – External Combustion
A.   All Boilers and Heaters (except Units CMRR-BHW-1 through -4)

Requirement: All boilers and heaters, **except** Units CMRR-BHW-1 through -4 and the Power Plant addressed in Section A1300 shall combust only natural gas containing no more than 2 grains of total sulfur per 100 dry standard cubic feet.

Monitoring: None.

Recordkeeping: The permittee shall demonstrate compliance with the natural gas limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, or fuel gas analysis, specifying the allowable limit or less. If fuel gas analysis is used, the analysis shall not be older than **one year**.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

A natural gas transportation contract is in place, and states that gas provided to LANL will be pipeline quality and contain no more than three quarters (3/4) grains of total sulfur per one hundred (100) standard cubic feet. Language on gas quality from the transportation contract is provided in **ATTACHMENT A805.A.**

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Units CMRR-BHW-1 through -4

Requirement: Units CMRR-BHW-1 through -4 shall combust either natural gas containing no more than 2.0 grains of total sulfur per 100 dry standard cubic feet or No. 2 fuel oil containing no more than 0.5 wt% total sulfur. (NSR Permit 2195N, Specific Condition 1.b., partial, revised, Specific Condition 1.h., and 40 CFR 60.42c(d))

Monitoring: None.

Recordkeeping: The permittee shall demonstrate compliance with the natural gas limit and/or fuel oil limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel analysis, specifying the allowable limit or less. If a fuel analysis is used, the analysis shall not be older than one year. (NSR Permit 2195N, Specific Condition 3.b., revised; 40 CFR 60.48c(e)(11); and 40 CFR 60.48c(g)(2)). Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**	**Date report submitted:**	**Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

A natural gas transportation contract is in place, and states that gas provided to LANL will be pipeline quality and contain no more than three quarters (3/4) grains of total sulfur per one hundred (100) standard cubic feet. Language on gas quality from the transportation contract is provided in **ATTACHMENT A805.A**

Fuel oil is under a purchase contract and only Ultra Low Sulfur Diesel (ULSD) is delivered to the facility. ULSD contains less than 0.0015 wt% total sulfur. A copy of the transportation contract and purchase contract are kept on site. No fuel oil was purchased during this reporting period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A806 20.2.61 NMAC Opacity – External Combustion
A. All Boilers and Heaters (except Units CMRR-BHW-1 through -4)

Requirement: Exhaust emissions from any external combustion source shall not exceed 20% opacity averaged over a 10-minute period.

Monitoring: Use of natural gas fuel meeting the requirement at Condition A805.A constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation and are determined to be not due to condensed water vapor only, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.

Recordkeeping: The permittee shall record dates of any opacity measurements and the corresponding opacity readings.

Reporting: The permittee shall report dates of any opacity measurements and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

LANL has certified visible emission readers on-site who perform observations using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation. Opacity did not exceed 20% over a 10-minute period and no visible emissions were observed during steady state operations during this reporting period.

The natural gas combusted by all boilers at LANL meets the requirement at Condition 805.A.

Opacity did not exceed 20% over a 10-minute period, and no visible emissions were observed during steady state operations during this reporting period.

A standard form is used for all opacity measurements. The form includes the date of measurement and opacity observed. No opacity readings were needed or required during this reporting period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Units CMRR-BHW-1 through -4: Natural Gas-Fired

Requirement: Exhaust emissions from any external combustion source shall not exceed 20% opacity averaged over a 10-minute period.

Monitoring: Use of natural gas fuel meeting the requirement at Condition A805.A constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation and are determined to be not due to condensed water vapor only, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.

Recordkeeping: The permittee shall record dates of any opacity measurements and the corresponding opacity readings.

Reporting: The permittee shall report dates of any opacity measurements and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

| ☐ **Yes** | **Date report submitted:** | **Tracking Number:** |

☒ No   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

LANL has certified visible emission readers on-site who perform observations using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation. Opacity did not exceed 20% over a 10-minute period and no visible emissions were observed during steady state operations during this reporting period.

The natural gas used by these units meets the requirement of Condition A805.A.

A standard form is used for all opacity measurements. The form includes the date of measurement and opacity observed. No opacity readings were needed or required during this reporting period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. Units CMRR-BHW-1 through -4: Fuel Oil-Fired

Requirement: Exhaust emissions from any external combustion source shall not exceed 20% opacity averaged over a 10-minute period.

Monitoring: The permittee shall perform a least one (1) opacity observation each day that fuel oil is used to fire any of Units CMRR-BHW-1 through -4. Opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. (NSR Permit 2195N, Specific Condition 3.c., revised)

Recordkeeping: The permittee shall record dates of any opacity measurements and the corresponding opacity readings. (NSR Permit 2195N, Specific Condition 4.b., revised)

Reporting: The permittee shall report dates of any opacity measurements and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

LANL has certified visible emission readers on-site who perform observations using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation. Visible emissions did not exceed 20% opacity during this reporting period.

An opacity observation is taken each day fuel oil is used.

A standard form is used for all opacity measurements. The form includes the date of measurement and opacity observed.

No fuel oil was burned during this reporting period, and therefore no opacity readings were taken.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A807 Other – External Combustion
A. Natural Gas Fuel Usage (Sources listed in Table 800.A except CMRR-BHW-1 through -4)

Requirement: The combined natural gas fuel usage shall be limited to 870 MMscf/y. This limitation shall apply to all boilers and heaters listed in Table 800.A **except** Units CMRR-BHW-1 through -4, but including all other boilers and heaters at the Facility that qualify as Title V Insignificant Activities.

Monitoring: The permittee shall monitor the monthly total volumetric flow of natural gas to Units TA-55-6-BHW-1 and TA-55-6-BHW-2 through use of a totalizing flow meter.

Recordkeeping: The permittee shall:
1) Calculate the monthly rolling 12-month total natural gas fuel usage for the emission units listed in Table 800.A **except** Units CMRR-BHW-1 through -4.
2) Calculate the actual emissions rate for the emission units listed in Table 800.A **except** Units CMRR BHW-1 through -4. The calculation shall be based on the actual fuel usage of Units equipped with individual flow meters and the Facility-Wide metered or estimated natural gas usage.
3) Calculate the semiannual and annual total emissions rate (tons/year) for this source category and compare them to the emission limits in Table 802.A. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

For units listed under this permit condition, a 12-month rolling total of natural gas used is calculated and recorded each month. The rolling total is compared to the fuel use limit each month. Natural gas usage limits were not exceeded during this reporting period. Natural gas usage and rolling total are provided in **ATTACHMENT A807.A.**

Units TA-55-6-BHW-1 and TA-55-6-BHW2 have volumetric flow meters in place and are used to monitor monthly natural gas use. Fuel use information for the TA-55 units listed in this condition is available in **ATTACHMENT A807.A.**

The actual emission rate is calculated for the units listed in Table 800.A. This calculation uses actual fuel use data from individual unit flow meters and facility wide metered natural gas. The emission rate is calculated every 6 months and annually for this source category and compared to the limits.
Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Natural Gas and Fuel Oil Usage (Units CMRR-BHW-1 through -4)

Requirement: The permittee shall comply with the emission limits in Table 802.B for each fuel type.

Monitoring: The permittee shall:
1) Monitor the monthly total volumetric flow of natural gas to Units CMRR-BHW-1 through -4 using a totalizing flow meter. (NSR Permit 2195N, Specific Condition 3.a., partial, revised and 40 CFR 60.48c(g)(2))
2) Monitor the daily fuel oil consumption during which any of the 4 CMRR boilers are fired with this fuel type. (NSR Permit 2195N, Specific Condition 3.a, partial, revised)
3) Monitor the hours of operation for each boiler when fired on fuel oil and during non-emergency maintenance and readiness testing.

Recordkeeping: The permittee shall:
1) Calculate and record the annual fuel oil usage for Units CMRR-BHW-1 through -4 as a daily rolling 365-day total. (NSR Permit 2195N, Specific Condition 1.c., partial, revised)
2) Calculate and record the semiannual and calendar year total emissions rate (tons/year) for each fuel type and for the combination of both fuels compare to the emission limits in Table 802.B.
3) Record the annual hours of operation of each boiler when fired on fuel oil during non-emergency maintenance and readiness testing and compare to the limitation at Condition A804.B.
4) The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

A totalizing flow meter is in place and measures natural gas used by the CMRR boilers. The natural gas fuel use data is provided in **ATTACHMENT A807.A**

Daily fuel oil consumption is monitored using meters located on each boiler. The fuel use readings are monitored by facility personnel. No fuel oil was burned during this reporting period.

The hours of operation of each boiler are recorded by facility personnel each time a boiler is run on fuel oil. The purpose for running the boiler is also monitored. Annual fuel oil usage is recorded on a 365-day rolling total. No fuel oil was burned during this reporting period.

The emissions rate is calculated on a 6-month and annual basis for each fuel type and for both fuels combined. Emissions are compared to permit limits. This data is provided to NMED in accordance with Permit condition A109.

Annual hours of operation for each boiler are recorded when fired on fuel oil during non-emergency use. The total hours are compared to the hour limit in condition A804.B.

Records are maintained in accordance with condition B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. 40 CFR 60, Subpart Dc (Units TA-55-6-BHW-1, TA-55-6-BHW-2, CMRR-BHW-1 through -4)

Requirement: Units TA-55-6-BHW-1, TA-55-6-BHW-2, CMRR-BHW-1 through -4 are subject to 40 CFR 60, Subparts A and Dc, including the initial notification requirements of Subpart A and the specific requirements of Subpart Dc.

Monitoring: The permittee shall perform all monitoring required by 40 CFR 60, Subparts A and Dc, including (but not limited to) 40 CFR 60.47c.

Recordkeeping: The permittee shall maintain all records required 40 CFR 60, Subparts A and Dc, including (but not limited to) those specified by 40 CFR 60.48c(f)(1), (g), and (i). (NSR Permit 2195N, Specific Condition 4.a., revised)

Reporting: The permittee shall:
1) Submit reports described in Section A109 and in accordance with Section B110.
2) Submit reports as required by 40 CFR 60, Subparts A and Dc, including (but not limited to) those required by 40 CFR 60.48c(a)(1) – (3) and 40 CFR 60.48c(d), (e)(11), (f)(1), and (j). (NSR Permit 2195N, Specific Condition 4.a., revised)

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**　　　**Date report submitted:**　　　　　　　　**Tracking Number:**

☒ **No**　　　**Provide comments and identify any supporting documentation as an attachment.**

Comments:

Units TA-55-6-BHW-1, TA-55-6-BHW-2, and CMRR-BHW-1 through -3 meet the requirements of 40 CFR Part 60, Subparts A and Dc. The unit CMRR-BHW-4 has not been installed. Notification requirements were met through source startup notifications and initial permit applications. Monitoring of fuel combusted is conducted and recorded on a monthly basis. Fuel sulfur requirements and tracking are addressed in a fuel oil purchase contract, delivery receipts, and the natural gas transportation contract (see attachment A805.A). Note that no fuel oil was purchased during this reporting period.

Fuel sulfur content and fuel use records are maintained on site for at least 5 years as required by the operating permit.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

D. Initial Compliance Testing (Units CMRR-1 through -4)

Requirement: Initial compliance tests are required for each boiler, Units CMRR-BHW-1 through -4. The tests shall be conducted for NOx and CO for each fuel type. Tests shall be conducted for TSP, PM10, and PM2.5 for fuel oil use only. (NSR Permit 2195N, Specific Condition 6.a., partial, revised)

Monitoring: Compliance testing shall be conducted in accordance with Section B111. The reference to initial startup of the source at B111.A(2) shall be defined as initial startup for each fuel type; compliance testing on fuel oil in accordance with B111 is not required until after the source has achieved startup on fuel oil.

Recordkeeping: The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The initial compliance tests for units CMRR-BHW-1 through -3 were conducted on January 18-19, 2012. Unit CMRR-BHW-4 has not been installed. These tests were conducted using natural gas only. Fuel oil is an emergency fuel and will rarely be used. A permit revision was made to the NSR permit to remove the requirement to test using fuel oil. The revised condition can be found in specific condition 6.a of NSR permit 2195N-R2. This revised condition will be included in the next operating permit renewal.

The compliance tests performed as stated above were conducted in accordance with Section B111 of the operating permit.

The compliance test records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A907 Other – Chemical Usage
A.   Emission calculations (Unit LANL-FW-CHEM)

Requirement: The permittee shall comply with the facility-wide VOC and HAP emission limits at Table 106.B.

Monitoring: The permittee shall monitor facility-wide chemical purchasing and site location using an electronic chemical tracking system. The quantity of chemicals that are vented to the atmosphere shall be estimated on a semi-annual basis, and categorized as VOC, HAP, or a combination of these categories.

Recordkeeping: The permittee shall record the quantity of total VOC emitted and the quantity of each individual and total HAPs on a semi-annual basis. These records shall be maintained in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110. With respect to individual HAPs, reports shall include any HAP emitted in a quantity greater than 0.5 tons per year.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☒ **Yes**   **Date report submitted:** 09/03/2014   **Tracking Number:** SBR20140008

☐ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Facility wide emissions did not exceed the VOC or HAP emission limits listed in Table 106.B.

Facility wide chemical purchase records are collected in LANL's ChemLog database and used to calculate emissions. Chemical emission information is submitted to NMED every 6-months in accordance with permit condition A109.B. The Semi-Annual Emissions Report for the first half of 2014 (Jan 1 – June 30) was submitted to NMED on September 3, 2014, within 90 days of July 1, 2014. Records of chemical purchases for the period July 1-Dec 31, 2014, are provided in **ATTACHMENT A907.A.**

Facility wide VOC and HAP emissions are calculated, recorded, and reported on a 6-month basis in accordance with permit conditions A109.B, B109, and B110. The semi-annual emission report includes individual HAPs emitted in a quantity greater than 0.5 tons per year.

B. Emission calculations (Unit CMRR-CHEM)

Requirement: The permittee shall comply with the source-specific VOC emission limit at Table 902.A and the facility-wide VOC and HAP emission limits at Table 106.B. (NSR Permit 2195N, Specific Condition 2.a., revised)

Monitoring: The permittee shall monitor chemical purchasing for the CMRR-CHEM facility using an electronic chemical tracking system. The quantity of chemicals that are vented to the atmosphere shall be estimated on a monthly basis, and categorized as VOC, HAP, TAP, or a combination of these categories. (NSR Permit 2195N, Specific Condition 4.c., revised)

Recordkeeping: The permittee shall record the quantity of total VOC and TAP, each individual HAP, and the total HAPs emitted on a monthly rolling, 12-month total basis. These records shall be maintained in accordance with Section B109. (NSR Permit 2195N, Specific Condition 4.c., revised)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110. With respect to individual HAPs, reports shall include any HAP emitted in a quantity greater than 0.5 tons per year.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The CMRR-CHEM facility laboratory activities started operations in May 2014. Chemical purchasing for the facility are monitored using an electronic chemical tracking system (ChemLog). Records of chemical purchases for the reporting period are provided in **Attachment A907.B.a**

The quantities of chemicals that are vented to the atmosphere are estimated on a monthly basis and are categorized as VOC, HAP, TAP, or a combination of these categories. The quantities of chemicals for this reporting period are provided in **Attachment A907.B.b**

The quantity of total VOC and TAP, individual HAP, and the total HAPs emitted are recorded on a monthly rolling, 12–month total basis. Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. The semi-annual emission report includes individual HAPs emitted in a quantity greater than 0.5 tons per year. For more information, see comments in Section A605 of this report.

A1007 Other – Degreasers

A. Operational Requirements (Degreasers)

Requirement: The permittee shall comply with the applicable requirements according to 40 CFR 63, Subpart T, including, but not limited to:

1) Ensure the degreaser is closed with a tight fitting cover whenever not in use, and
2) Maintain a freeboard ratio of 0.75 or greater, and
3) Collect and store all waste solvent and wipe rags in closed containers, and
4) Perform flushing within the freeboard area only, and
5) Allow cleaned parts to drip for 15 seconds or until dripping stops, and
6) Do not exceed the fill line on the solvent level, and
7) Wipe up spills immediately, and
8) Do not create observable splashing with agitation device, and
9) Ensure that the degreaser is not exposed to drafts greater than 40 meters/min, and
10) Do not clean sponges, fabric, wood, or paper.

Monitoring: The permittee shall monitor and record the amount of solvent added to the degreaser.

Recordkeeping: The permittee shall:

1) Calculate the actual emissions rate (pounds/month) of VOC and HAPs based on the quantity of solvent lost to evaporation on a monthly basis.
2) Calculate the semi-annual emissions rate (tons/year) for this source category and add to the facility wide emission rates in Table 106.B.
3) Maintain records of the degreaser solvent content and quantity added and work practice checklists.
4) The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

1) The degreaser is kept closed with a tight fitting cover when it is not being used.

2) A freeboard ratio of 0.75 or greater is maintained.

3) All waste solvent and solvent contaminated wipe rags are collected and stored in closed containers.

4) Flushing operations are performed only within the freeboard area.

5) Cleaned parts are allowed to drip for 15 seconds or until dripping stops.

6) The fill line has not been exceeded.

7) Spills are wiped up immediately.

8) Administrative controls are in place to prevent observable splashing with an agitation device.

9) The degreaser is located in a glove box with a set ventilation flow rate. Exhaust flows do not exceed 40 meters/min.

10) Sponges, fabric, wood, or paper are not cleaned in the degreaser.

A Degreaser Recordkeeping database is used to track the amount of degreaser solvent added, removed, and lost. This system is used to calculate emissions. The "Degreaser Solvent Usage" report for July 1, 2014 through December 31, 2014 is provided in **ATTACHMENT A1007.A.a.**

1) The actual emission rate (pounds/month) of VOC and HAPs is automatically calculated by the database when data is entered.

2) The semi-annual emissions (tons/year) are also calculated by the database. These emissions are included in the facility wide totals.

3) Checklists for work practice standards have been completed for this reporting period. Records of solvent content and quantity added are maintained on site. A copy of the work practice checklist is provided in **ATTACHMENT A1007.A.b.**

4) Records for this source category are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1104 Operational Limitations – Internal Combustion
A. Hours of Operation for Gensets in the Standby Generator Pool

Requirement: The facility Standby Generator Pool is limited to an average of 168 hrs per year per genset.

Monitoring: The permittee shall monitor the hours of operation or each genset that is assigned to the Standby Generator Pool.

Recordkeeping: The permittee shall maintain semi-annual records of the hours of operation in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The limit of 168 hrs per year average per generator set was not exceeded during this reporting period. Standby generator hours of operation for this reporting period are provided in **ATTACHMENT A1104.A.**

Hours of each stationary standby generator are collected and evaluated twice a year to verify that the average hours per year limit is not exceeded.

The semi-annual hours of operation records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Hours of Operation and Emission Limits for Unit TA-33-G-1

Requirements:
1) Unit TA-33-G-1 is limited to 12,000 kWh/day and 1,350,000 kWh/y. (NSR Permit 2195F-R3, Specific Condition 1.b., partial)
2) Unit TA-33-G-1 is limited to eight (8) hours of daily operation at full capacity. Operation shall occur between the hours of 7:00 AM and 5:00 PM. (NSR Permit 2195F-R3, Specific Condition 1.c.)

