STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

APR 17 2013

Mr. Karl Brooks
Regional Administrator
U.S. EPA, Region VII
11201 Renner Boulevard
Lenexa, KS 66219

Dear Mr. Brooks:

The Missouri Air Conservation Commission has recently promulgated the following air quality plan to be included in the Missouri State Implementation Plan (SIP). The following is enclosed for your review and approval into the SIP:

Revision to the Missouri State Implementation Plan – Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard – Buick/Viburnum Trend Lead Nonattainment Area

This revision to the SIP is to satisfy the requirements of Sections 172(c) & 191(a) of the federal Clean Air Act Amendments of 1990 (CAAA) for the Buick/Viburnum Trend Lead Nonattainment Area under the 2008 National Ambient Air Quality Standard (NAAQS) for lead. Per Section 191(a) of the CAAA, Missouri is required to submit to EPA a SIP revision for any newly-designated nonattainment area to demonstrate that the area will achieve compliance with the 2008 lead NAAQS no later than five years from the date of the nonattainment area designation. Section 172(c) outlines the requisite elements of such an attainment demonstration plan. This attached plan demonstrates attainment for the Buick/Viburnum Trend Lead Nonattainment Area using air dispersion modeling of a control strategy that includes process and work practice modifications, emission limitations, building enclosure projects and expansion of negative pressure / particle capture ventilation systems at the area's secondary lead smelter and/or lead mining-milling operations. In addition, this SIP revision contains, among other things, an emissions inventory, control measures, contingency measures, a reasonably available control technology (RACT) analysis, a demonstration of reasonable further progress (RFP) and a consent judgment. Furthermore, a margin of safety was built into the entire attainment demonstration analysis through conservative background and model input assumptions.

The commission adopted the enclosed plan action on March 28, 2013 after considering program staff testimony at the public hearing and comments received during the public notice / comment period. The commission has full legal authority to develop the SIP pursuant to Section 643.050 of the Missouri Air Conservation Law. The state followed all applicable administrative

procedures in proposing and adopting the plan action. Enclosed are the required SIP submittal elements for determination of plan completeness per 40 CFR Part 51, Appendix V, as well as electronic copies of all modeling inputs and outputs for your convenience. This submittal includes the signed consent judgment and in a subsequent submittal, we will follow up with a court-filed copy of the consent judgment once it has been lodged with the State of Missouri's Circuit Court Of Iron County.

In order to comply with Attachment A of the "Regional Consistency for the Administrative Requirements of State Implementation Plan Submittals and the Use of Letter Notices" memo dated April 6, 2011, a searchable PDF version of these exact documents will be emailed to the EPA Region VII State Coordinator and will be posted on our website at http://www.dnr.mo.gov/env/apcp/sips.htm#lead.

The Missouri Department of Natural Resources requests that the EPA amend the SIP to incorporate this plan.

Thank you for your attention to this matter. If you have any questions regarding this submittal, please contact Wendy Vit, Missouri Department of Natural Resources' Air Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 or by phone at (573) 751-4817. E-mail inquiries may be forwarded to wendy.vit@dnr.mo.gov.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Original signed by Kyra L. Moore

Kyra L. Moore
Director

KLM:jwc

Enclosures: Copy of Plan
Copy of commission signature page certifying Missouri Air Conservation Commission adoption
Copy of technical support documentation for plan (Appendices)
Copy of signed consent judgment
Copy of public hearing notices
Copy of public hearing transcript introductory statement
Copy of public comments and responses
CD with electronic copies of modeling files

c: Missouri Air Conservation Commission

Missouri State Implementation Plan Revision

Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard

Buick/Viburnum Trend Lead Nonattainment Area

Missouri Air Conservation Commission
Adopted
March 28, 2013

Missouri Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
P.O. Box 176
1659 East Elm Street
Jefferson City, Missouri 65102
Telephone (573) 751-4817

TABLE OF CONTENTS

Table Of Contents 1
Appendices 2
Figures 2
Tables 2
Acronym List 3
Executive Summary 4
1. Introduction 6
1.1. Background 7
1.1.A. Health Effects 7
1.1.B. Sources 8
1.1.C. Regulatory History 8
1.1.D. Description Of Nonattainment Area & Topography 9
1.1.E. Process Description - BRRF 11
1.1.F. Process Description – Mines/Mills 11
2. Monitoring & Ambient Air Quality Data 14
2.1. Air Quality Monitoring Network 14
2.2. Monitoring Data 16
3. Emissions Inventory 17
4. Air Dispersion Modeling 18
4.1. Model Description 19
4.1.A. Model Selection 19
4.1.B. Model Pre- And Post-Processors 20
4.1.C. Modeling Domain And Receptor Grid 20
4.1.D. Base Year Selection 21
4.2. Model Inputs 21
4.2.A. Meteorological Inputs 21
4.2.B. Base Year Emission Inputs 23
4.2.C. Source Emission Input Characterization 23
4.2.D. Building Downwash 25
4.2.E. Data Points Evaluation 25
4.2.F. Good Engineering Practice Stack Height 26
4.3. Background Concentration 26
4.4. Evaluation Of Base Year Model Run 28
5. Control Strategy 29
5.1. Consent Judgment Measures 30
5.2. Permit Measures 33
6. Attainment Demonstration 34
6.1. Controlled Emission Rates 34
6.2. Capture Efficiency Discussion 34
6.3. Attainment Year Results 36
7. Reasonably Available Control Measures and Reasonable Further Progress 40
8. Contingency Measures 41
8.1. List Of Contingency Measures 41
8.2. Expected Contingency Measures Emission Reductions 42

9. Public Participation 43
10. Conclusion 44

APPENDICES

Appendix A – Process Flow Diagrams A-1
Appendix B – Monitoring Data B-1
Appendix C – Emissions Inventory C-1
Appendix D – Model Run Script (Base & Future Cases) D-1
Appendix E – Model Results (Base & Future Cases) E-1
Appendix F – Modeling Protocol F-1
Appendix G – Model Performance Evaluation G-1
Appendix H – Emission Factors & Emission Controls (Base & Future Cases) H-1
Appendix I – Fenceline Diagrams I-1
Appendix J – Baghouse Standard Operating Procedures & Work Practices Manual for Fugitive Emissions J-1
Appendix K – Building Fugitive Capture Efficiency Correspondence K-1
Appendix L – Public Participation Documents L-1
Appendix M – 2013 Consent Judgment for Buick/Viburnum Trend Nonattainment Area M-1

FIGURES

Figure 1 – Buick/Viburnum Trend Nonattainment Boundaries 13
Figure 2 – Monitoring Sites 15
Figure 3 – Three-month Rolling Averages 16
Figure 4 – Background Exclusion Zones 28
Figure 5 – Predicted Maximum Three-month Rolling Average Concentrations 37
Figure 6 – BRRF Fenceline Receptor Concentrations 38
Figure 7 – Doe Run Buick Mine and Mill Fenceline Receptor Concentrations 39

TABLES

Table 1 – Point Source Facility Inventory for Lead Nonattainment Area 18
Table 2 – Excluded Data Points 25
Table 3 – Background Calculation 27
Table 4 – Stack Emission Limits 32

ACRONYM LIST

acfm	actual cubic feet per minute
AERMET	Aermod Meteorological Preprocessor
AERMOD	AMS/EPA Regulatory Model
AMS	American Meteorological Society
BPIP	Building Profile Input Program
BPIPPRM	Building Profile Input Program with PRIME
BRRF	Buick Resource Recycling Facility
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CFR	Code of Federal Regulations
CSR	Code of State Regulations
department	Missouri Department of Natural Resources
Doe Run	The Doe Run Resources Corporation d/b/a The Doe Run Company
EPA	United States Environmental Protection Agency
FR	Federal Register
LEV	Local Exhaust Ventilation
MACT	Maximum Achievable Control Technology
MDL	Method Detection Limit
MOEIS	Missouri Emissions Inventory System
$\mu g/m^3$	micrograms per cubic meter
NAAQS	National Ambient Air Quality Standard
NDO	Natural Draft Opening
NWS	National Weather Service
P70	Part 70 Operating Permit
PM	Particulate Matter
PRIME	Plume Rise Model Enhancements
PSD	Prevention of Significant Deterioration
R^2	Coefficient of Determination
RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
RFP	Reasonable Further Progress
SIP	State Implementation Plan
SOP	Standard Operating Procedures (for baghouses)
SSM	Startup, Shutdown and Malfunction
tpy	tons per year
UTM	Universal Transverse Mercator
WPM	Work Practices Manual (for fugitive emissions)

EXECUTIVE SUMMARY

The federal Clean Air Act Amendments of 1990 (CAAA) require the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for lead and five other criteria air pollutants impacting public health and the environment. The other criteria pollutants are ozone, particulate matter (including PM_{10} and $PM_{2.5}$), nitrogen dioxide, carbon monoxide, and sulfur dioxide. The CAAA also requires EPA to periodically review the standards and the latest scientific information to ensure they provide adequate health and environmental protection, and to update those standards as necessary.

On October 15, 2008, EPA established a new lead NAAQS of 0.15 micrograms per cubic meter ($\mu g/m^3$), measured as a rolling three-month average (73 FR 66964; November 12, 2008). This new lead standard is 10 times more stringent than the previous standard of 1.5 $\mu g/m^3$ promulgated in 1978 based on a quarterly average. Once EPA establishes or revises a NAAQS, EPA must designate as "nonattainment" those areas that violate or contribute to violations of the NAAQS pursuant to Section 107(d) of the CAAA.

On November 22, 2010, the EPA designated the Buick/Viburnum Trend as nonattainment for the 2008 lead NAAQS, effective December 31, 2010, based on air quality data from 2007-2009 that indicated a violation of the NAAQS (75 FR 71033). The lead nonattainment area includes four lead emitting sources. Specifically, these sources are the Buick Resource Recycling Facility (BRRF) LLC, The Doe Run Resources Corporation d/b/a The Doe Run Company (hereafter, Doe Run) Buick Mine and Mill, the Doe Run Casteel Mine, and K&D Crushing, which is located at the surface of the Casteel Mine.

Per Section 191(a) of the CAAA, Missouri is required to submit to the EPA an attainment demonstration State Implementation Plan (SIP) revision for lead that demonstrates the nonattainment area will reach attainment of the 2008 lead NAAQS as expeditiously as practicable, but no later than five years from the date of the nonattainment designation.

The main purpose of this SIP revision is to address CAAA Section 172(c) plan requirements as applicable to this nonattainment area. This SIP revision demonstrates attainment for the Buick/Viburnum Trend Nonattainment Area using air dispersion modeling that includes the continuation and modification of existing control strategies as well as additional control measures being proposed concurrently with this SIP revision. Examples of required controls include stack emission limitations for five stacks at BRRF, total enclosure of lead processing buildings at BRRF, enclosure and ventilation of lead concentrate storage areas at Buick Mine and Mill, expansion of negative pressure ventilation at BRRF, and installation/extension of fences to further preclude public access at specific facilities.

This SIP revision also includes CAAA required elements, including a reasonably available control measures (RACM) analysis, a reasonably available control technology (RACT) analysis, a demonstration of reasonable further progress (RFP) and a contingency plan. Furthermore, a margin of safety was built into the entire attainment demonstration analysis by using conservative assumptions in the establishment of an ambient background concentration and the

fact that emissions from BRRF, the Casteel Mine, and the Buick Mine and Mill were modeled as being worst case rather than typical facility operating conditions.

The control and contingency measures identified for this SIP revision will be enforceable through a court-lodged 2013 Consent Judgment between the Missouri Department of Natural Resources (department), the Missouri Attorney General, Doe Run and BRRF.

1. INTRODUCTION

On October 15, 2008, EPA established a new lead NAAQS of 0.15 micrograms per cubic meter, measured as a rolling three-month average (73 FR 66964; November 12, 2008). This new lead standard is 10 times more stringent than the previous standard of 1.5 $\mu g/m^3$ promulgated in 1978 based on a quarterly average. Once EPA establishes or revises a NAAQS, EPA must designate as "nonattainment" those areas that violate or contribute to violations of the NAAQS pursuant to Section 107(d) of the CAAA.

On November 22, 2010, the EPA designated the Buick/Viburnum Trend as nonattainment for the 2008 lead NAAQS, effective December 31, 2010, based on air quality data from 2007-2009 that indicated a violation of the NAAQS for the area containing the BRRF Secondary Lead Smelter, the Doe Run Buick Mine and Mill, the Doe Run Casteel Mine, and K& D Crushing (75 FR 71033).

Per Section 191(a) of the CAAA, Missouri is required to submit to the EPA an attainment demonstration State Implementation Plan (SIP) revision for lead and to demonstrate the nonattainment area will reach attainment of the 2008 lead NAAQS as expeditiously as practicable, but no later than five years from the date of the nonattainment designation.

Clean Air Act Requirements

Section 110 of the CAAA specifies general SIP requirements and Part D of the CAAA includes requirements for nonattainment areas. The department's December 8, 2011 Missouri Lead Infrastructure SIP submittal addresses the continued maintenance, or Section 110 Infrastructure requirements, of the 2008 lead NAAQS for all other portions of the state not designated as nonattainment. This document addresses CAA Part D requirements for the Buick/Viburnum Trend Nonattainment area. A separate document, developed concurrent to this one, will address the Part D SIP requirements for the State's only other lead nonattainment area, called the Herculaneum Lead Nonattainment area in Jefferson County where a primary lead smelter currently operates.

The general Part D nonattainment SIP provisions are delineated in Section 172 of the CAA. Section 172(c) specifies SIPs submitted to satisfy Part D requirements shall, among other things, provide for attainment of the applicable NAAQS via federally enforceable measures and limitations, include Reasonably Available Control Measures (RACM) [which includes Reasonably Available Control Technology (RACT)], provide for Reasonable Further Progress (RFP), include an emissions inventory, require permits for construction and operation of major new or modified stationary sources, contain contingency measures, and satisfy the applicable provisions of Section 110(a)(2) of the CAAA related to the general implementation of a new or revised NAAQS. The following sections of this document address the Section 172(c) requirements as specified:

Section 2 (monitoring and ambient air quality data)

Section 3 (emissions inventory)

- Addresses Section 172(c)(3) inventory

Sections 5 & 6 (control strategy & attainment demonstration strategy)

- Addresses Section 172(c)(6) enforceable emission limitations, control measures along with schedules and timetables for compliance

Section 7 (RACM & RFP)

- Addresses Section 172(c)(1) RACM/RACT
- Addresses Section 172(c)(2) reasonable further progress

Section 8 (contingency measures)

- Addresses Section 172(c)(9) contingency measures

Section 9 (public participation)

In addition to the above, Section 172(c)(4) requires the SIP to identify and quantify the emissions of pollutants allowed from the construction and operation of major new or modified stationary sources per Section 173(a)(1)(B). The SIP must demonstrate the emissions quantified in this regard will be consistent with the achievement of reasonable further progress and will not interfere with attainment of the lead NAAQS by the required attainment date. Section 172(c)(5) requires permits for the construction and operation of new or modified major stationary sources in the nonattainment area be in accordance with Section 173.

Missouri administers a New Source Review permitting program for new or modified major sources of lead per Missouri's approved permit program. Among other requirements, permits issued in Missouri require a demonstration that emissions from the new or modified source will not cause or contribute to a NAAQS violation.

Missouri has SIP-approved regulations restricting particulate emissions from stationary sources and restricting fugitive dust emissions. These regulations assist in reducing lead emissions.

This document conforms to all CAAA requirements and existing EPA guidance for lead SIPs. More information on EPA's guidance for lead SIPs developed under the 2008 lead NAAQS may be found at: http://epa.gov/airquality/lead/kitrules.html.

1.1. BACKGROUND

The EPA has determined that lead exposure causes serious health problems in humans and that ambient (i.e. accessible to the public) air concentrations should be limited by restricting lead emission sources through a permitting process or another enforceable mechanism. Lead emission sources are restricted by emission limits, control devices and other special conditions specified in an enforceable document, such as an air permit, regulation, or a legally binding agreement such as a consent judgment. The total of all lead emission limits and special conditions prescribed by permit(s) and/or consent judgment is established to ensure NAAQS compliance. The corresponding ambient air concentrations are determined by ambient air quality monitors. This data is the primary basis for all of the following actions.

1.1.A. Health Effects

Once a person is exposed to lead, either through breathing or swallowing dust contaminated with lead or substances containing lead, it travels via the blood to the soft tissues and organs, such as the liver, kidneys, lungs, brain, spleen, muscles, and heart, where it is absorbed. The main target for lead toxicity is the nervous system. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental

systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of blood. Infants and young children are especially sensitive to low levels of lead, which may contribute to behavioral and learning problems. For a comprehensive discussion of the health effects of lead, see the health effects information section in the Proposed Rule for the 2008 lead NAAQS at 73 FR at 29193–29220. Also, this information is summarized in the Final Rule at 73 FR 66972.

1.1.B. Sources

Since the outlawing of leaded gasoline in the 1980's, lead air pollution is now characterized mainly by single, discrete stationary sources of lead, primarily pertaining to the lead production, processing, and recycling industries. Because of its high density, lead is not a typical criteria pollutant. Unlike the gaseous and fine particulate criteria pollutants, lead air pollution tends to be highly localized and does not transport long distances. Consequently, lead settles out of the air over a relatively short distance and has a very high concentration gradient. In other words, there is a sharp decrease in lead concentrations as the distance from a lead source increases.

The four lead-emitting sources in the Buick/Viburnum Trend Lead Nonattainment Area are generally located near the town of Boss, Missouri. The sources are the BRRF, the Buick Mine and Mill, the Casteel Mine, and K&D Crushing. BRRF's production is limited to 175,000 tons of total lead production each year pursuant to 10 CSR 6.120(3)(B)2. In 2012, BRRF produced approximately 150,000 tons of lead. The Buick Mine and Mill is located to the south of BRRF and conducts subsurface mining of mineral ores that are further processed at the surface to produce concentrates. The maximum hourly design rate in the Title V permit for this facility reflects a capacity to process approximately three (3) million tons of ore each year. In 2012, the facility processed approximately two (2) million tons of ore into approximately 125,000 tons of concentrates. Currently, the concentrates are either sent to the Doe Run primary lead smelter in Herculaneum, Missouri or are shipped to customers. The Doe Run Casteel Mine, is located north of BRRF and also conducts subsurface mining of mineral ores. Finally, K&D Crushing conducts ore crushing operations at the surface of the Casteel Mine.

1.1.C. Regulatory History

Pursuant to the requirements of the CAA, the EPA promulgated a NAAQS for lead on October 5, 1978, of 1.5 $\mu g/m^3$ averaged over a calendar quarter. The initial determination under the CAA was that the entire Viburnum Trend was in attainment.

In 1991, EPA designated two noncontiguous portions of Iron County as lead nonattainment areas for the 1978 lead NAAQS. BRRF was located within this nonattainment area.

BRRF operated first as a primary lead smelter. On September 13, 1989, the department issued a Prevention of Significant Deterioration (PSD) permit for the conversion of the facility from a primary smelter to a battery recycling and secondary smelting operation. Battery recycling began in 1991. Secondary lead smelting from each furnace was limited by the terms of the PSD permit, which has been subsequently modified.

After issuance of the PSD permit, the facility's sinter plant continued to produce sinter for the Herculaneum smelter on an as-needed basis and the blast furnace retained the capacity to operate

as a primary smelter. This capability has since been removed. The above referenced PSD permit has been modified over the years. Those amendments include, but are not limited to, two *de minimis* modifications issued in 1993 and 1996 to allow increases in secondary lead production and an amendment in 2007 to update emission limits.

In 1991, Dent Township in Iron County was designated as a nonattainment area for lead under the CAAA and the 1978 lead NAAQS. As part of the initial nonattainment plan, control measures to lower lead emissions were implemented at BRRF pursuant to a consent order. The measures were successful and the area was redesignated to an attainment/maintenance area in December 2000. A revision in 2002 was made to keep the SIP revision current with state statutes and regulations (10 CSR 10-6.120 *Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations*) and allow BRRF greater operational flexibility. More information on previous lead SIP submittals may be found at: http://dnr.mo.gov/env/apcp/sips.htm#Lead

On December 11, 2011, a Consent Decree was entered in the United States District Court for the Eastern District of Missouri to resolve alleged violations of environmental laws at Doe Run facilities, including those alleged under the Clean Air Act. Doe Run, BRRF, EPA, the department, and the State of Missouri are all parties to this 2011 Consent Decree which sets forth obligations for certain Doe Run facilities. In particular, the 2011 Consent Decree requires that the Buick Mine and Mill enclose and ventilate the lead concentrate handling, storage, and loading areas. This 2011 Consent Decree is federally enforceable and the enclosure and ventilation project is included in the attainment modeling supporting this SIP attainment demonstration. The 2011 Consent Decree may be viewed at
http://www.epa.gov/Region7/cleanup/doe_run/pdf/consent_decree.pdf

As previously stated, on November 12, 2008, EPA lowered the lead NAAQS, making the new standard ten times more stringent than the previous standard of 1.5 $\mu g/m^3$ measured as a quarterly average. This new lead standard establishes a limit of 0.15 $\mu g/m^3$ based on a rolling three-month average (73 FR 66964). On November 22, 2010, EPA designated portions of Iron, Dent and Reynolds Counties surrounding BRRF, the Buick Mine and Mill, the Casteel Mine and the K & D Crushing facility as nonattainment for the 2008 lead NAAQS, effective December 31, 2010 (75 FR 71033). More information on Missouri's lead area boundary designation recommendations may be found at: http://dnr.mo.gov/env/apcp/naaqsboundarydesignations.htm
http://dnr.mo.gov/env/apcp/docs/moleadsummary-09.pdf

The 2008 lead NAAQS final rule also contained a revised method for calculating averaging time for the purposes of comparing monitored data to the NAAQS. The form of the 2008 lead NAAQS is based on 36 three-month rolling averages, for a total of 38 consecutive months, as opposed to the prior rule's three month quarterly average. To support an attainment designation, ambient monitors must show attainment of the 2008 lead NAAQS for 36 three month continuous rolling averages.

1.1.D. Description of Nonattainment Area & Topography

EPA designated the following township/range/sections of Iron, Dent, and Reynolds counties, not the entire county boundaries, as the Buick/Viburnum Trend lead nonattainment area on November 22, 2010, effective December 31, 2010 (75 FR 71033). Even though parts of three

counties are included in the nonattainment area, all of the point source facilities included in the nonattainment area boundaries are located wholly within Iron County. Please see Section 3 of this document for a listing of the four lead emitting point source facilities that are included in the Buick/Viburnum Trend nonattainment area. The final lead standard designations were based upon air quality monitoring data from calendar years 2007-2009. The Lead Designation and Boundary Recommendation, codified in 40 CFR § 81.326 "Missouri – Lead", lists the specific township/range/sections comprising the nonattainment area-

> *<u>Buick/Viburnum Trend Nonattainment Area</u>*
> *Iron County: T34N, R1W, sec. 6-7, 18-19, 30-32 and T34N, R2W, sec. 1-3, 10-15, 22-27, 34-36*
> *Dent County: T34N, R2W, sec. 4, 9, 16, 21, 28, 33*
> *Reynolds County: T33N, R1W, sec. 5-7 and T33N, R2W, sec. 1-3, 10-12*

Per the 2008 lead NAAQS, the unclassifiable/attainment designations for the remainder of the state were finalized by EPA on November 22, 2011 (76 FR 72097).

The BRRF facility is located approximately three miles east of the town of Boss, MO. Figure 1 shows the location of BRRF, the Buick Mine and Mill, and the Casteel Mine in relation to Boss and other nearby towns and Doe Run facilities. As stated above, K & D Crushing operates at the surface of the Casteel Mine. The area is typical Ozark Mountain topography: forested with small hills. There are also a small number of private properties nearby.

Public access is precluded [and maximum predicted lead concentrations are modeled] using existing fenceline at the BRRF facility boundary, using new proposed fenceline at the Buick Mine – Vents 2, 3 & 6, and a combination of existing and new proposed fenceline at the Casteel Mine and the Buick Mine – Vent 1. Public access is precluded [and modeled] at the Buick Mill facility (see Appendix I – pages I-2 and I-3) using combination of: (1) existing and new proposed fenceline, (2) a tailings impoundment to the south and east that is not traversable by foot or vehicle, (3) a mine water lake to the northeast. There is also a twenty-four hour guard posted at the front entrance to the Buick Mill facility to further restrict public access.

In addition to the use of fencing (continued maintenance of existing fencing and installation/maintenance of new fencing), there are two unique locations at the Buick Mill facility where difficult/steep terrain restricts access to facility property in lieu of fencing as indicated by the two purple polygon areas (see Appendix I, page I-2). These two areas are confirmed as too steep to fence and are visually depicted by photographs 1 and 2 (see Appendix I, page I-3). The area depicted in photograph 1 is characterized by a steep grade of approximately 40 degrees, equivalent to a slope of 83 percent. The area depicted in photograph 2 is characterized by a steep grade of approximately 45 to 50 degrees, equivalent to a slope of 100 to 120 percent. Tables of minimum fenceline coordinates are included in Appendix I (one Table for each map). The model run script also includes minimum fenceline coordinates.

In addition to these considerations, topographical characteristics influence wind speed and direction. If micrometeorological effects result in valley flows, the effects are unquantifiable

because a robust meteorological network does not exist – primarily because the area is heavily forested which limits the establishment of meteorological sites due to siting criteria issues.

1.1.E. Process Description - BRRF

As stated above, BRRF is located within the Buick/Viburnum Trend nonattainment area for the 2008 lead NAAQS. BRRF is an industry leader in lead recycling. The majority of the lead recycled at BRRF comes in the form of automotive and industrial batteries.

Lead bearing items, primarily post-consumer lead-acid batteries, arrive at BRRF by truck. To begin the recycling process, they are unloaded and placed into a battery bunker. Approximately one-third of all batteries received still have an electrical charge, so the batteries are handled by a loader and placed into a stainless steel shredder.

The whole battery is broken in the shredder. The battery acid (weak sulfuric acid) is drained during shredding, collected in storage tanks, and is neutralized using calcium hydroxide. The shredded batteries are placed in a vibrating feeder in route to a conveyor belt to the hammer mill. The hammer mill pounds the material into smaller pieces.

Each lead acid battery contains a set of metal grids, lead posts, plastic components, separators, and a lead sulfate paste. The paste is removed by washing through sets of screens for further processing. After going through the hammer mill, the battery pieces enter a hydroseparator where water separates the heavier elements. All of the lead and metal components sink to the bottom and the floating items are skimmed off and sent to recycling facilities.

The metallic portions of the batteries including grids, posts, other metallics and constituents are primarily fed to the reverberatory furnace and may be fed to the blast furnace as well. Lead from the furnaces is mixed with other metals to produce alloys that are cast into products of various weights, shapes and sizes in the refinery.

While the lead components are being processed, the sulfate paste is separated from the acid and passed through a filter press. The acid is neutralized by the addition of hydrated lime ($Ca(OH)_2$) and forms calcium sulfate.

The lead sulfate paste is heated at extremely high temperatures in a reverberatory furnace to produce soft antimonial lead bullion and a material called reverberatory slag. Sulfur emissions from the reverberatory furnace are controlled by a dry, flue gas desulfurization scrubber that introduces lime and water to the reverberatory flue gas in a reaction and forms gypsum, which is removed from the gas stream by a polishing baghouse. The reverberatory slag is fed to the blast furnace to recover the antimonial lead.

A process flow diagram representing current operations, including required control measures of Section 5, is included in Appendix A.

1.1.F. Process Description – Mines/Mills

Exploration for lead deposits began in the Buick/Viburnum Trend in the 1940's as deposits in the Old Lead Belt began to diminish. Through the 1960's, the St. Joseph Lead Company, later

renamed the St. Joe Minerals Corporation, developed #27, #28, and #29 Mines around the town of Viburnum, while the Ozark Lead Company, a division of Kennecott, built what is now the Sweetwater Mine. Magmont and AMAX began development of two mines that are now the Buick Mine, and ASARCO began development of the West Fork Mine. St. Joe went on to develop the Fletcher mine in the late 1960's, the Brushy Creek Mine in the 1970's, and the Casteel (#35) Mine in the 1980's. Through various acquisitions, mergers and partnerships, the St. Joe Corporation became the Doe Run Company, which eventually came to hold all the lead mining, milling, and primary lead smelting operations in the state of Missouri.

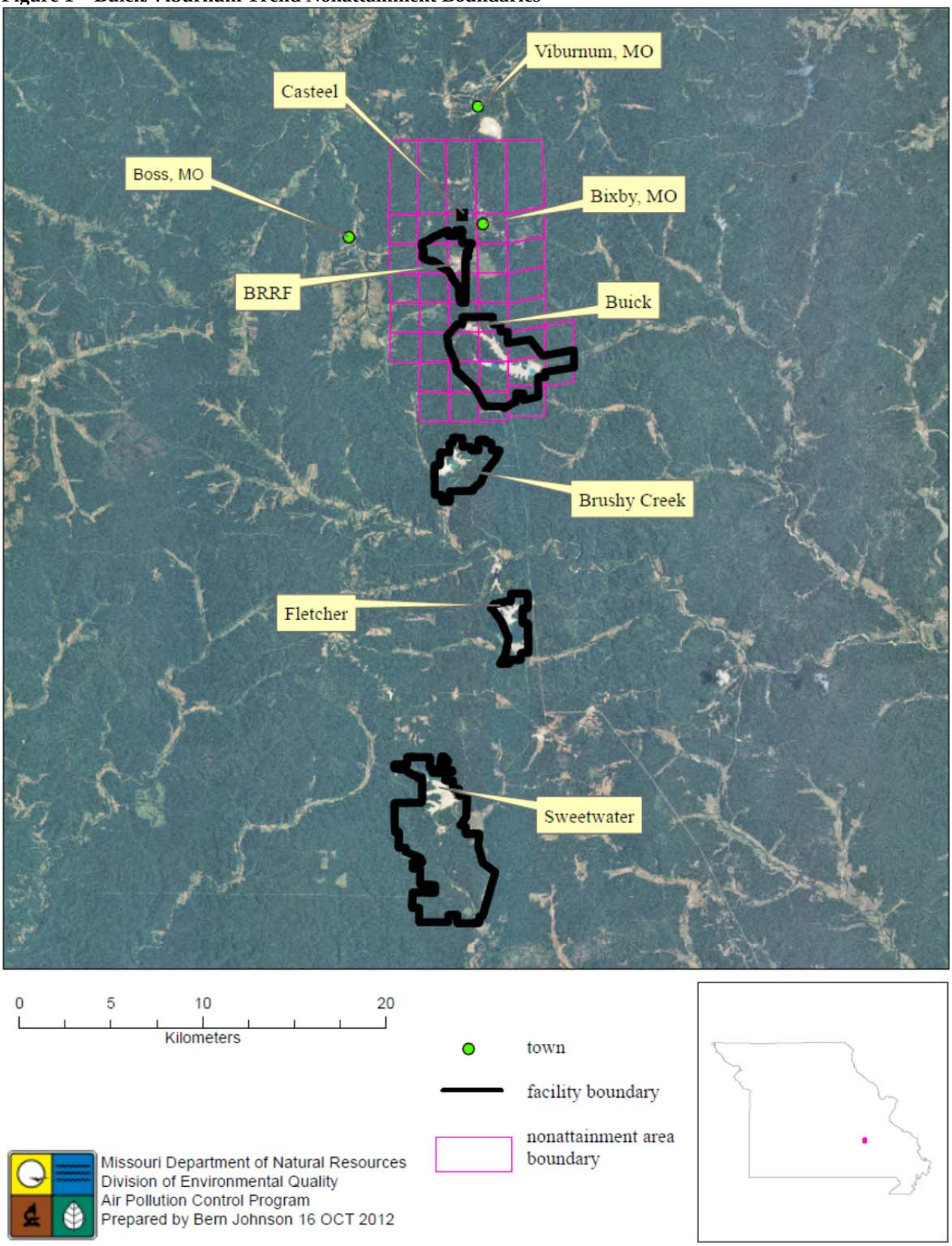
The Doe Run Southeast Missouri Mining and Milling Operations (SEMO) include six active mines (Viburnum #29, Casteel, Buick, Brushy Creek, Fletcher, and Sweetwater), four of which include mills (Buick, Brushy Creek, Fletcher, and Sweetwater), and two inactive mines and/or mills (Viburnum #28 and West Fork). All of these operations are located in what is known as the Viburnum Trend, a region of rich lead sulfide deposits. Of the six active operations, only the Buick Mine and Mill, and the Casteel Mine, are located in the lead nonattainment area. The remaining mines/mills are located in the unclassifiable/attainment area.

The mining production process begins in the underground mine workings with drilling and blasting of dolomite host rock which contains varying amounts of lead sulfide, zinc sulfide, and copper-iron sulfide minerals. At the two smaller mines (Viburnum #29 and Casteel), the ore is hauled to the skip pocket 'as blasted' with no crushing underground. On the surface, the coarse ore is crushed by a contractor (K&D Crushing) into smaller pieces. The ore is trucked to one of the other Doe Run facilities (most frequently to the Buick Mine and Mill).

At the mine/mill facilities, ore is hauled underground from the active mining faces to a central crusher, where it is crushed down to approximately 8-inch pieces. Then ore is then hoisted to the surface where it is conveyed to the further crushing and screening operations on site. After being crushed aboveground to less than 5/8-inch in size, the ore is introduced to the wet milling process, which starts with the grinding circuit of rod mills and ball mills. The rod and ball mills use steel rods/balls to reduce the ore to a coarse powder size particle in a slurry of water and chemicals designed to make the sulfide minerals hydrophobic and reduce the surface tension of the water. Wet cyclones separate particles into those small enough for the flotation stage and those that need further grinding. In the flotation stage, the slurry is fed through banks of flotation cells that keep the slurry stirred while blowing air through the liquid. The now hydrophobic sulfide minerals adhere to the air bubbles, which come to the surface and overflow the cells into collector troughs. The cells are setup in separate units designed to selectively float the lead sulfide first, then the zinc sulfide, and finally the copper sulfides.

The concentrated sulfides collected from the flotation process are then fed to thickener tanks that reduce the water content of the slurry. The thickened slurry is fed to filters that alternate air flow to intake solids from the slurry and then release them from the filter cloth as the finished ore concentrate onto a collector belt. Currently, the concentrate is stored and is shipped to either the Herculaneum primary lead smelter or to customers.

Figure 1 – Buick/Viburnum Trend Nonattainment Boundaries



2. MONITORING & AMBIENT AIR QUALITY DATA

The ambient air monitoring networks were established under the CAAA to protect and assess air quality. One of the main purposes of collecting air samples is to assess compliance with and progress made towards meeting ambient air quality standards. The department summarizes its statewide monitoring network, and any changes to it, in its annual air quality monitoring network plan in accordance with 40 CFR 58 Part B. Missouri's 2011 air quality monitoring network plan was approved by the EPA in a letter dated December 12, 2011 and is available at: http://dnr.mo.gov/env/apcp/monitoring/monitoringnetworkplan.pdf Also, visit EPA Region 7's Air Quality Monitoring Network plan site for more information or to review Missouri's previous approved network plans: http://www.epa.gov/region07/air/quality/quality.htm#mo_air

The department maintains a monitoring network satisfying all EPA requirements for NAAQS criteria pollutants, including lead. As documented in the 2011 Lead Infrastructure SIP, there is an extensive network of state operated air quality monitoring sites, located throughout Missouri, tasked with collecting data on lead in the ambient air. This monitoring data was used to develop the Boundary Recommendation for the Buick/Viburnum Trend nonattainment area. This data is also needed to correctly analyze the performance of the dispersion model used to demonstrate attainment and track progress toward attainment.

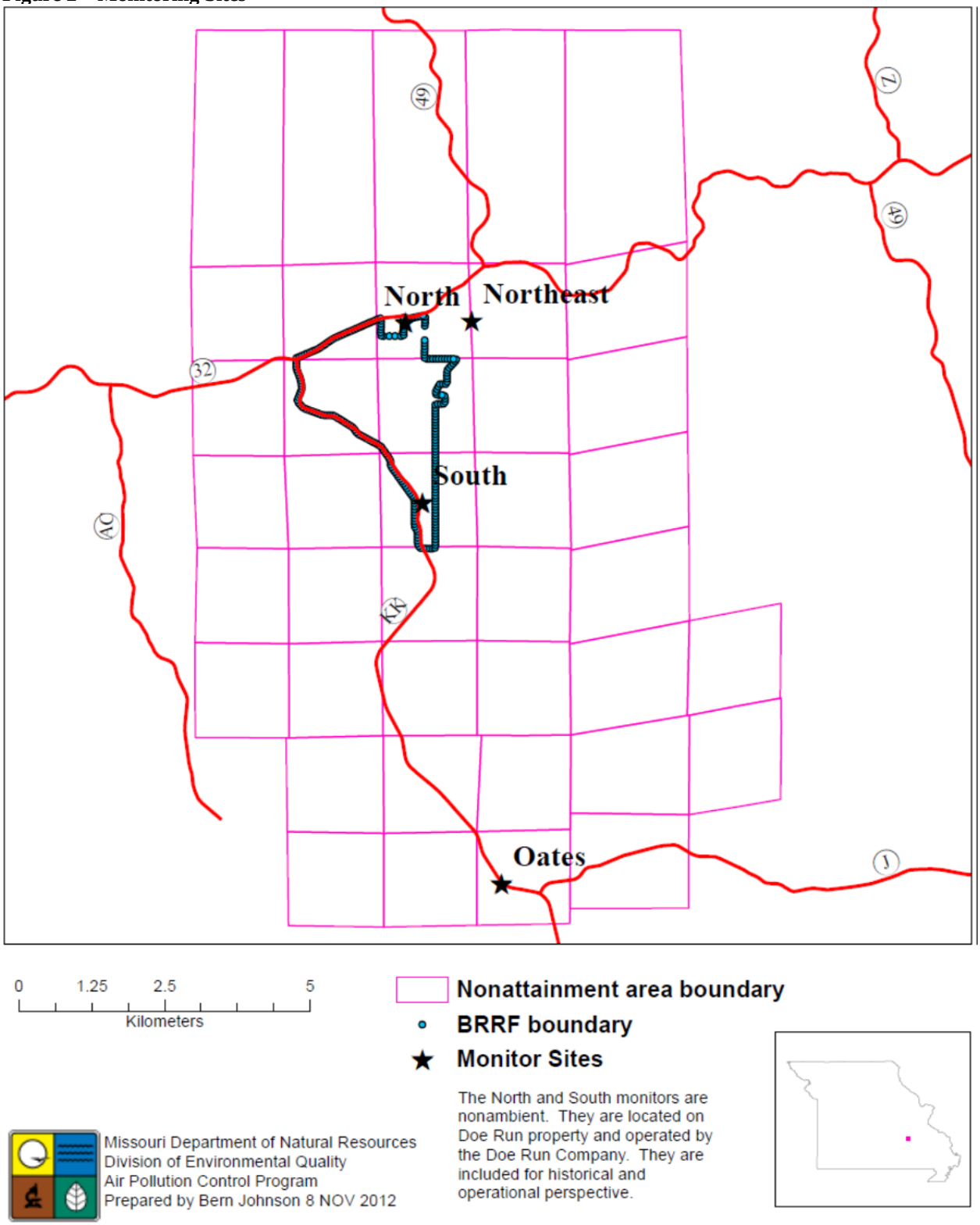
2.1. AIR QUALITY MONITORING NETWORK

The Buick North and South monitoring sites are operated by BRRF at locations approximately 1.2 miles to the north of BRRF and approximately 0.8 miles to the south of the BRRF operations, respectively. Data from the Buick North and South monitors was used in the nonattainment area designations, but these monitors are no longer located in the ambient air. The Buick North and South monitors are located inside the facility fenceline, approximately 110 meters (361 feet) from state highway 32 and approximately 62 meters (203 feet) from state highway KK, respectively. The Bixby West monitoring site was operated by the department beginning in February 2010 at a location near the Buick North site. The property location of the Bixby West site was subsequently acquired by Doe Run, which required the monitor to be relocated. It was relocated to the current Buick Northeast site, which is approximately 1.5 miles to the north/northeast of the BRRF operations (see Figure 2). The monitors collect 24-hour samples on a schedule of at least every six days per EPA monitoring requirements. The daily lead values collected are first averaged by month, second the monthly averages are averaged to calculate each three-month period rolling average. Monitoring is conducted pursuant to a department-approved Quality Assurance Project Plan.

On November 29, 2011, BRRF staff informed the Air Pollution Control Program that the Buick North and South monitors operated by BRRF were representative of non-ambient air. On October 3, 2012, the Air Program's Compliance/Enforcement Section documented that a fence and gate was present at the access road to these monitoring sites. Monitoring at the Buick North and South monitors continues for trend and episode analysis pursuant to the terms of the 2013 Consent Judgment. The Air Program's Buick Northeast ambient air monitoring site is used for monitoring maximum airborne lead concentrations for NAAQS compliance consistent with 40 CFR Part 58. Very recent ambient air monitoring data indicates that the Buick Northeast

monitoring data is trending down further from historical concentrations and yields generally higher lead concentrations as compared to BRRF's collocated monitor.

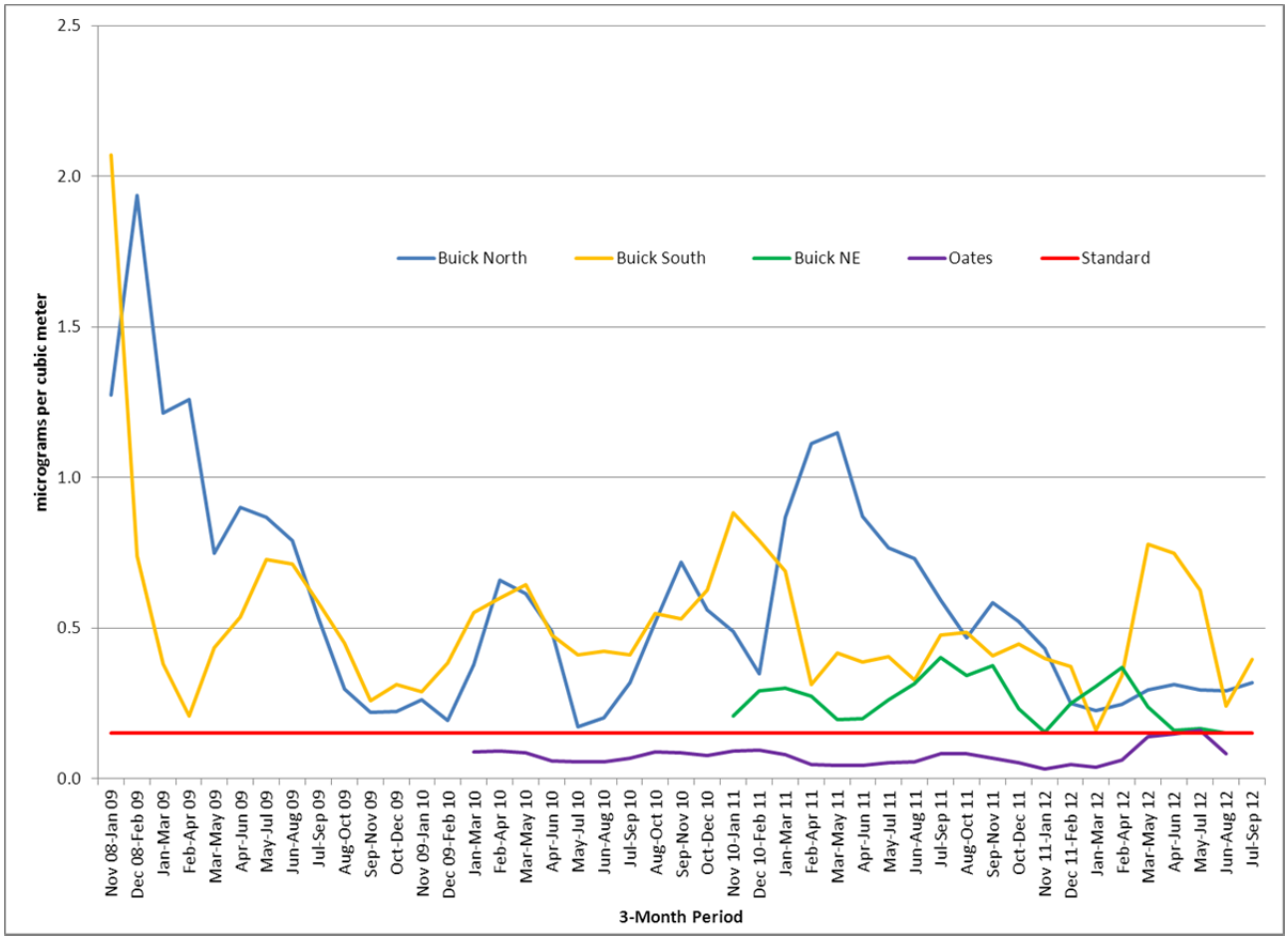
Figure 2 – Monitoring Sites



2.2. MONITORING DATA

Monitoring data from recent years has shown a decline in ambient lead concentrations and has been compliant with the 1978 lead NAAQS (1.5 μg/m^3 standard) for several years, but noncompliant with the 2008 lead NAAQS (0.15 μg/m^3 standard). Figure 3 shows the new standard compared to the three-month rolling average airborne lead concentrations measured at the Oates and Buick North, South, and Northeast monitoring sites from January 2009 through September 2012. As of the writing of this SIP revision, monitoring data and design values are quality assured and entered into the AQS system through June 30, 2012. None of these sites met the new standard during the subject period. However, very recent ambient air monitoring data indicates that the Buick Northeast monitoring data is trending even further downward, likely as a result of lead control project implementation at BRRF in 2012. A summary of current preliminary lead monitoring data (updated on a quarterly basis) is available at http://dnr.mo.gov/env/apcp/docs/leadmonitordata.pdf.

Figure 3 – Three-month Rolling Averages



* On November 29, 2011 BRRF's Buick North and Buick South monitors were reported to be non-ambient by BRRF.

3. EMISSIONS INVENTORY

The department's Air Pollution Control Program creates air emission inventories for criteria pollutants and hazardous air pollutants to meet federal reporting requirements under EPA's Air Emissions Reporting Rule, and to provide data that supports the functions of the Air Program, including SIP inventory needs. The lead emission inventory include anthropogenic emissions from point source facilities like industrial plants, mobile source emissions from aircraft, and nonpoint sources of emissions where many small sources are estimated at the county level (household fuel combustion emissions are combined). Point source facility emissions are reported directly by permitted sources in Missouri, while nonpoint and mobile source emissions are estimated using EPA guidelines and state-specific data.

Nonpoint sources of lead are the numerous small emitting sources that are not inventoried by collecting site specific data; their emissions are estimated based on activity surrogates at the county level. For the entire three counties of Dent, Iron and Reynolds, including portions outside the nonattainment area, the most recently available nonpoint inventory in 2008 shows that residential fuel combustion (diesel and kerosene), aviation gasoline distribution, and human cremation emissions of lead are 0.00029 tons. Mobile sources of lead emissions are piston-driven aircraft engines using leaded fuel, and the three county total, including areas outside the nonattainment area, are 0.00090 tons of lead. The nonpoint and mobile emissions combined are less than 0.1% when compared to point source facility emissions, and they are not modeled as explicit point sources in the modeling demonstration. Nonpoint and mobile source lead emissions are included as part of the background concentration discussed in Section 4.3.

Lead emissions in the three county nonattainment area are driven by point sources, the large stationary industrial sources related to lead ore mining, milling, smelting and lead-product recycling operations. These sources are required to obtain construction and/or operating permits from the Air Pollution Control Program, and these permits subject to the Missouri Emission Inventory Reporting Rule, 10 CSR 10-6.110. The rule requires that sources characterize their total annual actual facility emissions by describing the equipment generating the emissions, emission estimation methods, emission control devices, and release parameters. At a point source facility, emissions are generated by many types of equipment and processes, including but not limited to smelting furnaces, material handling and crushing, storage piles and haul roads; emissions are characterized for modeling using their release parameters as stack, vent, or fugitive emissions. These data elements are used in SIPs to characterize current emissions and evaluate future scenarios that may include amended emission rates.

Point source emission data is collected via online submission or paper forms depending on facility choice. Over 90% of facilities choose the online submission of data, though all data, whether received electronically or hard copy, is entered to our emissions database called the Missouri Emissions Inventory System (MoEIS). MoEIS performs the initial quality assurance steps by ensuring minimum data fields are included and data is within acceptable ranges. Additional quality assurance is performed including, but not limited to the following: year-to-year variance, industry-type comparisons, and external data source verification. Corrections are made to emissions data with the acknowledgement of the facility representative.

The emission inventory for lead in the three county nonattainment area includes four point source facilities that have reported over 0.01 tons of lead in any year, as outlined in Table 1. Additional emissions inventory information is presented in Appendix C.

Table 1 – Point Source Facility Inventory for Lead Nonattainment Area

County Name	Plant Identifier	Plant Name	Site Name	Physical Address	Operating Permit Type	2009	2010	2011
Iron	0005	Doe Run	Buick Mine and Mill	Highway KK	P70	1.05	0.96	1.07
Iron	0009	BRRF	Buick Smelter	Highway KK	P70	13.14	14.81	16.87
Iron	0023	Doe Run	Casteel Mine	Highway 32 West	BAS	0.2	0.2	0.2
Iron	0031	K & D Crushing	Casteel Mine	Highway 32 West	BAS	0.2	0.2	0.2
Total Emissions (tpy)						14.59	16.17	18.34

The sources with a Part 70 (P70) operating permit type characterize their emissions annually by providing updated emission totals based on each year's activity, therefore their emissions vary year-to-year. The sources with a Basic (BAS) operating permit type characterize their emissions by detailing year-specific data only when new permitted equipment starts up or if total emissions change by 5 tons or more from a previous year. Basic permit facilities may show the same emission total if they were not required to fully detail their emissions for each year – they roll forward the emission total.

4. AIR DISPERSION MODELING

Computers are used to run air quality models in order to examine the effectiveness of proposed emission controls for pollutants at a source (or types of sources) so that the nonattainment area of concern can demonstrate compliance with the standard it is violating. Modeling is used to show the effectiveness of various combinations of limitations and control measures on sources impacting the nonattainment area. There are various types of air quality modeling, and the type selected is based on the characteristics of the pollutant(s) being modeled. Dispersion modeling is EPA's preferred model type for demonstrating attainment of the lead NAAQS.

The dispersion model estimates the combined ambient impact of sources by simulating Gaussian dispersion of emission plumes. Emission rates, wind speed and direction, atmospheric mixing heights, terrain, plume rise from stack emissions, initial dispersion characteristics of fugitive sources, and particle size and density are all factors that the model considers when estimating ambient impacts.

Two dispersion modeling analyses were performed for the 2013 SIP Revision to the Missouri SIP for the 2008 lead NAAQS for the Buick/Viburnum Trend Lead Nonattainment Area. One

was an analysis of current conditions to ensure the model is performing adequately (base case or model performance evaluation). The second analysis examined the effectiveness of the proposed emission controls (future case) necessary to demonstrate attainment.

The base case evaluated a reasonable estimate of maximum actual emissions to account for contributing sources/facility operations. This analysis also helps identify the sources that may contribute most to actual monitored concentrations and which are targeted for operational or emissions control.

The base case is conducted using known monitoring, emissions, and meteorological data to validate / evaluate the performance of the model. A high degree of correlation between the monitored and modeled values indicates that all emission sources have been included and are accurately represented. The better the model performance represents the base case, the greater the confidence that future case modeling is a reliable predictor of future concentrations after implementation of controls.

The future case evaluated federally enforceable control strategies and work practices, including those in the 2013 Consent Judgment. Parties to the 2013 Consent Judgment include the department, BRRF, Doe Run and the Missouri Attorney General. The 2013 Consent Judgment is attached to this plan as Appendix M. Dispersion modeling was used to demonstrate that the existing and proposed future control strategies and work practices will bring the Buick/Viburnum Trend Lead Nonattainment Area into compliance with the 2008 lead NAAQS.

The base case model performance analysis and future case control strategy runs were performed and verified by a consultant for BRRF and Doe Run, Shell Engineering, and the Air Program in consultation with staff at EPA Region 7. Details of the model inputs and results (for both base case and future case) are included in Appendices D & E. Appendix F is the modeling protocol outlining the methodology used for the dispersion modeling evaluation supporting this SIP revision.

4.1. MODEL DESCRIPTION

4.1.A. Model Selection

Modeling procedures used in this attainment demonstration follow current air quality modeling guidelines as contained in 40 CFR 51 Appendix W. The EPA's recommended dispersion model for addressing lead is the AMS/EPA Regulatory Model (AERMOD). AERMOD can predict the concentration distribution of pollutants from surface and elevated releases located within simple or complex terrain. The model allows for the input of multiple sources, terrain elevations, structure effects, various grid receptors, wet and dry depletion calculations, urban or rural terrain, and averaging period ranging from one hour to one year. The latest available version of AERMOD, was used in this attainment demonstration, as well as its pre- and post-processors: AERMAP, AERMET, BPIPPRM, and LEADPOST. AERMOD, v11103, the latest version at the time, was used for the base case model performance run. When the future case was run, the latest version of AERMOD, v12060, was used, in order to maintain consistency with the latest approved regulatory models.

4.1.B. Model Pre- and Post-processors

AERMOD does not accept raw meteorological or mapping data. Therefore, there are two input data "pre-processors" that are regulatory components of the AERMOD modeling system. These pre-processors, AERMET and AERMAP, translate the raw data into files understandable by AERMOD. AERMET (version 11059) was used to translate the meteorological data, and AERMAP (version 11103), was used to determine the terrain data for elevations and features that may influence the dispersion of pollutants.

AERSURFACE (version 08009), EPA's nonregulatory surface characteristics preprocessor, was used to determine the surface characteristics of the meteorological tower. Building downwash was calculated using the Building Profile Input Program (BPIP) with plume rise model enhancements (PRIME) version 04274. A brief discussion of these preprocessors appears here in the context of establishing modeling inputs, and additional details on all of these preprocessor tools can be found in the modeling protocol in Appendix F.

A model option selected for this analysis was CONC. The monthly average concentration was chosen for the averaging time, as AERMOD currently does not support calculating the rolling three-month average design value calculation for lead. Instead, EPA's post-processing tool, LEADPOST (version 11237), was used to calculate the design value from the monthly AERMOD outputs.

4.1.C. Modeling Domain and Receptor Grid

AERMOD calculates ambient air concentrations at specific points called receptors. Receptors are identified by the ten-digit Universal Transverse Mercator (UTM) system. The UTM system allows individual points to be identified with a resolution of one meter. The model domain includes the area that contains all sources and all receptors. Elevations for each receptor are calculated using AERMAP. The UTM datum used is NAD83, Zone 15.

For the Buick/Viburnum Trend nonattainment area, a modified nested grid was used to determine the maximum impact from the emissions of various sources in the nonattainment area. Receptors were spaced at fifty meter intervals along the fencelines of BRRF, the Casteel Mine and Buick Mine & Mill, and the four mine vents. Receptors were spaced at 100 meter intervals surrounding each fenceline to various degrees. At BRRF, 100 meter spacing was placed along the southwest border outside the main gate and on the east side opposite the main gate to the southern fenceline. This area includes mine vents 1 and 6. Receptors with 100 meter spacing were also placed around the Casteel and Buick Mines (excluding the tailings lake) and mine vents 2 and 3. Receptors were spaced at 500 meter intervals to fill in the remainder of the nonattainment area.

The modeling domain includes, at its largest extent, a rectangle that covers the entire Viburnum Trend from north of the Casteel mine to south of the Sweetwater mine. The receptor grid covers only the nonattainment area and facility boundaries. Receptors were not placed in non-ambient areas. Figure 5 graphically displays the receptor grids utilized for this project. For the model performance analysis, a much smaller domain was used to optimize model run times.

Due to the distance from BRRF to the monitoring sites, a traditional receptor grid was not used for the model performance evaluation. Instead a smaller set of receptors around the three monitoring sites were used. The three monitors are the North, South, and Oates monitors. They have a long monitoring history and are effectively used for trend analysis such as approximating ambient air quality concentrations for the purposes of model performance evaluation, base case analysis and emissions source evaluation.

4.1.D. Base Year Selection

Proper base year selection is essential for a successful and reliable performance evaluation. Three critical elements are needed: monitoring data; emissions data, including hourly emissions data; and hourly meteorological data. These are needed for the model to recreate a variety of known operating and meteorological conditions at the facility and to compare with validated monitoring data. The period selected for the run script performance evaluation (base case) is January 2009 – October 2010. The actual modeling period was August 1, 2009 to July 31, 2010 (See the modeling run scripts in Appendix D). Available meteorological data completeness is greater than 90% for each quarter during this time period, which satisfies EPA's requirements for SIP modeling evaluations.

4.2. MODEL INPUTS

The consultant for BRRF and Doe Run, Shell Engineering, provided much of the model input data on behalf of the facilities. The Air Program coordinated closely in the development of these model inputs. All inputs were verified and models were independently run by the Air Program. Considerable correspondence was exchanged among the department, BRRF, Doe Run, and Shell Engineering including convening numerous conference calls. Consensus was reached on all inputs. Furthermore, appropriate EPA Region 7 staff participated in many meetings and conference calls, and was consulted during the development of the model inputs.

The department's standard practice in past lead SIP revisions has been to conduct a model performance evaluation, also known as the base year run, to test the completeness of emission sources in the model run script. Base year selection for the model run script performance evaluation consists of three essential data sets: monitoring (see chapter 2), meteorological (see 4.2.A below), and hourly emissions (see 4.2.C below).

As detailed in the following paragraphs, these three data sets were compiled and reviewed for completeness and compatibility. Initially, a three-year period (2008-2010) was anticipated for the base year run. However, due to limitations described below, only one period of twelve consecutive months was deemed appropriate for use – August 2009 through July 2010. Hourly emissions data was not available for 2008 and meteorological data for early 2009 had too many missing hours to meet the completeness requirement.

4.2.A. Meteorological Inputs

Dispersion models require meteorological data, preferably on-site data, which is much more representative of local conditions (such as surface temperature and local surface wind speed / direction) than data from the nearest National Weather Service (NWS) site – in this case, Farmington, MO. For this reason, 40 CFR 51, Appendix W at 8.3.1.2 recommends a minimum of five years off-site data, but only one year of on-site data to ensure that local variations in

meteorological conditions are modeled. BRRF maintains a meteorological monitor approximately 0.8 miles south of BRRF, which is co-located with the BRRF South non-ambient lead air quality monitor.

Meteorological conditions, especially wind speed, affect ambient air concentrations. Slow wind speeds result in higher concentrations because there is less dilution of the emitted pollutant's plume. High wind speeds generally result in lower concentrations due to greater dispersion. High wind speeds can also cause the plume to descend to the ground (downwash) resulting in higher contaminant concentrations measured at the surface. Wind direction largely determines the location of the maximum concentration.

Wind direction in the Buick/Viburnum Trend area is predominantly north-south, with south winds prevalent in the spring, summer, and fall. North winds are a sizeable component in the winter months. Wind speeds are generally seven to seventeen knots, except in the summer months when they generally range from four to eleven knots.

The Buick/Viburnum Trend area averages about 42.8 inches of precipitation per year, mostly as rain. The historical high and low are 63 and 22 inches, respectively. Snow falls occasionally during the winter months. Temperatures range from average lows of 15 degrees Fahrenheit (°F) in January to average highs of 88 °F in August. The historical high and low are 114 and -23 °F respectively.

Wind speed and direction data have been collected for more than 10 years at the BRRF meteorological monitor. Surface temperature, humidity, and other information from the Farmington, MO NWS observation site were added to the BRRF wind observations. Upper air data from the NWS site in Springfield, MO provided information on the vertical temperature, moisture and wind characteristics of the atmosphere. This data set provided confidence that the controls selected for the attainment demonstration will be effective over a large variety of meteorological conditions.

Data from these three sources were compiled using the AERMET preprocessor and then processed using AERMINUTE to reduce the number of calms and missing wind data by generating hourly averaged wind information from 1-minute Automated Surface Observing System data.

The EPA states in 40 CFR 51 Appendix W 8.3.c:

> *Of paramount importance is the requirement that all meteorological data used as input to AERMOD must be both laterally and vertically representative of the transport and dispersion within the analysis domain.*

Due to the relatively remote location of the lead nonattainment area and the nature of the terrain, surface wind speed and direction data from NWS stations are too distant to be representative of local lateral conditions. The on-site data collected by BRRF, despite some missing data, presents a better representation of local conditions. However, vertical meteorological parameters are less likely to vary over these same, moderate distances. Therefore the upper level and other data from Springfield and Farmington are representative of the nonattainment area. As such,

meteorological data sets used in this attainment demonstration are representative of lateral and vertical conditions in the Buick/Viburnum Trend and are the best data available.

As stated previously, the modeling guidance in 40 CFR 51 Appendix W recommends the use of five consecutive years of off-site data for local meteorological conditions, but, for on-site data, the guidance suggests a minimum of one year. At the start of the process, the Modeling Protocol (Appendix F) outlined that we intended to collect three years of data (2008, 2009, & 2010) to assure that we had at least one year of valid, complete and representative data. The facility's on-site meteorological station collected data from January 2008 to October 2010. According to a letter from Inquest Environmental (the meteorological station's independent contractor) to BRRF, quality assurance audits were performed regularly, according to company practice, but detailed audit records were not kept unless a malfunction or some other flaw was recorded. Among these malfunctions was the loss of all data for over a month in mid 2009 due to loss of instruments from a storm. Thus, this loss of data made a 90% data completeness for that quarter unachievable and also prevented much of the 2009 (and earlier) data from being used toward a continuous data set beyond the consecutive one year period.

4.2.B. Base Year Emission Inputs

Hourly emissions data were available from January 2009 to October 2010 from both BRRF and the Buick Mine and Mill. Fugitive and surface dust emission data became variable and no longer representative of the base case with the construction of modified processes and new pollution prevention projects, including a SO2 dry-scrubber, beginning in late 2010. This new construction period affected our input data considerations. With the modifications, air quality monitoring data was no longer attributable to the base case emission sources. Therefore, the model performance evaluation or model validation, along with its other elements (meteorological and emissions data), need to coincide with a period prior to the start of these new projects.

As described in Appendix H, detailed emission rates were calculated for 2009-10. Emission points in the model reflect release points, not necessarily emission units. For the stack, emissions were validated by stack test data, which measures actual lead emissions released from the stack. For other emission rates such as fugitive emissions, sampling information was used if at all possible. If field measurements were not feasible, emission rates were calculated based on known factors such as soil lead content, best available estimates such as traffic counts, or AP-42 guidelines – which are EPA's compilation of conservative emission factors by source categories. For truck haul road emissions, truck traffic counts were used.

4.2.C. Source Emission Input Characterization

To properly model ambient concentrations from a facility, AERMOD requires specific release point type (point, area or volume), plus geographic location, and pollutant emission rate. Appendix H lists each modeled emission point and whether it was characterized as a point, area or volume source.

The document, *Users Guide for the AMS/EPA Regulator Model-AERMOD,* states that the point source algorithm should be used to model emission releases from stacks and isolated vents. Point sources are characterized by stack height, diameter, exit gas velocity, and temperature information. This information is based upon information obtained from the emissions inventory

questionnaire, stack testing, and previously established emission and production limits set by earlier SIP revisions or permits.

For volume source emissions, the AERMOD users guide states that "The AERMOD volume source algorithms are used to model releases from a variety of industrial sources, such as building roof monitors, multiple vents, and conveyor belts." Volume sources are characterized by release heights as well as initial vertical and lateral dimensions, which are calculated using dimensions of the openings. Several emission points at the facility are fugitive dust sources that have been classified as volume releases in the base year model input file with the exception of the haul roads. All emission releases vented inside enclosed structures, without a stack, were characterized by this volume source with release parameters equivalent to half the height with the width and length of the building to provide a reasonable estimate of the types of openings that would allow for the escape of fugitive emissions.

The remaining emissions at the facility were classified as area sources and result from on-site truck traffic along the plant haul route. Area sources are characterized by length and width dimensions, plus angle from true north. The decision to model haul road emissions as an area source is acceptable based upon the AERMOD users guide which states that, "area source algorithms can be used to model low level or ground level releases with no plume rise." The guidance goes on to state that an initial vertical dimension can be included in the area source input card to account for "…mechanically generated emission sources, such as mobile sources. In these cases, the emissions may be turbulently mixed near the source by the process that is generating the emissions, and therefore occupy some initial depth."

All haul road releases were modeled according to the recommended area source configuration procedures outlined in the March 2, 2012 Environmental Protection Agency report entitled *Haul Road Workgroup Final Report Submission to EPA-OAQPS*.

The calculation of the top of the plume height was based upon an average truck height of three meters where:

Top of plume height = 1.7 * Vehicle Height = 1.7 * 3 = 5.1 meters

The top of the plume height is used to determine the release height of the haul road emissions and the initial vertical dispersion due to the movement of the plume upon release.

Release height = 0.5 * Top of the plume = 0.5 * 5.1 = 2.55 meters
Initial vertical dimension = Top of plume / 2.15 = 5.1 / 2.15 = 2.37 meters

It is important to note that due to model limitations, the AERMOD dispersion model does not allow the user to characterize haul roads as a single emission source unless they are a straight haul road. Haul roads that curve must be modeled as several small sources. In order to determine the emission rate for each haul road, one must combine the individual emission rates. The emission rate contained in the model input file is divided by the area of the source.

BRRF and Doe Run are subject to Resource Conservation and Recovery Act obligations related to lead-bearing materials handling and transport. Some of these obligations include truck washing stations as well as truck load covering procedures. As a result of these practices, the emissions from these trucks on the haul roads are characterized by the re-entrainment of settled lead-bearing fugitive dust and not the release of lead-bearing particles from truck's cargo.

4.2.D. Building Downwash

Building dimensions are necessary to calculate downwash and channeling effects in the dispersion model. As previously mentioned, building downwash was calculated using BPIPPRM. The information needed to execute BPIPPRM includes the heights and locations of structures, which may contribute to building downwash, and the stack locations in relation to these structures.

In order to determine if building downwash calculations were applied correctly, the coordinates of each building corner are needed. The height, length, and width of each building, as well as the number and location of 'tiers' or levels, were included for all buildings near point or volume sources. As part of this SIP process, BRRF provided the department with the appropriate information. BPIPPRM uses this building information to calculate downwash effects for each stack. The area surrounding the stack is divided into thirty-six arcs of ten degrees each and the downwash parameters for that arc are used by AERMOD in determining downwash effects.

4.2.E. Data Points Evaluation

Complex industrial facilities such as BRRF do not always operate as designed. Many factors, such as equipment malfunction, can interrupt the smelting process and cause unpredictable releases of pollutants. For a model performance evaluation, these episodes are nearly impossible to model due to the changes in emissions or operating parameters during the episode.

For the designated model study period, there were seven dates where the actual monitored values greatly exceeded the modeled values (see Table 2). Operating conditions at the plant were investigated for these dates and, for those that coincided with an upset condition at BRRF, the values were removed from the model performance. One value (monitored value of 2.136 $\mu g/m^3$ and modeled value of 0.3231 $\mu g/m^3$) recorded at the Buick South monitor on February 25, 2010, could not be connected to an upset condition and was retained.

Table 2 – Excluded Data Points

Date (Site of high value)	Monitored Value $\mu g/m^3$	Modeled Value $\mu g/m^3$	Upset Condition
8/7/09 (North)	1.389	0.1720	blower shutdown
8/29/09 (South)	2.431	0.7616	blower shutdown
3/9/10 (North)	2.933	0.1618	SSM
4/2/10 (North)	3.512	0.1632	SSM / hydraulic fire in reverberatory furnace
8/24/10 (South)	2.598	0.3679	matte explosions in BF slag launder
9/23/10 (North)	2.459	0.3685	draft in reverberatory furnace

4.2.F. Good Engineering Practice Stack Height

The Clean Air Act states that a stack should be high enough to ensure that its emissions do not result in excessive ground level pollutant concentrations in the area surrounding the stack due to downwash effects caused by the source itself, nearby structures, or complex terrain. It also states that the stack shall not exceed two and one-half times the height of the obstructing source unless a demonstration can be made that this is necessary. According to 40 CFR 51,l(ii), good engineering practice (GEP) stack height is the greater of 65 meters (measured from base of the stack) or the height of the nearby structure (measured from base of stack) plus 1.5 times the lesser dimension of the nearby structure. None of the stacks contained within the model input files exceed 65 meters and therefore all of the proposed stacks met GEP stack height requirements.

4.3. BACKGROUND CONCENTRATION

Per 40 CFR 51, Appendix W, background concentrations must be considered when determining NAAQS compliance. Background concentrations include impacts attributable to natural sources, nearby sources (excluding the dominant source(s)), and unidentified sources. This calculated background concentration includes all sources of lead not already included in the model run script. Emissions from the four point source facilities listed in Table 1 of this SIP are included in the model run script and, as such, are not included in the calculated background concentration. However, the assumption that emissions from the plant do not at all contribute to background concentrations is not entirely correct. The background concentration is designed to be comprised of distant sources of lead, which may have originally derived from the plant, or naturally occurring lead in the atmosphere.

In general, the background value is calculated by averaging the monitored concentrations at the selected monitor site outside the area of immediate dominant source facilities' impact and on days when the predominant wind direction was not blowing from the same dominant sources to the monitor site. Specifically, the Air Program began with all monitored days and identified days with no measured one-hour average wind direction from the smelter. This is accomplished by excluding days when any one-hour wind average is from the facilities to the monitor(s). We examined each monitor in conjunction with an acceptable wind fan. Then we averaged the concentrations on days with no predominant winds from the facility. The resultant concentration from all the monitors in the evaluation is the background concentration for the area. Figure 4 represents the monitoring site chosen (Oates monitor), the facility boundaries, and the wind directions excluded from the calculation. The days selected for the calculation match the model study period.

The Oates monitor site (located 4.9 miles south/southeast of BRRF) was selected over the North, Northeast, and South monitor sites. The North and Northeast sites were under the influence of either BRRF or the Casteel Mine from every wind direction. The South site was under the influence of the BRRF or the Buick Mine & Mill from every wind direction. In summary, the monitored background value is based on data obtained from the closest air quality monitor (Oates) only when nearby facilities and wind direction do not unduly influence monitored values.

The limits on wind direction were selected to eliminate any influence from known sources of lead, i.e. sources accounted for in the model. The eastern arm was selected at 90 degrees to

prevent influence from the area sources representing the tailings piles. The western arm was selected at 270 degrees to prevent influence from the area sources representing Highway KK. A more narrow selection of wind directions results in too few data points. This wider selection is also more conservative from an attainment modeling standpoint.

The average monitored ambient air concentration on these selected days was 0.0197 $\mu g/m^3$ with a standard deviation of 0.0164 $\mu g/m^3$.

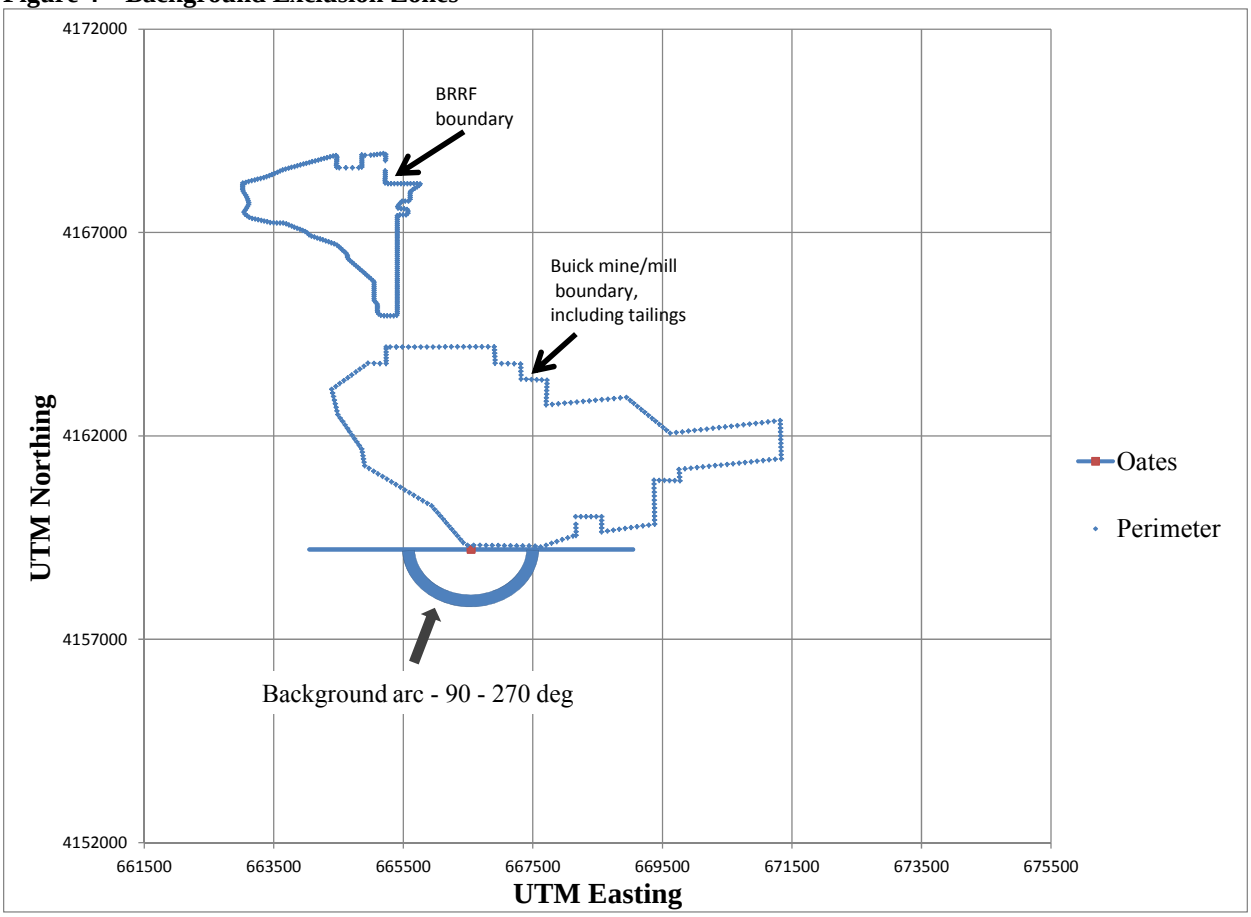
Table 3 summarizes the wind direction and sampling information from the selected site as well as the average concentration. Based on this data, a background value of 0.020 $\mu g/m^3$ was used for the attainment demonstration. This calculated value may be less than that calculated for previous SIP revisions because less settled or accumulated lead is available for re-entrainment with the recent trend toward decreases in lead-air concentrations and this lead becomes dispersed, fixated, immobilized or removed from the area. Additionally, along with the new standard and new analytical methods came a new lowered method detection limit (MDL) in the lead air quality sample testing protocol. The MDL for the 2008 standard is defined to be one sigma in repeated measurements on blank filters, and is required to be 5 percent of the standard or better (lower). With a lowered detection limit, one would expect to see lowered concentration values available for averaging thus creating a somewhat diminished but more representative composite background value.

Table 3 – Background Calculation

Monitor	Wind Directions Considered (Not Impacted by the Facilities)	Sample Frequency	Total No. of Valid 24-hour Conc.	Valid Days Not Impacted by the Facility	Avg. Conc. For Valid Days Not Impacted by the Facility ($\mu g/m^3$)
Oates	90°-270°	6-day	57	9	0.020

Nonetheless, the estimation of background is conservative and provides us with a margin of safety when combined with the modeled maximum receptor concentration. The background value is conservative or overestimated because of the potential for some double-accounting: the background inclusion zones are very generous and could also include non-predominant periods of winds from the direction of facility or modeled sources. In other words, the chosen hourly wind averages do not eliminate all wind directions from the plant to the monitor.

Figure 4 – Background Exclusion Zones



4.4. EVALUATION OF BASE YEAR MODEL RUN

Before results from modeling can be used to predict future ambient air concentrations, the reliability and performance of the model command code, or run script, must be tested. This is known as the model performance evaluation (see Appendix G). The model is run with this data and the results compared to actual monitoring data from the same time period covered by the meteorological data.