Monitoring: The permittee shall monitor the time(s) of operation each day, and the daily and monthly rolling 12-month total kilowatt-hours of operation for Unit TA-33-G-1 using a non-resettable kilowatt-hour meter. (NSR Permit 2195F-R3, Specific Condition 1.b., partial, revised)

Recordkeeping: The permittee shall maintain the following records and in accordance with Section B109:
1) The permittee shall keep records of the time(s) of operation each day, and the daily, monthly, and the monthly rolling 12-month total kilowatt-hours of operation of the genset listed above, as indicated on the non-resettable kilowatt-hour meter. (NSR Permit 2195F-R3, Specific Condition 4.a. and 4.b., revised)
2) The permittee shall calculate the annual emissions of all pollutants from Unit TA-33-G-1.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

1) TA-33-G-1 was permanently taken out of service in December 2013; an NSR Permit Modification (2195F-R4) was issued on December 12, 2013 which included removing this unit from the permit. A request to remove this unit from the Operating Permit was included in the current permit renewal.

2) TA-33-G-1was replaced by a portable unit TA-33-G-1P. The portable generator TA-33-G1-P did not operate more than 8 hours in any one day, and only operates between 7am and 5pm.

In accordance with NSR Permit No. 2195F-R4 Section A1103, TA-33-G-1P has an operating log to monitor the daily hours of operation, as well as the time operation begins and ends each day. The hour readings are recorded daily, totaled monthly, and a 12-month rolling total is calculated. The hour meter on the unit is non-resettable. TA-33-G-1P operated less than 1 hour during this certification period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. Hours of Operation and Emission Limits for Units TA-33-G-2 through -4

Requirements:
1) Units TA-33-G-2 through -4, are authorized to operate 500 hours per generator per calendar year. (NSR Permit 2195P, Specific Condition 1.b.)
2) Units TA-33-G-2 through -4 shall each be certified to be in compliance with applicable non-road emission standards in 40 CFR 89. (NSR Permit 2195P, Specific Condition 1.c.)

Monitoring: The permittee shall monitor the total hours of operation for each genset, Units TA-33-G-2 through -4, using a non-resettable hour meter.

Recordkeeping: The permittee shall:
1) Record the total hours of operation of the gensets listed above, as indicated on the non-resettable hour meter. (NSR Permit 2195P, Specific Condition 4.a., revised)
2) Calculate and record the semi-annual emissions of all pollutants from each genset, Units TA-33-G-2 through -4.
3) Maintain a copy of the engine certification to the applicable non road emission standards in 40 CFR 89. (NSR Permit 2195P, Specific Condition 4.c.)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The hour readings are collected twice a year to verify the hour limit is not being approached. The hour limits for these units were not exceeded during this reporting period. Hours of generator operation are provided in **ATTACHMENT A1104.B.**

The hour meters on these units are non-resettable.

Records of operating hours are kept and used for calculating emissions and reporting. The emissions of regulated pollutants from Units TA-33-G-2 through -4 are calculated and recorded semi-annually.

Certificates of compliance with applicable non-road emission standards are maintained on site.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

D. Hours of Operation and Emission Limits for Units CMRR-GEN-1 through -3

Requirements: Units CMRR-GEN-1 through -3, are authorized to operate 100 hours per generator per calendar year for maintenance checks and readiness testing.

Monitoring: The permittee shall monitor the daily and calendar year total hours of operation for each genset, Units CMRR-GEN-1 through -3, using a non-resettable hour meter.

Recordkeeping: The permittee shall:
1) Maintain records of the total hours of operation for the gensets listed above on a semi-annual basis, as indicated on the non-resettable hour meter.
1) Calculate and record the annual emissions of all pollutants listed in Tables 102.A and 102.B from each genset, Units CMRR-GEN-1 through -3.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

1) The hour readings are collected twice a year to verify the hour limit is not being approached. The hour limits for these units were not exceeded during this reporting period. The operating logs for the CMRR generators are provided in **ATTACHMENT A1104.D.**

Daily and semi-annual hour readings are monitored using a non-resettable hour meter.

Records of total operating hours for these gensets are maintained on a semi-annual basis (see attachment A1104.A.).

2) Annual emissions from these gensets are calculated and recorded.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1105 Fuel Sulfur Requirements – Internal Combustion
A. CI-RICE – Subject to RICE NESHAP Subpart ZZZZ and Non-emergency > 300 hp

Requirement: CI-RICE used at the facility shall combust only diesel fuel containing no more than 500 ppmw total sulfur.

Monitoring: None.

Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than **one year**. Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Only Ultra Low Sulfur Diesel (ULSD) is used at the facility. A purchase contract is in place with the Laboratory to only purchase ULSD, which is less than 15 ppm sulfur. A copy of the purchase contract is available on site.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1106 20.2.61 NMAC Opacity – Internal Combustion
A. CI-RICE

Requirement: All combustion units shall not exceed 20% opacity.

Monitoring: During steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall be conducted on a quarterly basis per calendar year as qualified by the Section B108.D monitoring provisions. This requirement excludes Insignificant and Trivial Activities.

Recordkeeping: The permittee shall maintain records of all Method 9 observations, and in accordance with Section B109.

Reporting: The permittee shall report date, time, and results of all Method 9 observations. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

No unit subject to requirements in this section exceeded 20% opacity during this certification period.

Section B108.D(2) of the permit allows reduced frequency of opacity monitoring if the unit operates less than 10% of the monitoring period (calendar quarter). The applicable CI-RICE units operated less than 10% of each monitoring period (less than 219 hours each quarter) during this reporting period. If the unit operates greater than 10% of the monitoring period, the unit will have an opacity observation performed on it, otherwise an opacity observation will be performed within 5 years of the issuance date of the operating permit P100-R1-M1issued June 15, 2012 when this requirement was first included.

Method 9 observations were conducted on the portable generators TA-33-G-2, TA-33-G-3 and TA-33-G-4; the Method 9 results are provided in **ATTACHMENT A1106.**

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1107 Other – Internal Combustion
A. NSPS 40 CFR 60, Subpart IIII - General Requirements.

Requirements: Any CI-RICE will be subject to 40 CFR 60, Subparts A and IIII if the source is constructed (ordered) and manufactured after the applicability dates in 40 CFR 60.4200 and is not otherwise exempt. Units CMRR-GEN-1 through -3 are subject to Subpart IIII according to 40 CFR 60.4200(a)(2). These engines shall comply with all requirements under Subpart IIII, including, but not limited to the following general requirements:

1) The permittee shall install a non-resettable hour meter if one is not already installed (40 CFR 60.4209(a)).
2) The permittee shall operate and maintain the stationary CI RICE and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may change only those settings that are permitted by the manufacturer (40 CFR 60.4211(a)).
3) Stationary CI RICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel shall use diesel fuel that meets, at a minimum, the following standards of 40 CFR 80.510(b) for nonroad diesel fuel (40 CFR 60.4207(b)):

    a) Sulfur content.
        (i) 15 ppm maximum for nonroad (NR) diesel fuel.

    b) Cetane index or aromatic content, as follows:
        (i) A minimum cetane index of 40; or
        (ii) A maximum aromatic content of 35 volume percent.

4) Notifications are not required for these units according to 40 CFR 60.4214(b)(5).

Monitoring: None.

Recordkeeping: The permittee shall maintain the following records as applicable, all records required by 40 CFR 60, Subparts A and IIII, and in accordance with Section B109:
1) Compliance with Requirement 2 shall be demonstrated by maintaining records of the maintenance conducted on the affected stationary CI RICE.
2) Compliance with Requirement 3 shall be demonstrated by maintaining the test records, certification, or specification sheet provided by the fuel supplier.

Reporting: The permittee shall submit reports described in Section A109, report as required by 40 CFR 60, Subparts A and IIII, and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

All units that are subject to this section have a non-resettable hour meter in place.

The units that are subject to this section are maintained and operated according to instructions/procedures developed by the Laboratory generator maintenance staff. The maintenance instruction was developed using manufacturer data and recommendations. The institutional generator maintenance personnel are experts at maintaining generators and they are trained or certified on generator maintenance by the manufacturer. Only those settings that are permitted by the manufacturer have been or will be changed.

Only Ultra Low Sulfur Diesel (ULSD) is used in these units. A purchase contract is in place with the Laboratory to only purchase ULSD, which is less than 15 ppm sulfur. The contract specifies that all diesel fuel shall conform to ASTM D975 specifications which include a minimum cetane index of 40 for ULSD. A copy of the purchase contract is available on site. In addition, receipt and/or invoices from fuel suppliers are kept when deliveries are made.

Maintenance is scheduled and performed using an internal maintenance tracking system. Records of maintenance conducted are available on site.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report. Reports required by 40 CFR 60, Subparts A and IIII, have been submitted.

B. NSPS 40 CFR 60 Subpart IIII - Emission Standards at 40 CFR 60.4205(a) and (c).

Requirement: Units CMRR-GEN-1 through -3 are subject to the emission standards in 40 CFR 60.4205.

Monitoring: None.

Recordkeeping: The permittee shall maintain the following records as applicable, all records required by 40 CFR 60, Subparts A and IIII, and in accordance with Section B109:
1) The permittee shall demonstrate compliance with the emission standard according to one of the methods specified in 40 CFR 60.4211(b)(1) through (5) as follows:
    (a) The engine shall be certified according to 40 CFR part 89 or 40 CFR 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications, or
    (b) Maintain records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this Subpart, or
    (c) Maintain records of engine manufacturer data indicating compliance with the standards, or
    (d) Maintain records of control device vendor data indicating compliance with the standards, or
    (e) Conduct an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.

Reporting: The permittee shall submit reports described in Section A109, report as required by 40 CFR 60, Subparts A and IIII and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The engines on the units subject to this section are EPA Tier 1 certified. The certification is provided by the engine manufacturer indicating compliance with the standard.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report. Reports required by 40 CFR 60, Subparts A and IIII, were submitted to NMED AQB as part of the start-up notifications.

C. RICE MACT 40 CFR 63, Subpart ZZZZ

Requirement: Any RICE at the facility will be subject to 40 CFR 63, Subparts A and ZZZZ if the source meets the applicability criteria in 40 CFR 63.6585 and 63.6590 and not otherwise exempt. The permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart ZZZZ. Unit No. TA-33-G-1 is subject to this requirement and shall be in compliance with Subpart ZZZZ on or before May 3, 2014 rather than the initial compliance date specified in the subpart.

Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.

Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.

Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The only generator at LANL that is subject to Subpart ZZZZ was Unit No. TA-33-G-1. The compliance date for this unit to comply with this subpart was extended to May 3, 2014. (Letter from NMED to LANL dated March 18, 2013).

This unit was permanently taken out of service in December 2013. NSR Permit No 2195F-R4, issued December 12, 2013, removed this unit from the permit. A request to remove this unit from the Operating Permit was included in the current permit renewal.

A1207 Other – Data Disintegrator

A.   Emission calculations (Data Disintegrator)

Requirement: The permittee shall calculate Data Disintegrator emissions based on the records of the number of boxes of media that are destroyed.

Monitoring: The permittee shall monitor the quantity of media destroyed on a monthly basis. The total weight shall be based on a previously determined average box weight. This average weight determination shall be maintained as part of the records for this facility.

Recordkeeping: The permittee shall calculate the actual emissions rate (tons per reporting period) for the emission units listed in Table 1200.A on a semi-annual basis. The emission rate in tons per year shall be calculated by summing the emissions from the previous reporting period with the current period. Records shall be maintained in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

A log is kept to record the number of boxes of media destroyed monthly and is used to calculate emissions on a semi-annual basis. The number of boxes destroyed is provided in **ATTACHMENT A1207.A**. The average box weight has been determined and is maintained as part of the facility records.

The actual emissions rate is calculated for the emission unit on a semi-annual basis and is included in the semi-annual emissions report. These records are maintained on site. The emission rate in tons per year is calculated by summing the emissions from the previous reporting period with the current period.   The emissions are compared to the allowable emissions for the unit. Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Cyclone/Cloth Tube Filters (Data Disintegrator)

Requirement: The permittee shall perform regular maintenance and repair on the cyclone and cloth tube filter(s) per manufacturer's recommendations. (NSR Permit 2195H, Specific Condition 1.d.)

Monitoring: N/A

Recordkeeping: The permittee shall maintain adequate records on site to demonstrate compliance with manufacturer's recommended repair and maintenance schedules for the cyclone and the cloth tube filter(s). (NSR Permit 2195H, Specific Condition 4.a.) Records shall be maintained in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

| ☐ **Yes** | **Date report submitted:** | **Tracking Number:** |

| ☒ **No** | **Provide comments and identify any supporting documentation as an attachment.** |

Comments:

Preventative maintenance and repair is performed on the data disintegrator cyclone and cloth tube filter(s) following manufacturer's recommendations.

Records of maintenance performed on the cyclone and cloth tube filter(s) are provided in **ATTACHMENT A1207.B**. Manufacturer recommended repair and maintenance are also available on site. Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. Compliance Testing (Data Disintegrator)

Requirement: If any compliance testing is required, it shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 5 for TSP, and conducted in accordance with 450 CFR 60, Appendix A. For combined TSP and PM10, testing shall be in accordance with 40 CFR 51, Appendix M, Method 201. Alternative test method(s) may be used if the Department approves the change. (NSR Permit 2195H, Specific Condition 6.b., revised) **Monitoring:** N/A **Recordkeeping:** The permittee shall maintain records in accordance with Section B109. **Reporting:** The permittee shall submit reports described in Section A109 and in accordance with Section B110.	

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**	**Date report submitted:**		**Tracking Number:**
☒ **No**	**Provide comments and identify any supporting documentation as an attachment.**		

Comments:

No compliance test was required or performed during this reporting period.

No records have been generated.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report

A1305 Fuel Sulfur Requirements – TA-3 Power Plant
A. Boilers (Units TA-3-22-1 through -3)

Requirement: External combustion sources at the TA-3 Power Plant shall combust only natural gas containing no more than 2 gr/100 scf total sulfur or No. 2 fuel oil containing no more than 0.05 wt% total sulfur. (NSR Permit 2195B-M2, Specific Condition A110.A)

Monitoring: N/A

Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year. Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The natural gas transportation contract states that gas provided to LANL will be pipeline quality with total sulfur content of no more than three quarters (3/4) grains of total sulfur per one hundred (100) standard cubic feet (see Attachment A805.A.).

Fuel oil is under a purchase contract and only Ultra Low Sulfur Diesel (ULSD) is delivered to the facility. ULSD contains less than 0.0015 wt% total sulfur. A copy of the transportation contract and purchase contract are kept on site. No fuel oil was purchased during this reporting period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Combustion Turbine (Unit TA-3-22-CT-1)

Requirement: The combustion turbine at the TA-3 Power Plant shall combust only natural gas containing no greater than 2 gr/100 scf total sulfur. (NSR Permit 2195B-M2, Specific Condition A110.B) **Monitoring:** N/A **Recordkeeping:** The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year. (NSR Permit 2195B-M2, Specific Condition A110.B and 40 CFR 60.334(h)) **Reporting:** The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**	**Date report submitted:**	**Tracking Number:**

☒ **No**　　　　**Provide comments and identify any supporting documentation as an attachment.**
Comments: This requirement is satisfied since the natural gas transportation contract states that gas provided to LANL will be pipeline quality with total sulfur content of no more than three quarters (3/4) grains of total sulfur per one hundred (100) standard cubic feet (see Attachment A805.A.). Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1306   20.2.61 NMAC Opacity – TA-3 Power Plant
A.   Sources Combusting Natural Gas

Requirement: All combustion units shall not exceed 20% opacity. (NSR Permit 2195B-M2, Specific Condition A111.A)

Monitoring: Use of natural gas fuel meeting the requirement at Condition A1305.A or B constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation and are determined to be not due to condensed water vapor only, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.

Recordkeeping: The permittee shall record dates of any opacity measures and the corresponding opacity readings.

Reporting: The permittee shall report dates of any opacity measures and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

LANL has certified opacity readers on-site who perform opacity readings using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation. The opacity limit was not exceeded during this reporting period.

Natural gas fuel meets the requirement specified in Condition A1305.A and B.

No visible emissions were observed during steady state operation during this reporting period.

A standard form is used for all opacity measurements. The form includes the date of measurement and opacity observed. No opacity readings were needed or required during this reporting period.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Boilers Combusting No. 2 Fuel Oil

Requirement: All combustion units shall not exceed 20% opacity. (NSR Permit 2195B-M2, Specific Condition A111.B) **Monitoring:** During steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall be conducted on a quarterly basis per calendar year whenever the boiler(s) are operational during the monitoring period. This requirement is subject to the monitoring provisions of Condition B108.D. **Recordkeeping:** The permittee shall maintain records of all Method 9 observations, and in accordance with Section B109. **Reporting:** The permittee shall report date, time, and results of all Method 9 observations. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**	**Date report submitted:**	**Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments: No fuel oil was combusted during this reporting period. LANL has certified opacity readers on-site who perform opacity readings using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation. The opacity limit was not exceeded during this reporting period. Opacity is read at least once a quarter when boilers are combusting fuel oil and when required by monitoring provisions in condition B108.D. Opacity readings are measured over a 10-minute period and in accordance with 40 CFR 60, Appendix A, Method 9. A standard form is used for all opacity measurements. The form includes the date of measurement and opacity observed.   No fuel oil was burned, and therefore no opacity readings were required or taken during this reporting period. Records are maintained in accordance with Section B109. Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1307 Other – TA-3 Power Plant
A. Emission calculations (TA-3 Power Plant)

Requirement: The permittee shall comply with the hourly and annual emission limits at Table1302.A. and Conditions A1302.B, C, and D for the combustion turbine and boilers. The boiler annual emission limit shall be expressed as the combined emissions from all 3 boilers. (NSR Permit 2195B-M2, Specific Condition A801.A)

Monitoring: The permittee shall perform the following calculations on a monthly basis:
1) Calculate the average hourly emissions rates (pph) for each emissions unit based on the monthly total fuel consumption and monthly actual hours of operation.
2) Calculate the actual annual emissions rates (tpy) for all emissions units based on the monthly rolling 12-month total fuel consumption and the monthly rolling 12-month total hours of operation.
3) All NOx emission rates for the boilers shall also be calculated in terms of lb/MMBtu heat input. (NSR Permit 2195B-M2, Specific Condition A801.A)

Recordkeeping: The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

All emission calculations required by this section are performed for the emission units listed. The emission units did not exceed the hourly or annual emission limits.

Emission spreadsheets are in place that calculate all required emissions and are used for monitoring and reporting purposes. The average hourly emission rates and actual annual emission rates are included in the spreadsheet. Emission rates are provided in **ATTACHMENT A1307.A.**

Condition A1307.A.3 - The units are based on the emission factor for NOx (lbs/MMscf), which is converted to lbs/MMBtu by dividing by 1020 (standard number of MMBtu in a MMscf). The NOx emission rate is a constant of 0.057 lbs/MMBtu unless the Btu value of the fuel changes significantly.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

B. Fuel Usage (Boilers, Units TA-3-22-1 through -3)

Requirement: Combined boiler operation shall not consume more than 1000 MMscf of natural gas and no more than 500,000 gallons of No. 2 fuel oil in any 12-month period. Volumetric natural gas fuel flow shall be measured using gas flowmeters installed on the natural gas fuel inlet to each respective unit (3 separate gas flowmeters). Fuel oil usage shall be measured using a single inventory meter located at a storage tank that is dedicated for use by the TA-3 power plant boilers. (NSR Permit 2195B-M2, Specific Condition A803.A, revised)

Monitoring: The liquid fuel flow rate shall be continuously monitored whenever liquid fuel is combusted. The natural gas fuel flow rate for each boiler shall be continuously monitored whenever natural gas is combusted. The hours of operation of each boiler shall be continuously monitored. (NSR Permit 2195BM2, Specific Condition A803.A, revised)

Recordkeeping: The permittee shall record the monthly total of liquid fuel (gallons) for all boilers combined and gaseous fuel (scf) for each boiler on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded on a monthly rolling 12-month total basis. The permittee shall record the hours of operation of each boiler on a monthly basis, to include a monthly total. The record shall include the monthly rolling 12-month total hours of operation for all 3 boilers combined. The permittee shall maintain records in accordance with Section B109. (NSR Permit 2195B-M2, Specific Condition A803.A, revised)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The combined boiler natural gas use did not exceed 1000 MMscf or 500,000 gallons of fuel oil in any 12-month period. All fuel use data is tracked monthly in a spreadsheet used for emission calculations.

Natural gas fuel meters are in place on each of the boilers. Fuel oil is measured using an inventory meter on the storage tank. Both natural gas and fuel oil are continuously monitored when being combusted.
A monthly and 12 month rolling total of both natural gas and fuel oil use are recorded and reviewed monthly to verify usage does not exceed allowable limits. The monthly and 12 month rolling totals for each fuel are provided in **ATTACHMENT 1307.B.**

Total hours of operation of each boiler are recorded monthly and included in a monthly rolling 12-month total hours for all boilers combined. Hours of operation of each boiler are continuously monitored. This data is collected monthly from the power plant operations staff. Monthly and 12 month rolling hours are provided in **ATTACHMENT 1307.B.**

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

C. Fuel Usage (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine shall not consume more than 1400 MMscf of natural gas in any 12-month period. Volumetric flow shall be measured using a gas fuel flowmeter installed on the fuel inlet of the combustion turbine. (NSR Permit 2195B-M2, Specific Condition A802.A)

Monitoring: The natural gas fuel flow rate for the combustion turbine shall be continuously monitored whenever natural gas is combusted. (NSR Permit 2195B-M2, Specific Condition A802.A)

Recordkeeping: The permittee shall record the daily total of gaseous fuel (scf) for the turbine on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded on a monthly rolling 12-month total basis. The permittee shall record the daily hours of operation of the combustion turbine on a monthly basis, to include a monthly total. The record shall include the monthly total hours and monthly rolling 12-month total hours of operation. The permittee shall maintain records in accordance with Section B109. (NSR Permit 2195B-M2, Specific Condition A802.A)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

A 12 month rolling total for natural gas use is maintained and reviewed to verify usage does not exceed 1400 MMscf. The daily and monthly total fuel use is collected and recorded monthly in a spreadsheet used for calculating emissions. The monthly and 12-month rolling natural gas total is provided in **ATTACHMENT A1307.C.**

The natural gas flowmeter is installed on the turbine inlet. The fuel flowmeter continuously measures natural gas being delivered to the combustion turbine.

Daily hours are also collected monthly and entered into the spreadsheet. A 12-month rolling total hours of operation is calculated using this information. Rolling total hours are provided in **ATTACHMENT A1307.C.**

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

D. Load Requirement (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine shall be operated at no less than 80% and no greater than 100% load as determined by the manufacturer's supplied algorithm, except for minimal periods during startup and shutdown conditions. The permittee shall follow the manufacturer's recommended startup/shutdown procedures in order to minimize the duration of these events. (NSR Permit 2195B-M2, Specific Condition A802.B)

Monitoring: The operating load of the combustion turbine shall be monitored once daily during normal operations of that unit. (NSR Permit 2195B-M2, Specific Condition A802.B)

Recordkeeping: The permittee shall record the daily monitored operating load for the combustion turbine. The permittee shall maintain a record of the manufacturer's recommended startup/shutdown procedure and the manufacturer's criteria for the determination of turbine load. The permittee shall maintain a record for each startup/shutdown or malfunction event for the combustion turbine. The record shall include the date, the start/end time and duration for each event, which is defined as the length of time the combustion turbine is operating at less than 80% or greater than 100% load. For any malfunction event, the record shall also include the nature of the malfunction and any corrective action taken. The permittee shall maintain records in accordance with Section B109. (NSR Permit 2195B-M2, Specific Condition A802.B)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The combustion turbine load was maintained between 80% and 100% during this reporting period. Load range is calculated by the turbine operating system and is manually recorded each hour during operation. Daily operating logs showing the generator output/load are provided in **ATTACHMENT 1307.D**

Startup/shutdown procedures are in place and are followed by the unit operators.

The load is recorded at least once daily during normal operations. This data is collected in the daily operating log. Startup/shutdown procedures are in place and are followed by the unit operators.

Each time the unit is started or shut down the data is entered into a daily operating log which is maintained on-site. The record includes the date, start/end times, and duration.

The unit did not operate outside of the required load range during this reporting period. No malfunctions occurred during this reporting period.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

E. Control Device Operation (Boilers, Units TA-3-22-1 through -3)

Requirement: Each boiler (Units TA-3-22-1 through -3) shall only be operated with a properly operating flue gas recirculation fan (Units F-1 through -3, respectively). Any malfunction of the flue gas recirculation system during boiler operation may be subject to the excess emissions requirements of 20.2.7 NMAC. (NSR Permit 2195B-M2, Specific Condition A803.B)

Monitoring: The flue gas recirculating fans shall be inspected for proper operation and maintenance once during each calendar month that the unit was operating. (NSR Permit 2195B-M2, Specific Condition A803.B)

Recordkeeping: The permittee shall record all inspections of the flue gas recirculating fans and any event during which a fan malfunctions. The record shall include the date, time, name of operator conducting the inspection, and any discrepancies noted. For malfunction events, the record shall also include the nature and duration of the malfunction, and any corrective action taken. The permittee shall maintain records in accordance with Section B109. (NSR Permit 2195B-M2, Specific Condition A803.B)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

When a boiler is in operation, the associated Flue Gas Recirculation (FGR) fan is on. A fan speed indicator is located on the control panel in operator control room. This fan speed is monitored and recorded during boiler operation. No malfunctions of the FGR systems have occurred during this reporting period.

The FGR fans are inspected for proper operation and maintenance each month the unit is operating. Inspection forms are provided in **ATTACHMENT A1307.E.**

No malfunctions occurred during this certification period.

All inspection records contain the required data found in this section. Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

F. Control Device Operation (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine shall be equipped with Rolls-Royce Dry Low Emissions (DLE) control technology (pre-mix, lean-burn series staged combustion system) to control NOx emissions. (NSR Permit 2195B-M2, Specific Condition A802.C)

Monitoring: N/A

Recordkeeping: The permittee shall maintain a record of the DLE system associated with the combustion turbine. The permittee shall maintain records in accordance with Section B109. (NSR Permit 2195B-M2, Specific Condition A802.C)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**　　**Date report submitted:**　　　　　　**Tracking Number:**

☒ **No**　　　**Provide comments and identify any supporting documentation as an attachment.**

Comments:

The Dry Low Emissions (DLE) control technology is an integral part of the combustion turbine design. The DLE control was evaluated during unit start-up and determined to be working as designed.

Manufacturer data is available on the DLE system.

Records are maintained in accordance with Section B109.

Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

G. 40 CFR 60, Subparts A and GG (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine is subject to 40 CFR 60, Subpart GG and the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart GG. (NSR Permit 2195BM2, Specific Condition A802.D)

Monitoring: The permittee shall comply with the monitoring and testing requirements of 40 CFR 60.334 and 60.335. (NSR Permit 2195B-M2, Specific Condition A802.D)

Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.334 and 40 CFR 60.7. (NSR Permit 2195B-M1-R2, Specific Condition A802.D)

Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60.7. (NSR Permit 2195B-M1-R2, Specific Condition A802.D)

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The combustion turbine is in compliance with 40 CFR Part 60 Subpart A and 40 CFR Part 60 Subpart GG.

The combustion turbine is in compliance with the monitoring and test requirements of 40 CFR 60.334 and 60.335.

The combustion turbine is in compliance with the monitoring, notification, and record keeping requirements of 40 CFR 60.334 and 60.7.

The combustion turbine is in compliance with the reporting requirements of 40 CFR 60.7.

H. Portable Analyzer Testing (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The permittee shall comply with the allowable emission limits at Table A1302.A, including the NOx ppmv limitation. (NSR Permit 2195B-M2, Specific Condition A802.E)

Monitoring: The permittee shall test using a portable analyzer subject to the requirements and limitations of Section B108, General Monitoring Requirements. Periodic testing for NOx and CO shall be carried out as described below. Test results that demonstrate compliance with the NOx and CO emission limits shall also be considered to demonstrate compliance with the VOC, SO₂, TSP, PM10, and PM2.5 emission limits.
1) The test period shall be annually.
2) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.
3) Monitoring shall be conducted during each monitoring period notwithstanding the Condition B108.D requirements for periods of operation less than 25%.

Follow the General Testing Procedures of Section B111. (NSR Permit 2195B-M2, Specific Condition A802.E)

Recordkeeping: The permittee shall maintain records in accordance with Section B109. The permittee shall also record the results of the periodic emissions tests, including the turbine's fuel flow rate and load at the time of the test, and the type of fuel fired (natural gas with the heating value and sulfur content specified).

If a combustion analyzer is used to measure NOx, CO, and/or excess air in the exhaust gas, records shall be kept of the make and model of the instrument and instrument calibration data. If an ORSAT apparatus or other gas absorption analyzer is used, the permittee shall record all calibration results.

The permittee shall also keep records of all raw data used to determine exhaust gas flow and of all calculations used to determine flow rates and mass emissions rates. (NSR Permit 2195B-M2, Specific Condition A802.E)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

The annual test for this certification period was conducted on December 16, 2014; the test results demonstrated that the actual emissions were less than the allowable emissions. A copy of the Test Report is provided in **ATTACHMENT A1307.H.**

The test was performed as required following the monitoring requirements of Section B108 and general testing procedures found in section B111.

Test results from the test demonstrate compliance with NOx and CO emission limits. No limits were exceeded.

The tests are performed annually and are not conducted within a calendar quarter of each other.

Records of the periodic emissions test include all data required by this section.

A combustion analyzer is used for this periodic emissions test. Instrument and calibration data is included in the final test report. An ORSAT or other similar gas absorption analyzer is not used.

Records are maintained in accordance with Section B109.

Raw data, and calculations used, are included in the test report. Emission and monitoring reports are submitted on a 6-month basis and compliance certification on an annual basis in accordance with permit conditions A109 and B110. For more information, see comments in Section A605 of this report.

A1407 Other – Open Burning
A. Operational

Requirement: The permittee shall comply with the applicable requirements of 20.2.60 NMAC and 20.2.65 NMAC, including, but not limited to:

1) Prior to initiating a burn consisting of vegetative material, the permittee shall submit to the Department a sampling and analysis plan and upon approval conduct representative sampling of the intended burn material and analyze samples for radionuclides, target analyte list (TAL) inorganic elements, polychlorinated biphenyls (PCBs), and high explosives (HE); and
2) The permittee shall submit to the Department a background concentration report for the contaminants listed in Condition A1407.A, Requirement (1). The report shall indicate locations where background concentrations were taken and compare sample results with background concentrations of the constituents; and
3) The permittee shall not burn vegetative material which includes any contaminant above the relevant background concentration; and
4) Upon receiving Department approval, the permittee shall conduct public notification in a display ad in at least four newspapers: Los Alamos Monitor, Rio Grande Sun, Santa Fe New Mexican, and the Albuquerque Journal, no less than 21 days in advance of a planned burn.

Monitoring: The permittee shall monitor all open burning as required by Department regulation or burn approval.

Recordkeeping: The permittee shall maintain records of all sampling and analysis plans and any representative sampling conducted. Records shall be kept in accordance with Section B109.

Reporting: The permittee shall submit reports as outlined in the Condition 1407.A Requirements, as described in Section A109, and in accordance with Section B110.

Has this reporting requirement been met during this reporting period with a separate report submittal? Answer Yes or No below.

☐ **Yes**   **Date report submitted:**   **Tracking Number:**

☒ **No**   **Provide comments and identify any supporting documentation as an attachment.**

Comments:

No open burning occurred during this reporting period.

Part 2

Deviation Summary Report

1. Were any deviations reported to the Air Quality Bureau during this reporting period? If NO, answer question 2 below. If YES, complete the "Summary of Deviations Previously Reported" table below, then answer question 2.	☐ Yes ☒ No

SUMMARY OF DEVIATIONS PREVIOUSLY REPORTED

Unit # and description	Date deviation reported	Tracking Number

	2. Are there any deviations not yet reported? If No, no further information is required on the Deviation Summary Report. If Yes, answer question 3 below and enter the required information in the Deviation Summary Table.	☒ **Yes** ☐ **No**
	3. Did any of the deviations result in excess emissions? For deviations resulting in excess emissions a completed Excess Emission Form for each deviation must be attached to this report.	☐ **Yes** ☒ **No**

Deviation Summary Table for deviations not yet reported.

No.	Applicable Requirement (Include Rule Citation)	Emission Unit ID(s)	Cause of Deviation	Corrective Action Taken
1	A607.A	TA-60-BDM	One permit deviation occurred in the asphalt batch plant data-logger communication system that transmits baghouse pressure drop data to a remote terminal unit (RTU). The remote communication failed on two (2) days, September 19 and September 24, 2014, when the asphalt plant was operating; the cause of deviation was due to power fluctuations that resulted in loss of configuration programming of the RTU; the asphalt plant operated a combined total of less than three (3) hours during the remote communication failure. There were no excess emissions due to this deviation.	The data-logger system, that communicates pressure-drop data to the remote terminal at TA-03, is scheduled for an upgrade. A chart-recorder was set up in November 2014, to record differential pressure readings, and will serve as a backup when there is remote data-transmission failure.

In addition, the plant operator monitors, and records manually, the baghouse differential pressure at the start and end of each asphalt batch production multiple times a day. This manual recording system has been in place since the plant was permitted. The manually recorded data are included in the operator's daily log. |

Deviation Summary Table

	Deviation Started		Deviation Ended					Did you attach an excess emission form?
No.	Date	Time	Date	Time	Pollutant	Monitoring Method	Amount of Emissions	
1	19-Sep-14	10:00	19-Sep-14	10:48	PM	Differential Pressure Gauge	No excess emissions	☐ **Yes** ☒ **No**
2	19-Sep-14	13:00	19-Sep-14	13:52	PM	Differential Pressure Gauge	No excess emissions	☐ **Yes** ☒ **No**
3	19-Sep-14	14:10	19-Sep-14	14:40	PM	Differential Pressure Gauge	No excess emissions	☐ **Yes** ☒ **No**

| 4 | 24-Sep-14 | 10:56 | 24-Sep-14 | 11:38 | PM | Differential Pressure Gauge | No excess emissions | ☐ **Yes** | ☒ **No** |

Monitoring Report Attachments

ATTACHMENT A605.A.   Asphalt Plant – Fuel Change Letter

ATTACHMENT A607.A.   Asphalt Plant - Differential Pressure Records

ATTACHMENT A607.C.   Asphalt Plant - Method 9 Opacity Reports

ATTACHMENT A607.E.   Asphalt Plant - Daily Operation Log and 12-Month Rolling Production

ATTACHMENT A607.F.   Asphalt Plant Maintenance Records

ATTACHMENT A607.G.   Asphalt Plant - Method 22 Reports

ATTACHMENT A707.B.a.   Beryllium - TA-3-66 Beryllium Logs

ATTACHMENT A707.B.b.   Beryllium - TA-35-213 Beryllium Operating Log

ATTACHMENT A707.C.a.   Beryllium - TA-3-141 Beryllium HEPA Filter Differential Pressure Readings

ATTACHMENT A707.C.b   Beryllium – TA-55-PF4 Annual HEPA Filter Challenge Test Reports

ATTACHMENT A707.C.c.   Beryllium - TA-55-PF4 HEPA Filtration Differential Pressure Readings

ATTACHMENT A805.A.   External Combustion – Gas Quality Section of Transportation Contract

ATTACHMENT A807.A.   External Combustion - Natural Gas Usage and Rolling 12-Month Total

ATTACHMENT A907.A.   Chemical Usage - Chemical Purchases (From ChemLog)

ATTACHMENT A907.B.a.   Chemical Usage – CMRR-CHEM Chemical Purchases (From ChemLog)

ATTACHMENT A907.B.b.   Chemical Usage – CMRR-CHEM Chemical Quantity Total

ATTACHMENT A1007.A.a.   Degreaser - Degreaser Solvent Usage (From Tracking Database)

ATTACHMENT A1007.A.b.   Degreaser - Sample Work Practice Checklist

ATTACHMENT A1104.A.   Internal Combustion - Standby Generator Hours

ATTACHMENT A1104.B.   Internal Combustion - Permitted Generator Hours

ATTACHMENT A1104.D.   Internal Combustion - Operating Logs for the CMRR Generators

ATTACHMENT A1106   Internal Combustion - 20.2.61 NMAC Opacity Logs

ATTACHMENT A1207.A.   Data Disintegrator - Operating Logs

ATTACHMENT A1207.B.   Data Disintegrator - Maintenance Performed

ATTACHMENT A1307.A.   TA-3 Power Plant – Emission Rate Calculations

ATTACHMENT A1307.B.   TA-3 Power Plant - Boiler Fuel Use and Hours of Operation

ATTACHMENT A1307.C.   TA-3 Power Plant - Turbine Fuel Use and Hours of Operation

Monitoring Report Attachments

ATTACHMENT A1307.D.   TA-3 Power Plant – Turbine Operating Logs

ATTACHMENT A1307.E.   TA-3 Power Plant – FGR Fan Inspection and Maintenance

ATTACHMENT A1307.H.   TA-3 Power Plant – Combustion Turbine Emission Stack Test Report

ATTACHMENT A605.A

Asphalt Plant

Fuel Change Letter

Los Alamos
NATIONAL LABORATORY

Environment Safety & Health
PO Box 1663, MS K491
Los Alamos, New Mexico 87545
(505)667-4218/Fax (505) 665-3811

Date: **SEP 1 7 2013**
Symbol: ADESH-13-048
LAUR: N/A

Mr. Ned Jerabek, Major Source Unit Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

Dear Mr. Jerabek,

SUBJECT: NOTIFICATION OF LANL ASPHALT PLANT CHANGE TO NATURAL GAS

The Los Alamos National Laboratory (LANL) asphalt plant is preparing to commence operation using pipeline natural gas rather than the current fuel propane. Either natural gas or propane is allowed for use under the New Source Review (NSR) permit issued to the plant. The applicable NSR permit is GCP-3-2195G. However, the LANL Title V operating Permit P100 restricts fuel use to propane only at Condition A605. This restriction occurred simply because at the time of initial issuance of Permit P100 natural gas had not been identified as a potential fuel. There is no significant difference in air emissions between the combustion of these two fuels.

The LANL Title V permit five-year renewal application currently under review requests all fuels allowed by GCP-3-2195G be allowed in P100. That request serves to modify the permit in this regard. However, 20.2.70.404.C.3.a also requires a notification to the Department prior to commencing operation for a modification which has undergone NSR permit review as is the case here. This letter provides the required notification.

Please contact Bill Blankenship at 505-665-0823 with any questions you may have.