A statistical analysis is performed to assess the correlation between the model output data and actual monitoring data, which is also known as a model performance evaluation. AERMOD outputs a concentration for each day of the sample period for each receptor. Those days that correspond to a valid monitoring date are selected for inclusion in the model performance evaluation data set. The result is two sets of values: monitored and modeled. The evaluation uses unpaired data points, meaning that all data points for the each of the two data sets are sorted from highest to lowest. The highest monitored value is paired with the highest modeled value, the second highest with the second highest, and so forth through the entire data sets. This method loses temporal correlation, but maintains maximum concentration correlation, especially over a long averaging period, which is the critical need for an attainment demonstration. Temporal correlation is not as significant for lead specifically because of the longer averaging

time requirements (three-months) than it is for other pollutants with shorter averaging times such as ozone (8 hours) or fine particulate matter (24 hours).

The sorted pairs are then plotted and the coefficient of correlation, R^2, is calculated. The coefficient of correlation measures the distance from each point to the data set's best-fit line. The goal is to obtain a close correlation between the model results and the actual monitored values, as determined by the coefficient of determination, or R^2 value. This coefficient measures the variation between data sets and ranges from 0.1 to 1.00, with a value of 1.00 indicating each data pair have the same value. In most cases, including this model performance evaluation, an R^2 value of 0.90 or higher indicates that the modeled values correlate well with the monitored values. This high R^2 value shows that the base year modeling inputs will provide a reliable predictive tool for modeling the future year emissions when all control measures are considered.

In addition to the statistical analysis, input adjustments were analyzed to improve model inputs and to better represent actual process operations. Potential adjustments to the run script typically include further investigation of emission factors and stack test data, searches for emission points that were missed or could be better represented, and verification of the accounting and contribution of emission sources.

As described in Appendix G, the R^2 for the North site is 0.8551, for the South site is 0.9449, and for the limited data set for the Oates site is 0.9661. These values validate the results of the model performance evaluation for the Buick/Viburnum Trend nonattainment area. This validation provides confidence that all base case sources of lead emissions are accounted for and therefore the model is sufficiently reliable to predict that the control measures modeled in the attainment demonstration (see Section 5) will result in monitored values below the 2008 Lead NAAQS.

5. CONTROL STRATEGY

The control strategy is the aggregation of all enforceable control measures that result in the decrease in lead emissions used in the attainment demonstration. These strategies range from federal technology standards that apply nationwide to individual projects agreed to by regulators and facilities. In addition to construction permits held by BRRF for secondary lead smelting and resource recovery at the lead recycling facility, as well as permits for the mining and milling operations, the department has made control measures and contingency measures enforceable through consent orders, decrees or judgments. These binding legal documents were adopted as part of the 2000 and the 2002 Revision of the Buick Redesignation and Maintenance Plan for Lead (See 1.1.C *Regulatory History* of this document). Similarly, BRRF is currently operating the facility pursuant to the SIP-approved State regulation 10 CSR 10-6.120 *Restriction of Lead From Specific Lead Smelter-Refinery Installations.*

Pursuant to Section 172(c) of the CAAA, control measures must be permanent and federally enforceable to be used in a SIP to demonstrate attainment. Federal enforceability is demonstrated via a federally approved SIP which may include a SIP-approved rule, construction permit and/or legally binding agreement such as a consent judgment.

The department, in conjunction with BRRF and their contractor, evaluated available control measures and work practices for the reduction of lead emissions; and identified control technologies and control measure recommendations specific to the sources of lead emissions at the four facilities within the nonattainment area. Along with this proposed SIP revision, the department, BRRF, and Doe Run together developed the 2013 Consent Judgment as a means to establish enforceable control measures, operational work practices, and contingency measures to reduce lead emissions from point, area, and fugitive lead dust sources in support of achieving attainment of the 2008 lead NAAQS as soon as practicable and to satisfy reasonably available control measures criteria.

5.1. CONSENT JUDGMENT MEASURES

The new control measures needed for this proposed SIP revision to demonstrate attainment for the 2008 lead NAAQS in the Buick/Viburnum Trend nonattainment area will be made enforceable by the 2013 Consent Judgment (see Appendix M).

The 2013 Consent Judgment includes required control measures and the associated implementation schedule as well as contingency measures to be triggered in the event of an exceedance of the 2008 lead NAAQS after implementation of the required control projects.

Required control measures for attainment are included in the 2013 Consent Judgment per the "Projects Required" section. Following is a list of required BRRF limitations and control measures as required in the 2013 Consent Judgment, along with estimated emission reductions.

A. By February 4, 2013, at the south refinery, install a baghouse with a minimum design of 60,000 actual cubic feet per minute (acfm) to improve refinery ventilation. This measure is part of the overall improvement in building ventilation required by the National Emissions Standards for Secondary Lead Smelting (NESHAP 40 CFR 63 Subpart X), hereafter referenced as the 'Secondary Lead Smelting MACT', revised as of January 5, 2012. This project is expected to reduce fugitive emissions by 98% - see Section 6.2 of this document. A small decrease in emissions from the process is also predicted due to the addition of the new baghouse.
B. By February 4, 2013, relocate the baghouse with a minimum design of 38,000 acfm from the sweat furnace to the blast furnace storage feed building. This measure is part of the overall improvements required by the Secondary Lead Smelting MACT. The result is an approximately 80% reduction in emissions from these previously uncontrolled sources by totally enclosing blast furnace feed material storage and handling. Emissions from the main stack are slightly increased.
C. By February 4, 2013, at the north refinery, remove the rotary melter and connect its baghouse to the north refinery process ducts to improve refinery ventilation. This measure decreases emissions by removing an entire process and increasing efficiency at the north refinery. The result is a roughly 95% reduction in emissions compared to the previous process.
D. By February 4, 2013, install a truck tire wash system for outbound traffic. This wash system will decrease lead emissions on two segments of haul roads by 95%.
E. By February 4, 2013, install a pulse-jet baghouse with a minimum design of 75,000 acfm to improve reverberatory furnace process ventilation. This measure is part of

the overall improvements required to meet the Secondary Lead Smelting MACT. It reduces reverberatory fugitives by 98% and reverberatory stack emissions by approximately 45%. These amounts include reductions from paragraph G below.

F. By February 4, 2013, after the 75,000 acfm (minimum) designed baghouse, install a dry lime SO_2 scrubber (reaction chamber followed by an associated minimum 65,000 acfm design baghouse) to further process exit gas stream before routing reverberatory furnace process gases to the main stack. This measure is not strictly a lead emission control measure, but the baghouses remove particulates, including lead, to protect the SO_2 scrubber.

G. Enclose the refinery, blast furnace, reverberatory furnace, and dross plant buildings and install a baghouse with a minimum design of 300,000 acfm to achieve negative pressure consistent with the Secondary Lead Smelting MACT (40 CFR 63 Subpart X) revised as of January 5, 2012. Install a new stack with a minimum height of 65 meters for this exhaust stream. Installation of the projects in paragraph 6.G. must be completed and operation commenced by the earlier of: (1) the date the facility must comply with the total enclosure standards in the Secondary Lead Smelting MACT, revised as of January 5, 2012, and any subsequent revision; or (2) January 5, 2015. These improvements are part of the 98% reduction in fugitives described in Section 6.2. The height of the new stack increases dispersion.

H. By December 31, 2013, install a 40 foot extension on breaking separation and neutralization scrubber (formerly breaking desulfurization and crystallization) stack. This measure is part of planned SO_2 controls. The new stack height provides a complementary benefit to lead dispersion.

I. By December 31, 2013, construct an approximately 30,000 square foot building extension to the existing blast furnace feed storage building. This measure is the final phase of the blast furnace storage control begun in paragraph A. Reductions from this measure are included in paragraph A.

J. By October 31, 2014, improve process hood capture efficiency by installing batwing style ventilation covers, or covers with equivalent or better capture efficiency, on all refinery kettles.

K. By December 31, 2013, install quick closing powered doors at the door located at the north refinery warehouse, the door located at the south refinery warehouse, and the door at the reverberatory feed storage equipment entrance to minimize fugitive dust emissions, to improve fugitive emission capture, and to increase building negative pressure. After installation, these doors will be closed except for necessary service traffic or equipment sorties within these buildings, during periods not representative of normal operations, during periods of breakdown or maintenance of the doors, or when necessary for worker health and safety. This measure contributes to the 98% reduction in fugitives described in Section 6.2.

Table 4 – Stack Emission Limits

Stack Name	Stack ID	Emission Limitation
Main Stack	EP 8	0.7 lb/hour
New Blast Furnace Process and Building Ventilation Baghouse	EP 100	0.7 lb/hour
Drum Shredder Baghouse	EP 31C	0.025 lb/hour
Reverberatory Furnace Slag Tap Ventilation Baghouse	EP 71	0.08 lb/hour
North Refinery Baghouse	EP 72	0.006 lb/hour

Following is a list of required Buick Mine and Mill, and Casteel Mine, limitations and control measures, as well as associated implementation dates as required in the 2013 Consent Judgment.

a. By June 1, 2013, modify the Buick Mine updraft vent 1 at UTM coordinates 665597 4165248, vent 2 at UTM 665867 4162535, vent 3 at UTM 666234 4160599, and vent 6 at UTM 665627 4165742 to achieve a vertical release, defined as 45 degrees from horizontal or greater. This measure requires that currently existing and new equipment be maintained at these vents to improve dispersion.
b. By June 1, 2013, preclude public access at Casteel Mine at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP. This measure contributes by expanding and/or maintaining preclusion of public access at the Casteel Mine.
c. By June 1, 2013, preclude public access at Buick Mine Vents 1, 2, 3, & 6 at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP. This measure contributes by expanding and/or maintaining preclusion of public access at the Buick Mine Vents.
d. By June 1, 2013, preclude public access at Buick Mine and Mill at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP. This measure contributes by expanding and/or maintaining preclusion of public access at the Buick Mine and Mill.

In addition to the control strategies required per the 2013 Consent Judgment, the 2011 Consent Decree previously mentioned in Section 1.1.C. of this document requires installation and operation of an enclosure/ventilation system at the Buick Mine and Mill facility by no later than September 1, 2013. Project information submitted to the department states this new enclosure will include existing material storage areas, the interior lead concentrate conveyance system, lead filtering system and associated equipment, lead concentrate storage stockpile and the truck loading area including truck scale. The enclosure shall have limited openings to allow for proper ventilation as well as access and egress for people and vehicles. A cartridge filter with polytetrafluoroethylene membrane elements shall be utilized for building ventilation.

Negative pressure (minimum 0.02 mm Hg) shall be maintained in the enclosure at all times. This combined project reduces emissions by 95% through enclosing and ventilation of said operations. The Buick Mine and Mill also developed a baghouse SOP to minimize lead emissions from operation and maintenance of baghouses at the facility.

In addition to the process/emissions limitations and control strategies required per the 2013 Consent Judgment and the 2011 Consent Decree, BRRF developed a baghouse SOP and a WPM (both documents require Air Program approval [see Appendix J for Air Program approval letter)] that will also minimize lead emissions from operation and maintenance of all baghouses and to minimize fugitive emissions, respectively. In addition to other requirements, the WPM includes its own appendices, watering plan provisions and a fugitive dust plan to demonstrate compliance with 10 CSR 10-6.120 and 40 CFR 63 Subpart X. The baghouse SOPs [for BRRF and the Buick Mine and Mill] and the WPM with appendices [for BRRF] are included as part of this attainment SIP document in Appendix J.

The department continues to work with BRRF to address requirements to demonstrate future compliance with the January 5, 2012 (77 FR 556) final MACT for Secondary Lead Smelting (40 CFR 63 Subpart X). While most fugitive emission limits and work practices required by the MACT are included in controls required for this SIP revision, there are emission averaging provisions and other MACT requirements that are not explicitly repeated in this SIP, the 2013 Consent Judgment and Appendices. BRRF has been advised that only the limitations and requirements necessary to demonstrate NAAQS compliance are included herein. MACT Subpart X compliance obligations remain a BRRF obligation that must be addressed as required.

While the 2013 Consent Judgment includes required limitations and control measures, as well as contingency measures, compliance obligations explicitly described in detail elsewhere are not, for the most part, repeated as part of this consent judgment. As such, the 2013 Consent Judgment strives to identify unique requirements not already iterated elsewhere (e.g., federal or state regulations or other provisions applicable to the facilities operating in the lead nonattainment area). Compliance obligations listed elsewhere remain in force, as applicable.

5.2. PERMIT MEASURES

On June 8, 2011, BRRF was issued construction permit number 062011-004. This construction permit authorized the installation of a new afterburner, baghouse, dry scrubber and dry scrubber baghouse to improve control of process gases from the existing reverberatory furnace. This permit also authorized the installation of a new alternative emergency bypass system.

As part of this SIP revision, the emission limitations and required installation, operation and maintenance of additional pollution control equipment as part of the 2013 Consent Judgment will be federally enforceable once approved by EPA. The department's Air Program Planning and Permit Sections will continue communication with BRRF to assess whether any consent judgment provision(s) also trigger Air Permitting requirements and proceed accordingly.

6. ATTAINMENT DEMONSTRATION

The model successfully demonstrates attainment of the 2008 lead NAAQS based on implementation of required control measures described in Section 5. Emission rate reductions associated with each of the required limitations and control measures is quantified in Appendix H. Each of the required limitations and control measures (existing, modified and new) are required to reduce emission rates sufficiently to demonstrate NAAQS attainment. The emission rate reductions are expected to result in monitored values of 0.148 $\mu g/m^3$ or less.

6.1. CONTROLLED EMISSION RATES

The differences between the attainment year and base year emissions rates are based on the changes to the operations as described in Section 5.1. Required limitations and control measures include but are not limited to - stack limits, total enclosures, and maintenance of new and existing fencelines. In addition, fugitive emissions that previously escaped through the roof monitors will now be drawn through the main baghouse and exhausted out the main stack, which will increase dispersion and lower downwind ambient air concentrations. The implementation and maintenance of the required control measures demonstrate lead NAAQS attainment by reducing current emission rates from BRRF, the Casteel Mine, and the Buick Mine and Mill.

Appendix H contains a detailed table with post-control emission rates, control efficiency & description, and source of emission factors used to calculate emission rates.

6.2. CAPTURE EFFICIENCY DISCUSSION

On January 5, 2012, EPA revised the National Emission Standard for Hazardous Air Pollutants (NESHAP) from Secondary Lead Smelting [77 FR 555]. This standard, also known as the Secondary Lead Smelting MACT, includes new requirements for Secondary Lead Smelting facilities, such as BRRF, to take effect for existing affected facilities on January 6, 2014. These new requirements, which can be also be used as part of the overall control strategy to demonstrate attainment of the 2008 lead NAAQS in this SIP, include, among other things, totally enclosing and ventilating lead process buildings to negative pressure, enclosing the handling and storage of all lead-bearing material, and housekeeping procedures. The original MACT standard, promulgated in 1995, allowed the option of either ventilating the lead process buildings to negative pressure or operating process hood ventilation systems known as local exhaust ventilation (LEV). When BRRF became a secondary smelter, it chose to operate LEVs.

Utilizing the new MACT requirement for negative pressure in the lead process buildings and recognizing the significance of fugitive emissions from Secondary Lead Smelting operations, an extensive evaluation was conducted to establish the most representative capture efficiency with respect to building fugitive emissions to be used in SIP modeling. Air Program staff worked closely with both BRRF and EPA staff on this technical evaluation. As a result, EPA released guidance to address this issue in its 2008 Lead (Pb) National Ambient Air Quality Standards Implementation Questions and Answers found in the SIP Toolkit at http://www.epa.gov/airquality/lead/kitrules.html. EPA states that–

> For modeling of secondary lead smelters, capture efficiency is needed for modeling of total enclosures. At this time, 100% capture efficiency is not considered technically

> achievable in common practice. At this time, states that impose total enclosure controls in a manner consistent with the NESHAP…, can assume capture efficiency for total enclosures no greater than 95%. A greater level of capture efficiency (up to 99%) may be demonstrated on a case-by-case basis taking into account site-specific factors and additional design or housekeeping provisions that go beyond what is assumed in the NESHAP.

In conjunction with the timing of both the new MACT requirements and the SIP control measures, BRRF evaluated its current and future building ventilation designs and capacity. Due to the increased stringency of the NAAQS, establishing appropriate levels of lead-bearing particle / fugitive emissions capture proved to be the most significant control measure needed to demonstrate attainment of the 2008 lead NAAQS. Pursuant to the guidance above, Air Program staff initiated with EPA a case review of the BRRF site-specific factors that go beyond the minimum requirements of the MACT. To demonstrate that a building capture efficiency of greater than 95% is reasonable and appropriate based on levels of control considerably greater than MACT minimums, several technical justification and correspondence letters were prepared by engineering staff of the Air Program, BRRF's ventilation design contractor and BRRF's modeling representative. EPA staff also reviewed and commented on these documents. A detailed analysis of this issue via copies of these technical justification correspondences may be found in Appendix K.

During the correspondence exchange, EPA made it clear the overarching consideration in justifying an increased value for building capture efficiency is excess building negative pressure differential. The minimum negative pressure to demonstrate compliance with the newly- revised MACT is 0.007 inches of water column (in. w.c.). BRRF's independent ventilation design contractor (IES Engineers) designed the post-control ventilation system at the contiguous lead process buildings to achieve an average differential pressure in excess of 0.044 in. w.c. under normal conditions after the building is sealed using a total proposed design baghouse-filtered ventilation flow rate of approximately 700,000 actual cubic feet per minute (acfm). This design negative pressure differential is about 6.3 times higher than the Secondary Lead Smelting MACT requirement. Also above and beyond the MACT requirements, BRRF has agreed in this SIP to maintain operation of its LEVs. In fact, the 2013 Consent Judgment outlines a control project in which certain process hoods are being rebuilt to improve their capture efficiency. Any lead particles captured at the source by the hoods are no longer available to be emitted from the building as fugitive emissions, strengthening the buildings' negative pressure control strategy. A very conservative 80% capture efficiency for the process hoods was used as highlighted in EPA's response letter in Appendix K.

EPA's Method 204 addresses potential building capture efficiencies of up to 100% for volatile organic compounds if certain criteria are met. As stated above, EPA does not find 100% capture feasible for lead partly because "lead-bearing particles (or any particulate matter) exhibit the characteristics of settling and adhering to surfaces, facilitating their migration and ability to escape in a way for which Method 204 does not account." To address this characteristic and to further justify an improved building capture efficiency value, BRRF has agreed to dust control measures in the Work Practices Manual (WPM) as part of the SIP and to satisfy the baghouse Standard Operating Procedures (SOP) plan requirements of the new MACT. Such measures include a watering scheme in the blast furnace building to mitigate the accumulation of lead dust and to prevent its migration.

Other building fugitive controls in excess of the MACT requirements to which BRRF agreed as part of this SIP include installing & operating quick-closing powered overhead doors at certain service doorways that are necessary to be intermittently but infrequently opened during normal operations, and reducing the natural draft opening (NDO) surface area to a fraction of that required by EPA's guidance. Specifically, Criterion 5.3 of Method 204 states that the total area of all NDOs shall not exceed 5% of the enclosure's four walls, floor and ceiling. The letter in Appendix K from BRRF's ventilation design contractor (IES Engineers) notes that the surface area of the NDO's under typical conditions is estimated to be 964 square feet (ft^2). A separate correspondence from BRRF confirms IES' estimate of the surface area of the enclosed buildings to be 185,000 ft^2. Therefore, the NDO total area is approximately 0.5% of the enclosure's surface area. This exceeds the Criterion 5.3 requirement by a whole order of magnitude.

On September 17, 2012, based on some of these additional control measures, EPA replied to the original technical justification thusly:

> *"In summary, based on the technical support letter you have provided, the EPA believes that there is sufficient technical justification for approval of a 99% building fugitive capture efficiency for use in the attainment SIP modeling for sources that are controlled within the buildings by LEVs."*

As a result of this finding, BRRF and Doe Run's modeling contractor, Shell Engineering, and Air Program staff estimated the uncontrolled lead emissions from sources with LEV and the uncontrolled emissions for sources without LEV. The vast majority of lead process sources at the facility have LEV. By assigning a capture efficiency of 99% to those sources with LEV and 95% to those without, a composite capture efficiency of 98.72% resulted. The Air Program concurs with these findings.

In the interest of using conservative assumptions and providing for a margin of safety, a post-control building fugitive capture efficiency of 98.0% is used in the attainment demonstration model for the following contiguous lead process buildings: blast furnace, reverberatory furnace, sweat furnace, casting area, and refinery.

6.3. ATTAINMENT YEAR RESULTS

In order to determine if the planned emission controls will result in attainment of the NAAQS, the modeled maximum rolling three-month average of 0.128 $\mu g/m^3$ is added to the calculated background concentration (discussed in Section 4.3) of 0.020 $\mu g/m^3$. The sum is the predicted maximum rolling three-month average. The required control measures described in Section 5, combined with the background concentration, are predicted to result in a total maximum three-month rolling average of 0.148 $\mu g/m^3$, which is below the new NAAQS.

Figure 5 shows the spatial distribution of predicted maximum three-month rolling average lead concentrations, including background, for the Buick/Viburnum Trend nonattainment area. Modeled receptors are represented by colored dots. The scale is set such that only red dots indicate predicted NAAQS violations. As shown in Figure 5, there are no red receptors, indicating that no ambient area (i.e. outside the fenced property boundary) will exceed the 2008 lead NAAQS. Figures 6 and 7 zoom-in on the fenceline receptors and corresponding predicted maximum three-month rolling average concentrations for lead along and near the modeled fencelines for both BRRF and the Buick Mine and Mill. The zoom view magnification of

Figures 6 and 7 more clearly depict the receptors' predicted maximum concentrations – all of which indicate attainment of the 2008 lead NAAQS along the modeled fencelines.

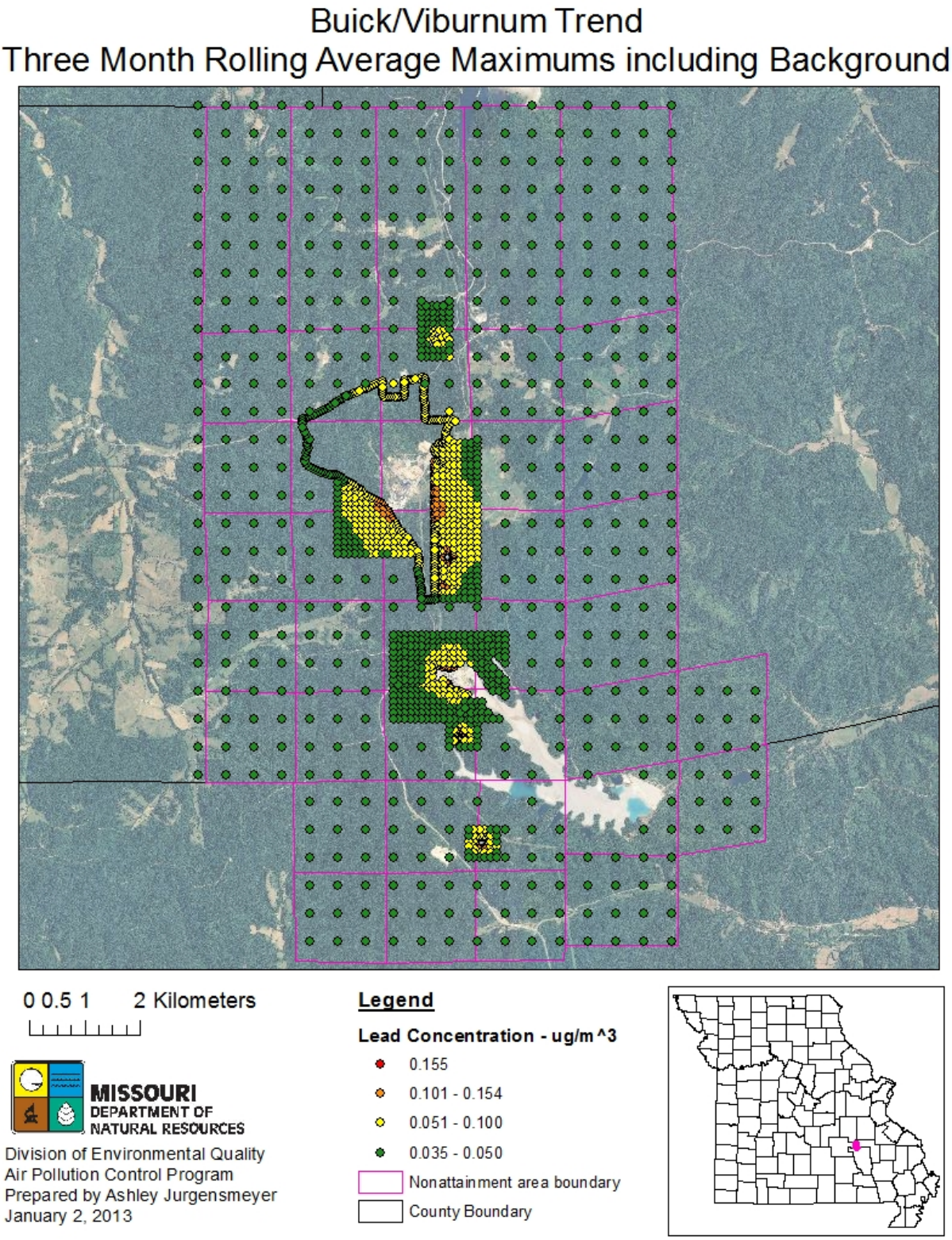
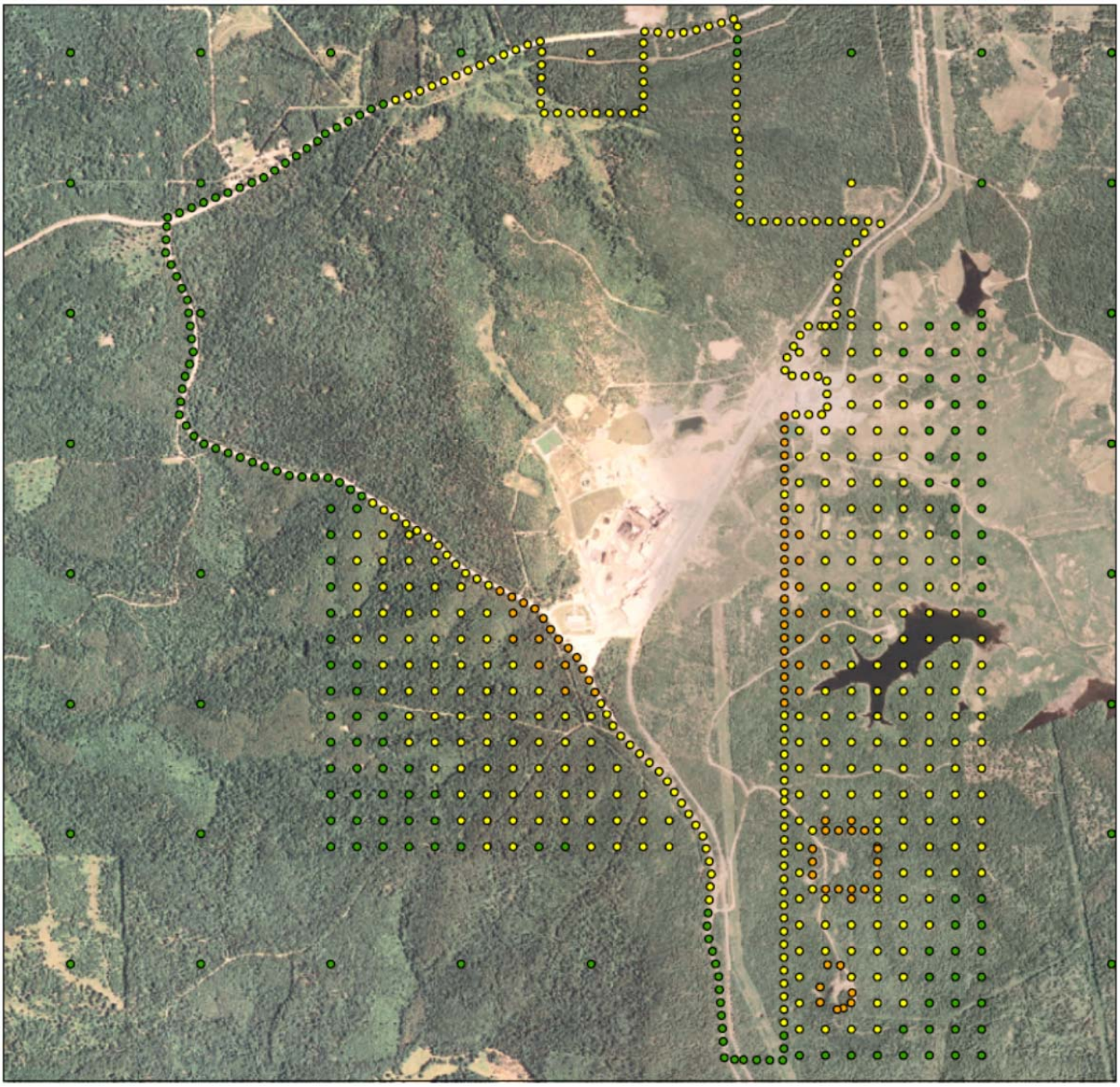


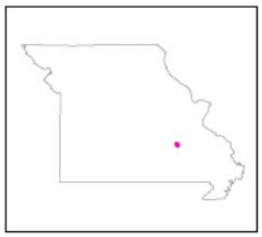
Figure 5 – Predicted Maximum Three-month Rolling Average Concentrations

Figure 6 – BRRF Fenceline Receptor Concentrations - - - Map with Zoom View of Predicted Maximum Three-month Rolling Average Concentrations (in Micrograms per Cubic Meter)



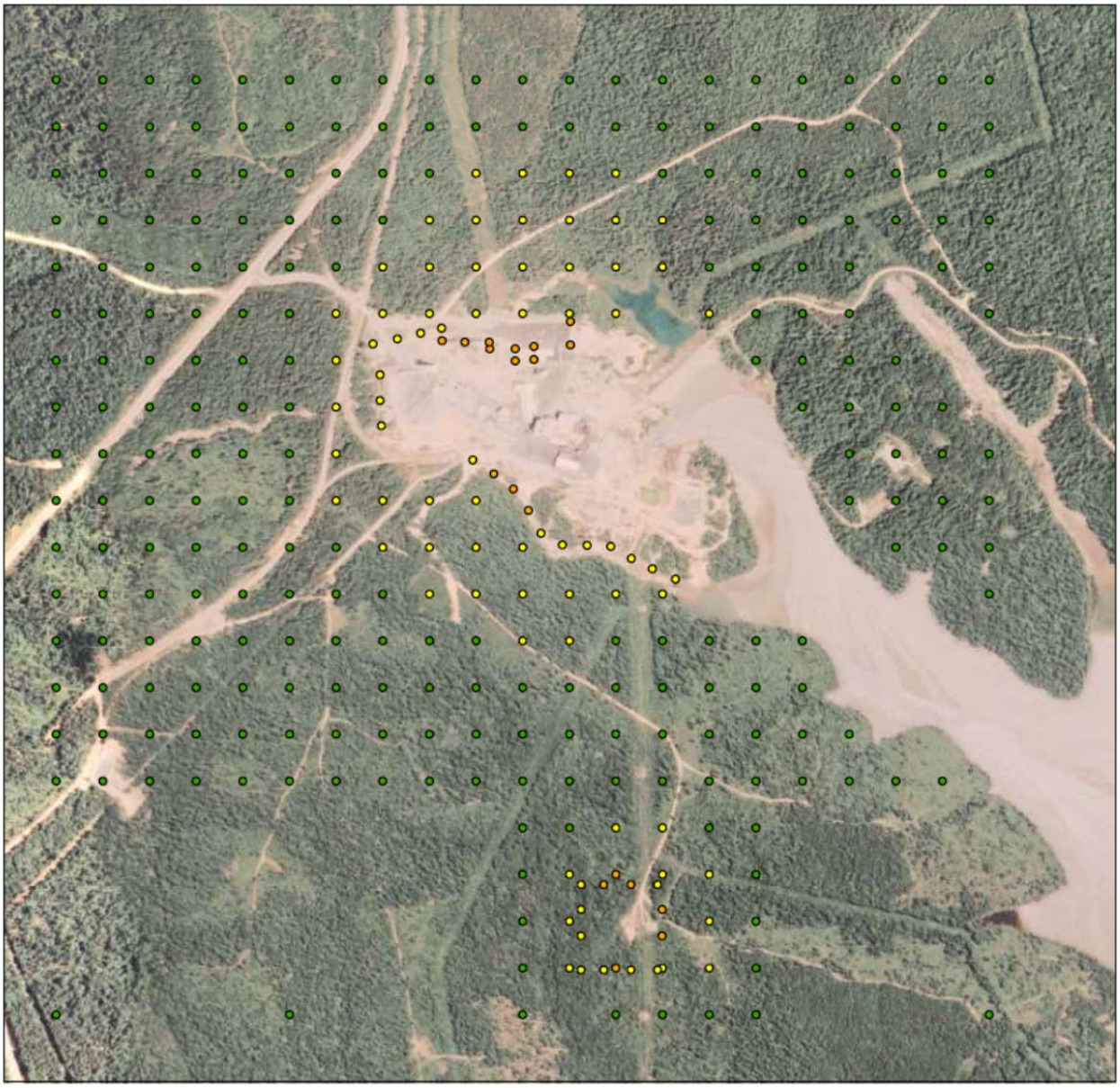
0 0.4 0.8 1.6
Kilometers

ug/m^3
- > 0.154
- 0.101 - 0.154
- 0.051 - 0.100
- 0.023 - 0.050



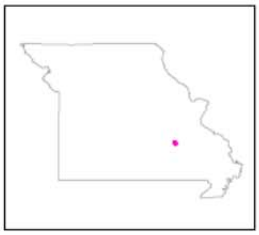
Missouri Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
Prepared by Bern Johnson 21 FEB 2013

Figure 7 – Doe Run Buick Mine and Mill Fenceline Receptor Concentrations - - - Map with Zoom View of Predicted Maximum Three-month Rolling Average Concentrations (in Micrograms per Cubic Meter)



0 0.2 0.4 0.8
Kilometers

ug/m^3
- > 0.154
- 0.101 - 0.154
- 0.051 - 0.100
- 0.023 - 0.050



Missouri Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
Prepared by Bern Johnson 21 FEB 2013

7. REASONABLY AVAILABLE CONTROL MEASURES AND REASONABLE FURTHER PROGRESS

Section 172(c)(1) requires SIP provisions to provide for implementation of Reasonably Available Control Measures (RACM) as expeditiously as possible (including such emissions reductions from existing sources obtained through implementation of Reasonably Available Control Technology (RACT) requirements) and provide for attainment of NAAQS. In March 2012, EPA issued guidance entitled "Implementation of the 2008 Lead National Ambient Air Quality Standards: Guide to Developing Reasonably Available Control Measures (RACM) for Controlling Lead Emissions" (hereafter referred to as RACM Guidance). RACM Guidance is located at http://www.epa.gov/oar/lead/pdfs/2012ImplementationGuide.pdf

Missouri performed a RACM analysis in compliance with the RACM Guidance. Missouri has determined that existing controls and practices, combined with additional controls and practices per the 2013 Consent Judgment, constitute RACM. The main control strategy involves compliance with the Secondary Lead Smelting MACT, which in general exceeds RACT/RACM levels of controls (i.e., "maximum" is a higher level of control than "reasonable"). Since the controls in the 2013 Consent Judgment go beyond MACT as detailed in Section 6.2 of this document, these measures unquestionably meet or exceed RACT/RACM. Some of the key measures and technologies required at BRRF, the Buick Mine and Mill, and the Casteel Mine include baghouses (fabric filters), local ventilation hoods, negative pressure total enclosures, paved roads with an accompanying watering plan, and enclosed storage piles.

As previously stated, the department has also promulgated state regulations controlling lead emissions to the atmosphere, some of which pertain to specific installations. The secondary lead smelter/refinery at BRRF is limited by 10 CSR 10-6.120(3)(B)2. BRRF is currently meeting this limit and additional required controls per Section 5 will further reduce emissions. Other regulations concerning work practices and record keeping will remain in force.

Section 172(c)(2) of the CAAA requires areas designated as nonattainment for criteria pollutants to include a demonstration of Reasonable Further Progress (RFP) in attainment demonstrations. RFP is defined in the CAAA as such annual incremental reductions in emissions of relevant air pollution as are required by part D, or may reasonably be required by the EPA for the purpose of ensuring attainment of the applicable NAAQS by the applicable attainment date.

As stated in the final lead NAAQS rule, RFP is satisfied by the strict adherence to an ambitious compliance schedule which is expected to periodically yield significant emissions reductions. The control measures included in the 2013 Consent Judgment have been modeled to demonstrate attainment of the 2008 lead NAAQS. As indicated in Section 5.1, BRRF has completed over half of the measures in the 2013 Consent Judgment [six out of the eleven projects]. These completed projects are already having a positive impact as evidenced by data collected from the monitors. As noted in Section 2.1, the Air Program's Buick Northeast ambient air monitoring site used for monitoring maximum airborne lead concentrations for NAAQS compliance has recently trended downward compared to historical levels. Figure 3 illustrates that this monitor is very close to meeting the NAAQS for the last four three-month rolling periods (back to April-June 2012), which demonstrates significant progress toward attainment of the lead NAAQS.

The remaining control measures will be implemented over the duration of the three years leading to demonstration of attainment with the 2008 lead NAAQS. Implementation of these control measures and resulting emissions reductions are required as expeditiously as practicable, but no later than the schedule outlined in the 2013 Consent Judgment. Also, contingency measure requirements are included in the 2013 Consent Judgment and are discussed below in Section 8.

8. CONTINGENCY MEASURES

Pursuant to Section 172 of the CAAA, a set of contingency measures has been prepared that will be implemented if required by a finding of the EPA Regional Administrator that a) the nonattainment area has failed to make RFP, b) there is a failure to implement a control strategy to attain the NAAQS by the statutory deadline, or c) monitoring shows that the nonattainment area has failed to attain the NAAQS by the statutory deadline. For this purpose, RFP is defined as completion of control projects established in Sections V.6 & V.7 and the implementation of required practices in Section V.8 of the 2013 Consent Judgment (Appendix M) as scheduled. The department shall notify BRRF and Doe Run of any exceedance of the NAAQS and to start implementation of any necessary contingency measures.

8.1. LIST OF CONTINGENCY MEASURES

Paragraphs 10.A of the 2013 Consent Judgment provide a list of the contingency measures as well as when and how each contingency measure will be triggered and the time frame for completion of each contingency measure. The contingency measures apply to BRRF and are as follows:

1. Ventilate reverberatory feed storage building with a minimum design to achieve negative pressure of at least 0.007 inches of water column within 9 months of notice from the department to complete the project;
2. Within a time frame to be determined by BRRF and the department, BRRF shall submit a work plan to the department for a study of best practices and best available technology for industrial smelter or metal manufacturing facilities with similar fugitive emissions control challenges. The work plan is subject to department approval. The work plan shall provide that the study be completed and delivered to the department within 180 days of approval of the work plan. The study will list all best practices and best available technologies identified and, for each technology or practice, will identify those technologies and/or practices that BRRF deems technically feasible and cost-effective for inclusion as Contingency Project BIii), quantify associated emissions reductions, and provide a time frame for implementation of each. Within 60 days of receipt of the study, the department will advise BRRF whether the projects and time lines proposed by BRRF are acceptable and if the department agrees that any of the identified technologies or practices are not technically feasible or cost-effective. Upon approval or after 60 days with no comment, those projects identified in the Study for completion and the deadlines therein shall become part of the 2013 Consent Judgment and fully enforceable thereunder as contingency measures and shall be completed pursuant to the deadlines;
3. Pave inbound truck parking lot within 18 months of notice from the department to complete the project; and

4. Within a time frame to be determined by BRRF and the department, BRRF shall submit an evaluation of the main baghouse capacity and will identify any projects that are deemed technically feasible and cost-effective to redistribute any excess capacity identified in the evaluation and for inclusion as contingency measures and provide an implementation time frame. Within 60 days of receipt of the evaluation, the department will advise BRRF whether the projects and time lines proposed by BRRF are acceptable. Upon approval or after 60 days with no comment, those projects identified by BRRF and the deadlines therein shall become part of the 2013 Consent Judgment and fully enforceable thereunder as contingency measures.

The contingency measures will be implemented on an as-needed basis in the order listed above. In other words, Project 1 would be put implemented after notification from the department of the first NAAQS exceedance that is monitored three months (or later) after implementation of the control measures in Paragraphs 6 and 7 of the 2013 Consent Judgment in the time frame set forth for those projects. Project 2 would be implemented after notification from the department of an exceedance that is monitored three months (or later) after implementation of Contingency Project 1 in the time frame set forth for that project. Project 3 would be implemented after notification from the department of an exceedance that is monitored three months (or later) after the implementation of Contingency Project 2 in the time frame set forth for that project. Finally, Project 4 would be implemented after notification from the department of an exceedance that is monitored three months (or later) after the implementation of Contingency Project 3 in the time frame set forth for that project. The 2013 Consent Judgment also includes a procedure for submitting additional new contingency measures after other contingency measures are implemented.

8.2. EXPECTED CONTINGENCY MEASURES EMISSION REDUCTIONS

The project team carefully reviewed the modeling and plant operations to determine what contingency controls could provide meaningful emission reductions in a timely manner. Because the current NAAQS is so stringent, contingencies with little quantifiable lead emission reductions are expected to have a positive impact on the monitors. Rough estimates of potential impacts of these contingency measures follow.

Contingency Project 1: Ventilate reverberatory feed storage building

A requirement of the updated Secondary Lead Smelting MACT (40 CFR 63 Subpart X) revised as of January 5, 2012 is to enclose all lead-bearing particle storage. This level of control of fugitive emissions from reverberatory furnace feed stock has already been accounted for in the attainment modeling. Adding filtered ventilation to this enclosed storage area will reduce the remaining lead-bearing particle fugitive dust emissions from this pile. An anticipated reduction of 90% or more is expected from this source with either the addition of a baghouse or the routing of this building's ventilation to an existing baghouse with excess capacity.

Contingency Project 2: Fugitive Dust Control Study

Contingency Project 2 involves a review of best practices and best available technologies at facilities with similar fugitive emissions control challenges. The purpose of Project 2 is to help pinpoint the source of the errant fugitive emissions leading to a NAAQS exceedance and implement the most effective remedy available in the future as close as possible to the time the exceedance event occurs. This project's concept is the same as a contingency project adopted as part of the EPA-approved 2007 SIP Revision at Herculaneum. Missouri asserts that a comprehensive evaluation of all known lead emissions sources has already been accomplished and that RACT (or greater) levels of controls have been implemented in the control measures section of this document. However, any ongoing exceedances of the NAAQS (triggering this contingency measure) would indicate that another evaluation of measures to reduce fugitive emissions would be needed. This contingency project will allow the most effective control strategies to be identified in light of the new conditions created after the implementation of all required controls as part of the future attainment demonstration.

Contingency Project 3: Pave inbound truck parking lot

The 10,915 m^2 parking lot is currently watered with a control efficiency of approximately 90%. Project 3 would involve paving this area, achieving a total overall control efficiency of approximately 95%. Based on a PM emissions factor of 0.4 lb-PM/m^2-yr (AP42, Section 13.2.5) and a particle lead content of 1000 parts per million (estimate), this results in an emission reduction of approximately 0.2183 pounds of lead per year.

Contingency Project 4: Evaluate ventilation capacity at main baghouse

The benefit from this project is very similar to that of the fugitive dust control Contingency Project 2 except that it is related to lead processes directly. It specifically investigates potential new ventilation controls to the lead process buildings ventilated by the main baghouse: Blast Furnace, Reverberatory Furnace and Refinery. This contingency project will allow the most practical and effective control strategies to be identified in light of the new conditions created after the implementation of all required controls at the buildings (ventilated by the Main Baghouse) as part of the future attainment demonstration. A modest increase to capture and control efficiency of lead-bearing particles from processes controlled by this baghouse is expected from this contingency.

9. PUBLIC PARTICIPATION

In accordance with Section 110(a)(2) of the CAA, the department is required to hold a public hearing prior to adoption of this SIP revision and the subsequent submittal to the EPA. The department will notify the public and other interested parties of an upcoming public hearing and comment period thirty (30) days prior to holding such hearing for this SIP revision as follows:

- Notice of availability of the attainment demonstration was posted on the Department of Natural Resources' Air Pollution Control Program website on January 4, 2013: http://www.dnr.mo.gov/env/apcp/stateplanrevisions.htm
- The public hearing to receive comments on this attainment demonstration was held on February 5, 2013, beginning at 9:00 am at the Bennett Springs Conference Room, 1730 East Elm St, Jefferson City, MO 65101.
- Notification for the public hearing and solicitation for public comment for the attainment demonstration was posted January 4, 2013, on the department website at

http://dnr.mo.gov/env/apcp/public-notices.htm Per standard procedure, notices are posted online at least 30 days prior to public hearing. The public comment period closed on February 13, 2013, seven (7) days after the public hearing.

Appendix L includes a copy of the notice of availability and a copy of the notification of public hearing and solicitation for public comment. The remaining public participation documents, including but not limited to the transcript from the public hearing and the response to comments, will be included in the SIP submittal package sent to EPA.

10. CONCLUSION

The department hereby asserts that the State has met its CAAA Section 191(a) obligation to submit a plan for the Buick / Viburnum Trend Lead Nonattainment Area SIP under the 2008 lead NAAQS via this SIP submittal. Furthermore, this document demonstrates attainment of the 2008 lead NAAQS though air dispersion modeling of an effective control strategy as well as complying with all requirements of Section 172(c) in regard to this standard for the Buick / Viburnum Trend Lead Nonattainment Area.

Compliant with 643.055 RSMo, the Missouri Air Conservation Commission has determined that this action is needed to have a U.S. Environmental Protection Agency approved State Implementation Plan.

The Revision to the State Implementation Plan – Attainment Demonstrations for the 2008 Lead National Ambient Air Quality Standard for the Buick/Viburnum Trend Lead Nonattainment Area is hereby adopted by the Missouri Air Conservation Commission this 28th of March, 2013.

_____, Chairman

_____, Vice Chairman

_____, Member

_____, Member

_____, Member

_____, Member

_____, Member

Original signed by Commissioners:

Jack C Baker

Mark Garnett

Gary J Pendergrass

David C. Zimmermann

APPENDIX A– PROCESS FLOW DIAGRAMS

The BRRF's secondary lead production operation is divided into three major areas: raw material preparations and pretreatment, smelting, and refining.

Raw Material Preparation and Pretreatment

The BRRF receives raw material in the form of large industrial batteries, small automotive batteries, and lead bearing materials contained in drums. Batteries are drained and crushed in the battery storage bunker. The battery storage bunker is designed with an acid resistant primary liner system, including an acid brick floor and a leak detection system. Electrolyte from the broken batteries drains to a sump and is subsequently pumped to one of the two stainless steel process tanks (68,000 or 72,000 gallon) for subsequent neutralization with lime or use for pH adjustment in various plant units. Separated lead scraps (lead plates, posts, and inter cell connectors) are collected and stored in the paste bunker building, for subsequent charging to the Reverb Furnace. The current hammer mill is vented to the Breaking Separation Neutralization (BSN) Scrubber to capture acid mist, PM_{10}, and lead. The water screen receives the crushed feed from the hammer mill and the feed material, paste ($PbSO_4$), is collected in a holding tank before being dewatered using a filter press.

The lead bearing scrap cable is sweated in two propane-fired Reclamation Furnaces to separate lead from metals with higher melting points and nonmetal contaminants. The separated lead is tapped from the Reclamation Furnaces for further processing in the refinery. The exhaust from the Reclamation Furnaces is first vented to afterburners to control volatile organic materials driven off in the furnace, and then to the main baghouse for PM10, and lead control.

Lead Smelting

The smelting process produces lead by smelting and separating the lead from metal and nonmetallic contaminants and by reducing oxides and carbonates to elemental lead. Smelting will be carried out in the Blast Furnace and reverberatory furnace.

Blast Furnace

The Blast Furnace processes hard or antimonial lead. Pretreated scrap metal, rerun slag, scrap iron, coke, recycled dross, flue dust, silica, reverberatory furnace slag and limestone are used as charge materials to the furnace. The raw materials are fed through a series of conveyors and layered in the top of the Blast Furnace with coke. As the material slowly moves through the furnace, the material becomes fluid as the coke burns and melts the charge. In the process, the lead oxide is reduced to elemental lead, and the limestone and iron form a slag by-product. Fugitive and process emissions from the Blast Furnace are controlled by a baghouse.

The molten lead and slag are transferred to a settler that separates the two components. The lead is tapped into a transfer pot and is further processed in the refinery. The slag is water granulated, analyzed and properly managed according to the analysis.

The exhaust from the Blast Furnace is transferred through a cooling chamber to the main baghouse for particulate matter control. The dust captured in the main baghouse is normally screw conveyed to the Reverberatory Furnace feed system where the dust is blended into the feed for the Reverberatory Furnace.

Reverberatory Furnace

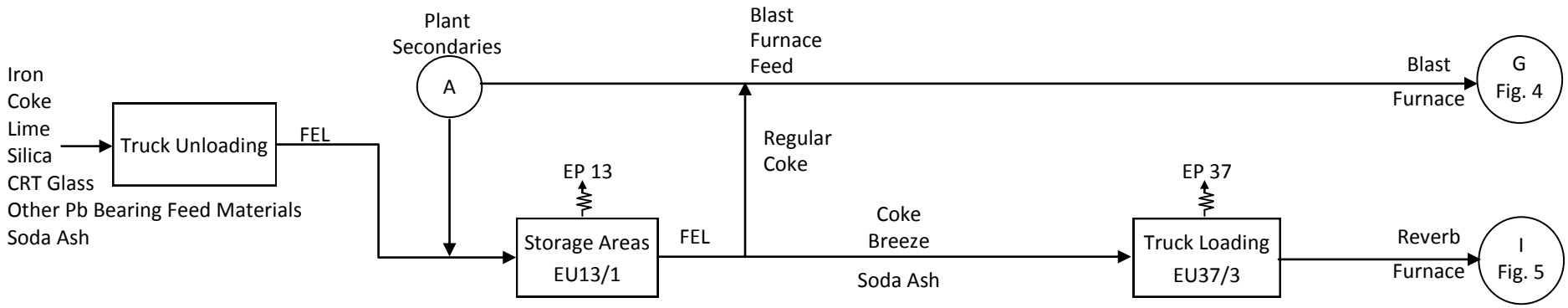
The Reverberatory Furnace produces soft lead. Soft lead is a product with low antimony content and is typically produced from the battery paste processed in the BSN building. The battery paste is transferred from the paste storage building and continuously fed to the Reverberatory Furnace through screw feeders.

The Reverberatory Furnace has five burners rated at 10,000,000 BTU/hr each. The fuel source for the furnace is propane, liquid oxygen, and a small amount of coke breeze. Gases exit the furnace at 2300-2400°F and are oxidized by the introduction of ambient air that acts as an afterburner. The gases then drop vertically into a brick lined sonic cooling chamber where they are cooled to 800-1299°F. Next, the gases go through a baghouse for metal and particulate removal and then to a dry lime flue gas desulfurization scrubber. The scrubber introduces hydrated lime ($Ca(OH)_2$) and water to react with sulfur dioxide (SO_2) in the gas stream to produce gypsum ($CaSO_4 \bullet 2\ H_2O$). After lime and water are introduced the air goes through a polishing baghouse that collects the gypsum, removes SO_2, and removes particulates before the gas stream is directed out the main stack.

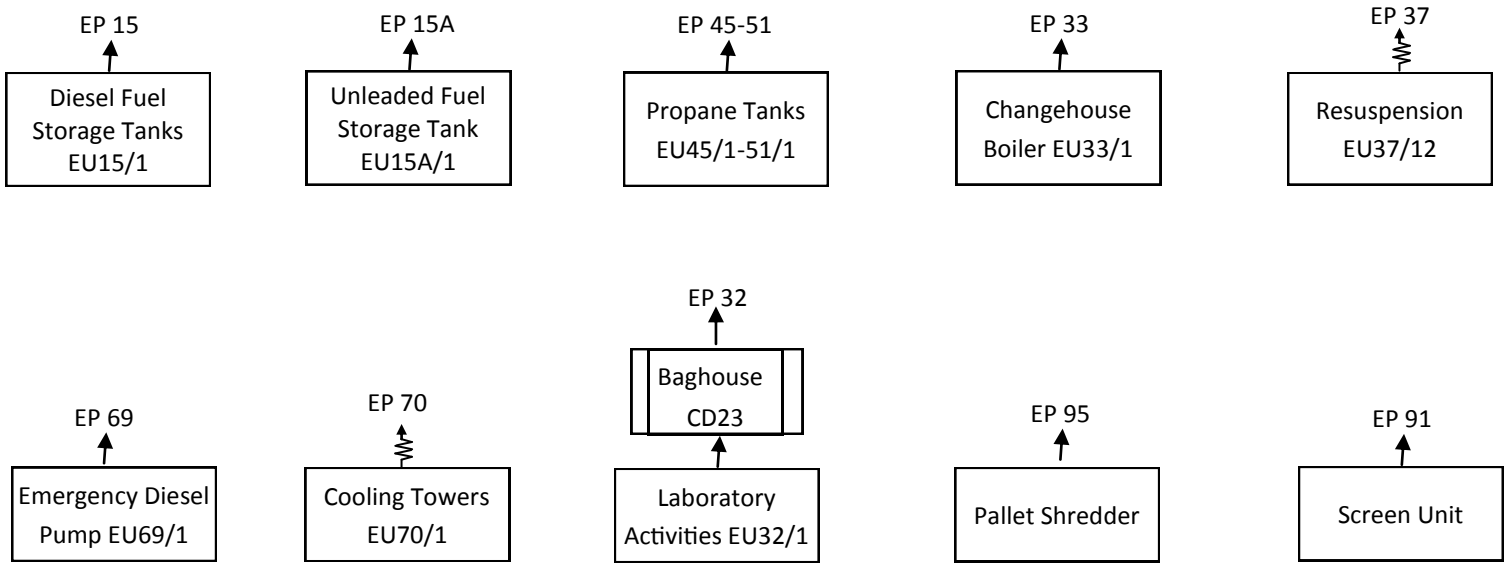
Refining

Lead from the sweat furnaces, blast and reverberatory furnaces are transferred to the refinery. In the refinery kettles lead is refined to meet customer specifications. Lead metal alloys are cast into pigs (60 or 100 lbs), ingots (1 or ½ ton), and billets (various sizes) dependent upon the customer's specifications.

Feed Stock



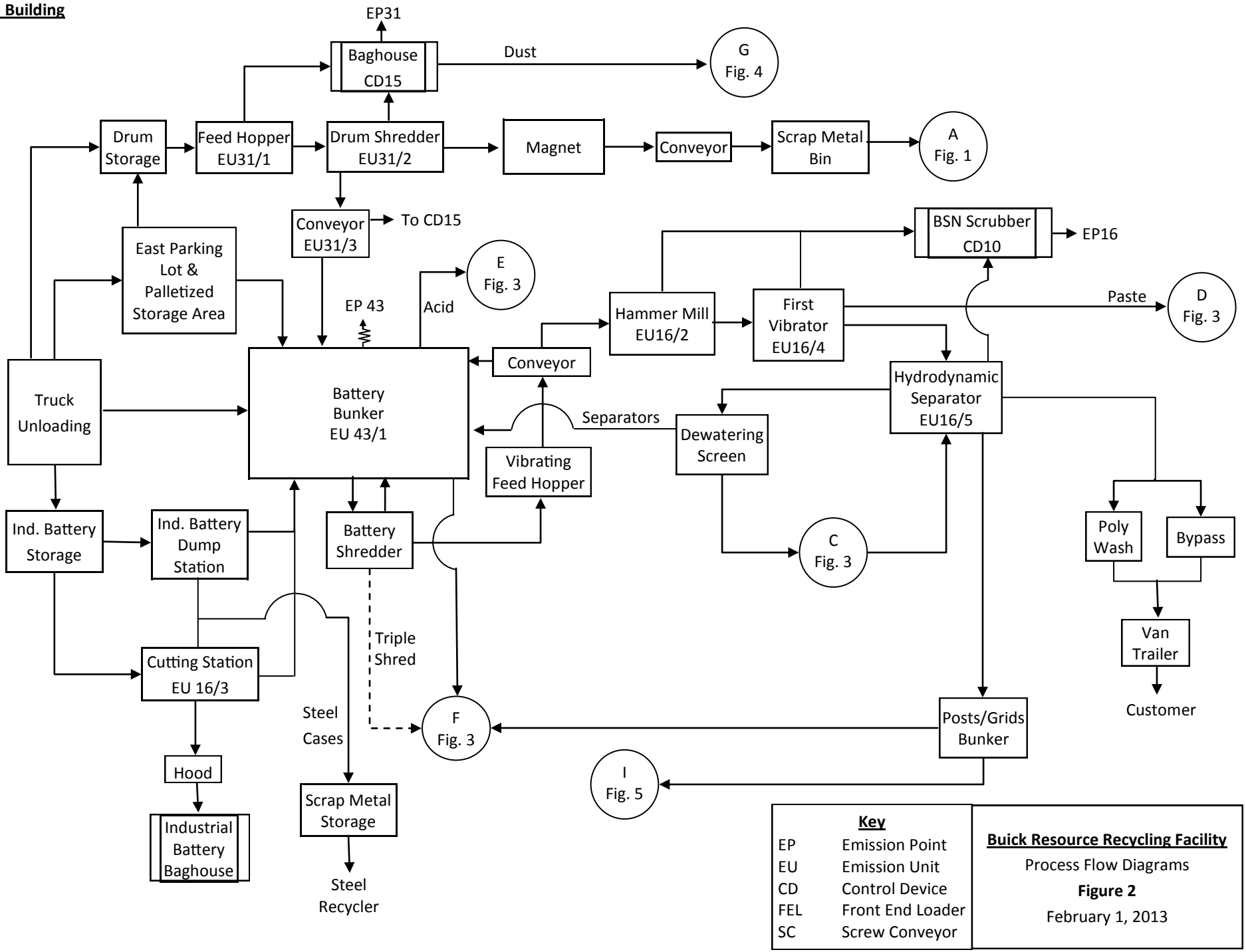
Miscellaneous Sources



Key	
EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

Buick Resource Recycling Facility
Process Flow Diagrams
Figure 1
February 1, 2013

BSN Building



Key	
EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

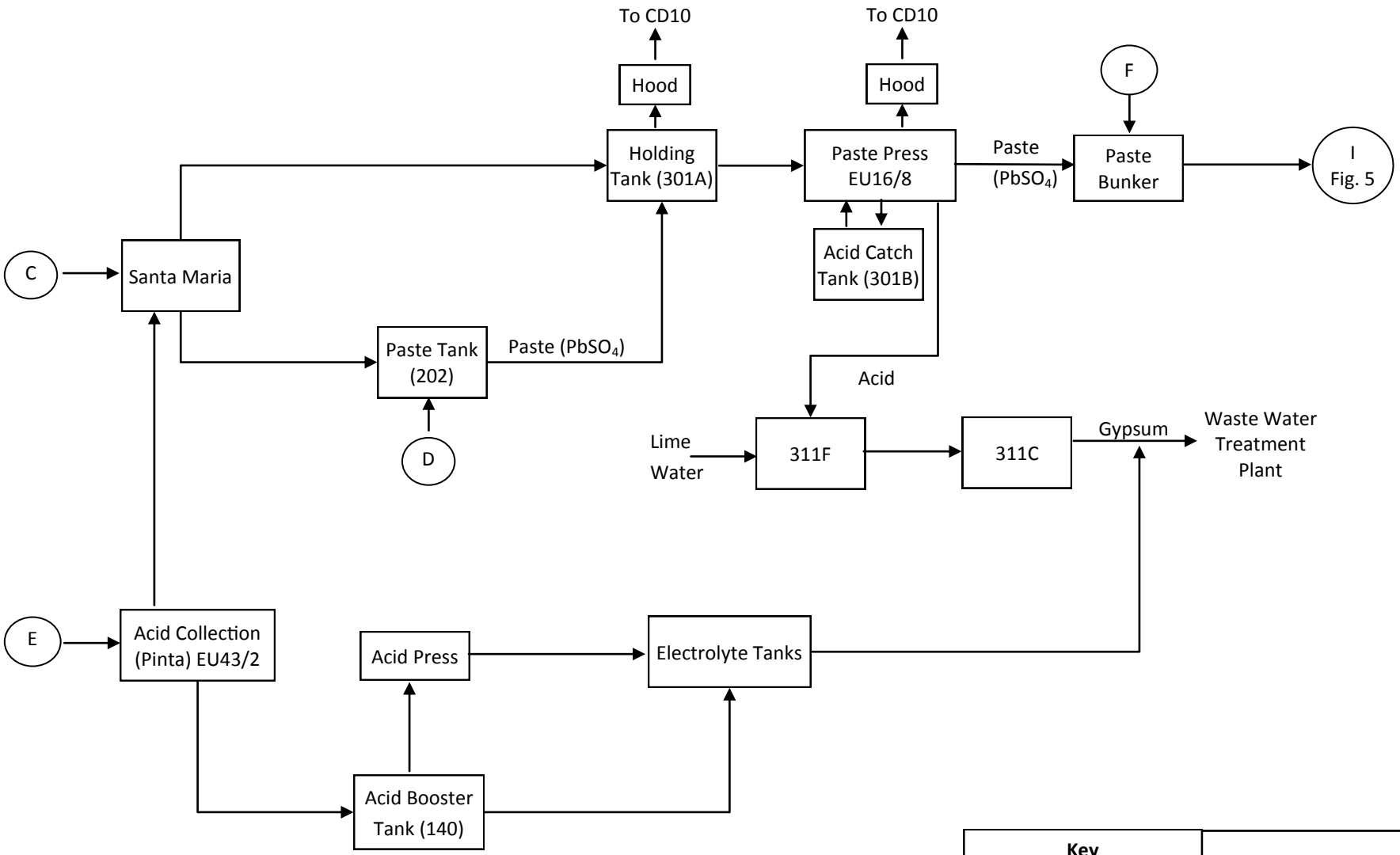
Buick Resource Recycling Facility

Process Flow Diagrams

Figure 2

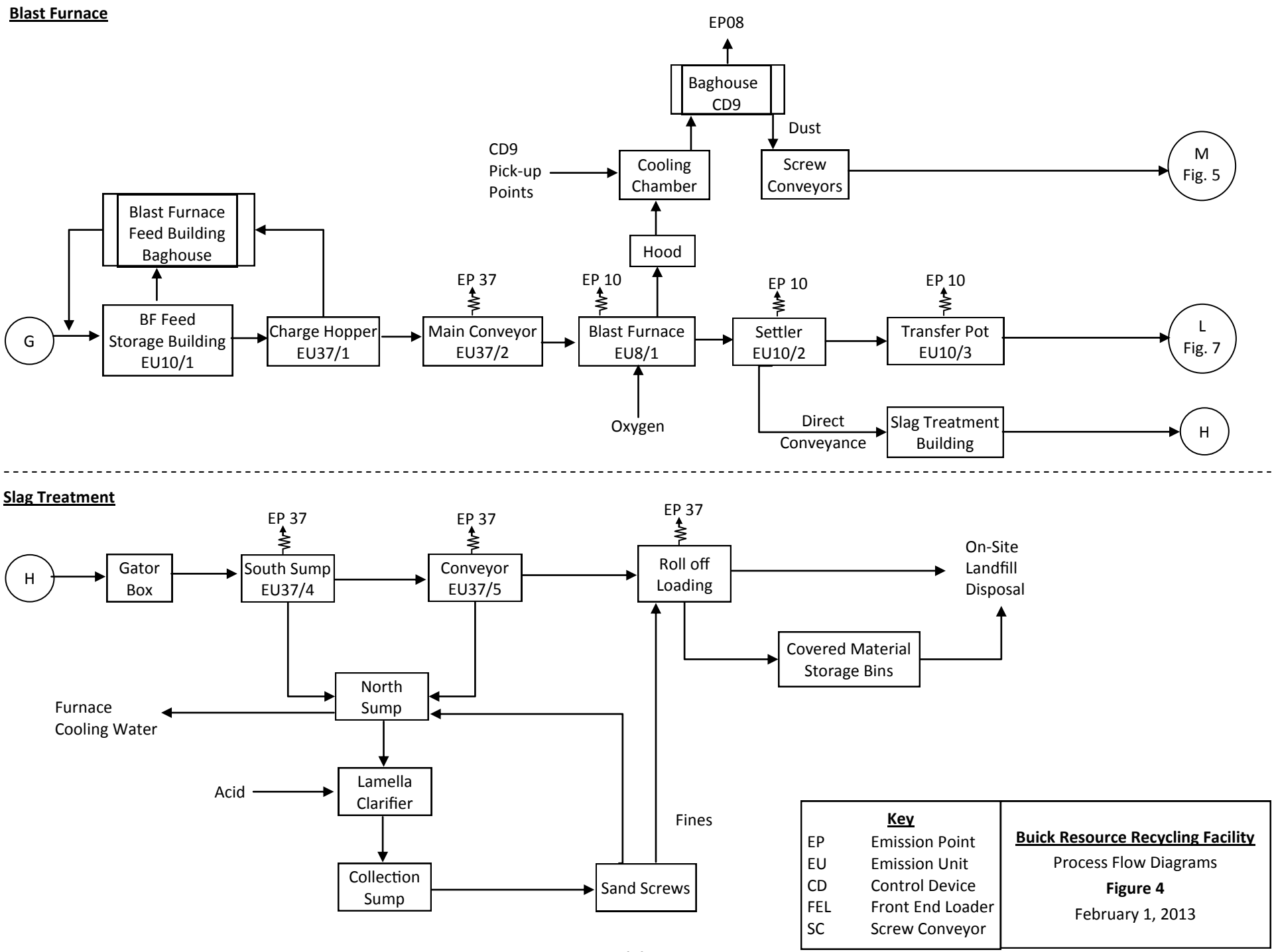
February 1, 2013

BSN Building—Continued

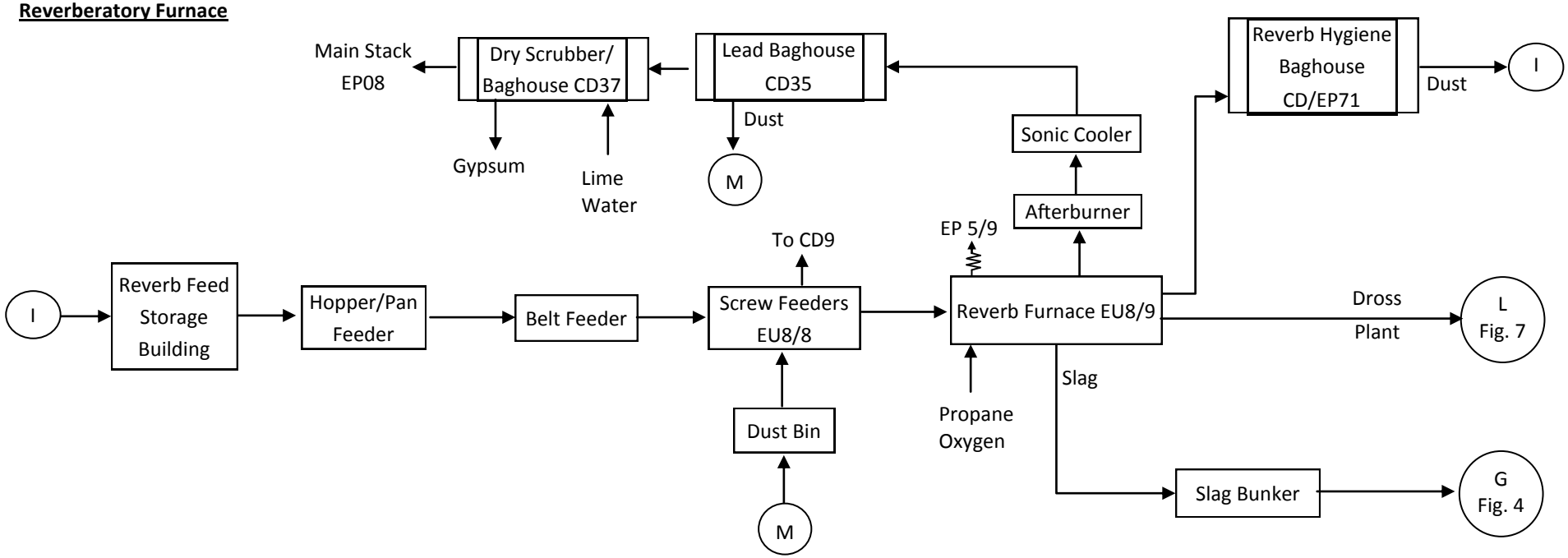


Key	
EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

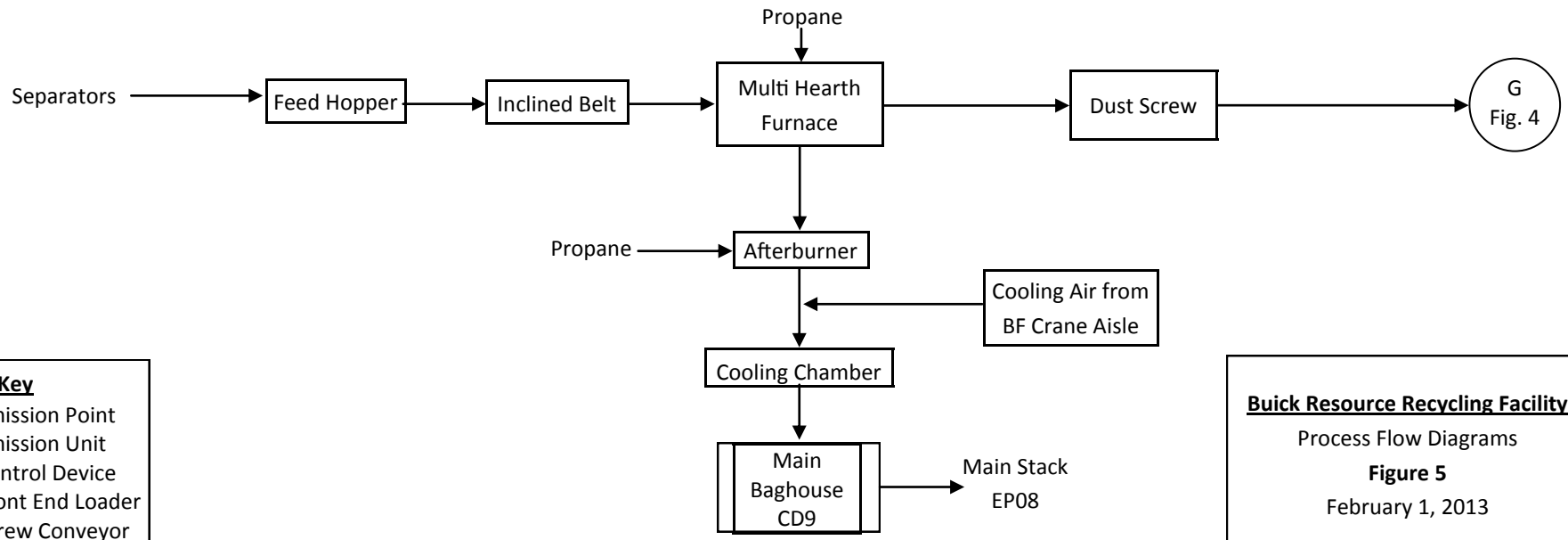
Buick Resource Recycling Facility
Process Flow Diagrams
Figure 3
February 1, 2013


Blast Furnace
EP08
Baghouse CD9
Dust
CD9 Pick-up Points
Cooling Chamber
Screw Conveyors
M Fig. 5
Blast Furnace Feed Building Baghouse
Hood
EP 37
EP 10
EP 10
EP 10
G
BF Feed Storage Building EU10/1
Charge Hopper EU37/1
Main Conveyor EU37/2
Blast Furnace EU8/1
Settler EU10/2
Transfer Pot EU10/3
L Fig. 7
Oxygen
Direct Conveyance
Slag Treatment Building
H
Slag Treatment
EP 37
EP 37
EP 37
H
Gator Box
South Sump EU37/4
Conveyor EU37/5
Roll off Loading
On-Site Landfill Disposal
Covered Material Storage Bins
North Sump
Furnace Cooling Water
Acid
Lamella Clarifier
Fines
Collection Sump
Sand Screws
Key
EP Emission Point
EU Emission Unit
CD Control Device
FEL Front End Loader
SC Screw Conveyor
Buick Resource Recycling Facility
Process Flow Diagrams
Figure 4
February 1, 2013

Reverberatory Furnace



Multi Hearth Furnace

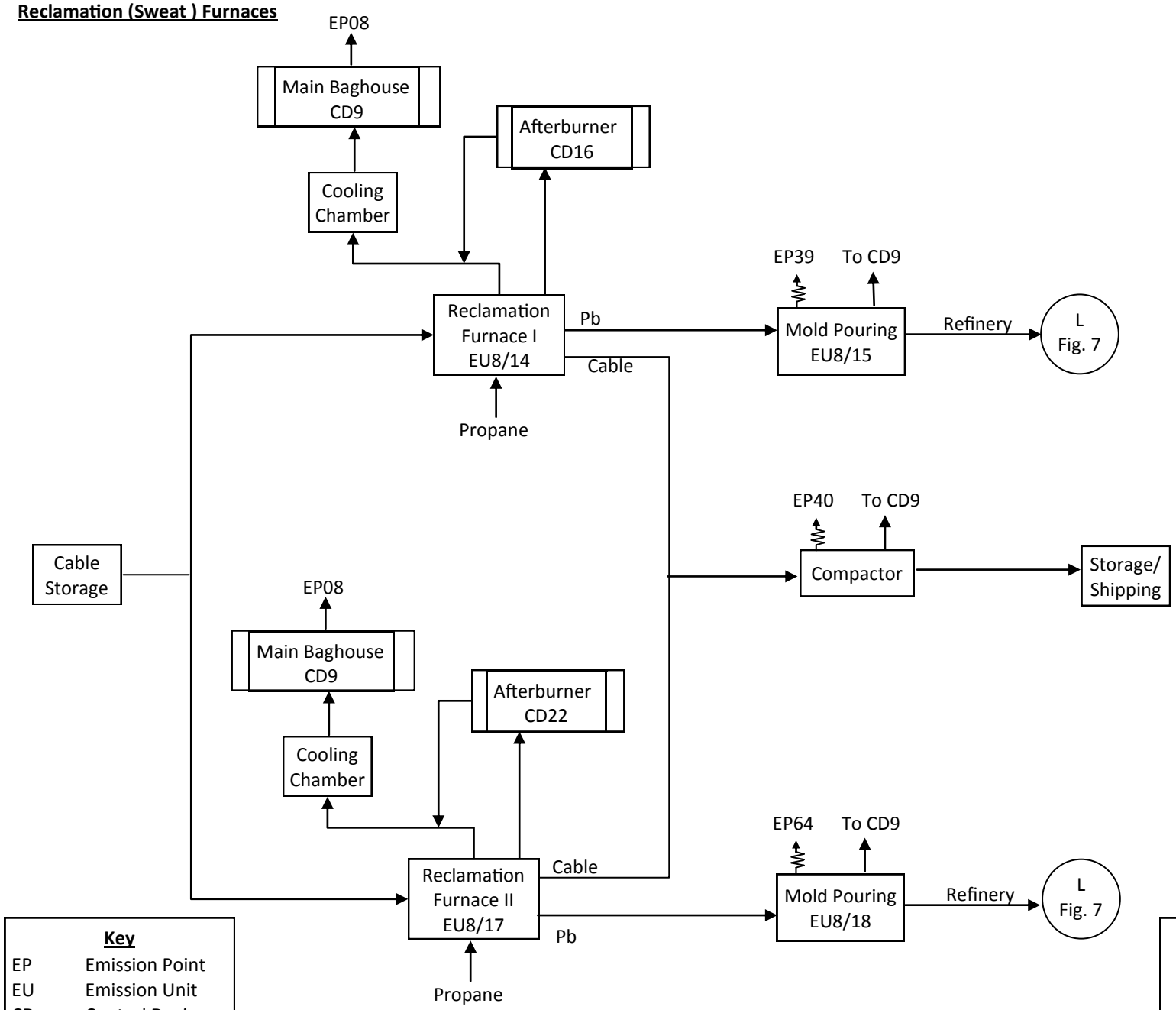


Key

EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

Buick Resource Recycling Facility
Process Flow Diagrams
Figure 5
February 1, 2013

Reclamation (Sweat) Furnaces



Key

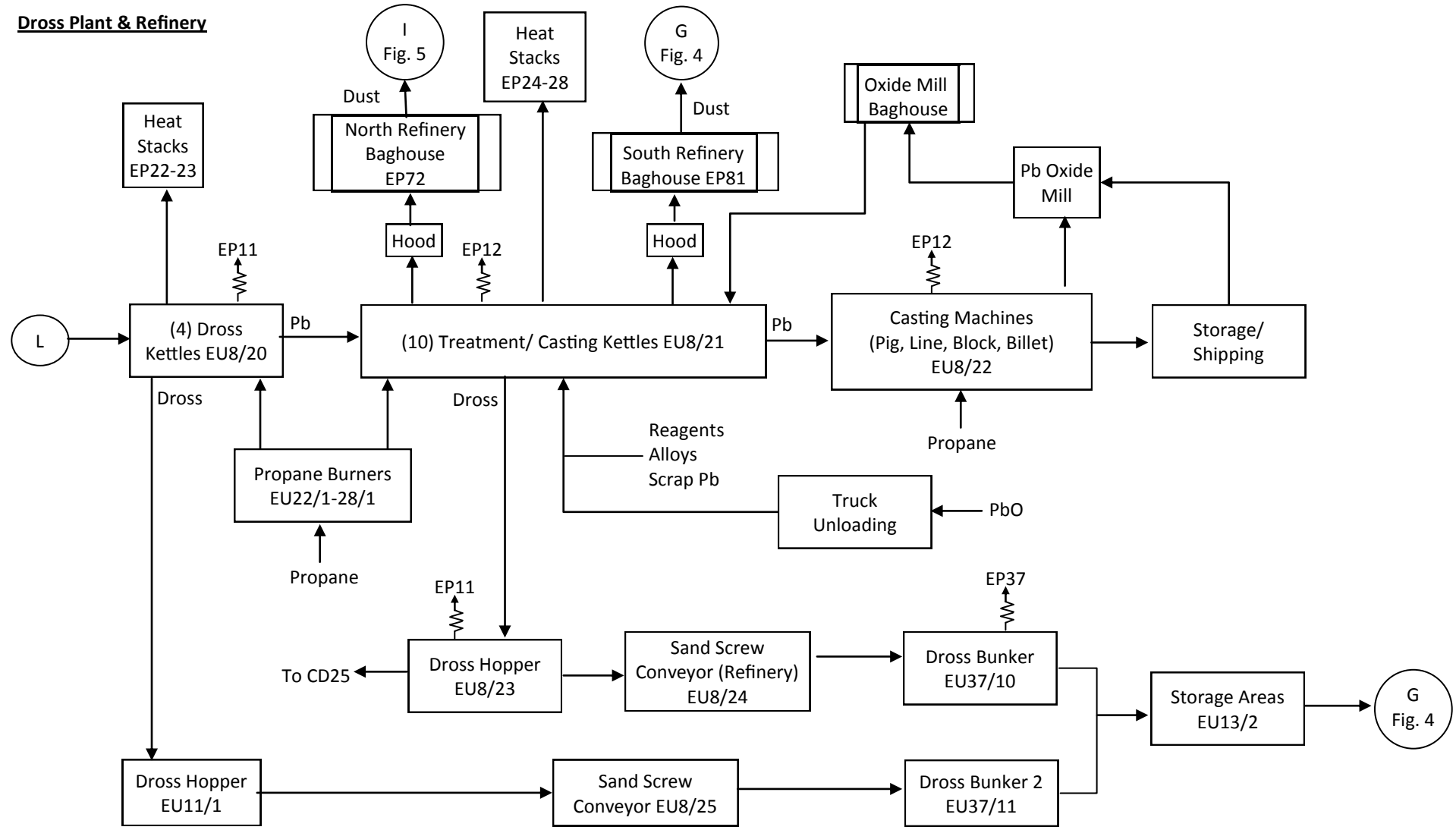
EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

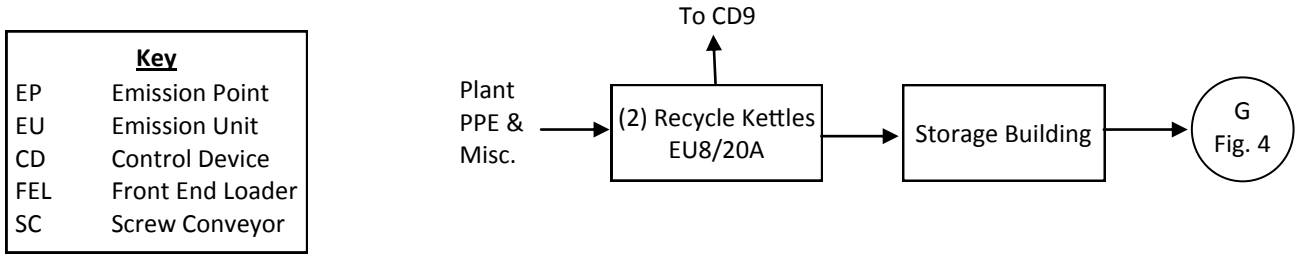
Buick Resource Recycling Facility

Process Flow Diagrams

Figure 6

February 1, 2013





Key

EP	Emission Point
EU	Emission Unit
CD	Control Device
FEL	Front End Loader
SC	Screw Conveyor

Buick Resource Recycling Facility

Process Flow Diagrams

Figure 7

February 1, 2013

APPENDIX B – AIR QUALITY MONITORING DATA

Buick Area 3-Month Average Airborne Lead Concentrations

2009-2011 concentrations in ug/m3

Red highlight indicate 3-month averages greater than the 0.15 ug/m3 standard.