Michael T. Brandt, DrPH, CIH
Associate Director
Environment, Safety & Health

MTB:CWB/lm

Enclosure: Permit Modification Certification

Cy: Carl A. Beard, PADOPS, w/o enc., (E-File)
       Michael T. Brandt, ADESH, w/o enc., (E-File)
       Alison M. Dorries, ENV-DO, w/o enc., (E-File)
       Steven L. Story, ENV-CP, w/enc., (E-File)
       Charles W. Blankenship, ENV-CP, w/enc., (E-File)
       Marjorie B. Stockton, ENV-CP, w/enc., (E-File)
       Cynthia Blackwell, LC-LESH, w/enc., (E-File)
       locatesteam@lanl.gov, w/enc., (E-File)
       ADESH Correspondence File, w/enc., K491
       ENV-CP Correspondence File, w/enc., K490

ENCLOSURE 1

Permit Modification Certification

ADESH-13-048

Date: _____ **SEP 1 7 2013** _____

Certification

Company Name: ___Los Alamos National Security, LLC___

I, ___Michael T. Brandt___, hereby certify that the information and data submitted in this notification are true

and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this ____ day of _____, _____, upon my oath or affirmation, before a notary of the

State of

___New Mexico___.

___[signature]___
*Signature

___Michael Brandt___
Printed Name

Date ___9/17/13___

___Assoc. Director___
Title

Scribed and sworn before me on this ___17th___ day of ___September___, ___2013___.

My authorization as a notary of the State of ___New Mexico___ expires on the

___14th___ day of ___February___, ___2015___.

___[signature]___
Notary's Signature

___September 2013___
Date

___Taylor A. Valdez___
Notary's Printed Name

*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE
NMAC.

ATTACHMENT A607.A

Asphalt Plant

Differential Pressure Records

No Asphalt Production in July 2014
No differential pressure readings

PRP 600233DIFFPRES
PRP - Profile Report Program
1 Pointfound
Acronym :
Reportingon   1 point
Start Date[1-SEP-2014]: 1
Start Time[0:00:00] :
Stop Date[1-AUG-2014]: 31
Stop Time[23:59:59] :
Increment (xx[S/M/H/D]): 2M

DATE	TIME	DiffPres (Inch)	Operator Log Time	Comment
11-Aug-14	9:30:00	1.70	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:32:00	1.72	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:34:00	1.72	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:36:00	1.72	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:38:00	2.07	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:40:00	2.23	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:42:00	2.23	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:44:00	2.28	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:46:00	2.16	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:48:00	2.16	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:50:00	2.16	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:52:00	2.42	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:54:00	2.24	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:56:00	2.22	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	9:58:00	2.22	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:00:00	2.22	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:02:00	2.22	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:04:00	2.22	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:06:00	2.39	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:08:00	2.30	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:10:00	2.08	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously

DATE	TIME	DiffPres (Inch)	Operator Log Time	Comment
11-Aug-14	10:12:00	2.18	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:14:00	2.30	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:16:00	2.07	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:18:00	2.06	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:20:00	2.30	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:22:00	2.30	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:24:00	2.30	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:26:00	2.43	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	10:28:00	2.15	Operated 11 Aug 2014 9:33-10:31 AM	Datalogger operated continuously
11-Aug-14	13:20:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:22:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:24:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:26:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:28:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:30:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:32:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:34:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:36:00	2.77	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:38:00	2.95	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:40:00	2.92	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:42:00	2.54	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:44:00	2.52	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:46:00	2.55	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:48:00	2.35	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:50:00	2.24	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:52:00	2.40	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:54:00	2.26	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:56:00	2.26	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	13:58:00	2.36	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:00:00	2.44	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:02:00	2.29	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:04:00	2.29	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously

DATE	TIME	DiffPres (Inch)	Operator Log Time	Comment
11-Aug-14	14:06:00	2.53	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:08:00	2.46	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:10:00	2.29	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:12:00	2.65	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:14:00	2.63	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:16:00	2.56	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:18:00	2.62	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:20:00	2.81	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:22:00	2.62	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:24:00	2.53	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:26:00	2.75	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:28:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:30:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:32:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:34:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:36:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:38:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:40:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:42:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:44:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:46:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:48:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:50:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:52:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:54:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:56:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	14:58:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	15:00:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	15:02:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	15:04:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	15:06:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously
11-Aug-14	15:08:00	2.79	Operated 11 Aug 2014 1:40-3:07 PM	Datalogger operated continuously

DATE	TIME	DiffPres (Inch)	Operator Log Time	Comment
				Note: Datalogger keeps the last recorded pressure drop until there is a change
11-Aug-14	15:10:00	2.79	U	

PRP 600233DIFFPRES
PRP - Profile Report Progra
1 Pointfound
Acronym :
Reportingon   1 point
Start Date[1-OCT-2014]: 1
Start Time[0:00:00] :
Stop Date[1-SEP-2014]: 30
Stop Time[23:59:59] :
Increment (xx[S/M/H/D]): 2M

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
6-Sep-14	8:42:00	1.05		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:44:00	2.71		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:46:00	2.71		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:48:00	2.71		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:50:00	2.19		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:52:00	1.86		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:54:00	2.07		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:56:00	2.11		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	8:58:00	1.86		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:00:00	1.96		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:02:00	1.94		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:04:00	1.87		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:06:00	1.89		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:08:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:10:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:12:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:14:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:16:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:18:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:20:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
6-Sep-14	9:22:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:24:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:26:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:28:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:30:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:32:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:34:00	2.17		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:36:00	2.29		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:38:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:40:00	2.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:42:00	2.27		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:44:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:46:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:48:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:50:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:52:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:54:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:56:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	9:58:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:00:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:02:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:04:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:06:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:08:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:10:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:12:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:14:00	2.14		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:16:00	2.39		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:18:00	3.12		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:20:00	3.04		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:22:00	3.09		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:24:00	3.28		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
6-Sep-14	10:26:00	3.11		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	10:28:00	2.50		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	11:40:00	2.08		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	11:42:00	2.93		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	11:44:00	2.93		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
6-Sep-14	11:46:00	1.08		Operated 6 Sep 2014 8:50 - 10:30 AM	Datalogger operated continuously
16-Sep-14	9:12:00	2.33		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:14:00	2.88		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:16:00	2.77		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:18:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:20:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:22:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:24:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:26:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:28:00	2.21		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:30:00	2.30		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:32:00	2.48		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:34:00	2.51		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:36:00	2.74		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:38:00	2.74		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:40:00	2.74		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:42:00	2.88		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:44:00	2.91		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:46:00	2.82		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:48:00	2.82		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:50:00	3.05		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:52:00	2.81		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:54:00	2.81		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:56:00	2.97		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	9:58:00	2.85		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:00:00	2.83		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:02:00	2.73		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
16-Sep-14	10:04:00	2.95		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:06:00	2.85		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:08:00	2.62		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:10:00	2.95		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:12:00	2.87		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:14:00	2.87		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:16:00	2.93		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:18:00	3.00		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:20:00	2.86		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:22:00	2.69		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:24:00	2.98		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:26:00	2.81		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:28:00	2.60		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:30:00	2.72		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:32:00	2.79		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:34:00	2.60		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:36:00	2.60		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:38:00	2.88		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:40:00	2.82		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:42:00	2.77		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:44:00	3.10		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:46:00	3.03		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:48:00	3.02		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:50:00	2.88		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:52:00	2.87		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	10:54:00	0.36		Operated 16 Sep 2014 9:18-10:56 AM	Datalogger operated continuously
16-Sep-14	12:46:00	2.45		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	12:48:00	2.95		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	12:50:00	3.21		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	12:52:00	3.21		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	12:54:00	3.23		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	12:56:00	3.38		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
16-Sep-14	12:58:00	3.20		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:00:00	3.01		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:02:00	3.30		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:04:00	3.13		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:06:00	2.96		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:08:00	3.11		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:10:00	3.10		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:12:00	2.96		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:14:00	2.76		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:16:00	2.97		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:18:00	2.97		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:20:00	2.97		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:22:00	3.05		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:24:00	2.98		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:26:00	2.73		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:28:00	2.72		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:30:00	2.72		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
16-Sep-14	13:32:00	1.64		Operated 16 Sep 2014 12:51-1:29 PM	Datalogger operated continuously
17-Sep-14	9:52:00	2.42		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	9:54:00	2.92		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	9:56:00	2.84		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	9:58:00	2.24		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:00:00	2.24		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:02:00	2.24		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:04:00	2.24		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:06:00	2.23		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:08:00	1.99		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:10:00	2.23		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:12:00	2.23		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:14:00	2.23		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:16:00	2.42		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:18:00	2.57		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
17-Sep-14	10:20:00	2.50		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:22:00	2.54		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:24:00	2.94		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:26:00	2.85		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:28:00	2.85		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
17-Sep-14	10:30:00	2.22		Operated 17 Sep 2014 9:58-10:34 AM	Datalogger operated continuously
19-Sep-14	10:00:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	Remote data transmission failure
19-Sep-14	10:02:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:04:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:06:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:08:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:10:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:12:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:14:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:16:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:18:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:20:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:22:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:24:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
19-Sep-14	10:26:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:28:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:30:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:32:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:34:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:36:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:38:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:40:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:42:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:44:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:46:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	10:48:00	0.00	U	Operated 19 Sep 2014 10:06-10:47 AM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:02:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:04:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:06:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:08:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
19-Sep-14	13:10:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:12:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:14:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:16:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:18:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:20:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:22:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:24:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:26:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:28:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:30:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:32:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:34:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:36:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:38:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:40:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
19-Sep-14	13:42:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:44:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:46:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:48:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:50:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	13:52:00	0.00	U	Operated 19 Sep 2014 1:01-1:51 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:10:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:12:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:14:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:16:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:18:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:20:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:22:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:24:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:26:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:28:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
19-Sep-14	14:30:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:32:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:34:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:36:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:38:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
19-Sep-14	14:40:00	0.00	U	Operated 19 Sep 2014 2:11-2:38 PM	See operator logs for manual entry of pressure drop readings
24-Sep-14	10:56:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	10:58:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:00:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:02:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:04:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:06:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:08:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:10:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:12:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:14:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings

DATE	TIME	DIFFPRES INCHES	AVAILABILITY U= Unavailable	Operator Log Time	Comment
24-Sep-14	11:16:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:18:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:20:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:22:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:24:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:26:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:28:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:30:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:32:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:34:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:36:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings
24-Sep-14	11:38:00	0.00	U	Operated 24 Sep 2014 10:58-11:35 AM	See operator logs for manual entry of pressure drop readings

Acronym :
Reporting on   1 point
Start Date[2-NOV-2014]: 1-oct-2014
Start Time[0:00:00] :
Stop Date[1-OCT-2014]: 31-oct-2014
Stop Time[23:59:59] :
Increment (xx[S/M/H/D]): 2M

DATE	TIME	DIFF PRESS INCHES	Operator Log Time	Comment
1-Oct-14	9:50:00	1.91	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	9:52:00	3.47	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	9:54:00	2.99	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	9:56:00	2.12	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	9:58:00	2.40	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:00:00	2.80	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:02:00	2.87	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:04:00	2.87	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:06:00	2.87	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:08:00	2.77	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:10:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:12:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:14:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:16:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:18:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:20:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:22:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:24:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:26:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:28:00	2.61	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:30:00	2.48	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:32:00	2.36	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:34:00	2.36	Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously

1-Oct-14	10:36:00	2.36 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:38:00	2.36 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:40:00	2.36 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:42:00	2.36 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:44:00	2.36 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:46:00	2.55 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:48:00	2.64 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:50:00	2.61 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:52:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:54:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:56:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	10:58:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:00:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:02:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:04:00	2.39 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:06:00	2.15 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:08:00	2.13 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:10:00	1.89 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:12:00	2.01 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	11:14:00	2.08 Operated 1 Oct 2014 9:57-11:18 AM	Datalogger operated continuously
1-Oct-14	13:08:00	4.69 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:10:00	3.24 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:12:00	2.30 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:14:00	2.30 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:16:00	2.30 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:18:00	2.52 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:20:00	2.55 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:22:00	2.55 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:24:00	2.55 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:26:00	2.55 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:28:00	2.55 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:30:00	2.49 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:32:00	2.29 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:34:00	2.15 Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously

1-Oct-14	13:36:00	2.25	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:38:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:40:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:42:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:44:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:46:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:48:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:50:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
1-Oct-14	13:52:00	2.29	Operated 1 Oct 2014 1:12-1:54 PM	Datalogger operated continuously
2-Oct-14	9:34:00	4.09	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:36:00	3.68	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:38:00	2.95	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:40:00	2.87	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:42:00	2.87	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:44:00	2.96	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:46:00	3.46	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:48:00	3.46	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:50:00	3.22	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:52:00	3.20	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:54:00	3.20	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:56:00	3.20	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	9:58:00	3.20	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:00:00	3.05	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:02:00	2.95	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:04:00	2.84	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:06:00	2.70	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:08:00	2.70	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	10:10:00	0.82	Operated 2 Oct 2014 9:39-10:13 AM	Datalogger operated continuously
2-Oct-14	12:56:00	0.88	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	12:58:00	5.00	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:00:00	3.84	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:02:00	3.10	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:04:00	2.88	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:06:00	2.89	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously

2-Oct-14	13:08:00	2.62	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:10:00	2.38	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:12:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:14:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:16:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:18:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:20:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:22:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:24:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:26:00	2.58	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:28:00	2.66	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:30:00	3.05	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:32:00	3.31	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:34:00	2.71	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:36:00	2.57	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
2-Oct-14	13:38:00	2.13	Operated 2 Oct 2014 1:07-1:43 PM	Datalogger operated continuously
3-Oct-14	9:06:00	4.92	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:08:00	4.36	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:10:00	3.14	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:12:00	2.66	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:14:00	2.78	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:16:00	2.92	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:18:00	2.92	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:20:00	3.20	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:22:00	3.50	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:24:00	3.50	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:26:00	3.50	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:28:00	3.69	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:30:00	3.75	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:32:00	3.75	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:34:00	3.76	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:36:00	4.44	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
3-Oct-14	9:38:00	3.90	Operated 3 Oct 2014 8:05-9:43 PM	Datalogger operated continuously
7-Oct-14	12:34:00	2.15	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously

7-Oct-14	12:36:00	4.59	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:38:00	3.48	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:40:00	2.84	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:42:00	2.84	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:44:00	2.87	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:46:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:48:00	2.95	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:50:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:52:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:54:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:56:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	12:58:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:00:00	3.09	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:02:00	3.26	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:04:00	3.63	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:06:00	3.71	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:08:00	3.61	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
7-Oct-14	13:10:00	2.44	Operated 7 Oct 2014 12:42-1:14 PM	Datalogger operated continuously
9-Oct-14	8:04:00	4.25	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:06:00	4.32	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:08:00	3.48	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:10:00	3.08	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:12:00	2.77	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:14:00	2.76	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:16:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:18:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:20:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:22:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:24:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:26:00	3.03	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:28:00	3.14	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:30:00	3.14	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:32:00	3.14	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:34:00	3.14	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously

9-Oct-14	8:36:00	3.14	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:38:00	2.91	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:40:00	2.88	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:42:00	2.88	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:44:00	2.88	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:46:00	2.88	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:48:00	2.90	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:50:00	3.64	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:52:00	3.44	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:54:00	3.39	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	8:56:00	1.76	Operated 9 Oct 2014 8:10-9:00 AM	Datalogger operated continuously
9-Oct-14	11:30:00	0.89	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:32:00	0.89	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:34:00	0.85	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:42:00	2.00	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:44:00	4.41	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:46:00	2.99	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:48:00	2.45	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:50:00	2.62	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:52:00	2.70	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:54:00	2.70	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:56:00	2.70	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	11:58:00	2.70	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:00:00	2.77	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:02:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:04:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:06:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:08:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:10:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:12:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:14:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:16:00	2.95	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:18:00	3.11	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
9-Oct-14	12:20:00	3.45	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously

9-Oct-14	12:22:00	2.49	Operated 9 Oct 2014 11:48 AM -12:27 PM	Datalogger operated continuously
14-Oct-14	9:34:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:36:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:38:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:40:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:42:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:44:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:46:00	1.02	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	9:48:00	0.88	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:00:00	3.50	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:02:00	4.59	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:04:00	3.87	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:06:00	3.58	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:08:00	1.42	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:10:00	1.51	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:12:00	2.04	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:14:00	2.13	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:16:00	2.00	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:18:00	1.87	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:20:00	1.69	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:22:00	1.79	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:24:00	1.87	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:26:00	2.12	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:28:00	2.12	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:30:00	2.12	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:32:00	2.12	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:34:00	1.97	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:36:00	1.88	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:38:00	1.88	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:40:00	1.65	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
14-Oct-14	11:42:00	1.62	Operated 14 Oct 2014 10:56-11:15 AM	Datalogger operated continuously
15-Oct-14	9:34:00	0.88	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:36:00	1.10	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:38:00	1.20	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously

15-Oct-14	9:40:00	1.94	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:42:00	4.50	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:44:00	4.22	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:46:00	3.02	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:48:00	3.02	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:50:00	3.02	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:52:00	3.02	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:54:00	2.97	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:56:00	2.75	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	9:58:00	2.64	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	10:00:00	2.51	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	10:02:00	2.61	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	10:04:00	2.75	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	10:06:00	3.78	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	10:08:00	4.02	Operated 15 Oct 2014 9:47-10:13 AM	Datalogger operated continuously
15-Oct-14	12:34:00	4.23	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:36:00	4.07	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:38:00	3.53	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:40:00	3.23	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:42:00	2.84	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:44:00	2.58	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:46:00	2.52	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:48:00	2.40	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:50:00	2.69	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:52:00	3.12	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:54:00	3.19	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:56:00	2.96	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	12:58:00	3.10	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
15-Oct-14	13:00:00	2.79	Operated 15 Oct 2014 12:41-1:08 AM	Datalogger operated continuously
16-Oct-14	9:20:00	3.64	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:22:00	4.58	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:24:00	3.84	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:26:00	3.52	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:28:00	3.02	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously

16-Oct-14	9:30:00	2.72	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:32:00	3.22	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:34:00	3.75	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:36:00	3.90	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:38:00	4.15	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:40:00	4.16	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:42:00	3.99	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:44:00	3.91	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:46:00	3.91	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:48:00	3.91	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:50:00	3.88	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:52:00	3.65	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:54:00	3.63	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	9:56:00	2.47	Operated 16 Oct 2014 9:30-10:00 AM	Datalogger operated continuously
16-Oct-14	10:46:00	3.41	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:48:00	4.35	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:50:00	2.96	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:52:00	2.70	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:54:00	2.49	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:56:00	2.49	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	10:58:00	2.28	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:00:00	2.32	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:02:00	2.68	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:04:00	2.60	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:06:00	2.48	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:08:00	2.48	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:10:00	2.48	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:12:00	2.64	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:14:00	2.74	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:16:00	2.74	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:18:00	3.36	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:20:00	3.19	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	11:22:00	2.49	Operated 16 Oct 2014 10:53-11:27 AM	Datalogger operated continuously
16-Oct-14	13:00:00	4.43	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously

16-Oct-14	13:02:00	3.82	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:04:00	3.16	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:06:00	2.92	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:08:00	2.87	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:10:00	3.04	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:12:00	2.38	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:14:00	1.99	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:16:00	1.82	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:18:00	1.97	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:20:00	2.18	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:22:00	2.50	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:24:00	2.52	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:26:00	2.30	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:28:00	2.26	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:30:00	2.54	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:32:00	3.27	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
16-Oct-14	13:34:00	2.78	Operated 16 Oct 2014 1:14-1:40 PM	Datalogger operated continuously
17-Oct-14	9:14:00	1.54	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:16:00	5.08	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:18:00	3.96	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:20:00	2.90	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:22:00	1.61	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:24:00	1.93	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:26:00	2.15	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:28:00	2.27	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:30:00	2.34	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:32:00	2.55	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:34:00	2.55	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:36:00	2.55	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:38:00	2.75	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:40:00	2.79	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:42:00	2.79	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:44:00	3.57	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:46:00	4.07	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously

17-Oct-14	9:48:00	3.67	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:50:00	3.37	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	9:52:00	3.28	Operated 17 Oct 2014 9:22-9:58 AM	Datalogger operated continuously
17-Oct-14	12:44:00	2.27	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:46:00	4.47	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:48:00	3.74	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:50:00	2.45	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:52:00	1.83	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:54:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:56:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	12:58:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:00:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:02:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:04:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:06:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:08:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:10:00	2.08	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:12:00	2.50	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:14:00	3.49	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:16:00	3.11	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:18:00	2.95	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:20:00	2.95	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
17-Oct-14	13:22:00	1.32	Operated 17 Oct 2014 12:52-1:30 PM	Datalogger operated continuously
20-Oct-14	9:18:00	5.29	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:20:00	2.91	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:22:00	1.79	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:24:00	1.78	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:26:00	2.05	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:28:00	2.23	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:30:00	2.23	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:32:00	2.23	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:34:00	2.45	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:36:00	2.62	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:38:00	3.01	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously

20-Oct-14	9:40:00	3.45	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:42:00	3.55	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:44:00	3.55	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:46:00	3.55	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:48:00	3.52	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:50:00	3.30	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:52:00	3.18	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:54:00	3.05	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:56:00	3.05	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	9:58:00	3.05	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:00:00	2.93	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:02:00	2.80	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:04:00	2.74	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:06:00	2.53	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:08:00	2.53	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:10:00	2.53	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:12:00	2.53	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:14:00	2.62	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:16:00	3.80	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:18:00	4.16	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:20:00	3.85	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:22:00	3.66	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:24:00	3.34	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:26:00	3.34	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:28:00	3.34	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:30:00	3.34	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
20-Oct-14	10:32:00	3.12	Operated 20 Oct 2014 9:25-10:38 AM	Datalogger operated continuously
24-Oct-14	8:46:00	4.10	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:48:00	4.40	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:50:00	2.31	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:52:00	2.05	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:54:00	2.33	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:56:00	2.60	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	8:58:00	2.60	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously

24-Oct-14	9:00:00	2.60	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:02:00	4.03	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:04:00	4.06	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:06:00	3.89	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:08:00	3.89	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:10:00	3.74	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:12:00	3.63	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:14:00	3.65	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:16:00	3.83	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:18:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:20:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:22:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:24:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:26:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:28:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:30:00	3.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:32:00	2.17	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:34:00	2.36	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:36:00	2.59	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:38:00	2.62	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:40:00	2.68	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:42:00	3.22	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:44:00	3.61	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:46:00	3.64	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:48:00	3.64	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
24-Oct-14	9:50:00	2.66	Operated 24 Oct 2014 8:53-9:55 AM	Datalogger operated continuously
28-Oct-14	10:06:00	2.28	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:08:00	4.04	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:10:00	3.30	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:12:00	2.83	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:14:00	2.51	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:16:00	2.43	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:18:00	2.63	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:20:00	2.52	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously

28-Oct-14	10:22:00	2.21	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:24:00	2.37	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:26:00	2.60	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:28:00	2.99	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:30:00	2.96	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:32:00	2.65	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:34:00	2.77	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:36:00	2.89	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:38:00	2.62	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:40:00	2.34	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:42:00	2.34	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:44:00	2.43	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:46:00	2.54	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:48:00	2.35	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:50:00	2.53	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:52:00	2.48	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:54:00	2.51	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:56:00	2.40	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	10:58:00	3.26	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:00:00	3.15	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:02:00	2.84	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:04:00	3.10	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:06:00	3.21	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:08:00	3.37	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
28-Oct-14	11:10:00	3.48	Operated 28 Oct 2014 10:35-11:08 AM	Datalogger operated continuously
29-Oct-14	12:26:00	3.30	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:28:00	4.64	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:30:00	3.91	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:32:00	3.78	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:34:00	1.95	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:36:00	2.19	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:38:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:40:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:42:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously

29-Oct-14	12:44:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:46:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:48:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:50:00	2.24	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:52:00	1.98	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:54:00	1.93	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:56:00	1.93	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	12:58:00	1.93	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:00:00	2.06	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:02:00	2.19	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:04:00	2.19	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:06:00	2.10	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:08:00	1.91	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:10:00	2.36	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:12:00	3.06	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:14:00	2.98	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:16:00	2.98	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:18:00	2.98	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:20:00	2.98	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
29-Oct-14	13:22:00	1.80	Operated 29 Oct 2014 12:36-1:27 PM	Datalogger operated continuously
30-Oct-14	9:18:00	5.29	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:20:00	3.49	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:22:00	1.59	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:24:00	1.60	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:26:00	1.85	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:28:00	1.85	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:30:00	1.85	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:32:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:34:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:36:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:38:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:40:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:42:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:44:00	2.10	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously

30-Oct-14	9:46:00	3.35	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:48:00	4.11	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:50:00	4.12	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:52:00	4.35	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:54:00	4.35	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
30-Oct-14	9:56:00	1.37	Operated 30 Oct 2014 9:24-9:55 AM	Datalogger operated continuously
31-Oct-14	9:48:00	3.30	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	9:50:00	2.78	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	9:52:00	2.72	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	9:54:00	3.10	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	9:56:00	3.39	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	9:58:00	3.39	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:00:00	3.39	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:02:00	3.33	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:04:00	2.80	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:06:00	2.26	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:08:00	1.91	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:10:00	1.92	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:12:00	2.11	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:14:00	2.11	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:16:00	2.11	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:18:00	1.96	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:20:00	1.85	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:22:00	2.03	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:24:00	2.51	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:26:00	3.34	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:28:00	2.82	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:30:00	2.03	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:54:00	0.87	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:56:00	0.98	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	10:58:00	0.87	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	11:00:00	0.87	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	11:02:00	0.87	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously
31-Oct-14	11:04:00	0.87	Operated 31 Oct 2014 9:50-10:44 AM	Datalogger operated continuously

| 31-Oct-14 | 11:06:00 | 0.87 Operated 31 Oct 2014 9:50-10:44 AM | Datalogger operated continuously |
| 31-Oct-14 | 11:08:00 | 0.83 Operated 31 Oct 2014 9:50-10:44 AM | Datalogger operated continuously |

============== ========== =========== ==================== ====================

PRP 600233DIFFPRES
PRP - Profile ReportProgram
1 Pointfound
Acronym :
Reportingon   1 point

Start Time[0:00:00] :

Stop Time[23:59:59]:
Increment (xx[S/M/H/D]): 2M
600233DIFFPRES

DATE	TIME	Diff Pressure inches	Availability U= Unavailable	Operator Log Time	Comment
3-Nov-14	10:02:00	3.56		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:04:00	4.24		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:06:00	3.63		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:08:00	1.90		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:10:00	2.00		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:12:00	2.46		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:14:00	2.40		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:16:00	2.20		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:18:00	2.20		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:20:00	2.09		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:22:00	1.95		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:24:00	1.95		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:26:00	1.95		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:28:00	2.05		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:30:00	2.21		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:32:00	2.41		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:34:00	2.47		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:36:00	3.16		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:38:00	3.22		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:40:00	2.82		Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously

3-Nov-14	10:42:00	2.50	Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:44:00	2.35	Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	10:46:00	1.57	Operated 3 Nov 2014 10:09-10:48 AM	Datalogger operated continuously
3-Nov-14	12:36:00	4.12	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:38:00	3.44	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:40:00	2.33	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:42:00	1.41	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:44:00	1.57	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:46:00	1.74	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:48:00	1.90	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:50:00	1.90	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:52:00	2.12	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:54:00	2.16	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:56:00	2.16	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	12:58:00	2.16	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:00:00	2.16	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:02:00	2.26	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:04:00	2.41	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:06:00	2.41	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:08:00	2.41	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:10:00	2.41	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:12:00	3.26	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:14:00	3.53	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:16:00	3.23	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:18:00	3.06	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
3-Nov-14	13:20:00	3.06	Operated 3 Nov 2014 12:42-1:22 PM	Datalogger operated continuously
4-Nov-14	9:54:00	0.58	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:04:00	5.26	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:06:00	4.79	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:08:00	3.82	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:10:00	3.48	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:12:00	3.08	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:14:00	2.64	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:16:00	2.82	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously

4-Nov-14	10:18:00	2.51	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:20:00	2.51	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:22:00	2.66	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:24:00	2.80	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:26:00	3.02	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:28:00	2.84	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:30:00	2.52	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:32:00	2.68	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:34:00	3.41	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:36:00	3.71	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:38:00	3.41	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:40:00	3.19	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:42:00	2.98	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:44:00	2.73	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	10:46:00	2.01	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	12:48:00	0.94	Operated 4 Nov 2014 10:10-10:43 AM	Datalogger operated continuously
4-Nov-14	12:50:00	4.86	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	12:52:00	3.87	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	12:54:00	3.33	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	12:56:00	3.02	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	12:58:00	2.99	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:00:00	2.99	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:02:00	2.99	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:04:00	2.27	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:06:00	2.14	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:08:00	2.35	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:10:00	2.35	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:12:00	2.52	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:14:00	2.60	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:16:00	3.70	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:18:00	3.55	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:20:00	3.50	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:22:00	2.50	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously
4-Nov-14	13:30:00	2.12	Operated 4 Nov 2014 12:57-1:35 PM	Datalogger operated continuously

5-Nov-14	10:16:00	0.93	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:18:00	5.05	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:20:00	4.07	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:22:00	3.57	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:24:00	3.48	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:26:00	1.76	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:28:00	2.10	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:30:00	2.29	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:32:00	2.55	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:34:00	2.61	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:36:00	2.61	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:38:00	2.61	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:40:00	2.61	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:42:00	2.41	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:44:00	2.37	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:46:00	2.20	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:48:00	2.28	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:50:00	2.43	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:52:00	2.60	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:54:00	2.37	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:56:00	2.40	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	10:58:00	2.63	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:00:00	2.63	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:02:00	2.55	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:04:00	2.38	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:06:00	2.38	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:08:00	2.37	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:10:00	2.14	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:12:00	2.14	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:14:00	2.14	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:16:00	2.14	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:18:00	1.27	Operated 5 Nov 2014 10:28-11:07 AM	Datalogger operated continuously
5-Nov-14	11:42:00	1.23	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:44:00	3.20	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously

5-Nov-14	11:46:00	2.75	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:48:00	2.64	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:50:00	2.47	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:52:00	2.25	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:54:00	2.21	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:56:00	2.16	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	11:58:00	1.95	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:00:00	1.95	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:02:00	2.03	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:04:00	2.19	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:06:00	2.54	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:08:00	3.23	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:10:00	2.98	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:12:00	2.79	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:14:00	2.96	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:16:00	2.99	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:18:00	2.99	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:20:00	2.99	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:22:00	3.14	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:24:00	3.10	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:26:00	3.03	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:28:00	3.03	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:30:00	2.81	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
5-Nov-14	12:32:00	2.62	Operated 5 Nov 2014 11:52 AM -12:38 PM	Datalogger operated continuously
6-Nov-14	10:56:00	3.04	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	10:58:00	4.17	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:00:00	3.53	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:02:00	3.10	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:04:00	2.50	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:06:00	1.90	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:08:00	2.09	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:10:00	2.41	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:12:00	2.41	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:14:00	2.51	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously

6-Nov-14	11:16:00	2.66	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:18:00	2.66	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:20:00	2.48	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:22:00	2.41	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:24:00	2.65	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:26:00	2.65	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:28:00	2.65	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:30:00	2.81	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:32:00	2.91	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:34:00	2.84	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:36:00	2.52	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:38:00	3.03	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:40:00	3.16	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:42:00	3.02	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:44:00	3.02	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:46:00	3.02	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:48:00	3.04	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
6-Nov-14	11:50:00	0.96	Operated 6 Nov 2014 11:07 - 11:46 AM	Datalogger operated continuously
7-Nov-14	9:18:00	1.49	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:20:00	6.78	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:22:00	4.36	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:24:00	3.35	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:26:00	3.00	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:28:00	2.82	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:30:00	2.69	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:32:00	2.69	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:34:00	2.51	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:36:00	2.45	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:38:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:40:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:42:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:44:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:46:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:48:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously

7-Nov-14	9:50:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:52:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:54:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:56:00	2.18	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	9:58:00	1.99	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	10:00:00	1.93	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	10:02:00	1.93	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
7-Nov-14	10:04:00	1.93	Operated 7 Nov 2014 9:26 -10:03 AM	Datalogger operated continuously
12-Nov-14	9:10:00	0.73	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:18:00	3.70	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:20:00	2.88	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:22:00	2.30	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:24:00	2.19	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:26:00	2.19	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:28:00	2.19	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:30:00	2.19	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:32:00	1.98	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:34:00	1.92	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:36:00	2.07	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:38:00	3.38	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
12-Nov-14	12:40:00	0.97	Operated 12 Nov 2014 12:30-12:46 PM	Datalogger operated continuously
24-Nov-14	9:30:00	1.06	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:32:00	1.68	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:34:00	5.42	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:36:00	3.64	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:38:00	3.25	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:40:00	3.10	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:42:00	2.43	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:44:00	2.19	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:46:00	2.26	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:48:00	2.36	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:50:00	2.22	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:52:00	2.22	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:54:00	2.89	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously

24-Nov-14	9:56:00	3.26	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	9:58:00	3.35	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:00:00	3.71	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:02:00	3.77	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:04:00	3.48	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:06:00	3.40	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:08:00	3.50	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:10:00	3.50	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:12:00	3.27	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:14:00	3.11	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:16:00	3.22	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:18:00	3.00	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:20:00	3.11	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:22:00	3.54	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:24:00	3.57	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:26:00	3.57	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:28:00	3.57	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously
24-Nov-14	10:30:00	3.30	Operated 24 Nov 2014 9:40-10:32 AM	Datalogger operated continuously

PRP 600233DIFFPRES
PRP - Profile Report Program
1 Pointfound
Acronym :
Reportingon   1 point   PRP 600233DIFFPRES
Start Date 1-Dec-2014
Start Time[0:00:00] :
End Date 31-Dec-2014
Stop Time[23:59:59] :
Increment (xx[S/M/H/D]): 2M

DATE	TIME	Diff Pressure inches	Availability U= Unavailable	Operator Log Time	Comment
8-Dec-14	12:38:00	4.99		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:40:00	3.73		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:42:00	2.96		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:44:00	2.06		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:46:00	2.48		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:48:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:50:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:52:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:54:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:56:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	12:58:00	2.53		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:00:00	2.81		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:02:00	2.79		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:04:00	2.78		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:06:00	2.78		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:08:00	3.49		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:10:00	3.30		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:12:00	3.11		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:14:00	3.11		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:16:00	3.11		Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously

8-Dec-14	13:18:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:20:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:22:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:24:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:26:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:28:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:30:00	3.11	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:32:00	3.20	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:34:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:36:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:38:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:40:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:42:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:44:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:46:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:48:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:50:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:52:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:54:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:56:00	3.36	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	13:58:00	3.59	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
8-Dec-14	14:00:00	1.13	Operated 8 Dec 2014 12:45-1:35 PM	Datalogger operated continuously
9-Dec-14	10:38:00	1.98	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:40:00	5.43	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:42:00	4.51	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:44:00	2.82	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:46:00	2.49	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:48:00	2.54	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:50:00	2.78	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:52:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:54:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:56:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	10:58:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:00:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously

9-Dec-14	11:02:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:04:00	3.00	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:06:00	2.89	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:08:00	2.95	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:10:00	3.02	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:12:00	3.02	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:14:00	2.91	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:16:00	2.77	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:18:00	2.77	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:20:00	3.09	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:22:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:24:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:26:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:28:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:30:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:32:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:34:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:36:00	3.26	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:38:00	3.46	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:40:00	3.46	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:42:00	3.46	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:44:00	3.46	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:46:00	3.46	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:48:00	3.22	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:50:00	3.21	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:52:00	3.19	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
9-Dec-14	11:54:00	2.24	Operated 9 Dec 2014 10:48-12:00 PM	Datalogger operated continuously
10-Dec-14	8:56:00	4.28	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	8:58:00	4.15	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:00:00	3.33	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:02:00	2.93	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:04:00	3.06	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:06:00	2.65	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:08:00	2.62	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously

10-Dec-14	9:10:00	2.71	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:12:00	2.90	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:14:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:16:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:18:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:20:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:22:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:24:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:26:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:28:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:30:00	3.13	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:32:00	3.53	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:34:00	4.07	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:36:00	4.36	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:38:00	4.33	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:40:00	4.29	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:42:00	4.88	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:44:00	4.53	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:46:00	4.27	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:48:00	3.99	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:50:00	3.77	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
10-Dec-14	9:52:00	1.85	Operated 10 Dec 2014 9:05-9:59 AM	Datalogger operated continuously
11-Dec-14	9:36:00	1.26	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:38:00	1.37	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:40:00	2.05	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:42:00	6.55	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:44:00	4.92	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:46:00	4.36	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:48:00	3.49	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:50:00	3.56	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:52:00	3.74	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:54:00	3.74	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:56:00	3.74	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	9:58:00	3.94	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously

11-Dec-14	10:00:00	3.91	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:02:00	3.73	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:04:00	3.73	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:06:00	3.68	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:08:00	3.48	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:10:00	3.48	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:12:00	3.45	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:14:00	3.24	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:16:00	3.24	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:18:00	3.24	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:20:00	3.24	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously
11-Dec-14	10:22:00	3.39	Operated 11 Dec 2014 9:49-10:30 AM	Datalogger operated continuously

ATTACHMENT A607.C

Asphalt Plant

Method 9 Opacity Reports

Los Alamos

LOS ALAMOS NATIONAL LABORATORY (LANL)
VISIBLE EMISSION OBSERVATION FORM (6 MINUTE)

Source Name: TA 60 Asphalt Batch Plant

Source Location: TA 60 - 233

Type of Source: Asphalt Plant

Type of Control Equipment: Bag House

Describe Emission Point (Top of stack, etc.): Baghouse Stack

Height Above Ground Level: 33 Feet

Height Relative to Observer: 27 Feet

Distance From Observer: 75 Feet

Direction of Source From Observer: West

Description of Plume (stack exit only):
☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning
☑ No Plume Present

Emission Color: N/A

Plume Type: ☑ No Plume Present ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present? ☑ NO ☐ YES. If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? 2' Above Stack Top

Describe Background (i.e. blue sky, trees, etc.): Blue Sky

Background Color: Blue

Sky Conditions:

Wind Speed: 5 mph

Wind Direction (provide from to, i.e. from North to South): From East

Ambient Temperature: 75 °F

Relative Humidity: 65 %

Additional Comments Information:

	Observation Date 8/11/14	Start Time 2:18	End Time 2:24		
Min \ Sec	0	15	30	45	Comments
1	∅	∅	∅	∅	
2	∅	∅	∅	∅	
3	∅	∅	∅	∅	
4	∅	∅	∅	∅	
5	∅	∅	∅	∅	
6	∅	∅	∅	∅	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Average 6-Minute Opacity	Range of Opacity Readings	
∅	Min. ∅	Max. ∅

OBSERVER (please print)
Name: C. Heintschel
Title: DEP

Signature: [signature]
Date: 8/11/14

Observer Organization: DSESH ~ UIMSS

Certified by: ETA
Certification Date: 2/16/14

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Emission Point
X

Draw Arrow in North Direction →

⊕ OBSERVER'S POSITION

140°

SUN LOCATION LINE

Date: Tuesday, August 12, 2014 | Time: 08:23 MDT (14:23 UTC) | **Time Note »**

The Weather Machine
LOS ALAMOS NATIONAL LABORATORY

LANL Observations   ·   Regional/U.S. Observations   ·   Forecast Products   ·   LANL Climatology   ·   Data Requests   ·

LANL Observations > Table Summaries

The table below provides a snapshot of current conditions at each tower location. Wind variables are measured at 11 meters above the ground (36 meters at PJMT) and the atmospheric state variables (temperature, humidity, and pressure) are measured at 1.2 meters above the ground (2 meters at PJMT).