Note: The North & South sites were no longer ambient after 11/11

		Buick NE	Buick North	Buick South	Oates
Nov-08	Jan-09		1.275	2.070	
Dec-08	Feb-09		1.937	0.740	
Jan-09	Mar-09		1.214	0.381	
Feb-09	Apr-09		1.259	0.207	
Mar-09	May-09		0.747	0.436	
Apr-09	Jun-09		0.901	0.536	
May-09	Jul-09		0.869	0.728	
Jun-09	Aug-09		0.789	0.712	
Jul-09	Sep-09		0.533	0.584	
Aug-09	Oct-09		0.297	0.450	
Sep-09	Nov-09		0.218	0.258	
Oct-09	Dec-09		0.222	0.313	
Nov-09	Jan-10		0.263	0.287	
Dec-09	Feb-10		0.192	0.383	
Jan-10	Mar-10		0.379	0.551	
Feb-10	Apr-10		0.660	0.600	
Mar-10	May-10		0.615	0.642	
Apr-10	Jun-10		0.488	0.477	
May-10	Jul-10		0.173	0.410	
Jun-10	Aug-10		0.203	0.423	
Jul-10	Sep-10		0.318	0.412	
Aug-10	Oct-10		0.519	0.549	
Sep-10	Nov-10		0.718	0.530	
Oct-10	Dec-10		0.560	0.625	
Nov-10	Jan-11	0.209	0.488	0.882	
Dec-10	Feb-11	0.291	0.349	0.791	
Jan-11	Mar-11	0.299	0.866	0.689	0.080
Feb-11	Apr-11	0.275	1.113	0.313	0.047
Mar-11	May-11	0.196	1.147	0.417	0.044
Apr-11	Jun-11	0.199	0.870	0.388	0.044
May-11	Jul-11	0.261	0.765	0.404	0.053
Jun-11	Aug-11	0.316	0.732	0.326	0.055
Jul-11	Sep-11	0.402	0.592	0.476	0.083
Aug-11	Oct-11	0.341	0.467	0.486	0.082
Sep-11	Nov-11	0.374	0.585	0.407	0.067
Oct-11	Dec-11	0.231	0.521	0.447	0.052
Nov-11	Jan-12	0.155	0.432	0.398	0.033
Dec-11	Feb-12	0.250	0.249	0.371	0.047
Jan-12	Mar-12	0.307	0.225	0.162	0.037
Feb-12	Apr-12	0.371	0.246	0.342	0.060
Mar-12	May-12	0.237	0.295	0.779	0.139
Apr-12	Jun-12	0.160	0.313	0.748	0.148
May-12	Jul-12	0.167	0.294	0.626	0.161
Jun-12	Aug-12	0.152	0.293	0.240	0.083
Jul-12	Sep-12	0.185	0.317	0.396	0.088

APPENDIX C – EMISSIONS INVENTORY

Doe Run Buick											
Red Highlight indicates sources that will be eliminated or reduced by control measures											
Actual Emissions in Tons per Year		EMISSION_YEAR									
EU ID	DESCRIPTION	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EP-08	MAIN STACK - BLAST FURNACE AND PROCESSES	4	3.91	1.41	4.4458	4.6	1.4058	1.4786	1.9768	1.0511	3.383
EP-10	BLAST FURNACE FUGITIVES	0.61	0.6	0.14	0.11	0.13	0.14	17.3696	4.6474	5.2518	5.5333
EP-11	DROSS PLANT FUGITIVES	0.32	0.31	0.25	0.27	0.28	0.28	7.0835	2.3119	2.2039	2.1829
EP-12	REFINERY FUGITIVES	0.89	0.84	0.68	0.73	0.76	0.75	6.5471	2.1188	2.0337	2.0107
EP-13	OPEN STORAGE FUGITIVES	0.02	0.02	0.01	0.03	0.03	0.025	0.025	0.025	0.0875	0.1629
EP-16	BDC SCRUBBER	0.03	0.03	0.02	1.34	1.4	1.3731	0.2679	0.2848	0.2882	0.2943
EP-17	PASTE HANDLING BAGHOUSE	0	0	0	0						
EP-22-28	Dross and Refinery Kettle Heat Stacks								0.3444	0.3352	0.3315
EP-31	SHREDDER BAGHOUSE	0.04	0.05	0.04	0.05	0.05	0.0489	0	0	0	0.0114
EP-31B	DRUM SHREDDER HYGIENE							0.0642	0.0701	0.082	0.0967
EP-31C	DRUM SHREDDER MAIN							0.1446	0.1577	0.1845	0.2176
EP-37	RESUSPENSION	4.12	4.12	4.09	0						
EP-39	SWEAT FURNACE - FUEL	0.55	0.56	0.1817	0						
EP-63	MAIN STACK - PROPANE (DUST AGGLOMERATION FURNACE)	0.1	0	0.16	0						
EP-64	Sweat Furnace	0.55	0.56	0.1817	0						
EP-71	REVERBATORY FURNACE-CAPTURED FUGITIVES						0.0035	0.3103	0.3354	0.6375	0.2268
	ROTARY FURNACE-CAPTURED FUGITIVES						0.0005	0.2479	0	0.621	0.0165
EP-73	SWEAT FURNACE - CAPTURED FUGITIVES						0.003	0.1459	0.1119	0.129	0.2956
EP-74	PAVED HAUL ROAD - COKE DELIVERY ROUTE						0.0001	0	0	0	0
EP-75	PAVED HAUL ROAD-BATTERY DELIVERY ROUTE				0.02	0.02	0.0002	0.0205	0.0188	0.0203	0.021
EP-76	PAVED HAUL ROAD-PASTE TRANSFER ROUTE				0.01	0.01	0	0	0	0	0
EP-77	PAVED HAUL ROAD - FEED TRANSFER ROUTE NO. 1						0	0	0	0	0
EP-78	PAVED HAUL ROAD - FEED TRANSFER ROUTE # 2						0	0	0	0	0
EP-79	PAVED HAUL ROAD - FEED TRANSFER ROUTE # 3						0	0	0	0	0
EP-81	Refinery Kettles and Dross Screw Ventilation								0.4934	0.2172	0.0231
Grand Total		11.23	11	7.1634	7.0058	7.28	4.0301	33.7051	12.8964	13.1429	14.8073

APPENDIX D: MODEL RUN SCRIPT (BASE & FUTURE CASES)

BASE CASE:
** BRRF Actual Value
** Run 13, All Monitors
** Run Summary
** Run1 Base Run w/ North and South monitors only and 2009 only
** Run2
** 1. Revised fugitive and baghouse particle data
** 2. Added additional receptors around monitor locations
** Run3
** 1. Added additional met and hourly emissions data (1/2009-10/2010)
** 2. Revised receptor spacing around monitors to 50m and 100m (N,NE,E,etc.)
** 3. Revised Buick mine/mill emissions data from 2009 to 2009/2010 average emissions
** Run4
** 1. Revised particle parameters for BRRF building fugitives
** Run5
** 1. Added emissions from Casteel Mine
** 2. Added emissions from haul road next to south monitor
** 3. Revised receptor network around monitors. Extended out to 200m from monitor.
** 4. Using event model instead of DISCCRT receptors under RE pathway
** This was done to analyze impacts from individual sources
** Run6
** 1. Revised receptor network around monitors. 50m spacing out to 200m
** 2. Ran event modedl using SOCONT output
** 3. Only included days with <5 missing hours of met. data
** Run7
** 1. Correction to BRRF process fugitive particle data
** Run8
** 1. Revised BRRF process fugitive release heights and sigma-z
** Release Height=1/2 of Building Height
** Sigma-z = Building Height divided by 2.15
** 2. Revised precipitation data in Aermet files
** 3. Revised receptor grid around monitors from polar to cartesian (50m spacing to 200m)
** Run9
** 1. Pseudo Point Study (no changes made per study)
** Run10
** 1. Receptor flagpole height study (no changes made per study)
** Run11
** 1. Revised BRRF process fugitive sigma-z
** Sigma-z = Building Height divided by 2.15

```
** Run12
** 1. Added wind erosion emissions from outside storage and bare areas
** 2. Added emissions for material handling at outside storage and blast fnce
feed storage
** 3. Positional revisions to few BRRF point sources
** 4. Corrected monitor opening areas for calculating building fugitive emissions
** Areas are now consistent with the sigma-y source parameters used
** Run13
** 1. Revised highway KK and 32 emissions. Weight lead content used instead of
** arithmetic average
** Emissions Worksheets Used
** BRRF 2009-2010 Hourly Pb Emissions-7.xls
** SEMO 2009-2010 Avg Pb Inventory-4.xls
** SEMO 2009 Highway Pb Emissions-2.xls
** For the hourly emissions files to run, the met data files must contain the same
hours (no more)
** as the hourly emissions file. The 2008 data lines were removed from the AERMET
surface and
** profile data files to allow them to run with the hourly emissions file
** Model Input Spreadsheet Used
** BRRF-2011PbSIP-Model Input-8.xls
** 9/26/2011
CO STARTING
CO TITLEONE Doe Run BRRF, 2011 SIP
CO TITLETWO Actual Value
CO MODELOPT DFAULT CONC DRYDPLT
CO AVERTIME 24 MONTH
CO POLLUTID LEAD
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** AERMAP - VERSION 11103 09/21/11
** 15:47:36
** ELV_SRC.OUT

SO ELEVUNIT METERS
SO LOCATION BR_P8 POINT 664808.00 4167094.00 423.80
SO LOCATION BR_P16 POINT 664802.00 4166750.00 428.38
SO LOCATION BR_P22 POINT 664960.00 4167092.00 427.41
SO LOCATION BR_P23 POINT 664964.00 4167090.00 427.39
SO LOCATION BR_P24 POINT 664971.00 4167085.00 427.42
SO LOCATION BR_P25 POINT 664974.00 4167083.00 427.45
SO LOCATION BR_P26 POINT 664979.00 4167080.00 427.51
SO LOCATION BR_P27 POINT 664983.00 4167078.00 427.56
SO LOCATION BR_P28 POINT 664987.00 4167074.00 427.74
```

SO LOCATION BR_P31A POINT 664842.00 4166751.00 428.73
SO LOCATION BR_P31B POINT 664856.00 4166711.00 428.39
SO LOCATION BR_P31C POINT 664860.00 4166729.00 428.59
SO LOCATION BR_P71 POINT 664940.00 4167111.00 425.54
SO LOCATION BR_P72 POINT 664956.00 4167102.00 427.12
SO LOCATION BR_P81 POINT 664954.00 4167051.00 427.71
SO LOCATION BR_V10A VOLUME 664904.00 4167047.00 427.26
SO LOCATION BR_V10B VOLUME 664926.00 4167060.00 427.43
SO LOCATION BR_V11A VOLUME 664934.00 4167072.00 427.40
SO LOCATION BR_V11B VOLUME 664940.00 4167082.00 427.29
SO LOCATION BR_V11C VOLUME 664945.00 4167091.00 427.22
SO LOCATION BR_V12A VOLUME 664955.00 4167077.00 427.54
SO LOCATION BR_V12B VOLUME 664963.00 4167072.00 427.67
SO LOCATION BR_V12C VOLUME 664970.00 4167068.00 427.74
SO LOCATION BR_V12D VOLUME 664978.00 4167063.00 427.84
SO LOCATION BR_V12E VOLUME 664985.00 4167058.00 427.94
SO LOCATION BR_V12F VOLUME 664993.00 4167053.00 428.08
SO LOCATION BR_V13A VOLUME 664857.00 4166961.00 427.59
SO LOCATION BR_V13B VOLUME 664782.00 4166976.00 426.11
SO LOCATION BR_V13C VOLUME 664796.00 4166969.00 426.93
SO LOCATION BR_A13E AREA 664758.00 4166943.00 424.72
SO LOCATION BR_A13F AREA 664779.00 4166974.00 425.98
SO LOCATION BR_A13G1 AREA 664638.00 4167319.00 417.76
SO LOCATION BR_A13G2 AREA 664725.00 4167435.00 417.23
SO LOCATION BR_A13G3 AREA 664876.00 4167464.00 420.98
SO LOCATION BR_A13G4 AREA 665141.00 4167502.00 420.01
SO LOCATION BR_A13G5 AREA 664955.00 4167168.00 419.70
SO LOCATION BR_HRAB01 AREA 664530.00 4166618.00 439.35
SO LOCATION BR_HRAB02 AREA 664671.00 4166620.00 434.58
SO LOCATION BR_HRBC01 AREA 664760.00 4166706.00 428.34
SO LOCATION BR_HRBD01 AREA 664763.00 4166659.00 431.54
SO LOCATION BR_HRBD02 AREA 664792.00 4166640.00 433.11
SO LOCATION BR_HRBD03 AREA 664818.00 4166655.00 430.83
SO LOCATION BR_HRBD04 AREA 664860.00 4166704.00 428.07
SO LOCATION BR_HRDE01 AREA 664878.00 4166750.00 428.35
SO LOCATION BR_HREF01 AREA 664907.00 4166885.00 427.38
SO LOCATION BR_HREG01 AREA 664932.00 4166857.00 426.97
SO LOCATION BR_HREG02 AREA 664934.00 4166910.00 427.08
SO LOCATION BR_HREG03 AREA 664987.00 4167003.00 427.74
SO LOCATION BR_HREG04 AREA 665005.00 4167037.00 428.20
SO LOCATION BR_HRGH01 AREA 664999.00 4167064.00 428.08
SO LOCATION BR_HRGI01 AREA 665020.00 4167067.00 428.38
SO LOCATION BR_HRIJ01 AREA 665025.00 4167124.00 426.18
SO LOCATION BR_HRIJ02 AREA 664967.00 4167129.00 423.28
SO LOCATION BR_HRIJ03 AREA 664922.00 4167144.00 421.74
SO LOCATION BR_HRJK01 AREA 664871.00 4167148.00 424.79

```
SO LOCATION BR_HRJK02 AREA 664822.00 4167136.00 425.69
SO LOCATION BR_HRJK03 AREA 664768.00 4167101.00 421.26
SO LOCATION BR_HRJK04 AREA 664757.00 4167073.00 421.40
SO LOCATION BR_HRKL01 AREA 664733.00 4167017.00 422.39
SO LOCATION BR_HRKL02 AREA 664733.00 4167015.00 422.39
SO LOCATION BR_HRKL03 AREA 664737.00 4166961.00 421.86
SO LOCATION BR_HRLM01 AREA 664772.00 4166923.00 426.23
SO LOCATION BR_HRMN01 AREA 664807.00 4166968.00 427.21
SO LOCATION BR_HRMN02 AREA 664838.00 4166992.00 427.08
SO LOCATION BR_HRNO01 AREA 664864.00 4167054.00 426.50
SO LOCATION BR_HRNO02 AREA 664863.00 4167051.00 426.51
SO LOCATION BR_HRNP01 AREA 664874.00 4166997.00 427.25
SO LOCATION BR_HRNQ01 AREA 664852.00 4166964.00 427.57
SO LOCATION BR_HRLR01 AREA 664762.00 4166898.00 425.50
SO LOCATION BR_HRLR02 AREA 664762.00 4166894.00 425.55
SO LOCATION BR_HRLR03 AREA 664755.00 4166825.00 422.34
SO LOCATION BR_HRRS01 AREA 664727.00 4166865.00 420.52
SO LOCATION BR_HRRT01 AREA 664731.00 4166790.00 422.20
SO LOCATION BR_HRRT02 AREA 664690.00 4166765.00 424.02
SO LOCATION BR_HRRT03 AREA 664647.00 4166789.00 425.39
SO LOCATION BR_HRRT04 AREA 664633.00 4166864.00 421.41
SO LOCATION BR_HRRT05 AREA 664633.00 4166865.00 421.34
SO LOCATION BR_HRRT06 AREA 664636.00 4166917.00 415.26
SO LOCATION BR_HRRU01 AREA 664761.00 4166769.00 425.64
SO LOCATION BR_HRRU02 AREA 664754.00 4166822.00 422.19
SO LOCATION BR_HRUV01 AREA 664811.00 4166796.00 427.22
SO LOCATION BR_HRDV01 AREA 664877.00 4166749.00 428.35
SO LOCATION BR_HRDV02 AREA 664853.00 4166827.00 427.97
SO LOCATION BR_HRIW01 AREA 665058.00 4167121.00 428.07
SO LOCATION BR_HRIW02 AREA 665175.00 4167262.00 424.86
SO LOCATION BR_HRIW03 AREA 665270.00 4167422.00 424.75
SO LOCATION BR_HRIW04 AREA 665321.00 4167524.00 427.81
SO LOCATION BR_HRIW05 AREA 665347.00 4167522.00 429.48
SO LOCATION BR_HRIW06 AREA 665372.00 4167498.00 431.64
SO LOCATION BR_HRJX01 AREA 664836.00 4167201.00 426.69
SO LOCATION BR_HRXY01 AREA 664757.00 4167328.00 425.22
SO LOCATION BR_HRXY02 AREA 664739.00 4167334.00 423.82
SO LOCATION BR_HRKZ01 AREA 664758.00 4167068.00 421.63
SO LOCATION BU_UGV1 POINT 665520.00 4165277.00 410.92
SO LOCATION BU_UGV3 POINT 666234.00 4160599.00 399.54
SO LOCATION BU_UGV6 POINT 665604.00 4165763.00 436.58
SO LOCATION CA_UGV47 POINT 665164.00 4169730.00 389.63
SO LOCATION CA_UGS35 POINT 665453.00 4169703.00 401.89
SO LOCATION BU_V13 VOLUME 665463.00 4163730.00 443.88
SO LOCATION BU_V16 VOLUME 665464.00 4163723.00 443.82
SO LOCATION BU_V17 VOLUME 665517.00 4163698.00 442.82
```

```
SO LOCATION BU_V19 VOLUME 665523.00 4163694.00 442.58
SO LOCATION BU_V23A VOLUME 665531.00 4163689.00 442.33
SO LOCATION BU_V20 VOLUME 665607.00 4163646.00 436.96
SO LOCATION BU_V25 VOLUME 665680.00 4163601.00 431.94
SO LOCATION BU_V26 VOLUME 665689.00 4163616.00 431.75
SO LOCATION BU_V28 VOLUME 665708.00 4163620.00 431.20
SO LOCATION BU_V33 VOLUME 665757.00 4163590.00 429.33
SO LOCATION BU_V36 VOLUME 665767.00 4163587.00 429.08
SO LOCATION BU_V40 VOLUME 665770.00 4163515.00 428.35
SO LOCATION CA_V8 VOLUME 665451.00 4169708.00 401.46
SO LOCATION CA_V9 VOLUME 665455.00 4169721.00 399.72
SO LOCATION BU_HRAB01 AREA 665065.00 4163905.00 442.35
SO LOCATION BU_HRAB02 AREA 665084.00 4163904.00 443.53
SO LOCATION BU_HRAB03 AREA 665182.00 4163900.00 442.98
SO LOCATION BU_HRAB04 AREA 665279.00 4163888.00 440.42
SO LOCATION BU_HRBC01 AREA 665369.00 4163855.00 438.96
SO LOCATION BU_HRBC02 AREA 665396.00 4163807.00 440.52
SO LOCATION BU_HRBC03 AREA 665419.00 4163763.00 442.71
SO LOCATION BU_HRBC04 AREA 665433.00 4163720.00 442.60
SO LOCATION BU_HRBD01 AREA 665371.00 4163853.00 438.91
SO LOCATION BU_HRBD02 AREA 665466.00 4163817.00 438.37
SO LOCATION BU_HRBD03 AREA 665562.00 4163805.00 427.24
SO LOCATION BU_HRBD04 AREA 665659.00 4163787.00 430.68
SO LOCATION BU_HRBD05 AREA 665737.00 4163783.00 428.77
SO LOCATION BU_HRBD06 AREA 665722.00 4163691.00 430.35
SO LOCATION BU_HRBD07 AREA 665661.00 4163617.00 433.19
SO LOCATION BU_HRBD08 AREA 665653.00 4163593.00 433.06
SO LOCATION BU_HRDE01 AREA 665651.00 4163538.00 430.39
SO LOCATION BU_HRDE02 AREA 665654.00 4163534.00 429.41
SO LOCATION BU_HRDE03 AREA 665697.00 4163508.00 428.23
SO LOCATION BU_HRDE04 AREA 665747.00 4163490.00 425.42
SO LOCATION BU_HRDE05 AREA 665792.00 4163493.00 427.48
SO LOCATION BU_HRDE06 AREA 665793.00 4163538.00 428.54
SO LOCATION BU_HRDF01 AREA 665768.00 4163549.00 428.90
SO LOCATION BU_HRDF02 AREA 665737.00 4163555.00 429.41
SO LOCATION BU_HRDF03 AREA 665696.00 4163564.00 430.76
SO LOCATION BU_HRDF04 AREA 665656.00 4163587.00 432.66
SO LOCATION BU_HRGH01 AREA 665117.00 4165536.00 429.62
SO LOCATION BU_HRGH02 AREA 665174.00 4165535.00 425.93
SO LOCATION BU_HRGH03 AREA 665191.00 4165720.00 434.02
SO LOCATION BU_HRGH04 AREA 665191.00 4165721.00 434.06
SO LOCATION BU_HRHI01 AREA 665195.00 4165750.00 435.23
SO LOCATION BU_HRHI02 AREA 665269.00 4166005.00 445.05
SO LOCATION BU_HRHI03 AREA 665320.00 4166024.00 445.10
SO LOCATION BU_HRHI04 AREA 665404.00 4165978.00 443.25
SO LOCATION CA_HRAB01 AREA 665569.00 4169426.00 421.15
```

SO LOCATION CA_HRAB02 AREA 665559.00 4169527.00 415.16
SO LOCATION CA_HRAB03 AREA 665559.00 4169528.00 415.12
SO LOCATION CA_HRAB04 AREA 665560.00 4169628.00 407.24
SO LOCATION CA_HRAB05 AREA 665560.00 4169703.00 400.65
SO LOCATION CA_HRAB06 AREA 665496.00 4169749.00 395.24
SO LOCATION CA_HRAB07 AREA 665452.00 4169725.00 399.50
SO LOCATION BU_A48A AREA 666058.00 4162882.00 426.83
SO LOCATION BU_A48B AREA 666460.00 4162681.00 415.96
SO LOCATION BU_A48C AREA 666661.00 4162279.00 410.09
SO LOCATION BU_A48D AREA 667063.00 4162279.00 365.65
SO LOCATION BU_A48E AREA 666862.00 4162078.00 402.19
SO LOCATION BU_A48F AREA 667063.00 4161877.00 385.03
SO LOCATION BU_A48G AREA 667465.00 4161877.00 353.63
SO LOCATION BU_A48H AREA 667264.00 4161475.00 348.09
SO LOCATION BU_A48I AREA 667666.00 4161475.00 348.47
SO LOCATION BU_A48J AREA 668068.00 4161475.00 338.15
SO LOCATION BU_A48K AREA 667063.00 4161274.00 397.41
SO LOCATION BU_A48L AREA 667264.00 4161073.00 358.76
SO LOCATION BU_A48M AREA 667666.00 4160872.00 395.35
SO LOCATION BU_A48N AREA 668068.00 4160671.00 364.39
SO LOCATION BU_A48O AREA 668470.00 4160671.00 378.30
SO LOCATION HWY_KK_01 AREA 666483.00 4159238.00 350.49
SO LOCATION HWY_KK_02 AREA 666061.00 4160129.00 355.37
SO LOCATION HWY_KK_03 AREA 665508.00 4160688.00 376.05
SO LOCATION HWY_KK_04 AREA 664955.00 4161248.00 389.03
SO LOCATION HWY_KK_05 AREA 664817.00 4161778.00 400.67
SO LOCATION HWY_KK_06 AREA 664549.00 4162268.00 421.00
SO LOCATION HWY_KK_07 AREA 664390.00 4163021.00 400.61
SO LOCATION HWY_KK_08 AREA 664390.00 4163024.00 400.26
SO LOCATION HWY_KK_09 AREA 664492.00 4163286.00 418.00
SO LOCATION HWY_KK_10 AREA 664933.00 4163803.00 438.18
SO LOCATION HWY_KK_11 AREA 665373.00 4164316.00 435.29
SO LOCATION HWY_KK_12 AREA 665173.00 4164980.00 428.54
SO LOCATION HWY_KK_13 AREA 665147.00 4165314.00 426.57
SO LOCATION HWY_KK_14 AREA 665103.00 4165475.00 426.99
SO LOCATION HWY_KK_15 AREA 665103.00 4165477.00 427.04
SO LOCATION HWY_KK_16 AREA 665088.00 4165840.00 419.36
SO LOCATION HWY_KK_17 AREA 664936.00 4166076.00 437.35
SO LOCATION HWY_KK_18 AREA 664754.00 4166242.00 446.17
SO LOCATION HWY_KK_19 AREA 664596.00 4166542.00 439.81
SO LOCATION HWY_KK_20 AREA 664517.00 4166613.00 439.12
SO LOCATION HWY_KK_21 AREA 664449.00 4166717.00 435.30
SO LOCATION HWY_KK_22 AREA 664159.00 4166864.00 425.33
SO LOCATION HWY_KK_23 AREA 664055.00 4166979.00 421.89
SO LOCATION HWY_KK_24 AREA 663657.00 4167225.00 417.99
SO LOCATION HWY_KK_25 AREA 663504.00 4167229.00 415.35

```
SO LOCATION HWY_KK_26 AREA 663148.00 4167361.00 417.40
SO LOCATION HWY_KK_27 AREA 663076.00 4167455.00 410.61
SO LOCATION HWY_KK_28 AREA 663075.00 4167459.00 410.48
SO LOCATION HWY_KK_29 AREA 663090.00 4167581.00 404.93
SO LOCATION HWY_KK_30 AREA 663106.00 4167898.00 403.55
SO LOCATION HWY_KK_31 AREA 663024.00 4168082.00 409.83
SO LOCATION HWY_KK_32 AREA 663023.00 4168084.00 409.80
SO LOCATION HWY_32_01 AREA 663031.00 4168209.00 403.79
SO LOCATION HWY_32_02 AREA 663419.00 4168384.00 398.48
SO LOCATION HWY_32_03 AREA 663587.00 4168530.00 387.68
SO LOCATION HWY_32_04 AREA 663963.00 4168699.00 391.72
SO LOCATION HWY_32_05 AREA 664455.00 4168901.00 395.25
SO LOCATION HWY_32_06 AREA 664854.00 4168928.00 405.82
SO LOCATION HWY_32_07 AREA 664972.00 4168925.00 406.32
SO LOCATION HWY_32_08 AREA 665212.00 4168983.00 407.04
SO LOCATION HWY_32_09 AREA 665379.00 4169065.00 411.21
SO LOCATION HWY_32_10 AREA 665527.00 4169281.00 420.37
SO LOCATION HWY_32_11 AREA 665876.00 4169479.00 421.76
SO LOCATION HWY_32_12 AREA 666024.00 4169629.00 424.97

SO SRCPARAM BR_P8 2.99E-02 60.96 358.33 6.60 5.03
SO SRCPARAM BR_P16 8.66E-03 16.76 293.33 9.65 1.37
SO SRCPARAM BR_P22 1.20E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P23 1.20E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P24 1.64E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P25 1.64E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P26 1.64E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P27 1.64E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P28 1.64E-03 30.78 561.11 1.40 0.76
SO SRCPARAM BR_P31A 2.69E-04 8.84 293.33 7.62 0.52
SO SRCPARAM BR_P31B 2.29E-03 12.19 293.33 21.34 1.07
SO SRCPARAM BR_P31C 5.14E-03 8.84 293.33 8.64 0.76
SO SRCPARAM BR_P71 1.82E-02 24.38 316.67 20.32 1.37
SO SRCPARAM BR_P72 1.97E-02 10.36 316.67 17.78 0.82
SO SRCPARAM BR_P81 6.90E-03 24.38 327.78 9.65 1.37
SO SRCPARAM BR_V10A 7.48E-02 12.96 4.24 6.03
SO SRCPARAM BR_V10B 7.48E-02 12.96 4.24 6.03
SO SRCPARAM BR_V11A 4.89E-02 12.96 5.15 6.03
SO SRCPARAM BR_V11B 4.89E-02 12.96 5.15 6.03
SO SRCPARAM BR_V11C 4.89E-02 12.96 5.15 6.03
SO SRCPARAM BR_V12A 1.48E-02 12.04 4.11 5.60
SO SRCPARAM BR_V12B 1.48E-02 12.04 4.11 5.60
SO SRCPARAM BR_V12C 1.48E-02 12.04 4.11 5.60
SO SRCPARAM BR_V12D 1.48E-02 12.04 4.11 5.60
SO SRCPARAM BR_V12E 1.48E-02 12.04 4.11 5.60
SO SRCPARAM BR_V12F 1.48E-02 12.04 4.11 5.60
```

```
SO SRCPARAM BR_V13A 1.34E-03 1.83 0.85 0.85
SO SRCPARAM BR_V13B 2.81E-03 0.91 0.57 0.43
SO SRCPARAM BR_V13C 2.81E-03 3.05 0.43 0.28
SO SRCPARAM BR_A13E 5.49E-07 2.00 33.00 33.00 0.00 0.00
SO SRCPARAM BR_A13F 1.57E-07 2.00 33.00 33.00 0.00 0.00
SO SRCPARAM BR_A13G1 5.82E-08 0.00 201.90 107.04 0.00 0.00
SO SRCPARAM BR_A13G2 5.82E-08 0.00 126.41 93.88 0.00 0.00
SO SRCPARAM BR_A13G3 5.82E-08 0.00 129.92 93.00 0.00 0.00
SO SRCPARAM BR_A13G4 5.82E-08 0.00 64.96 136.00 0.00 0.00
SO SRCPARAM BR_A13G5 5.82E-08 0.00 232.63 254.44 0.00 0.00
SO SRCPARAM BR_HRAB01 1.52E-07 0.00 10.00 143.03 88.80 1.40
SO SRCPARAM BR_HRAB02 1.52E-07 0.00 10.00 105.10 63.44 1.40
SO SRCPARAM BR_HRBC01 7.99E-08 0.00 43.05 10.00 87.34 1.40
SO SRCPARAM BR_HRBD01 6.99E-08 0.00 38.18 10.00 45.00 1.40
SO SRCPARAM BR_HRBD02 6.99E-08 0.00 10.00 32.25 60.26 1.40
SO SRCPARAM BR_HRBD03 6.99E-08 0.00 10.00 65.95 40.70 1.40
SO SRCPARAM BR_HRBD04 6.99E-08 0.00 10.00 49.04 20.28 1.40
SO SRCPARAM BR_HRDE01 1.03E-07 0.00 10.00 122.09 26.78 1.40
SO SRCPARAM BR_HREF01 7.41E-09 0.00 40.59 10.00 50.81 1.40
SO SRCPARAM BR_HREG01 1.00E-07 0.00 10.00 51.01 1.12 1.40
SO SRCPARAM BR_HREG02 1.00E-07 0.00 10.00 107.04 29.68 1.40
SO SRCPARAM BR_HREG03 1.00E-07 0.00 10.00 38.95 29.20 1.40
SO SRCPARAM BR_HREG04 1.00E-07 0.00 10.00 32.20 25.77 1.40
SO SRCPARAM BR_HRGH01 4.75E-08 0.00 24.96 10.00 11.51 1.40
SO SRCPARAM BR_HRGI01 5.28E-08 0.00 10.00 66.03 35.14 1.40
SO SRCPARAM BR_HRIJ01 5.14E-08 0.00 37.64 10.00 16.99 1.40
SO SRCPARAM BR_HRIJ02 5.14E-08 0.00 59.21 10.00 4.84 1.40
SO SRCPARAM BR_HRIJ03 5.14E-08 0.00 45.54 10.00 19.23 1.40
SO SRCPARAM BR_HRJK01 2.34E-08 0.00 53.15 10.00 4.31 1.40
SO SRCPARAM BR_HRJK02 2.34E-08 0.00 10.00 51.89 64.92 1.40
SO SRCPARAM BR_HRJK03 2.34E-08 0.00 10.00 62.97 57.32 1.40
SO SRCPARAM BR_HRJK04 2.34E-08 0.00 10.00 27.51 19.09 1.40
SO SRCPARAM BR_HRKL01 1.83E-08 0.00 10.00 60.93 23.20 1.40
SO SRCPARAM BR_HRKL02 1.83E-08 0.00 51.09 10.00 86.63 1.40
SO SRCPARAM BR_HRKL03 1.83E-08 0.00 56.22 10.00 51.50 1.40
SO SRCPARAM BR_HRLM01 2.37E-08 0.00 10.00 55.61 37.70 1.40
SO SRCPARAM BR_HRMN01 4.20E-08 0.00 10.00 37.01 51.59 1.40
SO SRCPARAM BR_HRMN02 4.20E-08 0.00 10.00 38.47 81.03 1.40
SO SRCPARAM BR_HRNO01 6.16E-09 0.00 10.00 64.50 29.75 1.40
SO SRCPARAM BR_HRNO02 6.16E-09 0.00 59.68 10.00 81.33 1.40
SO SRCPARAM BR_HRNP01 5.73E-09 0.00 10.00 47.51 59.66 1.40
SO SRCPARAM BR_HRNQ01 3.84E-08 0.00 10.00 38.28 33.28 1.40
SO SRCPARAM BR_HRLR01 2.85E-08 0.00 10.00 25.63 20.56 1.40
SO SRCPARAM BR_HRLR02 2.85E-08 0.00 45.22 10.00 71.96 1.40
SO SRCPARAM BR_HRLR03 2.85E-08 0.00 10.00 38.01 35.37 1.40
SO SRCPARAM BR_HRRS01 1.85E-08 0.00 53.99 10.00 58.48 1.40
```

```
SO SRCPARAM BR_HRRT01 8.52E-09 0.00 10.00 42.44 34.44 1.40
SO SRCPARAM BR_HRRT02 8.52E-09 0.00 10.00 49.40 58.24 1.40
SO SRCPARAM BR_HRRT03 8.52E-09 0.00 53.60 10.00 36.65 1.40
SO SRCPARAM BR_HRRT04 8.52E-09 0.00 72.99 10.00 80.54 1.40
SO SRCPARAM BR_HRRT05 8.52E-09 0.00 10.00 50.09 3.43 1.40
SO SRCPARAM BR_HRRT06 8.52E-09 0.00 10.00 30.52 20.02 1.40
SO SRCPARAM BR_HRRU01 1.52E-09 0.00 10.00 56.76 61.42 1.40
SO SRCPARAM BR_HRRU02 1.52E-09 0.00 57.70 10.00 85.30 1.40
SO SRCPARAM BR_HRUV01 0.00E+00 0.00 10.00 50.40 52.35 1.40
SO SRCPARAM BR_HRDV01 1.06E-09 0.00 10.00 75.60 7.99 1.40
SO SRCPARAM BR_HRDV02 1.06E-09 0.00 10.00 39.04 89.37 1.40
SO SRCPARAM BR_HRIW01 2.06E-09 0.00 10.00 183.73 39.70 1.40
SO SRCPARAM BR_HRIW02 2.06E-09 0.00 10.00 186.82 30.60 1.40
SO SRCPARAM BR_HRIW03 2.06E-09 0.00 10.00 110.08 25.59 1.40
SO SRCPARAM BR_HRIW04 2.06E-09 0.00 10.00 29.90 79.22 1.40
SO SRCPARAM BR_HRIW05 2.06E-09 0.00 38.40 10.00 56.88 1.40
SO SRCPARAM BR_HRIW06 2.06E-09 0.00 10.00 78.32 90.01 1.40
SO SRCPARAM BR_HRJX01 8.08E-09 0.00 102.15 10.00 33.53 1.40
SO SRCPARAM BR_HRXY01 5.89E-09 0.00 147.74 10.00 58.24 1.40
SO SRCPARAM BR_HRXY02 5.89E-09 0.00 22.02 10.00 19.43 1.40
SO SRCPARAM BR_HRKZ01 5.89E-09 0.00 55.71 10.00 59.95 1.40
SO SRCPARAM BU_UGV1 2.32E-03 0.00 291.67 0.00 3.05
SO SRCPARAM BU_UGV3 2.90E-03 0.00 291.67 0.00 3.66
SO SRCPARAM BU_UGV6 1.16E-03 0.00 291.67 0.00 2.44
SO SRCPARAM CA_UGV47 1.21E-04 0.00 291.67 0.00 1.52
SO SRCPARAM CA_UGS35 3.15E-03 0.00 291.67 0.00 3.66
SO SRCPARAM BU_V13 2.45E-04 4.88 0.85 5.67
SO SRCPARAM BU_V16 1.97E-04 0.91 0.57 0.43
SO SRCPARAM BU_V17 1.19E-03 18.90 0.28 8.51
SO SRCPARAM BU_V19 1.71E-03 18.90 0.28 8.51
SO SRCPARAM BU_V23A 7.07E-04 18.90 0.28 8.51
SO SRCPARAM BU_V20 2.43E-03 17.37 0.28 7.80
SO SRCPARAM BU_V25 4.28E-04 27.74 0.21 13.47
SO SRCPARAM BU_V26 4.28E-04 27.13 0.21 13.47
SO SRCPARAM BU_V28 1.29E-03 23.47 0.28 10.63
SO SRCPARAM BU_V33 5.01E-04 23.47 0.28 10.63
SO SRCPARAM BU_V36 5.92E-06 23.47 0.28 10.63
SO SRCPARAM BU_V40 3.07E-02 3.81 2.84 4.25
SO SRCPARAM CA_V8 1.26E-04 4.27 0.21 3.54
SO SRCPARAM CA_V9 1.26E-04 3.05 0.43 0.28
SO SRCPARAM BU_HRAB01 3.51E-08 0.00 20.00 10.00 0.00 1.40
SO SRCPARAM BU_HRAB02 3.51E-08 0.00 98.67 10.00 2.16 1.40
SO SRCPARAM BU_HRAB03 3.51E-08 0.00 98.36 10.00 7.46 1.40
SO SRCPARAM BU_HRAB04 3.51E-08 0.00 99.17 10.00 20.76 1.40
SO SRCPARAM BU_HRBC01 3.10E-08 0.00 55.20 10.00 60.61 1.40
SO SRCPARAM BU_HRBC02 3.10E-08 0.00 50.94 10.00 61.75 1.40
```

```
SO SRCPARAM BU_HRBC03 3.10E-08 0.00 49.92 10.00 78.66 1.40
SO SRCPARAM BU_HRBC04 3.10E-08 0.00 10.00 29.33 74.56 1.40
SO SRCPARAM BU_HRBD01 4.08E-09 0.00 100.00 10.00 20.70 1.40
SO SRCPARAM BU_HRBD02 4.08E-09 0.00 97.05 10.00 7.36 1.40
SO SRCPARAM BU_HRBD03 4.08E-09 0.00 98.24 10.00 10.39 1.40
SO SRCPARAM BU_HRBD04 4.08E-09 0.00 82.67 10.00 5.49 1.40
SO SRCPARAM BU_HRBD05 4.08E-09 0.00 50.21 10.00 82.66 1.40
SO SRCPARAM BU_HRBD06 4.08E-09 0.00 10.00 49.95 26.00 1.40
SO SRCPARAM BU_HRBD07 4.08E-09 0.00 10.00 97.27 38.95 1.40
SO SRCPARAM BU_HRBD08 4.08E-09 0.00 10.00 23.03 18.15 1.40
SO SRCPARAM BU_HRDE01 1.10E-09 0.00 10.00 53.61 2.02 1.40
SO SRCPARAM BU_HRDE02 1.10E-09 0.00 49.72 10.00 30.05 1.40
SO SRCPARAM BU_HRDE03 1.10E-09 0.00 51.01 10.00 20.79 1.40
SO SRCPARAM BU_HRDE04 1.10E-09 0.00 49.54 10.00 3.49 1.40
SO SRCPARAM BU_HRDE05 1.10E-09 0.00 10.00 24.22 14.88 1.40
SO SRCPARAM BU_HRDE06 1.10E-09 0.00 23.94 10.00 78.76 1.40
SO SRCPARAM BU_HRDF01 2.99E-09 0.00 22.08 10.00 20.20 1.40
SO SRCPARAM BU_HRDF02 2.99E-09 0.00 32.44 10.00 11.15 1.40
SO SRCPARAM BU_HRDF03 2.99E-09 0.00 42.51 10.00 12.05 1.40
SO SRCPARAM BU_HRDF04 2.99E-09 0.00 44.84 10.00 30.58 1.40
SO SRCPARAM BU_HRGH01 2.17E-10 0.00 10.00 61.15 89.58 1.40
SO SRCPARAM BU_HRGH02 2.17E-10 0.00 10.00 46.31 47.71 1.40
SO SRCPARAM BU_HRGH03 2.17E-10 0.00 158.81 10.00 84.09 1.40
SO SRCPARAM BU_HRGH04 2.17E-10 0.00 10.00 27.57 9.27 1.40
SO SRCPARAM BU_HRHI01 3.66E-08 0.00 10.00 262.12 15.87 1.40
SO SRCPARAM BU_HRHI02 3.66E-08 0.00 10.00 57.67 61.22 1.40
SO SRCPARAM BU_HRHI03 3.66E-08 0.00 97.21 10.00 29.05 1.40
SO SRCPARAM BU_HRHI04 3.66E-08 0.00 120.85 10.00 48.91 1.40
SO SRCPARAM CA_HRAB01 1.93E-08 0.00 100.00 10.00 65.97 1.40
SO SRCPARAM CA_HRAB02 1.93E-08 0.00 100.00 10.00 84.13 1.40
SO SRCPARAM CA_HRAB03 1.93E-08 0.00 10.00 100.00 1.11 1.40
SO SRCPARAM CA_HRAB04 1.93E-08 0.00 10.00 75.00 0.00 1.40
SO SRCPARAM CA_HRAB05 1.93E-08 0.00 10.00 75.00 0.00 1.40
SO SRCPARAM CA_HRAB06 1.93E-08 0.00 10.00 75.00 63.99 1.40
SO SRCPARAM CA_HRAB07 1.93E-08 0.00 10.00 50.00 61.00 1.40
SO SRCPARAM BU_A48A 4.02E-09 0.00 402.00 402.00 0.00 0.00
SO SRCPARAM BU_A48B 4.02E-09 0.00 402.00 402.00 0.00 0.00
SO SRCPARAM BU_A48C 4.02E-09 0.00 402.00 402.00 0.00 0.00
SO SRCPARAM BU_A48D 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48E 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48F 4.02E-09 0.00 402.00 402.00 0.00 0.00
SO SRCPARAM BU_A48G 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48H 4.02E-09 0.00 402.00 402.00 0.00 0.00
SO SRCPARAM BU_A48I 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48J 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48K 4.02E-09 0.00 201.00 201.00 0.00 0.00
```

```
SO SRCPARAM BU_A48L 4.02E-09 0.00 1608.00 402.00 0.00 0.00
SO SRCPARAM BU_A48M 4.02E-09 0.00 1206.00 201.00 0.00 0.00
SO SRCPARAM BU_A48N 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM BU_A48O 4.02E-09 0.00 201.00 201.00 0.00 0.00
SO SRCPARAM HWY_KK_01 4.51E-08 0.00 737.75 10.00 15.71 1.40
SO SRCPARAM HWY_KK_02 4.51E-08 0.00 982.95 10.00 64.74 1.40
SO SRCPARAM HWY_KK_03 4.51E-08 0.00 787.25 10.00 45.35 1.40
SO SRCPARAM HWY_KK_04 4.51E-08 0.00 787.25 10.00 45.35 1.40
SO SRCPARAM HWY_KK_05 4.51E-08 0.00 545.20 10.00 75.40 1.40
SO SRCPARAM HWY_KK_06 4.51E-08 0.00 559.58 10.00 61.43 1.40
SO SRCPARAM HWY_KK_07 4.51E-08 0.00 768.31 10.00 78.05 1.40
SO SRCPARAM HWY_KK_08 4.51E-08 0.00 10.00 279.19 21.26 1.40
SO SRCPARAM HWY_KK_09 4.51E-08 0.00 10.00 679.42 40.49 1.40
SO SRCPARAM HWY_KK_10 4.51E-08 0.00 10.00 679.42 40.49 1.40
SO SRCPARAM HWY_KK_11 4.51E-08 0.00 10.00 274.74 1.51 1.40
SO SRCPARAM HWY_KK_12 4.51E-08 0.00 443.09 10.00 61.99 1.40
SO SRCPARAM HWY_KK_13 4.51E-08 0.00 333.05 10.00 85.56 1.40
SO SRCPARAM HWY_KK_14 4.51E-08 0.00 167.97 10.00 74.89 1.40
SO SRCPARAM HWY_KK_15 4.51E-08 0.00 10.00 229.80 4.50 1.40
SO SRCPARAM HWY_KK_16 4.51E-08 0.00 140.47 10.00 76.21 1.40
SO SRCPARAM HWY_KK_17 4.51E-08 0.00 281.37 10.00 57.31 1.40
SO SRCPARAM HWY_KK_18 4.51E-08 0.00 247.85 10.00 42.46 1.40
SO SRCPARAM HWY_KK_19 4.51E-08 0.00 337.40 10.00 62.25 1.40
SO SRCPARAM HWY_KK_20 4.51E-08 0.00 107.56 10.00 42.07 1.40
SO SRCPARAM HWY_KK_21 4.51E-08 0.00 122.82 10.00 56.96 1.40
SO SRCPARAM HWY_KK_22 4.51E-08 0.00 328.22 10.00 27.05 1.40
SO SRCPARAM HWY_KK_23 4.51E-08 0.00 153.10 10.00 47.71 1.40
SO SRCPARAM HWY_KK_24 4.51E-08 0.00 469.48 10.00 31.76 1.40
SO SRCPARAM HWY_KK_25 4.51E-08 0.00 154.61 10.00 1.90 1.40
SO SRCPARAM HWY_KK_26 4.51E-08 0.00 378.87 10.00 20.27 1.40
SO SRCPARAM HWY_KK_27 4.51E-08 0.00 115.85 10.00 53.11 1.40
SO SRCPARAM HWY_KK_28 4.51E-08 0.00 10.00 121.96 7.28 1.40
SO SRCPARAM HWY_KK_29 4.51E-08 0.00 10.00 118.11 20.42 1.40
SO SRCPARAM HWY_KK_30 4.51E-08 0.00 210.08 10.00 82.96 1.40
SO SRCPARAM HWY_KK_31 4.51E-08 0.00 202.83 10.00 66.03 1.40
SO SRCPARAM HWY_KK_32 4.51E-08 0.00 10.00 120.85 2.39 1.40
SO SRCPARAM HWY_32_01 1.70E-07 0.00 10.00 427.06 65.65 1.40
SO SRCPARAM HWY_32_02 1.70E-07 0.00 10.00 220.70 48.96 1.40
SO SRCPARAM HWY_32_03 1.70E-07 0.00 10.00 412.14 65.79 1.40
SO SRCPARAM HWY_32_04 1.70E-07 0.00 10.00 530.95 67.73 1.40
SO SRCPARAM HWY_32_05 1.70E-07 0.00 10.00 400.46 84.62 1.40
SO SRCPARAM HWY_32_06 1.70E-07 0.00 118.89 10.00 6.47 1.40
SO SRCPARAM HWY_32_07 1.70E-07 0.00 10.00 248.74 76.28 1.40
SO SRCPARAM HWY_32_08 1.70E-07 0.00 10.00 188.49 63.82 1.40
SO SRCPARAM HWY_32_09 1.70E-07 0.00 10.00 259.63 34.09 1.40
SO SRCPARAM HWY_32_10 1.70E-07 0.00 10.00 403.07 60.53 1.40
```

```
SO SRCPARAM HWY_32_11 1.70E-07 0.00 10.00 209.31 44.51 1.40
SO SRCPARAM HWY_32_12 1.70E-07 0.00 10.00 261.09 52.00 1.40

** BPIP (Dated: 04274)
** DATE : 9/21/2011
** TIME : 15:52: 1
** BPIP.OUT
SO BUILDHGT BR_P8 19.81 19.81 19.81 19.81 24.69 24.69
SO BUILDHGT BR_P8 19.81 19.81 19.81 19.81 24.69 24.69
SO BUILDHGT BR_P8 24.69 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P8 19.81 19.81 19.81 19.81 24.69 24.69
SO BUILDHGT BR_P8 24.69 24.69 25.91 25.91 25.91 24.69
SO BUILDHGT BR_P8 24.69 19.81 19.81 19.81 19.81 19.81
SO BUILDWID BR_P8 46.29 44.17 40.70 42.96 121.17 130.18
SO BUILDWID BR_P8 47.25 45.82 43.00 38.87 122.33 114.32
SO BUILDWID BR_P8 108.47 36.00 40.70 44.17 46.29 47.00
SO BUILDWID BR_P8 46.29 44.17 40.70 42.96 121.17 130.18
SO BUILDWID BR_P8 135.24 136.19 48.00 50.74 51.95 114.32
SO BUILDWID BR_P8 108.47 36.00 40.70 44.17 46.29 47.00
SO BUILDLEN BR_P8 38.87 33.57 27.24 30.21 101.45 95.62
SO BUILDLEN BR_P8 44.17 46.29 47.00 46.29 95.18 103.02
SO BUILDLEN BR_P8 112.72 45.80 47.24 47.25 45.82 43.00
SO BUILDLEN BR_P8 38.87 33.57 27.24 30.21 101.45 95.62
SO BUILDLEN BR_P8 89.72 81.09 32.00 24.39 16.05 103.02
SO BUILDLEN BR_P8 112.72 45.80 47.24 47.25 45.82 43.00
SO XBADJ BR_P8 -20.98 -13.31 -5.25 -2.03 19.75 37.51
SO XBADJ BR_P8 1.71 2.90 4.00 4.98 46.63 34.66
SO XBADJ BR_P8 19.80 0.08 -3.99 -7.94 -11.65 -15.00
SO XBADJ BR_P8 -17.90 -20.25 -21.99 -28.19 -121.19 -133.14
SO XBADJ BR_P8 -143.86 -150.21 -143.00 -140.83 -134.38 -137.68
SO XBADJ BR_P8 -132.52 -45.88 -43.25 -39.31 -34.17 -28.00
SO YBADJ BR_P8 -28.12 -27.89 -26.82 -25.63 -64.73 -53.46
SO YBADJ BR_P8 -15.68 -11.26 -6.50 -1.54 22.76 40.14
SO YBADJ BR_P8 55.62 17.21 20.82 23.79 26.04 27.50
SO YBADJ BR_P8 28.12 27.89 26.82 25.63 64.73 53.46
SO YBADJ BR_P8 40.56 26.43 20.00 -2.36 -24.64 -40.14
SO YBADJ BR_P8 -55.62 -17.21 -20.82 -23.79 -26.04 -27.50
SO BUILDHGT BR_P16 12.19 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P16 19.81 19.81 19.81 19.81 12.19 12.19
SO BUILDHGT BR_P16 12.19 12.19 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P16 12.19 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P16 19.81 19.81 19.81 19.81 12.19 12.19
SO BUILDHGT BR_P16 12.19 12.19 12.19 12.19 12.19 12.19
SO BUILDWID BR_P16 109.02 47.32 41.77 34.94 27.66 32.44
SO BUILDWID BR_P16 39.20 44.78 49.00 51.73 101.41 96.97
SO BUILDWID BR_P16 89.58 81.69 93.26 102.00 107.63 110.00
```

SO BUILDWID BR_P16 109.02 47.32 41.77 34.94 27.66 32.44
SO BUILDWID BR_P16 39.20 44.78 49.00 51.73 101.41 96.97
SO BUILDWID BR_P16 89.58 81.69 93.26 102.00 107.63 110.00
SO BUILDLEN BR_P16 102.76 52.89 52.44 50.39 47.79 51.77
SO BUILDLEN BR_P16 54.16 54.92 54.00 51.44 104.73 97.26
SO BUILDLEN BR_P16 86.84 73.77 77.97 88.41 96.17 101.00
SO BUILDLEN BR_P16 102.76 52.89 52.44 50.39 47.79 51.77
SO BUILDLEN BR_P16 54.16 54.92 54.00 51.44 104.73 97.26
SO BUILDLEN BR_P16 86.84 73.77 77.97 88.41 96.17 101.00
SO XBADJ BR_P16 -78.32 14.70 19.46 23.63 26.40 24.86
SO XBADJ BR_P16 22.56 19.58 16.00 11.94 -35.53 -27.57
SO XBADJ BR_P16 -18.77 -9.40 -11.05 -15.20 -18.89 -22.00
SO XBADJ BR_P16 -24.44 -67.59 -71.90 -74.03 -74.19 -76.62
SO XBADJ BR_P16 -76.72 -74.49 -70.00 -63.38 -69.21 -69.69
SO XBADJ BR_P16 -68.06 -64.37 -66.92 -73.21 -77.28 -79.00
SO YBADJ BR_P16 -12.10 -31.17 -23.74 -15.58 -6.65 3.68
SO YBADJ BR_P16 12.42 20.77 28.50 35.36 -24.56 -21.43
SO YBADJ BR_P16 -17.65 -13.92 -8.94 -3.68 1.68 7.00
SO YBADJ BR_P16 12.10 31.17 23.74 15.58 6.65 -3.68
SO YBADJ BR_P16 -12.42 -20.77 -28.50 -35.36 24.56 21.43
SO YBADJ BR_P16 17.65 13.92 8.94 3.68 -1.68 -7.00
SO BUILDHGT BR_P22 25.91 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P22 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P22 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P22 25.91 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P22 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P22 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDWID BR_P22 24.39 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P22 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P22 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDWID BR_P22 24.39 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P22 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P22 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDLEN BR_P22 50.74 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P22 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P22 15.53 23.91 31.57 38.26 43.80 48.00
SO BUILDLEN BR_P22 50.74 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P22 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P22 15.53 23.91 31.57 38.26 43.80 48.00
SO XBADJ BR_P22 -47.44 -88.52 -91.29 -94.79 -56.48 -55.01
SO XBADJ BR_P22 -51.87 -47.15 -41.00 -33.60 -25.19 -16.01
SO XBADJ BR_P22 -15.35 -14.24 -12.70 -10.77 -8.51 -6.00
SO XBADJ BR_P22 -3.30 -33.82 -23.03 -13.68 5.61 6.79
SO XBADJ BR_P22 7.77 8.52 9.00 9.21 9.14 8.79
SO XBADJ BR_P22 -0.19 -9.68 -18.87 -27.50 -35.28 -42.00
SO YBADJ BR_P22 21.41 49.30 46.47 41.56 2.28 -3.09

SO YBADJ BR_P22 -8.36 -13.39 -18.00 -22.07 -25.46 -28.29
SO YBADJ BR_P22 -30.24 -31.04 -30.90 -29.82 -27.83 -25.00
SO YBADJ BR_P22 -21.41 -49.30 -46.47 -41.56 -2.28 3.09
SO YBADJ BR_P22 8.36 13.39 18.00 22.07 25.46 28.29
SO YBADJ BR_P22 30.24 31.04 30.90 29.82 27.83 25.00
SO BUILDHGT BR_P23 24.69 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P23 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P23 25.91 25.91 25.91 25.91 25.91 24.69
SO BUILDHGT BR_P23 24.69 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P23 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P23 25.91 25.91 25.91 25.91 25.91 24.69
SO BUILDWID BR_P23 91.99 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P23 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P23 51.98 50.87 48.21 44.09 38.63 86.00
SO BUILDWID BR_P23 91.99 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P23 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P23 51.98 50.87 48.21 44.09 38.63 86.00
SO BUILDLEN BR_P23 127.10 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P23 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P23 15.53 23.91 31.57 38.26 43.80 133.00
SO BUILDLEN BR_P23 127.10 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P23 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P23 15.53 23.91 31.57 38.26 43.80 133.00
SO XBADJ BR_P23 -82.25 -88.01 -91.56 -95.83 -58.26 -57.47
SO XBADJ BR_P23 -54.94 -50.74 -45.00 -37.89 -29.63 -20.47
SO XBADJ BR_P23 -19.70 -18.34 -16.43 -14.02 -11.18 -59.00
SO XBADJ BR_P23 -44.84 -34.33 -22.77 -12.64 7.39 9.26
SO XBADJ BR_P23 10.85 12.11 13.00 13.50 13.58 13.26
SO XBADJ BR_P23 4.16 -5.57 -15.14 -24.25 -32.62 -74.00
SO YBADJ BR_P23 51.15 53.74 50.93 45.91 6.38 0.64
SO YBADJ BR_P23 -5.12 -10.72 -16.00 -20.79 -24.95 -28.56
SO YBADJ BR_P23 -31.28 -32.82 -33.36 -32.89 -31.42 -47.00
SO YBADJ BR_P23 -51.15 -53.74 -50.93 -45.91 -6.38 -0.64
SO YBADJ BR_P23 5.12 10.72 16.00 20.79 24.95 28.56
SO YBADJ BR_P23 31.28 32.82 33.36 32.89 31.42 47.00
SO BUILDHGT BR_P24 24.08 24.08 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P24 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P24 25.91 25.91 25.91 24.69 24.69 24.69
SO BUILDHGT BR_P24 24.08 24.08 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P24 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P24 25.91 25.91 25.91 24.69 24.69 24.69
SO BUILDWID BR_P24 51.26 52.97 103.02 112.72 23.91 31.57
SO BUILDWID BR_P24 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P24 51.98 50.87 48.21 89.72 81.09 86.00
SO BUILDWID BR_P24 51.26 52.97 103.02 112.72 23.91 31.57
SO BUILDWID BR_P24 38.26 43.80 48.00 50.74 51.95 51.97

SO BUILDWID BR_P24 51.98 50.87 48.21 89.72 81.09 86.00
SO BUILDLEN BR_P24 26.19 17.58 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P24 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P24 15.53 23.91 31.57 135.24 136.19 133.00
SO BUILDLEN BR_P24 26.19 17.58 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P24 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P24 15.53 23.91 31.57 135.24 136.19 133.00
SO XBADJ BR_P24 -32.27 -26.56 -90.73 -96.50 -60.40 -61.03
SO XBADJ BR_P24 -59.81 -56.77 -52.00 -45.65 -37.92 -29.03
SO XBADJ BR_P24 -28.27 -26.67 -24.26 -91.26 -78.83 -64.00
SO XBADJ BR_P24 6.08 8.98 -23.60 -11.97 9.54 12.82
SO XBADJ BR_P24 15.72 18.13 20.00 21.26 21.87 21.82
SO XBADJ BR_P24 12.74 2.76 -7.31 -43.98 -57.36 -69.00
SO YBADJ BR_P24 -6.34 -9.49 59.49 54.49 14.71 8.47
SO YBADJ BR_P24 1.98 -4.58 -11.00 -17.08 -22.65 -27.73
SO YBADJ BR_P24 -31.95 -34.97 -36.93 -51.09 -49.30 -54.00
SO YBADJ BR_P24 6.34 9.49 -59.49 -54.49 -14.71 -8.47
SO YBADJ BR_P24 -1.98 4.58 11.00 17.08 22.65 27.73
SO YBADJ BR_P24 31.95 34.97 36.93 51.09 49.30 54.00
SO BUILDHGT BR_P25 24.08 24.08 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P25 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P25 25.91 25.91 24.69 24.69 24.69 24.08
SO BUILDHGT BR_P25 24.08 24.08 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P25 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P25 25.91 25.91 24.69 24.69 24.69 24.08
SO BUILDWID BR_P25 51.26 52.97 103.02 112.72 23.91 31.57
SO BUILDWID BR_P25 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P25 51.98 50.87 95.62 89.72 81.09 48.00
SO BUILDWID BR_P25 51.26 52.97 103.02 112.72 23.91 31.57
SO BUILDWID BR_P25 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P25 51.98 50.87 95.62 89.72 81.09 48.00
SO BUILDLEN BR_P25 26.19 17.58 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P25 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P25 15.53 23.91 130.18 135.24 136.19 34.00
SO BUILDLEN BR_P25 26.19 17.58 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P25 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P25 15.53 23.91 130.18 135.24 136.19 34.00
SO XBADJ BR_P25 -30.82 -25.71 -90.50 -96.89 -61.42 -62.63
SO XBADJ BR_P25 -61.94 -59.37 -55.00 -48.95 -41.42 -32.63
SO XBADJ BR_P25 -31.86 -30.13 -104.16 -94.17 -81.32 1.00
SO XBADJ BR_P25 4.63 8.12 -23.83 -11.58 10.55 14.42
SO XBADJ BR_P25 17.85 20.74 23.00 24.56 25.38 25.42
SO XBADJ BR_P25 16.32 6.22 -26.02 -41.07 -54.87 -35.00
SO YBADJ BR_P25 -3.04 -5.99 63.09 58.07 18.17 11.71
SO YBADJ BR_P25 4.88 -2.09 -9.00 -15.64 -21.80 -27.50
SO YBADJ BR_P25 -32.35 -35.98 -52.94 -53.23 -51.90 0.00

SO YBADJ BR_P25 3.04 5.99 -63.09 -58.07 -18.17 -11.71
SO YBADJ BR_P25 -4.88 2.09 9.00 15.64 21.80 27.50
SO YBADJ BR_P25 32.35 35.98 52.94 53.23 51.90 0.00
SO BUILDHGT BR_P26 24.08 24.08 24.08 24.69 25.91 25.91
SO BUILDHGT BR_P26 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P26 25.91 25.91 24.69 24.69 24.08 24.08
SO BUILDHGT BR_P26 24.08 24.08 24.08 24.69 25.91 25.91
SO BUILDHGT BR_P26 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P26 25.91 25.91 24.69 24.69 24.08 24.08
SO BUILDWID BR_P26 51.26 52.97 53.47 112.72 23.91 31.57
SO BUILDWID BR_P26 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P26 51.98 50.87 95.62 89.72 43.28 48.00
SO BUILDWID BR_P26 51.26 52.97 53.47 112.72 23.91 31.57
SO BUILDWID BR_P26 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P26 51.98 50.87 95.62 89.72 43.28 48.00
SO BUILDLEN BR_P26 26.19 17.58 8.44 108.47 50.87 48.21
SO BUILDLEN BR_P26 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P26 15.53 23.91 130.18 135.24 40.78 34.00
SO BUILDLEN BR_P26 26.19 17.58 8.44 108.47 50.87 48.21
SO BUILDLEN BR_P26 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P26 15.53 23.91 130.18 135.24 40.78 34.00
SO XBADJ BR_P26 -28.74 -24.60 -19.71 -97.81 -63.32 -65.46
SO XBADJ BR_P26 -65.62 -63.78 -60.00 -54.40 -47.15 -38.46
SO XBADJ BR_P26 -37.62 -35.64 -109.26 -98.70 -6.48 -2.00
SO XBADJ BR_P26 2.55 7.01 11.27 -10.66 12.45 17.25
SO XBADJ BR_P26 21.52 25.14 28.00 30.01 31.10 31.25
SO XBADJ BR_P26 22.08 11.73 -20.93 -36.54 -34.29 -32.00
SO YBADJ BR_P26 2.41 -0.26 -3.12 63.83 23.69 16.80
SO YBADJ BR_P26 9.41 1.73 -6.00 -13.55 -20.69 -27.40
SO YBADJ BR_P26 -33.26 -37.88 -55.77 -56.90 -7.44 -5.00
SO YBADJ BR_P26 -2.41 0.26 3.12 -63.83 -23.69 -16.80
SO YBADJ BR_P26 -9.41 -1.73 6.00 13.55 20.69 27.40
SO YBADJ BR_P26 33.26 37.88 55.77 56.90 7.44 5.00
SO BUILDHGT BR_P27 24.08 24.08 24.08 24.69 24.69 25.91
SO BUILDHGT BR_P27 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P27 25.91 24.69 24.69 24.08 24.08 24.08
SO BUILDHGT BR_P27 24.08 24.08 24.08 24.69 24.69 25.91
SO BUILDHGT BR_P27 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P27 25.91 24.69 24.69 24.08 24.08 24.08
SO BUILDWID BR_P27 51.26 52.97 53.47 112.72 121.17 31.57
SO BUILDWID BR_P27 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P27 51.98 101.45 95.62 37.24 43.28 48.00
SO BUILDWID BR_P27 51.26 52.97 53.47 112.72 121.17 31.57
SO BUILDWID BR_P27 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P27 51.98 101.45 95.62 37.24 43.28 48.00
SO BUILDLEN BR_P27 26.19 17.58 8.44 108.47 101.45 48.21

SO BUILDLEN BR_P27 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P27 15.53 121.17 130.18 46.31 40.78 34.00
SO BUILDLEN BR_P27 26.19 17.58 8.44 108.47 101.45 48.21
SO BUILDLEN BR_P27 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P27 15.53 121.17 130.18 46.31 40.78 34.00
SO XBADJ BR_P27 -27.46 -24.09 -19.98 -98.85 -104.02 -67.93
SO XBADJ BR_P27 -68.69 -67.37 -64.00 -58.69 -51.59 -42.93
SO XBADJ BR_P27 -41.97 -120.60 -112.99 -14.02 -9.15 -4.00
SO XBADJ BR_P27 1.27 6.50 11.54 -9.62 2.58 19.71
SO XBADJ BR_P27 24.60 28.74 32.00 34.29 35.54 35.71
SO XBADJ BR_P27 26.43 -0.57 -17.19 -32.30 -31.63 -30.00
SO YBADJ BR_P27 6.69 4.18 1.34 68.18 60.01 20.54
SO YBADJ BR_P27 12.66 4.40 -4.00 -12.27 -20.18 -27.67
SO YBADJ BR_P27 -34.30 -53.30 -58.23 -12.73 -11.03 -9.00
SO YBADJ BR_P27 -6.69 -4.18 -1.34 -68.18 -60.01 -20.54
SO YBADJ BR_P27 -12.66 -4.40 4.00 12.27 20.18 27.67
SO YBADJ BR_P27 34.30 53.30 58.23 12.73 11.03 9.00
SO BUILDHGT BR_P28 24.08 24.08 24.08 24.08 24.69 25.91
SO BUILDHGT BR_P28 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P28 25.91 24.69 24.69 24.08 24.08 24.08
SO BUILDHGT BR_P28 24.08 24.08 24.08 24.08 24.69 25.91
SO BUILDHGT BR_P28 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P28 25.91 24.69 24.69 24.08 24.08 24.08
SO BUILDWID BR_P28 51.26 52.97 53.47 54.03 121.17 31.57
SO BUILDWID BR_P28 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P28 51.98 101.45 95.62 37.24 43.28 48.00
SO BUILDWID BR_P28 51.26 52.97 53.47 54.03 121.17 31.57
SO BUILDWID BR_P28 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P28 51.98 101.45 95.62 37.24 43.28 48.00
SO BUILDLEN BR_P28 26.19 17.58 8.44 13.23 101.45 48.21
SO BUILDLEN BR_P28 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P28 15.53 121.17 130.18 46.31 40.78 34.00
SO BUILDLEN BR_P28 26.19 17.58 8.44 13.23 101.45 48.21
SO BUILDLEN BR_P28 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P28 15.53 121.17 130.18 46.31 40.78 34.00
SO XBADJ BR_P28 -24.22 -21.70 -18.52 -21.49 -104.52 -69.39
SO XBADJ BR_P28 -71.08 -70.61 -68.00 -63.32 -56.72 -48.39
SO XBADJ BR_P28 -47.60 -126.23 -118.45 -19.15 -13.78 -8.00
SO XBADJ BR_P28 -1.97 4.11 10.07 8.25 3.07 21.18
SO XBADJ BR_P28 26.99 31.98 36.00 38.93 40.67 41.18
SO XBADJ BR_P28 32.07 5.06 -11.73 -27.17 -26.99 -26.00
SO YBADJ BR_P28 11.33 9.31 6.81 4.17 65.65 26.00
SO YBADJ BR_P28 17.79 9.03 0.00 -9.03 -17.79 -26.20
SO YBADJ BR_P28 -33.81 -53.79 -59.69 -15.12 -14.28 -13.00
SO YBADJ BR_P28 -11.33 -9.31 -6.81 -4.17 -65.65 -26.00
SO YBADJ BR_P28 -17.79 -9.03 0.00 9.03 17.79 26.20

SO YBADJ BR_P28 33.81 53.79 59.69 15.12 14.28 13.00
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31A 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDWID BR_P31A 51.44 47.32 41.77 34.94 27.66 32.44
SO BUILDWID BR_P31A 39.20 44.78 49.00 51.73 52.89 52.44
SO BUILDWID BR_P31A 50.39 47.79 51.77 54.16 54.92 54.00
SO BUILDWID BR_P31A 51.44 47.32 41.77 34.94 27.66 32.44
SO BUILDWID BR_P31A 39.20 44.78 49.00 51.73 52.89 52.44
SO BUILDWID BR_P31A 50.39 47.79 51.77 54.16 54.92 54.00
SO BUILDLEN BR_P31A 51.73 52.89 52.44 50.39 47.79 51.77
SO BUILDLEN BR_P31A 54.16 54.92 54.00 51.44 47.32 41.77
SO BUILDLEN BR_P31A 34.94 27.66 32.44 39.20 44.78 49.00
SO BUILDLEN BR_P31A 51.73 52.89 52.44 50.39 47.79 51.77
SO BUILDLEN BR_P31A 54.16 54.92 54.00 51.44 47.32 41.77
SO BUILDLEN BR_P31A 34.94 27.66 32.44 39.20 44.78 49.00
SO XBADJ BR_P31A 1.57 0.08 -1.40 -2.84 -4.89 -10.28
SO XBADJ BR_P31A -15.37 -19.99 -24.00 -27.28 -29.74 -31.28
SO XBADJ BR_P31A -31.88 -32.12 -39.03 -44.76 -49.13 -52.00
SO XBADJ BR_P31A -53.29 -52.97 -51.03 -47.55 -42.91 -41.48
SO XBADJ BR_P31A -38.79 -34.93 -30.00 -24.16 -17.59 -10.48
SO XBADJ BR_P31A -3.05 4.46 6.60 5.56 4.34 3.00
SO YBADJ BR_P31A 1.56 6.07 10.40 14.41 18.29 22.82
SO YBADJ BR_P31A 25.16 26.73 27.50 27.43 26.53 24.82
SO YBADJ BR_P31A 22.35 19.01 15.60 11.71 7.47 3.00
SO YBADJ BR_P31A -1.56 -6.07 -10.40 -14.41 -18.29 -22.82
SO YBADJ BR_P31A -25.16 -26.73 -27.50 -27.43 -26.53 -24.82
SO YBADJ BR_P31A -22.35 -19.01 -15.60 -11.71 -7.47 -3.00
SO BUILDHGT BR_P31B 19.81 19.81 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31B 12.19 12.19 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31B 12.19 12.19 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31B 19.81 19.81 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31B 12.19 12.19 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31B 12.19 12.19 12.19 12.19 12.19 12.19
SO BUILDWID BR_P31B 51.44 47.32 97.26 86.84 73.77 77.97
SO BUILDWID BR_P31B 88.41 96.17 101.00 102.76 101.41 96.97
SO BUILDWID BR_P31B 89.58 81.69 51.77 54.16 54.92 54.00
SO BUILDWID BR_P31B 51.44 47.32 97.26 86.84 73.77 77.97
SO BUILDWID BR_P31B 88.41 96.17 101.00 102.76 101.41 96.97
SO BUILDWID BR_P31B 89.58 81.69 93.26 102.00 107.63 110.00
SO BUILDLEN BR_P31B 51.73 52.89 96.97 89.58 81.69 93.26
SO BUILDLEN BR_P31B 102.00 107.63 110.00 109.02 104.73 97.26
SO BUILDLEN BR_P31B 86.84 73.77 32.44 39.20 44.78 49.00