Other Text Summaries Available: 15-Minute Short Summary (English)   ·

Current Observations: English | Metric

Tower (tower)	TA6	TA41	TA49	TA53	TA54
Date (mm/dd)	08/12	08/12	08/12	08/12	08/12
Time (hhmm)	0715	0715	0715	0715	0715
Wind Speed (mph)	5.4	1.6	3.6	5.8	5.4
Wind Direction (deg)	183	4	236	206	261
Max Gust (mph)	10.5	6.5	9.6	15.4	14.8
Max Gust Direction (deg)	226	271	222	221	212
Time of Max Gust (hhmm)		515	45		
Temperature (deg-F)	61.3	60.8	61.0	61.0	65.1
Max Temp Since Midnight (deg-F)	61.3	60.8	62.1	62.6	65.1
Time of Max Temp (hhmm)	715	715	30		715
Min Temp Since Midnight (deg-F)	53.4	52.9	56.7	58.3	56.8
Time of Min Temp (hhmm)	11	11	13	14	13
Pressure (mb)	785.1	-	-	-	810.2
Relative Humidity (%)	79	-	76	79	69
Dew Point Temperature (deg-F)	54.7	-	53.6	54.5	54.9
Precip Last 15 Minutes (in)	0.00	-	0.00	0.00	0.00
Precip Since Midnight (in)	0.00	-	0.00	0.00	0.00
Downwelling Shortwave (BTU/hr*ft^2)	78	22	48	43	118
windchill (deg-C)	16.3	16.0	16.1	16.0	18.4

NOTE: All times are reported in Mountain Standard Time (MST).

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Summary for August 11, 2014 (Day=223)

sunrise 05:20 sunset 18:59

Wind Conditions

	ht(m)	TA-6	TA-41	TA-49	TA-53	TA-54	MDCN
Average speed (m/s)	92	3.6					
	46	3.3		3.4	3.9	3.8	
	23	2.9	1.4	3.1	3.5	3.4	
	11	2.3	1.0	2.8	3.0	2.9	1.8
Max gust	92	11.5					
Gust direction		114					
Gust time		14:55					
Max gust	46	11.0		12.9	12.5	14.7	
Gust direction		103		93	190	200	
Gust time		14:50		14:55	14:53	14:55	
Max gst	23	10.5	7.4	11.8	11.9	13.7	
Gust direction		102	96	95	189	199	
Gust time		14:50	14:48	14:58	15:03	14:55	
Max gust	11	9.8	6.5	11.1	10.8	12.2	13.2
Gust direction		108	104	89	209	203	108
Gust time		14:55	13:43	15:06	22:15	22:37	14:38

State Variables and Precipitation
Measurements made at 1.2 M; exceptions noted.
(Normals and extremes ignored for now)

	ht(m)	TA-6	TA-41	TA-49	TA-53	TA-54	MDCN
Temperature (C)	1						
Maximum		24.5	26.4	24.4	24.7	27.5	24.7
Time		13:32	13:39	14:38	13:35	14:26	14:20
Minimum		10.6	9.7	12.3	13.2	9.5	9.9
Time		04:26	05:29	05:29	03:36	05:34	05:39
Midnight		15.9	13.9	16.3	17.0	18.2	16.8
Dew point temperature	1						
Maximum		12.8		13.0	12.6	12.2	
Minimum		6.4		6.1	5.9	6.2	
Average		9.1		8.8	9.0	9.2	
Humidity (%)	1						
Maximum		80		72	69	91	
Minimum		36		35	33	30	
Average		58		55	53	56	
Midnight		75		71	69	63	
Pressure (mb)	1						
Maximum		785.2				810.4	
Minimum		782.5				807.3	
Precipitation (in)							
Total for the day		0.00		0.00	0.00	0.00	
So far this month		0.85		0.86	0.96	0.57	

Energy at the Surface (MJ/m^2)

	TA-6	TA-41	TA-49	TA-53	TA-54	MDCN
Net short wave radiation	21.15				19.84	
Net long wave radiation	-6.93				-11.91	
Solar radiation	25.99	23.47	27.40	26.42	26.07	29.63

LOS ALAMOS NATIONAL LABORATORY (LANL)
VISIBLE EMISSION OBSERVATION FORM (10 MINUTE)

Los Alamos

Source Name: TA60 Asphalt Batch Plant

Source Location: TA 60 - 233

Type of Source: Asphalt Plant

Type of Control Equipment: BagHouse

Describe Emission Point (Top of stack, etc.): Baghouse Stack

Height Above Ground Level: 33 Feet

Height Relative to Observer: 27 Feet

Distance From Observer: 75 Feet

Direction of Source From Observer: West

Description of Plume (stack exit only):
☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning
☒ No Plume Present

Emission Color: N/A

Plume Type: ☒ No Plume Present
☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present?
☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined?
2' Above Stack Top

Describe Background (i.e. blue sky, trees, etc.): Blue Sky

Background Color: Blue

Sky Conditions: Clear

Wind Speed: 0 - 5 mph

Wind Direction (provide from/to, i.e. from North to South): From N

Ambient Temperature: 70 °F

Relative Humidity: 25 %

Additional Comments/Information:

Observation Date 9/24/14		Start Time 11:16		End Time 11:22

Min \ Sec	0	15	30	45	Comments
1	Ø	Ø	Ø	Ø	
2	Ø	Ø	Ø	Ø	
3	Ø	Ø	Ø	Ø	
4	Ø	Ø	Ø	Ø	
5	Ø	Ø	Ø	Ø	
6	Ø	Ø	Ø	Ø	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Average 10-Minute Opacity: Ø

Range of Opacity Readings
Min. Ø   Max. Ø

OBSERVER (please print)
Name: C. Heintschel   Title: DEP

Signature: C.A.B.Heintschel   Date: 9/24/14

Observer Organization: DSESH-UIMS

Certified by: ETA   **Certification Date:** 8/27/14

SOURCE LAYOUT SKETCH

Stack with Plume ⊖
Sun ⊕
Wind →

Draw Arrow in North Direction →

Emission Point X

⊕

OBSERVER'S POSITION

140°

SUN LOCATION LINE

Los Alamos

LOS ALAMOS NATIONAL LABORATORY (LANL)
VISIBLE EMISSION OBSERVATION FORM (10 MINUTE)

9:16

Source Name: TA60 Asphalt Batch Plant

Source Location: TA60-233

Type of Source: Asphalt Plant
Type of Control Equipment: Bag House

Describe Emission Point (Top of stack, etc.): Baghouse Stack

Height Above Ground Level: 33 Feet
Height Relative to Observer: 27 Feet

Distance From Observer: 75 Feet
Direction of Source From Observer: West

Description of Plume (stack exit only):
☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning
☑ No Plume Present

Emission Color: N/A
Plume Type: ☑ No Plume Present ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present?
☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined?
2' Above Stack Top

Describe Background (i.e. blue sky, trees, etc.): Blue Sky

Background Color: Blue
Sky Conditions:

Wind Speed: 2 mph
Wind Direction (provide from/to, i.e. from North to South): From E

Ambient Temperature: 58 °F
Relative Humidity: 32 %

Additional Comments/Information:

Observation Date	Start Time	End Time
10/24/14	9:27	9:33

Min \ Sec	0	15	30	45	Comments
1	Ø	Ø	Ø	Ø	
2	Ø	Ø	Ø	Ø	
3	Ø	Ø	Ø	Ø	
4	Ø	Ø	Ø	Ø	
5	Ø	Ø	Ø	Ø	
6	Ø	Ø	Ø	Ø	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Emission Point: X

Draw Arrow in North Direction

OBSERVER'S POSITION

140°

SUN LOCATION LINE

Average 10-Minute Opacity: Ø
Range of Opacity Readings: Min Ø Max Ø

OBSERVER (please print)
Name: C. Heintschel
Title: DEP

Signature: Cliff Heints
Date: 10/24/14

Observer Organization: DSESH-VIMS

Certified by: ETA
Certification Date: 8/27/14

Date: Friday, October 24, 2014 | Time: 09:51 MDT (16:51 UTC) | Time Note »

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LOS ALAMOS NATIONAL LABORATORY

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⊞ LANL Observations > Table Summaries

The table below provides a snapshot of current conditions at each tower location. Wind variables are measured at 11 meters above the ground (36 meters at PJMT) and the atmospheric state variables (temperature, humidity, and pressure) are measured at 1.2 meters above the ground (2 meters at PJMT).

Other Text Summaries Available: 15-Minute Short Summary (English) ·

Current Observations:					English | Metric
Tower (tower)	TA6	TA41	TA49	TA53	TA54
Date (mm/dd)	10/24	10/24	10/24	10/24	10/24
Time (hhmm)	0845	0845	0845	0845	0845
Wind Speed (mph)	2.9	1.3	4.0	2.7	2.9
Wind Direction (deg)	87	141	85	54	92
Max Gust (mph)	10.1	7.2	10.3	8.5	12.1
Max Gust Direction (deg)	277	276	345	31	350
Time of Max Gust (hhmm)	345	145	45	430	500
Temperature (deg-F)	58.6	49.1	56.5	52.5	51.4
Max Temp Since Midnight (deg-F)	58.6	49.1	56.5	54.5	51.4
Time of Max Temp (hhmm)	845	845	815		845
Min Temp Since Midnight (deg-F)	43.9	34.9	46.4	47.7	36.9
Time of Min Temp (hhmm)	545	615	415	445	645
Pressure (mb)	782.9	-	-	-	808.4
Relative Humidity (%)	32	-	36	44	48
Dew Point Temperature (deg-F)	29.3	-	30.0	31.8	32.5
Precip Last 15 Minutes (in)	0.00	-	0.00	0.00	0.00
Precip Since Midnight (in)	0.00	-	0.00	0.00	0.00
Downwelling Shortwave (BTU/hr*ft^2)	141	49	128	128	130
Wind Chill (deg-F)	58.6	49.1	56.3	52.5	51.3

NOTE: All times are reported in Mountain Standard Time (MST).

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Los Alamos

LOS ALAMOS NATIONAL LABORATORY (LANL)
VISIBLE EMISSION OBSERVATION FORM (6 MINUTE)

Source Name: TA60 Asphalt Batch Plant

Source Location: TA60 - 233

Type of Source: Asphalt Plant

Type of Control Equipment: Bag House

Describe Emission Point (Top of stack, etc.) Baghouse Stack

Height Above Ground Level 33 Feet

Height Relative to Observer 27 Feet

Distance From Observer 75 Feet

Direction of Source From Observer West

Description of Plume (stack exit only)
☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning
☒ No Plume Present

Emission Color N/A

Plume Type ☐ Continuous ☒ No Plume Present ☐ Fugitive ☐ Intermittent

Water Droplets Present?
☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? 2' Above Stack Top

Describe Background (i.e. blue sky, trees, etc.) Blue Sky

Background Color Blue

Sky Conditions Clear

Wind Speed 5 mph

Wind Direction (provide from/to, i.e. from North to South) From NE

Ambient Temperature 28 °F

Relative Humidity 40 %

Additional Comments/Information:

Observation Date		Start Time	End Time
11/24/14		10:11	10:17

Min \ Sec	0	15	30	45	Comments
1	∅	∅	∅	∅	
2	∅	∅	∅	∅	
3	∅	∅	∅	∅	
4	∅	∅	∅	∅	
5	∅	∅	∅	∅	
6	∅	∅	∅	∅	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Average 6-Minute Opacity ∅

Range of Opacity Readings Min. ∅ Max. ∅

OBSERVER (please print)
Name C. Heintschel Title: DEP

Signature: Date 11/24/14

Observer Organization: DSESH- VIMS

Certified by ETA

Certification Date 8/27/14

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Emission Point X

Draw Arrow in North Direction →

OBSERVER'S POSITION
140°
SUN LOCATION LINE

THIS FORM IS FROM EAQ-307, R4

Date: Monday, November 24, 2014 | Time: 10:29 MST (17:29 UTC)

The Weather Machine
LOS ALAMOS NATIONAL LABORATORY

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LANL Observations > Table Summaries

The table below provides a snapshot of current conditions at each tower location. Wind variables are measured at 11 meters above the ground (36 meters at PJMT) and the atmospheric state variables (temperature, humidity, and pressure) are measured at 1.2 meters above the ground (2 meters at PJMT).

Other Text Summaries Available: 15-Minute Short Summary (English) ·

Current Observations:			English | Metric		
Tower (tower)	TA6	TA41	TA49	TA53	TA54
Date (mm/dd)	11/24	11/24	11/24	11/24	11/24
Time (hhmm)	1015	1015	1015	1015	1015
Wind Speed (mph)	5.1	4.0	6.9	6.5	7.8
Wind Direction (deg)	91	114	85	74	42
Max Gust (mph)	22.1	8.7	14.5	17.9	17.2
Max Gust Direction (deg)	318	114	85	338	357
Time of Max Gust (hhmm)	300	1015	1015		
Temperature (deg-F)	28.6	25.7	29.3	27.3	29.3
Max Temp Since Midnight (deg-F)	28.6	26.2	29.3	27.7	29.7
Time of Max Temp (hhmm)	1015	1000	1015		945
Min Temp Since Midnight (deg-F)	14.4	11.3	25.5	18.3	11.5
Time of Min Temp (hhmm)	545	630	915	630	445
Pressure (mb)	774.4	-	-	-	800.3
Relative Humidity (%)	41	-	38	43	42
Dew Point Temperature (deg-F)	8.2	-	7.3	8.4	9.1
Precip Last 15 Minutes (in)	0.00	-	0.00	0.00	0.00
Precip Since Midnight (in)	0.00	-	0.01	0.00	0.00
Downwelling Shortwave (BTU/hr*ft^2)	164	70	153	147	138
Wind Chill (deg-F)	22.8	20.7	22.3	20.5	21.6

NOTE: All times are reported in Mountain Standard Time (MST).

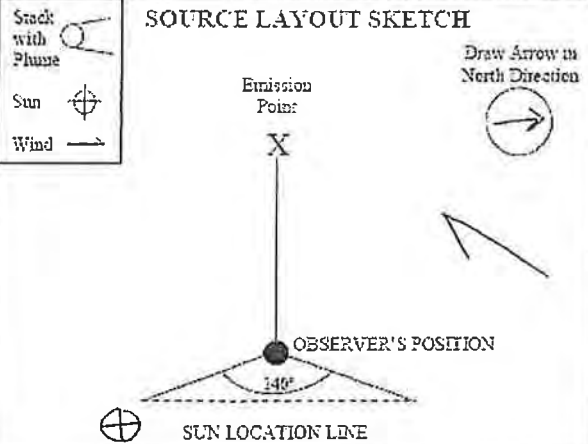**Los Alamos**

LOS ALAMOS NATIONAL LABORATORY (LANL)
VISIBLE EMISSION OBSERVATION FORM (6 MINUTE)

Source Name: TA60 Asphalt Batch Plant

Source Location: TA60-233

Type of Source: Asphalt Plant

Type of Control Equipment: Baghouse

Describe Emission Point (Top of stack, etc.) Baghouse Stack

Height Above Ground Level: 33 Feet

Height Relative to Observer: 27 Feet

Distance From Observer: 75 Feet

Direction of Source From Observer: West

Description of Plume (stack exit only)
☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning
☑ No Plume Present:

Emission Color: N/A

Plume Type ☑ No Plume Present
☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present?
☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined?
2' Above Stack Top

Describe Background (i.e. blue sky, trees, etc.)
Cloudy - grey

Background Color: grey

Sky Conditions: Cloudy

Wind Speed: 0-5 mph

Wind Direction (provide from/to, i.e. from North to South)
From NE

Ambient Temperature: 49 °F

Relative Humidity: 37 %

Additional Comments/Information:

Observation Date	Start Time	End Time			
Dec 9, 2014	11:26	11:32			
Min \ Sec	0	15	30	45	Comments
1	Ø	Ø	Ø	Ø	
2	Ø	Ø	Ø	Ø	
3	Ø	Ø	Ø	Ø	
4	Ø	Ø	Ø	Ø	
5	Ø	Ø	Ø	Ø	
6	Ø	Ø	Ø	Ø	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Emission Point
X

Draw Arrow in North Direction

OBSERVER'S POSITION
140°
SUN LOCATION LINE

Average 6-Minute Opacity	Range of Opacity Readings
Ø	Min. Ø Max. Ø

OBSERVER (please print)
Name: C. Heintspkel
Title: DEP

Signature:

Date: Dec 9, 2014

Observer Organization: DSESH-UIMS

Certified by: ETA

Certification Date: 8-27-14

Lab Home | Phone | Search   Date: Tuesday, December 09, 2014 | Time: 14:41 MST (21:41 UTC)

The Weather Machine
LOS ALAMOS NATIONAL LABORATORY

| LANL Observations | Regional/U.S. Observations | Forecast Products | LANL Climatology | Data Requests |

📧 LANL Observations > Table Summaries

The table below provides a snapshot of current conditions at each tower location. Wind variables are measured at 11 meters above the ground (36 meters at PJMT) and the atmospheric state variables (temperature, humidity, and pressure) are measured at 1.2 meters above the ground (2 meters at PJMT).

Other Text Summaries Available: 15-Minute Short Summary (English)

Current Observations: English | Metric

Tower (tower)	TA6	TA41	TA49	TA53	TA54
Date (mm/dd)	12/09	12/09	12/09	12/09	12/09
Time (hhmm)	1430	1430	1430	1430	1430
Wind Speed (mph)	5.1	2.5	4.7	4.0	4.7
Wind Direction (deg)	126	107	134	87	88
Max Gust (mph)	9.8	7.2	16.8	20.6	9.8
Max Gust Direction (deg)	131	268	354	9	50
Time of Max Gust (hhmm)	1415	545	330	330	1345
Temperature (deg-F)	49.1	47.1	47.3	48.0	46.9
Max Temp Since Midnight (deg-F)	51.3	47.3	49.1	49.1	49.6
Time of Max Temp (hhmm)	1400	1415	1345	1400	1400
Min Temp Since Midnight (deg-F)	33.4	25.2	34.5	34.0	25.9
Time of Min Temp (hhmm)	400	700	730	800	345
Pressure (mb)	779.4	-	-	-	804.5
Relative Humidity (%)	37	-	37	41	41
Dew Point Temperature (deg-F)	24.3	-	22.6	25.7	24.8
Precip Last 15 Minutes (in)	0.00	-	0.00	0.00	0.00
Precip Since Midnight (in)	0.00	-	0.00	1.60	0.00
Downwelling Shortwave (BTU/hr*ft^2)	89	40	58	69	53
Wind Chill (deg-F)	47.1	47.1	45.3	46.6	44.8

NOTE: All times are reported in Mountain Standard Time (MST).