SO BUILDLEN BR_P31B 51.73 52.89 96.97 89.58 81.69 93.26
SO BUILDLEN BR_P31B 102.00 107.63 110.00 109.02 104.73 97.26
SO BUILDLEN BR_P31B 86.84 73.77 77.97 88.41 96.17 101.00
SO XBADJ BR_P31B 38.53 32.88 -63.14 -67.28 -71.07 -82.83
SO XBADJ BR_P31B -92.09 -98.54 -102.00 -102.36 -99.61 -93.83
SO XBADJ BR_P31B -85.21 -73.99 -80.67 -87.14 -90.95 -92.00
SO XBADJ BR_P31B -90.26 -85.77 -33.83 -22.30 -10.63 -10.43
SO XBADJ BR_P31B -9.91 -9.09 -8.00 -6.66 -5.12 -3.43
SO XBADJ BR_P31B -1.63 0.22 -6.14 -18.09 -29.49 -40.00
SO YBADJ BR_P31B 22.29 32.91 45.20 41.79 37.11 32.84
SO YBADJ BR_P31B 26.11 18.59 10.50 2.09 -6.38 -14.66
SO YBADJ BR_P31B -22.49 -30.22 23.47 12.24 0.63 -11.00
SO YBADJ BR_P31B -22.29 -32.91 -45.20 -41.79 -37.11 -32.84
SO YBADJ BR_P31B -26.11 -18.59 -10.50 -2.09 6.38 14.66
SO YBADJ BR_P31B 22.49 30.22 36.20 41.09 44.72 47.00
SO BUILDHGT BR_P31C 19.81 19.81 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31C 12.19 12.19 12.19 12.19 12.19 19.81
SO BUILDHGT BR_P31C 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDHGT BR_P31C 19.81 19.81 12.19 12.19 12.19 12.19
SO BUILDHGT BR_P31C 12.19 12.19 12.19 12.19 12.19 19.81
SO BUILDHGT BR_P31C 19.81 19.81 19.81 19.81 19.81 19.81
SO BUILDWID BR_P31C 51.44 47.32 97.26 86.84 73.77 77.97
SO BUILDWID BR_P31C 88.41 96.17 101.00 102.76 101.41 52.44
SO BUILDWID BR_P31C 50.39 47.79 51.77 54.16 54.92 54.00
SO BUILDWID BR_P31C 51.44 47.32 97.26 86.84 73.77 77.97
SO BUILDWID BR_P31C 88.41 96.17 101.00 102.76 101.41 52.44
SO BUILDWID BR_P31C 50.39 47.79 51.77 54.16 54.92 54.00
SO BUILDLEN BR_P31C 51.73 52.89 96.97 89.58 81.69 93.26
SO BUILDLEN BR_P31C 102.00 107.63 110.00 109.02 104.73 41.77
SO BUILDLEN BR_P31C 34.94 27.66 32.44 39.20 44.78 49.00
SO BUILDLEN BR_P31C 51.73 52.89 96.97 89.58 81.69 93.26
SO BUILDLEN BR_P31C 102.00 107.63 110.00 109.02 104.73 41.77
SO BUILDLEN BR_P31C 34.94 27.66 32.44 39.20 44.78 49.00
SO XBADJ BR_P31C 20.11 14.60 -80.73 -83.64 -85.70 -95.30
SO XBADJ BR_P31C -102.00 -105.61 -106.00 -103.17 -97.21 -57.87
SO XBADJ BR_P31C -59.81 -60.54 -67.09 -71.59 -73.92 -74.00
SO XBADJ BR_P31C -71.83 -67.49 -16.24 -5.94 4.01 2.04
SO XBADJ BR_P31C 0.00 -2.03 -4.00 -5.85 -7.52 16.11
SO XBADJ BR_P31C 24.88 32.89 34.65 32.38 29.14 25.00
SO YBADJ BR_P31C 23.11 30.51 39.67 33.28 25.89 19.25
SO YBADJ BR_P31C 10.57 1.56 -7.50 -16.33 -24.66 34.87
SO YBADJ BR_P31C 27.63 19.36 11.01 2.32 -6.44 -15.00
SO YBADJ BR_P31C -23.11 -30.51 -39.67 -33.28 -25.89 -19.25
SO YBADJ BR_P31C -10.57 -1.56 7.50 16.33 24.66 -34.87
SO YBADJ BR_P31C -27.63 -19.36 -11.01 -2.32 6.44 15.00
SO BUILDHGT BR_P71 25.91 24.69 24.69 24.69 24.69 24.69

SO BUILDHGT BR_P71 24.69 24.69 24.69 25.91 25.91 25.91
SO BUILDHGT BR_P71 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P71 25.91 24.69 24.69 24.69 24.69 24.69
SO BUILDHGT BR_P71 24.69 24.69 24.69 25.91 25.91 25.91
SO BUILDHGT BR_P71 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDWID BR_P71 24.39 95.18 103.02 112.72 121.17 130.18
SO BUILDWID BR_P71 135.24 136.19 133.00 50.74 51.95 51.97
SO BUILDWID BR_P71 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDWID BR_P71 24.39 95.18 103.02 112.72 121.17 130.18
SO BUILDWID BR_P71 135.24 136.19 133.00 50.74 51.95 51.97
SO BUILDWID BR_P71 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDLEN BR_P71 50.74 122.33 114.32 108.47 101.45 95.62
SO BUILDLEN BR_P71 89.72 81.09 86.00 24.39 16.05 7.21
SO BUILDLEN BR_P71 15.53 23.91 31.57 38.26 43.80 48.00
SO BUILDLEN BR_P71 50.74 122.33 114.32 108.47 101.45 95.62
SO BUILDLEN BR_P71 89.72 81.09 86.00 24.39 16.05 7.21
SO BUILDLEN BR_P71 15.53 23.91 31.57 38.26 43.80 48.00
SO XBADJ BR_P71 -62.68 -99.53 -97.75 -96.49 -92.30 -85.30
SO XBADJ BR_P71 -75.71 -63.83 -66.00 -10.61 0.10 10.81
SO XBADJ BR_P71 12.19 13.17 13.76 13.93 13.67 13.00
SO XBADJ BR_P71 11.93 -22.80 -16.58 -11.98 -9.15 -10.32
SO XBADJ BR_P71 -14.01 -17.27 -20.00 -13.78 -16.15 -18.03
SO XBADJ BR_P71 -27.72 -37.09 -45.33 -52.19 -57.47 -61.00
SO YBADJ BR_P71 -1.59 24.01 19.65 14.03 7.09 -2.18
SO YBADJ BR_P71 -11.39 -20.25 -28.50 -37.31 -36.48 -34.74
SO YBADJ BR_P71 -31.94 -27.93 -23.08 -17.52 -11.44 -5.00
SO YBADJ BR_P71 1.59 -24.01 -19.65 -14.03 -7.09 2.18
SO YBADJ BR_P71 11.39 20.25 28.50 37.31 36.48 34.74
SO YBADJ BR_P71 31.94 27.93 23.08 17.52 11.44 5.00
SO BUILDHGT BR_P72 25.91 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P72 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P72 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P72 25.91 24.69 24.69 24.69 25.91 25.91
SO BUILDHGT BR_P72 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P72 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDWID BR_P72 24.39 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P72 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P72 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDWID BR_P72 24.39 95.18 103.02 112.72 23.91 31.57
SO BUILDWID BR_P72 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P72 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDLEN BR_P72 50.74 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P72 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P72 15.53 23.91 31.57 38.26 43.80 48.00
SO BUILDLEN BR_P72 50.74 122.33 114.32 108.47 50.87 48.21
SO BUILDLEN BR_P72 44.09 38.63 32.00 24.39 16.05 7.21

SO BUILDLEN BR_P72 15.53 23.91 31.57 38.26 43.80 48.00
SO XBADJ BR_P72 -56.59 -96.55 -97.95 -99.88 -59.84 -56.54
SO XBADJ BR_P72 -51.53 -44.95 -37.00 -27.93 -18.01 -7.54
SO XBADJ BR_P72 -5.86 -4.01 -2.04 0.00 2.03 4.00
SO XBADJ BR_P72 5.85 -25.79 -16.37 -8.59 8.97 8.33
SO XBADJ BR_P72 7.43 6.31 5.00 3.53 1.96 0.33
SO XBADJ BR_P72 -9.68 -19.91 -29.53 -38.26 -45.83 -52.00
SO YBADJ BR_P72 15.73 42.12 38.00 32.07 -7.95 -13.75
SO YBADJ BR_P72 -19.13 -23.93 -28.00 -31.22 -33.49 -34.95
SO YBADJ BR_P72 -35.33 -34.41 -32.44 -29.48 -25.63 -21.00
SO YBADJ BR_P72 -15.73 -42.12 -38.00 -32.07 7.95 13.75
SO YBADJ BR_P72 19.13 23.93 28.00 31.22 33.49 34.95
SO YBADJ BR_P72 35.33 34.41 32.44 29.48 25.63 21.00
SO BUILDHGT BR_P81 25.91 24.69 24.69 24.69 24.69 24.69
SO BUILDHGT BR_P81 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P81 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P81 25.91 24.69 24.69 24.69 24.69 24.69
SO BUILDHGT BR_P81 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDHGT BR_P81 25.91 25.91 25.91 25.91 25.91 25.91
SO BUILDWID BR_P81 24.39 95.18 103.02 112.72 121.17 130.18
SO BUILDWID BR_P81 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P81 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDWID BR_P81 24.39 95.18 103.02 112.72 121.17 130.18
SO BUILDWID BR_P81 38.26 43.80 48.00 50.74 51.95 51.97
SO BUILDWID BR_P81 51.98 50.87 48.21 44.09 38.63 32.00
SO BUILDLEN BR_P81 50.74 122.33 114.32 108.47 101.45 95.62
SO BUILDLEN BR_P81 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P81 15.53 23.91 31.57 38.26 43.80 48.00
SO BUILDLEN BR_P81 50.74 122.33 114.32 108.47 101.45 95.62
SO BUILDLEN BR_P81 44.09 38.63 32.00 24.39 16.05 7.21
SO BUILDLEN BR_P81 15.53 23.91 31.57 38.26 43.80 48.00
SO XBADJ BR_P81 -6.02 -47.94 -52.78 -59.52 -64.45 -67.43
SO XBADJ BR_P81 -32.21 -34.12 -35.00 -34.82 -33.57 -31.31
SO XBADJ BR_P81 -37.11 -41.79 -45.20 -47.24 -47.85 -47.00
SO XBADJ BR_P81 -44.72 -74.39 -61.54 -48.95 -36.99 -28.20
SO XBADJ BR_P81 -11.89 -4.51 3.00 10.42 17.53 24.10
SO XBADJ BR_P81 21.57 17.87 13.63 8.98 4.05 -1.00
SO YBADJ BR_P81 22.62 57.68 61.77 63.32 62.05 56.78
SO YBADJ BR_P81 28.11 25.95 23.00 19.35 15.11 10.22
SO YBADJ BR_P81 5.02 -0.09 -5.20 -10.16 -14.80 -19.00
SO YBADJ BR_P81 -22.62 -57.68 -61.77 -63.32 -62.05 -56.78
SO YBADJ BR_P81 -28.11 -25.95 -23.00 -19.35 -15.11 -10.22
SO YBADJ BR_P81 -5.02 0.09 5.20 10.16 14.80 19.00

SO PARTDIAM BR_P8 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P16 1.57 3.88 7.75 12.63 17.57 25.25

SO PARTDIAM BR_P22 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P23 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P24 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P25 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P26 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P27 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P28 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31C 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P71 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P72 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_P81 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V10A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V10B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V11A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V11B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V11C 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12C 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12D 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12E 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12F 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V13A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V13B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_V13C 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13E 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13F 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G1 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G2 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G3 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G4 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G5 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRAB01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRAB02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBC01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDE01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREF01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG03 1.57 3.88 7.75 12.63 17.57 25.25

```
SO PARTDIAM BR_HREG04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRGH01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRGI01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLM01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRMN01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRMN02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNO01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNO02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNP01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNQ01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRS01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRU01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRU02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRUV01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDV01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDV02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJX01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRXY01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRXY02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKZ01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV1 1.57 3.88 7.75 12.63 17.57 25.25
```

SO PARTDIAM BU_UGV3 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV6 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_UGV47 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_UGS35 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V13 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V16 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V17 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V19 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V23A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V20 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V25 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V26 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V28 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V33 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V36 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_V40 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_V8 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_V9 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD07 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD08 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH02 1.57 3.88 7.75 12.63 17.57 25.25

```
SO PARTDIAM BU_HRGH03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB07 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48A 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48B 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48C 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48D 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48E 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48F 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48G 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48H 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48I 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48J 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48K 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48L 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48M 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48N 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48O 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_07 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_08 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_09 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_10 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_11 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_12 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_13 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_14 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_15 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_16 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_17 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_18 1.57 3.88 7.75 12.63 17.57 25.25
```

```
SO PARTDIAM HWY_KK_19 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_20 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_21 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_22 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_23 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_24 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_25 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_26 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_27 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_28 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_29 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_30 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_31 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_32 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_01 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_02 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_03 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_04 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_05 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_06 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_07 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_08 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_09 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_10 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_11 1.57 3.88 7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_12 1.57 3.88 7.75 12.63 17.57 25.25

SO MASSFRAX BR_P8 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P16 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P22 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P23 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P24 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P25 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P26 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P27 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P28 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P31A 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P31B 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P31C 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P71 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P72 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_P81 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V10A 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V10B 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V11A 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V11B 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
```

```
SO MASSFRAX BR_V11C 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12A 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12B 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12C 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12D 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12E 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V12F 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
SO MASSFRAX BR_V13A 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BR_V13B 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BR_V13C 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BR_A13E 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13F 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13G1 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13G2 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13G3 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13G4 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_A13G5 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BR_HRAB01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRAB02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRBC01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRBD01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRBD02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRBD03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRBD04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRDE01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HREF01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HREG01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HREG02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HREG03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HREG04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRGH01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRGI01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIJ01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIJ02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIJ03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRJK01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRJK02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRJK03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRJK04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRKL01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRKL02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRKL03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRLM01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRMN01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRMN02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRNO01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
```

SO MASSFRAX BR_HRNO02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRNP01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRNQ01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRLR01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRLR02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRLR03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRS01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRT06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRU01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRRU02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRUV01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRDV01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRDV02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRIW06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRJX01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRXY01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRXY02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BR_HRKZ01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_UGV1 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_UGV3 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_UGV6 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX CA_UGV47 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX CA_UGS35 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_V13 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V16 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V17 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V19 0.0889 0.1444 0.2222 0.2444 0.1444 0.1557
SO MASSFRAX BU_V23A 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V20 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V25 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V26 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V28 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V33 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V36 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_V40 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX CA_V8 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777

```
SO MASSFRAX CA_V9 0.0667 0.2000 0.2111 0.1667 0.1778 0.1777
SO MASSFRAX BU_HRAB01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRAB02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRAB03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRAB04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBC01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBC02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBC03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBC04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD07 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRBD08 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDE06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDF01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDF02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDF03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRDF04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRGH01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRGH02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRGH03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRGH04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_HRHI01 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_HRHI02 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_HRHI03 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX BU_HRHI04 0.0333 0.0778 0.1667 0.3000 0.2000 0.2222
SO MASSFRAX CA_HRAB01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX CA_HRAB07 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX BU_A48A 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48B 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48C 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48D 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
```

```
SO MASSFRAX BU_A48E 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48F 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48G 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48H 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48I 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48J 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48K 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48L 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48M 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48N 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX BU_A48O 0.0778 0.1556 0.2667 0.1000 0.2000 0.1999
SO MASSFRAX HWY_KK_01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_07 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_08 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_09 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_10 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_11 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_12 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_13 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_14 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_15 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_16 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_17 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_18 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_19 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_20 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_21 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_22 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_23 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_24 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_25 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_26 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_27 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_28 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_29 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_30 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_31 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_KK_32 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_01 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_02 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_03 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
```

```
SO MASSFRAX HWY_32_04 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_05 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_06 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_07 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_08 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_09 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_10 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_11 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000
SO MASSFRAX HWY_32_12 0.0333 0.0556 0.1111 0.0444 0.3556 0.4000

SO PARTDENS BR_P8 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P16 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P22 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P23 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P24 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P25 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P26 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P27 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P28 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P31A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P31B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P31C 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P71 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P72 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_P81 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V10A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V10B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V11A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V11B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V11C 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12C 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12D 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12E 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V12F 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V13A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V13B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_V13C 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13E 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13F 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13G1 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13G2 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13G3 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13G4 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_A13G5 1.00 1.00 1.00 1.00 1.00 1.00
```

SO PARTDENS BR_HRAB01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRAB02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRBC01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRBD01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRBD02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRBD03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRBD04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRDE01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HREF01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HREG01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HREG02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HREG03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HREG04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRGH01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRGI01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIJ01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIJ02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIJ03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRJK01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRJK02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRJK03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRJK04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRKL01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRKL02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRKL03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRLM01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRMN01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRMN02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRNO01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRNO02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRNP01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRNQ01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRLR01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRLR02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRLR03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRS01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRT06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRU01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRRU02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRUV01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRDV01 1.00 1.00 1.00 1.00 1.00 1.00

SO PARTDENS BR_HRDV02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRIW06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRJX01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRXY01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRXY02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BR_HRKZ01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_UGV1 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_UGV3 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_UGV6 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_UGV47 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_UGS35 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V13 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V16 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V17 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V19 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V23A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V20 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V25 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V26 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V28 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V33 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V36 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_V40 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_V8 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_V9 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRAB01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRAB02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRAB03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRAB04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBC01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBC02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBC03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBC04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD07 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRBD08 1.00 1.00 1.00 1.00 1.00 1.00

```
SO PARTDENS BU_HRDE01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDE02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDE03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDE04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDE05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDE06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDF01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDF02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDF03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRDF04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRGH01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRGH02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRGH03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRGH04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRHI01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRHI02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRHI03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_HRHI04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS CA_HRAB07 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48A 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48B 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48C 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48D 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48E 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48F 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48G 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48H 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48I 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48J 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48K 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48L 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48M 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48N 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS BU_A48O 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_06 1.00 1.00 1.00 1.00 1.00 1.00
```

```
SO PARTDENS HWY_KK_07 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_08 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_09 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_10 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_11 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_12 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_13 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_14 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_15 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_16 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_17 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_18 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_19 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_20 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_21 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_22 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_23 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_24 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_25 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_26 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_27 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_28 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_29 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_30 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_31 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_KK_32 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_01 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_02 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_03 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_04 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_05 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_06 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_07 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_08 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_09 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_10 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_11 1.00 1.00 1.00 1.00 1.00 1.00
SO PARTDENS HWY_32_12 1.00 1.00 1.00 1.00 1.00 1.00

SO EMISFACT BR_V13A HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_V13B HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_V13C HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRAB01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRAB02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBC01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
```

SO EMISFACT BR_HRBD02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD04 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDE01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREF01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG04 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRGH01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRGI01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK04 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLM01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRMN01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRMN02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNO01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNO02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNP01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNQ01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRS01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT04 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT05 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT06 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRU01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRU02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRUV01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDV01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDV02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW03 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0

```
SO EMISFACT BR_HRIW04 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW05 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW06 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJX01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRXY01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRXY02 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKZ01 HROFDY 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0

SO HOUREMIS BRRF0910.DAT BR_P8
SO HOUREMIS BRRF0910.DAT BR_P16
SO HOUREMIS BRRF0910.DAT BR_P22
SO HOUREMIS BRRF0910.DAT BR_P23
SO HOUREMIS BRRF0910.DAT BR_P24
SO HOUREMIS BRRF0910.DAT BR_P25
SO HOUREMIS BRRF0910.DAT BR_P26
SO HOUREMIS BRRF0910.DAT BR_P27
SO HOUREMIS BRRF0910.DAT BR_P28
SO HOUREMIS BRRF0910.DAT BR_P31A
SO HOUREMIS BRRF0910.DAT BR_P31B
SO HOUREMIS BRRF0910.DAT BR_P31C
SO HOUREMIS BRRF0910.DAT BR_P71
SO HOUREMIS BRRF0910.DAT BR_P72
SO HOUREMIS BRRF0910.DAT BR_P81
SO HOUREMIS BRRF0910.DAT BR_V10A
SO HOUREMIS BRRF0910.DAT BR_V10B
SO HOUREMIS BRRF0910.DAT BR_V11A
SO HOUREMIS BRRF0910.DAT BR_V11B
SO HOUREMIS BRRF0910.DAT BR_V11C
SO HOUREMIS BRRF0910.DAT BR_V12A
SO HOUREMIS BRRF0910.DAT BR_V12B
SO HOUREMIS BRRF0910.DAT BR_V12C
SO HOUREMIS BRRF0910.DAT BR_V12D
SO HOUREMIS BRRF0910.DAT BR_V12E
SO HOUREMIS BRRF0910.DAT BR_V12F
SO HOUREMIS BRRF0910.DAT BR_A13E
SO HOUREMIS BRRF0910.DAT BR_A13F
SO HOUREMIS BRRF0910.DAT BR_A13G1
SO HOUREMIS BRRF0910.DAT BR_A13G2
SO HOUREMIS BRRF0910.DAT BR_A13G3
SO HOUREMIS BRRF0910.DAT BR_A13G4
SO HOUREMIS BRRF0910.DAT BR_A13G5
SO SRCGROUP ALL
SO FINISHED

ME STARTING
** Actual value study period 1/1/2009 to 10/31/2010
```

```
ME SURFFILE BRRFACT_V2.SFC
ME PROFFILE BRRFACT_V2.PFL
ME SURFDATA 93996 2009 Farmington,MO
ME UAIRDATA 13995 2009 Springfield,MO
ME SITEDATA 99999 2009 Onsite
ME PROFBASE 430 METERS
ME FINISHED
EV STARTING
EV EVENTPER A00055 24 ALL 09080524
EV EVENTLOC A00055 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00056 24 ALL 09080724
EV EVENTLOC A00056 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00057 24 ALL 09081124
EV EVENTLOC A00057 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00058 24 ALL 09081124
EV EVENTLOC A00058 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00059 24 ALL 09081724
EV EVENTLOC A00059 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00060 24 ALL 09081724
EV EVENTLOC A00060 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00061 24 ALL 09082324
EV EVENTLOC A00061 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00062 24 ALL 09082324
EV EVENTLOC A00062 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00063 24 ALL 09082924
EV EVENTLOC A00063 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00064 24 ALL 09082924
EV EVENTLOC A00064 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00065 24 ALL 09090424
EV EVENTLOC A00065 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00066 24 ALL 09090424
EV EVENTLOC A00066 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00067 24 ALL 09091024
EV EVENTLOC A00067 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00068 24 ALL 09091024
EV EVENTLOC A00068 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00069 24 ALL 09091624
EV EVENTLOC A00069 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00070 24 ALL 09091624
EV EVENTLOC A00070 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00071 24 ALL 09092224
EV EVENTLOC A00071 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00072 24 ALL 09092224
EV EVENTLOC A00072 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00073 24 ALL 09092824
EV EVENTLOC A00073 XR= 664882 YR= 4168820 403.72 403.72
```

EV EVENTPER A00074 24 ALL 09092824
EV EVENTLOC A00074 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00075 24 ALL 09100424
EV EVENTLOC A00075 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00076 24 ALL 09100424
EV EVENTLOC A00076 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00077 24 ALL 09101024
EV EVENTLOC A00077 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00078 24 ALL 09101024
EV EVENTLOC A00078 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00079 24 ALL 09102224
EV EVENTLOC A00079 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00080 24 ALL 09102224
EV EVENTLOC A00080 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00081 24 ALL 09102824
EV EVENTLOC A00081 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00082 24 ALL 09102824
EV EVENTLOC A00082 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00083 24 ALL 09110324
EV EVENTLOC A00083 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00084 24 ALL 09110324
EV EVENTLOC A00084 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00085 24 ALL 09110924
EV EVENTLOC A00085 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00086 24 ALL 09110924
EV EVENTLOC A00086 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00087 24 ALL 09111524
EV EVENTLOC A00087 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00088 24 ALL 09111524
EV EVENTLOC A00088 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00089 24 ALL 09112124
EV EVENTLOC A00089 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00090 24 ALL 09112124
EV EVENTLOC A00090 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00091 24 ALL 09112724
EV EVENTLOC A00091 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00092 24 ALL 09112724
EV EVENTLOC A00092 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00093 24 ALL 09120324
EV EVENTLOC A00093 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00094 24 ALL 09120324
EV EVENTLOC A00094 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00095 24 ALL 09120924
EV EVENTLOC A00095 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00096 24 ALL 09120924
EV EVENTLOC A00096 XR= 665173 YR= 4165743 434.33 434.33

EV EVENTPER A00097 24 ALL 09121524
EV EVENTLOC A00097 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00098 24 ALL 09121524
EV EVENTLOC A00098 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00099 24 ALL 09122124
EV EVENTLOC A00099 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00100 24 ALL 09122124
EV EVENTLOC A00100 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00101 24 ALL 09122724
EV EVENTLOC A00101 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00102 24 ALL 09122724
EV EVENTLOC A00102 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00103 24 ALL 10010224
EV EVENTLOC A00103 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00104 24 ALL 10010224
EV EVENTLOC A00104 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00105 24 ALL 10010224
EV EVENTLOC A00105 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00106 24 ALL 10010824
EV EVENTLOC A00106 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00107 24 ALL 10010824
EV EVENTLOC A00107 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00108 24 ALL 10010824
EV EVENTLOC A00108 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00109 24 ALL 10011424
EV EVENTLOC A00109 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00110 24 ALL 10011424
EV EVENTLOC A00110 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00111 24 ALL 10011424
EV EVENTLOC A00111 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00112 24 ALL 10012024
EV EVENTLOC A00112 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00113 24 ALL 10012024
EV EVENTLOC A00113 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00114 24 ALL 10012024
EV EVENTLOC A00114 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00115 24 ALL 10012624
EV EVENTLOC A00115 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00116 24 ALL 10012624
EV EVENTLOC A00116 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00117 24 ALL 10012624
EV EVENTLOC A00117 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00118 24 ALL 10020124
EV EVENTLOC A00118 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00119 24 ALL 10020124
EV EVENTLOC A00119 XR= 665173 YR= 4165743 434.33 434.33

EV EVENTPER A00120 24 ALL 10020124
EV EVENTLOC A00120 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00121 24 ALL 10020724
EV EVENTLOC A00121 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00122 24 ALL 10020724
EV EVENTLOC A00122 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00123 24 ALL 10020724
EV EVENTLOC A00123 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00124 24 ALL 10020724
EV EVENTLOC A00124 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00125 24 ALL 10021324
EV EVENTLOC A00125 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00126 24 ALL 10021324
EV EVENTLOC A00126 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00127 24 ALL 10021324
EV EVENTLOC A00127 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00128 24 ALL 10021324
EV EVENTLOC A00128 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00129 24 ALL 10021924
EV EVENTLOC A00129 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00130 24 ALL 10021924
EV EVENTLOC A00130 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00131 24 ALL 10021924
EV EVENTLOC A00131 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00132 24 ALL 10021924
EV EVENTLOC A00132 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00133 24 ALL 10022524
EV EVENTLOC A00133 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00134 24 ALL 10022524
EV EVENTLOC A00134 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00135 24 ALL 10022524
EV EVENTLOC A00135 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00136 24 ALL 10022524
EV EVENTLOC A00136 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00137 24 ALL 10030324
EV EVENTLOC A00137 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00138 24 ALL 10030324
EV EVENTLOC A00138 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00139 24 ALL 10030324
EV EVENTLOC A00139 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00140 24 ALL 10030324
EV EVENTLOC A00140 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00141 24 ALL 10030924
EV EVENTLOC A00141 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00142 24 ALL 10030924
EV EVENTLOC A00142 XR= 665173 YR= 4165743 434.33 434.33

EV EVENTPER A00143 24 ALL 10031524
EV EVENTLOC A00143 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00144 24 ALL 10031524
EV EVENTLOC A00144 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00145 24 ALL 10032124
EV EVENTLOC A00145 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00146 24 ALL 10032124
EV EVENTLOC A00146 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00147 24 ALL 10032724
EV EVENTLOC A00147 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00148 24 ALL 10032724
EV EVENTLOC A00148 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00149 24 ALL 10040224
EV EVENTLOC A00149 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00150 24 ALL 10040224
EV EVENTLOC A00150 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00151 24 ALL 10040224
EV EVENTLOC A00151 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00152 24 ALL 10040224
EV EVENTLOC A00152 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00153 24 ALL 10040824
EV EVENTLOC A00153 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00154 24 ALL 10040824
EV EVENTLOC A00154 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00155 24 ALL 10040824
EV EVENTLOC A00155 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00156 24 ALL 10040824
EV EVENTLOC A00156 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00157 24 ALL 10042024
EV EVENTLOC A00157 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00158 24 ALL 10042024
EV EVENTLOC A00158 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00159 24 ALL 10042024
EV EVENTLOC A00159 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00160 24 ALL 10042024
EV EVENTLOC A00160 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00161 24 ALL 10042624
EV EVENTLOC A00161 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00162 24 ALL 10042624
EV EVENTLOC A00162 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00163 24 ALL 10042624
EV EVENTLOC A00163 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00164 24 ALL 10042624
EV EVENTLOC A00164 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00165 24 ALL 10050224
EV EVENTLOC A00165 XR= 664882 YR= 4168820 403.72 403.72

EV EVENTPER A00166 24 ALL 10050224
EV EVENTLOC A00166 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00167 24 ALL 10050224
EV EVENTLOC A00167 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00168 24 ALL 10050224
EV EVENTLOC A00168 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00169 24 ALL 10050824
EV EVENTLOC A00169 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00170 24 ALL 10050824
EV EVENTLOC A00170 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00171 24 ALL 10050824
EV EVENTLOC A00171 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00172 24 ALL 10050824
EV EVENTLOC A00172 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00173 24 ALL 10051424
EV EVENTLOC A00173 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00174 24 ALL 10051424
EV EVENTLOC A00174 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00175 24 ALL 10051424
EV EVENTLOC A00175 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00176 24 ALL 10051424
EV EVENTLOC A00176 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00177 24 ALL 10052024
EV EVENTLOC A00177 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00178 24 ALL 10052024
EV EVENTLOC A00178 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00179 24 ALL 10052024
EV EVENTLOC A00179 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00180 24 ALL 10052024
EV EVENTLOC A00180 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00181 24 ALL 10052624
EV EVENTLOC A00181 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00182 24 ALL 10052624
EV EVENTLOC A00182 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00183 24 ALL 10052624
EV EVENTLOC A00183 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00184 24 ALL 10052624
EV EVENTLOC A00184 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00185 24 ALL 10060724
EV EVENTLOC A00185 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00186 24 ALL 10060724
EV EVENTLOC A00186 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00187 24 ALL 10060724
EV EVENTLOC A00187 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00188 24 ALL 10060724
EV EVENTLOC A00188 XR= 666542 YR= 4159211 344.87 388.52

EV EVENTPER A00189 24 ALL 10061324
EV EVENTLOC A00189 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00190 24 ALL 10061324
EV EVENTLOC A00190 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00191 24 ALL 10061324
EV EVENTLOC A00191 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00192 24 ALL 10061324
EV EVENTLOC A00192 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00193 24 ALL 10061924
EV EVENTLOC A00193 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00194 24 ALL 10061924
EV EVENTLOC A00194 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00195 24 ALL 10061924
EV EVENTLOC A00195 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00196 24 ALL 10062224
EV EVENTLOC A00196 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00197 24 ALL 10062524
EV EVENTLOC A00197 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00198 24 ALL 10062524
EV EVENTLOC A00198 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00199 24 ALL 10062524
EV EVENTLOC A00199 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00200 24 ALL 10062924
EV EVENTLOC A00200 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00201 24 ALL 10070124
EV EVENTLOC A00201 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00202 24 ALL 10070124
EV EVENTLOC A00202 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00203 24 ALL 10070124
EV EVENTLOC A00203 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00204 24 ALL 10070124
EV EVENTLOC A00204 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00205 24 ALL 10070724
EV EVENTLOC A00205 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00206 24 ALL 10070724
EV EVENTLOC A00206 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00207 24 ALL 10070724
EV EVENTLOC A00207 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00208 24 ALL 10070724
EV EVENTLOC A00208 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00209 24 ALL 10071324
EV EVENTLOC A00209 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00210 24 ALL 10071324
EV EVENTLOC A00210 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00211 24 ALL 10071324
EV EVENTLOC A00211 XR= 664825 YR= 4168969 408.50 408.50

EV EVENTPER A00212 24 ALL 10071324
EV EVENTLOC A00212 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00213 24 ALL 10071924
EV EVENTLOC A00213 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00214 24 ALL 10071924
EV EVENTLOC A00214 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00215 24 ALL 10071924
EV EVENTLOC A00215 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00216 24 ALL 10071924
EV EVENTLOC A00216 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00217 24 ALL 10073124
EV EVENTLOC A00217 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00218 24 ALL 10073124
EV EVENTLOC A00218 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00219 24 ALL 10073124
EV EVENTLOC A00219 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00220 24 ALL 10073124
EV EVENTLOC A00220 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00221 24 ALL 10080624
EV EVENTLOC A00221 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00222 24 ALL 10080624
EV EVENTLOC A00222 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00223 24 ALL 10080624
EV EVENTLOC A00223 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00224 24 ALL 10080624
EV EVENTLOC A00224 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00225 24 ALL 10081224
EV EVENTLOC A00225 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00226 24 ALL 10081224
EV EVENTLOC A00226 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00227 24 ALL 10081224
EV EVENTLOC A00227 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00228 24 ALL 10081224
EV EVENTLOC A00228 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00229 24 ALL 10081824
EV EVENTLOC A00229 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00230 24 ALL 10081824
EV EVENTLOC A00230 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00231 24 ALL 10081824
EV EVENTLOC A00231 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00232 24 ALL 10081824
EV EVENTLOC A00232 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00233 24 ALL 10082424
EV EVENTLOC A00233 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00234 24 ALL 10082424
EV EVENTLOC A00234 XR= 665173 YR= 4165743 434.33 434.33

EV EVENTPER A00235 24 ALL 10082424
EV EVENTLOC A00235 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00236 24 ALL 10082424
EV EVENTLOC A00236 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00237 24 ALL 10083024
EV EVENTLOC A00237 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00238 24 ALL 10083024
EV EVENTLOC A00238 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00239 24 ALL 10083024
EV EVENTLOC A00239 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00240 24 ALL 10083024
EV EVENTLOC A00240 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00241 24 ALL 10090524
EV EVENTLOC A00241 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00242 24 ALL 10090524
EV EVENTLOC A00242 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00243 24 ALL 10090524
EV EVENTLOC A00243 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00244 24 ALL 10090524
EV EVENTLOC A00244 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00245 24 ALL 10091124
EV EVENTLOC A00245 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00246 24 ALL 10091124
EV EVENTLOC A00246 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00247 24 ALL 10091124
EV EVENTLOC A00247 XR= 664825 YR= 4168969 408.50 408.50
EV EVENTPER A00248 24 ALL 10091124
EV EVENTLOC A00248 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00249 24 ALL 10091724
EV EVENTLOC A00249 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00250 24 ALL 10091724
EV EVENTLOC A00250 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00251 24 ALL 10091724
EV EVENTLOC A00251 XR= 666542 YR= 4159211 344.87 388.52
EV EVENTPER A00252 24 ALL 10092324
EV EVENTLOC A00252 XR= 664882 YR= 4168820 403.72 403.72
EV EVENTPER A00253 24 ALL 10092324
EV EVENTLOC A00253 XR= 665173 YR= 4165743 434.33 434.33
EV EVENTPER A00254 24 ALL 10092324
EV EVENTLOC A00254 XR= 666542 YR= 4159211 344.87 388.52
EV FINISHED
OU STARTING
OU EVENTOUT DETAIL
OU FINISHED

FUTURE CASE:

The AERMOD model was run separately for each of the 12 months, August 2009 through July 2010, with each of the input files being identical except for the date range. The month with the highest modeled concentration, October 2009, is shown below as an example of the input files used in the model runs. The date range option is indicated by ME STARTEND and the start and end dates, as seen near the end of the input file, below.

```
CO STARTING
CO TITLEONE Viburnum Trend Future Year
CO TITLETWO Buick/VT final script
** stacks P8, P100, P31C, P71, and P72 at proposed limits
** fugitives at 98%
** new met period (AUG09-JUL10) for greater completness
CO MODELOPT DFAULT CONC DRYDPLT
CO AVERTIME 24 MONTH
CO POLLUTID LEAD
CO RUNORNOT RUN
CO SAVEFILE save.fil 7
**CO INITFILE init.fil
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION BR_P8  POINT 664808 4167094   424
SO LOCATION BR_P100  POINT 664942 4167042   428
SO LOCATION BR_P16   POINT 664802 4166750   428
SO LOCATION BR_P22   POINT 664960 4167092   427
SO LOCATION BR_P23   POINT 664964 4167090   427
SO LOCATION BR_P24   POINT 664971 4167085   427
SO LOCATION BR_P25   POINT 664974 4167083   427
SO LOCATION BR_P26   POINT 664979 4167080   428
SO LOCATION BR_P27   POINT 664983 4167078   428
SO LOCATION BR_P28   POINT 664987 4167074   428
SO LOCATION BR_P31A  POINT 664842 4166751   429
SO LOCATION BR_P31B  POINT 664856 4166711   428
SO LOCATION BR_P31C  POINT 664860 4166729   429
SO LOCATION BR_P71   POINT 664940 4167111   426
SO LOCATION BR_P72   POINT 664956 4167102   427
SO LOCATION BR_P81   POINT 664954 4167051   428
SO LOCATION BR_V13FUG  VOLUME  664857 4166961   428
SO LOCATION BR_V10FUG  VOLUME 664896  4167042 427
SO LOCATION BR_V11FUG  VOLUME 664945  4167107 427
SO LOCATION BR_V12FUG  VOLUME 664963  4167055 427
SO LOCATION BR_A13E  AREA  664758 4166943   425
SO LOCATION BR_A13F  AREA  664779 4166974   426
SO LOCATION BR_A13G1 AREA  664638 4167319   418
```

```
SO LOCATION BR_A13G2 AREA  664725 4167435   417
SO LOCATION BR_A13G3 AREA  664876 4167464   421
SO LOCATION BR_A13G4 AREA  665141 4167502   420
SO LOCATION BR_A13G5 AREA  664955 4167168   420
SO LOCATION BR_HRAB01  AREA  664530 4166618   439
SO LOCATION BR_HRAB02  AREA  664671 4166620   435
SO LOCATION BR_HRBC01  AREA  664760 4166706   428
SO LOCATION BR_HRBD01  AREA  664763 4166659   432
SO LOCATION BR_HRBD02  AREA  664792 4166640   433
SO LOCATION BR_HRBD03  AREA  664818 4166655   431
SO LOCATION BR_HRBD04  AREA  664860 4166704   428
SO LOCATION BR_HRDE01  AREA  664878 4166750   428
SO LOCATION BR_HREF01  AREA  664907 4166885   427
SO LOCATION BR_HREG01  AREA  664932 4166857   427
SO LOCATION BR_HREG02  AREA  664934 4166910   427
SO LOCATION BR_HREG03  AREA  664987 4167003   428
SO LOCATION BR_HREG04  AREA  665005 4167037   428
SO LOCATION BR_HRGH01  AREA  664999 4167064   428
SO LOCATION BR_HRGI01  AREA  665020 4167067   428
SO LOCATION BR_HRIJ01  AREA  665025 4167124   426
SO LOCATION BR_HRIJ02  AREA  664967 4167129   423
SO LOCATION BR_HRIJ03  AREA  664922 4167144   422
SO LOCATION BR_HRJK01  AREA  664871 4167148   425
SO LOCATION BR_HRJK02  AREA  664822 4167136   426
SO LOCATION BR_HRJK03  AREA  664768 4167101   421
SO LOCATION BR_HRJK04  AREA  664757 4167073   421
SO LOCATION BR_HRKL01  AREA  664733 4167017   422
SO LOCATION BR_HRKL02  AREA  664733 4167015   422
SO LOCATION BR_HRKL03  AREA  664737 4166961   422
SO LOCATION BR_HRLM01  AREA  664772 4166923   426
SO LOCATION BR_HRMN01  AREA  664807 4166968   427
SO LOCATION BR_HRMN02  AREA  664838 4166992   427
SO LOCATION BR_HRNO01  AREA  664864 4167054   427
SO LOCATION BR_HRNO02  AREA  664863 4167051   427
SO LOCATION BR_HRNP01  AREA  664874 4166997   427
SO LOCATION BR_HRNQ01  AREA  664852 4166964   428
SO LOCATION BR_HRLR01  AREA  664762 4166898   426
SO LOCATION BR_HRLR02  AREA  664762 4166894   426
SO LOCATION BR_HRLR03  AREA  664755 4166825   422
SO LOCATION BR_HRRS01  AREA  664727 4166865   421
SO LOCATION BR_HRRT01  AREA  664731 4166790   422
SO LOCATION BR_HRRT02  AREA  664690 4166765   424
SO LOCATION BR_HRRT03  AREA  664647 4166789   425
SO LOCATION BR_HRRT04  AREA  664633 4166864   421
SO LOCATION BR_HRRT05  AREA  664633 4166865   421
SO LOCATION BR_HRRT06  AREA  664636 4166917   415
```

```
SO LOCATION BR_HRRU01  AREA  664761 4166769   426
SO LOCATION BR_HRRU02  AREA  664754 4166822   422
SO LOCATION BR_HRUV01  AREA  664811 4166796   427
SO LOCATION BR_HRDV01  AREA  664877 4166749   428
SO LOCATION BR_HRDV02  AREA  664853 4166827   428
SO LOCATION BR_HRIW01  AREA  665058 4167121   428
SO LOCATION BR_HRIW02  AREA  665175 4167262   425
SO LOCATION BR_HRIW03  AREA  665270 4167422   425
SO LOCATION BR_HRIW04  AREA  665321 4167524   428
SO LOCATION BR_HRIW05  AREA  665347 4167522   429
SO LOCATION BR_HRIW06  AREA  665372 4167498   432
SO LOCATION BR_HRJX01  AREA  664836 4167201   427
SO LOCATION BR_HRXY01  AREA  664757 4167328   425
SO LOCATION BR_HRXY02  AREA  664739 4167334   424
SO LOCATION BR_HRKZ01  AREA  664758 4167068   422
SO LOCATION BU_P1  POINT 665744 4163570   429
SO LOCATION BU_UGV1  POINT 665597 4165248   411
SO LOCATION BU_UGV2  POINT 665867 4162535   420
SO LOCATION BU_UGV3  POINT 666234 4160599   400
SO LOCATION BU_UGV6  POINT 665627 4165742   437
SO LOCATION BU_V13   VOLUME  665463 4163730   444
SO LOCATION BU_V16   VOLUME  665464 4163723   444
SO LOCATION BU_V17   VOLUME  665517 4163698   443
SO LOCATION BU_V19   VOLUME  665523 4163694   443
SO LOCATION BU_V23A  VOLUME  665531 4163689   442
SO LOCATION BU_V20   VOLUME  665607 4163646   437
SO LOCATION BU_V25   VOLUME  665680 4163601   432
SO LOCATION BU_V26   VOLUME  665689 4163616   432
SO LOCATION BU_V28   VOLUME  665708 4163620   431
SO LOCATION BU_V33   VOLUME  665757 4163590   429
SO LOCATION BU_V36   VOLUME  665767 4163587   429
SO LOCATION BU_V40   VOLUME  665770 4163515   428
SO LOCATION CA_V8  VOLUME  665451 4169708   402
SO LOCATION CA_V9  VOLUME  665455 4169721   400
SO LOCATION BU_HRAB01  AREA  665065 4163905   442
SO LOCATION BU_HRAB02  AREA  665084 4163904   444
SO LOCATION BU_HRAB03  AREA  665182 4163900   443
SO LOCATION BU_HRAB04  AREA  665279 4163888   440
SO LOCATION BU_HRBC01  AREA  665369 4163855   439
SO LOCATION BU_HRBC02  AREA  665396 4163807   441
SO LOCATION BU_HRBC03  AREA  665419 4163763   443
SO LOCATION BU_HRBC04  AREA  665433 4163720   443
SO LOCATION BU_HRBD01  AREA  665371 4163853   439
SO LOCATION BU_HRBD02  AREA  665466 4163817   438
SO LOCATION BU_HRBD03  AREA  665562 4163805   427
SO LOCATION BU_HRBD04  AREA  665659 4163787   431
```

```
SO LOCATION BU_HRBD05  AREA  665737 4163783   429
SO LOCATION BU_HRBD06  AREA  665722 4163691   430
SO LOCATION BU_HRBD07  AREA  665661 4163617   433
SO LOCATION BU_HRBD08  AREA  665653 4163593   433
SO LOCATION BU_HRDE01  AREA  665651 4163538   430
SO LOCATION BU_HRDE02  AREA  665654 4163534   429
SO LOCATION BU_HRDE03  AREA  665697 4163508   428
SO LOCATION BU_HRDE04  AREA  665747 4163490   425
SO LOCATION BU_HRDE05  AREA  665792 4163493   427
SO LOCATION BU_HRDE06  AREA  665793 4163538   429
SO LOCATION BU_HRDF01  AREA  665768 4163549   429
SO LOCATION BU_HRDF02  AREA  665737 4163555   429
SO LOCATION BU_HRDF03  AREA  665696 4163564   431
SO LOCATION BU_HRDF04  AREA  665656 4163587   433
SO LOCATION BU_HRGH01  AREA  665117 4165536   430
SO LOCATION BU_HRGH02  AREA  665174 4165535   426
SO LOCATION BU_HRGH03  AREA  665191 4165720   434
SO LOCATION BU_HRGH04  AREA  665191 4165721   434
SO LOCATION BU_HRHI01  AREA  665195 4165750   435
SO LOCATION BU_HRHI02  AREA  665269 4166005   445
SO LOCATION BU_HRHI03  AREA  665320 4166024   445
SO LOCATION BU_HRHI04  AREA  665404 4165978   443
SO LOCATION CA_HRAB01  AREA  665569 4169426   421
SO LOCATION CA_HRAB02  AREA  665559 4169527   415
SO LOCATION CA_HRAB03  AREA  665559 4169528   415
SO LOCATION CA_HRAB04  AREA  665560 4169628   407
SO LOCATION CA_HRAB05  AREA  665560 4169703   401
SO LOCATION CA_HRAB06  AREA  665496 4169749   395
SO LOCATION CA_HRAB07  AREA  665452 4169725   400
SO LOCATION BU_A48A  AREA  666058 4162882   427
SO LOCATION BU_A48B  AREA  666460 4162681   416
SO LOCATION BU_A48C  AREA  666661 4162279   410
SO LOCATION BU_A48D  AREA  667063 4162279   366
SO LOCATION BU_A48E  AREA  666862 4162078   402
SO LOCATION BU_A48F  AREA  667063 4161877   385
SO LOCATION BU_A48G  AREA  667465 4161877   354
SO LOCATION BU_A48H  AREA  667264 4161475   348
SO LOCATION BU_A48I  AREA  667666 4161475   348
SO LOCATION BU_A48J  AREA  668068 4161475   338
SO LOCATION BU_A48K  AREA  667063 4161274   397
SO LOCATION BU_A48L  AREA  667264 4161073   359
SO LOCATION BU_A48M  AREA  667666 4160872   395
SO LOCATION BU_A48N  AREA  668068 4160671   364
SO LOCATION BU_A48O  AREA  668470 4160671   378
SO LOCATION HWY_KK_01  AREA  666483 4159238   350
SO LOCATION HWY_KK_02  AREA  666061 4160129   355
```

```
SO LOCATION HWY_KK_03  AREA  665508 4160688   376
SO LOCATION HWY_KK_04  AREA  664955 4161248   389
SO LOCATION HWY_KK_05  AREA  664817 4161778   401
SO LOCATION HWY_KK_06  AREA  664549 4162268   421
SO LOCATION HWY_KK_07  AREA  664390 4163021   401
SO LOCATION HWY_KK_08  AREA  664390 4163024   400
SO LOCATION HWY_KK_09  AREA  664492 4163286   418
SO LOCATION HWY_KK_10  AREA  664933 4163803   438
SO LOCATION HWY_KK_11  AREA  665373 4164316   435
SO LOCATION HWY_KK_12  AREA  665173 4164980   429
SO LOCATION HWY_KK_13  AREA  665147 4165314   427
SO LOCATION HWY_KK_14  AREA  665103 4165475   427
SO LOCATION HWY_KK_15  AREA  665103 4165477   427
SO LOCATION HWY_KK_16  AREA  665088 4165840   419
SO LOCATION HWY_KK_17  AREA  664936 4166076   437
SO LOCATION HWY_KK_18  AREA  664754 4166242   446
SO LOCATION HWY_KK_19  AREA  664596 4166542   440
SO LOCATION HWY_KK_20  AREA  664517 4166613   439
SO LOCATION HWY_KK_21  AREA  664449 4166717   435
SO LOCATION HWY_KK_22  AREA  664159 4166864   425
SO LOCATION HWY_KK_23  AREA  664055 4166979   422
SO LOCATION HWY_KK_24  AREA  663657 4167225   418
SO LOCATION HWY_KK_25  AREA  663504 4167229   415
SO LOCATION HWY_KK_26  AREA  663148 4167361   417
SO LOCATION HWY_KK_27  AREA  663076 4167455   411
SO LOCATION HWY_KK_28  AREA  663075 4167459   410
SO LOCATION HWY_KK_29  AREA  663090 4167581   405
SO LOCATION HWY_KK_30  AREA  663106 4167898   404
SO LOCATION HWY_KK_31  AREA  663024 4168082   410
SO LOCATION HWY_KK_32  AREA  663023 4168084   410
SO LOCATION HWY_32_01  AREA  663031 4168209   404
SO LOCATION HWY_32_02  AREA  663419 4168384   398
SO LOCATION HWY_32_03  AREA  663587 4168530   388
SO LOCATION HWY_32_04  AREA  663963 4168699   392
SO LOCATION HWY_32_05  AREA  664455 4168901   395
SO LOCATION HWY_32_06  AREA  664854 4168928   406
SO LOCATION HWY_32_07  AREA  664972 4168925   406
SO LOCATION HWY_32_08  AREA  665212 4168983   407
SO LOCATION HWY_32_09  AREA  665379 4169065   411
SO LOCATION HWY_32_10  AREA  665527 4169281   420
SO LOCATION HWY_32_11  AREA  665876 4169479   422
SO LOCATION HWY_32_12  AREA  666024 4169629   425

SO SRCPARAM BR_P8  8.81E-02 60.96  358.33  6.60  5.03
SO SRCPARAM BR_P100  8.81E-02 65   316.67 17.78  2.47
SO SRCPARAM BR_P16 1.09E-02 28.96  293.33  9.65  1.37
```

```
SO SRCPARAM BR_P22 1.11E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P23 1.11E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P24 1.44E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P25 1.44E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P26 1.44E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P27 1.44E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P28 1.44E-03 30.78  561.11  1.40  0.76
SO SRCPARAM BR_P31A  2.14E-04  8.84  293.33  7.62  0.52
SO SRCPARAM BR_P31B  1.81E-03 12.19  293.33 21.34  1.07
SO SRCPARAM BR_P31C  3.150E-03  8.84  293.33  8.64  0.76
SO SRCPARAM BR_P71 1.01E-02 24.38  316.67 20.32  1.37
SO SRCPARAM BR_P72 7.55E-04 10.36  316.67 17.78  0.82
SO SRCPARAM BR_P81 6.39E-03 24.38  327.78  9.65  1.37
SO SRCPARAM BR_V10FUG  2.86E-03 2.90  0.85  1.35
SO SRCPARAM BR_V11FUG  2.58E-03 3.35  1.28  1.56
SO SRCPARAM BR_V12FUG  1.56E-03 2.74  1.42  1.28
SO SRCPARAM BR_V13FUG  1.16E-03  1.83  0.85  0.85
SO SRCPARAM BR_A13E  5.49E-07  2.00 33.00 33.00  0.00  0.00
SO SRCPARAM BR_A13F  1.57E-07  2.00 33.00 33.00  0.00  0.00
SO SRCPARAM BR_A13G1   5.82E-08  0.00  201.90  107.04  0.00  0.00
SO SRCPARAM BR_A13G2   5.82E-08  0.00  126.41 93.88  0.00  0.00
SO SRCPARAM BR_A13G3   5.82E-08  0.00  129.92 93.00  0.00  0.00
SO SRCPARAM BR_A13G4   5.82E-08  0.00 64.96  136.00  0.00  0.00
SO SRCPARAM BR_A13G5   5.82E-08  0.00  232.63  254.44  0.00  0.00
SO SRCPARAM BR_HRAB01  7.59E-09  2.55 10.00  143.03 88.80  1.40
SO SRCPARAM BR_HRAB02  7.59E-09  2.55 10.00  105.10 63.44  1.40
SO SRCPARAM BR_HRBC01  7.99E-08  2.55 43.05 10.00 87.34  1.40
SO SRCPARAM BR_HRBD01  6.99E-08  2.55 38.18 10.00 45.00  1.40
SO SRCPARAM BR_HRBD02  6.99E-08  2.55 10.00 32.25 60.26  1.40
SO SRCPARAM BR_HRBD03  6.99E-08  2.55 10.00 65.95 40.70  1.40
SO SRCPARAM BR_HRBD04  6.99E-08  2.55 10.00 49.04 20.28  1.40
SO SRCPARAM BR_HRDE01  1.03E-07  2.55 10.00  122.09 26.78  1.40
SO SRCPARAM BR_HREF01  7.41E-09  2.55 40.59 10.00 50.81  1.40
SO SRCPARAM BR_HREG01  1.00E-07  2.55 10.00 51.01  1.12  1.40
SO SRCPARAM BR_HREG02  1.00E-07  2.55 10.00  107.04 29.68  1.40
SO SRCPARAM BR_HREG03  1.00E-07  2.55 10.00 38.95 29.20  1.40
SO SRCPARAM BR_HREG04  1.00E-07  2.55 10.00 32.20 25.77  1.40
SO SRCPARAM BR_HRGH01  4.75E-08  2.55 24.96 10.00 11.51  1.40
SO SRCPARAM BR_HRGI01  5.28E-08  2.55 10.00 66.03 35.14  1.40
SO SRCPARAM BR_HRIJ01  5.14E-08  2.55 37.64 10.00 16.99  1.40
SO SRCPARAM BR_HRIJ02  5.14E-08  2.55 59.21 10.00  4.84  1.40
SO SRCPARAM BR_HRIJ03  5.14E-08  2.55 45.54 10.00 19.23  1.40
SO SRCPARAM BR_HRJK01  2.34E-08  2.55 53.15 10.00  4.31  1.40
SO SRCPARAM BR_HRJK02  2.34E-08  2.55 10.00 51.89 64.92  1.40
SO SRCPARAM BR_HRJK03  2.34E-08  2.55 10.00 62.97 57.32  1.40
SO SRCPARAM BR_HRJK04  2.34E-08  2.55 10.00 27.51 19.09  1.40
```

```
SO SRCPARAM BR_HRKL01  1.83E-08  2.55 10.00 60.93 23.20  1.40
SO SRCPARAM BR_HRKL02  1.83E-08  2.55 51.09 10.00 86.63  1.40
SO SRCPARAM BR_HRKL03  1.83E-08  2.55 56.22 10.00 51.50  1.40
SO SRCPARAM BR_HRLM01  2.37E-08  2.55 10.00 55.61 37.70  1.40
SO SRCPARAM BR_HRMN01  4.20E-08  2.55 10.00 37.01 51.59  1.40
SO SRCPARAM BR_HRMN02  4.20E-08  2.55 10.00 38.47 81.03  1.40
SO SRCPARAM BR_HRNO01  6.16E-09  2.55 10.00 64.50 29.75  1.40
SO SRCPARAM BR_HRNO02  6.16E-09  2.55 59.68 10.00 81.33  1.40
SO SRCPARAM BR_HRNP01  5.73E-09  2.55 10.00 47.51 59.66  1.40
SO SRCPARAM BR_HRNQ01  3.84E-08  2.55 10.00 38.28 33.28  1.40
SO SRCPARAM BR_HRLR01  2.85E-08  2.55 10.00 25.63 20.56  1.40
SO SRCPARAM BR_HRLR02  2.85E-08  2.55 45.22 10.00 71.96  1.40
SO SRCPARAM BR_HRLR03  2.85E-08  2.55 10.00 38.01 35.37  1.40
SO SRCPARAM BR_HRRS01  1.85E-08  2.55 53.99 10.00 58.48  1.40
SO SRCPARAM BR_HRRT01  8.52E-09  2.55 10.00 42.44 34.44  1.40
SO SRCPARAM BR_HRRT02  8.52E-09  2.55 10.00 49.40 58.24  1.40
SO SRCPARAM BR_HRRT03  8.52E-09  2.55 53.60 10.00 36.65  1.40
SO SRCPARAM BR_HRRT04  8.52E-09  2.55 72.99 10.00 80.54  1.40
SO SRCPARAM BR_HRRT05  8.52E-09  2.55 10.00 50.09  3.43  1.40
SO SRCPARAM BR_HRRT06  8.52E-09  2.55 10.00 30.52 20.02  1.40
SO SRCPARAM BR_HRRU01  1.52E-09  2.55 10.00 56.76 61.42  1.40
SO SRCPARAM BR_HRRU02  1.52E-09  2.55 57.70 10.00 85.30  1.40
SO SRCPARAM BR_HRUV01  0.00E+00  2.55 10.00 50.40 52.35  1.40
SO SRCPARAM BR_HRDV01  1.06E-09  2.55 10.00 75.60  7.99  1.40
SO SRCPARAM BR_HRDV02  1.06E-09  2.55 10.00 39.04 89.37  1.40
SO SRCPARAM BR_HRIW01  2.06E-09  2.55 10.00  183.73 39.70  1.40
SO SRCPARAM BR_HRIW02  2.06E-09  2.55 10.00  186.82 30.60  1.40
SO SRCPARAM BR_HRIW03  2.06E-09  2.55 10.00  110.08 25.59  1.40
SO SRCPARAM BR_HRIW04  2.06E-09  2.55 10.00 29.90 79.22  1.40
SO SRCPARAM BR_HRIW05  2.06E-09  2.55 38.40 10.00 56.88  1.40
SO SRCPARAM BR_HRIW06  2.06E-09  2.55 10.00 78.32 90.01  1.40
SO SRCPARAM BR_HRJX01  8.08E-09  2.55  102.15 10.00 33.53  1.40
SO SRCPARAM BR_HRXY01  5.89E-09  2.55  147.74 10.00 58.24  1.40
SO SRCPARAM BR_HRXY02  5.89E-09  2.55 22.02 10.00 19.43  1.40
SO SRCPARAM BR_HRKZ01  5.89E-09  1.00 55.71 10.00 59.95  1.40
SO SRCPARAM BU_P1  1.62E-03  6.10  0.00 15.16  2.44
SO SRCPARAM BU_UGV1  1.69E-03  4.50  288 13.37  3.05
SO SRCPARAM BU_UGV2  1.95E-03  4.50  288 15.44  3.05
SO SRCPARAM BU_UGV3  3.68E-03  4.50  288 17.34  3.96
SO SRCPARAM BU_UGV6  3.27E-03  4.50  288 20.21  3.66
SO SRCPARAM BU_V13 4.08E-05  4.88  0.85  5.67
SO SRCPARAM BU_V16 2.06E-04  0.91  0.57  0.43
SO SRCPARAM BU_V17 1.36E-04 18.90  0.28  8.51
SO SRCPARAM BU_V19 1.96E-04 18.90  0.28  8.51
SO SRCPARAM BU_V23A  8.14E-04 18.90  0.28  8.51
SO SRCPARAM BU_V20 2.79E-04 17.37  0.28  7.80
```

```
SO SRCPARAM BU_V25 4.89E-04 27.74  0.21 13.47
SO SRCPARAM BU_V26 4.89E-04 27.13  0.21 13.47
SO SRCPARAM BU_V28 1.47E-03 23.47  0.28 10.63
SO SRCPARAM BU_V33 3.64E-05 23.47  0.28 10.63
SO SRCPARAM BU_V36 8.13E-06 23.47  0.28 10.63
SO SRCPARAM BU_V40 2.17E-03  3.81  2.84  4.25
SO SRCPARAM CA_V8  1.26E-05  4.27  0.21  3.54
SO SRCPARAM CA_V9  1.26E-05  3.05  0.43  0.28
SO SRCPARAM BU_HRAB01  3.51E-08  2.55 20.00 10.00  0.00  1.40
SO SRCPARAM BU_HRAB02  3.51E-08  2.55 98.67 10.00  2.16  1.40
SO SRCPARAM BU_HRAB03  3.51E-08  2.55 98.36 10.00  7.46  1.40
SO SRCPARAM BU_HRAB04  3.51E-08  2.55 99.17 10.00 20.76  1.40
SO SRCPARAM BU_HRBC01  3.10E-08  2.55 55.20 10.00 60.61  1.40
SO SRCPARAM BU_HRBC02  3.10E-08  2.55 50.94 10.00 61.75  1.40
SO SRCPARAM BU_HRBC03  3.10E-08  2.55 49.92 10.00 78.66  1.40
SO SRCPARAM BU_HRBC04  3.10E-08  2.55 10.00 29.33 74.56  1.40
SO SRCPARAM BU_HRBD01  4.08E-09  2.55  100.00 10.00 20.70  1.40
SO SRCPARAM BU_HRBD02  4.08E-09  2.55 97.05 10.00  7.36  1.40
SO SRCPARAM BU_HRBD03  4.08E-09  2.55 98.24 10.00 10.39  1.40
SO SRCPARAM BU_HRBD04  4.08E-09  2.55 82.67 10.00  5.49  1.40
SO SRCPARAM BU_HRBD05  4.08E-09  2.55 50.21 10.00 82.66  1.40
SO SRCPARAM BU_HRBD06  4.08E-09  2.55 10.00 49.95 26.00  1.40
SO SRCPARAM BU_HRBD07  4.08E-09  2.55 10.00 97.27 38.95  1.40
SO SRCPARAM BU_HRBD08  4.08E-09  2.55 10.00 23.03 18.15  1.40
SO SRCPARAM BU_HRDE01  1.10E-09  2.55 10.00 53.61  2.02  1.40
SO SRCPARAM BU_HRDE02  1.10E-09  2.55 49.72 10.00 30.05  1.40
SO SRCPARAM BU_HRDE03  1.10E-09  2.55 51.01 10.00 20.79  1.40
SO SRCPARAM BU_HRDE04  1.10E-09  2.55 49.54 10.00  3.49  1.40
SO SRCPARAM BU_HRDE05  1.10E-09  2.55 10.00 24.22 14.88  1.40
SO SRCPARAM BU_HRDE06  1.10E-09  2.55 23.94 10.00 78.76  1.40
SO SRCPARAM BU_HRDF01  2.99E-09  2.55 22.08 10.00 20.20  1.40
SO SRCPARAM BU_HRDF02  2.99E-09  2.55 32.44 10.00 11.15  1.40
SO SRCPARAM BU_HRDF03  2.99E-09  2.55 42.51 10.00 12.05  1.40
SO SRCPARAM BU_HRDF04  2.99E-09  2.55 44.84 10.00 30.58  1.40
SO SRCPARAM BU_HRGH01  2.17E-10  2.55 10.00 61.15 89.58  1.40
SO SRCPARAM BU_HRGH02  2.17E-10  2.55 10.00 46.31 47.71  1.40
SO SRCPARAM BU_HRGH03  2.17E-10  2.55  158.81 10.00 84.09  1.40
SO SRCPARAM BU_HRGH04  2.17E-10  2.55 10.00 27.57  9.27  1.40
SO SRCPARAM BU_HRHI01  3.66E-08  2.55 10.00  262.12 15.87  1.40
SO SRCPARAM BU_HRHI02  3.66E-08  2.55 10.00 57.67 61.22  1.40
SO SRCPARAM BU_HRHI03  3.66E-08  2.55 97.21 10.00 29.05  1.40
SO SRCPARAM BU_HRHI04  3.66E-08  2.55  120.85 10.00 48.91  1.40
SO SRCPARAM CA_HRAB01  1.93E-08  2.55  100.00 10.00 65.97  1.40
SO SRCPARAM CA_HRAB02  1.93E-08  2.55  100.00 10.00 84.13  1.40
SO SRCPARAM CA_HRAB03  1.93E-08  2.55 10.00  100.00  1.11  1.40
SO SRCPARAM CA_HRAB04  1.93E-08  2.55 10.00 75.00  0.00  1.40
```

```
SO SRCPARAM CA_HRAB05  1.93E-08  2.55 10.00 75.00  0.00  1.40
SO SRCPARAM CA_HRAB06  1.93E-08  2.55 10.00 75.00 63.99  1.40
SO SRCPARAM CA_HRAB07  1.93E-08  2.55 10.00 50.00 61.00  1.40
SO SRCPARAM BU_A48A  4.02E-09  0.00  402.00  402.00  0.00  0.00
SO SRCPARAM BU_A48B  4.02E-09  0.00  402.00  402.00  0.00  0.00
SO SRCPARAM BU_A48C  4.02E-09  0.00  402.00  402.00  0.00  0.00
SO SRCPARAM BU_A48D  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48E  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48F  4.02E-09  0.00  402.00  402.00  0.00  0.00
SO SRCPARAM BU_A48G  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48H  4.02E-09  0.00  402.00  402.00  0.00  0.00
SO SRCPARAM BU_A48I  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48J  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48K  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48L  4.02E-09  0.00 1608.00  402.00  0.00  0.00
SO SRCPARAM BU_A48M  4.02E-09  0.00 1206.00  201.00  0.00  0.00
SO SRCPARAM BU_A48N  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM BU_A48O  4.02E-09  0.00  201.00  201.00  0.00  0.00
SO SRCPARAM HWY_KK_01  2.25E-09  2.55  737.75 10.00 15.71  1.40
SO SRCPARAM HWY_KK_02  2.25E-09  2.55  982.95 10.00 64.74  1.40
SO SRCPARAM HWY_KK_03  2.25E-09  2.55  787.25 10.00 45.35  1.40
SO SRCPARAM HWY_KK_04  2.25E-09  2.55  787.25 10.00 45.35  1.40
SO SRCPARAM HWY_KK_05  2.25E-09  2.55  545.20 10.00 75.40  1.40
SO SRCPARAM HWY_KK_06  2.25E-09  2.55  559.58 10.00 61.43  1.40
SO SRCPARAM HWY_KK_07  2.25E-09  2.55  768.31 10.00 78.05  1.40
SO SRCPARAM HWY_KK_08  2.25E-09  2.55 10.00  279.19 21.26  1.40
SO SRCPARAM HWY_KK_09  2.25E-09  2.55 10.00  679.42 40.49  1.40
SO SRCPARAM HWY_KK_10  2.25E-09  2.55 10.00  679.42 40.49  1.40
SO SRCPARAM HWY_KK_11  2.25E-09  2.55 10.00  274.74  1.51  1.40
SO SRCPARAM HWY_KK_12  2.25E-09  2.55  443.09 10.00 61.99  1.40
SO SRCPARAM HWY_KK_13  2.25E-09  2.55  333.05 10.00 85.56  1.40
SO SRCPARAM HWY_KK_14  2.25E-09  2.55  167.97 10.00 74.89  1.40
SO SRCPARAM HWY_KK_15  2.25E-09  2.55 10.00  229.80  4.50  1.40
SO SRCPARAM HWY_KK_16  2.25E-09  2.55  140.47 10.00 76.21  1.40
SO SRCPARAM HWY_KK_17  2.25E-09  2.55  281.37 10.00 57.31  1.40
SO SRCPARAM HWY_KK_18  2.25E-09  2.55  247.85 10.00 42.46  1.40
SO SRCPARAM HWY_KK_19  2.25E-09  2.55  337.40 10.00 62.25  1.40
SO SRCPARAM HWY_KK_20  2.25E-09  2.55  107.56 10.00 42.07  1.40
SO SRCPARAM HWY_KK_21  2.25E-09  2.55  122.82 10.00 56.96  1.40
SO SRCPARAM HWY_KK_22  2.25E-09  2.55  328.22 10.00 27.05  1.40
SO SRCPARAM HWY_KK_23  2.25E-09  2.55  153.10 10.00 47.71  1.40
SO SRCPARAM HWY_KK_24  2.25E-09  2.55  469.48 10.00 31.76  1.40
SO SRCPARAM HWY_KK_25  2.25E-09  2.55  154.61 10.00  1.90  1.40
SO SRCPARAM HWY_KK_26  2.25E-09  2.55  378.87 10.00 20.27  1.40
SO SRCPARAM HWY_KK_27  2.25E-09  2.55  115.85 10.00 53.11  1.40
SO SRCPARAM HWY_KK_28  2.25E-09  2.55 10.00  121.96  7.28  1.40
```

```
SO SRCPARAM HWY_KK_29  2.25E-09  2.55 10.00  118.11 20.42  1.40
SO SRCPARAM HWY_KK_30  2.25E-09  2.55  210.08 10.00 82.96  1.40
SO SRCPARAM HWY_KK_31  2.25E-09  2.55  202.83 10.00 66.03  1.40
SO SRCPARAM HWY_KK_32  2.25E-09  2.55 10.00  120.85  2.39  1.40
SO SRCPARAM HWY_32_01  8.51E-09  2.55 10.00  427.06 65.65  1.40
SO SRCPARAM HWY_32_02  8.51E-09  2.55 10.00  220.70 48.96  1.40
SO SRCPARAM HWY_32_03  8.51E-09  2.55 10.00  412.14 65.79  1.40
SO SRCPARAM HWY_32_04  8.51E-09  2.55 10.00  530.95 67.73  1.40
SO SRCPARAM HWY_32_05  8.51E-09  2.55 10.00  400.46 84.62  1.40
SO SRCPARAM HWY_32_06  8.51E-09  2.55  118.89 10.00  6.47  1.40
SO SRCPARAM HWY_32_07  8.51E-09  2.55 10.00  248.74 76.28  1.40
SO SRCPARAM HWY_32_08  8.51E-09  2.55 10.00  188.49 63.82  1.40
SO SRCPARAM HWY_32_09  8.51E-09  2.55 10.00  259.63 34.09  1.40
SO SRCPARAM HWY_32_10  8.51E-09  2.55 10.00  403.07 60.53  1.40
SO SRCPARAM HWY_32_11  8.51E-09  2.55 10.00  209.31 44.51  1.40
SO SRCPARAM HWY_32_12  8.51E-09  2.55 10.00  261.09 52.00  1.40

SO BUILDHGT BR_P8      19.81   19.81   19.81   19.81   24.69   24.69
SO BUILDHGT BR_P8      19.81   19.81   19.81   19.81   24.69   24.69
SO BUILDHGT BR_P8      24.69   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P8      19.81   19.81   19.81   19.81   24.69   24.69
SO BUILDHGT BR_P8      24.69   24.69   25.91   25.91   25.91   24.69
SO BUILDHGT BR_P8      24.69   19.81   19.81   19.81   19.81   19.81
SO BUILDWID BR_P8      46.29   44.17   40.70   42.96  121.17  130.18
SO BUILDWID BR_P8      47.25   45.82   43.00   38.87  122.33  114.32
SO BUILDWID BR_P8     108.47   36.00   40.70   44.17   46.29   47.00
SO BUILDWID BR_P8      46.29   44.17   40.70   42.96  121.17  130.18
SO BUILDWID BR_P8     135.24  136.19   48.00   50.74   51.95  114.32
SO BUILDWID BR_P8     108.47   36.00   40.70   44.17   46.29   47.00
SO BUILDLEN BR_P8      38.87   33.57   27.24   30.21  101.45   95.62
SO BUILDLEN BR_P8      44.17   46.29   47.00   46.29   95.18  103.02
SO BUILDLEN BR_P8     112.72   45.80   47.24   47.25   45.82   43.00
SO BUILDLEN BR_P8      38.87   33.57   27.24   30.21  101.45   95.62
SO BUILDLEN BR_P8      89.72   81.09   32.00   24.39   16.05  103.02
SO BUILDLEN BR_P8     112.72   45.80   47.24   47.25   45.82   43.00
SO XBADJ    BR_P8     -20.98  -13.31   -5.25   -2.03   19.75   37.51
SO XBADJ    BR_P8       1.71    2.90    4.00    4.98   46.63   34.66
SO XBADJ    BR_P8      19.80    0.08   -3.99   -7.94  -11.65  -15.00
SO XBADJ    BR_P8     -17.90  -20.25  -21.99  -28.19 -121.19 -133.14
SO XBADJ    BR_P8    -143.86 -150.21 -143.00 -140.83 -134.38 -137.68
SO XBADJ    BR_P8    -132.52  -45.88  -43.25  -39.31  -34.17  -28.00
SO YBADJ    BR_P8     -28.12  -27.89  -26.82  -25.63  -64.73  -53.46
SO YBADJ    BR_P8     -15.68  -11.26   -6.50   -1.54   22.76   40.14
SO YBADJ    BR_P8      55.62   17.21   20.82   23.79   26.04   27.50
SO YBADJ    BR_P8      28.12   27.89   26.82   25.63   64.73   53.46
SO YBADJ    BR_P8      40.56   26.43   20.00   -2.36  -24.64  -40.14
```

```
SO YBADJ    BR_P8     -55.62  -17.21  -20.82  -23.79  -26.04  -27.50

SO BUILDHGT BR_P16     12.19   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P16     19.81   19.81   19.81   19.81   12.19   12.19
SO BUILDHGT BR_P16     12.19   12.19   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P16     12.19   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P16     19.81   19.81   19.81   19.81   12.19   12.19
SO BUILDHGT BR_P16     12.19   12.19   12.19   12.19   12.19   12.19
SO BUILDWID BR_P16    109.02   47.32   41.77   34.94   27.66   32.44
SO BUILDWID BR_P16     39.20   44.78   49.00   51.73  101.41   96.97
SO BUILDWID BR_P16     89.58   81.69   93.26  102.00  107.63  110.00
SO BUILDWID BR_P16    109.02   47.32   41.77   34.94   27.66   32.44
SO BUILDWID BR_P16     39.20   44.78   49.00   51.73  101.41   96.97
SO BUILDWID BR_P16     89.58   81.69   93.26  102.00  107.63  110.00
SO BUILDLEN BR_P16    102.76   52.89   52.44   50.39   47.79   51.77
SO BUILDLEN BR_P16     54.16   54.92   54.00   51.44  104.73   97.26
SO BUILDLEN BR_P16     86.84   73.77   77.97   88.41   96.17  101.00
SO BUILDLEN BR_P16    102.76   52.89   52.44   50.39   47.79   51.77
SO BUILDLEN BR_P16     54.16   54.92   54.00   51.44  104.73   97.26
SO BUILDLEN BR_P16     86.84   73.77   77.97   88.41   96.17  101.00
SO XBADJ    BR_P16    -78.32   14.70   19.46   23.63   26.40   24.86
SO XBADJ    BR_P16     22.56   19.58   16.00   11.94  -35.53  -27.57
SO XBADJ    BR_P16    -18.77   -9.40  -11.05  -15.20  -18.89  -22.00
SO XBADJ    BR_P16    -24.44  -67.59  -71.90  -74.03  -74.19  -76.62
SO XBADJ    BR_P16    -76.72  -74.49  -70.00  -63.38  -69.21  -69.69
SO XBADJ    BR_P16    -68.06  -64.37  -66.92  -73.21  -77.28  -79.00
SO YBADJ    BR_P16    -12.10  -31.17  -23.74  -15.58   -6.65    3.68
SO YBADJ    BR_P16     12.42   20.77   28.50   35.36  -24.56  -21.43
SO YBADJ    BR_P16    -17.65  -13.92   -8.94   -3.68    1.68    7.00
SO YBADJ    BR_P16     12.10   31.17   23.74   15.58    6.65   -3.68
SO YBADJ    BR_P16    -12.42  -20.77  -28.50  -35.36   24.56   21.43
SO YBADJ    BR_P16     17.65   13.92    8.94    3.68   -1.68   -7.00

SO BUILDHGT BR_P22     25.91   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P22     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P22     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P22     25.91   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P22     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P22     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDWID BR_P22     24.39   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P22     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P22     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDWID BR_P22     24.39   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P22     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P22     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDLEN BR_P22     50.74  122.33  114.32  108.47   50.87   48.21
```

```
SO BUILDLEN BR_P22     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P22     15.53   23.91   31.57   38.26   43.80   48.00
SO BUILDLEN BR_P22     50.74  122.33  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P22     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P22     15.53   23.91   31.57   38.26   43.80   48.00
SO XBADJ    BR_P22    -47.44  -88.52  -91.29  -94.79  -56.48  -55.01
SO XBADJ    BR_P22    -51.87  -47.15  -41.00  -33.60  -25.19  -16.01
SO XBADJ    BR_P22    -15.35  -14.24  -12.70  -10.77   -8.51   -6.00
SO XBADJ    BR_P22     -3.30  -33.82  -23.03  -13.68    5.61    6.79
SO XBADJ    BR_P22      7.77    8.52    9.00    9.21    9.14    8.79
SO XBADJ    BR_P22     -0.19   -9.68  -18.87  -27.50  -35.28  -42.00
SO YBADJ    BR_P22     21.41   49.30   46.47   41.56    2.28   -3.09
SO YBADJ    BR_P22     -8.36  -13.39  -18.00  -22.07  -25.46  -28.29
SO YBADJ    BR_P22    -30.24  -31.04  -30.90  -29.82  -27.83  -25.00
SO YBADJ    BR_P22    -21.41  -49.30  -46.47  -41.56   -2.28    3.09
SO YBADJ    BR_P22      8.36   13.39   18.00   22.07   25.46   28.29
SO YBADJ    BR_P22     30.24   31.04   30.90   29.82   27.83   25.00

SO BUILDHGT BR_P23     24.69   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P23     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P23     25.91   25.91   25.91   25.91   25.91   24.69
SO BUILDHGT BR_P23     24.69   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P23     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P23     25.91   25.91   25.91   25.91   25.91   24.69
SO BUILDWID BR_P23     91.99   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P23     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P23     51.98   50.87   48.21   44.09   38.63   86.00
SO BUILDWID BR_P23     91.99   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P23     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P23     51.98   50.87   48.21   44.09   38.63   86.00
SO BUILDLEN BR_P23    127.10  122.33  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P23     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P23     15.53   23.91   31.57   38.26   43.80  133.00
SO BUILDLEN BR_P23    127.10  122.33  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P23     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P23     15.53   23.91   31.57   38.26   43.80  133.00
SO XBADJ    BR_P23    -82.25  -88.01  -91.56  -95.83  -58.26  -57.47
SO XBADJ    BR_P23    -54.94  -50.74  -45.00  -37.89  -29.63  -20.47
SO XBADJ    BR_P23    -19.70  -18.34  -16.43  -14.02  -11.18  -59.00
SO XBADJ    BR_P23    -44.84  -34.33  -22.77  -12.64    7.39    9.26
SO XBADJ    BR_P23     10.85   12.11   13.00   13.50   13.58   13.26
SO XBADJ    BR_P23      4.16   -5.57  -15.14  -24.25  -32.62  -74.00
SO YBADJ    BR_P23     51.15   53.74   50.93   45.91    6.38    0.64
SO YBADJ    BR_P23     -5.12  -10.72  -16.00  -20.79  -24.95  -28.56
SO YBADJ    BR_P23    -31.28  -32.82  -33.36  -32.89  -31.42  -47.00
SO YBADJ    BR_P23    -51.15  -53.74  -50.93  -45.91   -6.38   -0.64
```

```
SO YBADJ    BR_P23      5.12   10.72   16.00   20.79   24.95   28.56
SO YBADJ    BR_P23     31.28   32.82   33.36   32.89   31.42   47.00

SO BUILDHGT BR_P24     24.08   24.08   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P24     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P24     25.91   25.91   25.91   24.69   24.69   24.69
SO BUILDHGT BR_P24     24.08   24.08   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P24     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P24     25.91   25.91   25.91   24.69   24.69   24.69
SO BUILDWID BR_P24     51.26   52.97  103.02  112.72   23.91   31.57
SO BUILDWID BR_P24     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P24     51.98   50.87   48.21   89.72   81.09   86.00
SO BUILDWID BR_P24     51.26   52.97  103.02  112.72   23.91   31.57
SO BUILDWID BR_P24     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P24     51.98   50.87   48.21   89.72   81.09   86.00
SO BUILDLEN BR_P24     26.19   17.58  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P24     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P24     15.53   23.91   31.57  135.24  136.19  133.00
SO BUILDLEN BR_P24     26.19   17.58  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P24     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P24     15.53   23.91   31.57  135.24  136.19  133.00
SO XBADJ    BR_P24    -32.27  -26.56  -90.73  -96.50  -60.40  -61.03
SO XBADJ    BR_P24    -59.81  -56.77  -52.00  -45.65  -37.92  -29.03
SO XBADJ    BR_P24    -28.27  -26.67  -24.26  -91.26  -78.83  -64.00
SO XBADJ    BR_P24      6.08    8.98  -23.60  -11.97    9.54   12.82
SO XBADJ    BR_P24     15.72   18.13   20.00   21.26   21.87   21.82
SO XBADJ    BR_P24     12.74    2.76   -7.31  -43.98  -57.36  -69.00
SO YBADJ    BR_P24     -6.34   -9.49   59.49   54.49   14.71    8.47
SO YBADJ    BR_P24      1.98   -4.58  -11.00  -17.08  -22.65  -27.73
SO YBADJ    BR_P24    -31.95  -34.97  -36.93  -51.09  -49.30  -54.00
SO YBADJ    BR_P24      6.34    9.49  -59.49  -54.49  -14.71   -8.47
SO YBADJ    BR_P24     -1.98    4.58   11.00   17.08   22.65   27.73
SO YBADJ    BR_P24     31.95   34.97   36.93   51.09   49.30   54.00

SO BUILDHGT BR_P25     24.08   24.08   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P25     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P25     25.91   25.91   24.69   24.69   24.69   24.08
SO BUILDHGT BR_P25     24.08   24.08   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P25     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P25     25.91   25.91   24.69   24.69   24.69   24.08
SO BUILDWID BR_P25     51.26   52.97  103.02  112.72   23.91   31.57
SO BUILDWID BR_P25     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P25     51.98   50.87   95.62   89.72   81.09   48.00
SO BUILDWID BR_P25     51.26   52.97  103.02  112.72   23.91   31.57
SO BUILDWID BR_P25     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P25     51.98   50.87   95.62   89.72   81.09   48.00
```

```
SO BUILDLEN BR_P25     26.19   17.58  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P25     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P25     15.53   23.91  130.18  135.24  136.19   34.00
SO BUILDLEN BR_P25     26.19   17.58  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P25     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P25     15.53   23.91  130.18  135.24  136.19   34.00
SO XBADJ    BR_P25    -30.82  -25.71  -90.50  -96.89  -61.42  -62.63
SO XBADJ    BR_P25    -61.94  -59.37  -55.00  -48.95  -41.42  -32.63
SO XBADJ    BR_P25    -31.86  -30.13 -104.16  -94.17  -81.32    1.00
SO XBADJ    BR_P25      4.63    8.12  -23.83  -11.58   10.55   14.42
SO XBADJ    BR_P25     17.85   20.74   23.00   24.56   25.38   25.42
SO XBADJ    BR_P25     16.32    6.22  -26.02  -41.07  -54.87  -35.00
SO YBADJ    BR_P25     -3.04   -5.99   63.09   58.07   18.17   11.71
SO YBADJ    BR_P25      4.88   -2.09   -9.00  -15.64  -21.80  -27.50
SO YBADJ    BR_P25    -32.35  -35.98  -52.94  -53.23  -51.90    0.00
SO YBADJ    BR_P25      3.04    5.99  -63.09  -58.07  -18.17  -11.71
SO YBADJ    BR_P25     -4.88    2.09    9.00   15.64   21.80   27.50
SO YBADJ    BR_P25     32.35   35.98   52.94   53.23   51.90    0.00

SO BUILDHGT BR_P26     24.08   24.08   24.08   24.69   25.91   25.91
SO BUILDHGT BR_P26     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P26     25.91   25.91   24.69   24.69   24.08   24.08
SO BUILDHGT BR_P26     24.08   24.08   24.08   24.69   25.91   25.91
SO BUILDHGT BR_P26     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P26     25.91   25.91   24.69   24.69   24.08   24.08
SO BUILDWID BR_P26     51.26   52.97   53.47  112.72   23.91   31.57
SO BUILDWID BR_P26     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P26     51.98   50.87   95.62   89.72   43.28   48.00
SO BUILDWID BR_P26     51.26   52.97   53.47  112.72   23.91   31.57
SO BUILDWID BR_P26     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P26     51.98   50.87   95.62   89.72   43.28   48.00
SO BUILDLEN BR_P26     26.19   17.58    8.44  108.47   50.87   48.21
SO BUILDLEN BR_P26     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P26     15.53   23.91  130.18  135.24   40.78   34.00
SO BUILDLEN BR_P26     26.19   17.58    8.44  108.47   50.87   48.21
SO BUILDLEN BR_P26     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P26     15.53   23.91  130.18  135.24   40.78   34.00
SO XBADJ    BR_P26    -28.74  -24.60  -19.71  -97.81  -63.32  -65.46
SO XBADJ    BR_P26    -65.62  -63.78  -60.00  -54.40  -47.15  -38.46
SO XBADJ    BR_P26    -37.62  -35.64 -109.26  -98.70   -6.48   -2.00
SO XBADJ    BR_P26      2.55    7.01   11.27  -10.66   12.45   17.25
SO XBADJ    BR_P26     21.52   25.14   28.00   30.01   31.10   31.25
SO XBADJ    BR_P26     22.08   11.73  -20.93  -36.54  -34.29  -32.00
SO YBADJ    BR_P26      2.41   -0.26   -3.12   63.83   23.69   16.80
SO YBADJ    BR_P26      9.41    1.73   -6.00  -13.55  -20.69  -27.40
SO YBADJ    BR_P26    -33.26  -37.88  -55.77  -56.90   -7.44   -5.00
```

```
SO YBADJ    BR_P26     -2.41    0.26    3.12  -63.83  -23.69  -16.80
SO YBADJ    BR_P26     -9.41   -1.73    6.00   13.55   20.69   27.40
SO YBADJ    BR_P26     33.26   37.88   55.77   56.90    7.44    5.00

SO BUILDHGT BR_P27     24.08   24.08   24.08   24.69   24.69   25.91
SO BUILDHGT BR_P27     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P27     25.91   24.69   24.69   24.08   24.08   24.08
SO BUILDHGT BR_P27     24.08   24.08   24.08   24.69   24.69   25.91
SO BUILDHGT BR_P27     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P27     25.91   24.69   24.69   24.08   24.08   24.08
SO BUILDWID BR_P27     51.26   52.97   53.47  112.72  121.17   31.57
SO BUILDWID BR_P27     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P27     51.98  101.45   95.62   37.24   43.28   48.00
SO BUILDWID BR_P27     51.26   52.97   53.47  112.72  121.17   31.57
SO BUILDWID BR_P27     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P27     51.98  101.45   95.62   37.24   43.28   48.00
SO BUILDLEN BR_P27     26.19   17.58    8.44  108.47  101.45   48.21
SO BUILDLEN BR_P27     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P27     15.53  121.17  130.18   46.31   40.78   34.00
SO BUILDLEN BR_P27     26.19   17.58    8.44  108.47  101.45   48.21
SO BUILDLEN BR_P27     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P27     15.53  121.17  130.18   46.31   40.78   34.00
SO XBADJ    BR_P27    -27.46  -24.09  -19.98  -98.85 -104.02  -67.93
SO XBADJ    BR_P27    -68.69  -67.37  -64.00  -58.69  -51.59  -42.93
SO XBADJ    BR_P27    -41.97 -120.60 -112.99  -14.02   -9.15   -4.00
SO XBADJ    BR_P27      1.27    6.50   11.54   -9.62    2.58   19.71
SO XBADJ    BR_P27     24.60   28.74   32.00   34.29   35.54   35.71
SO XBADJ    BR_P27     26.43   -0.57  -17.19  -32.30  -31.63  -30.00
SO YBADJ    BR_P27      6.69    4.18    1.34   68.18   60.01   20.54
SO YBADJ    BR_P27     12.66    4.40   -4.00  -12.27  -20.18  -27.67
SO YBADJ    BR_P27    -34.30  -53.30  -58.23  -12.73  -11.03   -9.00
SO YBADJ    BR_P27     -6.69   -4.18   -1.34  -68.18  -60.01  -20.54
SO YBADJ    BR_P27    -12.66   -4.40    4.00   12.27   20.18   27.67
SO YBADJ    BR_P27     34.30   53.30   58.23   12.73   11.03    9.00

SO BUILDHGT BR_P28     24.08   24.08   24.08   24.08   24.69   25.91
SO BUILDHGT BR_P28     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P28     25.91   24.69   24.69   24.08   24.08   24.08
SO BUILDHGT BR_P28     24.08   24.08   24.08   24.08   24.69   25.91
SO BUILDHGT BR_P28     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P28     25.91   24.69   24.69   24.08   24.08   24.08
SO BUILDWID BR_P28     51.26   52.97   53.47   54.03  121.17   31.57
SO BUILDWID BR_P28     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P28     51.98  101.45   95.62   37.24   43.28   48.00
SO BUILDWID BR_P28     51.26   52.97   53.47   54.03  121.17   31.57
SO BUILDWID BR_P28     38.26   43.80   48.00   50.74   51.95   51.97
```

```
SO BUILDWID BR_P28     51.98  101.45   95.62   37.24   43.28   48.00
SO BUILDLEN BR_P28     26.19   17.58    8.44   13.23  101.45   48.21
SO BUILDLEN BR_P28     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P28     15.53  121.17  130.18   46.31   40.78   34.00
SO BUILDLEN BR_P28     26.19   17.58    8.44   13.23  101.45   48.21
SO BUILDLEN BR_P28     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P28     15.53  121.17  130.18   46.31   40.78   34.00
SO XBADJ    BR_P28    -24.22  -21.70  -18.52  -21.49 -104.52  -69.39
SO XBADJ    BR_P28    -71.08  -70.61  -68.00  -63.32  -56.72  -48.39
SO XBADJ    BR_P28    -47.60 -126.23 -118.45  -19.15  -13.78   -8.00
SO XBADJ    BR_P28     -1.97    4.11   10.07    8.25    3.07   21.18
SO XBADJ    BR_P28     26.99   31.98   36.00   38.93   40.67   41.18
SO XBADJ    BR_P28     32.07    5.06  -11.73  -27.17  -26.99  -26.00
SO YBADJ    BR_P28     11.33    9.31    6.81    4.17   65.65   26.00
SO YBADJ    BR_P28     17.79    9.03    0.00   -9.03  -17.79  -26.20
SO YBADJ    BR_P28    -33.81  -53.79  -59.69  -15.12  -14.28  -13.00
SO YBADJ    BR_P28    -11.33   -9.31   -6.81   -4.17  -65.65  -26.00
SO YBADJ    BR_P28    -17.79   -9.03    0.00    9.03   17.79   26.20
SO YBADJ    BR_P28     33.81   53.79   59.69   15.12   14.28   13.00

SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31A    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDWID BR_P31A    51.44   47.32   41.77   34.94   27.66   32.44
SO BUILDWID BR_P31A    39.20   44.78   49.00   51.73   52.89   52.44
SO BUILDWID BR_P31A    50.39   47.79   51.77   54.16   54.92   54.00
SO BUILDWID BR_P31A    51.44   47.32   41.77   34.94   27.66   32.44
SO BUILDWID BR_P31A    39.20   44.78   49.00   51.73   52.89   52.44
SO BUILDWID BR_P31A    50.39   47.79   51.77   54.16   54.92   54.00
SO BUILDLEN BR_P31A    51.73   52.89   52.44   50.39   47.79   51.77
SO BUILDLEN BR_P31A    54.16   54.92   54.00   51.44   47.32   41.77
SO BUILDLEN BR_P31A    34.94   27.66   32.44   39.20   44.78   49.00
SO BUILDLEN BR_P31A    51.73   52.89   52.44   50.39   47.79   51.77
SO BUILDLEN BR_P31A    54.16   54.92   54.00   51.44   47.32   41.77
SO BUILDLEN BR_P31A    34.94   27.66   32.44   39.20   44.78   49.00
SO XBADJ    BR_P31A     1.57    0.08   -1.40   -2.84   -4.89  -10.28
SO XBADJ    BR_P31A   -15.37  -19.99  -24.00  -27.28  -29.74  -31.28
SO XBADJ    BR_P31A   -31.88  -32.12  -39.03  -44.76  -49.13  -52.00
SO XBADJ    BR_P31A   -53.29  -52.97  -51.03  -47.55  -42.91  -41.48
SO XBADJ    BR_P31A   -38.79  -34.93  -30.00  -24.16  -17.59  -10.48
SO XBADJ    BR_P31A    -3.05    4.46    6.60    5.56    4.34    3.00
SO YBADJ    BR_P31A     1.56    6.07   10.40   14.41   18.29   22.82
SO YBADJ    BR_P31A    25.16   26.73   27.50   27.43   26.53   24.82
```

```
SO YBADJ    BR_P31A    22.35   19.01   15.60   11.71    7.47    3.00
SO YBADJ    BR_P31A    -1.56   -6.07  -10.40  -14.41  -18.29  -22.82
SO YBADJ    BR_P31A   -25.16  -26.73  -27.50  -27.43  -26.53  -24.82
SO YBADJ    BR_P31A   -22.35  -19.01  -15.60  -11.71   -7.47   -3.00

SO BUILDHGT BR_P31B    19.81   19.81   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31B    12.19   12.19   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31B    12.19   12.19   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31B    19.81   19.81   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31B    12.19   12.19   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31B    12.19   12.19   12.19   12.19   12.19   12.19
SO BUILDWID BR_P31B    51.44   47.32   97.26   86.84   73.77   77.97
SO BUILDWID BR_P31B    88.41   96.17  101.00  102.76  101.41   96.97
SO BUILDWID BR_P31B    89.58   81.69   51.77   54.16   54.92   54.00
SO BUILDWID BR_P31B    51.44   47.32   97.26   86.84   73.77   77.97
SO BUILDWID BR_P31B    88.41   96.17  101.00  102.76  101.41   96.97
SO BUILDWID BR_P31B    89.58   81.69   93.26  102.00  107.63  110.00
SO BUILDLEN BR_P31B    51.73   52.89   96.97   89.58   81.69   93.26
SO BUILDLEN BR_P31B   102.00  107.63  110.00  109.02  104.73   97.26
SO BUILDLEN BR_P31B    86.84   73.77   32.44   39.20   44.78   49.00
SO BUILDLEN BR_P31B    51.73   52.89   96.97   89.58   81.69   93.26
SO BUILDLEN BR_P31B   102.00  107.63  110.00  109.02  104.73   97.26
SO BUILDLEN BR_P31B    86.84   73.77   77.97   88.41   96.17  101.00
SO XBADJ    BR_P31B    38.53   32.88  -63.14  -67.28  -71.07  -82.83
SO XBADJ    BR_P31B   -92.09  -98.54 -102.00 -102.36  -99.61  -93.83
SO XBADJ    BR_P31B   -85.21  -73.99  -80.67  -87.14  -90.95  -92.00
SO XBADJ    BR_P31B   -90.26  -85.77  -33.83  -22.30  -10.63  -10.43
SO XBADJ    BR_P31B    -9.91   -9.09   -8.00   -6.66   -5.12   -3.43
SO XBADJ    BR_P31B    -1.63    0.22   -6.14  -18.09  -29.49  -40.00
SO YBADJ    BR_P31B    22.29   32.91   45.20   41.79   37.11   32.84
SO YBADJ    BR_P31B    26.11   18.59   10.50    2.09   -6.38  -14.66
SO YBADJ    BR_P31B   -22.49  -30.22   23.47   12.24    0.63  -11.00
SO YBADJ    BR_P31B   -22.29  -32.91  -45.20  -41.79  -37.11  -32.84
SO YBADJ    BR_P31B   -26.11  -18.59  -10.50   -2.09    6.38   14.66
SO YBADJ    BR_P31B    22.49   30.22   36.20   41.09   44.72   47.00

SO BUILDHGT BR_P31C    19.81   19.81   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31C    12.19   12.19   12.19   12.19   12.19   19.81
SO BUILDHGT BR_P31C    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDHGT BR_P31C    19.81   19.81   12.19   12.19   12.19   12.19
SO BUILDHGT BR_P31C    12.19   12.19   12.19   12.19   12.19   19.81
SO BUILDHGT BR_P31C    19.81   19.81   19.81   19.81   19.81   19.81
SO BUILDWID BR_P31C    51.44   47.32   97.26   86.84   73.77   77.97
SO BUILDWID BR_P31C    88.41   96.17  101.00  102.76  101.41   52.44
SO BUILDWID BR_P31C    50.39   47.79   51.77   54.16   54.92   54.00
SO BUILDWID BR_P31C    51.44   47.32   97.26   86.84   73.77   77.97
```

```
SO BUILDWID BR_P31C    88.41   96.17  101.00  102.76  101.41   52.44
SO BUILDWID BR_P31C    50.39   47.79   51.77   54.16   54.92   54.00
SO BUILDLEN BR_P31C    51.73   52.89   96.97   89.58   81.69   93.26
SO BUILDLEN BR_P31C   102.00  107.63  110.00  109.02  104.73   41.77
SO BUILDLEN BR_P31C    34.94   27.66   32.44   39.20   44.78   49.00
SO BUILDLEN BR_P31C    51.73   52.89   96.97   89.58   81.69   93.26
SO BUILDLEN BR_P31C   102.00  107.63  110.00  109.02  104.73   41.77
SO BUILDLEN BR_P31C    34.94   27.66   32.44   39.20   44.78   49.00
SO XBADJ    BR_P31C    20.11   14.60  -80.73  -83.64  -85.70  -95.30
SO XBADJ    BR_P31C  -102.00 -105.61 -106.00 -103.17  -97.21  -57.87
SO XBADJ    BR_P31C   -59.81  -60.54  -67.09  -71.59  -73.92  -74.00
SO XBADJ    BR_P31C   -71.83  -67.49  -16.24   -5.94    4.01    2.04
SO XBADJ    BR_P31C     0.00   -2.03   -4.00   -5.85   -7.52   16.11
SO XBADJ    BR_P31C    24.88   32.89   34.65   32.38   29.14   25.00
SO YBADJ    BR_P31C    23.11   30.51   39.67   33.28   25.89   19.25
SO YBADJ    BR_P31C    10.57    1.56   -7.50  -16.33  -24.66   34.87
SO YBADJ    BR_P31C    27.63   19.36   11.01    2.32   -6.44  -15.00
SO YBADJ    BR_P31C   -23.11  -30.51  -39.67  -33.28  -25.89  -19.25
SO YBADJ    BR_P31C   -10.57   -1.56    7.50   16.33   24.66  -34.87
SO YBADJ    BR_P31C   -27.63  -19.36  -11.01   -2.32    6.44   15.00

SO BUILDHGT BR_P71     25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P71     24.69   24.69   24.69   25.91   25.91   25.91
SO BUILDHGT BR_P71     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P71     25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P71     24.69   24.69   24.69   25.91   25.91   25.91
SO BUILDHGT BR_P71     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDWID BR_P71     24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P71    135.24  136.19  133.00   50.74   51.95   51.97
SO BUILDWID BR_P71     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDWID BR_P71     24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P71    135.24  136.19  133.00   50.74   51.95   51.97
SO BUILDWID BR_P71     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDLEN BR_P71     50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P71     89.72   81.09   86.00   24.39   16.05    7.21
SO BUILDLEN BR_P71     15.53   23.91   31.57   38.26   43.80   48.00
SO BUILDLEN BR_P71     50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P71     89.72   81.09   86.00   24.39   16.05    7.21
SO BUILDLEN BR_P71     15.53   23.91   31.57   38.26   43.80   48.00
SO XBADJ    BR_P71    -62.68  -99.53  -97.75  -96.49  -92.30  -85.30
SO XBADJ    BR_P71    -75.71  -63.83  -66.00  -10.61    0.10   10.81
SO XBADJ    BR_P71     12.19   13.17   13.76   13.93   13.67   13.00
SO XBADJ    BR_P71     11.93  -22.80  -16.58  -11.98   -9.15  -10.32
SO XBADJ    BR_P71    -14.01  -17.27  -20.00  -13.78  -16.15  -18.03
SO XBADJ    BR_P71    -27.72  -37.09  -45.33  -52.19  -57.47  -61.00
SO YBADJ    BR_P71     -1.59   24.01   19.65   14.03    7.09   -2.18
```

```
SO YBADJ    BR_P71    -11.39  -20.25  -28.50  -37.31  -36.48  -34.74
SO YBADJ    BR_P71    -31.94  -27.93  -23.08  -17.52  -11.44   -5.00
SO YBADJ    BR_P71      1.59  -24.01  -19.65  -14.03   -7.09    2.18
SO YBADJ    BR_P71     11.39   20.25   28.50   37.31   36.48   34.74
SO YBADJ    BR_P71     31.94   27.93   23.08   17.52   11.44    5.00

SO BUILDHGT BR_P72     25.91   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P72     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P72     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P72     25.91   24.69   24.69   24.69   25.91   25.91
SO BUILDHGT BR_P72     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P72     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDWID BR_P72     24.39   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P72     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P72     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDWID BR_P72     24.39   95.18  103.02  112.72   23.91   31.57
SO BUILDWID BR_P72     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P72     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDLEN BR_P72     50.74  122.33  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P72     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P72     15.53   23.91   31.57   38.26   43.80   48.00
SO BUILDLEN BR_P72     50.74  122.33  114.32  108.47   50.87   48.21
SO BUILDLEN BR_P72     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P72     15.53   23.91   31.57   38.26   43.80   48.00
SO XBADJ    BR_P72    -56.59  -96.55  -97.95  -99.88  -59.84  -56.54
SO XBADJ    BR_P72    -51.53  -44.95  -37.00  -27.93  -18.01   -7.54
SO XBADJ    BR_P72     -5.86   -4.01   -2.04    0.00    2.03    4.00
SO XBADJ    BR_P72      5.85  -25.79  -16.37   -8.59    8.97    8.33
SO XBADJ    BR_P72      7.43    6.31    5.00    3.53    1.96    0.33
SO XBADJ    BR_P72     -9.68  -19.91  -29.53  -38.26  -45.83  -52.00
SO YBADJ    BR_P72     15.73   42.12   38.00   32.07   -7.95  -13.75
SO YBADJ    BR_P72    -19.13  -23.93  -28.00  -31.22  -33.49  -34.95
SO YBADJ    BR_P72    -35.33  -34.41  -32.44  -29.48  -25.63  -21.00
SO YBADJ    BR_P72    -15.73  -42.12  -38.00  -32.07    7.95   13.75
SO YBADJ    BR_P72     19.13   23.93   28.00   31.22   33.49   34.95
SO YBADJ    BR_P72     35.33   34.41   32.44   29.48   25.63   21.00

SO BUILDHGT BR_P81     25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P81     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P81     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P81     25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P81     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P81     25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDWID BR_P81     24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P81     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P81     51.98   50.87   48.21   44.09   38.63   32.00
```

```
SO BUILDWID BR_P81     24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P81     38.26   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P81     51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDLEN BR_P81     50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P81     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P81     15.53   23.91   31.57   38.26   43.80   48.00
SO BUILDLEN BR_P81     50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P81     44.09   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P81     15.53   23.91   31.57   38.26   43.80   48.00
SO XBADJ    BR_P81     -6.02  -47.94  -52.78  -59.52  -64.45  -67.43
SO XBADJ    BR_P81    -32.21  -34.12  -35.00  -34.82  -33.57  -31.31
SO XBADJ    BR_P81    -37.11  -41.79  -45.20  -47.24  -47.85  -47.00
SO XBADJ    BR_P81    -44.72  -74.39  -61.54  -48.95  -36.99  -28.20
SO XBADJ    BR_P81    -11.89   -4.51    3.00   10.42   17.53   24.10
SO XBADJ    BR_P81     21.57   17.87   13.63    8.98    4.05   -1.00
SO YBADJ    BR_P81     22.62   57.68   61.77   63.32   62.05   56.78
SO YBADJ    BR_P81     28.11   25.95   23.00   19.35   15.11   10.22
SO YBADJ    BR_P81      5.02   -0.09   -5.20  -10.16  -14.80  -19.00
SO YBADJ    BR_P81    -22.62  -57.68  -61.77  -63.32  -62.05  -56.78
SO YBADJ    BR_P81    -28.11  -25.95  -23.00  -19.35  -15.11  -10.22
SO YBADJ    BR_P81     -5.02    0.09    5.20   10.16   14.80   19.00

SO BUILDHGT BR_P100    25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P100    24.69   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P100    25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P100    25.91   24.69   24.69   24.69   24.69   24.69
SO BUILDHGT BR_P100    24.69   25.91   25.91   25.91   25.91   25.91
SO BUILDHGT BR_P100    25.91   25.91   25.91   25.91   25.91   25.91
SO BUILDWID BR_P100    24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P100   135.24   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P100    51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDWID BR_P100    24.39   95.18  103.02  112.72  121.17  130.18
SO BUILDWID BR_P100   135.24   43.80   48.00   50.74   51.95   51.97
SO BUILDWID BR_P100    51.98   50.87   48.21   44.09   38.63   32.00
SO BUILDLEN BR_P100    50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P100    89.72   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P100    15.53   23.91   31.57   38.26   43.80   48.00
SO BUILDLEN BR_P100    50.74  122.33  114.32  108.47  101.45   95.62
SO BUILDLEN BR_P100    89.72   38.63   32.00   24.39   16.05    7.21
SO BUILDLEN BR_P100    15.53   23.91   31.57   38.26   43.80   48.00
SO XBADJ    BR_P100     4.93  -35.38  -38.99  -44.92  -49.48  -52.53
SO XBADJ    BR_P100   -53.99  -20.74  -23.00  -24.56  -25.38  -25.42
SO XBADJ    BR_P100   -33.70  -40.97  -47.00  -51.60  -54.63  -56.00
SO XBADJ    BR_P100   -55.67  -86.96  -75.33  -63.56  -51.97  -43.09
SO XBADJ    BR_P100   -35.73  -17.89   -9.00    0.17    9.33   18.21
SO XBADJ    BR_P100    18.17   17.06   15.43   13.33   10.83    8.00
```

```
SO YBADJ    BR_P100    12.36   49.49   55.88   59.92   61.24   58.57
SO YBADJ    BR_P100    54.13   32.73   32.00   30.30   27.68   24.01
SO YBADJ    BR_P100    19.63   14.89    9.69    4.20   -1.42   -7.00
SO YBADJ    BR_P100   -12.36  -49.49  -55.88  -59.92  -61.24  -58.57
SO YBADJ    BR_P100   -54.13  -32.73  -32.00  -30.30  -27.68  -24.01
SO YBADJ    BR_P100   -19.63  -14.89   -9.69   -4.20    1.42    7.00

SO BUILDHGT BU_P1      22.86   22.86   22.86   22.86   22.86   22.86
SO BUILDHGT BU_P1      22.86   22.86   22.86   28.96   28.96   28.96
SO BUILDHGT BU_P1      28.96   28.96   28.96   22.86   22.86   22.86
SO BUILDHGT BU_P1      22.86   22.86   22.86   22.86   22.86   22.86
SO BUILDHGT BU_P1      22.86   22.86   22.86   28.96   22.86   22.86
SO BUILDHGT BU_P1      22.86   28.96   28.96   22.86   22.86   22.86
SO BUILDWID BU_P1     105.20  103.38  105.44  104.30   99.98   92.63
SO BUILDWID BU_P1      82.46   72.52   69.00   38.93   38.36   39.21
SO BUILDWID BU_P1      39.30   38.19   35.92   96.96  102.54  105.00
SO BUILDWID BU_P1     105.20  103.38  105.44  104.30   99.98   92.63
SO BUILDWID BU_P1      82.46   72.52   69.00   38.93   68.10   73.67
SO BUILDWID BU_P1      79.79   38.19   35.92   96.96  102.54  105.00
SO BUILDLEN BU_P1      68.13   68.10   73.67   79.79   86.45   90.48
SO BUILDLEN BU_P1      96.96  102.54  105.00   18.02   14.02   18.46
SO BUILDLEN BU_P1      22.77   27.95   32.28   82.46   72.52   69.00
SO BUILDLEN BU_P1      68.13   68.10   73.67   79.79   86.45   90.48
SO BUILDLEN BU_P1      96.96  102.54  105.00   18.02  103.38  105.44
SO BUILDLEN BU_P1     104.30   27.95   32.28   82.46   72.52   69.00
SO XBADJ    BU_P1     -4.17   -6.76  -13.44  -22.51  -33.85  -44.16
SO XBADJ    BU_P1    -53.13  -60.48  -66.00  -70.44  -73.83  -79.50
SO XBADJ    BU_P1    -82.75  -83.49  -81.69  -77.41  -70.78  -66.00
SO XBADJ    BU_P1    -63.96  -61.34  -60.23  -57.29  -52.60  -46.32
SO XBADJ    BU_P1    -43.83  -42.05  -39.00   52.42  -29.56  -25.94
SO XBADJ    BU_P1    -21.55   55.54   49.42   -5.05   -1.74   -3.00
SO YBADJ    BU_P1     17.84   22.14   26.78   30.60   33.50   35.38
SO YBADJ    BU_P1     36.18   34.52   31.50   31.87   20.61    9.12
SO YBADJ    BU_P1     -2.86  -14.75  -26.20   -4.65   -9.21  -13.50
SO YBADJ    BU_P1    -17.84  -22.14  -26.78  -30.60  -33.50  -35.38
SO YBADJ    BU_P1    -36.18  -34.52  -31.50  -31.87  -27.29  -23.40
SO YBADJ    BU_P1    -17.39   14.75   26.20    4.65    9.21   13.50

SO PARTDIAM BR_P8  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P100  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P16 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P22 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P23 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P24 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P25 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P26 1.57  3.88  7.75 12.63 17.57 25.25
```

```
SO PARTDIAM BR_P27 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P28 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31A  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31B  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P31C  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P71 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P72 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_P81 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_V10FUG  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_V11FUG  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_V12FUG  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_V13FUG  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13E  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13F  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G1   1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G2   1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G3   1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G4   1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_A13G5   1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRAB01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRAB02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBC01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRBD04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDE01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREF01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HREG04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRGH01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRGI01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIJ03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJK04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKL03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLM01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRMN01  1.57  3.88  7.75 12.63 17.57 25.25
```

```
SO PARTDIAM BR_HRMN02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNO01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNO02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNP01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRNQ01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRLR03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRS01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRT06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRU01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRRU02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRUV01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDV01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRDV02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRIW06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRJX01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRXY01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRXY02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BR_HRKZ01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_P1  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV1  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV2  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV3  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_UGV6  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V13 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V16 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V17 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V19 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V23A  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V20 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V25 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V26 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V28 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V33 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_V36 1.57  3.88  7.75 12.63 17.57 25.25
```

```
SO PARTDIAM BU_V40 1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_V8  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_V9  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRAB04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBC04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD07  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRBD08  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDE06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRDF04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRGH04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_HRHI04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM CA_HRAB07  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48A  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48B  1.57  3.88  7.75 12.63 17.57 25.25
```

```
SO PARTDIAM BU_A48C  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48D  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48E  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48F  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48G  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48H  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48I  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48J  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48K  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48L  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48M  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48N  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM BU_A48O  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_01  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_07  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_08  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_09  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_10  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_11  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_12  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_13  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_14  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_15  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_16  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_17  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_18  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_19  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_20  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_21  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_22  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_23  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_24  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_25  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_26  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_27  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_28  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_29  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_30  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_31  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_KK_32  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_01  1.57  3.88  7.75 12.63 17.57 25.25
```

```
SO PARTDIAM HWY_32_02  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_03  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_04  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_05  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_06  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_07  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_08  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_09  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_10  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_11  1.57  3.88  7.75 12.63 17.57 25.25
SO PARTDIAM HWY_32_12  1.57  3.88  7.75 12.63 17.57 25.25

SO MASSFRAX BR_P8  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P100  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P16   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P22   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P23   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P24   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P25   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P26   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P27   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P28   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P31A  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P31B  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P31C  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P71   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P72   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_P81   1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_V10FUG  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_V11FUG  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_V12FUG  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BR_V13FUG  0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BR_A13E  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13F  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13G1 0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13G2 0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13G3 0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13G4 0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_A13G5 0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BR_HRAB01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRAB02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRBC01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRBD01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRBD02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRBD03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRBD04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
```

```
SO MASSFRAX BR_HRDE01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HREF01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HREG01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HREG02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HREG03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HREG04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRGH01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRGI01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIJ01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIJ02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIJ03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRJK01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRJK02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRJK03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRJK04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRKL01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRKL02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRKL03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRLM01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRMN01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRMN02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRNO01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRNO02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRNP01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRNQ01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRLR01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRLR02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRLR03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRS01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRT06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRU01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRRU02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRUV01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRDV01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRDV02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRIW06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
```

```
SO MASSFRAX BR_HRJX01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRXY01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRXY02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BR_HRKZ01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_P1  1.0000  0.0000  0.0000  0.0000  0.0000  0.0000
SO MASSFRAX BU_UGV1  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_UGV2  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_UGV3  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_UGV6  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_V13   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V16   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V17   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V19   0.0889  0.1444  0.2222  0.2444  0.1444  0.1557
SO MASSFRAX BU_V23A  0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V20   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V25   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V26   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V28   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V33   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V36   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_V40   0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX CA_V8  0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX CA_V9  0.0667  0.2000  0.2111  0.1667  0.1778  0.1777
SO MASSFRAX BU_HRAB01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRAB02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRAB03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRAB04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBC01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBC02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBC03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBC04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD07  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRBD08  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDE06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDF01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
```

```
SO MASSFRAX BU_HRDF02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDF03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRDF04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRGH01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRGH02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRGH03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRGH04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_HRHI01  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_HRHI02  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_HRHI03  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX BU_HRHI04  0.0333  0.0778  0.1667  0.3000  0.2000  0.2222
SO MASSFRAX CA_HRAB01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX CA_HRAB07  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX BU_A48A  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48B  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48C  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48D  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48E  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48F  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48G  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48H  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48I  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48J  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48K  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48L  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48M  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48N  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX BU_A48O  0.0778  0.1556  0.2667  0.1000  0.2000  0.1999
SO MASSFRAX HWY_KK_01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_07  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_08  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_09  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_10  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_11  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_12  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_13  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
```

```
SO MASSFRAX HWY_KK_14  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_15  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_16  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_17  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_18  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_19  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_20  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_21  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_22  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_23  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_24  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_25  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_26  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_27  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_28  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_29  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_30  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_31  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_KK_32  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_01  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_02  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_03  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_04  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_05  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_06  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_07  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_08  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_09  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_10  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_11  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000
SO MASSFRAX HWY_32_12  0.0333  0.0556  0.1111  0.0444  0.3556  0.4000

SO PARTDENS BR_P8  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P100  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P16 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P22 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P23 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P24 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P25 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P26 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P27 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P28 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P31A  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P31B  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P31C  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P71 1.00  1.00  1.00  1.00  1.00  1.00
```

```
SO PARTDENS BR_P72 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_P81 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_V10FUG  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_V11FUG  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_V12FUG  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_V13FUG  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13E  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13F  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13G1   1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13G2   1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13G3   1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13G4   1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_A13G5   1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRAB01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRAB02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRBC01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRBD01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRBD02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRBD03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRBD04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRDE01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HREF01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HREG01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HREG02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HREG03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HREG04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRGH01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRGI01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIJ01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIJ02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIJ03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRJK01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRJK02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRJK03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRJK04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRKL01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRKL02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRKL03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRLM01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRMN01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRMN02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRNO01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRNO02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRNP01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRNQ01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRLR01  1.00  1.00  1.00  1.00  1.00  1.00
```

```
SO PARTDENS BR_HRLR02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRLR03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRS01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRT06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRU01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRRU02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRUV01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRDV01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRDV02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRIW06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRJX01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRXY01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRXY02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BR_HRKZ01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_P1  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_UGV1  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_UGV2  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_UGV3  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_UGV6  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V13 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V16 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V17 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V19 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V23A  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V20 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V25 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V26 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V28 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V33 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V36 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_V40 1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_V8  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_V9  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRAB01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRAB02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRAB03  1.00  1.00  1.00  1.00  1.00  1.00
```

```
SO PARTDENS BU_HRAB04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBC01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBC02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBC03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBC04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD07  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRBD08  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDE06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDF01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDF02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDF03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRDF04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRGH01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRGH02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRGH03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRGH04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRHI01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRHI02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRHI03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_HRHI04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS CA_HRAB07  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48A  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48B  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48C  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48D  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48E  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48F  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48G  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48H  1.00  1.00  1.00  1.00  1.00  1.00
```

```
SO PARTDENS BU_A48I  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48J  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48K  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48L  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48M  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48N  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS BU_A48O  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_07  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_08  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_09  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_10  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_11  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_12  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_13  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_14  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_15  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_16  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_17  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_18  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_19  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_20  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_21  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_22  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_23  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_24  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_25  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_26  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_27  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_28  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_29  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_30  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_31  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_KK_32  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_01  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_02  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_03  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_04  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_05  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_06  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_07  1.00  1.00  1.00  1.00  1.00  1.00
```

```
SO PARTDENS HWY_32_08  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_09  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_10  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_11  1.00  1.00  1.00  1.00  1.00  1.00
SO PARTDENS HWY_32_12  1.00  1.00  1.00  1.00  1.00  1.00

SO EMISFACT BR_HRAB01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRAB02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBC01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRBD04  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDE01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREF01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HREG04  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRGH01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRGI01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIJ03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJK04  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKL03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLM01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRMN01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRMN02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNO01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNO02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNP01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRNQ01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRLR03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRS01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT04  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
```

```
SO EMISFACT BR_HRRT05  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRT06  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRU01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRRU02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRUV01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDV01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRDV02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW03  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW04  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW05  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRIW06  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRJX01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRXY01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRXY02  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0
SO EMISFACT BR_HRKZ01  HROFDY  0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0

SO EMISFACT BR_A13E WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13F WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13G1 WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13G2 WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13G3 WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13G4 WSPEED 0 0 0 1 1 1
SO EMISFACT BR_A13G5 WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48A WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48B WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48C WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48D WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48E WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48F WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48G WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48H WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48I WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48J WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48K WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48L WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48M WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48N WSPEED 0 0 0 1 1 1
SO EMISFACT BU_A48O WSPEED 0 0 0 1 1 1

SO LOCATION CA_KD        VOLUME        665451    4169717       402
SO SRCPARAM CA_KD          7.97E-04     4.27      0.21      3.54
SO PARTDIAM CA_KD            1.57      3.88      7.75     12.63     17.57     25.25
SO MASSFRAX CA_KD           0.0667    0.2000    0.2111    0.1667    0.1778    0.1777
SO PARTDENS CA_KD            1.00      1.00      1.00      1.00      1.00      1.00
```

```
SO LOCATION BR_P94        POINT        664891     4166962        428
SO SRCPARAM BR_P94        4.40E-04     15.24    293.00      9.65      1.07
SO BUILDHGT BR_P94      0.00    0.00    0.00    7.32    7.32    9.14
SO BUILDHGT BR_P94      9.14    9.14    9.14    9.14    9.14    9.14
SO BUILDHGT BR_P94      9.14    9.14    9.14    0.00   24.69   24.69
SO BUILDHGT BR_P94     24.69   24.69   24.69    7.32    7.32    9.14
SO BUILDHGT BR_P94      9.14    9.14    9.14    9.14    9.14    9.14
SO BUILDHGT BR_P94      9.14    9.14    9.14    0.00    0.00    0.00
SO BUILDWID BR_P94      0.00    0.00    0.00   40.20   45.74   21.19
SO BUILDWID BR_P94     21.79   21.72   21.00   19.64   17.68   15.19
SO BUILDWID BR_P94     13.08   13.69   14.59    0.00   81.09   86.00
SO BUILDWID BR_P94     91.99   95.18  103.02   40.20   45.74   21.19
SO BUILDWID BR_P94     21.79   21.72   21.00   19.64   17.68   15.19
SO BUILDWID BR_P94     13.08   13.69   14.59    0.00    0.00    0.00
SO BUILDLEN BR_P94      0.00    0.00    0.00   54.63   58.08   14.59
SO BUILDLEN BR_P94     16.23   17.38   18.00   18.07   17.60   16.59
SO BUILDLEN BR_P94     18.09   19.94   21.19    0.00  136.19  133.00
SO BUILDLEN BR_P94    127.10  122.33  114.32   54.63   58.08   14.59
SO BUILDLEN BR_P94     16.23   17.38   18.00   18.07   17.60   16.59
SO BUILDLEN BR_P94     18.09   19.94   21.19    0.00    0.00    0.00
SO XBADJ    BR_P94      0.00    0.00    0.00  -64.76  -69.08  -18.65
SO XBADJ    BR_P94    -21.44  -23.58  -25.00  -25.66  -25.54  -24.65
SO XBADJ    BR_P94    -24.72  -24.59  -23.72    0.00 -186.07 -187.00
SO XBADJ    BR_P94   -183.58 -179.57 -170.12   10.13   11.00    4.06
SO XBADJ    BR_P94      5.21    6.20    7.00    7.59    7.95    8.06
SO XBADJ    BR_P94      6.62    4.65    2.54    0.00    0.00    0.00
SO YBADJ    BR_P94      0.00    0.00    0.00   19.76   11.94   13.13
SO YBADJ    BR_P94     11.24    9.01    6.50    3.80    0.98   -1.87
SO YBADJ    BR_P94     -4.94   -8.45  -11.36    0.00   50.85   26.00
SO YBADJ    BR_P94     -1.48  -28.92  -51.71  -19.76  -11.94  -13.13
SO YBADJ    BR_P94    -11.24   -9.01   -6.50   -3.80   -0.98    1.87
SO YBADJ    BR_P94      4.94    8.45   11.36    0.00    0.00    0.00
SO PARTDIAM BR_P94          1.57      3.88      7.75     12.63     17.57     25.25
SO MASSFRAX BR_P94         1.0000    0.0000    0.0000    0.0000    0.0000    0.0000
SO PARTDENS BR_P94          1.00      1.00      1.00      1.00      1.00      1.00


SO BACKGRND MONTH 0.020 0.020 0.020 0.020 0.020 0.020
SO BACKGRND MONTH 0.020 0.020 0.020 0.020 0.020 0.020
SO BACKUNIT UG/M3


SO SRCGROUP ALL BACKGROUND
SO FINISHED
```

```
RE STARTING
RE ELEVUNIT  METERS
  RE DISCCART  663149  4158848  385.17  385.17
  RE DISCCART  663649  4158848  385.06  409.99
  RE DISCCART  664149  4158848  398.88  409.71
  RE DISCCART  664649  4158848  391.49  409.61
  RE DISCCART  665149  4158848  386.31  408.21
  RE DISCCART  665649  4158848  363.65  397.34
  RE DISCCART  666149  4158848  358.26  410.34
  RE DISCCART  666649  4158848  346.71  407.43
  RE DISCCART  667149  4158848  351.41  390.65
  RE DISCCART  667649  4158848  346.74  386.6
  RE DISCCART  668149  4158848  364.84  393.27
  RE DISCCART  668649  4158848  373.86  373.86
  RE DISCCART  669149  4158848  349.18  397.27
  RE DISCCART  669649  4158848  333.46  385.38
  RE DISCCART  663149  4159348  361.78  404.12
  RE DISCCART  663649  4159348  381.43  415.45
  RE DISCCART  664149  4159348  412.26  413.42
  RE DISCCART  664649  4159348  396.34  414.37
  RE DISCCART  665149  4159348  386.42  412.82
  RE DISCCART  665649  4159348  395.94  401.15
  RE DISCCART  666149  4159348  364.11  398.12
  RE DISCCART  666649  4159348  344.91  391.99
  RE DISCCART  667149  4159348  365.93  392.09
  RE DISCCART  667649  4159348  332.61  392.37
  RE DISCCART  668149  4159348  332.28  385.75
  RE DISCCART  668649  4159348  359.55  374.12
  RE DISCCART  669149  4159348  351.23  366.08
  RE DISCCART  669649  4159348  364.93  366.68
  RE DISCCART  663149  4159848  353.78  390.43
  RE DISCCART  663649  4159848  377.7  377.7
  RE DISCCART  664149  4159848  392.71  422.97
  RE DISCCART  664649  4159848  387.76  426.39
  RE DISCCART  665149  4159848  377.63  415.71
  RE DISCCART  665649  4159848  371.71  410.08
  RE DISCCART  666149  4159848  351.92  398.02
  RE DISCCART  666649  4159848  380.94  391.71
  RE DISCCART  667149  4159848  383.9  398.93
  RE DISCCART  667649  4159848  371.78  385.01
  RE DISCCART  668149  4159848  372.33  373.58
  RE DISCCART  668649  4159848  352.32  373.51
  RE DISCCART  669149  4159848  329.95  374.28
  RE DISCCART  669649  4159848  321.84  368.99
  RE DISCCART  663149  4160348  374.05  374.05
  RE DISCCART  663649  4160348  407.02  407.98
```

RE DISCCART 664149 4160348 407.1 427.35
RE DISCCART 664649 4160348 392.01 421.24
RE DISCCART 665149 4160348 412.78 413.85
RE DISCCART 665649 4160348 383.1 383.1
RE DISCCART 665999 4160348 370.84 398.31
RE DISCCART 666099 4160348 368.94 409.42
RE DISCCART 666199 4160348 388.24 393.02
RE DISCCART 666299 4160348 372.59 410.64
RE DISCCART 666399 4160348 382.71 408.58
RE DISCCART 666499 4160348 399.4 401.31
RE DISCCART 666649 4160348 388.5 402.98
RE DISCCART 667149 4160348 398.55 398.55
RE DISCCART 667649 4160348 372.46 411.77
RE DISCCART 668149 4160348 375.91 386.5
RE DISCCART 668649 4160348 366.82 392.16
RE DISCCART 669149 4160348 345.32 392.16
RE DISCCART 669649 4160348 353.4 380.31
RE DISCCART 665999 4160448 385.08 397.8
RE DISCCART 666099 4160448 368.33 410.64
RE DISCCART 666199 4160448 394.23 398.08
RE DISCCART 666299 4160448 378.03 410.64
RE DISCCART 666399 4160448 377.71 410.64
RE DISCCART 666499 4160448 384.22 410.64
RE DISCCART 665999 4160548 392.34 397.87
RE DISCCART 666099 4160548 371.71 410.64
RE DISCCART 666399 4160548 403.07 408.21
RE DISCCART 666499 4160548 398.03 410.16
RE DISCCART 665999 4160648 397.81 397.81
RE DISCCART 666099 4160648 379.76 410.49
RE DISCCART 666399 4160648 410.37 410.37
RE DISCCART 666499 4160648 402.01 410.39
RE DISCCART 665999 4160748 400.91 403.56
RE DISCCART 666099 4160748 390.11 410.42
RE DISCCART 666199 4160748 385.46 410.85
RE DISCCART 666299 4160748 400.11 410.13
RE DISCCART 666399 4160748 409.67 409.67
RE DISCCART 666499 4160748 405.65 405.65
RE DISCCART 663149 4160848 360.25 397.35
RE DISCCART 663649 4160848 404.66 415.48
RE DISCCART 664149 4160848 411.28 421.61
RE DISCCART 664649 4160848 417.15 419.35
RE DISCCART 665149 4160848 395.1 416.62
RE DISCCART 665649 4160848 380.18 412.71
RE DISCCART 665999 4160848 396.31 410.42
RE DISCCART 666099 4160848 405.01 410.41
RE DISCCART 666199 4160848 385.44 417.25

RE DISCCART	666299	4160848	398.46	410.62
RE DISCCART	666399	4160848	408.89	408.89
RE DISCCART	666499	4160848	398.57	410.46
RE DISCCART	666649	4160848	383.91	410.88
RE DISCCART	667149	4160848	387.21	404.63
RE DISCCART	667649	4160848	393.47	409.49
RE DISCCART	669149	4160848	353.39	391.7
RE DISCCART	669649	4160848	355.12	379.22
RE DISCCART	670149	4160848	379.46	384.11
RE DISCCART	670649	4160848	342.07	386.36
RE DISCCART	671149	4160848	368.97	379.37
RE DISCCART	663149	4161348	378.29	421.56
RE DISCCART	663649	4161348	378.04	414.87
RE DISCCART	664149	4161348	389.27	422.17
RE DISCCART	664649	4161348	400.03	421.71
RE DISCCART	665149	4161348	406.47	420.73
RE DISCCART	665649	4161348	417.51	423.25
RE DISCCART	666149	4161348	400.12	430.42
RE DISCCART	667149	4161348	387.86	397.74
RE DISCCART	669649	4161348	321.59	385.53
RE DISCCART	670149	4161348	364.7	385.53
RE DISCCART	670649	4161348	346.15	380.21
RE DISCCART	671149	4161348	340.41	380.21
RE DISCCART	661149	4161848	353.32	377.14
RE DISCCART	661649	4161848	384.94	396.58
RE DISCCART	662149	4161848	385.74	403.18
RE DISCCART	662649	4161848	397.06	407.38
RE DISCCART	663149	4161848	409.06	427.59
RE DISCCART	663649	4161848	392.72	439.55
RE DISCCART	664149	4161848	402.04	427.95
RE DISCCART	664649	4161848	413.42	413.42
RE DISCCART	665149	4161848	410.18	414.34
RE DISCCART	665649	4161848	374.44	429.03
RE DISCCART	666649	4161848	380.92	383.04
RE DISCCART	667149	4161848	393.93	397.54
RE DISCCART	668149	4161848	396.96	410.25
RE DISCCART	669149	4161848	376.31	376.31
RE DISCCART	669649	4161848	317.18	391.88
RE DISCCART	670149	4161848	317.91	385.53
RE DISCCART	670649	4161848	313.28	385.49
RE DISCCART	671149	4161848	304.85	380.21
RE DISCCART	663022	4168215	403.36	403.36
RE DISCCART	663068	4168234	402.79	402.79
RE DISCCART	663114	4168253	401.31	401.31
RE DISCCART	663160	4168273	397.95	397.95
RE DISCCART	663206	4168292	396.59	396.59

RE DISCCART	663253	4168311	399.66	399.66
RE DISCCART	663299	4168330	400.59	400.59
RE DISCCART	663345	4168349	400.21	400.21
RE DISCCART	663391	4168369	398.27	398.27
RE DISCCART	663433	4168396	399.1	399.1
RE DISCCART	663474	4168425	398.37	399.75
RE DISCCART	663516	4168452	394.03	403.2
RE DISCCART	663557	4168481	390.83	403.2
RE DISCCART	663598	4168509	385.78	403.2
RE DISCCART	665762	4168192	430.25	431.44
RE DISCCART	665263	4168200	401.08	422.07
RE DISCCART	665313	4168200	403.17	422.06
RE DISCCART	665363	4168200	407.91	422.06
RE DISCCART	665413	4168200	411.33	422.06
RE DISCCART	665463	4168200	410.35	427.76
RE DISCCART	665513	4168200	414.94	427.76
RE DISCCART	665563	4168200	420.06	420.06
RE DISCCART	665613	4168200	422.88	427.8
RE DISCCART	665663	4168200	425.39	428.43
RE DISCCART	665713	4168200	427.22	432.37
RE DISCCART	665219	4168218	399.48	415.8
RE DISCCART	665218	4168268	400.44	415.59
RE DISCCART	665218	4168318	406.68	410.94
RE DISCCART	665218	4168368	409.65	409.65
RE DISCCART	665218	4168418	405.4	409.31
RE DISCCART	665218	4168468	397.26	416.18
RE DISCCART	665218	4168518	395.5	416.18
RE DISCCART	665149	4169848	378.63	400.76
RE DISCCART	665249	4169848	391.86	391.86
RE DISCCART	665649	4169848	392.23	420.9
RE DISCCART	665149	4170348	400.35	400.35
RE DISCCART	665249	4169348	396.6	405.63
RE DISCCART	665349	4169348	394.23	406.88
RE DISCCART	665449	4169348	403.3	403.3
RE DISCCART	665549	4169348	405.8	415
RE DISCCART	665649	4169348	409.2	415.74
RE DISCCART	665149	4169948	377.2	392.1
RE DISCCART	665249	4169948	378.79	399.13
RE DISCCART	665349	4169948	380.33	399.74
RE DISCCART	665449	4169948	381.92	399.96
RE DISCCART	665549	4169948	382.44	415.02
RE DISCCART	665649	4169948	389.87	421.3
RE DISCCART	665149	4169448	406.06	406.06
RE DISCCART	665249	4169448	406.36	406.36
RE DISCCART	665349	4169448	400.57	400.57
RE DISCCART	665449	4169448	406.86	406.86

RE DISCCART	665549	4169448	413.33	413.33
RE DISCCART	665649	4169448	415.95	415.95
RE DISCCART	665149	4170048	382.7	385
RE DISCCART	665249	4170048	389.68	392.1
RE DISCCART	665349	4170048	393.53	393.53
RE DISCCART	665449	4170048	396.51	396.51
RE DISCCART	665549	4170048	394.44	397.6
RE DISCCART	665649	4170048	396.89	403.09
RE DISCCART	665149	4169548	408.13	408.13
RE DISCCART	665249	4169548	409.87	409.87
RE DISCCART	665449	4169548	410.07	410.07
RE DISCCART	665549	4169548	413.62	413.62
RE DISCCART	665649	4169548	411.76	411.76
RE DISCCART	665149	4170148	385.48	397.19
RE DISCCART	665249	4170148	383.38	398.16
RE DISCCART	665349	4170148	390.11	390.11
RE DISCCART	665449	4170148	395.67	395.67
RE DISCCART	665549	4170148	402.08	402.08
RE DISCCART	665649	4170148	398.32	410.1
RE DISCCART	665149	4169648	398.29	407.84
RE DISCCART	665249	4169648	408.3	408.3
RE DISCCART	665649	4169648	404.22	404.22
RE DISCCART	665149	4170248	396.94	396.94
RE DISCCART	665249	4170248	388.21	403.23
RE DISCCART	665349	4170248	393.64	393.64
RE DISCCART	665449	4170248	396.74	396.74
RE DISCCART	665549	4170248	399.43	409.54
RE DISCCART	665649	4170248	409.66	409.66
RE DISCCART	665149	4169748	396.23	403.45
RE DISCCART	665249	4169748	401.69	408.39
RE DISCCART	670649	4161848	313.28	385.49
RE DISCCART	671149	4161848	304.85	380.21
RE DISCCART	661149	4162348	353.98	389.71
RE DISCCART	661649	4162348	377.02	377.02
RE DISCCART	662149	4162348	365.98	395.5
RE DISCCART	662649	4162348	390.27	395.59
RE DISCCART	663149	4162348	426.62	426.62
RE DISCCART	663649	4162348	435.16	435.16
RE DISCCART	664149	4162348	427.46	433.13
RE DISCCART	664649	4162348	417.84	421.29
RE DISCCART	665149	4162348	417.16	423.94
RE DISCCART	665649	4162348	390	421.85
RE DISCCART	665849	4162348	396.2	424.12
RE DISCCART	665949	4162348	398.95	422.24
RE DISCCART	666049	4162348	396.38	422.24
RE DISCCART	666149	4162348	395.31	421.76

RE DISCCART 666649 4162348 415.29 415.29
RE DISCCART 667649 4162348 379.32 409.02
RE DISCCART 668149 4162348 385.67 398.32
RE DISCCART 668649 4162348 368.33 385.72
RE DISCCART 669149 4162348 338.71 402.01
RE DISCCART 669649 4162348 348.3 403.32
RE DISCCART 670149 4162348 334.39 397.96
RE DISCCART 670649 4162348 361.43 385.1
RE DISCCART 671149 4162348 354.16 367.51
RE DISCCART 665649 4162448 392.48 426.08
RE DISCCART 665749 4162448 388.5 428.3
RE DISCCART 665849 4162448 404.66 426.08
RE DISCCART 665949 4162448 415.61 421.29
RE DISCCART 666049 4162448 413.27 416.58
RE DISCCART 666149 4162448 415.07 415.07
RE DISCCART 665649 4162548 396.12 426.82
RE DISCCART 665749 4162548 390.33 428.31
RE DISCCART 666049 4162548 414.85 417.77
RE DISCCART 666149 4162548 406.58 417.3
RE DISCCART 665649 4162648 396.17 429.07
RE DISCCART 665749 4162648 393.25 428.74
RE DISCCART 665849 4162648 419.29 426.58
RE DISCCART 665949 4162648 423.73 423.73
RE DISCCART 666049 4162648 414.71 428.3
RE DISCCART 666149 4162648 401.15 428.72
RE DISCCART 665649 4162748 400.59 433.76
RE DISCCART 665749 4162748 396.87 430.18
RE DISCCART 665849 4162748 414.53 428.3
RE DISCCART 665949 4162748 427.93 427.93
RE DISCCART 666049 4162748 422 427.8
RE DISCCART 666149 4162748 414.25 423.54
RE DISCCART 661149 4162848 362.4 362.4
RE DISCCART 661649 4162848 378.49 378.49
RE DISCCART 662149 4162848 378.51 402.46
RE DISCCART 662649 4162848 398.62 402.53
RE DISCCART 663149 4162848 400.23 409.31
RE DISCCART 663649 4162848 409.72 422.45
RE DISCCART 664149 4162848 401.87 432.06
RE DISCCART 664649 4162848 418.27 426
RE DISCCART 664749 4162848 423.12 425.99
RE DISCCART 664849 4162848 417.78 431.16
RE DISCCART 664949 4162848 409.01 438.81
RE DISCCART 665049 4162848 423.86 426.35
RE DISCCART 665149 4162848 431.56 431.56
RE DISCCART 665249 4162848 432.92 436.55
RE DISCCART 665349 4162848 421.29 439.3

RE DISCCART	665449	4162848	424.25	429.07
RE DISCCART	665549	4162848	419.85	424.88
RE DISCCART	665649	4162848	399.94	439.16
RE DISCCART	665749	4162848	406.61	430.18
RE DISCCART	665849	4162848	407.88	429.53
RE DISCCART	665949	4162848	426.25	426.25
RE DISCCART	666049	4162848	426.53	426.53
RE DISCCART	666149	4162848	419.52	422.39
RE DISCCART	666249	4162848	419.51	420.68
RE DISCCART	666349	4162848	397.72	426.16
RE DISCCART	666449	4162848	406.3	422.91
RE DISCCART	666549	4162848	402.22	422.91
RE DISCCART	667649	4162848	400.58	402.06
RE DISCCART	668149	4162848	382.93	398.89
RE DISCCART	668649	4162848	387.28	387.28
RE DISCCART	669149	4162848	367.87	397.82
RE DISCCART	669649	4162848	397.82	399.88
RE DISCCART	670149	4162848	388.69	389.95
RE DISCCART	670649	4162848	350.48	393.35
RE DISCCART	671149	4162848	360.08	386.47
RE DISCCART	664649	4162948	426.32	426.32
RE DISCCART	664749	4162948	430.47	432.2
RE DISCCART	664849	4162948	426.68	432.56
RE DISCCART	664949	4162948	416.58	433.45
RE DISCCART	665049	4162948	416.52	439.3
RE DISCCART	665149	4162948	430.23	438.79
RE DISCCART	665249	4162948	439.13	439.13
RE DISCCART	665349	4162948	435.53	435.53
RE DISCCART	665449	4162948	430.05	430.05
RE DISCCART	665549	4162948	418.06	432.71
RE DISCCART	665649	4162948	405.62	437.16
RE DISCCART	665749	4162948	424.79	424.79
RE DISCCART	665849	4162948	415.65	429.91
RE DISCCART	665949	4162948	426.79	426.79
RE DISCCART	666049	4162948	426.34	426.34
RE DISCCART	666149	4162948	405.44	428.74
RE DISCCART	666249	4162948	403.4	428.72
RE DISCCART	666349	4162948	397.37	426.16
RE DISCCART	664649	4163048	421.8	433.15
RE DISCCART	664749	4163048	430.83	430.83
RE DISCCART	664849	4163048	433.03	433.03
RE DISCCART	664949	4163048	428.05	429.61
RE DISCCART	665049	4163048	418.25	439.13
RE DISCCART	665149	4163048	426.21	439.13
RE DISCCART	665249	4163048	437.89	437.89
RE DISCCART	665349	4163048	430.22	438.83

RE DISCCART 665449 4163048 419.63 439.16
RE DISCCART 665549 4163048 414.95 433.61
RE DISCCART 665649 4163048 419.97 430.77
RE DISCCART 665749 4163048 429.91 429.91
RE DISCCART 665849 4163048 427.47 427.47
RE DISCCART 665949 4163048 408.32 429.91
RE DISCCART 666049 4163048 415.63 428.72
RE DISCCART 666149 4163048 418.78 418.78
RE DISCCART 666249 4163048 402.21 428.37
RE DISCCART 664649 4163148 415.76 433.45
RE DISCCART 664749 4163148 428.28 433.02
RE DISCCART 664849 4163148 433.37 433.37
RE DISCCART 664949 4163148 433.63 433.63
RE DISCCART 665049 4163148 431.43 431.43
RE DISCCART 665149 4163148 429.68 438.78
RE DISCCART 665249 4163148 437.47 437.47
RE DISCCART 665349 4163148 431.84 434.94
RE DISCCART 665449 4163148 423.58 433.98
RE DISCCART 665549 4163148 418.57 430.77
RE DISCCART 665649 4163148 430.61 430.61
RE DISCCART 665749 4163148 424.05 429.69
RE DISCCART 665849 4163148 421.5 428.51
RE DISCCART 665949 4163148 409.35 429.53
RE DISCCART 666049 4163148 397.89 429.91
RE DISCCART 666149 4163148 401.03 428.72
RE DISCCART 666249 4163148 396.13 428.37
RE DISCCART 664649 4163248 418.32 421.98
RE DISCCART 664749 4163248 426.32 426.32
RE DISCCART 664849 4163248 421.59 433.97
RE DISCCART 664949 4163248 428.21 432.73
RE DISCCART 665049 4163248 429.49 434.28
RE DISCCART 665149 4163248 437.04 438.1
RE DISCCART 665249 4163248 438.85 438.85
RE DISCCART 665349 4163248 428.96 443.93
RE DISCCART 665449 4163248 422.58 442.96
RE DISCCART 665549 4163248 427.16 427.16
RE DISCCART 665649 4163248 414.97 430.77
RE DISCCART 665749 4163248 410.53 430.77
RE DISCCART 665849 4163248 408.15 430.77
RE DISCCART 665949 4163248 393.58 430.77
RE DISCCART 666649 4163248 403.33 403.33
** Buick Mine/Mill fenceline
RE DISCCART 665977 4163280 392.47 430.77
RE DISCCART 665927 4163302 392.68 433.98
RE DISCCART 665882 4163324 394.36 437.31
RE DISCCART 665838 4163350 397.69 441.32

```
RE DISCCART  665787  4163352  395.26  444.23
RE DISCCART  665734  4163353  397.89  444.23
RE DISCCART  665688  4163378  401.85  444.23
RE DISCCART  665661  4163427  406.03  444.23
RE DISCCART  665629  4163473  411.13  444.23
RE DISCCART  665587  4163505  415.92  444.23
RE DISCCART  665542  4163535  426.57  443.47
RE DISCCART  665346  4163608  429.26  443.12
RE DISCCART  665343  4163662  431.40  443.12
RE DISCCART  665343  4163717  434.54  443.01
RE DISCCART  665633  4163747  432.90  432.90
RE DISCCART  665673  4163750  431.39  431.39
RE DISCCART  665377  4163553  397.89  444.23
RE DISCCART  665456  4163553  397.33  444.23
RE DISCCART  665504  4163553  397.89  444.23
RE DISCCART  665633  4163773  431.72  431.72
RE DISCCART  665673  4163778  430.64  430.64
RE DISCCART  665751  4163781  428.51  428.51
RE DISCCART  665328  4163783  436.45  441.97
RE DISCCART  665525  4163787  436.13  444.23
RE DISCCART  665577  4163787  429.16  444.23
RE DISCCART  665476  4163790  441.89  443.74
RE DISCCART  665380  4163794  441.15  441.15
RE DISCCART  665430  4163806  440.66  443.58
RE DISCCART  665475  4163817  437.31  444.23
RE DISCCART  665749  4163848  424.41  428.18
RE DISCCART  665849  4163848  408.58  441.32
**
  RE DISCCART  661149  4163348  346.63  396.5
  RE DISCCART  661649  4163348  371.59  371.59
  RE DISCCART  662149  4163348  375.44  385.12
  RE DISCCART  662649  4163348  376.08  376.08
  RE DISCCART  663149  4163348  408.29  408.29
  RE DISCCART  663649  4163348  405.83  421.45
  RE DISCCART  664149  4163348  398.94  421.59
  RE DISCCART  664649  4163348  418.42  420.96
  RE DISCCART  664749  4163348  412.36  433.45
  RE DISCCART  664849  4163348  408.79  433.97
  RE DISCCART  664949  4163348  413.46  443.35
  RE DISCCART  665049  4163348  429.01  429.01
  RE DISCCART  665149  4163348  434.81  443.35
  RE DISCCART  665249  4163348  443.72  443.72
  RE DISCCART  665349  4163348  439.8  439.8
  RE DISCCART  665449  4163348  429.39  440.02
  RE DISCCART  665549  4163348  417.07  442.35
  RE DISCCART  665649  4163348  410.71  432.52
```

RE DISCCART 666449 4163348 393.29 422.15
RE DISCCART 666549 4163348 396.22 422.15
RE DISCCART 666649 4163348 406.58 409.58
RE DISCCART 667149 4163348 404.66 404.66
RE DISCCART 667649 4163348 373.8 404.61
RE DISCCART 668149 4163348 375 404.28
RE DISCCART 668649 4163348 344.02 396.82
RE DISCCART 669149 4163348 354.83 404.55
RE DISCCART 669649 4163348 396.75 404.24
RE DISCCART 670149 4163348 362.74 404.28
RE DISCCART 670649 4163348 382.19 393.35
RE DISCCART 671149 4163348 349.62 391.56
RE DISCCART 664649 4163448 406.04 422.15
RE DISCCART 664749 4163448 402.34 433.97
RE DISCCART 664849 4163448 414.39 421.19
RE DISCCART 664949 4163448 422.74 422.74
RE DISCCART 665049 4163448 429.37 429.37
RE DISCCART 665149 4163448 435.31 436.77
RE DISCCART 665249 4163448 434.91 443.45
RE DISCCART 665349 4163448 436.84 438.14
RE DISCCART 665449 4163448 429.72 432.24
RE DISCCART 665549 4163448 419.9 436.31
RE DISCCART 666349 4163448 407.93 421.84
RE DISCCART 666449 4163448 404.67 422.15
RE DISCCART 666549 4163448 415.06 415.06
RE DISCCART 666649 4163448 409.59 415.4
RE DISCCART 664649 4163548 398.56 440.1
RE DISCCART 664749 4163548 406.41 439.55
RE DISCCART 664849 4163548 403.63 440.73
RE DISCCART 664949 4163548 411.25 440.12
RE DISCCART 665049 4163548 418.67 438.61
RE DISCCART 665149 4163548 421.5 443.45
RE DISCCART 665249 4163548 425.33 443.45
RE DISCCART 666349 4163548 407.22 422.15
RE DISCCART 666449 4163548 421.99 421.99
RE DISCCART 666549 4163548 411.38 422.15
RE DISCCART 666649 4163548 396.3 422.15
RE DISCCART 664649 4163648 411.58 439.55
RE DISCCART 664749 4163648 423.59 426.67
RE DISCCART 664849 4163648 416.14 440.7
RE DISCCART 664949 4163648 418.99 440.7
RE DISCCART 665049 4163648 414.59 449.65
RE DISCCART 665149 4163648 414.24 449.65
RE DISCCART 665249 4163648 418.76 444.23
RE DISCCART 666249 4163648 407.48 423.46
RE DISCCART 666349 4163648 420.32 420.32

RE DISCCART 666449 4163648 415.43 421.94
RE DISCCART 666549 4163648 400.8 422.15
RE DISCCART 664649 4163748 423.24 423.24
RE DISCCART 664749 4163748 431.55 431.55
RE DISCCART 664849 4163748 423.58 440.73
RE DISCCART 664949 4163748 434.15 436.55
RE DISCCART 665049 4163748 426.04 445.8
RE DISCCART 665149 4163748 422.41 449.65
RE DISCCART 665249 4163748 425.98 449.65
RE DISCCART 666149 4163748 402.32 433.06
RE DISCCART 666249 4163748 410.84 423.46
RE DISCCART 666349 4163748 415.6 423.46
RE DISCCART 666449 4163748 402.86 423.46
RE DISCCART 665751 4163831 426.3 426.3
RE DISCCART 661149 4163848 368.03 396.5
RE DISCCART 661649 4163848 348.17 396.49
RE DISCCART 662149 4163848 368.12 391.35
RE DISCCART 662649 4163848 397.7 400.42
RE DISCCART 663149 4163848 366.54 409.22
RE DISCCART 663649 4163848 403.16 409.35
RE DISCCART 664149 4163848 394.43 416.09
RE DISCCART 664649 4163848 420.24 439.55
RE DISCCART 664749 4163848 435.09 438.8
RE DISCCART 664849 4163848 438.8 438.8
RE DISCCART 664949 4163848 440.29 440.29
RE DISCCART 665049 4163848 438.94 440.71
RE DISCCART 665149 4163848 437.92 449.65
RE DISCCART 665249 4163848 438.13 438.13
RE DISCCART 665349 4163848 439.14 439.14
RE DISCCART 665449 4163848 436.51 443.74
RE DISCCART 665549 4163848 424.95 444.23
RE DISCCART 665649 4163848 417.72 444.23
RE DISCCART 666049 4163848 416.79 428.48
RE DISCCART 666149 4163848 415.36 428.48
RE DISCCART 666249 4163848 412.82 427.92
RE DISCCART 666349 4163848 415.63 422.77
RE DISCCART 666649 4163848 410.47 410.47
RE DISCCART 667149 4163848 387.15 421.12
RE DISCCART 667649 4163848 368.09 410.95
RE DISCCART 668149 4163848 353.6 404.74
RE DISCCART 668649 4163848 358.65 403.44
RE DISCCART 669149 4163848 380.99 403.27
RE DISCCART 669649 4163848 386.69 403.93
RE DISCCART 664649 4163948 413.28 440.1
RE DISCCART 664749 4163948 430.85 438.79
RE DISCCART 664849 4163948 429.35 440.38