ATTACHMENT A607.E

Asphalt Plant

Daily Operation Log and

12-Month Rolling Production

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

Date	Hours of Operation			Asphalt Produced (tons)	Number of Truck Trips to Plant	Haul Road Swept? (check one)		Pressure Drop Across Baghouse				Propane Tank Reading (percent)	Operator Name (Person Taking Readings)
	Start Time	End Time	Total (hrs.)			Yes	No	Start		End			
								Pressure	Time	Pressure	Time		

NO Asphalt
No Swift

40-20-001.3 (08/2012)

Logistics Division-HERG
Maintenance Operation Instruction
Asphalt Plant Operations

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

Date	Hours of Operation			Asphalt Produced (tons)	Number of Truck Trips to Plant	Haul Road Swept? (check one)		Pressure Drop Across Baghouse				Propane Tank Reading (percent)	Operator Name (Person Taking Readings)
	Start Time	End Time	Total (hrs.)			Yes	No	Start		End			
								Pressure	Time	Pressure	Time		
8-11-14	7:33	10:31	0.97	2	1			2.07	10:00	2.10	10:16		Leslie
8-11-14	1:40	3:07	1.45	20	1			2.69	2:23	2.49	2:43		Leslie
	Total	2.42 hrs	22 tons	2 trips									

40-20-001.3 (08/2012)

Logistics Division-HERG
Maintenance Operation Instruction
Asphalt Plant Operations

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

| Date | Hours of Operation | | | Asphalt Produced (tons) | Number of Truck Trips to Plant | Haul Road Swept? (check one) | | Pressure Drop Across Baghouse | | | | Propane Tank Reading (percent) | Operator Name (Person Taking Readings) |
| | Start Time | End Time | Total (hrs.) | | | Yes | No | Start | | End | | | |
								Pressure	Time	Pressure	Time		
9-6-14	8:50	10:30	.67	2.2	1	✓		2.05	9:42	2.08	10:02		Leslie
9-16-14	9:19	10:56	1.63	2.0	1			2.70	10:17	2.62	10:33		Leslie
9-16-14	12:51	1:29	0.63	2	1			3.03	1:02	2.77	1:17		Leslie
9-17-14	9:58	10:34	0.60	2	1			2.04	10:11	2.40	10:26		Leslie
9-19-14	10:06	10:47	0.68	4	1			2.38	10:23	2.42	10:30		Leslie
9-19-14	1:01	1:51	0.83	5	1			2.39	1:16	2.51	1:41		Leslie
9-19-14	2:11	2:38	0.45	3	1			2.45	2:19	2.55	2:31		Leslie
9-24-14	10:58	11:35	0.62	4	1			2.39	11:16	3.28	11:25		Leslie
	Total		11 hrs	61 tons	8 trips								

40-20-001.3 (08/2012)

Logistics Division-HERG
Maintenance Operation Instruction
Asphalt Plant Operations

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

Date	Hours of Operation Start Time	End Time	Total (hrs.)	Asphalt Produced (tons)	Number of Truck Trips to Plant	Haul Road Swept? Yes	No	Pressure Drop Across Baghouse — Start Pressure	Start Time	End Pressure	End Time	Propane Tank Reading (percent)	Operator Name (Person Taking Readings)
10-1-14	9:57	11:18	1.35	1.5	1			2.43	10:33	2.40	10:47		Leslie
10-1-14	1:12	1:54	0.70	4	1			2.59	1:26	2.17	1:37		Leslie
10-2-14	9:39	10:13	0.57	2	1			3.10	9:53	2.90	10:06		Leslie
10-2-14	1:07	1:43	0.60	2	1			2.66	1:26	2.76	1:32		Leslie
10-3-14	8:05	9:43	1.63	2	1			3.53	9:27	3.69	9:37		Leslie
10-7-14	12:42	1:14	0.53	2	1			2.18	1:03	3.28	1:10		Leslie
10-9-14	8:10	9:00	0.83	3	1			3.14	8:37	2.89	9:50		Leslie
10-9-14	11:48	12:27	0.65	3	1			2.84	12:07	2.89	12:15		Leslie
10-14-14	10:56	11:15	0.32	2	1			2.78	11:00	2.30	11:11		TV
10-15-14	7:47	10:13	0.26	2	1			2.89	9:57	2.53	10:05		Leslie
10-15-14	12:41	1:08	0.45	1	1			3.08	12:56	3.09	1:03		Leslie
10-16-14	9:30	10:00	0.50	3	1			3.72	9:38	3.60	8:52		Leslie
10-16-14	10:53	11:27	0.57	3	1			2.43	11:05	2.77	11:19		Leslie
10-16-14	11:19	1:40	0.43	2	1			2.55	1:25	2.30	1:34		Leslie
10-17-14	9:22	9:58	0.60	2	1			2.22	9:31	2.30	9:40		Leslie
10-17-14	12:52	1:30	0.64	2	1			7.18	1:01	2.26	2:25		Leslie
10-20-14	9:25	10:38	1.22	9	1			3.90	10:00	2.50	10:15		Leslie
10-24-14	8:53	9:55	1.03	7	1			3.52	9:27	2.58	9:40		Leslie
10-29-14	10:35	11:08	0.55	5	1			2.37	10:45	2.58	11:00		Leslie
10-29-14	12:36	1:27	0.85	4	1			2.10	12:53	2.20	11:2		Leslie
10-30-14	9:24	9:55	0.52	2	1			2.07	9:37	2.20	7:49		Leslie
10-31-14	9:56	10:44	0.90	5	1			2.65	9:58	3.22	10:34		Frank
Monthly Total	15.7 hrs			72.5 tons	2.2 trips								

40-20-001.3 (08/2012)

Logistics Division-HERG
Maintenance Operation Instruction
Asphalt Plant Operations

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

Date	Hours of Operation Start Time	End Time	Total (hrs.)	Asphalt Produced (tons)	Number of Truck Trips to Plant	Haul Road Swept? Yes	No	Pressure Drop Across Baghouse Start Pressure	Time	End Pressure	Time	Propane Tank Reading (percent)	Operator Name (Person Taking Readings)
11-3-14	10:09	10:48	0.65	2	1			1.90	10:27	2.37	10:36		Leslie
11-3-14	12:42	1:22	0.67	2	1			2.26	1:04	2.34	1:18		Leslie
11-4-14	10:10	10:43	0.55	2	1			2.70	10:27	2.65	10:38		Leslie
11-14-14	12:57	1:35	0.63	2.0	1			2.71	1:18	2.78	1:23		Leslie
11-5-14	10:28	11:07	0.65	0.8	1			2.45	10:40	2.70	11:03		Leslie
11-5-14	11:52	12:38	0.77	5	1			3.17	12:13	3.10	12:21		Leslie
11-6-14	11:07	11:46	0.65	3	1			2.70	11:32	2.68	11:43		Leslie
11-7-14	9:26	10:03	0.62	2	1			2.31	9:42	2.09	9:52		Leslie
11-12-14	12:30	2:46	0.27	0	0			2.12	12:37	2.14	12:40		Leslie
11-24-14	9:40	10:32	0.87	0	0			3.23	10:11	3.38	10:21		Leslie
Monthly Total	6.33 hrs			18 tons	8 trips								

DAILY TA-60 ASPHALT PLANT OPERATING LOG (REQUIRED READINGS)

Date	Hours of Operation			Asphalt Produced (tons)	Number of Truck Trips to Plant	Haul Road Swept? (check one)		Pressure Drop Across Baghouse				Propane Tank Reading (percent)	Operator Name (Person Taking Readings)
	Start Time	End Time	Total (hrs.)			Yes	No	Start		End			
								Pressure	Time	Pressure	Time		
12-8-14	12:45	1:35	0.83	2	1			2.56	12:58	7.68	1:12		Leslie
12-9-14	10:48	12:00	1.20	10	1			3.14	11:20	3.13	11:41		Leslie
12-10-14	9:05	9:59	0.90	5	1			3.14	9:25	3.27	9:39		Leslie
12-11-14	9:49	10:30	0.68	4	1			3.50	10:14	3.12	10:22		Leslie
Monthly Total -	3.61 hrs			21 tons	4 trips								

40-20-001.3 (08/2012)

2014 TA-60 BDM Asphalt Plant

Data Reviewed By / Date: Margie Stockton, 1/9/2015

Month	Asphalt Produced (Tons) *(Data Entry)*	12-Month Rolling Total	Month	Asphalt Produced (Tons) *(Data Entry)*	12-Month Rolling Total
January	39	370	July	0	419
February	108	454	August	22	441
March	44	498	September	61	502
April	79	450	October	72.5	502
May	69	475	November	18	520
June	7	463	December	21	541
6 mo. Total	346		6 mo. Total:	195	

2014 Asphalt Produced (Tons): 541

12-Month Rolling Permit Limit is 13,000 Tons

Annual Hours

Month	Hours	Month	Hours
Jan	11.0	Jul	0.0
Feb	11.4	Aug	2.4
Mar	10.4	Sep	7.1
Apr	12.3	Oct	15.7
May	11.7	Nov	6.3
Jun	1.3	Dec	3.6
Total:	58.0	Total:	35.1

Annual Total (to date): 93.11 Hours

Hours are Limited to 4380 per Year

ATTACHMENT A607.F

Asphalt Plant

Maintenance Records

Calibration Certificate

Limited Calibration

Los Alamos NATIONAL LABORATORY — EST 1943

Standards & Calibration Laboratory
Mail Stop: D478

Contact:	**Jillian Burgin**	
ENV-ES	**Mail Stop: P903**	

File Number
102405

Instrument Information:

Description:	Chart Recorder	**File Number:**	102405
Manufacturer:	Eurotherm Chessell	**Property No:**	N/A
Model:	392	**Other ID:**	N/A
Serial Number:	USA 6245-004		

Calibration Information:

Calibration of the above item was achieved in a controlled environment through the use of equipment traceable to national standards. It is expected that for the duration of the calibration interval and under normal operational conditions, this item will remain within the tolerance limits specified.

Received Date:	October 07, 2014	**Location of Test:**	Area 400 - DC
Certified:	September 30, 2014	**Normal Temperature:**	23 °C
Expires:	September 30, 2015	**Ambient Temperature:**	20.6 °C
Cal Procedure/	SCL-DF-1267A	**Ambient Humidity:**	35 %RH
Method:		**Item Received:**	Limited
		Item Returned:	Limited

Results:

Evaluation of the device under test had all test points within the assigned tolerance of ± 2.70% of full scale (0.27 in H20).

This tolerance is limited because the calibration was done on site without the benefit of a controlled atmosphere or a precision pressure controller. This item was calibrated for pressure only.

Standards Used: N/A

Calibration Instructions: Standard Calibration

Before beginning work on this calibration, a review was performed to ensure that the requirements, including the methods to be used, were adequately defined, documented, and understood, and that the S&CL (or an approved subcontractor, if used) had the capabilities and resources to meet the requirements. Any differences between the request and Laboratory requirements or S&CL procedures or capabilities were resolved to the best of our ability before work commenced, with the goal of making the work performed acceptable both to the customer and to the LANL S&CL. Based on our review, an appropriate test or calibration method capable of meeting the requirements was selected; this method is indicated on this certificate on the line entitled "Calibration Procedure." Any deviations from S&CL standard calibration methods, procedures, or special requirements requested by the customer for calibration of this instrument were approved by S&CL and the customer prior to the commencement of work and are noted below.

Calibration Performed By:		Reviewed By:	
Archer, Waine	Test/Measurement Tec	Baer, Robert E	10/9/2014 11:26:37AM
Name	Title	Name	Date

Measurements and associated uncertainties supplied by the Standards and Calibration Laboratory (S&CL) are traceable to the International System of Units through an unbroken chain of calibrations linking individual measurements to international, national, or intrinsic standards of measurement. Each calibration in this chain is performed by a qualified calibration source meeting DOE/NNSA requirements, which generally specify adherence to ISO 17025 *General Requirements for the Competence of Testing and Calibration Laboratories*. Where traceability to international, national, or intrinsic standards is not available, traceability is achieved in accordance with the requirements of ISO 17025.

This certificate shall not be reproduced except in full without the written approval of the Standards & Calibration Laboratory.

End of Document

Los Alamos
National Laboratory

Standards and Calibration Laboratory

File number of Device Under Test (DUT): 102405
Category (Area & Subdivision):   400-10
Item Name: Chart Recorder
Manufacturer: Eurotherm Chessell
Model Number: 392
Calibration date: 9/30/2014
Calibrated by: Robert Baer / Waine Archer
Air temperature: 69°

File number(s) of the calibrated equipment used to calibrate the DUT:
        41309

DUT Range:	**10** inH2O
Enter # of Decimal Places:	**2**
DUT tolerance ±	**2.70** % of full scale
Calibration tolerance = ±	**0.27** inH2O

DUT Nominal Value	Standard Reading	Calibration Tolerance		
-0.09	0.02	-0.36	to	0.18
1.92	2.04	1.65	to	2.19
4.94	5.05	4.67	to	5.21
6.85	6.98	6.58	to	7.12
9.80	9.94	9.53	to	10.07
-0.03	0.04	-0.30	to	0.24

☑ In Tolerance
☐ Out of Tolerance

GENERAL UNCERTAINTY CALCULATION WORKSHEET

File Number: 102405   **Calibration Date:** 9/30/2014

Source

Standard Uncertainty

1. Uncertainty in standards/calibrated equipment:

   Velocicalc (041309) worst case tolerance: 0.105/√ 3 =   a.   0.061 in H2O

   Chart Recorder worst case pen positional accuracy: 0.100/√J3 =   b.   0.058 in H2O

   Chart Display accuracy: 0.060/√3 =   c.   0.035 in H2O

   Transmitter accuracy: 0.100/√3 =   d.   0.058 in H2O

       e. _____

       f. _____

2. Readability or repeatability of item under test (whichever is greater):

   _____   g. _____

3. Estimate of drift or wear over calibration interval[1]:

   _____   h. _____

4. Maximum difference observed between standard and item under test[2]:

   0.140/√3   i.   0.081 in H2O

5. Other (e.g., temperature uncertainty, etc):

   _____   j. _____

   _____   k. _____

   _____   l. _____

Uncertainty Calculation

I. Combined standard uncertainty:

$$u_c = \sqrt{(a^2+b^2+c^2+d^2+e^2+f^2\ g^2+h^2+i^2\ j^2+k^2+l^2)}$$

$u_c =$ 0.135 in H2O

II. Expanded uncertainty (k=2):

$$U_c = 2 \ast u_c$$

$U_c =$ 0.27 in H2O

Report U_c in the calibration certificate using a statement similar to this: "The estimated uncertainty in this test does not exceed $\pm U_c$, calculated using a coverage factor k=2 and an allowance for estimated drift or wear, which represents a 95% confidence interval. It is expected that under normal operational conditions, this item will remain within the stated uncertainty for the duration of its calibration interval."

---

1 Omit if only time-of-test uncertainty is to be reported.

2 Omit if corrections are reported.

Page 1 of 1

Calibration Certificate

Limited Calibration

Standards & Calibration Laboratory
Mail Stop: D478

Contact:	**Jillian Burgin**	
ENV-ES	**Mail Stop: P903**	

Instrument Information:

Description:	Magnehelic Gage	**File Number:**	102404
Manufacturer:	Dwyer	**Property No:**	N/A
Model:	2015	**Other ID:**	N/A
Serial Number:	RG20724CH16		

Calibration Information:

Calibration of the above item was achieved in a controlled environment through the use of equipment traceable to national standards. It is expected that for the duration of the calibration interval and under normal operational conditions, this item will remain within the tolerance limits specified.

Received Date:	October 07, 2014	**Location of Test:**	Area 102 - Pressure
Certified:	September 30, 2014	**Normal Temperature:**	23 °C
Expires:	September 30, 2015	**Ambient Temperature:**	20.6 °C
Cal Procedure/		**Ambient Humidity:**	35 %RH
Method:		**Item Received:**	Limited
		Item Returned:	Limited

Results:

Evaluation of the device under test had all test points within the assigned tolerance of ± 2.70% of full scale (0.27 in H20).

This tolerance is limited because the calibration was done on site without the benefit of a controlled atmosphere or a precision pressure controller. This item was calibrated for pressure only.

Standards Used: N/A

Calibration Instructions: Standard Calibration

Before beginning work on this calibration, a review was performed to ensure that the requirements, including the methods to be used, were adequately defined, documented, and understood, and that the S&CL (or an approved subcontractor, if used) had the capabilities and resources to meet the requirements. Any differences between the request and Laboratory requirements or S&CL procedures or capabilities were resolved to the best of our ability before work commenced, with the goal of making the work performed acceptable both to the customer and to the LANL S&CL. Based on our review, an appropriate test or calibration method capable of meeting the requirements was selected; this method is indicated on this certificate on the line entitled "Calibration Procedure." Any deviations from S&CL standard calibration methods, procedures, or special requirements requested by the customer for calibration of this instrument were approved by S&CL and the customer prior to the commencement of work and are noted below.

Calibration Performed By:		Reviewed By:	
Archer, Waine	Test/Measurement Tec	Baer, Robert E	10/9/2014 12:10:08PM
Name	Title	Name	Date

Measurements and associated uncertainties supplied by the Standards and Calibration Laboratory (S&CL) are traceable to the International System of Units through an unbroken chain of calibrations linking individual measurements to international, national, or intrinsic standards of measurement. Each calibration in this chain is performed by a qualified calibration source meeting DOE/NNSA requirements, which generally specify adherence to ISO 17025 *General Requirements for the Competence of Testing and Calibration Laboratories.* Where traceability to international, national, or intrinsic standards is not available, traceability is achieved in accordance with the requirements of ISO 17025.

This certificate shall not be reproduced except in full without the written approval of the Standards & Calibration Laboratory.

End of Document

GENERAL UNCERTAINTY CALCULATION WORKSHEET

File Number: 102404   **Calibration Date:** 9/30/2014

Source

Standard Uncertainty

1. Uncertainty in standards/calibrated equipment:

    Velocicalc (041309) worst case tolerance: $0.105/\sqrt{3}$ =

    Magnehelic tolerance: $0.2/\sqrt{3}$

    a. 0.061 in H2O
    b. 0.116 in H2O
    c. _____
    d. _____
    e. _____
    f. _____

2. Readability or repeatability of item under test
    (whichever is greater):

    g. _____

3. Estimate of drift or wear over calibration interval[1]:

    h. _____

4. Maximum difference observed between
    standard and item under test[2]:

    i. _____

5. Other (e.g., temperature uncertainty, etc):

    j. _____
    k. _____
    l. _____

Uncertainty Calculation

I. Combined standard uncertainty:

$$u_c = \sqrt{(a^2+b^2+c^2+d^2+e^2+f^2\ g^2+h^2+i^2\ j^2+k^2+l^2)}$$

u_c = 0.131 in H2O

II. Expanded uncertainty (k=2):

$$U_c = 2*u_c$$

U_c = 0.262 ≈ .27 in H2O

Report U_c in the calibration certificate using a statement similar to this: "The estimated uncertainty in this test does not exceed ±U_c, calculated using a coverage factor k=2 and an allowance for estimated drift or wear, which represents a 95% confidence interval. It is expected that under normal operational conditions, this item will remain within the stated uncertainty for the duration of its calibration interval."