RE DISCCART	664949	4163948	429.17	444.74
RE DISCCART	665049	4163948	438.67	446.27
RE DISCCART	665149	4163948	447.46	447.46
RE DISCCART	665249	4163948	443.62	449.57
RE DISCCART	665349	4163948	431.99	449.57
RE DISCCART	665449	4163948	427.7	439.03
RE DISCCART	665549	4163948	432.07	434.26
RE DISCCART	665649	4163948	423.27	435.64
RE DISCCART	665749	4163948	408.08	444.23
RE DISCCART	665849	4163948	412.63	429.1
RE DISCCART	665949	4163948	405.33	439.51
RE DISCCART	666049	4163948	422.72	428.95
RE DISCCART	666149	4163948	412.69	436.46
RE DISCCART	666249	4163948	425.47	425.82
RE DISCCART	666349	4163948	415.03	428.14
RE DISCCART	666549	4163948	415.16	416.59
RE DISCCART	666649	4163948	400.97	428.78
RE DISCCART	664649	4164048	416.46	438.79
RE DISCCART	664749	4164048	413.33	444.46
RE DISCCART	664849	4164048	411.23	449.65
RE DISCCART	664949	4164048	416.55	449.65
RE DISCCART	665049	4164048	424.03	449.65
RE DISCCART	665149	4164048	441.61	449.46
RE DISCCART	665249	4164048	444.86	444.86
RE DISCCART	665349	4164048	434.52	446.84
RE DISCCART	665449	4164048	425	446.84
RE DISCCART	665549	4164048	418.26	438.29
RE DISCCART	665649	4164048	425.24	428.2
RE DISCCART	665749	4164048	423.43	425.35
RE DISCCART	665849	4164048	426.63	426.63
RE DISCCART	665949	4164048	412.28	439.51
RE DISCCART	666049	4164048	426.05	434.35
RE DISCCART	666149	4164048	432.08	432.08
RE DISCCART	666249	4164048	424.67	428.46
RE DISCCART	666349	4164048	407.57	434.35
RE DISCCART	666449	4164048	413.98	429.26
RE DISCCART	666549	4164048	414.54	428.78
RE DISCCART	666649	4164048	396.25	429.26
RE DISCCART	664649	4164148	403.79	445.09
RE DISCCART	664749	4164148	413.43	445.39
RE DISCCART	664849	4164148	427.96	442.8
RE DISCCART	664949	4164148	436.31	444.39
RE DISCCART	665049	4164148	442.76	442.76
RE DISCCART	665149	4164148	446.17	446.17
RE DISCCART	665249	4164148	443.25	444.51
RE DISCCART	665349	4164148	425.09	449.57

RE DISCCART	665449	4164148	417.98	449.46
RE DISCCART	665549	4164148	417.44	422.59
RE DISCCART	665649	4164148	408.29	435.64
RE DISCCART	665749	4164148	418.94	428.71
RE DISCCART	665849	4164148	427.69	427.69
RE DISCCART	665949	4164148	432.13	434
RE DISCCART	666049	4164148	435.44	435.44
RE DISCCART	666149	4164148	423.64	439.51
RE DISCCART	666249	4164148	411.97	439.51
RE DISCCART	666349	4164148	413.61	433.55
RE DISCCART	666449	4164148	428.64	428.64
RE DISCCART	666549	4164148	419.95	429.26
RE DISCCART	666649	4164148	408.84	429.26
RE DISCCART	664649	4164248	420.3	420.3
RE DISCCART	664749	4164248	420.76	439.26
RE DISCCART	664849	4164248	433.78	433.78
RE DISCCART	664949	4164248	432.94	445.09
RE DISCCART	665049	4164248	439.32	444.36
RE DISCCART	665149	4164248	436.28	445.79
RE DISCCART	665249	4164248	437.06	443.3
RE DISCCART	665349	4164248	437.26	437.26
RE DISCCART	665449	4164248	427.52	437.33
RE DISCCART	665549	4164248	415.02	439.11
RE DISCCART	665649	4164248	409.06	423.94
RE DISCCART	665749	4164248	404.87	439.51
RE DISCCART	665849	4164248	420.76	439.27
RE DISCCART	665949	4164248	432.76	432.76
RE DISCCART	666049	4164248	438.63	438.63
RE DISCCART	666149	4164248	433.4	433.4
RE DISCCART	666249	4164248	430.09	430.09
RE DISCCART	666349	4164248	428.27	428.27
RE DISCCART	666449	4164248	428.42	428.42
RE DISCCART	666549	4164248	414.73	429.26
RE DISCCART	666649	4164248	410.85	428.3
RE DISCCART	661149	4164348	378.5	378.5
RE DISCCART	661649	4164348	374.12	391.3
RE DISCCART	662149	4164348	365.15	403.26
RE DISCCART	662649	4164348	359.83	402.91
RE DISCCART	663149	4164348	378.72	403.19
RE DISCCART	663649	4164348	391.84	394.09
RE DISCCART	664149	4164348	387.16	416.09
RE DISCCART	664649	4164348	415.07	427.39
RE DISCCART	664749	4164348	425.4	425.4
RE DISCCART	664849	4164348	426.14	432.91
RE DISCCART	664949	4164348	418.6	445.79
RE DISCCART	665049	4164348	431.36	433.65

RE DISCCART 665149 4164348 424.27 446.26
RE DISCCART 665249 4164348 422.44 446.26
RE DISCCART 665349 4164348 433.68 433.68
RE DISCCART 665449 4164348 429.62 431.94
RE DISCCART 665549 4164348 421.69 421.69
RE DISCCART 665649 4164348 414.63 414.63
RE DISCCART 665749 4164348 401.65 439.51
RE DISCCART 665849 4164348 411.67 439.51
RE DISCCART 665949 4164348 425.75 437.7
RE DISCCART 666049 4164348 425.18 439.51
RE DISCCART 666149 4164348 432.19 432.19
RE DISCCART 666249 4164348 421.34 434.86
RE DISCCART 666349 4164348 426.5 426.5
RE DISCCART 666449 4164348 428.59 428.59
RE DISCCART 666549 4164348 415.43 428.9
RE DISCCART 666649 4164348 416.14 422.56
RE DISCCART 667149 4164348 391.96 428.29
RE DISCCART 667649 4164348 377.95 416.75
RE DISCCART 668149 4164348 391.14 405.1
RE DISCCART 668649 4164348 384.07 409.08
RE DISCCART 669149 4164348 390.36 409.81
RE DISCCART 669649 4164348 377.07 397.86
RE DISCCART 661149 4164848 345.75 384.74
RE DISCCART 661649 4164848 381.1 383.18
RE DISCCART 662149 4164848 396.35 401.93
RE DISCCART 662649 4164848 397.16 403.38
RE DISCCART 663149 4164848 393.74 403.01
RE DISCCART 663649 4164848 393.32 409.01
RE DISCCART 664149 4164848 395.97 401.88
RE DISCCART 664649 4164848 393.29 416.65
RE DISCCART 665149 4164848 415.26 431.51
RE DISCCART 665649 4164848 414.04 425.28
RE DISCCART 666149 4164848 394.44 427.1
RE DISCCART 666649 4164848 419.26 422.15
RE DISCCART 667149 4164848 422.69 422.69
RE DISCCART 667649 4164848 395.94 421.63
RE DISCCART 668149 4164848 375.5 413.98
RE DISCCART 668649 4164848 390.82 416.25
RE DISCCART 669149 4164848 395.82 410.43
RE DISCCART 669649 4164848 360.41 403.59
RE DISCCART 665335 4164979 412.39 431.51
RE DISCCART 665385 4164979 412.42 427.83
RE DISCCART 665285 4164980 415.22 431.51
RE DISCCART 665235 4164981 422.96 429.82
RE DISCCART 665200 4164982 427.33 427.33
RE DISCCART 665161 4164989 429.48 429.48

RE DISCCART 665449 4164998 406.43 427.83
RE DISCCART 665549 4164998 406.43 420.44
RE DISCCART 665649 4164998 395.63 426.5
RE DISCCART 665749 4164998 404.01 417.7
RE DISCCART 665849 4164998 407.31 415.28
RE DISCCART 665949 4164998 394.43 417.37
RE DISCCART 666049 4164998 387.87 421.65
RE DISCCART 666149 4164998 412.83 416.66
RE DISCCART 665390 4165024 405.16 431.51
RE DISCCART 665157 4165051 429.69 429.69
RE DISCCART 665390 4165074 410.68 426.5
RE DISCCART 665449 4165098 404.39 426.5
RE DISCCART 665549 4165098 396.06 436.19
RE DISCCART 665649 4165098 396.7 424.61
RE DISCCART 665749 4165098 390.19 436.19
RE DISCCART 665849 4165098 387.09 424.61
RE DISCCART 665949 4165098 385.64 422.22
RE DISCCART 666049 4165098 385.86 421.65
RE DISCCART 666149 4165098 403.41 416.66
RE DISCCART 665153 4165101 427.83 427.83
RE DISCCART 665390 4165124 410.89 426.5
RE DISCCART 665150 4165151 428.4 428.4
RE DISCCART 665390 4165174 405.72 430.33
RE DISCCART 665449 4165198 402.88 436.19
RE DISCCART 665749 4165198 414.66 416.54
RE DISCCART 665849 4165198 404.68 416.54
RE DISCCART 665949 4165198 394.65 416.54
RE DISCCART 666049 4165198 381.82 438.72
RE DISCCART 666149 4165198 386.33 421.26
RE DISCCART 665146 4165200 428.35 428.35
RE DISCCART 665390 4165224 406.09 436.19
RE DISCCART 665142 4165250 426.51 426.51
RE DISCCART 665390 4165274 407.31 436.19
RE DISCCART 665449 4165298 413.89 436.19
RE DISCCART 665749 4165298 401.37 438.72
RE DISCCART 665849 4165298 391 438.72
RE DISCCART 665949 4165298 401 411.02
RE DISCCART 666049 4165298 400.01 410.7
RE DISCCART 666149 4165298 380.74 438.72
RE DISCCART 665139 4165300 426.08 426.08
RE DISCCART 665390 4165324 415.76 435.46
RE DISCCART 661149 4165348 356.76 384.63
RE DISCCART 661649 4165348 368.82 388.18
RE DISCCART 662149 4165348 375.83 388.26
RE DISCCART 662649 4165348 392.19 396.56
RE DISCCART 663149 4165348 400.73 415.01

RE DISCCART	663649	4165348	412.86	412.86
RE DISCCART	664149	4165348	388.54	418.83
RE DISCCART	664649	4165348	398.2	424.94
RE DISCCART	666649	4165348	414.35	416.33
RE DISCCART	667149	4165348	406.41	415.32
RE DISCCART	667649	4165348	391.12	428.36
RE DISCCART	668149	4165348	391.74	416.51
RE DISCCART	668649	4165348	412.23	415.19
RE DISCCART	669149	4165348	372.41	415.78
RE DISCCART	669649	4165348	380.67	386.14
RE DISCCART	665128	4165349	425.67	425.67
RE DISCCART	665390	4165374	424.46	429.43
RE DISCCART	665115	4165397	426.4	426.4
RE DISCCART	665449	4165398	423.43	436.19
RE DISCCART	665549	4165398	426.84	436.19
RE DISCCART	665649	4165398	424.23	424.23
RE DISCCART	665749	4165398	408.3	438.72
RE DISCCART	665849	4165398	414.22	414.22
RE DISCCART	665949	4165398	405.1	438.66
RE DISCCART	666049	4165398	393.36	438.72
RE DISCCART	666149	4165398	396.4	396.89
RE DISCCART	665390	4165424	429.53	429.53
RE DISCCART	665101	4165445	426.39	426.39
RE DISCCART	665390	4165474	430.84	430.84
RE DISCCART	665095	4165494	427.78	427.78
RE DISCCART	665449	4165498	434.98	434.98
RE DISCCART	665549	4165498	434.83	434.83
RE DISCCART	665649	4165498	416.27	438.72
RE DISCCART	665749	4165498	414.02	438.72
RE DISCCART	665849	4165498	420.31	438.66
RE DISCCART	665949	4165498	414.73	414.73
RE DISCCART	666049	4165498	406.26	409.27
RE DISCCART	666149	4165498	388.26	438.72
RE DISCCART	665390	4165524	429.06	434.92
RE DISCCART	665099	4165544	430.81	430.81
RE DISCCART	665390	4165574	422.82	435.46
RE DISCCART	665103	4165594	431.16	431.16
RE DISCCART	665449	4165598	432.31	432.31
RE DISCCART	665549	4165598	435.56	435.56
RE DISCCART	665649	4165598	437.53	438.41
RE DISCCART	665749	4165598	434.95	437.66
RE DISCCART	665849	4165598	416.69	438.72
RE DISCCART	665949	4165598	398.79	438.72
RE DISCCART	666049	4165598	391.84	438.72
RE DISCCART	666149	4165598	389.84	438.72
RE DISCCART	665390	4165624	420.95	435.51

RE DISCCART	665107	4165644	432.1	432.1
RE DISCCART	665390	4165674	418.75	439.44
RE DISCCART	665111	4165693	432.02	432.02
RE DISCCART	665449	4165698	426.05	439.03
RE DISCCART	665849	4165698	423.48	424.04
RE DISCCART	665949	4165698	406.1	438.72
RE DISCCART	666049	4165698	390.88	439.67
RE DISCCART	666149	4165698	402.14	416.71
RE DISCCART	665390	4165724	423.63	436.83
RE DISCCART	665103	4165742	428.39	434.03
RE DISCCART	665391	4165774	430.8	436.33
RE DISCCART	665091	4165791	423.03	439.52
RE DISCCART	663649	4165798	390.8	417.98
RE DISCCART	663749	4165798	400.49	417.98
RE DISCCART	663849	4165798	415.66	415.66
RE DISCCART	663949	4165798	416.93	416.93
RE DISCCART	664049	4165798	413.86	413.86
RE DISCCART	664149	4165798	414.8	422.85
RE DISCCART	664249	4165798	421.38	421.38
RE DISCCART	664349	4165798	416.19	428.18
RE DISCCART	664449	4165798	407.78	434.69
RE DISCCART	664549	4165798	407.18	435.75
RE DISCCART	664649	4165798	423.03	423.03
RE DISCCART	664749	4165798	428.86	428.86
RE DISCCART	664849	4165798	421.33	437.55
RE DISCCART	664949	4165798	419.26	435.13
RE DISCCART	665449	4165798	431.12	431.12
RE DISCCART	665749	4165798	413.05	439.67
RE DISCCART	665849	4165798	409.58	439.67
RE DISCCART	665949	4165798	399.12	439.67
RE DISCCART	666049	4165798	400.72	430.04
RE DISCCART	666149	4165798	411.75	418.23
RE DISCCART	665391	4165824	433.54	433.54
RE DISCCART	665079	4165839	418.96	448.24
RE DISCCART	661149	4165848	354.16	375.96
RE DISCCART	661649	4165848	379.01	379.01
RE DISCCART	662149	4165848	378.55	385.6
RE DISCCART	662649	4165848	368.82	394.67
RE DISCCART	663149	4165848	396.27	396.27
RE DISCCART	666649	4165848	378.56	414.1
RE DISCCART	667149	4165848	399.62	424.9
RE DISCCART	667649	4165848	419.43	419.43
RE DISCCART	668149	4165848	419.71	419.71
RE DISCCART	668649	4165848	390.77	420.88
RE DISCCART	669149	4165848	401.57	409.56
RE DISCCART	669649	4165848	366.18	405.26

RE DISCCART 665391 4165874 434.9 446.57
RE DISCCART 665051 4165881 428.35 438.74
RE DISCCART 663649 4165898 400.61 400.61
RE DISCCART 663749 4165898 401.57 417.63
RE DISCCART 663849 4165898 405.5 417.98
RE DISCCART 663949 4165898 407.38 417.98
RE DISCCART 664049 4165898 400.05 434
RE DISCCART 664149 4165898 409.1 434
RE DISCCART 664249 4165898 421.98 421.98
RE DISCCART 664349 4165898 426.31 426.31
RE DISCCART 664449 4165898 414.53 434.69
RE DISCCART 664549 4165898 407.21 450.13
RE DISCCART 664649 4165898 417.17 450.13
RE DISCCART 664749 4165898 431.51 431.51
RE DISCCART 664849 4165898 432.94 432.94
RE DISCCART 664949 4165898 421.81 447.51
RE DISCCART 665449 4165898 434.3 444.62
RE DISCCART 665549 4165898 430.45 430.45
RE DISCCART 665649 4165898 427.96 427.96
RE DISCCART 665749 4165898 420.84 427.99
RE DISCCART 665849 4165898 403.28 439.67
RE DISCCART 665949 4165898 407.75 430.04
RE DISCCART 666049 4165898 414.61 425.4
RE DISCCART 666149 4165898 419 419
RE DISCCART 665024 4165923 430.29 441.87
RE DISCCART 665391 4165924 439.68 445.91
RE DISCCART 664997 4165965 429.4 448.24
RE DISCCART 665391 4165975 443.95 443.95
RE DISCCART 663649 4165998 392.23 401.7
RE DISCCART 663749 4165998 391.72 417.98
RE DISCCART 663849 4165998 391.79 417.98
RE DISCCART 663949 4165998 392.83 433.24
RE DISCCART 664049 4165998 393.44 434.69
RE DISCCART 664149 4165998 402.19 434.69
RE DISCCART 664249 4165998 415.84 434.69
RE DISCCART 664349 4165998 432.13 432.13
RE DISCCART 664449 4165998 422.98 434.69
RE DISCCART 664549 4165998 417.39 450.13
RE DISCCART 664649 4165998 422.85 450.13
RE DISCCART 664749 4165998 427.76 450.13
RE DISCCART 664849 4165998 439.84 439.84
RE DISCCART 665449 4165998 439.95 439.95
RE DISCCART 665549 4165998 423.72 446.57
RE DISCCART 665649 4165998 417.55 443.67
RE DISCCART 665749 4165998 413.13 430.78
RE DISCCART 665849 4165998 421.6 429.52

RE DISCCART 665949 4165998 427.93 430.04
RE DISCCART 666049 4165998 414.7 430.04
RE DISCCART 666149 4165998 407.64 430.04
RE DISCCART 665391 4166006 443.75 443.75
RE DISCCART 664969 4166007 431.8 447.51
RE DISCCART 664942 4166048 432.59 448.2
RE DISCCART 665391 4166052 440.83 443.81
RE DISCCART 664910 4166086 439.14 443.95
RE DISCCART 663649 4166098 380.4 417.63
RE DISCCART 663749 4166098 387.69 391.59
RE DISCCART 663849 4166098 392.86 409.13
RE DISCCART 663949 4166098 399.56 416.78
RE DISCCART 664049 4166098 405.88 422.05
RE DISCCART 664149 4166098 397.44 434.69
RE DISCCART 664249 4166098 412.2 434.69
RE DISCCART 664349 4166098 425.49 434.69
RE DISCCART 664449 4166098 427.84 427.84
RE DISCCART 664549 4166098 419.95 450.13
RE DISCCART 664649 4166098 430.82 450.13
RE DISCCART 664749 4166098 438.51 450.13
RE DISCCART 665449 4166098 436.38 436.38
RE DISCCART 665549 4166098 426.27 438.56
RE DISCCART 665649 4166098 418.58 423.38
RE DISCCART 665749 4166098 419.64 419.64
RE DISCCART 665849 4166098 419.52 426.58
RE DISCCART 665949 4166098 419.66 430.04
RE DISCCART 666049 4166098 417.82 417.82
RE DISCCART 666149 4166098 413.36 415.59
RE DISCCART 665391 4166102 436.48 437.95
RE DISCCART 664873 4166120 443.05 443.05
RE DISCCART 665391 4166152 432.24 436.47
RE DISCCART 664836 4166154 445.08 445.08
RE DISCCART 664799 4166188 447.58 450.13
RE DISCCART 663649 4166198 381.46 401.88
RE DISCCART 663749 4166198 387.97 412.63
RE DISCCART 663849 4166198 392.24 422.05
RE DISCCART 663949 4166198 399.39 424.84
RE DISCCART 664049 4166198 410.49 423.94
RE DISCCART 664149 4166198 419.01 422.05
RE DISCCART 664249 4166198 406.89 434.69
RE DISCCART 664349 4166198 411.08 435.62
RE DISCCART 664449 4166198 428.17 432.35
RE DISCCART 664549 4166198 431.1 431.1
RE DISCCART 664649 4166198 435.77 450.13
RE DISCCART 665449 4166198 430.77 435.18
RE DISCCART 665549 4166198 427.53 433.35

RE DISCCART 665649 4166198 412.51 437.97
RE DISCCART 665749 4166198 412.53 420.3
RE DISCCART 665849 4166198 410.62 423.07
RE DISCCART 665949 4166198 420.31 422.57
RE DISCCART 666049 4166198 416.05 416.05
RE DISCCART 666149 4166198 411.95 421.5
RE DISCCART 665391 4166202 429.13 434.95
RE DISCCART 664763 4166222 447.38 447.38
RE DISCCART 665391 4166252 421.73 444.76
RE DISCCART 664733 4166261 444.99 444.99
RE DISCCART 663649 4166298 392 392
RE DISCCART 663749 4166298 395.65 398.48
RE DISCCART 663849 4166298 399.85 413
RE DISCCART 663949 4166298 410.04 411.59
RE DISCCART 664049 4166298 411.33 413.51
RE DISCCART 664149 4166298 417.69 424.84
RE DISCCART 664249 4166298 420.88 420.88
RE DISCCART 664349 4166298 420.49 420.49
RE DISCCART 664449 4166298 422.97 433.39
RE DISCCART 664549 4166298 430.53 436.56
RE DISCCART 664649 4166298 438.98 438.98
RE DISCCART 665449 4166298 413.3 446.52
RE DISCCART 665549 4166298 421.29 428.03
RE DISCCART 665649 4166298 408.72 436.61
RE DISCCART 665749 4166298 396.95 444.99
RE DISCCART 665849 4166298 414.14 422.12
RE DISCCART 665949 4166298 422.16 422.16
RE DISCCART 666049 4166298 402.87 423.07
RE DISCCART 666149 4166298 416.55 421.5
RE DISCCART 665391 4166302 411.57 449.91
RE DISCCART 664710 4166306 442.28 442.28
RE DISCCART 661149 4166348 351.99 377.87
RE DISCCART 661649 4166348 340.49 386.11
RE DISCCART 662149 4166348 350.57 385.75
RE DISCCART 662649 4166348 359.23 385.64
RE DISCCART 663149 4166348 379.46 390.79
RE DISCCART 666649 4166348 392.76 413.22
RE DISCCART 667149 4166348 368.36 411.73
RE DISCCART 667649 4166348 396.6 422.2
RE DISCCART 668149 4166348 400.58 420.64
RE DISCCART 668649 4166348 415.45 415.45
RE DISCCART 669149 4166348 389.36 408.98
RE DISCCART 669649 4166348 392.93 403.89
RE DISCCART 664687 4166350 439.72 439.72
RE DISCCART 665391 4166352 410.62 449.91
RE DISCCART 664664 4166394 437.26 437.26

RE DISCCART 663649 4166398 389.13 399.58
RE DISCCART 663749 4166398 394.98 405.14
RE DISCCART 663849 4166398 401.36 412.63
RE DISCCART 663949 4166398 404.34 413.08
RE DISCCART 664049 4166398 405.94 412.9
RE DISCCART 664149 4166398 405.62 424.84
RE DISCCART 664249 4166398 411.2 423.98
RE DISCCART 664349 4166398 406.52 440.57
RE DISCCART 664449 4166398 409.43 450.13
RE DISCCART 664549 4166398 423.84 441.28
RE DISCCART 665449 4166398 409.48 439.13
RE DISCCART 665549 4166398 399.36 446.52
RE DISCCART 665649 4166398 403.58 434.72
RE DISCCART 665749 4166398 394.06 436.61
RE DISCCART 665849 4166398 409.3 422.12
RE DISCCART 665949 4166398 416.06 420.95
RE DISCCART 666049 4166398 408.69 421.2
RE DISCCART 666149 4166398 396.99 423.03
RE DISCCART 665391 4166402 415.41 439.13
RE DISCCART 664641 4166439 436.49 436.49
RE DISCCART 665391 4166452 427.18 434.02
RE DISCCART 664618 4166483 440.19 440.19
RE DISCCART 663649 4166498 378.83 415.11
RE DISCCART 663749 4166498 380.86 422.85
RE DISCCART 663849 4166498 383.66 427.69
RE DISCCART 663949 4166498 387.05 433.96
RE DISCCART 664049 4166498 389.81 439.56
RE DISCCART 664149 4166498 391.83 440.57
RE DISCCART 664249 4166498 398.68 440.57
RE DISCCART 664349 4166498 412.94 440.57
RE DISCCART 664449 4166498 421.73 440.57
RE DISCCART 664549 4166498 432.11 440.57
RE DISCCART 665449 4166498 425.95 433.57
RE DISCCART 665549 4166498 410.57 436.51
RE DISCCART 665649 4166498 402.7 434.02
RE DISCCART 665749 4166498 394.17 433.79
RE DISCCART 665849 4166498 391.22 427.1
RE DISCCART 665949 4166498 403.23 422.12
RE DISCCART 666049 4166498 412.91 412.91
RE DISCCART 666149 4166498 389.26 423.03
RE DISCCART 665391 4166502 433.28 433.28
RE DISCCART 664594 4166527 440.02 440.02
RE DISCCART 665391 4166552 431.28 431.28
RE DISCCART 664561 4166563 439.47 439.47
RE DISCCART 664523 4166597 439.07 439.07
RE DISCCART 663649 4166598 379.35 427.14

RE DISCCART 663749 4166598 389.55 422.17
RE DISCCART 663849 4166598 397.78 422.17
RE DISCCART 663949 4166598 401.32 422.85
RE DISCCART 664049 4166598 400.08 434.23
RE DISCCART 664149 4166598 408.19 434.23
RE DISCCART 664249 4166598 415.86 439.24
RE DISCCART 664349 4166598 413.94 440.05
RE DISCCART 664449 4166598 433.33 439.24
RE DISCCART 665449 4166598 425.74 425.74
RE DISCCART 665549 4166598 422.16 427.1
RE DISCCART 665649 4166598 408.93 428.85
RE DISCCART 665749 4166598 411.58 416.93
RE DISCCART 665849 4166598 392.06 427.1
RE DISCCART 665949 4166598 389.06 422.56
RE DISCCART 666049 4166598 395.72 418.86
RE DISCCART 666149 4166598 393.88 416.65
RE DISCCART 665391 4166602 423.66 434.89
RE DISCCART 664492 4166635 439.36 439.36
RE DISCCART 665391 4166652 412.62 438.82
RE DISCCART 664465 4166677 437.04 439.34
RE DISCCART 663649 4166698 388.74 427.14
RE DISCCART 663749 4166698 383.67 427.69
RE DISCCART 663849 4166698 399.98 422.85
RE DISCCART 663949 4166698 413.15 419.96
RE DISCCART 664049 4166698 418.28 421.44
RE DISCCART 664149 4166698 407.52 434.92
RE DISCCART 664249 4166698 425.9 429.61
RE DISCCART 664349 4166698 427.48 434.7
RE DISCCART 665449 4166698 406.67 438.8
RE DISCCART 665549 4166698 416.34 424.83
RE DISCCART 665649 4166698 418.56 421.81
RE DISCCART 665749 4166698 406.7 422.68
RE DISCCART 665849 4166698 391.98 424.83
RE DISCCART 665949 4166698 389.14 421.81
RE DISCCART 666049 4166698 389.24 421.58
RE DISCCART 666149 4166698 389.24 421.58
RE DISCCART 665391 4166702 412.37 437.9
RE DISCCART 664433 4166714 434.87 434.87
RE DISCCART 664389 4166737 434.17 434.17
RE DISCCART 665392 4166752 415.65 432.55
RE DISCCART 664344 4166760 434.02 434.02
RE DISCCART 664299 4166782 432.6 432.6
RE DISCCART 663649 4166798 392.96 427.14
RE DISCCART 663749 4166798 394.85 427.14
RE DISCCART 663849 4166798 392.06 427.87
RE DISCCART 663949 4166798 398.65 432.51

RE DISCCART 664049 4166798 418.77 423.12
RE DISCCART 664149 4166798 426.7 426.7
RE DISCCART 665449 4166798 408.93 432.55
RE DISCCART 665549 4166798 397.58 435.61
RE DISCCART 665649 4166798 397.35 429.85
RE DISCCART 665749 4166798 389.02 430.85
RE DISCCART 665849 4166798 390.2 422.68
RE DISCCART 665949 4166798 389.8 422.08
RE DISCCART 666049 4166798 399.4 421.58
RE DISCCART 666149 4166798 391.38 422.08
RE DISCCART 665392 4166802 416.71 426.16
RE DISCCART 664255 4166805 429.43 429.43
RE DISCCART 664210 4166828 427.25 427.25
RE DISCCART 661149 4166848 359.23 366.87
RE DISCCART 661649 4166848 344.81 372.64
RE DISCCART 662149 4166848 361.24 385.49
RE DISCCART 662649 4166848 382.03 384.5
RE DISCCART 663149 4166848 394.35 397
RE DISCCART 666649 4166848 389.33 416.19
RE DISCCART 667149 4166848 413.21 415.59
RE DISCCART 667649 4166848 365.25 422.66
RE DISCCART 668149 4166848 359.83 420.64
RE DISCCART 668649 4166848 385.47 416.58
RE DISCCART 669149 4166848 386.98 415.38
RE DISCCART 669649 4166848 388.06 397.16
RE DISCCART 664166 4166850 426.17 426.17
RE DISCCART 665392 4166852 404.22 433.52
RE DISCCART 664129 4166883 423.65 423.65
RE DISCCART 663649 4166898 402.28 427.14
RE DISCCART 663749 4166898 409.06 427.14
RE DISCCART 663849 4166898 394.34 427.69
RE DISCCART 663949 4166898 410.69 421.94
RE DISCCART 664049 4166898 418.01 421.66
RE DISCCART 665449 4166898 396.36 433.92
RE DISCCART 665549 4166898 393.69 434.24
RE DISCCART 665649 4166898 390.68 434.72
RE DISCCART 665749 4166898 399.37 422.34
RE DISCCART 665849 4166898 397.61 420.96
RE DISCCART 665949 4166898 395.89 422.43
RE DISCCART 666049 4166898 410.69 419.62
RE DISCCART 666149 4166898 408 421.58
RE DISCCART 665392 4166902 397.89 434.09
RE DISCCART 664095 4166920 421.87 421.87
RE DISCCART 665392 4166952 403.22 426.38
RE DISCCART 664062 4166957 422.06 422.06
RE DISCCART 664023 4166988 422.01 422.01

RE DISCCART 663649 4166998 415.45 427.14
RE DISCCART 663749 4166998 422.44 422.44
RE DISCCART 663849 4166998 412.55 427.14
RE DISCCART 663949 4166998 418.62 418.62
RE DISCCART 665449 4166998 402.42 432.03
RE DISCCART 665549 4166998 403.9 434.24
RE DISCCART 665649 4166998 409.69 422.34
RE DISCCART 665749 4166998 414.93 414.93
RE DISCCART 665849 4166998 400.54 427.26
RE DISCCART 665949 4166998 405.8 422.08
RE DISCCART 666049 4166998 416.77 422.08
RE DISCCART 666149 4166998 414.33 422.08
RE DISCCART 665392 4167002 408.69 412.3
RE DISCCART 663980 4167014 420.64 420.64
RE DISCCART 663938 4167040 418.44 418.44
RE DISCCART 665392 4167052 410.92 425.78
RE DISCCART 663895 4167067 417.7 417.7
RE DISCCART 663853 4167093 419.52 419.52
RE DISCCART 663649 4167098 418.18 427.11
RE DISCCART 663749 4167098 424.46 427.11
RE DISCCART 665449 4167098 417.06 425.78
RE DISCCART 665549 4167098 413.98 434.24
RE DISCCART 665649 4167098 417.13 426.78
RE DISCCART 665749 4167098 418.31 424.3
RE DISCCART 665849 4167098 408.15 426.95
RE DISCCART 665949 4167098 416.82 421.48
RE DISCCART 666049 4167098 418.89 421.8
RE DISCCART 666149 4167098 417.32 421.9
RE DISCCART 665392 4167102 413.17 431.38
RE DISCCART 663810 4167120 419.81 419.81
RE DISCCART 663768 4167146 420.6 420.6
RE DISCCART 665392 4167152 416.81 431.91
RE DISCCART 663725 4167172 420.64 420.64
RE DISCCART 665449 4167198 425.5 425.5
RE DISCCART 665549 4167198 422.42 434.24
RE DISCCART 665649 4167198 425.19 427.49
RE DISCCART 665749 4167198 423.87 426.11
RE DISCCART 665849 4167198 421.36 421.36
RE DISCCART 665949 4167198 422.43 422.43
RE DISCCART 666049 4167198 422.21 422.21
RE DISCCART 666149 4167198 407.56 422.51
RE DISCCART 663683 4167199 417.24 421.46
RE DISCCART 665392 4167202 422.61 430.8
RE DISCCART 663638 4167216 416.02 418.45
RE DISCCART 663588 4167218 415.25 415.25
RE DISCCART 663538 4167220 415.25 415.25

RE DISCCART	663489	4167225	415.39	415.39
RE DISCCART	663442	4167243	414.48	414.48
RE DISCCART	665392	4167252	429.34	430.78
RE DISCCART	663395	4167260	411.43	411.43
RE DISCCART	663348	4167277	410.04	410.04
RE DISCCART	663301	4167295	411.56	411.56
RE DISCCART	665449	4167298	431.69	431.69
RE DISCCART	665549	4167298	433.15	433.15
RE DISCCART	665649	4167298	426.28	433.78
RE DISCCART	665749	4167298	417.73	433.78
RE DISCCART	665849	4167298	419.48	422.63
RE DISCCART	665949	4167298	412.8	423
RE DISCCART	666049	4167298	415.44	421.8
RE DISCCART	666149	4167298	409.96	422.09
RE DISCCART	665392	4167302	431.21	431.21
RE DISCCART	663254	4167312	414.09	414.09
RE DISCCART	663207	4167329	416.63	419.02
RE DISCCART	663161	4167347	419.77	419.77
RE DISCCART	661149	4167348	369.59	372.07
RE DISCCART	661649	4167348	347.98	385.17
RE DISCCART	662149	4167348	373.05	373.05
RE DISCCART	662649	4167348	385.19	385.19
RE DISCCART	666649	4167348	416.95	421.9
RE DISCCART	667149	4167348	394.72	422.69
RE DISCCART	667649	4167348	392.82	422.68
RE DISCCART	668149	4167348	346.57	422.68
RE DISCCART	668649	4167348	381.59	381.59
RE DISCCART	669149	4167348	384.41	415.73
RE DISCCART	669649	4167348	367.98	404.49
RE DISCCART	665392	4167352	430.68	430.68
RE DISCCART	663123	4167377	413.97	420.42
RE DISCCART	665449	4167398	431.15	431.15
RE DISCCART	665549	4167398	432.01	432.01
RE DISCCART	665649	4167398	419.11	434.72
RE DISCCART	665749	4167398	409.15	434.72
RE DISCCART	665849	4167398	402.43	434.72
RE DISCCART	665949	4167398	398.12	426.66
RE DISCCART	666049	4167398	397.68	423
RE DISCCART	666149	4167398	392.06	422.68
RE DISCCART	665392	4167402	431.15	431.15
RE DISCCART	663093	4167417	411.81	411.81
RE DISCCART	665392	4167452	431.87	431.87
RE DISCCART	663067	4167458	410.73	410.73
RE DISCCART	665435	4167459	431.56	431.56
RE DISCCART	665485	4167459	430.96	430.96
RE DISCCART	665535	4167459	431.99	431.99

RE DISCCART	665556	4167488	432.39	432.39
RE DISCCART	665649	4167498	424.83	424.83
RE DISCCART	665749	4167498	422.57	422.57
RE DISCCART	665849	4167498	419.69	422.49
RE DISCCART	665949	4167498	413.5	413.5
RE DISCCART	666049	4167498	401.62	422.07
RE DISCCART	666149	4167498	389.76	422.49
RE DISCCART	663072	4167508	409.27	409.27
RE DISCCART	665555	4167538	429.75	429.75
RE DISCCART	663078	4167557	406.19	406.19
RE DISCCART	665554	4167588	424.63	429.23
RE DISCCART	665649	4167598	424.79	424.79
RE DISCCART	665749	4167598	414.93	425.11
RE DISCCART	665849	4167598	410.82	422.49
RE DISCCART	665949	4167598	406.31	422.49
RE DISCCART	666049	4167598	394.99	422.49
RE DISCCART	666149	4167598	400.98	421.9
RE DISCCART	663089	4167606	403.41	403.41
RE DISCCART	665521	4167606	422.43	432.08
RE DISCCART	665471	4167607	425.94	425.94
RE DISCCART	665421	4167608	424.64	424.64
RE DISCCART	665394	4167629	420.91	429.76
RE DISCCART	663106	4167653	401.82	402.64
RE DISCCART	665402	4167678	417.96	423.71
RE DISCCART	665449	4167698	418.15	422.92
RE DISCCART	665549	4167698	420.74	420.74
RE DISCCART	665649	4167698	424.15	424.15
RE DISCCART	665749	4167698	411.68	426.55
RE DISCCART	665849	4167698	405.4	424.83
RE DISCCART	665949	4167698	400.42	422.49
RE DISCCART	666049	4167698	395.03	422.9
RE DISCCART	666149	4167698	412.88	416.38
RE DISCCART	663120	4167700	403.38	403.38
RE DISCCART	665427	4167721	411.82	430.69
RE DISCCART	663114	4167750	403.4	403.4
RE DISCCART	665452	4167764	412.12	422.92
RE DISCCART	665483	4167798	416.81	421.5
RE DISCCART	665649	4167798	422.08	422.08
RE DISCCART	665749	4167798	421.39	421.39
RE DISCCART	665849	4167798	415.89	420.89
RE DISCCART	665949	4167798	400.79	427.2
RE DISCCART	666049	4167798	396.32	427.86
RE DISCCART	666149	4167798	409.09	422.44
RE DISCCART	663109	4167799	403.84	403.84
RE DISCCART	665533	4167799	420.8	420.8
RE DISCCART	665549	4167799	421.11	421.11

RE DISCCART 665583 4167800 421.07 421.07
RE DISCCART 665591 4167843 420.27 420.27
RE DISCCART 661149 4167848 359.03 359.03
RE DISCCART 661649 4167848 385.42 385.42
RE DISCCART 662149 4167848 378.48 385.51
RE DISCCART 662649 4167848 387.57 403.33
RE DISCCART 666649 4167848 409.44 419.88
RE DISCCART 667149 4167848 383.84 422.69
RE DISCCART 667649 4167848 382 422.63
RE DISCCART 668149 4167848 381.37 422.26
RE DISCCART 668649 4167848 365.42 416.51
RE DISCCART 669149 4167848 415.84 415.84
RE DISCCART 669649 4167848 368.09 416.61
RE DISCCART 663103 4167849 403.48 403.48
RE DISCCART 665593 4167893 421.62 425.94
RE DISCCART 663097 4167899 403.64 403.64
RE DISCCART 665595 4167943 426.4 426.4
RE DISCCART 663076 4167944 405.76 405.76
RE DISCCART 663056 4167989 408.11 408.11
RE DISCCART 665597 4167993 425.33 425.33
RE DISCCART 663035 4168035 409.55 409.55
RE DISCCART 665603 4168042 422.79 427.01
RE DISCCART 663014 4168080 409.96 409.96
RE DISCCART 665635 4168080 420.64 428.44
RE DISCCART 665667 4168119 418.18 432.37
RE DISCCART 663016 4168130 408.49 408.49
RE DISCCART 665699 4168157 420.73 433.63
RE DISCCART 663019 4168180 405.77 405.77
RE DISCCART 661149 4167848 359.03 359.03
RE DISCCART 661649 4167848 385.42 385.42
RE DISCCART 662149 4167848 378.48 385.51
RE DISCCART 662649 4167848 387.57 403.33
RE DISCCART 663149 4167848 402.45 402.45
RE DISCCART 665649 4167848 421.6 421.6
RE DISCCART 666149 4167848 407.55 422.65
RE DISCCART 666649 4167848 409.44 419.88
RE DISCCART 667149 4167848 383.84 422.69
RE DISCCART 667649 4167848 382 422.63
RE DISCCART 668149 4167848 381.37 422.26
RE DISCCART 668649 4167848 365.42 416.51
RE DISCCART 669149 4167848 415.84 415.84
RE DISCCART 669649 4167848 368.09 416.61
RE DISCCART 661149 4168348 377.37 377.37
RE DISCCART 661649 4168348 367.85 380.09
RE DISCCART 662149 4168348 379.73 384.05
RE DISCCART 662649 4168348 394.77 402.93

RE DISCCART	663149	4168348	400.09	400.09
RE DISCCART	665649	4168348	418.78	432.56
RE DISCCART	666149	4168348	433.87	433.87
RE DISCCART	666649	4168348	415.01	421.74
RE DISCCART	667149	4168348	394.63	415.66
RE DISCCART	667649	4168348	359.03	420.95
RE DISCCART	668149	4168348	349.88	423.26
RE DISCCART	668649	4168348	339.01	416.51
RE DISCCART	669149	4168348	376.33	415.38
RE DISCCART	669649	4168348	343.04	416.61
RE DISCCART	661149	4173848	358.83	361.62
RE DISCCART	661649	4173848	350.12	354.43
RE DISCCART	662149	4173848	308.5	373.19
RE DISCCART	662649	4173848	349.79	373.26
RE DISCCART	663149	4173848	363.95	372.94
RE DISCCART	663649	4173848	387.25	387.25
RE DISCCART	664149	4173848	383.4	383.4
RE DISCCART	664649	4173848	396.66	396.66
RE DISCCART	665149	4173848	392.81	392.81
RE DISCCART	665649	4173848	378.91	385.98
RE DISCCART	666149	4173848	363.06	379.87
RE DISCCART	666649	4173848	374.49	391.95
RE DISCCART	667149	4173848	371.28	391.65
RE DISCCART	667649	4173848	330.91	391.36
RE DISCCART	668149	4173848	357.44	386.02
RE DISCCART	668649	4173848	386.86	397.32
RE DISCCART	669149	4173848	384	384
RE DISCCART	669649	4173848	343.62	391.65
RE DISCCART	661149	4173348	351.86	377.05
RE DISCCART	661649	4173348	353.99	367.64
RE DISCCART	662149	4173348	343.75	355.31
RE DISCCART	662649	4173348	351.89	351.89
RE DISCCART	663149	4173348	355.95	361.43
RE DISCCART	663649	4173348	367.42	379.5
RE DISCCART	664149	4173348	383.16	383.16
RE DISCCART	664649	4173348	372.63	390.84
RE DISCCART	665149	4173348	378.39	391.09
RE DISCCART	665649	4173348	379.6	390.64
RE DISCCART	666149	4173348	371.25	398.54
RE DISCCART	666649	4173348	393.9	396.37
RE DISCCART	667149	4173348	379.15	403.58
RE DISCCART	667649	4173348	321.57	404.13
RE DISCCART	668149	4173348	356.49	386.29
RE DISCCART	668649	4173348	396.83	396.83
RE DISCCART	669149	4173348	373.13	398.72
RE DISCCART	669649	4173348	353.31	392.29

RE DISCCART 661149 4172848 374.65 382.04
RE DISCCART 661649 4172848 368.59 385.83
RE DISCCART 662149 4172848 320.27 385.83
RE DISCCART 662649 4172848 318.03 373.26
RE DISCCART 663149 4172848 329.45 379.61
RE DISCCART 663649 4172848 344.86 384.76
RE DISCCART 664149 4172848 340.85 391.26
RE DISCCART 664649 4172848 386.34 386.34
RE DISCCART 665149 4172848 385.2 385.2
RE DISCCART 665649 4172848 385.36 396.51
RE DISCCART 666149 4172848 374.6 398.25
RE DISCCART 666649 4172848 372.64 386.39
RE DISCCART 667149 4172848 350.65 360.65
RE DISCCART 667649 4172848 338.94 360.73
RE DISCCART 668149 4172848 341.09 401.56
RE DISCCART 668649 4172848 387.5 400.86
RE DISCCART 669149 4172848 373.11 391.31
RE DISCCART 669649 4172848 361.5 392.02
RE DISCCART 661149 4168848 331.25 385.51
RE DISCCART 661649 4168848 361.18 365.87
RE DISCCART 662149 4168848 368.62 372.66
RE DISCCART 662649 4168848 383.23 383.23
RE DISCCART 663149 4168848 409.49 409.49
RE DISCCART 663649 4168848 385.47 385.47
RE DISCCART 664149 4168848 377.95 391.81
RE DISCCART 664649 4168848 403.67 403.67
RE DISCCART 665649 4168848 425.2 425.2
RE DISCCART 666149 4168848 424.41 427.12
RE DISCCART 666649 4168848 399.72 416.17
RE DISCCART 667149 4168848 363.18 428.78
RE DISCCART 667649 4168848 386.34 428.69
RE DISCCART 668149 4168848 391.2 427.64
RE DISCCART 668649 4168848 377.68 416.68
RE DISCCART 669149 4168848 347.23 416.68
RE DISCCART 669649 4168848 367.9 410.82
RE DISCCART 661149 4170848 354.06 354.06
RE DISCCART 661649 4170848 365.49 382.42
RE DISCCART 662149 4170848 389.31 389.31
RE DISCCART 662649 4170848 369.8 391.4
RE DISCCART 663149 4170848 387.38 387.38
RE DISCCART 663649 4170848 373.16 373.16
RE DISCCART 664149 4170848 354.27 379.73
RE DISCCART 664649 4170848 383.81 383.81
RE DISCCART 665149 4170848 387.99 408.39
RE DISCCART 665649 4170848 386.62 403.92
RE DISCCART 666149 4170848 398.24 415.12

RE DISCCART	666649	4170848	392.07	416.34
RE DISCCART	667149	4170848	410.82	410.82
RE DISCCART	667649	4170848	383.86	397.5
RE DISCCART	668149	4170848	353.91	404
RE DISCCART	668649	4170848	388.76	404
RE DISCCART	669149	4170848	376.99	406.85
RE DISCCART	669649	4170848	402.31	408.18
RE DISCCART	661149	4169848	339.12	378.45
RE DISCCART	661649	4169848	382.51	382.51
RE DISCCART	662149	4169848	378.53	398.02
RE DISCCART	662649	4169848	396.55	396.55
RE DISCCART	663149	4169848	379.32	390.85
RE DISCCART	663649	4169848	394.49	394.49
RE DISCCART	664149	4169848	376.27	404.74
RE DISCCART	664649	4169848	385.77	390.98
RE DISCCART	665149	4169848	378.63	400.76
RE DISCCART	665649	4169848	392.23	420.9
RE DISCCART	666149	4169848	420.79	428.67
RE DISCCART	666649	4169848	417.55	417.55
RE DISCCART	667149	4169848	423.48	428.49
RE DISCCART	667649	4169848	393.9	422.29
RE DISCCART	668149	4169848	383.82	404.49
RE DISCCART	668649	4169848	398.34	409.11
RE DISCCART	669149	4169848	389.07	409.64
RE DISCCART	669649	4169848	418.29	421.86
RE DISCCART	661149	4171848	395.25	397.21
RE DISCCART	661649	4171848	373.22	397.34
RE DISCCART	662149	4171848	377.85	377.85
RE DISCCART	662649	4171848	379.66	379.66
RE DISCCART	663149	4171848	362.45	373.34
RE DISCCART	663649	4171848	343.03	366.32
RE DISCCART	664149	4171848	369.48	391.92
RE DISCCART	664649	4171848	362.83	398
RE DISCCART	665149	4171848	385.47	392.34
RE DISCCART	665649	4171848	397.72	397.72
RE DISCCART	666149	4171848	373.89	414.52
RE DISCCART	666649	4171848	379.27	390
RE DISCCART	667149	4171848	357.64	397.35
RE DISCCART	667649	4171848	374.45	379.88
RE DISCCART	668149	4171848	340.8	398.81
RE DISCCART	668649	4171848	377.59	399.1
RE DISCCART	669149	4171848	377.54	398.76
RE DISCCART	669649	4171848	395.68	395.68
RE DISCCART	661149	4169348	352	376.53
RE DISCCART	661649	4169348	382.95	382.95
RE DISCCART	662149	4169348	372.06	392.84

RE DISCCART 662649 4169348 399.42 399.42
RE DISCCART 663149 4169348 383.59 396.79
RE DISCCART 663649 4169348 391.29 395.96
RE DISCCART 664149 4169348 370.69 402.25
RE DISCCART 664649 4169348 382.35 396.54
RE DISCCART 665149 4169348 397.23 401.39
RE DISCCART 665649 4169348 424.79 424.79
RE DISCCART 666149 4169348 397.32 427.92
RE DISCCART 666649 4169348 415.31 415.31
RE DISCCART 667149 4169348 400.58 422.38
RE DISCCART 667649 4169348 424.62 428.51
RE DISCCART 668149 4169348 414.55 427.66
RE DISCCART 668649 4169348 396.3 427.5
RE DISCCART 669149 4169348 385.18 415.13
RE DISCCART 669649 4169348 394.85 409.61
RE DISCCART 661149 4171348 371.38 391.02
RE DISCCART 661649 4171348 363.73 391.22
RE DISCCART 662149 4171348 373.87 391.07
RE DISCCART 662649 4171348 381 381
RE DISCCART 663149 4171348 344.12 392.34
RE DISCCART 663649 4171348 360.58 360.58
RE DISCCART 664149 4171348 380.12 382.02
RE DISCCART 664649 4171348 386.3 391.05
RE DISCCART 665149 4171348 376.62 393.37
RE DISCCART 665649 4171348 395.9 421.88
RE DISCCART 666149 4171348 406.38 428.47
RE DISCCART 666649 4171348 376.21 416.24
RE DISCCART 667149 4171348 390.65 390.65
RE DISCCART 667649 4171348 369.34 403.85
RE DISCCART 668149 4171348 344.4 396.34
RE DISCCART 668649 4171348 368.4 385.94
RE DISCCART 669149 4171348 381.17 398.05
RE DISCCART 669649 4171348 410.57 410.57
RE DISCCART 661149 4170348 365.82 372.26
RE DISCCART 661649 4170348 379.41 379.41
RE DISCCART 662149 4170348 379.25 385.27
RE DISCCART 662649 4170348 388.57 388.57
RE DISCCART 663149 4170348 364.76 380.7
RE DISCCART 663649 4170348 376.51 376.51
RE DISCCART 664149 4170348 384.32 390.8
RE DISCCART 664649 4170348 367.5 399.03
RE DISCCART 665149 4170348 400.35 400.35
RE DISCCART 665649 4170348 409.2 415.74
RE DISCCART 666149 4170348 419.25 422.76
RE DISCCART 666649 4170348 391.47 422.5
RE DISCCART 667149 4170348 421.84 421.84

RE DISCCART 667649 4170348 381.94 403.03
RE DISCCART 668149 4170348 368.83 410.24
RE DISCCART 668649 4170348 401.12 409.58
RE DISCCART 669149 4170348 404.1 404.1
RE DISCCART 669649 4170348 407.99 408.87
RE DISCCART 661149 4172348 386.72 386.72
RE DISCCART 661649 4172348 375 385.86
RE DISCCART 662149 4172348 360.77 385.12
RE DISCCART 662649 4172348 348.42 373.9
RE DISCCART 663149 4172348 329.64 379.54
RE DISCCART 663649 4172348 372.96 379.89
RE DISCCART 664149 4172348 379.46 379.46
RE DISCCART 664649 4172348 381.28 385.61
RE DISCCART 665149 4172348 396.36 396.36
RE DISCCART 665649 4172348 391.36 398.07
RE DISCCART 666149 4172348 387.09 408.68
RE DISCCART 666649 4172348 359.04 391.88
RE DISCCART 667149 4172348 366.13 388.41
RE DISCCART 667649 4172348 349.97 380.49
RE DISCCART 668149 4172348 364.78 385.73
RE DISCCART 668649 4172348 391.62 398.83
RE DISCCART 669149 4172348 364.52 391.74
RE DISCCART 669649 4172348 391.56 391.56
RE DISCCART 665196.96 4168977.6 406.68 406.68
RE DISCCART 665149.17 4168962.95 405.46 405.46
RE DISCCART 665101.04 4168949.4 405.08 405.08
RE DISCCART 665211.55 4168948.48 407.77 407.77
RE DISCCART 665052.91 4168935.86 404.97 404.97
RE DISCCART 664855.18 4168929.82 406.02 406.02
RE DISCCART 664905.04 4168926.44 407.19 407.19
RE DISCCART 665003.94 4168925.93 405.48 405.48
RE DISCCART 664954.66 4168920.29 406.89 406.89
RE DISCCART 665210.79 4168898.49 403.1 406.88
RE DISCCART 664453.2 4168891.68 394.31 394.31
RE DISCCART 664849.94 4168885.33 403.93 407.05
RE DISCCART 664405.04 4168878.26 389.55 396.81
RE DISCCART 664359.01 4168859.46 385.09 396.81
RE DISCCART 664459.48 4168851.29 391.52 391.52
RE DISCCART 665210.02 4168848.49 395.91 409.31
RE DISCCART 664312.9 4168840.17 380.12 396.81
RE DISCCART 664849.94 4168835.33 404.3 404.3
RE DISCCART 664267.1 4168820.13 378.14 378.14
RE DISCCART 664458.3 4168801.31 387.25 402.17
RE DISCCART 664221.29 4168800.09 377.92 377.92
RE DISCCART 665209.26 4168798.5 397.37 409.88
RE DISCCART 664849.94 4168785.33 401.53 402.66

```
  RE DISCCART  664175.48  4168780.05  378.72  390.81
  RE DISCCART  664129.67  4168760  382.1  391.45
  RE DISCCART  664457.12  4168751.32  386.42  397.39
  RE DISCCART  665208.5  4168748.51  404.18  405.91
  RE DISCCART  664083.87  4168739.96  385.63  391.45
  RE DISCCART  664849.94  4168735.33  395.59  402.66
  RE DISCCART  664038.06  4168719.92  389.73  389.73
  RE DISCCART  663991.5  4168701.76  391.63  391.63
  RE DISCCART  664455.94  4168701.33  383.81  397.39
  RE DISCCART  665207.74  4168698.51  406.67  406.67
  RE DISCCART  664849.94  4168685.33  389.38  408.26
  RE DISCCART  663944.49  4168684.74  391.67  391.67
  RE DISCCART  663897.47  4168667.72  389.62  389.62
  RE DISCCART  664454.76  4168651.35  380.68  395.88
  RE DISCCART  663850.46  4168650.7  386.99  397
  RE DISCCART  665206.97  4168648.52  402.9  406.34
  RE DISCCART  664849.94  4168635.33  389  397.37
  RE DISCCART  663804.02  4168632.4  382.43  397.77
  RE DISCCART  664468.92  4168616.35  379.82  396.18
  RE DISCCART  664518.92  4168616.35  381.24  381.24
  RE DISCCART  664568.92  4168616.35  382.61  382.61
  RE DISCCART  664618.92  4168616.35  384.14  384.14
  RE DISCCART  664668.92  4168616.35  384.7  384.7
  RE DISCCART  664718.92  4168616.35  386.31  395.6
  RE DISCCART  664768.92  4168616.35  386.21  395.73
  RE DISCCART  664818.92  4168616.35  386.32  395.73
  RE DISCCART  663759.99  4168608.7  379.14  397.85
  RE DISCCART  665206.21  4168598.52  402.94  402.94
  RE DISCCART  663715.95  4168585.04  379.37  397.77
  RE DISCCART  663671.82  4168561.52  381  381
  RE DISCCART  665205.45  4168548.53  398.13  402.61
  RE DISCCART  663627.69  4168538.01  383.66  401.35
** Vent 3 fenceline
RE DISCCART  666120  4160500  375.42  410.64
RE DISCCART  666182  4160500  393.26  398.96
RE DISCCART  666239  4160500  397.30  397.30
RE DISCCART  666305  4160500  386.91  410.64
RE DISCCART  666350  4160587  394.82  410.64
RE DISCCART  666365  4160626  399.01  410.64
RE DISCCART  666365  4160720  405.53  410.49
RE DISCCART  666295  4160720  404.11  404.11
RE DISCCART  666245  4160720  399.50  407.22
RE DISCCART  666195  4160720  386.89  410.64
RE DISCCART  666145  4160720  376.63  410.91
RE DISCCART  666131  4160569  378.10  410.64
**Vent 2 fenceline
```

```
RE DISCCART  665881  4162444  413.85  421.88
RE DISCCART  665823  4162444  403.62  426.58
RE DISCCART  665881  4162626  423.70  423.70
RE DISCCART  665823  4162626  410.73  427.78
RE DISCCART  665938  4162626  422.80  422.80
RE DISCCART  665774  4162626  396.66  428.54
RE DISCCART  665774  4162444  394.48  428.12
RE DISCCART  665938  4162444  418.82  418.82
RE DISCCART  665774  4162573  396.32  428.31
RE DISCCART  665774  4162517  396.75  428.30
RE DISCCART  665948  4162573  421.93  421.93
RE DISCCART  665948  4162517  421.66  421.66
** Vent 1 fenceline
RE DISCCART    665546.23   4165183.45    401.71    436.19
RE DISCCART    665620.87   4165180.29    413.50    421.31
RE DISCCART    665637.15   4165187.56    416.29    420.02
RE DISCCART    665529.13  4165201.75    418.26    420.12
RE DISCCART    665529.13  4165260.75    418.26    420.12
RE DISCCART    665647.10   4165196.74    418.16    420.02
RE DISCCART    665656.22   4165211.47    420.23    420.23
RE DISCCART    665657.47   4165231.96    421.15    421.15
RE DISCCART    665626.87   4165256.41    419.99    419.99
RE DISCCART    665616.62   4165300.73    421.14    421.14
RE DISCCART    665611.45   4165328.08    422.54    422.54
RE DISCCART    665540.60   4165320.04    414.87    436.19
** Casteel fenceline
RE DISCCART    665630.83   4169713.27    396.97    411.73
RE DISCCART    665402.67   4169637.55    403.48    408.95
RE DISCCART    665388.15   4169675.70    401.72    401.72
RE DISCCART    665364.51   4169670.42    399.87    399.87
RE DISCCART    665355.98   4169691.70    399.75    399.75
RE DISCCART    665334.55   4169707.22    398.18    398.18
RE DISCCART    665351.96   4169735.64    399.78    399.78
RE DISCCART    665342.15   4169738.70    399.23    399.23
RE DISCCART    665351.41   4169760.97    399.45    399.45
RE DISCCART    665337.58   4169780.14    398.68    398.68
RE DISCCART    665290.68   4169796.44    395.27    395.27
RE DISCCART    665323.91   4169852.08    391.84    398.73
RE DISCCART    665379.71   4169827.00    395.99    395.99
RE DISCCART    665472.50   4169859.24    390.98    390.98
RE DISCCART    665514.67   4169855.51    393.07    393.07
RE DISCCART    665566.29   4169868.21    389.91    395.94
RE DISCCART    665584.62   4169789.75    395.34    395.34
** Vent 6 fenceline
RE DISCCART  665500  4165635  432.82  432.82
RE DISCCART  665500  4165690  433.02  436.27
```

```
RE DISCCART  665500  4165740  433.55  439.03
RE DISCCART  665500  4165790  434.94  434.94
RE DISCCART  665500  4165860  433.73  433.73
RE DISCCART  665550  4165635  435.94  435.94
RE DISCCART  665550  4165860  435.98  435.98
RE DISCCART  665600  4165635  436.14  436.14
RE DISCCART  665600  4165860  433.11  439.67
RE DISCCART  665650  4165635  437.72  437.72
RE DISCCART  665650  4165860  428.91  439.67
RE DISCCART  665700  4165635  434.47  438.66
RE DISCCART  665700  4165860  425.61  439.67
RE DISCCART  665750  4165635  432.40  438.66
RE DISCCART  665750  4165690  425.92  438.72
RE DISCCART  665750  4165740  419.03  439.67
RE DISCCART  665750  4165790  411.81  439.67
RE DISCCART  665750  4165860  419.42  439.67


RE FINISHED


ME STARTING
ME SURFFILE  BRRF0910_V3.SFC
ME PROFFILE  BRRF0910_V3.PFL
ME STARTEND  09 08 01 10 07 31
ME SURFDATA  93996  2009  Farmington,MO
ME UAIRDATA  13995  2009  Springfield,MO
ME SITEDATA  99999  2009  Onsite
ME PROFBASE  430  METERS
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU POSTFILE MONTH ALL PLOT Buickfinal.PST
OU FINISHED
```

```
OU POSTFILE MONTH ALL PLOT Buickfinal.PST
OU FINISHED
```

APPENDIX E: MODEL OUTPUT (BASE & FUTURE CASES)

BASE CASE:

Due to the size of the base case output file, it is not included here in this Appendix. If you would like to review this file, you may request a copy by contacting the department and one will be furnished to you.

FUTURE CASE:

The AERMOD dispersion model was used to generate twelve monthly output (or post) files for the period of August 2009 through July 2010. As an example of these twelve files, the AERMOD post file for October 2009 is presented below on pages E-1 through E-30 of this Appendix. The twelve AERMOD post files were compiled to develop a single input file for the post processor, LEADPOST. One of the LEADPOST output files, which calculates the maximum of the 3-month rolling average concentrations for each receptor, is presented below on pages E-30 through E-60.

AERMOD POST FILE: (October, 2009, presented as an example)
* AERMOD (12060): Viburnum Trend Future Year
12/31/12
* MODELING OPTIONS USED:
09:55:42
* RegDFAULT CONC ELEV
DRYDPLT WETDPLT
* POST/PLOT FILE OF CONCURRENT MONTH VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 1562 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)
* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP DATE
NET ID
*_____ _____ _____ _____ _____ _____ _____ _____ _____
_____

663149	4158848	0.02287	385.17	385.17	0.00	MONTH	ALL	09103124
663649	4158848	0.02291	385.06	409.99	0.00	MONTH	ALL	09103124
664149	4158848	0.02298	398.88	409.71	0.00	MONTH	ALL	09103124
664649	4158848	0.02281	391.49	409.61	0.00	MONTH	ALL	09103124
665149	4158848	0.02270	386.31	408.21	0.00	MONTH	ALL	09103124
665649	4158848	0.02242	363.65	397.34	0.00	MONTH	ALL	09103124
666149	4158848	0.02212	358.26	410.34	0.00	MONTH	ALL	09103124
666649	4158848	0.02176	346.71	407.43	0.00	MONTH	ALL	09103124
667149	4158848	0.02169	351.41	390.65	0.00	MONTH	ALL	09103124
667649	4158848	0.02177	346.74	386.60	0.00	MONTH	ALL	09103124
668149	4158848	0.02192	364.84	393.27	0.00	MONTH	ALL	09103124
668649	4158848	0.02207	373.86	373.86	0.00	MONTH	ALL	09103124
669149	4158848	0.02193	349.18	397.27	0.00	MONTH	ALL	09103124
669649	4158848	0.02198	333.46	385.38	0.00	MONTH	ALL	09103124
663149	4159348	0.02295	361.78	404.12	0.00	MONTH	ALL	09103124
663649	4159348	0.02311	381.43	415.45	0.00	MONTH	ALL	09103124

664149	4159348	0.02332	412.26	413.42	0.00	MONTH	ALL	09103124
664649	4159348	0.02312	396.34	414.37	0.00	MONTH	ALL	09103124
665149	4159348	0.02290	386.42	412.82	0.00	MONTH	ALL	09103124
665649	4159348	0.02287	395.94	401.15	0.00	MONTH	ALL	09103124
666149	4159348	0.02252	364.12	398.12	0.00	MONTH	ALL	09103124
666649	4159348	0.02210	344.91	391.99	0.00	MONTH	ALL	09103124
667149	4159348	0.02212	365.93	392.09	0.00	MONTH	ALL	09103124
667649	4159348	0.02214	332.61	392.37	0.00	MONTH	ALL	09103124
668149	4159348	0.02205	332.28	385.75	0.00	MONTH	ALL	09103124
668649	4159348	0.02208	359.55	374.12	0.00	MONTH	ALL	09103124
669149	4159348	0.02217	351.23	366.08	0.00	MONTH	ALL	09103124
669649	4159348	0.02239	364.93	366.68	0.00	MONTH	ALL	09103124
663149	4159848	0.02318	353.78	390.43	0.00	MONTH	ALL	09103124
663649	4159848	0.02335	377.70	377.70	0.00	MONTH	ALL	09103124
664149	4159848	0.02344	392.71	422.97	0.00	MONTH	ALL	09103124
664649	4159848	0.02331	387.76	426.39	0.00	MONTH	ALL	09103124
665149	4159848	0.02308	377.63	415.71	0.00	MONTH	ALL	09103124
665649	4159848	0.02294	371.71	410.08	0.00	MONTH	ALL	09103124
666149	4159848	0.02340	351.92	398.02	0.00	MONTH	ALL	09103124
666649	4159848	0.02277	380.94	391.71	0.00	MONTH	ALL	09103124
667149	4159848	0.02273	383.90	398.93	0.00	MONTH	ALL	09103124
667649	4159848	0.02223	371.78	385.01	0.00	MONTH	ALL	09103124
668149	4159848	0.02231	372.33	373.58	0.00	MONTH	ALL	09103124
668649	4159848	0.02239	352.32	373.51	0.00	MONTH	ALL	09103124
669149	4159848	0.02250	329.95	374.28	0.00	MONTH	ALL	09103124
669649	4159848	0.02271	321.84	368.99	0.00	MONTH	ALL	09103124
663149	4160348	0.02361	374.05	374.05	0.00	MONTH	ALL	09103124
663649	4160348	0.02403	407.02	407.98	0.00	MONTH	ALL	09103124
664149	4160348	0.02403	407.10	427.35	0.00	MONTH	ALL	09103124
664649	4160348	0.02378	392.01	421.24	0.00	MONTH	ALL	09103124
665149	4160348	0.02368	412.78	413.85	0.00	MONTH	ALL	09103124
665649	4160348	0.02338	383.10	383.10	0.00	MONTH	ALL	09103124
665999	4160348	0.02379	370.83	398.31	0.00	MONTH	ALL	09103124
666099	4160348	0.02452	368.94	409.42	0.00	MONTH	ALL	09103124
666199	4160348	0.02549	388.24	393.02	0.00	MONTH	ALL	09103124
666299	4160348	0.02530	372.60	410.64	0.00	MONTH	ALL	09103124
666399	4160348	0.02568	382.71	408.58	0.00	MONTH	ALL	09103124
666499	4160348	0.02557	399.40	401.31	0.00	MONTH	ALL	09103124
666649	4160348	0.02402	388.50	402.98	0.00	MONTH	ALL	09103124
667149	4160348	0.02282	398.55	398.55	0.00	MONTH	ALL	09103124
667649	4160348	0.02265	372.46	411.77	0.00	MONTH	ALL	09103124
668149	4160348	0.02280	375.91	386.50	0.00	MONTH	ALL	09103124
668649	4160348	0.02292	366.82	392.16	0.00	MONTH	ALL	09103124
669149	4160348	0.02303	345.32	392.16	0.00	MONTH	ALL	09103124
669649	4160348	0.02327	353.39	380.31	0.00	MONTH	ALL	09103124
665999	4160448	0.02408	385.08	397.80	0.00	MONTH	ALL	09103124
666099	4160448	0.02498	368.33	410.64	0.00	MONTH	ALL	09103124
666199	4160448	0.02789	394.22	398.08	0.00	MONTH	ALL	09103124
666299	4160448	0.02822	378.04	410.64	0.00	MONTH	ALL	09103124
666399	4160448	0.02741	377.71	410.64	0.00	MONTH	ALL	09103124
666499	4160448	0.02570	384.22	410.64	0.00	MONTH	ALL	09103124
665999	4160548	0.02452	392.34	397.87	0.00	MONTH	ALL	09103124
666099	4160548	0.02593	371.71	410.64	0.00	MONTH	ALL	09103124
666399	4160548	0.03082	403.07	408.21	0.00	MONTH	ALL	09103124
666499	4160548	0.02677	398.03	410.16	0.00	MONTH	ALL	09103124
665999	4160648	0.02489	397.81	397.81	0.00	MONTH	ALL	09103124

666099	4160648	0.02744	379.76	410.49	0.00	MONTH	ALL	09103124
666399	4160648	0.02728	410.37	410.37	0.00	MONTH	ALL	09103124
666499	4160648	0.02584	402.01	410.39	0.00	MONTH	ALL	09103124
665999	4160748	0.02534	400.91	403.56	0.00	MONTH	ALL	09103124
666099	4160748	0.02897	390.11	410.42	0.00	MONTH	ALL	09103124
666199	4160748	0.04121	385.46	410.85	0.00	MONTH	ALL	09103124
666299	4160748	0.03315	400.11	410.13	0.00	MONTH	ALL	09103124
666399	4160748	0.02547	409.67	409.67	0.00	MONTH	ALL	09103124
666499	4160748	0.02446	405.65	405.65	0.00	MONTH	ALL	09103124
663149	4160848	0.02384	360.25	397.35	0.00	MONTH	ALL	09103124
663649	4160848	0.02438	404.65	415.48	0.00	MONTH	ALL	09103124
664149	4160848	0.02457	411.29	421.61	0.00	MONTH	ALL	09103124
664649	4160848	0.02451	417.15	419.35	0.00	MONTH	ALL	09103124
665149	4160848	0.02420	395.10	416.62	0.00	MONTH	ALL	09103124
665649	4160848	0.02382	380.18	412.71	0.00	MONTH	ALL	09103124
665999	4160848	0.02541	396.31	410.42	0.00	MONTH	ALL	09103124
666099	4160848	0.02876	405.01	410.41	0.00	MONTH	ALL	09103124
666199	4160848	0.03227	385.44	417.25	0.00	MONTH	ALL	09103124
666299	4160848	0.02941	398.45	410.62	0.00	MONTH	ALL	09103124
666399	4160848	0.02489	408.89	408.89	0.00	MONTH	ALL	09103124
666499	4160848	0.02412	398.57	410.46	0.00	MONTH	ALL	09103124
666649	4160848	0.02340	383.91	410.88	0.00	MONTH	ALL	09103124
667149	4160848	0.02309	387.21	404.63	0.00	MONTH	ALL	09103124
667649	4160848	0.02327	393.47	409.49	0.00	MONTH	ALL	09103124
669149	4160848	0.02364	353.39	391.70	0.00	MONTH	ALL	09103124
669649	4160848	0.02358	355.13	379.22	0.00	MONTH	ALL	09103124
670149	4160848	0.02335	379.46	384.11	0.00	MONTH	ALL	09103124
670649	4160848	0.02299	342.07	386.36	0.00	MONTH	ALL	09103124
671149	4160848	0.02307	368.97	379.37	0.00	MONTH	ALL	09103124
663149	4161348	0.02431	378.29	421.56	0.00	MONTH	ALL	09103124
663649	4161348	0.02453	378.04	414.87	0.00	MONTH	ALL	09103124
664149	4161348	0.02485	389.27	422.17	0.00	MONTH	ALL	09103124
664649	4161348	0.02496	400.03	421.71	0.00	MONTH	ALL	09103124
665149	4161348	0.02482	406.47	420.73	0.00	MONTH	ALL	09103124
665649	4161348	0.02480	417.51	423.25	0.00	MONTH	ALL	09103124
666149	4161348	0.02470	400.12	430.42	0.00	MONTH	ALL	09103124
667149	4161348	0.02453	387.86	397.74	0.00	MONTH	ALL	09103124
669649	4161348	0.02352	321.59	385.53	0.00	MONTH	ALL	09103124
670149	4161348	0.02343	364.70	385.53	0.00	MONTH	ALL	09103124
670649	4161348	0.02333	346.15	380.21	0.00	MONTH	ALL	09103124
671149	4161348	0.02336	340.41	380.21	0.00	MONTH	ALL	09103124
661149	4161848	0.02268	353.32	377.14	0.00	MONTH	ALL	09103124
661649	4161848	0.02330	384.94	396.58	0.00	MONTH	ALL	09103124
662149	4161848	0.02372	385.74	403.18	0.00	MONTH	ALL	09103124
662649	4161848	0.02432	397.06	407.38	0.00	MONTH	ALL	09103124
663149	4161848	0.02505	409.06	427.59	0.00	MONTH	ALL	09103124
663649	4161848	0.02527	392.72	439.55	0.00	MONTH	ALL	09103124
664149	4161848	0.02558	402.04	427.95	0.00	MONTH	ALL	09103124
664649	4161848	0.02606	413.42	413.42	0.00	MONTH	ALL	09103124
665149	4161848	0.02568	410.18	414.34	0.00	MONTH	ALL	09103124
665649	4161848	0.02529	374.44	429.03	0.00	MONTH	ALL	09103124
666649	4161848	0.02438	380.92	383.04	0.00	MONTH	ALL	09103124
667149	4161848	0.02460	393.93	397.54	0.00	MONTH	ALL	09103124
668149	4161848	0.02504	396.96	410.25	0.00	MONTH	ALL	09103124
669149	4161848	0.02423	376.31	376.31	0.00	MONTH	ALL	09103124
669649	4161848	0.02369	317.18	391.88	0.00	MONTH	ALL	09103124

670149	4161848	0.02366	317.91	385.53	0.00	MONTH	ALL	09103124
670649	4161848	0.02368	313.28	385.49	0.00	MONTH	ALL	09103124
671149	4161848	0.02354	304.85	380.21	0.00	MONTH	ALL	09103124
663022	4168215	0.02749	403.36	403.36	0.00	MONTH	ALL	09103124
663068	4168234	0.02948	402.79	402.79	0.00	MONTH	ALL	09103124
663114	4168253	0.02984	401.31	401.31	0.00	MONTH	ALL	09103124
663160	4168273	0.03016	397.95	397.95	0.00	MONTH	ALL	09103124
663206	4168292	0.03083	396.59	396.59	0.00	MONTH	ALL	09103124
663253	4168311	0.03174	399.66	399.66	0.00	MONTH	ALL	09103124
663299	4168330	0.03241	400.59	400.59	0.00	MONTH	ALL	09103124
663345	4168349	0.03314	400.21	400.21	0.00	MONTH	ALL	09103124
663391	4168369	0.03379	398.27	398.27	0.00	MONTH	ALL	09103124
663433	4168396	0.03562	399.10	399.10	0.00	MONTH	ALL	09103124
663474	4168425	0.03646	398.37	399.75	0.00	MONTH	ALL	09103124
663516	4168452	0.03514	394.04	403.20	0.00	MONTH	ALL	09103124
663557	4168481	0.03476	390.83	403.20	0.00	MONTH	ALL	09103124
663598	4168509	0.03479	385.78	403.20	0.00	MONTH	ALL	09103124
665762	4168192	0.02962	430.25	431.44	0.00	MONTH	ALL	09103124
665263	4168200	0.03941	401.08	422.07	0.00	MONTH	ALL	09103124
665313	4168200	0.03740	403.17	422.06	0.00	MONTH	ALL	09103124
665363	4168200	0.03590	407.91	422.06	0.00	MONTH	ALL	09103124
665413	4168200	0.03461	411.33	422.06	0.00	MONTH	ALL	09103124
665463	4168200	0.03335	410.34	427.76	0.00	MONTH	ALL	09103124
665513	4168200	0.03253	414.94	427.76	0.00	MONTH	ALL	09103124
665563	4168200	0.03187	420.06	420.06	0.00	MONTH	ALL	09103124
665613	4168200	0.03124	422.88	427.80	0.00	MONTH	ALL	09103124
665663	4168200	0.03069	425.39	428.43	0.00	MONTH	ALL	09103124
665713	4168200	0.03018	427.22	432.37	0.00	MONTH	ALL	09103124
665219	4168218	0.04144	399.48	415.80	0.00	MONTH	ALL	09103124
665218	4168268	0.04109	400.44	415.59	0.00	MONTH	ALL	09103124
665218	4168318	0.04107	406.68	410.94	0.00	MONTH	ALL	09103124
665218	4168368	0.04086	409.65	409.65	0.00	MONTH	ALL	09103124
665218	4168418	0.04014	405.40	409.31	0.00	MONTH	ALL	09103124
665218	4168468	0.03927	397.26	416.18	0.00	MONTH	ALL	09103124
665218	4168518	0.03882	395.50	416.18	0.00	MONTH	ALL	09103124
665149	4169848	0.03392	378.63	400.76	0.00	MONTH	ALL	09103124
665249	4169848	0.03538	391.86	391.86	0.00	MONTH	ALL	09103124
665649	4169848	0.03042	392.23	420.90	0.00	MONTH	ALL	09103124
665149	4170348	0.03085	400.35	400.35	0.00	MONTH	ALL	09103124
665249	4169348	0.03517	398.87	410.50	0.00	MONTH	ALL	09103124
665349	4169348	0.03399	404.57	421.01	0.00	MONTH	ALL	09103124
665449	4169348	0.03305	411.33	421.01	0.00	MONTH	ALL	09103124
665549	4169348	0.03321	420.90	420.90	0.00	MONTH	ALL	09103124
665649	4169348	0.03631	424.79	424.79	0.00	MONTH	ALL	09103124
665149	4169948	0.03305	377.20	392.10	0.00	MONTH	ALL	09103124
665249	4169948	0.03329	378.79	399.13	0.00	MONTH	ALL	09103124
665349	4169948	0.03406	380.33	399.74	0.00	MONTH	ALL	09103124
665449	4169948	0.03343	381.91	399.96	0.00	MONTH	ALL	09103124
665549	4169948	0.03093	382.44	415.02	0.00	MONTH	ALL	09103124
665649	4169948	0.02879	389.87	421.30	0.00	MONTH	ALL	09103124
665149	4169448	0.03680	403.42	403.42	0.00	MONTH	ALL	09103124
665249	4169448	0.03665	408.70	408.70	0.00	MONTH	ALL	09103124
665349	4169448	0.03576	410.41	410.41	0.00	MONTH	ALL	09103124
665449	4169448	0.03456	411.09	419.27	0.00	MONTH	ALL	09103124
665549	4169448	0.03622	420.18	420.18	0.00	MONTH	ALL	09103124
665649	4169448	0.03255	416.32	425.97	0.00	MONTH	ALL	09103124

665149	4170048	0.03241	382.70	385.00	0.00	MONTH	ALL	09103124
665249	4170048	0.03233	389.68	392.10	0.00	MONTH	ALL	09103124
665349	4170048	0.03200	393.53	393.53	0.00	MONTH	ALL	09103124
665449	4170048	0.03100	396.51	396.51	0.00	MONTH	ALL	09103124
665549	4170048	0.02940	394.44	397.60	0.00	MONTH	ALL	09103124
665649	4170048	0.02799	396.89	403.09	0.00	MONTH	ALL	09103124
665149	4169548	0.03660	402.29	402.29	0.00	MONTH	ALL	09103124
665249	4169548	0.03746	406.28	406.28	0.00	MONTH	ALL	09103124
665449	4169548	0.03958	408.60	413.63	0.00	MONTH	ALL	09103124
665549	4169548	0.04321	414.06	414.06	0.00	MONTH	ALL	09103124
665649	4169548	0.03497	403.01	428.49	0.00	MONTH	ALL	09103124
665149	4170148	0.03176	385.48	397.19	0.00	MONTH	ALL	09103124
665249	4170148	0.03116	383.38	398.16	0.00	MONTH	ALL	09103124
665349	4170148	0.03056	390.11	390.11	0.00	MONTH	ALL	09103124
665449	4170148	0.02964	395.67	395.67	0.00	MONTH	ALL	09103124
665549	4170148	0.02857	402.08	402.08	0.00	MONTH	ALL	09103124
665649	4170148	0.02740	398.32	410.10	0.00	MONTH	ALL	09103124
665149	4169648	0.03583	395.34	397.00	0.00	MONTH	ALL	09103124
665249	4169648	0.03764	397.98	402.44	0.00	MONTH	ALL	09103124
665649	4169648	0.03580	403.49	410.35	0.00	MONTH	ALL	09103124
665149	4170248	0.03137	396.94	396.94	0.00	MONTH	ALL	09103124
665249	4170248	0.03051	388.21	403.23	0.00	MONTH	ALL	09103124
665349	4170248	0.02980	393.64	393.64	0.00	MONTH	ALL	09103124
665449	4170248	0.02889	396.74	396.74	0.00	MONTH	ALL	09103124
665549	4170248	0.02792	399.43	409.54	0.00	MONTH	ALL	09103124
665649	4170248	0.02691	409.66	409.66	0.00	MONTH	ALL	09103124
665149	4169748	0.03510	390.57	390.57	0.00	MONTH	ALL	09103124
665249	4169748	0.03656	388.67	399.75	0.00	MONTH	ALL	09103124
670649	4161848	0.02368	313.28	385.49	0.00	MONTH	ALL	09103124
671149	4161848	0.02354	304.85	380.21	0.00	MONTH	ALL	09103124
661149	4162348	0.02261	353.98	389.71	0.00	MONTH	ALL	09103124
661649	4162348	0.02325	377.02	377.02	0.00	MONTH	ALL	09103124
662149	4162348	0.02378	365.99	395.50	0.00	MONTH	ALL	09103124
662649	4162348	0.02444	390.27	395.59	0.00	MONTH	ALL	09103124
663149	4162348	0.02562	426.62	426.62	0.00	MONTH	ALL	09103124
663649	4162348	0.02648	435.16	435.16	0.00	MONTH	ALL	09103124
664149	4162348	0.02707	427.46	433.13	0.00	MONTH	ALL	09103124
664649	4162348	0.02732	417.84	421.29	0.00	MONTH	ALL	09103124
665149	4162348	0.02743	417.16	423.94	0.00	MONTH	ALL	09103124
665649	4162348	0.02717	390.00	421.85	0.00	MONTH	ALL	09103124
665849	4162348	0.02914	396.20	424.12	0.00	MONTH	ALL	09103124
665949	4162348	0.02912	398.95	422.24	0.00	MONTH	ALL	09103124
666049	4162348	0.02844	396.37	422.24	0.00	MONTH	ALL	09103124
666149	4162348	0.02713	395.31	421.76	0.00	MONTH	ALL	09103124
666649	4162348	0.02657	415.29	415.29	0.00	MONTH	ALL	09103124
667649	4162348	0.02547	379.32	409.02	0.00	MONTH	ALL	09103124
668149	4162348	0.02528	385.67	398.32	0.00	MONTH	ALL	09103124
668649	4162348	0.02485	368.33	385.72	0.00	MONTH	ALL	09103124
669149	4162348	0.02432	338.71	402.01	0.00	MONTH	ALL	09103124
669649	4162348	0.02427	348.30	403.32	0.00	MONTH	ALL	09103124
670149	4162348	0.02418	334.39	397.96	0.00	MONTH	ALL	09103124
670649	4162348	0.02405	361.43	385.10	0.00	MONTH	ALL	09103124
671149	4162348	0.02354	354.15	367.51	0.00	MONTH	ALL	09103124
665649	4162448	0.02792	392.48	426.08	0.00	MONTH	ALL	09103124
665749	4162448	0.02899	388.49	428.30	0.00	MONTH	ALL	09103124
665849	4162448	0.03425	404.66	426.08	0.00	MONTH	ALL	09103124

665949	4162448	0.03576	415.61	421.29	0.00	MONTH	ALL	09103124
666049	4162448	0.03031	413.26	416.58	0.00	MONTH	ALL	09103124
666149	4162448	0.02822	415.07	415.07	0.00	MONTH	ALL	09103124
665649	4162548	0.02884	396.12	426.82	0.00	MONTH	ALL	09103124
665749	4162548	0.03063	390.33	428.31	0.00	MONTH	ALL	09103124
666049	4162548	0.03075	414.85	417.77	0.00	MONTH	ALL	09103124
666149	4162548	0.02839	406.59	417.30	0.00	MONTH	ALL	09103124
665649	4162648	0.02976	396.18	429.07	0.00	MONTH	ALL	09103124
665749	4162648	0.03229	393.25	428.74	0.00	MONTH	ALL	09103124
665849	4162648	0.04897	419.29	426.58	0.00	MONTH	ALL	09103124
665949	4162648	0.03259	423.73	423.73	0.00	MONTH	ALL	09103124
666049	4162648	0.02933	414.71	428.30	0.00	MONTH	ALL	09103124
666149	4162648	0.02805	401.15	428.72	0.00	MONTH	ALL	09103124
665649	4162748	0.03094	400.59	433.76	0.00	MONTH	ALL	09103124
665749	4162748	0.03264	396.86	430.18	0.00	MONTH	ALL	09103124
665849	4162748	0.03592	414.53	428.30	0.00	MONTH	ALL	09103124
665949	4162748	0.03174	427.93	427.93	0.00	MONTH	ALL	09103124
666049	4162748	0.02952	422.01	427.80	0.00	MONTH	ALL	09103124
666149	4162748	0.02879	414.24	423.54	0.00	MONTH	ALL	09103124
661149	4162848	0.02265	362.40	362.40	0.00	MONTH	ALL	09103124
661649	4162848	0.02319	378.49	378.49	0.00	MONTH	ALL	09103124
662149	4162848	0.02389	378.51	402.46	0.00	MONTH	ALL	09103124
662649	4162848	0.02471	398.62	402.53	0.00	MONTH	ALL	09103124
663149	4162848	0.02543	400.23	409.31	0.00	MONTH	ALL	09103124
663649	4162848	0.02643	409.72	422.45	0.00	MONTH	ALL	09103124
664149	4162848	0.02728	401.87	432.06	0.00	MONTH	ALL	09103124
664649	4162848	0.02896	418.27	426.00	0.00	MONTH	ALL	09103124
664749	4162848	0.02936	423.12	425.99	0.00	MONTH	ALL	09103124
664849	4162848	0.02954	417.78	431.16	0.00	MONTH	ALL	09103124
664949	4162848	0.02956	409.01	438.81	0.00	MONTH	ALL	09103124
665049	4162848	0.03032	423.86	426.35	0.00	MONTH	ALL	09103124
665149	4162848	0.03081	431.56	431.56	0.00	MONTH	ALL	09103124
665249	4162848	0.03126	432.92	436.55	0.00	MONTH	ALL	09103124
665349	4162848	0.03159	421.29	439.30	0.00	MONTH	ALL	09103124
665449	4162848	0.03213	424.25	429.07	0.00	MONTH	ALL	09103124
665549	4162848	0.03253	419.85	424.88	0.00	MONTH	ALL	09103124
665649	4162848	0.03217	399.94	439.16	0.00	MONTH	ALL	09103124
665749	4162848	0.03322	406.61	430.18	0.00	MONTH	ALL	09103124
665849	4162848	0.03318	407.88	429.53	0.00	MONTH	ALL	09103124
665949	4162848	0.03200	426.25	426.25	0.00	MONTH	ALL	09103124
666049	4162848	0.03039	426.53	426.53	0.00	MONTH	ALL	09103124
666149	4162848	0.03009	419.52	422.39	0.00	MONTH	ALL	09103124
666249	4162848	0.03078	419.51	420.68	0.00	MONTH	ALL	09103124
666349	4162848	0.03024	397.72	426.16	0.00	MONTH	ALL	09103124
666449	4162848	0.03073	406.30	422.91	0.00	MONTH	ALL	09103124
666549	4162848	0.03150	402.22	422.91	0.00	MONTH	ALL	09103124
667649	4162848	0.02621	400.58	402.06	0.00	MONTH	ALL	09103124
668149	4162848	0.02580	382.93	398.89	0.00	MONTH	ALL	09103124
668649	4162848	0.02537	387.28	387.28	0.00	MONTH	ALL	09103124
669149	4162848	0.02500	367.87	397.82	0.00	MONTH	ALL	09103124
669649	4162848	0.02511	397.82	399.88	0.00	MONTH	ALL	09103124
670149	4162848	0.02460	388.69	389.95	0.00	MONTH	ALL	09103124
670649	4162848	0.02374	350.48	393.35	0.00	MONTH	ALL	09103124
671149	4162848	0.02303	360.08	386.47	0.00	MONTH	ALL	09103124
664649	4162948	0.02946	426.32	426.32	0.00	MONTH	ALL	09103124
664749	4162948	0.02986	430.47	432.20	0.00	MONTH	ALL	09103124

664849	4162948	0.03014	426.68	432.56	0.00	MONTH	ALL	09103124
664949	4162948	0.03026	416.58	433.45	0.00	MONTH	ALL	09103124
665049	4162948	0.03073	416.51	439.30	0.00	MONTH	ALL	09103124
665149	4162948	0.03167	430.23	438.79	0.00	MONTH	ALL	09103124
665249	4162948	0.03213	439.13	439.13	0.00	MONTH	ALL	09103124
665349	4162948	0.03321	435.53	435.53	0.00	MONTH	ALL	09103124
665449	4162948	0.03399	430.05	430.05	0.00	MONTH	ALL	09103124
665549	4162948	0.03433	418.06	432.71	0.00	MONTH	ALL	09103124
665649	4162948	0.03407	405.62	437.16	0.00	MONTH	ALL	09103124
665749	4162948	0.03521	424.79	424.79	0.00	MONTH	ALL	09103124
665849	4162948	0.03361	415.64	429.91	0.00	MONTH	ALL	09103124
665949	4162948	0.03301	426.79	426.79	0.00	MONTH	ALL	09103124
666049	4162948	0.03229	426.34	426.34	0.00	MONTH	ALL	09103124
666149	4162948	0.03273	405.44	428.74	0.00	MONTH	ALL	09103124
666249	4162948	0.03315	403.40	428.72	0.00	MONTH	ALL	09103124
666349	4162948	0.03287	397.37	426.16	0.00	MONTH	ALL	09103124
664649	4163048	0.02942	421.80	433.15	0.00	MONTH	ALL	09103124
664749	4163048	0.03004	430.83	430.83	0.00	MONTH	ALL	09103124
664849	4163048	0.03052	433.03	433.03	0.00	MONTH	ALL	09103124
664949	4163048	0.03109	428.05	429.61	0.00	MONTH	ALL	09103124
665049	4163048	0.03135	418.25	439.13	0.00	MONTH	ALL	09103124
665149	4163048	0.03250	426.21	439.13	0.00	MONTH	ALL	09103124
665249	4163048	0.03356	437.89	437.89	0.00	MONTH	ALL	09103124
665349	4163048	0.03496	430.23	438.83	0.00	MONTH	ALL	09103124
665449	4163048	0.03579	419.63	439.16	0.00	MONTH	ALL	09103124
665549	4163048	0.03661	414.96	433.61	0.00	MONTH	ALL	09103124
665649	4163048	0.03761	419.97	430.77	0.00	MONTH	ALL	09103124
665749	4163048	0.03785	429.91	429.91	0.00	MONTH	ALL	09103124
665849	4163048	0.03631	427.47	427.47	0.00	MONTH	ALL	09103124
665949	4163048	0.03422	408.32	429.91	0.00	MONTH	ALL	09103124
666049	4163048	0.03488	415.63	428.72	0.00	MONTH	ALL	09103124
666149	4163048	0.03694	418.78	418.78	0.00	MONTH	ALL	09103124
666249	4163048	0.03570	402.21	428.37	0.00	MONTH	ALL	09103124
664649	4163148	0.02931	415.77	433.45	0.00	MONTH	ALL	09103124
664749	4163148	0.03008	428.28	433.02	0.00	MONTH	ALL	09103124
664849	4163148	0.03054	433.37	433.37	0.00	MONTH	ALL	09103124
664949	4163148	0.03132	433.63	433.63	0.00	MONTH	ALL	09103124
665049	4163148	0.03230	431.43	431.43	0.00	MONTH	ALL	09103124
665149	4163148	0.03347	429.68	438.78	0.00	MONTH	ALL	09103124
665249	4163148	0.03490	437.47	437.47	0.00	MONTH	ALL	09103124
665349	4163148	0.03666	431.84	434.94	0.00	MONTH	ALL	09103124
665449	4163148	0.03897	423.58	433.98	0.00	MONTH	ALL	09103124
665549	4163148	0.04051	418.57	430.77	0.00	MONTH	ALL	09103124
665649	4163148	0.04307	430.61	430.61	0.00	MONTH	ALL	09103124
665749	4163148	0.04166	424.05	429.69	0.00	MONTH	ALL	09103124
665849	4163148	0.03953	421.50	428.51	0.00	MONTH	ALL	09103124
665949	4163148	0.03815	409.36	429.53	0.00	MONTH	ALL	09103124
666049	4163148	0.03920	397.89	429.91	0.00	MONTH	ALL	09103124
666149	4163148	0.03977	401.03	428.72	0.00	MONTH	ALL	09103124
666249	4163148	0.03905	396.13	428.37	0.00	MONTH	ALL	09103124
664649	4163248	0.02955	418.32	421.98	0.00	MONTH	ALL	09103124
664749	4163248	0.03016	426.32	426.32	0.00	MONTH	ALL	09103124
664849	4163248	0.03058	421.59	433.97	0.00	MONTH	ALL	09103124
664949	4163248	0.03159	428.21	432.73	0.00	MONTH	ALL	09103124
665049	4163248	0.03273	429.49	434.28	0.00	MONTH	ALL	09103124
665149	4163248	0.03370	437.04	438.10	0.00	MONTH	ALL	09103124

665249	4163248	0.03555	438.85	438.85	0.00	MONTH	ALL	09103124
665349	4163248	0.03882	428.96	443.93	0.00	MONTH	ALL	09103124
665449	4163248	0.04200	422.58	442.96	0.00	MONTH	ALL	09103124
665549	4163248	0.04753	427.16	427.16	0.00	MONTH	ALL	09103124
665649	4163248	0.04862	414.98	430.77	0.00	MONTH	ALL	09103124
665749	4163248	0.04785	410.53	430.77	0.00	MONTH	ALL	09103124
665849	4163248	0.04547	408.15	430.77	0.00	MONTH	ALL	09103124
665949	4163248	0.04539	393.58	430.77	0.00	MONTH	ALL	09103124
666649	4163248	0.02878	403.33	403.33	0.00	MONTH	ALL	09103124
665977	4163280	0.04945	392.47	430.77	0.00	MONTH	ALL	09103124
665927	4163302	0.05235	392.68	433.98	0.00	MONTH	ALL	09103124
665882	4163324	0.05567	394.36	437.31	0.00	MONTH	ALL	09103124
665838	4163350	0.06195	397.69	441.32	0.00	MONTH	ALL	09103124
665787	4163352	0.06395	395.26	444.23	0.00	MONTH	ALL	09103124
665734	4163353	0.06623	397.89	444.23	0.00	MONTH	ALL	09103124
665688	4163378	0.07297	401.85	444.23	0.00	MONTH	ALL	09103124
665661	4163427	0.08549	406.03	444.23	0.00	MONTH	ALL	09103124
665629	4163473	0.08243	411.13	444.23	0.00	MONTH	ALL	09103124
665587	4163505	0.07194	415.92	444.23	0.00	MONTH	ALL	09103124
665542	4163535	0.06827	426.57	443.47	0.00	MONTH	ALL	09103124
665346	4163608	0.04720	429.26	443.12	0.00	MONTH	ALL	09103124
665343	4163662	0.04837	431.40	443.12	0.00	MONTH	ALL	09103124
665343	4163717	0.04849	434.54	443.01	0.00	MONTH	ALL	09103124
665633	4163747	0.09686	432.90	432.90	0.00	MONTH	ALL	09103124
665673	4163750	0.10898	431.39	431.39	0.00	MONTH	ALL	09103124
665578	4163773	0.07888	430.88	444.23	0.00	MONTH	ALL	09103124
665633	4163773	0.09130	431.72	431.72	0.00	MONTH	ALL	09103124
665673	4163778	0.09897	430.64	430.64	0.00	MONTH	ALL	09103124
665751	4163781	0.08212	428.51	428.51	0.00	MONTH	ALL	09103124
665328	4163783	0.04646	436.45	441.97	0.00	MONTH	ALL	09103124
665525	4163787	0.08055	436.13	444.23	0.00	MONTH	ALL	09103124
665577	4163787	0.07798	429.16	444.23	0.00	MONTH	ALL	09103124
665476	4163790	0.07873	441.89	443.74	0.00	MONTH	ALL	09103124
665380	4163794	0.05779	441.15	441.15	0.00	MONTH	ALL	09103124
665430	4163806	0.06690	440.66	443.58	0.00	MONTH	ALL	09103124
665475	4163817	0.07032	437.31	444.23	0.00	MONTH	ALL	09103124
665749	4163848	0.06446	424.41	428.18	0.00	MONTH	ALL	09103124
665849	4163848	0.04423	408.58	441.32	0.00	MONTH	ALL	09103124
661149	4163348	0.02263	346.63	396.50	0.00	MONTH	ALL	09103124
661649	4163348	0.02310	371.59	371.59	0.00	MONTH	ALL	09103124
662149	4163348	0.02384	375.44	385.12	0.00	MONTH	ALL	09103124
662649	4163348	0.02480	376.08	376.08	0.00	MONTH	ALL	09103124
663149	4163348	0.02608	408.29	408.29	0.00	MONTH	ALL	09103124
663649	4163348	0.02711	405.83	421.45	0.00	MONTH	ALL	09103124
664149	4163348	0.02801	398.94	421.59	0.00	MONTH	ALL	09103124
664649	4163348	0.02999	418.42	420.96	0.00	MONTH	ALL	09103124
664749	4163348	0.03011	412.36	433.45	0.00	MONTH	ALL	09103124
664849	4163348	0.03050	408.79	433.97	0.00	MONTH	ALL	09103124
664949	4163348	0.03137	413.46	443.35	0.00	MONTH	ALL	09103124
665049	4163348	0.03308	429.01	429.01	0.00	MONTH	ALL	09103124
665149	4163348	0.03419	434.81	443.35	0.00	MONTH	ALL	09103124
665249	4163348	0.03534	443.72	443.72	0.00	MONTH	ALL	09103124
665349	4163348	0.03931	439.80	439.80	0.00	MONTH	ALL	09103124
665449	4163348	0.04638	429.39	440.02	0.00	MONTH	ALL	09103124
665549	4163348	0.05251	417.07	442.35	0.00	MONTH	ALL	09103124
665649	4163348	0.06219	410.71	432.52	0.00	MONTH	ALL	09103124

666449	4163348	0.03030	393.29	422.15	0.00	MONTH	ALL	09103124
666549	4163348	0.02908	396.22	422.15	0.00	MONTH	ALL	09103124
666649	4163348	0.02849	406.58	409.58	0.00	MONTH	ALL	09103124
667149	4163348	0.02726	404.66	404.66	0.00	MONTH	ALL	09103124
667649	4163348	0.02677	373.80	404.61	0.00	MONTH	ALL	09103124
668149	4163348	0.02627	375.00	404.28	0.00	MONTH	ALL	09103124
668649	4163348	0.02569	344.03	396.82	0.00	MONTH	ALL	09103124
669149	4163348	0.02544	354.83	404.55	0.00	MONTH	ALL	09103124
669649	4163348	0.02513	396.75	404.24	0.00	MONTH	ALL	09103124
670149	4163348	0.02399	362.74	404.28	0.00	MONTH	ALL	09103124
670649	4163348	0.02322	382.19	393.35	0.00	MONTH	ALL	09103124
671149	4163348	0.02254	349.62	391.56	0.00	MONTH	ALL	09103124
664649	4163448	0.03096	406.04	422.15	0.00	MONTH	ALL	09103124
664749	4163448	0.03026	402.34	433.97	0.00	MONTH	ALL	09103124
664849	4163448	0.03119	414.39	421.19	0.00	MONTH	ALL	09103124
664949	4163448	0.03237	422.73	422.73	0.00	MONTH	ALL	09103124
665049	4163448	0.03386	429.37	429.37	0.00	MONTH	ALL	09103124
665149	4163448	0.03532	435.31	436.77	0.00	MONTH	ALL	09103124
665249	4163448	0.03790	434.91	443.45	0.00	MONTH	ALL	09103124
665349	4163448	0.04170	436.85	438.14	0.00	MONTH	ALL	09103124
665449	4163448	0.05011	429.72	432.24	0.00	MONTH	ALL	09103124
665549	4163448	0.06007	419.90	436.31	0.00	MONTH	ALL	09103124
666349	4163448	0.03192	407.93	421.84	0.00	MONTH	ALL	09103124
666449	4163448	0.03029	404.67	422.15	0.00	MONTH	ALL	09103124
666549	4163448	0.02956	415.06	415.06	0.00	MONTH	ALL	09103124
666649	4163448	0.02873	409.59	415.40	0.00	MONTH	ALL	09103124
664649	4163548	0.03014	398.56	440.10	0.00	MONTH	ALL	09103124
664749	4163548	0.03123	406.41	439.55	0.00	MONTH	ALL	09103124
664849	4163548	0.03122	403.63	440.73	0.00	MONTH	ALL	09103124
664949	4163548	0.03232	411.26	440.12	0.00	MONTH	ALL	09103124
665049	4163548	0.03394	418.67	438.61	0.00	MONTH	ALL	09103124
665149	4163548	0.03611	421.50	443.45	0.00	MONTH	ALL	09103124
665249	4163548	0.03966	425.33	443.45	0.00	MONTH	ALL	09103124
666349	4163548	0.03230	407.22	422.15	0.00	MONTH	ALL	09103124
666449	4163548	0.03127	421.99	421.99	0.00	MONTH	ALL	09103124
666549	4163548	0.02982	411.38	422.15	0.00	MONTH	ALL	09103124
666649	4163548	0.02876	396.30	422.15	0.00	MONTH	ALL	09103124
664649	4163648	0.03058	411.58	439.55	0.00	MONTH	ALL	09103124
664749	4163648	0.03180	423.59	426.67	0.00	MONTH	ALL	09103124
664849	4163648	0.03231	416.14	440.70	0.00	MONTH	ALL	09103124
664949	4163648	0.03306	418.99	440.70	0.00	MONTH	ALL	09103124
665049	4163648	0.03417	414.59	449.65	0.00	MONTH	ALL	09103124
665149	4163648	0.03615	414.24	449.65	0.00	MONTH	ALL	09103124
665249	4163648	0.03988	418.76	444.23	0.00	MONTH	ALL	09103124
666249	4163648	0.03402	407.48	423.46	0.00	MONTH	ALL	09103124
666349	4163648	0.03254	420.32	420.32	0.00	MONTH	ALL	09103124
666449	4163648	0.03091	415.43	421.94	0.00	MONTH	ALL	09103124
666549	4163648	0.02956	400.80	422.15	0.00	MONTH	ALL	09103124
664649	4163748	0.03103	423.24	423.24	0.00	MONTH	ALL	09103124
664749	4163748	0.03169	431.55	431.55	0.00	MONTH	ALL	09103124
664849	4163748	0.03269	423.58	440.73	0.00	MONTH	ALL	09103124
664949	4163748	0.03352	434.15	436.55	0.00	MONTH	ALL	09103124
665049	4163748	0.03517	426.04	445.80	0.00	MONTH	ALL	09103124
665149	4163748	0.03699	422.41	449.65	0.00	MONTH	ALL	09103124
665249	4163748	0.04092	425.98	449.65	0.00	MONTH	ALL	09103124
666149	4163748	0.03445	402.32	433.06	0.00	MONTH	ALL	09103124

666249	4163748	0.03270	410.84	423.46	0.00	MONTH	ALL	09103124
666349	4163748	0.03146	415.60	423.46	0.00	MONTH	ALL	09103124
666449	4163748	0.03005	402.86	423.46	0.00	MONTH	ALL	09103124
665751	4163831	0.06777	426.30	426.30	0.00	MONTH	ALL	09103124
661149	4163848	0.02260	368.03	396.50	0.00	MONTH	ALL	09103124
661649	4163848	0.02302	348.17	396.49	0.00	MONTH	ALL	09103124
662149	4163848	0.02366	368.12	391.35	0.00	MONTH	ALL	09103124
662649	4163848	0.02497	397.70	400.42	0.00	MONTH	ALL	09103124
663149	4163848	0.02587	366.54	409.22	0.00	MONTH	ALL	09103124
663649	4163848	0.02759	403.15	409.35	0.00	MONTH	ALL	09103124
664149	4163848	0.02874	394.43	416.09	0.00	MONTH	ALL	09103124
664649	4163848	0.03096	420.24	439.55	0.00	MONTH	ALL	09103124
664749	4163848	0.03150	435.09	438.80	0.00	MONTH	ALL	09103124
664849	4163848	0.03209	438.80	438.80	0.00	MONTH	ALL	09103124
664949	4163848	0.03375	440.29	440.29	0.00	MONTH	ALL	09103124
665049	4163848	0.03584	438.94	440.71	0.00	MONTH	ALL	09103124
665149	4163848	0.03920	437.92	449.65	0.00	MONTH	ALL	09103124
665249	4163848	0.04309	438.13	438.13	0.00	MONTH	ALL	09103124
665349	4163848	0.05733	439.14	439.14	0.00	MONTH	ALL	09103124
665449	4163848	0.05879	436.51	443.74	0.00	MONTH	ALL	09103124
665549	4163848	0.06665	424.95	444.23	0.00	MONTH	ALL	09103124
665649	4163848	0.07038	417.72	444.23	0.00	MONTH	ALL	09103124
666049	4163848	0.03561	416.79	428.48	0.00	MONTH	ALL	09103124
666149	4163848	0.03326	415.36	428.48	0.00	MONTH	ALL	09103124
666249	4163848	0.03170	412.82	427.92	0.00	MONTH	ALL	09103124
666349	4163848	0.03083	415.63	422.77	0.00	MONTH	ALL	09103124
666649	4163848	0.02929	410.47	410.47	0.00	MONTH	ALL	09103124
667149	4163848	0.02842	387.15	421.12	0.00	MONTH	ALL	09103124
667649	4163848	0.02750	368.09	410.95	0.00	MONTH	ALL	09103124
668149	4163848	0.02680	353.59	404.74	0.00	MONTH	ALL	09103124
668649	4163848	0.02624	358.65	403.44	0.00	MONTH	ALL	09103124
669149	4163848	0.02548	380.99	403.27	0.00	MONTH	ALL	09103124
669649	4163848	0.02433	386.69	403.93	0.00	MONTH	ALL	09103124
664649	4163948	0.03083	413.28	440.10	0.00	MONTH	ALL	09103124
664749	4163948	0.03179	430.85	438.79	0.00	MONTH	ALL	09103124
664849	4163948	0.03256	429.35	440.38	0.00	MONTH	ALL	09103124
664949	4163948	0.03359	429.17	444.74	0.00	MONTH	ALL	09103124
665049	4163948	0.03667	438.67	446.27	0.00	MONTH	ALL	09103124
665149	4163948	0.03770	447.46	447.46	0.00	MONTH	ALL	09103124
665249	4163948	0.03872	443.62	449.57	0.00	MONTH	ALL	09103124
665349	4163948	0.04347	431.99	449.57	0.00	MONTH	ALL	09103124
665449	4163948	0.04953	427.70	439.03	0.00	MONTH	ALL	09103124
665549	4163948	0.05505	432.07	434.26	0.00	MONTH	ALL	09103124
665649	4163948	0.05708	423.27	435.64	0.00	MONTH	ALL	09103124
665749	4163948	0.04873	408.08	444.23	0.00	MONTH	ALL	09103124
665849	4163948	0.03994	412.63	429.10	0.00	MONTH	ALL	09103124
665949	4163948	0.03534	405.33	439.51	0.00	MONTH	ALL	09103124
666049	4163948	0.03404	422.72	428.95	0.00	MONTH	ALL	09103124
666149	4163948	0.03196	412.69	436.46	0.00	MONTH	ALL	09103124
666249	4163948	0.03140	425.47	425.82	0.00	MONTH	ALL	09103124
666349	4163948	0.03036	415.03	428.14	0.00	MONTH	ALL	09103124
666549	4163948	0.02970	415.16	416.59	0.00	MONTH	ALL	09103124
666649	4163948	0.02916	400.97	428.78	0.00	MONTH	ALL	09103124
664649	4164048	0.03117	416.46	438.79	0.00	MONTH	ALL	09103124
664749	4164048	0.03147	413.33	444.46	0.00	MONTH	ALL	09103124
664849	4164048	0.03180	411.23	449.65	0.00	MONTH	ALL	09103124

664949	4164048	0.03250	416.55	449.65	0.00	MONTH	ALL	09103124
665049	4164048	0.03389	424.02	449.65	0.00	MONTH	ALL	09103124
665149	4164048	0.03601	441.61	449.46	0.00	MONTH	ALL	09103124
665249	4164048	0.03557	444.86	444.86	0.00	MONTH	ALL	09103124
665349	4164048	0.04018	434.52	446.84	0.00	MONTH	ALL	09103124
665449	4164048	0.04423	425.00	446.84	0.00	MONTH	ALL	09103124
665549	4164048	0.04658	418.26	438.29	0.00	MONTH	ALL	09103124
665649	4164048	0.04784	425.24	428.20	0.00	MONTH	ALL	09103124
665749	4164048	0.04406	423.43	425.35	0.00	MONTH	ALL	09103124
665849	4164048	0.03809	426.63	426.63	0.00	MONTH	ALL	09103124
665949	4164048	0.03383	412.28	439.51	0.00	MONTH	ALL	09103124
666049	4164048	0.03283	426.05	434.35	0.00	MONTH	ALL	09103124
666149	4164048	0.03136	432.08	432.08	0.00	MONTH	ALL	09103124
666249	4164048	0.03092	424.67	428.46	0.00	MONTH	ALL	09103124
666349	4164048	0.02993	407.57	434.35	0.00	MONTH	ALL	09103124
666449	4164048	0.02989	413.98	429.26	0.00	MONTH	ALL	09103124
666549	4164048	0.02976	414.54	428.78	0.00	MONTH	ALL	09103124
666649	4164048	0.02922	396.25	429.26	0.00	MONTH	ALL	09103124
664649	4164148	0.03082	403.79	445.09	0.00	MONTH	ALL	09103124
664749	4164148	0.03135	413.43	445.39	0.00	MONTH	ALL	09103124
664849	4164148	0.03219	427.96	442.80	0.00	MONTH	ALL	09103124
664949	4164148	0.03223	436.31	444.39	0.00	MONTH	ALL	09103124
665049	4164148	0.03242	442.76	442.76	0.00	MONTH	ALL	09103124
665149	4164148	0.03315	446.17	446.17	0.00	MONTH	ALL	09103124
665249	4164148	0.03608	443.25	444.51	0.00	MONTH	ALL	09103124
665349	4164148	0.03869	425.09	449.57	0.00	MONTH	ALL	09103124
665449	4164148	0.04048	417.98	449.46	0.00	MONTH	ALL	09103124
665549	4164148	0.04215	417.43	422.59	0.00	MONTH	ALL	09103124
665649	4164148	0.04080	408.30	435.64	0.00	MONTH	ALL	09103124
665749	4164148	0.03955	418.94	428.71	0.00	MONTH	ALL	09103124
665849	4164148	0.03602	427.69	427.69	0.00	MONTH	ALL	09103124
665949	4164148	0.03280	432.13	434.00	0.00	MONTH	ALL	09103124
666049	4164148	0.03071	435.44	435.44	0.00	MONTH	ALL	09103124
666149	4164148	0.03119	423.64	439.51	0.00	MONTH	ALL	09103124
666249	4164148	0.03035	411.97	439.51	0.00	MONTH	ALL	09103124
666349	4164148	0.03012	413.61	433.55	0.00	MONTH	ALL	09103124
666449	4164148	0.03035	428.64	428.64	0.00	MONTH	ALL	09103124
666549	4164148	0.03009	419.95	429.26	0.00	MONTH	ALL	09103124
666649	4164148	0.02980	408.84	429.26	0.00	MONTH	ALL	09103124
664649	4164248	0.03141	420.30	420.30	0.00	MONTH	ALL	09103124
664749	4164248	0.03166	420.76	439.26	0.00	MONTH	ALL	09103124
664849	4164248	0.03200	433.78	433.78	0.00	MONTH	ALL	09103124
664949	4164248	0.03250	432.94	445.09	0.00	MONTH	ALL	09103124
665049	4164248	0.03258	439.32	444.36	0.00	MONTH	ALL	09103124
665149	4164248	0.03403	436.28	445.79	0.00	MONTH	ALL	09103124
665249	4164248	0.03573	437.06	443.30	0.00	MONTH	ALL	09103124
665349	4164248	0.03755	437.26	437.26	0.00	MONTH	ALL	09103124
665449	4164248	0.03872	427.52	437.33	0.00	MONTH	ALL	09103124
665549	4164248	0.03883	415.02	439.11	0.00	MONTH	ALL	09103124
665649	4164248	0.03774	409.06	423.94	0.00	MONTH	ALL	09103124
665749	4164248	0.03618	404.88	439.51	0.00	MONTH	ALL	09103124
665849	4164248	0.03444	420.76	439.27	0.00	MONTH	ALL	09103124
665949	4164248	0.03201	432.76	432.76	0.00	MONTH	ALL	09103124
666049	4164248	0.03009	438.63	438.63	0.00	MONTH	ALL	09103124
666149	4164248	0.03028	433.40	433.40	0.00	MONTH	ALL	09103124
666249	4164248	0.03069	430.09	430.09	0.00	MONTH	ALL	09103124

666349	4164248	0.03068	428.27	428.27	0.00	MONTH	ALL	09103124
666449	4164248	0.03056	428.42	428.42	0.00	MONTH	ALL	09103124
666549	4164248	0.03027	414.73	429.26	0.00	MONTH	ALL	09103124
666649	4164248	0.03026	410.84	428.30	0.00	MONTH	ALL	09103124
661149	4164348	0.02260	378.50	378.50	0.00	MONTH	ALL	09103124
661649	4164348	0.02307	374.12	391.30	0.00	MONTH	ALL	09103124
662149	4164348	0.02368	365.15	403.26	0.00	MONTH	ALL	09103124
662649	4164348	0.02442	359.83	402.91	0.00	MONTH	ALL	09103124
663149	4164348	0.02616	378.72	403.19	0.00	MONTH	ALL	09103124
663649	4164348	0.02793	391.84	394.09	0.00	MONTH	ALL	09103124
664149	4164348	0.02973	387.16	416.09	0.00	MONTH	ALL	09103124
664649	4164348	0.03145	415.07	427.39	0.00	MONTH	ALL	09103124
664749	4164348	0.03209	425.40	425.40	0.00	MONTH	ALL	09103124
664849	4164348	0.03237	426.14	432.91	0.00	MONTH	ALL	09103124
664949	4164348	0.03246	418.60	445.79	0.00	MONTH	ALL	09103124
665049	4164348	0.03348	431.36	433.65	0.00	MONTH	ALL	09103124
665149	4164348	0.03427	424.27	446.26	0.00	MONTH	ALL	09103124
665249	4164348	0.03513	422.44	446.26	0.00	MONTH	ALL	09103124
665349	4164348	0.03657	433.68	433.68	0.00	MONTH	ALL	09103124
665449	4164348	0.03715	429.62	431.94	0.00	MONTH	ALL	09103124
665549	4164348	0.03701	421.69	421.69	0.00	MONTH	ALL	09103124
665649	4164348	0.03602	414.63	414.63	0.00	MONTH	ALL	09103124
665749	4164348	0.03446	401.65	439.51	0.00	MONTH	ALL	09103124
665849	4164348	0.03324	411.67	439.51	0.00	MONTH	ALL	09103124
665949	4164348	0.03204	425.75	437.70	0.00	MONTH	ALL	09103124
666049	4164348	0.03134	425.18	439.51	0.00	MONTH	ALL	09103124
666149	4164348	0.03069	432.19	432.19	0.00	MONTH	ALL	09103124
666249	4164348	0.03078	421.34	434.86	0.00	MONTH	ALL	09103124
666349	4164348	0.03089	426.50	426.50	0.00	MONTH	ALL	09103124
666449	4164348	0.03096	428.59	428.59	0.00	MONTH	ALL	09103124
666549	4164348	0.03073	415.43	428.90	0.00	MONTH	ALL	09103124
666649	4164348	0.03089	416.14	422.56	0.00	MONTH	ALL	09103124
667149	4164348	0.02953	391.96	428.29	0.00	MONTH	ALL	09103124
667649	4164348	0.02836	377.95	416.75	0.00	MONTH	ALL	09103124
668149	4164348	0.02757	391.14	405.10	0.00	MONTH	ALL	09103124
668649	4164348	0.02604	384.07	409.08	0.00	MONTH	ALL	09103124
669149	4164348	0.02465	390.36	409.81	0.00	MONTH	ALL	09103124
669649	4164348	0.02361	377.07	397.86	0.00	MONTH	ALL	09103124
661149	4164848	0.02268	345.75	384.74	0.00	MONTH	ALL	09103124
661649	4164848	0.02320	381.10	383.18	0.00	MONTH	ALL	09103124
662149	4164848	0.02390	396.35	401.93	0.00	MONTH	ALL	09103124
662649	4164848	0.02498	397.17	403.38	0.00	MONTH	ALL	09103124
663149	4164848	0.02639	393.74	403.01	0.00	MONTH	ALL	09103124
663649	4164848	0.02878	393.31	409.01	0.00	MONTH	ALL	09103124
664149	4164848	0.03118	395.97	401.88	0.00	MONTH	ALL	09103124
664649	4164848	0.03222	393.29	416.65	0.00	MONTH	ALL	09103124
665149	4164848	0.03350	415.26	431.51	0.00	MONTH	ALL	09103124
665649	4164848	0.03379	414.04	425.28	0.00	MONTH	ALL	09103124
666149	4164848	0.03245	394.44	427.10	0.00	MONTH	ALL	09103124
666649	4164848	0.03305	419.26	422.15	0.00	MONTH	ALL	09103124
667149	4164848	0.03152	422.69	422.69	0.00	MONTH	ALL	09103124
667649	4164848	0.02894	395.94	421.63	0.00	MONTH	ALL	09103124
668149	4164848	0.02662	375.50	413.98	0.00	MONTH	ALL	09103124
668649	4164848	0.02509	390.82	416.25	0.00	MONTH	ALL	09103124
669149	4164848	0.02418	395.82	410.43	0.00	MONTH	ALL	09103124
669649	4164848	0.02347	360.41	403.59	0.00	MONTH	ALL	09103124

665335	4164979	0.03392	412.39	431.51	0.00	MONTH	ALL	09103124
665385	4164979	0.03412	412.42	427.83	0.00	MONTH	ALL	09103124
665285	4164980	0.03386	415.22	431.51	0.00	MONTH	ALL	09103124
665235	4164981	0.03420	422.96	429.82	0.00	MONTH	ALL	09103124
665200	4164982	0.03488	427.33	427.33	0.00	MONTH	ALL	09103124
665161	4164989	0.03501	429.48	429.48	0.00	MONTH	ALL	09103124
665449	4164998	0.03445	406.43	427.83	0.00	MONTH	ALL	09103124
665549	4164998	0.03525	406.43	420.44	0.00	MONTH	ALL	09103124
665649	4164998	0.03468	395.64	426.50	0.00	MONTH	ALL	09103124
665749	4164998	0.03509	404.01	417.70	0.00	MONTH	ALL	09103124
665849	4164998	0.03492	407.31	415.28	0.00	MONTH	ALL	09103124
665949	4164998	0.03389	394.43	417.37	0.00	MONTH	ALL	09103124
666049	4164998	0.03332	387.87	421.65	0.00	MONTH	ALL	09103124
666149	4164998	0.03411	412.83	416.66	0.00	MONTH	ALL	09103124
665390	4165024	0.03405	405.16	431.51	0.00	MONTH	ALL	09103124
665157	4165051	0.03532	429.69	429.69	0.00	MONTH	ALL	09103124
665390	4165074	0.03457	410.68	426.50	0.00	MONTH	ALL	09103124
665449	4165098	0.03505	404.39	426.50	0.00	MONTH	ALL	09103124
665549	4165098	0.03669	396.06	436.19	0.00	MONTH	ALL	09103124
665649	4165098	0.03747	396.70	424.61	0.00	MONTH	ALL	09103124
665749	4165098	0.03664	390.19	436.19	0.00	MONTH	ALL	09103124
665849	4165098	0.03504	387.09	424.61	0.00	MONTH	ALL	09103124
665949	4165098	0.03442	385.64	422.22	0.00	MONTH	ALL	09103124
666049	4165098	0.03423	385.86	421.65	0.00	MONTH	ALL	09103124
666149	4165098	0.03467	403.41	416.66	0.00	MONTH	ALL	09103124
665153	4165101	0.03554	427.83	427.83	0.00	MONTH	ALL	09103124
665390	4165124	0.03493	410.89	426.50	0.00	MONTH	ALL	09103124
665150	4165151	0.03590	428.40	428.40	0.00	MONTH	ALL	09103124
665390	4165174	0.03510	405.72	430.33	0.00	MONTH	ALL	09103124
665449	4165198	0.03609	402.88	436.19	0.00	MONTH	ALL	09103124
665749	4165198	0.04045	414.66	416.54	0.00	MONTH	ALL	09103124
665849	4165198	0.03720	404.68	416.54	0.00	MONTH	ALL	09103124
665949	4165198	0.03605	394.65	416.54	0.00	MONTH	ALL	09103124
666049	4165198	0.03525	381.82	438.72	0.00	MONTH	ALL	09103124
666149	4165198	0.03500	386.33	421.26	0.00	MONTH	ALL	09103124
665146	4165200	0.03623	428.35	428.35	0.00	MONTH	ALL	09103124
665390	4165224	0.03556	406.09	436.19	0.00	MONTH	ALL	09103124
665142	4165250	0.03649	426.51	426.51	0.00	MONTH	ALL	09103124
665390	4165274	0.03604	407.31	436.19	0.00	MONTH	ALL	09103124
665449	4165298	0.03770	413.88	436.19	0.00	MONTH	ALL	09103124
665749	4165298	0.03899	401.37	438.72	0.00	MONTH	ALL	09103124
665849	4165298	0.03729	391.01	438.72	0.00	MONTH	ALL	09103124
665949	4165298	0.03746	401.00	411.02	0.00	MONTH	ALL	09103124
666049	4165298	0.03686	400.01	410.70	0.00	MONTH	ALL	09103124
666149	4165298	0.03574	380.74	438.72	0.00	MONTH	ALL	09103124
665139	4165300	0.03687	426.08	426.08	0.00	MONTH	ALL	09103124
665390	4165324	0.03660	415.76	435.46	0.00	MONTH	ALL	09103124
661149	4165348	0.02259	356.76	384.63	0.00	MONTH	ALL	09103124
661649	4165348	0.02321	368.82	388.18	0.00	MONTH	ALL	09103124
662149	4165348	0.02410	375.83	388.26	0.00	MONTH	ALL	09103124
662649	4165348	0.02498	392.20	396.56	0.00	MONTH	ALL	09103124
663149	4165348	0.02683	400.73	415.01	0.00	MONTH	ALL	09103124
663649	4165348	0.03010	412.86	412.86	0.00	MONTH	ALL	09103124
664149	4165348	0.03279	388.54	418.83	0.00	MONTH	ALL	09103124
664649	4165348	0.03583	398.20	424.94	0.00	MONTH	ALL	09103124
666649	4165348	0.03469	414.35	416.33	0.00	MONTH	ALL	09103124

667149	4165348	0.03134	406.41	415.32	0.00	MONTH	ALL	09103124
667649	4165348	0.02781	391.12	428.36	0.00	MONTH	ALL	09103124
668149	4165348	0.02601	391.74	416.51	0.00	MONTH	ALL	09103124
668649	4165348	0.02525	412.23	415.19	0.00	MONTH	ALL	09103124
669149	4165348	0.02432	372.41	415.78	0.00	MONTH	ALL	09103124
669649	4165348	0.02391	380.67	386.14	0.00	MONTH	ALL	09103124
665128	4165349	0.03723	425.67	425.67	0.00	MONTH	ALL	09103124
665390	4165374	0.03724	424.46	429.43	0.00	MONTH	ALL	09103124
665115	4165397	0.03778	426.40	426.40	0.00	MONTH	ALL	09103124
665449	4165398	0.03948	423.43	436.19	0.00	MONTH	ALL	09103124
665549	4165398	0.05090	426.84	436.19	0.00	MONTH	ALL	09103124
665649	4165398	0.04336	424.23	424.23	0.00	MONTH	ALL	09103124
665749	4165398	0.03942	408.31	438.72	0.00	MONTH	ALL	09103124
665849	4165398	0.03948	414.22	414.22	0.00	MONTH	ALL	09103124
665949	4165398	0.03853	405.10	438.66	0.00	MONTH	ALL	09103124
666049	4165398	0.03741	393.35	438.72	0.00	MONTH	ALL	09103124
666149	4165398	0.03719	396.40	396.89	0.00	MONTH	ALL	09103124
665390	4165424	0.03805	429.53	429.53	0.00	MONTH	ALL	09103124
665101	4165445	0.03831	426.39	426.39	0.00	MONTH	ALL	09103124
665390	4165474	0.03881	430.84	430.84	0.00	MONTH	ALL	09103124
665095	4165494	0.03912	427.78	427.78	0.00	MONTH	ALL	09103124
665449	4165498	0.04100	434.98	434.98	0.00	MONTH	ALL	09103124
665549	4165498	0.04529	434.83	434.83	0.00	MONTH	ALL	09103124
665649	4165498	0.04329	416.27	438.72	0.00	MONTH	ALL	09103124
665749	4165498	0.04187	414.02	438.72	0.00	MONTH	ALL	09103124
665849	4165498	0.04165	420.31	438.66	0.00	MONTH	ALL	09103124
665949	4165498	0.04019	414.73	414.73	0.00	MONTH	ALL	09103124
666049	4165498	0.03913	406.26	409.27	0.00	MONTH	ALL	09103124
666149	4165498	0.03784	388.26	438.72	0.00	MONTH	ALL	09103124
665390	4165524	0.03992	429.06	434.92	0.00	MONTH	ALL	09103124
665099	4165544	0.03957	430.81	430.81	0.00	MONTH	ALL	09103124
665390	4165574	0.04053	422.82	435.46	0.00	MONTH	ALL	09103124
665103	4165594	0.04035	431.16	431.16	0.00	MONTH	ALL	09103124
665449	4165598	0.04235	432.31	432.31	0.00	MONTH	ALL	09103124
665549	4165598	0.04558	435.56	435.56	0.00	MONTH	ALL	09103124
665649	4165598	0.04724	437.53	438.41	0.00	MONTH	ALL	09103124
665749	4165598	0.04667	434.95	437.66	0.00	MONTH	ALL	09103124
665849	4165598	0.04322	416.70	438.72	0.00	MONTH	ALL	09103124
665949	4165598	0.04075	398.79	438.72	0.00	MONTH	ALL	09103124
666049	4165598	0.03988	391.84	438.72	0.00	MONTH	ALL	09103124
666149	4165598	0.03887	389.83	438.72	0.00	MONTH	ALL	09103124
665390	4165624	0.04128	420.95	435.51	0.00	MONTH	ALL	09103124
665107	4165644	0.04106	432.10	432.10	0.00	MONTH	ALL	09103124
665390	4165674	0.04215	418.75	439.44	0.00	MONTH	ALL	09103124
665111	4165693	0.04234	432.02	432.02	0.00	MONTH	ALL	09103124
665449	4165698	0.04462	426.05	439.03	0.00	MONTH	ALL	09103124
665849	4165698	0.04660	423.48	424.04	0.00	MONTH	ALL	09103124
665949	4165698	0.04335	406.10	438.72	0.00	MONTH	ALL	09103124
666049	4165698	0.04115	390.88	439.67	0.00	MONTH	ALL	09103124
666149	4165698	0.04015	402.13	416.71	0.00	MONTH	ALL	09103124
665390	4165724	0.04394	423.63	436.83	0.00	MONTH	ALL	09103124
665103	4165742	0.04393	428.39	434.03	0.00	MONTH	ALL	09103124
665391	4165774	0.04563	430.80	436.33	0.00	MONTH	ALL	09103124
665091	4165791	0.04507	423.03	439.52	0.00	MONTH	ALL	09103124
663649	4165798	0.03000	390.80	417.98	0.00	MONTH	ALL	09103124
663749	4165798	0.03114	400.49	417.98	0.00	MONTH	ALL	09103124

663849	4165798	0.03296	415.66	415.66	0.00	MONTH	ALL	09103124
663949	4165798	0.03469	416.93	416.93	0.00	MONTH	ALL	09103124
664049	4165798	0.03642	413.86	413.86	0.00	MONTH	ALL	09103124
664149	4165798	0.03858	414.80	422.85	0.00	MONTH	ALL	09103124
664249	4165798	0.04074	421.38	421.38	0.00	MONTH	ALL	09103124
664349	4165798	0.04103	416.19	428.18	0.00	MONTH	ALL	09103124
664449	4165798	0.04197	407.78	434.69	0.00	MONTH	ALL	09103124
664549	4165798	0.04374	407.18	435.75	0.00	MONTH	ALL	09103124
664649	4165798	0.04605	423.03	423.03	0.00	MONTH	ALL	09103124
664749	4165798	0.04598	428.86	428.86	0.00	MONTH	ALL	09103124
664849	4165798	0.04483	421.33	437.55	0.00	MONTH	ALL	09103124
664949	4165798	0.04395	419.26	435.13	0.00	MONTH	ALL	09103124
665449	4165798	0.04803	431.12	431.12	0.00	MONTH	ALL	09103124
665749	4165798	0.04923	413.05	439.67	0.00	MONTH	ALL	09103124
665849	4165798	0.04629	409.58	439.67	0.00	MONTH	ALL	09103124
665949	4165798	0.04396	399.12	439.67	0.00	MONTH	ALL	09103124
666049	4165798	0.04216	400.72	430.04	0.00	MONTH	ALL	09103124
666149	4165798	0.04118	411.75	418.23	0.00	MONTH	ALL	09103124
665391	4165824	0.04709	433.54	433.54	0.00	MONTH	ALL	09103124
665079	4165839	0.04572	418.97	448.24	0.00	MONTH	ALL	09103124
661149	4165848	0.02264	354.16	375.96	0.00	MONTH	ALL	09103124
661649	4165848	0.02312	379.01	379.01	0.00	MONTH	ALL	09103124
662149	4165848	0.02381	378.55	385.60	0.00	MONTH	ALL	09103124
662649	4165848	0.02506	368.83	394.67	0.00	MONTH	ALL	09103124
663149	4165848	0.02713	396.27	396.27	0.00	MONTH	ALL	09103124
666649	4165848	0.03423	378.56	414.10	0.00	MONTH	ALL	09103124
667149	4165848	0.03012	399.62	424.90	0.00	MONTH	ALL	09103124
667649	4165848	0.02830	419.43	419.43	0.00	MONTH	ALL	09103124
668149	4165848	0.02698	419.71	419.71	0.00	MONTH	ALL	09103124
668649	4165848	0.02564	390.77	420.88	0.00	MONTH	ALL	09103124
669149	4165848	0.02497	401.57	409.56	0.00	MONTH	ALL	09103124
669649	4165848	0.02412	366.18	405.26	0.00	MONTH	ALL	09103124
665391	4165874	0.04980	434.90	446.57	0.00	MONTH	ALL	09103124
665051	4165881	0.04742	428.35	438.74	0.00	MONTH	ALL	09103124
663649	4165898	0.03063	400.61	400.61	0.00	MONTH	ALL	09103124
663749	4165898	0.03160	401.57	417.63	0.00	MONTH	ALL	09103124
663849	4165898	0.03281	405.50	417.98	0.00	MONTH	ALL	09103124
663949	4165898	0.03430	407.38	417.98	0.00	MONTH	ALL	09103124
664049	4165898	0.03570	400.05	434.00	0.00	MONTH	ALL	09103124
664149	4165898	0.03865	409.10	434.00	0.00	MONTH	ALL	09103124
664249	4165898	0.04264	421.98	421.98	0.00	MONTH	ALL	09103124
664349	4165898	0.04468	426.31	426.31	0.00	MONTH	ALL	09103124
664449	4165898	0.04442	414.53	434.69	0.00	MONTH	ALL	09103124
664549	4165898	0.04612	407.20	450.13	0.00	MONTH	ALL	09103124
664649	4165898	0.04866	417.17	450.13	0.00	MONTH	ALL	09103124
664749	4165898	0.04933	431.51	431.51	0.00	MONTH	ALL	09103124
664849	4165898	0.04832	432.94	432.94	0.00	MONTH	ALL	09103124
664949	4165898	0.04718	421.81	447.51	0.00	MONTH	ALL	09103124
665449	4165898	0.05904	434.30	444.62	0.00	MONTH	ALL	09103124
665549	4165898	0.06003	430.45	430.45	0.00	MONTH	ALL	09103124
665649	4165898	0.06342	427.96	427.96	0.00	MONTH	ALL	09103124
665749	4165898	0.05116	420.84	427.99	0.00	MONTH	ALL	09103124
665849	4165898	0.04700	403.28	439.67	0.00	MONTH	ALL	09103124
665949	4165898	0.04506	407.75	430.04	0.00	MONTH	ALL	09103124
666049	4165898	0.04332	414.61	425.40	0.00	MONTH	ALL	09103124
666149	4165898	0.04218	419.00	419.00	0.00	MONTH	ALL	09103124

665024	4165923	0.04838	430.29	441.87	0.00	MONTH	ALL	09103124
665391	4165924	0.05397	439.68	445.91	0.00	MONTH	ALL	09103124
664997	4165965	0.05019	429.40	448.24	0.00	MONTH	ALL	09103124
665391	4165975	0.06922	443.95	443.95	0.00	MONTH	ALL	09103124
663649	4165998	0.03068	392.23	401.70	0.00	MONTH	ALL	09103124
663749	4165998	0.03173	391.72	417.98	0.00	MONTH	ALL	09103124
663849	4165998	0.03275	391.79	417.98	0.00	MONTH	ALL	09103124
663949	4165998	0.03401	392.83	433.24	0.00	MONTH	ALL	09103124
664049	4165998	0.03579	393.44	434.69	0.00	MONTH	ALL	09103124
664149	4165998	0.03861	402.19	434.69	0.00	MONTH	ALL	09103124
664249	4165998	0.04285	415.84	434.69	0.00	MONTH	ALL	09103124
664349	4165998	0.04735	432.13	432.13	0.00	MONTH	ALL	09103124
664449	4165998	0.04858	422.98	434.69	0.00	MONTH	ALL	09103124
664549	4165998	0.05033	417.39	450.13	0.00	MONTH	ALL	09103124
664649	4165998	0.05408	422.85	450.13	0.00	MONTH	ALL	09103124
664749	4165998	0.05477	427.76	450.13	0.00	MONTH	ALL	09103124
664849	4165998	0.05182	439.84	439.84	0.00	MONTH	ALL	09103124
665449	4165998	0.05703	439.95	439.95	0.00	MONTH	ALL	09103124
665549	4165998	0.05827	423.72	446.57	0.00	MONTH	ALL	09103124
665649	4165998	0.05791	417.55	443.67	0.00	MONTH	ALL	09103124
665749	4165998	0.05295	413.13	430.78	0.00	MONTH	ALL	09103124
665849	4165998	0.05030	421.60	429.52	0.00	MONTH	ALL	09103124
665949	4165998	0.04731	427.93	430.04	0.00	MONTH	ALL	09103124
666049	4165998	0.04392	414.70	430.04	0.00	MONTH	ALL	09103124
666149	4165998	0.04206	407.64	430.04	0.00	MONTH	ALL	09103124
665391	4166006	0.06773	443.75	443.75	0.00	MONTH	ALL	09103124
664969	4166007	0.05169	431.80	447.51	0.00	MONTH	ALL	09103124
664942	4166048	0.05387	432.59	448.20	0.00	MONTH	ALL	09103124
665391	4166052	0.05747	440.83	443.81	0.00	MONTH	ALL	09103124
664910	4166086	0.05549	439.14	443.95	0.00	MONTH	ALL	09103124
663649	4166098	0.03044	380.39	417.63	0.00	MONTH	ALL	09103124
663749	4166098	0.03185	387.68	391.59	0.00	MONTH	ALL	09103124
663849	4166098	0.03351	392.86	409.13	0.00	MONTH	ALL	09103124
663949	4166098	0.03501	399.56	416.78	0.00	MONTH	ALL	09103124
664049	4166098	0.03711	405.88	422.05	0.00	MONTH	ALL	09103124
664149	4166098	0.03879	397.44	434.69	0.00	MONTH	ALL	09103124
664249	4166098	0.04327	412.20	434.69	0.00	MONTH	ALL	09103124
664349	4166098	0.04939	425.49	434.69	0.00	MONTH	ALL	09103124
664449	4166098	0.05331	427.84	427.84	0.00	MONTH	ALL	09103124
664549	4166098	0.05440	419.95	450.13	0.00	MONTH	ALL	09103124
664649	4166098	0.06012	430.81	450.13	0.00	MONTH	ALL	09103124
664749	4166098	0.05996	438.51	450.13	0.00	MONTH	ALL	09103124
665449	4166098	0.05844	436.38	436.38	0.00	MONTH	ALL	09103124
665549	4166098	0.06203	426.27	438.56	0.00	MONTH	ALL	09103124
665649	4166098	0.06025	418.58	423.38	0.00	MONTH	ALL	09103124
665749	4166098	0.05510	419.64	419.64	0.00	MONTH	ALL	09103124
665849	4166098	0.04963	419.52	426.58	0.00	MONTH	ALL	09103124
665949	4166098	0.04751	419.66	430.04	0.00	MONTH	ALL	09103124
666049	4166098	0.04582	417.82	417.82	0.00	MONTH	ALL	09103124
666149	4166098	0.04398	413.36	415.59	0.00	MONTH	ALL	09103124
665391	4166102	0.05831	436.48	437.95	0.00	MONTH	ALL	09103124
664873	4166120	0.05825	443.05	443.05	0.00	MONTH	ALL	09103124
665391	4166152	0.06185	432.24	436.47	0.00	MONTH	ALL	09103124
664836	4166154	0.06203	445.08	445.08	0.00	MONTH	ALL	09103124
664799	4166188	0.06592	447.59	450.13	0.00	MONTH	ALL	09103124
663649	4166198	0.03076	381.46	401.88	0.00	MONTH	ALL	09103124

663749	4166198	0.03191	387.97	412.63	0.00	MONTH	ALL	09103124
663849	4166198	0.03355	392.24	422.05	0.00	MONTH	ALL	09103124
663949	4166198	0.03583	399.39	424.84	0.00	MONTH	ALL	09103124
664049	4166198	0.03861	410.49	423.94	0.00	MONTH	ALL	09103124
664149	4166198	0.04165	419.01	422.05	0.00	MONTH	ALL	09103124
664249	4166198	0.04347	406.89	434.69	0.00	MONTH	ALL	09103124
664349	4166198	0.04840	411.08	435.62	0.00	MONTH	ALL	09103124
664449	4166198	0.05718	428.16	432.35	0.00	MONTH	ALL	09103124
664549	4166198	0.06081	431.09	431.09	0.00	MONTH	ALL	09103124
664649	4166198	0.06567	435.77	450.13	0.00	MONTH	ALL	09103124
665449	4166198	0.06737	430.77	435.18	0.00	MONTH	ALL	09103124
665549	4166198	0.06763	427.53	433.35	0.00	MONTH	ALL	09103124
665649	4166198	0.05880	412.51	437.97	0.00	MONTH	ALL	09103124
665749	4166198	0.05314	412.53	420.30	0.00	MONTH	ALL	09103124
665849	4166198	0.05031	410.62	423.07	0.00	MONTH	ALL	09103124
665949	4166198	0.04995	420.31	422.57	0.00	MONTH	ALL	09103124
666049	4166198	0.04763	416.05	416.05	0.00	MONTH	ALL	09103124
666149	4166198	0.04446	411.95	421.50	0.00	MONTH	ALL	09103124
665391	4166202	0.06728	429.13	434.95	0.00	MONTH	ALL	09103124
664763	4166222	0.06999	447.38	447.38	0.00	MONTH	ALL	09103124
665391	4166252	0.07054	421.73	444.76	0.00	MONTH	ALL	09103124
664733	4166261	0.07476	444.99	444.99	0.00	MONTH	ALL	09103124
663649	4166298	0.03132	392.00	392.00	0.00	MONTH	ALL	09103124
663749	4166298	0.03259	395.65	398.48	0.00	MONTH	ALL	09103124
663849	4166298	0.03411	399.85	413.00	0.00	MONTH	ALL	09103124
663949	4166298	0.03658	410.04	411.59	0.00	MONTH	ALL	09103124
664049	4166298	0.03935	411.33	413.51	0.00	MONTH	ALL	09103124
664149	4166298	0.04303	417.69	424.84	0.00	MONTH	ALL	09103124
664249	4166298	0.04667	420.88	420.88	0.00	MONTH	ALL	09103124
664349	4166298	0.05153	420.49	420.49	0.00	MONTH	ALL	09103124
664449	4166298	0.05882	422.97	433.39	0.00	MONTH	ALL	09103124
664549	4166298	0.06709	430.53	436.56	0.00	MONTH	ALL	09103124
664649	4166298	0.07267	438.98	438.98	0.00	MONTH	ALL	09103124
665449	4166298	0.06948	413.30	446.52	0.00	MONTH	ALL	09103124
665549	4166298	0.06602	421.29	428.03	0.00	MONTH	ALL	09103124
665649	4166298	0.05778	408.72	436.61	0.00	MONTH	ALL	09103124
665749	4166298	0.05362	396.95	444.99	0.00	MONTH	ALL	09103124
665849	4166298	0.05404	414.14	422.12	0.00	MONTH	ALL	09103124
665949	4166298	0.05309	422.16	422.16	0.00	MONTH	ALL	09103124
666049	4166298	0.04644	402.88	423.07	0.00	MONTH	ALL	09103124
666149	4166298	0.04358	416.55	421.50	0.00	MONTH	ALL	09103124
665391	4166302	0.07147	411.57	449.91	0.00	MONTH	ALL	09103124
664710	4166306	0.07920	442.28	442.28	0.00	MONTH	ALL	09103124
661149	4166348	0.02294	351.99	377.87	0.00	MONTH	ALL	09103124
661649	4166348	0.02333	340.49	386.11	0.00	MONTH	ALL	09103124
662149	4166348	0.02393	350.56	385.75	0.00	MONTH	ALL	09103124
662649	4166348	0.02483	359.23	385.64	0.00	MONTH	ALL	09103124
663149	4166348	0.02672	379.46	390.79	0.00	MONTH	ALL	09103124
666649	4166348	0.03467	392.76	413.22	0.00	MONTH	ALL	09103124
667149	4166348	0.03074	368.36	411.73	0.00	MONTH	ALL	09103124
667649	4166348	0.02894	396.60	422.20	0.00	MONTH	ALL	09103124
668149	4166348	0.02733	400.58	420.64	0.00	MONTH	ALL	09103124
668649	4166348	0.02632	415.44	415.44	0.00	MONTH	ALL	09103124
669149	4166348	0.02513	389.36	408.98	0.00	MONTH	ALL	09103124
669649	4166348	0.02448	392.93	403.89	0.00	MONTH	ALL	09103124
664687	4166350	0.08198	439.72	439.72	0.00	MONTH	ALL	09103124

665391	4166352	0.07267	410.62	449.91	0.00	MONTH	ALL	09103124
664664	4166394	0.08441	437.26	437.26	0.00	MONTH	ALL	09103124
663649	4166398	0.03121	389.13	399.58	0.00	MONTH	ALL	09103124
663749	4166398	0.03287	394.98	405.14	0.00	MONTH	ALL	09103124
663849	4166398	0.03468	401.36	412.63	0.00	MONTH	ALL	09103124
663949	4166398	0.03663	404.34	413.08	0.00	MONTH	ALL	09103124
664049	4166398	0.03895	405.94	412.90	0.00	MONTH	ALL	09103124
664149	4166398	0.04205	405.62	424.84	0.00	MONTH	ALL	09103124
664249	4166398	0.04670	411.21	423.98	0.00	MONTH	ALL	09103124
664349	4166398	0.05053	406.52	440.57	0.00	MONTH	ALL	09103124
664449	4166398	0.05759	409.43	450.13	0.00	MONTH	ALL	09103124
664549	4166398	0.07148	423.84	441.28	0.00	MONTH	ALL	09103124
665449	4166398	0.06964	409.48	439.13	0.00	MONTH	ALL	09103124
665549	4166398	0.06277	399.36	446.52	0.00	MONTH	ALL	09103124
665649	4166398	0.06063	403.58	434.72	0.00	MONTH	ALL	09103124
665749	4166398	0.05757	394.06	436.61	0.00	MONTH	ALL	09103124
665849	4166398	0.05620	409.30	422.12	0.00	MONTH	ALL	09103124
665949	4166398	0.05120	416.06	420.95	0.00	MONTH	ALL	09103124
666049	4166398	0.04549	408.69	421.20	0.00	MONTH	ALL	09103124
666149	4166398	0.04202	396.99	423.03	0.00	MONTH	ALL	09103124
665391	4166402	0.07423	415.41	439.13	0.00	MONTH	ALL	09103124
664641	4166439	0.08634	436.49	436.49	0.00	MONTH	ALL	09103124
665391	4166452	0.08098	427.18	434.02	0.00	MONTH	ALL	09103124
664618	4166483	0.08639	440.19	440.19	0.00	MONTH	ALL	09103124
663649	4166498	0.03094	378.83	415.11	0.00	MONTH	ALL	09103124
663749	4166498	0.03243	380.86	422.85	0.00	MONTH	ALL	09103124
663849	4166498	0.03441	383.66	427.69	0.00	MONTH	ALL	09103124
663949	4166498	0.03666	387.05	433.96	0.00	MONTH	ALL	09103124
664049	4166498	0.03901	389.81	439.56	0.00	MONTH	ALL	09103124
664149	4166498	0.04173	391.83	440.57	0.00	MONTH	ALL	09103124
664249	4166498	0.04570	398.68	440.57	0.00	MONTH	ALL	09103124
664349	4166498	0.05329	412.94	440.57	0.00	MONTH	ALL	09103124
664449	4166498	0.06311	421.73	440.57	0.00	MONTH	ALL	09103124
664549	4166498	0.07688	432.11	440.57	0.00	MONTH	ALL	09103124
665449	4166498	0.08060	425.95	433.57	0.00	MONTH	ALL	09103124
665549	4166498	0.07073	410.57	436.51	0.00	MONTH	ALL	09103124
665649	4166498	0.06642	402.70	434.02	0.00	MONTH	ALL	09103124
665749	4166498	0.05978	394.17	433.79	0.00	MONTH	ALL	09103124
665849	4166498	0.05212	391.22	427.10	0.00	MONTH	ALL	09103124
665949	4166498	0.04849	403.23	422.12	0.00	MONTH	ALL	09103124
666049	4166498	0.04654	412.91	412.91	0.00	MONTH	ALL	09103124
666149	4166498	0.04223	389.26	423.03	0.00	MONTH	ALL	09103124
665391	4166502	0.08480	433.28	433.28	0.00	MONTH	ALL	09103124
664594	4166527	0.08508	440.02	440.02	0.00	MONTH	ALL	09103124
665391	4166552	0.08889	431.28	431.28	0.00	MONTH	ALL	09103124
664561	4166563	0.08075	439.47	439.47	0.00	MONTH	ALL	09103124
664523	4166597	0.07637	439.07	439.07	0.00	MONTH	ALL	09103124
663649	4166598	0.03117	379.35	427.14	0.00	MONTH	ALL	09103124
663749	4166598	0.03287	389.55	422.17	0.00	MONTH	ALL	09103124
663849	4166598	0.03509	397.78	422.17	0.00	MONTH	ALL	09103124
663949	4166598	0.03781	401.31	422.85	0.00	MONTH	ALL	09103124
664049	4166598	0.04095	400.08	434.23	0.00	MONTH	ALL	09103124
664149	4166598	0.04557	408.19	434.23	0.00	MONTH	ALL	09103124
664249	4166598	0.05143	415.86	439.24	0.00	MONTH	ALL	09103124
664349	4166598	0.05663	413.94	440.05	0.00	MONTH	ALL	09103124
664449	4166598	0.06888	433.32	439.24	0.00	MONTH	ALL	09103124

665449	4166598	0.09039	425.75	425.75	0.00	MONTH	ALL	09103124
665549	4166598	0.08368	422.16	427.10	0.00	MONTH	ALL	09103124
665649	4166598	0.06900	408.93	428.85	0.00	MONTH	ALL	09103124
665749	4166598	0.05990	411.58	416.93	0.00	MONTH	ALL	09103124
665849	4166598	0.05207	392.06	427.10	0.00	MONTH	ALL	09103124
665949	4166598	0.04828	389.06	422.56	0.00	MONTH	ALL	09103124
666049	4166598	0.04605	395.72	418.86	0.00	MONTH	ALL	09103124
666149	4166598	0.04379	393.88	416.65	0.00	MONTH	ALL	09103124
665391	4166602	0.09325	423.66	434.89	0.00	MONTH	ALL	09103124
664492	4166635	0.07610	439.36	439.36	0.00	MONTH	ALL	09103124
665391	4166652	0.09415	412.62	438.82	0.00	MONTH	ALL	09103124
664465	4166677	0.07875	437.04	439.34	0.00	MONTH	ALL	09103124
663649	4166698	0.03169	388.74	427.14	0.00	MONTH	ALL	09103124
663749	4166698	0.03290	383.67	427.69	0.00	MONTH	ALL	09103124
663849	4166698	0.03521	399.98	422.85	0.00	MONTH	ALL	09103124
663949	4166698	0.03866	413.15	419.96	0.00	MONTH	ALL	09103124
664049	4166698	0.04274	418.28	421.44	0.00	MONTH	ALL	09103124
664149	4166698	0.04597	407.52	434.92	0.00	MONTH	ALL	09103124
664249	4166698	0.05624	425.90	429.61	0.00	MONTH	ALL	09103124
664349	4166698	0.06560	427.48	434.70	0.00	MONTH	ALL	09103124
665449	4166698	0.09200	406.67	438.80	0.00	MONTH	ALL	09103124
665549	4166698	0.08012	416.34	424.83	0.00	MONTH	ALL	09103124
665649	4166698	0.06896	418.56	421.81	0.00	MONTH	ALL	09103124
665749	4166698	0.06000	406.70	422.68	0.00	MONTH	ALL	09103124
665849	4166698	0.05360	391.99	424.83	0.00	MONTH	ALL	09103124
665949	4166698	0.04997	389.14	421.81	0.00	MONTH	ALL	09103124
666049	4166698	0.04691	389.24	421.58	0.00	MONTH	ALL	09103124
666149	4166698	0.04411	389.24	421.58	0.00	MONTH	ALL	09103124
665391	4166702	0.10114	412.37	437.90	0.00	MONTH	ALL	09103124
664433	4166714	0.07720	434.87	434.87	0.00	MONTH	ALL	09103124
664389	4166737	0.07115	434.17	434.17	0.00	MONTH	ALL	09103124
665392	4166752	0.10557	415.66	432.55	0.00	MONTH	ALL	09103124
664344	4166760	0.06506	434.02	434.02	0.00	MONTH	ALL	09103124
664299	4166782	0.05979	432.60	432.60	0.00	MONTH	ALL	09103124
663649	4166798	0.03243	392.96	427.14	0.00	MONTH	ALL	09103124
663749	4166798	0.03388	394.85	427.14	0.00	MONTH	ALL	09103124
663849	4166798	0.03544	392.06	427.87	0.00	MONTH	ALL	09103124
663949	4166798	0.03789	398.65	432.51	0.00	MONTH	ALL	09103124
664049	4166798	0.04291	418.77	423.12	0.00	MONTH	ALL	09103124
664149	4166798	0.04865	426.70	426.70	0.00	MONTH	ALL	09103124
665449	4166798	0.08672	408.94	432.55	0.00	MONTH	ALL	09103124
665549	4166798	0.07318	397.58	435.61	0.00	MONTH	ALL	09103124
665649	4166798	0.06604	397.35	429.85	0.00	MONTH	ALL	09103124
665749	4166798	0.05933	389.02	430.85	0.00	MONTH	ALL	09103124
665849	4166798	0.05426	390.20	422.68	0.00	MONTH	ALL	09103124
665949	4166798	0.04996	389.80	422.08	0.00	MONTH	ALL	09103124
666049	4166798	0.04736	399.40	421.58	0.00	MONTH	ALL	09103124
666149	4166798	0.04395	391.38	422.08	0.00	MONTH	ALL	09103124
665392	4166802	0.10206	416.72	426.16	0.00	MONTH	ALL	09103124
664255	4166805	0.05650	429.43	429.43	0.00	MONTH	ALL	09103124
664210	4166828	0.05350	427.25	427.25	0.00	MONTH	ALL	09103124
661149	4166848	0.02323	359.23	366.87	0.00	MONTH	ALL	09103124
661649	4166848	0.02374	344.81	372.64	0.00	MONTH	ALL	09103124
662149	4166848	0.02459	361.24	385.49	0.00	MONTH	ALL	09103124
662649	4166848	0.02598	382.03	384.50	0.00	MONTH	ALL	09103124
663149	4166848	0.02842	394.35	397.00	0.00	MONTH	ALL	09103124