1 Omit if only time-of-test uncertainty is to be reported.
2 Omit if corrections are reported.

Los Alamos
National Laboratory

Standards and Calibration Laboratory

File number of Device Under Test (DUT): 102404
Category (Area & Subdivision): 102-03
Item Name: Pressure Gauge
Manufacturer: Dwyer Instruments
Model Number: 2015
Calibration date: 9/30/2014
Calibrated by: Robert Baer / Waine Archer
Air temperature: 69°

File number(s) of the calibrated equipment used to calibrate the DUT:
41309

DUT Range:	**10** inH2O	
Enter # of Decimal Places:	**2**	
DUT tolerance ±	**2.70** % of full scale	
Calibration tolerance = ±	0.27 inH2O	

DUT Nominal Value	Standard Reading	Calibration Tolerance		
0.00	0.02	-0.27	to	0.27
1.99	2.04	1.72	to	2.26
4.94	5.05	4.67	to	5.21
6.92	6.98	6.65	to	7.19
9.87	9.94	9.60	to	10.14
0.00	0.04	-0.27	to	0.27

☑ In Tolerance
☐ Out of Tolerance

Calibration Certificate

Limited Calibration

Los Alamos NATIONAL LABORATORY EST.1943

Standards & Calibration Laboratory
Mail Stop: D478

Contact:	**Jillian Burgin**
ENV-ES	**Mail Stop: P903**

File Number
102403

Instrument Information:

Description:	Pressure Transmitter	**File Number:**	102403
Manufacturer:	Omega	**Property No:**	N/A
Model:	PX292-01 010WDI	**Other ID:**	N/A
Serial Number:	06096608		

Calibration Information:

Calibration of the above item was achieved in a controlled environment through the use of equipment traceable to national standards. It is expected that for the duration of the calibration interval and under normal operational conditions, this item will remain within the tolerance limits specified.

Received Date:	October 07, 2014	**Location of Test:**	Area 102 - Pressure
Certified:	September 30, 2014	**Normal Temperature:**	23 °C
Expires:	September 30, 2015	**Ambient Temperature:**	20.6 °C
Cal Procedure/	SCL-DF-1267A	**Ambient Humidity:**	35 %RH
Method:		**Item Received:**	Limited
		Item Returned:	Limited

Results:

Evaluation of the device under test had all test points within the assigned tolerance of ± 2.70% of full scale (0.27 in H20).

This tolerance is limited because the calibration was done on site without the benefit of a controlled atmosphere or a precision pressure controller. This item was calibrated for pressure only.

Standards Used: N/A

Calibration Instructions: Standard Calibration

Before beginning work on this calibration, a review was performed to ensure that the requirements, including the methods to be used, were adequately defined, documented, and understood, and that the S&CL (or an approved subcontractor, if used) had the capabilities and resources to meet the requirements. Any differences between the request and Laboratory requirements or S&CL procedures or capabilities were resolved to the best of our ability before work commenced, with the goal of making the work performed acceptable both to the customer and to the LANL S&CL. Based on our review, an appropriate test or calibration method capable of meeting the requirements was selected; this method is indicated on this certificate on the line entitled "Calibration Procedure." Any deviations from S&CL standard calibration methods, procedures, or special requirements requested by the customer for calibration of this instrument were approved by S&CL and the customer prior to the commencement of work and are noted below.

Calibration Performed By:

Archer, Waine   Test/Measurement Tec

Name   Title

Reviewed By:

Baer, Robert E   10/9/2014 11:46:33AM

Name   Date

Measurements and associated uncertainties supplied by the Standards and Calibration Laboratory (S&CL) are traceable to the International System of Units through an unbroken chain of calibrations linking individual measurements to international, national, or intrinsic standards of measurement. Each calibration in this chain is performed by a qualified calibration source meeting DOE/NNSA requirements, which generally specify adherence to ISO 17025 *General Requirements for the Competence of Testing and Calibration Laboratories.* Where traceability to international, national, or intrinsic standards is not available, traceability is achieved in accordance with the requirements of ISO 17025.

This certificate shall not be reproduced except in full without the written approval of the Standards & Calibration Laboratory.

End of Document

GENERAL UNCERTAINTY CALCULATION WORKSHEET

File Number: 102403   **Calibration Date:** 9/30/2014

Source

Standard Uncertainty

1. Uncertainty in standards/calibrated equipment:

Velocicalc (041309) worst case tolerance: $0.105/\sqrt{3}$ =   a.   0.061 in H2O

Chart Recorder worst case pen positional accuracy: $0.100/\sqrt{J3}$ =   b.   0.058 in H2O

Chart Display accuracy: $0.060/\sqrt{3}$ =   c.   0.035 in H2O

Transmitter accuracy: $0.100/\sqrt{3}$ =   d.   0.058 in H2O

   e. _____

   f. _____

2. Readability or repeatability of item under test (whichever is greater):

   g. _____

3. Estimate of drift or wear over calibration interval[1]:

   h. _____

4. Maximum difference observed between standard and item under test[2]:

$0.140/\sqrt{3}$ i.   0.081 in H2O

5. Other (e.g., temperature uncertainty, etc):

   j. _____

   k. _____

   l. _____

Uncertainty Calculation

I. Combined standard uncertainty:

$$u_c = \sqrt{(a^2+b^2+c^2+d^2+e^2+f^2\ g^2+h^2+i^2\ j^2+k^2+l^2)}$$

u_c =   0.135 in H2O

II. Expanded uncertainty (k=2):

$$U_c = 2*u_c$$

U_c =   0.27 in H2O

Report U_c in the calibration certificate using a statement similar to this: "The estimated uncertainty in this test does not exceed $\pm U_c$, calculated using a coverage factor k=2 and an allowance for estimated drift or wear, which represents a 95% confidence interval. It is expected that under normal operational conditions, this item will remain within the stated uncertainty for the duration of its calibration interval."

---

1 Omit if only time-of-test uncertainty is to be reported.
2 Omit if corrections are reported.

Los Alamos

National Laboratory

Standards and Calibration Laboratory

File number of Device Under Test (DUT): 102403
Category (Area & Subdivision): 102-04
Item Name: Pressure Transmitter
Manufacturer: Omega
Model Number: PX292-01 010WDI
Calibration date: 9/30/2014
Calibrated by: Robert Baer / Waine Archer
Air temperature: 69°

File number(s) of the calibrated equipment used to calibrate the DUT:
41309

DUT Range:	**10** inH2O	
Enter # of Decimal Places:	**2**	
DUT tolerance ±	**2.70** % of full scale	
Calibration tolerance = ±	**0.27** inH2O	

DUT Nominal Value	Standard Reading	Calibration Tolerance		
-0.09	0.02	-0.36	to	0.18
1.92	2.04	1.65	to	2.19
4.94	5.05	4.67	to	5.21
6.85	6.98	6.58	to	7.12
9.80	9.94	9.53	to	10.07
-0.03	0.04	-0.30	to	0.24

☑ In Tolerance
☐ Out of Tolerance

ATTACHMENT A607.G

Asphalt Plant

Method 22 Reports

Los Alamos National Laboratory
METHOD 22 Visual Determination of Fugitive Emissions Form

Location: TA GO Asphalt Batch Plant	Observer Affiliation: DSESH- UIMSS
Representative: C. Heintschel	Date of Inspection: 8/11/14
Sky Conditions: Partly Cloudy	Wind Direction: From E
Precipitation: Ø	Wind Speed: 5 -10 mph
Industry: National Lab	Process Unit: Fugitive Emissions

Sketch of Process Unit:

Indicate:
* observer position relative to source
* potential emission and/or actual emission points
* sun location ⊕

* wind direction
* North direction

Bag House

Oil

North Direction

Wind Direction

Observations:

	Clock Time	Observation period duration (min:sec)	Accumulated Emission Time(min:sec)
Begin	2:07		
End Observation	2:17	10:00	Ø

Notes:

This form is used to document fugitive visible emissions from outside air emission sources. If an emission is observed during the Method 22 inspection/observation period (which must be at least 6 minutes for the Asphalt Plant and 10 minutes for all other LANL sources), a Method 9 visible emission test may need to be performed.

| SIGNATURE OF OBSERVER/INSPECTOR:	DATE: 8/11/14

Los Alamos National Laboratory
METHOD 22 Visual Determination of Fugitive Emissions Form

Location: TA 60 Asphalt Batch Plant	Observer Affiliation: DSESH- UIMS
Representative: C. Heintschel	Date of Inspection: 9/24/14
Sky Conditions: Clear	Wind Direction: From N
Precipitation: ∅	Wind Speed: Calm
Industry: National Lab	Process Unit: Fugitive Emissions

Sketch of Process Unit:

Indicate:
* observer position relative to source
* potential emission and/or actual emission points
* sun location ⊕

* wind direction
* North direction

Bag House

Oil

North Direction

Wind Direction
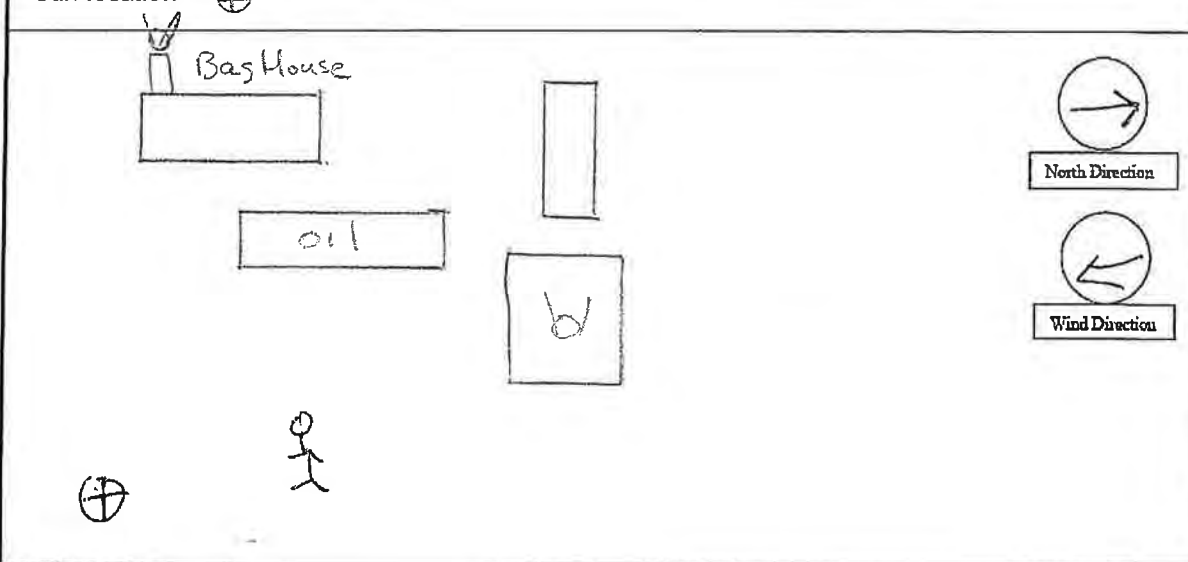
Observations:

	Clock Time	Observation period duration (min:sec)	Accumulated Emission Time(min:sec)
Begin	11:05		
		10	0:00
End Observation	11:15		

Notes:

This form is used to document fugitive visible emissions from outside air emission sources. If an emission is observed during the Method 22 inspection/observation period (which must be at least 6 minutes for the Asphalt Plant and 10 minutes for all other LANL sources), a Method 9 visible emission test may need to be performed.

SIGNATURE OF OBSERVER/INSPECTOR:

DATE: 9/24/14

THIS FORM IS FROM EAQ-307, R5

Los Alamos National Laboratory
METHOD 22 Visual Determination of Fugitive Emissions Form

Location: TA 60 Asphalt Batch Plant	Observer Affiliation:
Representative: C. Heintschel	Date of Inspection: 10/24/14
Sky Conditions: Clear	Wind Direction: From East
Precipitation: ∅	Wind Speed: Calm
Industry: National Lab	Process Unit: Fugitive Emissions

Sketch of Process Unit:

Indicate:
* observer position relative to source
* potential emission and/or actual emission points
* sun location ⊕

* wind direction
* North direction

Bag House

Oil

North Direction

Wind Direction

Observations:

	Clock Time	Observation period duration (min:sec)	Accumulated Emission Time(min:sec)
Begin	9:16		
		10:00	∅
End Observation	9:26		

Notes:

This form is used to document fugitive visible emissions from outside air emission sources. If an emission is observed during the Method 22 inspection/observation period (which must be at least 6 minutes for the Asphalt Plant and 10 minutes for all other LANL sources), a Method 9 visible emission test may need to be performed.

SIGNATURE OF OBSERVER/INSPECTOR:	DATE:
	10/24/14

# Los Alamos National Laboratory
METHOD 22 Visual Determination of Fugitive Emissions Form

Location: TA60 Asphalt Batch Plant	**Observer Affiliation:** DSESH-UIMS
Representative: C. Heintschel	**Date of Inspection:** 11/24/14
Sky Conditions: Clear	**Wind Direction:** From NE
Precipitation: ∅	**Wind Speed:** 5mph
Industry: National Lab	**Process Unit:** Fugitive Emissons

Sketch of Process Unit:

Indicate:
* observer position relative to source
* potential emission and/or actual emission points
* sun location

* wind direction
* North direction
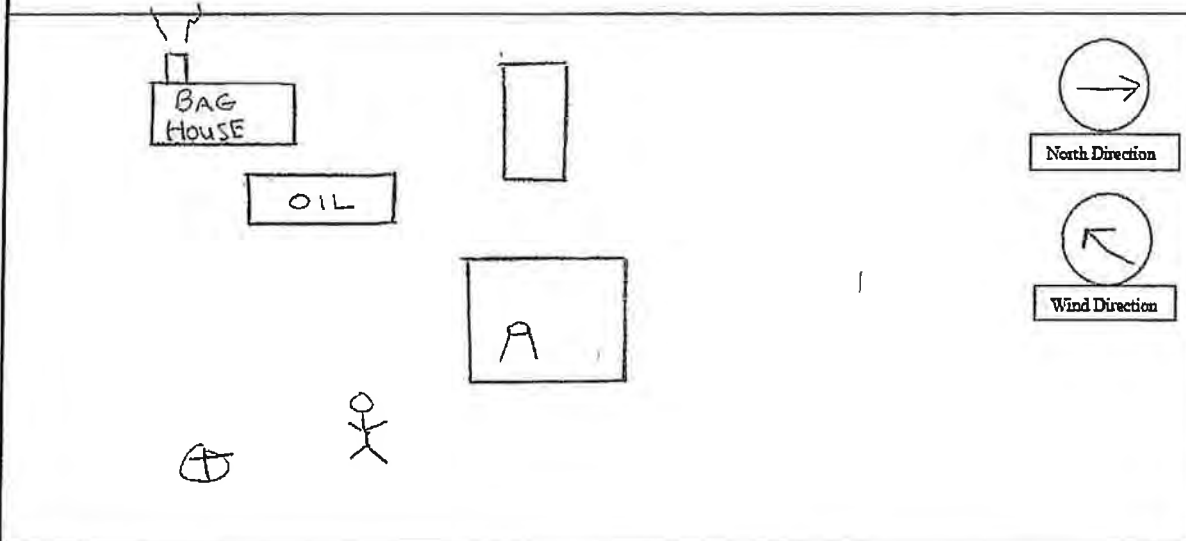
Observations:

	Clock Time	Observation period duration (min:sec)	Accumulated Emission Time(min:sec)
Begin	10:00		
		10	∅
End Observation	10:10		

Notes:

This form is used to document fugitive visible emissions from outside air emission sources. If an emission is observed during the Method 22 inspection/observation period (which must be at least 6 minutes for the Asphalt Plant and 10 minutes for all other LANL sources), a Method 9 visible emission test may need to be performed.

SIGNATURE OF OBSERVER/INSPECTOR:

DATE: 11/24/14

Los Alamos National Laboratory
METHOD 22 Visual Determination of Fugitive Emissions Form

Location: TA60 Asphalt Batch Plant	Observer Affiliation: DSESH-VIMS
Representative: C. Heintschel	Date of Inspection: 12/9/14
Sky Conditions: Cloudy	Wind Direction: From NE
Precipitation: Ø	Wind Speed: O-5
Industry: National Lab	Process Unit: Fugitive Emissions

Sketch of Process Unit:

Indicate:
* observer position relative to source
* potential emission and/or actual emission points
* sun location

* wind direction
* North direction

BAG HOUSE

OIL

A

North Direction

Wind Direction
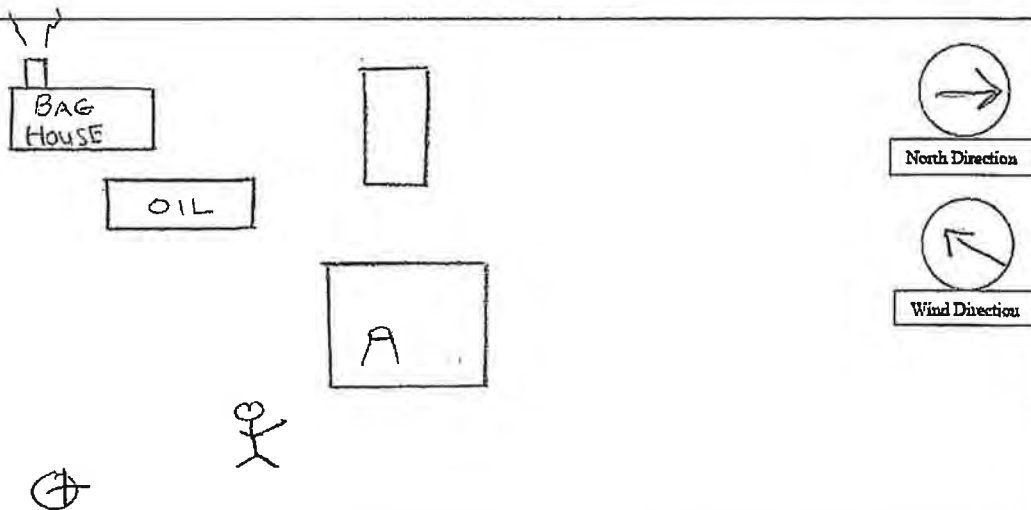
Observations:

	Clock Time	Observation period duration (min:sec)	Accumulated Emission Time(min:sec)
Begin	11:15		
		10:00	0:00
End Observation	11:25		

Notes:

This form is used to document fugitive visible emissions from outside air emission sources. If an emission is observed during the Method 22 inspection/observation period (which must be at least 6 minutes for the Asphalt Plant and 10 minutes for all other LANL sources), a Method 9 visible emission test may need to be performed.

SIGNATURE OF OBSERVER/INSPECTOR:	DATE:
	Dec 9, 2014

THIS FORM IS FROM EAQ-307, R5