666649	4166848	0.03521	389.33	416.19	0.00	MONTH	ALL	09103124
667149	4166848	0.03164	413.21	415.59	0.00	MONTH	ALL	09103124
667649	4166848	0.02809	365.25	422.66	0.00	MONTH	ALL	09103124
668149	4166848	0.02649	359.83	420.64	0.00	MONTH	ALL	09103124
668649	4166848	0.02564	385.47	416.58	0.00	MONTH	ALL	09103124
669149	4166848	0.02482	386.98	415.38	0.00	MONTH	ALL	09103124
669649	4166848	0.02419	388.06	397.16	0.00	MONTH	ALL	09103124
664166	4166850	0.05083	426.17	426.17	0.00	MONTH	ALL	09103124
665392	4166852	0.09166	404.22	433.52	0.00	MONTH	ALL	09103124
664129	4166883	0.04906	423.65	423.65	0.00	MONTH	ALL	09103124
663649	4166898	0.03351	402.28	427.14	0.00	MONTH	ALL	09103124
663749	4166898	0.03549	409.06	427.14	0.00	MONTH	ALL	09103124
663849	4166898	0.03650	394.34	427.69	0.00	MONTH	ALL	09103124
663949	4166898	0.04017	410.69	421.94	0.00	MONTH	ALL	09103124
664049	4166898	0.04444	418.01	421.66	0.00	MONTH	ALL	09103124
665449	4166898	0.08348	396.36	433.92	0.00	MONTH	ALL	09103124
665549	4166898	0.07298	393.69	434.24	0.00	MONTH	ALL	09103124
665649	4166898	0.06461	390.68	434.72	0.00	MONTH	ALL	09103124
665749	4166898	0.05945	399.36	422.34	0.00	MONTH	ALL	09103124
665849	4166898	0.05410	397.61	420.96	0.00	MONTH	ALL	09103124
665949	4166898	0.04983	395.89	422.43	0.00	MONTH	ALL	09103124
666049	4166898	0.04794	410.69	419.62	0.00	MONTH	ALL	09103124
666149	4166898	0.04470	408.00	421.58	0.00	MONTH	ALL	09103124
665392	4166902	0.09041	397.89	434.09	0.00	MONTH	ALL	09103124
664095	4166920	0.04803	421.87	421.87	0.00	MONTH	ALL	09103124
665392	4166952	0.09246	403.22	426.38	0.00	MONTH	ALL	09103124
664062	4166957	0.04736	422.06	422.06	0.00	MONTH	ALL	09103124
664023	4166988	0.04591	422.01	422.01	0.00	MONTH	ALL	09103124
663649	4166998	0.03450	415.45	427.14	0.00	MONTH	ALL	09103124
663749	4166998	0.03696	422.44	422.44	0.00	MONTH	ALL	09103124
663849	4166998	0.03832	412.55	427.14	0.00	MONTH	ALL	09103124
663949	4166998	0.04210	418.62	418.62	0.00	MONTH	ALL	09103124
665449	4166998	0.08342	402.42	432.03	0.00	MONTH	ALL	09103124
665549	4166998	0.07323	403.90	434.24	0.00	MONTH	ALL	09103124
665649	4166998	0.06639	409.69	422.34	0.00	MONTH	ALL	09103124
665749	4166998	0.06076	414.93	414.93	0.00	MONTH	ALL	09103124
665849	4166998	0.05298	400.54	427.26	0.00	MONTH	ALL	09103124
665949	4166998	0.04948	405.80	422.08	0.00	MONTH	ALL	09103124
666049	4166998	0.04728	416.77	422.08	0.00	MONTH	ALL	09103124
666149	4166998	0.04402	414.32	422.08	0.00	MONTH	ALL	09103124
665392	4167002	0.09329	408.69	412.30	0.00	MONTH	ALL	09103124
663980	4167014	0.04413	420.64	420.64	0.00	MONTH	ALL	09103124
663938	4167040	0.04237	418.44	418.44	0.00	MONTH	ALL	09103124
665392	4167052	0.09138	410.92	425.78	0.00	MONTH	ALL	09103124
663895	4167067	0.04093	417.69	417.69	0.00	MONTH	ALL	09103124
663853	4167093	0.03990	419.52	419.52	0.00	MONTH	ALL	09103124
663649	4167098	0.03435	418.18	427.11	0.00	MONTH	ALL	09103124
663749	4167098	0.03686	424.46	427.11	0.00	MONTH	ALL	09103124
665449	4167098	0.08115	417.06	425.78	0.00	MONTH	ALL	09103124
665549	4167098	0.06982	413.98	434.24	0.00	MONTH	ALL	09103124
665649	4167098	0.06314	417.13	426.78	0.00	MONTH	ALL	09103124
665749	4167098	0.05721	418.31	424.30	0.00	MONTH	ALL	09103124
665849	4167098	0.05065	408.15	426.95	0.00	MONTH	ALL	09103124
665949	4167098	0.04805	416.82	421.48	0.00	MONTH	ALL	09103124
666049	4167098	0.04506	418.88	421.80	0.00	MONTH	ALL	09103124
666149	4167098	0.04224	417.32	421.90	0.00	MONTH	ALL	09103124

665392	4167102	0.08550	413.17	431.38	0.00	MONTH	ALL	09103124
663810	4167120	0.03871	419.82	419.82	0.00	MONTH	ALL	09103124
663768	4167146	0.03770	420.60	420.60	0.00	MONTH	ALL	09103124
665392	4167152	0.07728	416.81	431.91	0.00	MONTH	ALL	09103124
663725	4167172	0.03663	420.64	420.64	0.00	MONTH	ALL	09103124
665449	4167198	0.06775	425.50	425.50	0.00	MONTH	ALL	09103124
665549	4167198	0.06029	422.42	434.24	0.00	MONTH	ALL	09103124
665649	4167198	0.05576	425.19	427.49	0.00	MONTH	ALL	09103124
665749	4167198	0.05125	423.87	426.11	0.00	MONTH	ALL	09103124
665849	4167198	0.04731	421.36	421.36	0.00	MONTH	ALL	09103124
665949	4167198	0.04449	422.43	422.43	0.00	MONTH	ALL	09103124
666049	4167198	0.04196	422.21	422.21	0.00	MONTH	ALL	09103124
666149	4167198	0.03874	407.56	422.51	0.00	MONTH	ALL	09103124
663683	4167199	0.03542	417.24	421.46	0.00	MONTH	ALL	09103124
665392	4167202	0.07060	422.61	430.80	0.00	MONTH	ALL	09103124
663638	4167216	0.03467	416.02	418.45	0.00	MONTH	ALL	09103124
663588	4167218	0.03390	415.25	415.25	0.00	MONTH	ALL	09103124
663538	4167220	0.03329	415.25	415.25	0.00	MONTH	ALL	09103124
663489	4167225	0.03251	415.39	415.39	0.00	MONTH	ALL	09103124
663442	4167243	0.03184	414.48	414.48	0.00	MONTH	ALL	09103124
665392	4167252	0.06405	429.34	430.78	0.00	MONTH	ALL	09103124
663395	4167260	0.03118	411.43	411.43	0.00	MONTH	ALL	09103124
663348	4167277	0.03065	410.04	410.04	0.00	MONTH	ALL	09103124
663301	4167295	0.03032	411.56	411.56	0.00	MONTH	ALL	09103124
665449	4167298	0.05500	431.69	431.69	0.00	MONTH	ALL	09103124
665549	4167298	0.04927	433.15	433.15	0.00	MONTH	ALL	09103124
665649	4167298	0.04839	426.28	433.78	0.00	MONTH	ALL	09103124
665749	4167298	0.04444	417.73	433.78	0.00	MONTH	ALL	09103124
665849	4167298	0.04229	419.48	422.63	0.00	MONTH	ALL	09103124
665949	4167298	0.03965	412.80	423.00	0.00	MONTH	ALL	09103124
666049	4167298	0.03817	415.44	421.80	0.00	MONTH	ALL	09103124
666149	4167298	0.03634	409.96	422.09	0.00	MONTH	ALL	09103124
665392	4167302	0.05762	431.21	431.21	0.00	MONTH	ALL	09103124
663254	4167312	0.03003	414.09	414.09	0.00	MONTH	ALL	09103124
663207	4167329	0.02985	416.63	419.02	0.00	MONTH	ALL	09103124
663161	4167347	0.02953	419.77	419.77	0.00	MONTH	ALL	09103124
661149	4167348	0.02325	369.59	372.07	0.00	MONTH	ALL	09103124
661649	4167348	0.02370	347.98	385.17	0.00	MONTH	ALL	09103124
662149	4167348	0.02455	373.05	373.05	0.00	MONTH	ALL	09103124
662649	4167348	0.02577	385.20	385.20	0.00	MONTH	ALL	09103124
666649	4167348	0.03119	416.95	421.90	0.00	MONTH	ALL	09103124
667149	4167348	0.02817	394.72	422.69	0.00	MONTH	ALL	09103124
667649	4167348	0.02662	392.82	422.68	0.00	MONTH	ALL	09103124
668149	4167348	0.02517	346.57	422.68	0.00	MONTH	ALL	09103124
668649	4167348	0.02466	381.59	381.59	0.00	MONTH	ALL	09103124
669149	4167348	0.02407	384.41	415.73	0.00	MONTH	ALL	09103124
669649	4167348	0.02350	367.98	404.49	0.00	MONTH	ALL	09103124
665392	4167352	0.05351	430.68	430.68	0.00	MONTH	ALL	09103124
663123	4167377	0.02897	413.97	420.42	0.00	MONTH	ALL	09103124
665449	4167398	0.04802	431.15	431.15	0.00	MONTH	ALL	09103124
665549	4167398	0.04382	432.01	432.01	0.00	MONTH	ALL	09103124
665649	4167398	0.04236	419.11	434.72	0.00	MONTH	ALL	09103124
665749	4167398	0.03945	409.15	434.72	0.00	MONTH	ALL	09103124
665849	4167398	0.03741	402.43	434.72	0.00	MONTH	ALL	09103124
665949	4167398	0.03585	398.12	426.66	0.00	MONTH	ALL	09103124
666049	4167398	0.03466	397.68	423.00	0.00	MONTH	ALL	09103124

666149	4167398	0.03342	392.06	422.68	0.00	MONTH	ALL	09103124
665392	4167402	0.05022	431.15	431.15	0.00	MONTH	ALL	09103124
663093	4167417	0.02870	411.81	411.81	0.00	MONTH	ALL	09103124
665392	4167452	0.04795	431.87	431.87	0.00	MONTH	ALL	09103124
663067	4167458	0.02843	410.73	410.73	0.00	MONTH	ALL	09103124
665435	4167459	0.04581	431.56	431.56	0.00	MONTH	ALL	09103124
665485	4167459	0.04409	430.96	430.96	0.00	MONTH	ALL	09103124
665535	4167459	0.04244	431.99	431.99	0.00	MONTH	ALL	09103124
665556	4167488	0.03980	432.39	432.39	0.00	MONTH	ALL	09103124
665649	4167498	0.03928	424.83	424.83	0.00	MONTH	ALL	09103124
665749	4167498	0.03752	422.57	422.57	0.00	MONTH	ALL	09103124
665849	4167498	0.03597	419.69	422.49	0.00	MONTH	ALL	09103124
665949	4167498	0.03444	413.50	413.50	0.00	MONTH	ALL	09103124
666049	4167498	0.03292	401.62	422.07	0.00	MONTH	ALL	09103124
666149	4167498	0.03170	389.76	422.49	0.00	MONTH	ALL	09103124
663072	4167508	0.02849	409.27	409.27	0.00	MONTH	ALL	09103124
665555	4167538	0.03992	429.75	429.75	0.00	MONTH	ALL	09103124
663078	4167557	0.02830	406.19	406.19	0.00	MONTH	ALL	09103124
665554	4167588	0.03897	424.63	429.23	0.00	MONTH	ALL	09103124
665649	4167598	0.03677	424.79	424.79	0.00	MONTH	ALL	09103124
665749	4167598	0.03466	414.93	425.11	0.00	MONTH	ALL	09103124
665849	4167598	0.03336	410.82	422.49	0.00	MONTH	ALL	09103124
665949	4167598	0.03229	406.31	422.49	0.00	MONTH	ALL	09103124
666049	4167598	0.03114	394.99	422.49	0.00	MONTH	ALL	09103124
666149	4167598	0.03067	400.98	421.90	0.00	MONTH	ALL	09103124
663089	4167606	0.02820	403.41	403.41	0.00	MONTH	ALL	09103124
665521	4167606	0.03935	422.43	432.08	0.00	MONTH	ALL	09103124
665471	4167607	0.04121	425.95	425.95	0.00	MONTH	ALL	09103124
665421	4167608	0.04294	424.64	424.64	0.00	MONTH	ALL	09103124
665394	4167629	0.04313	420.91	429.76	0.00	MONTH	ALL	09103124
663106	4167653	0.02801	401.82	402.64	0.00	MONTH	ALL	09103124
665402	4167678	0.04146	417.96	423.71	0.00	MONTH	ALL	09103124
665449	4167698	0.03955	418.15	422.92	0.00	MONTH	ALL	09103124
665549	4167698	0.03706	420.74	420.74	0.00	MONTH	ALL	09103124
665649	4167698	0.03516	424.15	424.15	0.00	MONTH	ALL	09103124
665749	4167698	0.03295	411.68	426.55	0.00	MONTH	ALL	09103124
665849	4167698	0.03168	405.40	424.83	0.00	MONTH	ALL	09103124
665949	4167698	0.03072	400.42	422.49	0.00	MONTH	ALL	09103124
666049	4167698	0.02992	395.03	422.90	0.00	MONTH	ALL	09103124
666149	4167698	0.02988	412.88	416.38	0.00	MONTH	ALL	09103124
663120	4167700	0.02800	403.38	403.38	0.00	MONTH	ALL	09103124
665427	4167721	0.03927	411.82	430.69	0.00	MONTH	ALL	09103124
663114	4167750	0.02784	403.40	403.40	0.00	MONTH	ALL	09103124
665452	4167764	0.03790	412.12	422.92	0.00	MONTH	ALL	09103124
665483	4167798	0.03697	416.81	421.50	0.00	MONTH	ALL	09103124
665649	4167798	0.03397	422.08	422.08	0.00	MONTH	ALL	09103124
665749	4167798	0.03241	421.39	421.39	0.00	MONTH	ALL	09103124
665849	4167798	0.03105	415.89	420.89	0.00	MONTH	ALL	09103124
665949	4167798	0.02975	400.79	427.20	0.00	MONTH	ALL	09103124
666049	4167798	0.02903	396.32	427.86	0.00	MONTH	ALL	09103124
666149	4167798	0.02884	409.09	422.44	0.00	MONTH	ALL	09103124
663109	4167799	0.02789	403.84	403.84	0.00	MONTH	ALL	09103124
665533	4167799	0.03609	420.80	420.80	0.00	MONTH	ALL	09103124
665549	4167799	0.03578	421.11	421.11	0.00	MONTH	ALL	09103124
665583	4167800	0.03509	421.07	421.07	0.00	MONTH	ALL	09103124
665591	4167843	0.03442	420.27	420.27	0.00	MONTH	ALL	09103124

661149	4167848	0.02312	359.03	359.03	0.00	MONTH	ALL	09103124
661649	4167848	0.02368	385.42	385.42	0.00	MONTH	ALL	09103124
662149	4167848	0.02422	378.48	385.51	0.00	MONTH	ALL	09103124
662649	4167848	0.02518	387.57	403.33	0.00	MONTH	ALL	09103124
666649	4167848	0.02679	409.44	419.88	0.00	MONTH	ALL	09103124
667149	4167848	0.02545	383.84	422.69	0.00	MONTH	ALL	09103124
667649	4167848	0.02476	382.00	422.63	0.00	MONTH	ALL	09103124
668149	4167848	0.02419	381.37	422.26	0.00	MONTH	ALL	09103124
668649	4167848	0.02364	365.42	416.51	0.00	MONTH	ALL	09103124
669149	4167848	0.02356	415.84	415.84	0.00	MONTH	ALL	09103124
669649	4167848	0.02295	368.09	416.61	0.00	MONTH	ALL	09103124
663103	4167849	0.02783	403.48	403.48	0.00	MONTH	ALL	09103124
665593	4167893	0.03393	421.62	425.94	0.00	MONTH	ALL	09103124
663097	4167899	0.02781	403.64	403.64	0.00	MONTH	ALL	09103124
665595	4167943	0.03358	426.40	426.40	0.00	MONTH	ALL	09103124
663076	4167944	0.02755	405.76	405.76	0.00	MONTH	ALL	09103124
663056	4167989	0.02748	408.11	408.11	0.00	MONTH	ALL	09103124
665597	4167993	0.03306	425.33	425.33	0.00	MONTH	ALL	09103124
663035	4168035	0.02742	409.55	409.55	0.00	MONTH	ALL	09103124
665603	4168042	0.03247	422.79	427.01	0.00	MONTH	ALL	09103124
663014	4168080	0.02722	409.96	409.96	0.00	MONTH	ALL	09103124
665635	4168080	0.03166	420.64	428.44	0.00	MONTH	ALL	09103124
665667	4168119	0.03092	418.18	432.37	0.00	MONTH	ALL	09103124
663016	4168130	0.02726	408.49	408.49	0.00	MONTH	ALL	09103124
665699	4168157	0.03042	420.73	433.63	0.00	MONTH	ALL	09103124
663019	4168180	0.02758	405.77	405.77	0.00	MONTH	ALL	09103124
661149	4167848	0.02312	359.03	359.03	0.00	MONTH	ALL	09103124
661649	4167848	0.02368	385.42	385.42	0.00	MONTH	ALL	09103124
662149	4167848	0.02422	378.48	385.51	0.00	MONTH	ALL	09103124
662649	4167848	0.02518	387.57	403.33	0.00	MONTH	ALL	09103124
663149	4167848	0.02743	402.45	402.45	0.00	MONTH	ALL	09103124
665649	4167848	0.03347	421.60	421.60	0.00	MONTH	ALL	09103124
666149	4167848	0.02842	407.55	422.65	0.00	MONTH	ALL	09103124
666649	4167848	0.02679	409.44	419.88	0.00	MONTH	ALL	09103124
667149	4167848	0.02545	383.84	422.69	0.00	MONTH	ALL	09103124
667649	4167848	0.02476	382.00	422.63	0.00	MONTH	ALL	09103124
668149	4167848	0.02419	381.37	422.26	0.00	MONTH	ALL	09103124
668649	4167848	0.02364	365.42	416.51	0.00	MONTH	ALL	09103124
669149	4167848	0.02356	415.84	415.84	0.00	MONTH	ALL	09103124
669649	4167848	0.02295	368.09	416.61	0.00	MONTH	ALL	09103124
661149	4168348	0.02298	377.37	377.37	0.00	MONTH	ALL	09103124
661649	4168348	0.02321	367.85	380.09	0.00	MONTH	ALL	09103124
662149	4168348	0.02366	379.73	384.05	0.00	MONTH	ALL	09103124
662649	4168348	0.02440	394.77	402.93	0.00	MONTH	ALL	09103124
663149	4168348	0.02696	400.09	400.09	0.00	MONTH	ALL	09103124
665649	4168348	0.02995	418.79	432.56	0.00	MONTH	ALL	09103124
666149	4168348	0.02618	433.87	433.87	0.00	MONTH	ALL	09103124
666649	4168348	0.02520	415.01	421.74	0.00	MONTH	ALL	09103124
667149	4168348	0.02418	394.63	415.66	0.00	MONTH	ALL	09103124
667649	4168348	0.02346	359.03	420.95	0.00	MONTH	ALL	09103124
668149	4168348	0.02307	349.88	423.26	0.00	MONTH	ALL	09103124
668649	4168348	0.02278	339.01	416.51	0.00	MONTH	ALL	09103124
669149	4168348	0.02270	376.33	415.38	0.00	MONTH	ALL	09103124
669649	4168348	0.02240	343.04	416.61	0.00	MONTH	ALL	09103124
661149	4173848	0.02287	358.83	361.62	0.00	MONTH	ALL	09103124
661649	4173848	0.02329	350.12	354.43	0.00	MONTH	ALL	09103124

662149	4173848	0.02360	308.50	373.19	0.00	MONTH	ALL	09103124
662649	4173848	0.02398	349.79	373.26	0.00	MONTH	ALL	09103124
663149	4173848	0.02407	363.95	372.94	0.00	MONTH	ALL	09103124
663649	4173848	0.02410	387.25	387.25	0.00	MONTH	ALL	09103124
664149	4173848	0.02409	383.40	383.40	0.00	MONTH	ALL	09103124
664649	4173848	0.02414	396.66	396.66	0.00	MONTH	ALL	09103124
665149	4173848	0.02393	392.81	392.81	0.00	MONTH	ALL	09103124
665649	4173848	0.02334	378.91	385.98	0.00	MONTH	ALL	09103124
666149	4173848	0.02252	363.06	379.87	0.00	MONTH	ALL	09103124
666649	4173848	0.02190	374.49	391.95	0.00	MONTH	ALL	09103124
667149	4173848	0.02151	371.28	391.65	0.00	MONTH	ALL	09103124
667649	4173848	0.02125	330.91	391.36	0.00	MONTH	ALL	09103124
668149	4173848	0.02116	357.43	386.02	0.00	MONTH	ALL	09103124
668649	4173848	0.02110	386.86	397.32	0.00	MONTH	ALL	09103124
669149	4173848	0.02102	384.00	384.00	0.00	MONTH	ALL	09103124
669649	4173848	0.02091	343.62	391.65	0.00	MONTH	ALL	09103124
661149	4173348	0.02295	351.86	377.05	0.00	MONTH	ALL	09103124
661649	4173348	0.02341	353.99	367.64	0.00	MONTH	ALL	09103124
662149	4173348	0.02393	343.75	355.31	0.00	MONTH	ALL	09103124
662649	4173348	0.02437	351.90	351.90	0.00	MONTH	ALL	09103124
663149	4173348	0.02451	355.94	361.43	0.00	MONTH	ALL	09103124
663649	4173348	0.02452	367.42	379.50	0.00	MONTH	ALL	09103124
664149	4173348	0.02459	383.16	383.16	0.00	MONTH	ALL	09103124
664649	4173348	0.02452	372.63	390.84	0.00	MONTH	ALL	09103124
665149	4173348	0.02428	378.39	391.09	0.00	MONTH	ALL	09103124
665649	4173348	0.02361	379.60	390.64	0.00	MONTH	ALL	09103124
666149	4173348	0.02266	371.25	398.54	0.00	MONTH	ALL	09103124
666649	4173348	0.02201	393.90	396.37	0.00	MONTH	ALL	09103124
667149	4173348	0.02159	379.15	403.58	0.00	MONTH	ALL	09103124
667649	4173348	0.02130	321.57	404.13	0.00	MONTH	ALL	09103124
668149	4173348	0.02121	356.49	386.29	0.00	MONTH	ALL	09103124
668649	4173348	0.02117	396.83	396.83	0.00	MONTH	ALL	09103124
669149	4173348	0.02105	373.13	398.72	0.00	MONTH	ALL	09103124
669649	4173348	0.02096	353.31	392.29	0.00	MONTH	ALL	09103124
661149	4172848	0.02307	374.65	382.04	0.00	MONTH	ALL	09103124
661649	4172848	0.02356	368.59	385.83	0.00	MONTH	ALL	09103124
662149	4172848	0.02403	320.27	385.83	0.00	MONTH	ALL	09103124
662649	4172848	0.02462	318.03	373.26	0.00	MONTH	ALL	09103124
663149	4172848	0.02494	329.45	379.61	0.00	MONTH	ALL	09103124
663649	4172848	0.02502	344.86	384.76	0.00	MONTH	ALL	09103124
664149	4172848	0.02499	340.85	391.26	0.00	MONTH	ALL	09103124
664649	4172848	0.02521	386.34	386.34	0.00	MONTH	ALL	09103124
665149	4172848	0.02483	385.20	385.20	0.00	MONTH	ALL	09103124
665649	4172848	0.02394	385.36	396.51	0.00	MONTH	ALL	09103124
666149	4172848	0.02280	374.60	398.25	0.00	MONTH	ALL	09103124
666649	4172848	0.02204	372.64	386.39	0.00	MONTH	ALL	09103124
667149	4172848	0.02162	350.65	360.65	0.00	MONTH	ALL	09103124
667649	4172848	0.02139	338.94	360.73	0.00	MONTH	ALL	09103124
668149	4172848	0.02126	341.09	401.56	0.00	MONTH	ALL	09103124
668649	4172848	0.02122	387.50	400.86	0.00	MONTH	ALL	09103124
669149	4172848	0.02111	373.11	391.31	0.00	MONTH	ALL	09103124
669649	4172848	0.02102	361.50	392.02	0.00	MONTH	ALL	09103124
661149	4168848	0.02242	331.25	385.51	0.00	MONTH	ALL	09103124
661649	4168848	0.02267	361.18	365.87	0.00	MONTH	ALL	09103124
662149	4168848	0.02314	368.62	372.66	0.00	MONTH	ALL	09103124
662649	4168848	0.02446	383.23	383.23	0.00	MONTH	ALL	09103124

663149	4168848	0.02754	409.49	409.49	0.00	MONTH	ALL	09103124
663649	4168848	0.03365	385.47	385.47	0.00	MONTH	ALL	09103124
664149	4168848	0.04484	377.95	391.81	0.00	MONTH	ALL	09103124
664649	4168848	0.05164	403.67	403.67	0.00	MONTH	ALL	09103124
665649	4168848	0.02880	425.20	425.20	0.00	MONTH	ALL	09103124
666149	4168848	0.02605	424.41	427.12	0.00	MONTH	ALL	09103124
666649	4168848	0.02442	399.72	416.17	0.00	MONTH	ALL	09103124
667149	4168848	0.02331	363.18	428.78	0.00	MONTH	ALL	09103124
667649	4168848	0.02293	386.33	428.69	0.00	MONTH	ALL	09103124
668149	4168848	0.02264	391.19	427.64	0.00	MONTH	ALL	09103124
668649	4168848	0.02237	377.68	416.68	0.00	MONTH	ALL	09103124
669149	4168848	0.02213	347.23	416.68	0.00	MONTH	ALL	09103124
669649	4168848	0.02205	367.90	410.82	0.00	MONTH	ALL	09103124
661149	4170848	0.02245	354.06	354.06	0.00	MONTH	ALL	09103124
661649	4170848	0.02320	365.49	382.42	0.00	MONTH	ALL	09103124
662149	4170848	0.02459	389.31	389.31	0.00	MONTH	ALL	09103124
662649	4170848	0.02602	369.80	391.40	0.00	MONTH	ALL	09103124
663149	4170848	0.02801	387.38	387.38	0.00	MONTH	ALL	09103124
663649	4170848	0.02937	373.16	373.16	0.00	MONTH	ALL	09103124
664149	4170848	0.02948	354.27	379.73	0.00	MONTH	ALL	09103124
664649	4170848	0.02995	383.81	383.81	0.00	MONTH	ALL	09103124
665149	4170848	0.02856	387.99	408.39	0.00	MONTH	ALL	09103124
665649	4170848	0.02564	386.62	403.92	0.00	MONTH	ALL	09103124
666149	4170848	0.02363	398.24	415.12	0.00	MONTH	ALL	09103124
666649	4170848	0.02268	392.07	416.34	0.00	MONTH	ALL	09103124
667149	4170848	0.02228	410.82	410.82	0.00	MONTH	ALL	09103124
667649	4170848	0.02194	383.85	397.50	0.00	MONTH	ALL	09103124
668149	4170848	0.02167	353.91	404.00	0.00	MONTH	ALL	09103124
668649	4170848	0.02159	388.76	404.00	0.00	MONTH	ALL	09103124
669149	4170848	0.02143	377.00	406.85	0.00	MONTH	ALL	09103124
669649	4170848	0.02138	402.31	408.18	0.00	MONTH	ALL	09103124
661149	4169848	0.02210	339.12	378.45	0.00	MONTH	ALL	09103124
661649	4169848	0.02284	382.51	382.51	0.00	MONTH	ALL	09103124
662149	4169848	0.02380	378.53	398.02	0.00	MONTH	ALL	09103124
662649	4169848	0.02577	396.55	396.55	0.00	MONTH	ALL	09103124
663149	4169848	0.02864	379.32	390.85	0.00	MONTH	ALL	09103124
663649	4169848	0.03283	394.49	394.49	0.00	MONTH	ALL	09103124
664149	4169848	0.03510	376.27	404.74	0.00	MONTH	ALL	09103124
664649	4169848	0.03580	385.77	390.98	0.00	MONTH	ALL	09103124
665149	4169848	0.03392	378.63	400.76	0.00	MONTH	ALL	09103124
665649	4169848	0.03042	392.23	420.90	0.00	MONTH	ALL	09103124
666149	4169848	0.02491	420.80	428.67	0.00	MONTH	ALL	09103124
666649	4169848	0.02342	417.55	417.55	0.00	MONTH	ALL	09103124
667149	4169848	0.02288	423.48	428.49	0.00	MONTH	ALL	09103124
667649	4169848	0.02237	393.90	422.29	0.00	MONTH	ALL	09103124
668149	4169848	0.02205	383.82	404.49	0.00	MONTH	ALL	09103124
668649	4169848	0.02189	398.34	409.11	0.00	MONTH	ALL	09103124
669149	4169848	0.02170	389.07	409.64	0.00	MONTH	ALL	09103124
669649	4169848	0.02167	418.29	421.86	0.00	MONTH	ALL	09103124
661149	4171848	0.02289	395.25	397.21	0.00	MONTH	ALL	09103124
661649	4171848	0.02369	373.22	396.40	0.00	MONTH	ALL	09103124
662149	4171848	0.02457	377.85	377.85	0.00	MONTH	ALL	09103124
662649	4171848	0.02561	379.66	379.66	0.00	MONTH	ALL	09103124
663149	4171848	0.02644	362.45	373.34	0.00	MONTH	ALL	09103124
663649	4171848	0.02661	343.03	366.32	0.00	MONTH	ALL	09103124
664149	4171848	0.02684	369.48	391.92	0.00	MONTH	ALL	09103124

664649	4171848	0.02675	362.83	398.00	0.00	MONTH	ALL	09103124
665149	4171848	0.02622	385.47	392.34	0.00	MONTH	ALL	09103124
665649	4171848	0.02475	397.72	397.72	0.00	MONTH	ALL	09103124
666149	4171848	0.02308	373.89	414.52	0.00	MONTH	ALL	09103124
666649	4171848	0.02228	379.27	390.00	0.00	MONTH	ALL	09103124
667149	4171848	0.02183	357.65	397.35	0.00	MONTH	ALL	09103124
667649	4171848	0.02164	374.45	379.88	0.00	MONTH	ALL	09103124
668149	4171848	0.02142	340.79	398.81	0.00	MONTH	ALL	09103124
668649	4171848	0.02136	377.59	399.10	0.00	MONTH	ALL	09103124
669149	4171848	0.02126	377.54	398.76	0.00	MONTH	ALL	09103124
669649	4171848	0.02120	395.68	395.68	0.00	MONTH	ALL	09103124
661149	4169348	0.02211	351.99	376.53	0.00	MONTH	ALL	09103124
661649	4169348	0.02262	382.95	382.95	0.00	MONTH	ALL	09103124
662149	4169348	0.02342	372.06	392.84	0.00	MONTH	ALL	09103124
662649	4169348	0.02516	399.42	399.42	0.00	MONTH	ALL	09103124
663149	4169348	0.02822	383.59	396.79	0.00	MONTH	ALL	09103124
663649	4169348	0.03382	391.29	395.96	0.00	MONTH	ALL	09103124
664149	4169348	0.03907	370.69	402.25	0.00	MONTH	ALL	09103124
664649	4169348	0.04071	382.35	396.54	0.00	MONTH	ALL	09103124
665149	4169348	0.03658	397.23	401.39	0.00	MONTH	ALL	09103124
665649	4169348	0.03631	424.79	424.79	0.00	MONTH	ALL	09103124
666149	4169348	0.02550	397.32	427.92	0.00	MONTH	ALL	09103124
666649	4169348	0.02391	415.31	415.31	0.00	MONTH	ALL	09103124
667149	4169348	0.02311	400.58	422.38	0.00	MONTH	ALL	09103124
667649	4169348	0.02278	424.62	428.51	0.00	MONTH	ALL	09103124
668149	4169348	0.02239	414.55	427.66	0.00	MONTH	ALL	09103124
668649	4169348	0.02210	396.30	427.50	0.00	MONTH	ALL	09103124
669149	4169348	0.02191	385.18	415.13	0.00	MONTH	ALL	09103124
669649	4169348	0.02182	394.85	409.61	0.00	MONTH	ALL	09103124
661149	4171348	0.02262	371.38	391.02	0.00	MONTH	ALL	09103124
661649	4171348	0.02346	363.73	391.22	0.00	MONTH	ALL	09103124
662149	4171348	0.02465	373.88	391.07	0.00	MONTH	ALL	09103124
662649	4171348	0.02589	381.00	381.00	0.00	MONTH	ALL	09103124
663149	4171348	0.02699	344.12	392.34	0.00	MONTH	ALL	09103124
663649	4171348	0.02786	360.58	360.58	0.00	MONTH	ALL	09103124
664149	4171348	0.02817	380.12	382.02	0.00	MONTH	ALL	09103124
664649	4171348	0.02826	386.30	391.05	0.00	MONTH	ALL	09103124
665149	4171348	0.02710	376.62	393.37	0.00	MONTH	ALL	09103124
665649	4171348	0.02518	395.90	421.88	0.00	MONTH	ALL	09103124
666149	4171348	0.02342	406.38	428.47	0.00	MONTH	ALL	09103124
666649	4171348	0.02242	376.21	416.24	0.00	MONTH	ALL	09103124
667149	4171348	0.02205	390.65	390.65	0.00	MONTH	ALL	09103124
667649	4171348	0.02175	369.34	403.85	0.00	MONTH	ALL	09103124
668149	4171348	0.02153	344.40	396.34	0.00	MONTH	ALL	09103124
668649	4171348	0.02144	368.40	385.94	0.00	MONTH	ALL	09103124
669149	4171348	0.02135	381.17	398.05	0.00	MONTH	ALL	09103124
669649	4171348	0.02130	410.57	410.57	0.00	MONTH	ALL	09103124
661149	4170348	0.02234	365.82	372.26	0.00	MONTH	ALL	09103124
661649	4170348	0.02304	379.41	379.41	0.00	MONTH	ALL	09103124
662149	4170348	0.02416	379.25	385.27	0.00	MONTH	ALL	09103124
662649	4170348	0.02614	388.57	388.57	0.00	MONTH	ALL	09103124
663149	4170348	0.02824	364.76	380.70	0.00	MONTH	ALL	09103124
663649	4170348	0.03095	376.51	376.51	0.00	MONTH	ALL	09103124
664149	4170348	0.03214	384.32	390.80	0.00	MONTH	ALL	09103124
664649	4170348	0.03200	367.50	399.03	0.00	MONTH	ALL	09103124
665149	4170348	0.03085	400.35	400.35	0.00	MONTH	ALL	09103124

665649	4170348	0.02667	409.20	415.74	0.00	MONTH	ALL	09103124
666149	4170348	0.02400	419.25	422.76	0.00	MONTH	ALL	09103124
666649	4170348	0.02296	391.47	422.50	0.00	MONTH	ALL	09103124
667149	4170348	0.02256	421.84	421.84	0.00	MONTH	ALL	09103124
667649	4170348	0.02212	381.94	403.03	0.00	MONTH	ALL	09103124
668149	4170348	0.02185	368.83	410.24	0.00	MONTH	ALL	09103124
668649	4170348	0.02175	401.12	409.58	0.00	MONTH	ALL	09103124
669149	4170348	0.02161	404.10	404.10	0.00	MONTH	ALL	09103124
669649	4170348	0.02149	407.99	408.87	0.00	MONTH	ALL	09103124
661149	4172348	0.02304	386.72	386.72	0.00	MONTH	ALL	09103124
661649	4172348	0.02369	375.00	385.86	0.00	MONTH	ALL	09103124
662149	4172348	0.02434	360.77	385.12	0.00	MONTH	ALL	09103124
662649	4172348	0.02511	348.42	373.90	0.00	MONTH	ALL	09103124
663149	4172348	0.02556	329.64	379.54	0.00	MONTH	ALL	09103124
663649	4172348	0.02591	372.96	379.89	0.00	MONTH	ALL	09103124
664149	4172348	0.02596	379.46	379.46	0.00	MONTH	ALL	09103124
664649	4172348	0.02595	381.28	385.61	0.00	MONTH	ALL	09103124
665149	4172348	0.02554	396.36	396.36	0.00	MONTH	ALL	09103124
665649	4172348	0.02432	391.36	398.07	0.00	MONTH	ALL	09103124
666149	4172348	0.02298	387.09	408.68	0.00	MONTH	ALL	09103124
666649	4172348	0.02210	359.04	391.88	0.00	MONTH	ALL	09103124
667149	4172348	0.02174	366.13	388.41	0.00	MONTH	ALL	09103124
667649	4172348	0.02149	349.97	380.49	0.00	MONTH	ALL	09103124
668149	4172348	0.02137	364.78	385.73	0.00	MONTH	ALL	09103124
668649	4172348	0.02130	391.62	398.83	0.00	MONTH	ALL	09103124
669149	4172348	0.02116	364.52	391.74	0.00	MONTH	ALL	09103124
669649	4172348	0.02113	391.56	391.56	0.00	MONTH	ALL	09103124
665196	4168977	0.04371	406.68	406.68	0.00	MONTH	ALL	09103124
665149	4168962	0.04467	405.46	405.46	0.00	MONTH	ALL	09103124
665101	4168949	0.04598	405.08	405.08	0.00	MONTH	ALL	09103124
665211	4168948	0.03951	407.77	407.77	0.00	MONTH	ALL	09103124
665052	4168935	0.04748	404.97	404.97	0.00	MONTH	ALL	09103124
664855	4168929	0.05136	406.02	406.02	0.00	MONTH	ALL	09103124
664905	4168926	0.05394	407.19	407.19	0.00	MONTH	ALL	09103124
665003	4168925	0.04933	405.48	405.48	0.00	MONTH	ALL	09103124
664954	4168920	0.05246	406.89	406.89	0.00	MONTH	ALL	09103124
665210	4168898	0.03784	403.10	406.88	0.00	MONTH	ALL	09103124
664453	4168891	0.05647	394.31	394.31	0.00	MONTH	ALL	09103124
664849	4168885	0.04892	403.93	407.05	0.00	MONTH	ALL	09103124
664405	4168878	0.05332	389.55	396.81	0.00	MONTH	ALL	09103124
664359	4168859	0.05283	385.09	396.81	0.00	MONTH	ALL	09103124
664459	4168851	0.05114	391.52	391.52	0.00	MONTH	ALL	09103124
665210	4168848	0.03743	395.91	409.31	0.00	MONTH	ALL	09103124
664312	4168840	0.05229	380.12	396.81	0.00	MONTH	ALL	09103124
664849	4168835	0.04920	404.30	404.30	0.00	MONTH	ALL	09103124
664267	4168820	0.05196	378.14	378.14	0.00	MONTH	ALL	09103124
664458	4168801	0.05092	387.25	402.17	0.00	MONTH	ALL	09103124
664221	4168800	0.05153	377.92	377.92	0.00	MONTH	ALL	09103124
665209	4168798	0.03766	397.37	409.88	0.00	MONTH	ALL	09103124
664849	4168785	0.04973	401.53	402.66	0.00	MONTH	ALL	09103124
664175	4168780	0.05095	378.72	390.81	0.00	MONTH	ALL	09103124
664129	4168760	0.05026	382.10	391.45	0.00	MONTH	ALL	09103124
664457	4168751	0.05165	386.42	397.39	0.00	MONTH	ALL	09103124
665208	4168748	0.03823	404.18	405.91	0.00	MONTH	ALL	09103124
664083	4168739	0.04931	385.63	391.45	0.00	MONTH	ALL	09103124
664849	4168735	0.05016	395.59	402.66	0.00	MONTH	ALL	09103124

664038	4168719	0.04838	389.73	389.73	0.00	MONTH	ALL	09103124
663991	4168701	0.04798	391.63	391.63	0.00	MONTH	ALL	09103124
664455	4168701	0.05242	383.81	397.39	0.00	MONTH	ALL	09103124
665207	4168698	0.03867	406.67	406.67	0.00	MONTH	ALL	09103124
664849	4168685	0.05070	389.38	408.26	0.00	MONTH	ALL	09103124
663944	4168684	0.04792	391.67	391.67	0.00	MONTH	ALL	09103124
663897	4168667	0.04623	389.62	389.62	0.00	MONTH	ALL	09103124
664454	4168651	0.05324	380.68	395.88	0.00	MONTH	ALL	09103124
663850	4168650	0.04253	386.99	397.00	0.00	MONTH	ALL	09103124
665206	4168648	0.03880	402.90	406.34	0.00	MONTH	ALL	09103124
664849	4168635	0.05181	389.00	397.37	0.00	MONTH	ALL	09103124
663804	4168632	0.04024	382.43	397.77	0.00	MONTH	ALL	09103124
664468	4168616	0.05417	379.82	396.18	0.00	MONTH	ALL	09103124
664518	4168616	0.05485	381.24	381.24	0.00	MONTH	ALL	09103124
664568	4168616	0.05527	382.61	382.61	0.00	MONTH	ALL	09103124
664618	4168616	0.05544	384.14	384.14	0.00	MONTH	ALL	09103124
664668	4168616	0.05530	384.70	384.70	0.00	MONTH	ALL	09103124
664718	4168616	0.05485	386.31	395.60	0.00	MONTH	ALL	09103124
664768	4168616	0.05395	386.21	395.73	0.00	MONTH	ALL	09103124
664818	4168616	0.05286	386.32	395.73	0.00	MONTH	ALL	09103124
663759	4168608	0.03958	379.14	397.85	0.00	MONTH	ALL	09103124
665206	4168598	0.03916	402.94	402.94	0.00	MONTH	ALL	09103124
663715	4168585	0.03909	379.37	397.77	0.00	MONTH	ALL	09103124
663671	4168561	0.03849	381.00	381.00	0.00	MONTH	ALL	09103124
665205	4168548	0.03927	398.13	402.61	0.00	MONTH	ALL	09103124
663627	4168538	0.03757	383.66	401.35	0.00	MONTH	ALL	09103124
666120	4160500	0.02599	374.50	410.64	0.00	MONTH	ALL	09103124
666182	4160500	0.02964	393.22	398.51	0.00	MONTH	ALL	09103124
666239	4160500	0.03190	396.00	398.31	0.00	MONTH	ALL	09103124
666305	4160500	0.03196	384.53	410.64	0.00	MONTH	ALL	09103124
666350	4160587	0.03606	403.35	409.42	0.00	MONTH	ALL	09103124
666365	4160626	0.03038	407.51	407.51	0.00	MONTH	ALL	09103124
666365	4160720	0.02654	408.98	408.98	0.00	MONTH	ALL	09103124
666295	4160720	0.03316	404.20	406.52	0.00	MONTH	ALL	09103124
666245	4160720	0.05072	397.66	408.65	0.00	MONTH	ALL	09103124
666195	4160720	0.04445	383.52	410.65	0.00	MONTH	ALL	09103124
666145	4160720	0.03334	378.05	416.24	0.00	MONTH	ALL	09103124
666131	4160569	0.02805	378.10	410.64	0.00	MONTH	ALL	09103124
666131	4160569	0.02805	378.10	410.64	0.00	MONTH	ALL	09103124
665881	4162444	0.03515	412.09	421.88	0.00	MONTH	ALL	09103124
665823	4162444	0.03245	400.63	426.58	0.00	MONTH	ALL	09103124
665881	4162626	0.05411	423.70	423.70	0.00	MONTH	ALL	09103124
665823	4162626	0.04538	410.73	427.78	0.00	MONTH	ALL	09103124
665938	4162626	0.03426	422.80	422.80	0.00	MONTH	ALL	09103124
665774	4162626	0.03427	396.65	428.54	0.00	MONTH	ALL	09103124
665774	4162444	0.02977	393.18	428.12	0.00	MONTH	ALL	09103124
665938	4162444	0.03600	416.31	418.62	0.00	MONTH	ALL	09103124
665774	4162573	0.03331	396.32	428.31	0.00	MONTH	ALL	09103124
665774	4162517	0.03162	396.75	428.30	0.00	MONTH	ALL	09103124
665948	4162573	0.03684	421.32	421.32	0.00	MONTH	ALL	09103124
665948	4162517	0.04213	421.57	421.57	0.00	MONTH	ALL	09103124
665649	4165298	0.04402	421.48	421.48	0.00	MONTH	ALL	09103124
665607	4165343	0.06129	423.35	423.35	0.00	MONTH	ALL	09103124
665652	4165238	0.05969	421.10	421.10	0.00	MONTH	ALL	09103124
665648	4165199	0.05125	418.66	420.02	0.00	MONTH	ALL	09103124
665618	4165179	0.04693	413.01	421.31	0.00	MONTH	ALL	09103124

665595	4165174	0.04550	409.99	422.22	0.00	MONTH	ALL	09103124
665529	4165201	0.03993	401.59	436.19	0.00	MONTH	ALL	09103124
665529	4165260	0.04388	406.40	436.19	0.00	MONTH	ALL	09103124
665557	4165346	0.05763	418.73	436.19	0.00	MONTH	ALL	09103124
665400	4169632	0.05792	403.14	408.95	0.00	MONTH	ALL	09103124
665457	4169652	0.08340	406.38	406.38	0.00	MONTH	ALL	09103124
665531	4169680	0.07276	401.96	401.96	0.00	MONTH	ALL	09103124
665609	4169714	0.03913	399.42	410.35	0.00	MONTH	ALL	09103124
665584	4169770	0.04150	396.17	396.17	0.00	MONTH	ALL	09103124
665560	4169843	0.03551	393.69	395.49	0.00	MONTH	ALL	09103124
665479	4169828	0.04605	391.46	395.90	0.00	MONTH	ALL	09103124
665396	4169812	0.05252	396.71	396.71	0.00	MONTH	ALL	09103124
665324	4169841	0.03881	393.47	396.61	0.00	MONTH	ALL	09103124
665290	4169797	0.03826	394.95	394.95	0.00	MONTH	ALL	09103124
665346	4169769	0.04743	399.17	399.17	0.00	MONTH	ALL	09103124
665337	4169705	0.04722	398.39	398.39	0.00	MONTH	ALL	09103124
665500	4165635	0.04446	432.77	432.77	0.00	MONTH	ALL	09103124
665500	4165690	0.04588	433.02	436.27	0.00	MONTH	ALL	09103124
665500	4165740	0.04759	433.55	439.03	0.00	MONTH	ALL	09103124
665500	4165790	0.05010	434.94	434.94	0.00	MONTH	ALL	09103124
665500	4165860	0.05622	432.81	432.81	0.00	MONTH	ALL	09103124
665550	4165635	0.04665	435.80	435.80	0.00	MONTH	ALL	09103124
665550	4165860	0.06085	434.11	434.11	0.00	MONTH	ALL	09103124
665600	4165635	0.04932	436.08	436.08	0.00	MONTH	ALL	09103124
665600	4165860	0.07203	432.18	437.97	0.00	MONTH	ALL	09103124
665650	4165635	0.05029	437.86	437.86	0.00	MONTH	ALL	09103124
665650	4165860	0.06781	429.58	429.58	0.00	MONTH	ALL	09103124
665700	4165635	0.05056	435.55	438.66	0.00	MONTH	ALL	09103124
665700	4165860	0.05486	427.37	427.37	0.00	MONTH	ALL	09103124
665750	4165635	0.04863	432.94	437.66	0.00	MONTH	ALL	09103124
665750	4165690	0.05161	425.93	438.72	0.00	MONTH	ALL	09103124
665750	4165740	0.05167	419.03	439.67	0.00	MONTH	ALL	09103124
665750	4165790	0.04925	411.82	439.67	0.00	MONTH	ALL	09103124
665750	4165860	0.05025	421.06	427.99	0.00	MONTH	ALL	09103124
665377	4163553	0.04823	397.89	444.23	0.00	MONTH	ALL	09083124
665456	4163553	0.05675	397.89	444.23	0.00	MONTH	ALL	09083124
665504	4163553	0.06369	397.89	444.23	0.00	MONTH	ALL	09083124
665377	4163553	0.09180	397.89	444.23	0.00	MONTH	ALL	09093024
665456	4163553	0.10794	397.89	444.23	0.00	MONTH	ALL	09093024
665504	4163553	0.11956	397.89	444.23	0.00	MONTH	ALL	09093024
665377	4163553	0.04471	397.89	444.23	0.00	MONTH	ALL	09103124
665456	4163553	0.05250	397.89	444.23	0.00	MONTH	ALL	09103124
665504	4163553	0.05877	397.89	444.23	0.00	MONTH	ALL	09103124
665377	4163553	0.03969	397.89	444.23	0.00	MONTH	ALL	09113024
665456	4163553	0.04583	397.89	444.23	0.00	MONTH	ALL	09113024
665504	4163553	0.05058	397.89	444.23	0.00	MONTH	ALL	09113024
665377	4163553	0.03633	397.89	444.23	0.00	MONTH	ALL	09123124
665456	4163553	0.04083	397.89	444.23	0.00	MONTH	ALL	09123124
665504	4163553	0.04523	397.89	444.23	0.00	MONTH	ALL	09123124
665377	4163553	0.04465	397.89	444.23	0.00	MONTH	ALL	10013124
665456	4163553	0.05128	397.89	444.23	0.00	MONTH	ALL	10013124
665504	4163553	0.05747	397.89	444.23	0.00	MONTH	ALL	10013124
665377	4163553	0.05773	397.89	444.23	0.00	MONTH	ALL	10022824
665456	4163553	0.06760	397.89	444.23	0.00	MONTH	ALL	10022824
665504	4163553	0.07795	397.89	444.23	0.00	MONTH	ALL	10022824
665377	4163553	0.03832	397.89	444.23	0.00	MONTH	ALL	10033124

665456	4163553	0.04463	397.89	444.23	0.00	MONTH	ALL	10033124
665504	4163553	0.04986	397.89	444.23	0.00	MONTH	ALL	10033124
665377	4163553	0.02958	397.89	444.23	0.00	MONTH	ALL	10043024
665456	4163553	0.03346	397.89	444.23	0.00	MONTH	ALL	10043024
665504	4163553	0.03697	397.89	444.23	0.00	MONTH	ALL	10043024
665377	4163553	0.05294	397.89	444.23	0.00	MONTH	ALL	10053124
665456	4163553	0.06099	397.89	444.23	0.00	MONTH	ALL	10053124
665504	4163553	0.06800	397.89	444.23	0.00	MONTH	ALL	10053124
665377	4163553	0.06167	397.89	444.23	0.00	MONTH	ALL	10063024
665456	4163553	0.07226	397.89	444.23	0.00	MONTH	ALL	10063024
665504	4163553	0.08185	397.89	444.23	0.00	MONTH	ALL	10063024
665377	4163553	0.05548	397.89	444.23	0.00	MONTH	ALL	10073124
665456	4163553	0.06665	397.89	444.23	0.00	MONTH	ALL	10073124
665504	4163553	0.07595	397.89	444.23	0.00	MONTH	ALL	10073124

LEADPOST OUTPUT FILE:

663149.00000	4158848.00000	385.17	385.17	0.00	0.229600E-01	ALL	October 2009
663649.00000	4158848.00000	385.06	409.99	0.00	0.230667E-01	ALL	July 2010
664149.00000	4158848.00000	398.88	409.71	0.00	0.232167E-01	ALL	July 2010
664649.00000	4158848.00000	391.49	409.61	0.00	0.232067E-01	ALL	October 2009
665149.00000	4158848.00000	386.31	408.21	0.00	0.232433E-01	ALL	October 2009
665649.00000	4158848.00000	363.65	397.34	0.00	0.231167E-01	ALL	July 2010
666149.00000	4158848.00000	358.26	410.34	0.00	0.231567E-01	ALL	July 2010
666649.00000	4158848.00000	346.71	407.43	0.00	0.231467E-01	ALL	March 2010
667149.00000	4158848.00000	351.41	390.65	0.00	0.231700E-01	ALL	March 2010
667649.00000	4158848.00000	346.74	386.60	0.00	0.231933E-01	ALL	March 2010
668149.00000	4158848.00000	364.84	393.27	0.00	0.233667E-01	ALL	March 2010
668649.00000	4158848.00000	373.86	373.86	0.00	0.235900E-01	ALL	March 2010
669149.00000	4158848.00000	349.18	397.27	0.00	0.236100E-01	ALL	March 2010
669649.00000	4158848.00000	333.46	385.38	0.00	0.236267E-01	ALL	March 2010
663149.00000	4159348.00000	361.78	404.12	0.00	0.232100E-01	ALL	October 2009
663649.00000	4159348.00000	381.43	415.45	0.00	0.233300E-01	ALL	October 2009
664149.00000	4159348.00000	412.26	413.42	0.00	0.238567E-01	ALL	October 2009
664649.00000	4159348.00000	396.34	414.37	0.00	0.240233E-01	ALL	July 2010
665149.00000	4159348.00000	386.42	412.82	0.00	0.238133E-01	ALL	October 2009
665649.00000	4159348.00000	395.94	401.15	0.00	0.240800E-01	ALL	July 2010
666149.00000	4159348.00000	364.12	398.12	0.00	0.241700E-01	ALL	July 2010
666649.00000	4159348.00000	344.91	391.99	0.00	0.237700E-01	ALL	July 2010
667149.00000	4159348.00000	365.93	392.09	0.00	0.237333E-01	ALL	March 2010
667649.00000	4159348.00000	332.61	392.37	0.00	0.236467E-01	ALL	March 2010
668149.00000	4159348.00000	332.28	385.75	0.00	0.237233E-01	ALL	March 2010
668649.00000	4159348.00000	359.55	374.12	0.00	0.239233E-01	ALL	March 2010
669149.00000	4159348.00000	351.23	366.08	0.00	0.239767E-01	ALL	March 2010
669649.00000	4159348.00000	364.93	366.68	0.00	0.240733E-01	ALL	March 2010
663149.00000	4159848.00000	353.78	390.43	0.00	0.236200E-01	ALL	October 2009
663649.00000	4159848.00000	377.70	377.70	0.00	0.237967E-01	ALL	October 2009
664149.00000	4159848.00000	392.71	422.97	0.00	0.240633E-01	ALL	October 2009
664649.00000	4159848.00000	387.76	426.39	0.00	0.243033E-01	ALL	October 2009
665149.00000	4159848.00000	377.63	415.71	0.00	0.251000E-01	ALL	July 2010
665649.00000	4159848.00000	371.71	410.08	0.00	0.253967E-01	ALL	July 2010
666149.00000	4159848.00000	351.92	398.02	0.00	0.268700E-01	ALL	July 2010

666649.00000	4159848.00000	380.94	391.71	0.00	0.255400E-01	ALL	July 2010
667149.00000	4159848.00000	383.90	398.93	0.00	0.247033E-01	ALL	March 2010
667649.00000	4159848.00000	371.78	385.01	0.00	0.242767E-01	ALL	March 2010
668149.00000	4159848.00000	372.33	373.58	0.00	0.242933E-01	ALL	March 2010
668649.00000	4159848.00000	352.32	373.51	0.00	0.242633E-01	ALL	March 2010
669149.00000	4159848.00000	329.95	374.28	0.00	0.242467E-01	ALL	March 2010
669649.00000	4159848.00000	321.84	368.99	0.00	0.242533E-01	ALL	March 2010
663149.00000	4160348.00000	374.05	374.05	0.00	0.241633E-01	ALL	October 2009
663649.00000	4160348.00000	407.02	407.98	0.00	0.247533E-01	ALL	October 2009
664149.00000	4160348.00000	407.10	427.35	0.00	0.251267E-01	ALL	October 2009
664649.00000	4160348.00000	392.01	421.24	0.00	0.251633E-01	ALL	October 2009
665149.00000	4160348.00000	412.78	413.85	0.00	0.278433E-01	ALL	October 2009
665649.00000	4160348.00000	383.10	383.10	0.00	0.287067E-01	ALL	July 2010
665999.00000	4160348.00000	370.83	398.31	0.00	0.372233E-01	ALL	July 2010
666099.00000	4160348.00000	368.94	409.42	0.00	0.419000E-01	ALL	July 2010
666199.00000	4160348.00000	388.24	393.02	0.00	0.478467E-01	ALL	July 2010
666299.00000	4160348.00000	372.60	410.64	0.00	0.437833E-01	ALL	July 2010
666399.00000	4160348.00000	382.71	408.58	0.00	0.398800E-01	ALL	July 2010
666499.00000	4160348.00000	399.40	401.31	0.00	0.377967E-01	ALL	July 2010
666649.00000	4160348.00000	388.50	402.98	0.00	0.323833E-01	ALL	July 2010
667149.00000	4160348.00000	398.55	398.55	0.00	0.260633E-01	ALL	July 2010
667649.00000	4160348.00000	372.46	411.77	0.00	0.245367E-01	ALL	March 2010
668149.00000	4160348.00000	375.91	386.50	0.00	0.247367E-01	ALL	March 2010
668649.00000	4160348.00000	366.82	392.16	0.00	0.248400E-01	ALL	March 2010
669149.00000	4160348.00000	345.32	392.16	0.00	0.248067E-01	ALL	March 2010
669649.00000	4160348.00000	353.39	380.31	0.00	0.248067E-01	ALL	March 2010
665999.00000	4160448.00000	385.08	397.80	0.00	0.441600E-01	ALL	July 2010
666099.00000	4160448.00000	368.33	410.64	0.00	0.574000E-01	ALL	July 2010
666199.00000	4160448.00000	394.22	398.08	0.00	0.827267E-01	ALL	July 2010
666299.00000	4160448.00000	378.04	410.64	0.00	0.685000E-01	ALL	July 2010
666399.00000	4160448.00000	377.71	410.64	0.00	0.530633E-01	ALL	July 2010
666499.00000	4160448.00000	384.22	410.64	0.00	0.431800E-01	ALL	July 2010
665999.00000	4160548.00000	392.34	397.87	0.00	0.521367E-01	ALL	July 2010
666099.00000	4160548.00000	371.71	410.64	0.00	0.859233E-01	ALL	July 2010
666399.00000	4160548.00000	403.07	408.21	0.00	0.884433E-01	ALL	July 2010
666499.00000	4160548.00000	398.03	410.16	0.00	0.522133E-01	ALL	July 2010
665999.00000	4160648.00000	397.81	397.81	0.00	0.544433E-01	ALL	July 2010
666099.00000	4160648.00000	379.76	410.49	0.00	0.865867E-01	ALL	July 2010
666399.00000	4160648.00000	410.37	410.37	0.00	0.603067E-01	ALL	July 2010
666499.00000	4160648.00000	402.01	410.39	0.00	0.496833E-01	ALL	July 2010
665999.00000	4160748.00000	400.91	403.56	0.00	0.479867E-01	ALL	July 2010
666099.00000	4160748.00000	390.11	410.42	0.00	0.656767E-01	ALL	July 2010
666199.00000	4160748.00000	385.46	410.85	0.00	0.952933E-01	ALL	July 2010
666299.00000	4160748.00000	400.11	410.13	0.00	0.962667E-01	ALL	July 2010
666399.00000	4160748.00000	409.67	409.67	0.00	0.567333E-01	ALL	July 2010
666499.00000	4160748.00000	405.65	405.65	0.00	0.479900E-01	ALL	July 2010
663149.00000	4160848.00000	360.25	397.35	0.00	0.244633E-01	ALL	October 2009
663649.00000	4160848.00000	404.65	415.48	0.00	0.249100E-01	ALL	October 2009
664149.00000	4160848.00000	411.29	421.61	0.00	0.252733E-01	ALL	October 2009
664649.00000	4160848.00000	417.15	419.35	0.00	0.259467E-01	ALL	July 2010
665149.00000	4160848.00000	395.10	416.62	0.00	0.266100E-01	ALL	July 2010

665649.00000	4160848.00000	380.18	412.71	0.00	0.292367E-01	ALL	July 2010
665999.00000	4160848.00000	396.31	410.42	0.00	0.416967E-01	ALL	July 2010
666099.00000	4160848.00000	405.01	410.41	0.00	0.528567E-01	ALL	July 2010
666199.00000	4160848.00000	385.44	417.25	0.00	0.548167E-01	ALL	July 2010
666299.00000	4160848.00000	398.45	410.62	0.00	0.563467E-01	ALL	July 2010
666399.00000	4160848.00000	408.89	408.89	0.00	0.491933E-01	ALL	July 2010
666499.00000	4160848.00000	398.57	410.46	0.00	0.397933E-01	ALL	July 2010
666649.00000	4160848.00000	383.91	410.88	0.00	0.322300E-01	ALL	July 2010
667149.00000	4160848.00000	387.21	404.63	0.00	0.257733E-01	ALL	July 2010
667649.00000	4160848.00000	393.47	409.49	0.00	0.253433E-01	ALL	March 2010
669149.00000	4160848.00000	353.39	391.70	0.00	0.254533E-01	ALL	March 2010
669649.00000	4160848.00000	355.13	379.22	0.00	0.252833E-01	ALL	March 2010
670149.00000	4160848.00000	379.46	384.11	0.00	0.253200E-01	ALL	March 2010
670649.00000	4160848.00000	342.07	386.36	0.00	0.249967E-01	ALL	March 2010
671149.00000	4160848.00000	368.97	379.37	0.00	0.251100E-01	ALL	March 2010
663149.00000	4161348.00000	378.29	421.56	0.00	0.251200E-01	ALL	October 2009
663649.00000	4161348.00000	378.04	414.87	0.00	0.252167E-01	ALL	October 2009
664149.00000	4161348.00000	389.27	422.17	0.00	0.256100E-01	ALL	October 2009
664649.00000	4161348.00000	400.03	421.71	0.00	0.261600E-01	ALL	October 2009
665149.00000	4161348.00000	406.47	420.73	0.00	0.268267E-01	ALL	July 2010
665649.00000	4161348.00000	417.51	423.25	0.00	0.284867E-01	ALL	July 2010
666149.00000	4161348.00000	400.12	430.42	0.00	0.297633E-01	ALL	July 2010
667149.00000	4161348.00000	387.86	397.74	0.00	0.269733E-01	ALL	March 2010
669649.00000	4161348.00000	321.59	385.53	0.00	0.255433E-01	ALL	March 2010
670149.00000	4161348.00000	364.70	385.53	0.00	0.256900E-01	ALL	March 2010
670649.00000	4161348.00000	346.15	380.21	0.00	0.255000E-01	ALL	March 2010
671149.00000	4161348.00000	340.41	380.21	0.00	0.253567E-01	ALL	March 2010
661149.00000	4161848.00000	353.32	377.14	0.00	0.244500E-01	ALL	October 2009
661649.00000	4161848.00000	384.94	396.58	0.00	0.250633E-01	ALL	October 2009
662149.00000	4161848.00000	385.74	403.18	0.00	0.253900E-01	ALL	October 2009
662649.00000	4161848.00000	397.06	407.38	0.00	0.258033E-01	ALL	October 2009
663149.00000	4161848.00000	409.06	427.59	0.00	0.262767E-01	ALL	October 2009
663649.00000	4161848.00000	392.72	439.55	0.00	0.262967E-01	ALL	October 2009
664149.00000	4161848.00000	402.04	427.95	0.00	0.268567E-01	ALL	October 2009
664649.00000	4161848.00000	413.42	413.42	0.00	0.280300E-01	ALL	October 2009
665149.00000	4161848.00000	410.18	414.34	0.00	0.284800E-01	ALL	July 2010
665649.00000	4161848.00000	374.44	429.03	0.00	0.293100E-01	ALL	July 2010
666649.00000	4161848.00000	380.92	383.04	0.00	0.273967E-01	ALL	March 2010
667149.00000	4161848.00000	393.93	397.54	0.00	0.275133E-01	ALL	March 2010
668149.00000	4161848.00000	396.96	410.25	0.00	0.274433E-01	ALL	March 2010
669149.00000	4161848.00000	376.31	376.31	0.00	0.266667E-01	ALL	March 2010
669649.00000	4161848.00000	317.18	391.88	0.00	0.260767E-01	ALL	March 2010
670149.00000	4161848.00000	317.91	385.53	0.00	0.259700E-01	ALL	March 2010
670649.00000	4161848.00000	313.28	385.49	0.00	0.257933E-01	ALL	March 2010
671149.00000	4161848.00000	304.85	380.21	0.00	0.254933E-01	ALL	March 2010
663022.00000	4168215.00000	403.36	403.36	0.00	0.323833E-01	ALL	July 2010
663068.00000	4168234.00000	402.79	402.79	0.00	0.367100E-01	ALL	July 2010
663114.00000	4168253.00000	401.31	401.31	0.00	0.376433E-01	ALL	July 2010
663160.00000	4168273.00000	397.95	397.95	0.00	0.382167E-01	ALL	July 2010
663206.00000	4168292.00000	396.59	396.59	0.00	0.393000E-01	ALL	July 2010
663253.00000	4168311.00000	399.66	399.66	0.00	0.407467E-01	ALL	July 2010

663299.00000	4168330.00000	400.59	400.59	0.00	0.418100E-01	ALL	July 2010
663345.00000	4168349.00000	400.21	400.21	0.00	0.425533E-01	ALL	July 2010
663391.00000	4168369.00000	398.27	398.27	0.00	0.431700E-01	ALL	July 2010
663433.00000	4168396.00000	399.10	399.10	0.00	0.462100E-01	ALL	July 2010
663474.00000	4168425.00000	398.37	399.75	0.00	0.461633E-01	ALL	July 2010
663516.00000	4168452.00000	394.04	403.20	0.00	0.417133E-01	ALL	July 2010
663557.00000	4168481.00000	390.83	403.20	0.00	0.408467E-01	ALL	July 2010
663598.00000	4168509.00000	385.78	403.20	0.00	0.405367E-01	ALL	July 2010
665762.00000	4168192.00000	430.25	431.44	0.00	0.515567E-01	ALL	July 2010
665263.00000	4168200.00000	401.08	422.07	0.00	0.699833E-01	ALL	July 2010
665313.00000	4168200.00000	403.17	422.06	0.00	0.696100E-01	ALL	July 2010
665363.00000	4168200.00000	407.91	422.06	0.00	0.689867E-01	ALL	July 2010
665413.00000	4168200.00000	411.33	422.06	0.00	0.673533E-01	ALL	July 2010
665463.00000	4168200.00000	410.34	427.76	0.00	0.644800E-01	ALL	July 2010
665513.00000	4168200.00000	414.94	427.76	0.00	0.624767E-01	ALL	July 2010
665563.00000	4168200.00000	420.06	420.06	0.00	0.607067E-01	ALL	July 2010
665613.00000	4168200.00000	422.88	427.80	0.00	0.585533E-01	ALL	July 2010
665663.00000	4168200.00000	425.39	428.43	0.00	0.562067E-01	ALL	July 2010
665713.00000	4168200.00000	427.22	432.37	0.00	0.538300E-01	ALL	July 2010
665219.00000	4168218.00000	399.48	415.80	0.00	0.691800E-01	ALL	July 2010
665218.00000	4168268.00000	400.44	415.59	0.00	0.667667E-01	ALL	July 2010
665218.00000	4168318.00000	406.68	410.94	0.00	0.653367E-01	ALL	July 2010
665218.00000	4168368.00000	409.65	409.65	0.00	0.635967E-01	ALL	July 2010
665218.00000	4168418.00000	405.40	409.31	0.00	0.610900E-01	ALL	July 2010
665218.00000	4168468.00000	397.26	416.18	0.00	0.584300E-01	ALL	July 2010
665218.00000	4168518.00000	395.50	416.18	0.00	0.567233E-01	ALL	July 2010
665149.00000	4169848.00000	378.63	400.76	0.00	0.408733E-01	ALL	July 2010
665249.00000	4169848.00000	391.86	391.86	0.00	0.448767E-01	ALL	July 2010
665649.00000	4169848.00000	392.23	420.90	0.00	0.454867E-01	ALL	July 2010
665149.00000	4170348.00000	400.35	400.35	0.00	0.356767E-01	ALL	July 2010
665249.00000	4169348.00000	398.87	410.50	0.00	0.450967E-01	ALL	July 2010
665349.00000	4169348.00000	404.57	421.01	0.00	0.459233E-01	ALL	July 2010
665449.00000	4169348.00000	411.33	421.01	0.00	0.460000E-01	ALL	July 2010
665549.00000	4169348.00000	420.90	420.90	0.00	0.478800E-01	ALL	July 2010
665649.00000	4169348.00000	424.79	424.79	0.00	0.548300E-01	ALL	July 2010
665149.00000	4169948.00000	377.20	392.10	0.00	0.392500E-01	ALL	July 2010
665249.00000	4169948.00000	378.79	399.13	0.00	0.411333E-01	ALL	July 2010
665349.00000	4169948.00000	380.33	399.74	0.00	0.442200E-01	ALL	July 2010
665449.00000	4169948.00000	381.91	399.96	0.00	0.454267E-01	ALL	July 2010
665549.00000	4169948.00000	382.44	415.02	0.00	0.438000E-01	ALL	July 2010
665649.00000	4169948.00000	389.87	421.30	0.00	0.411500E-01	ALL	July 2010
665149.00000	4169448.00000	403.42	403.42	0.00	0.458600E-01	ALL	July 2010
665249.00000	4169448.00000	408.70	408.70	0.00	0.461333E-01	ALL	July 2010
665349.00000	4169448.00000	410.41	410.41	0.00	0.467933E-01	ALL	July 2010
665449.00000	4169448.00000	411.09	419.27	0.00	0.473000E-01	ALL	July 2010
665549.00000	4169448.00000	420.18	420.18	0.00	0.495033E-01	ALL	July 2010
665649.00000	4169448.00000	416.32	425.97	0.00	0.460267E-01	ALL	July 2010
665149.00000	4170048.00000	382.70	385.00	0.00	0.381533E-01	ALL	July 2010
665249.00000	4170048.00000	389.68	392.10	0.00	0.394633E-01	ALL	July 2010
665349.00000	4170048.00000	393.53	393.53	0.00	0.405533E-01	ALL	July 2010
665449.00000	4170048.00000	396.51	396.51	0.00	0.407033E-01	ALL	July 2010

665549.00000	4170048.00000	394.44	397.60	0.00	0.399400E-01	ALL	July 2010
665649.00000	4170048.00000	396.89	403.09	0.00	0.388633E-01	ALL	July 2010
665149.00000	4169548.00000	402.29	402.29	0.00	0.460500E-01	ALL	July 2010
665249.00000	4169548.00000	406.28	406.28	0.00	0.498367E-01	ALL	July 2010
665449.00000	4169548.00000	408.60	413.63	0.00	0.542633E-01	ALL	July 2010
665549.00000	4169548.00000	414.06	414.06	0.00	0.566333E-01	ALL	July 2010
665649.00000	4169548.00000	403.01	428.49	0.00	0.485833E-01	ALL	July 2010
665149.00000	4170148.00000	385.48	397.19	0.00	0.371067E-01	ALL	July 2010
665249.00000	4170148.00000	383.38	398.16	0.00	0.373900E-01	ALL	July 2010
665349.00000	4170148.00000	390.11	390.11	0.00	0.377567E-01	ALL	July 2010
665449.00000	4170148.00000	395.67	395.67	0.00	0.377800E-01	ALL	July 2010
665549.00000	4170148.00000	402.08	402.08	0.00	0.376900E-01	ALL	July 2010
665649.00000	4170148.00000	398.32	410.10	0.00	0.369233E-01	ALL	July 2010
665149.00000	4169648.00000	395.34	397.00	0.00	0.444467E-01	ALL	July 2010
665249.00000	4169648.00000	397.98	402.44	0.00	0.501700E-01	ALL	July 2010
665649.00000	4169648.00000	403.49	410.35	0.00	0.528433E-01	ALL	July 2010
665149.00000	4170248.00000	396.94	396.94	0.00	0.365133E-01	ALL	July 2010
665249.00000	4170248.00000	388.21	403.23	0.00	0.362167E-01	ALL	July 2010
665349.00000	4170248.00000	393.64	393.64	0.00	0.362567E-01	ALL	July 2010
665449.00000	4170248.00000	396.74	396.74	0.00	0.360967E-01	ALL	July 2010
665549.00000	4170248.00000	399.43	409.54	0.00	0.358933E-01	ALL	July 2010
665649.00000	4170248.00000	409.66	409.66	0.00	0.360200E-01	ALL	July 2010
665149.00000	4169748.00000	390.57	390.57	0.00	0.433233E-01	ALL	July 2010
665249.00000	4169748.00000	388.67	399.75	0.00	0.480067E-01	ALL	July 2010
670649.00000	4161848.00000	313.28	385.49	0.00	0.257933E-01	ALL	March 2010
671149.00000	4161848.00000	304.85	380.21	0.00	0.254933E-01	ALL	March 2010
661149.00000	4162348.00000	353.98	389.71	0.00	0.247400E-01	ALL	October 2009
661649.00000	4162348.00000	377.02	377.02	0.00	0.253800E-01	ALL	October 2009
662149.00000	4162348.00000	365.99	395.50	0.00	0.258233E-01	ALL	October 2009
662649.00000	4162348.00000	390.27	395.59	0.00	0.264233E-01	ALL	October 2009
663149.00000	4162348.00000	426.62	426.62	0.00	0.276300E-01	ALL	October 2009
663649.00000	4162348.00000	435.16	435.16	0.00	0.283100E-01	ALL	October 2009
664149.00000	4162348.00000	427.46	433.13	0.00	0.291233E-01	ALL	October 2009
664649.00000	4162348.00000	417.84	421.29	0.00	0.301400E-01	ALL	October 2009
665149.00000	4162348.00000	417.16	423.94	0.00	0.313767E-01	ALL	October 2009
665649.00000	4162348.00000	390.00	421.85	0.00	0.389667E-01	ALL	July 2010
665849.00000	4162348.00000	396.20	424.12	0.00	0.492533E-01	ALL	July 2010
665949.00000	4162348.00000	398.95	422.24	0.00	0.452167E-01	ALL	July 2010
666049.00000	4162348.00000	396.37	422.24	0.00	0.399200E-01	ALL	July 2010
666149.00000	4162348.00000	395.31	421.76	0.00	0.359733E-01	ALL	July 2010
666649.00000	4162348.00000	415.29	415.29	0.00	0.299500E-01	ALL	March 2010
667649.00000	4162348.00000	379.32	409.02	0.00	0.284400E-01	ALL	March 2010
668149.00000	4162348.00000	385.67	398.32	0.00	0.282167E-01	ALL	March 2010
668649.00000	4162348.00000	368.33	385.72	0.00	0.275533E-01	ALL	March 2010
669149.00000	4162348.00000	338.71	402.01	0.00	0.270200E-01	ALL	March 2010
669649.00000	4162348.00000	348.30	403.32	0.00	0.269300E-01	ALL	March 2010
670149.00000	4162348.00000	334.39	397.96	0.00	0.266167E-01	ALL	March 2010
670649.00000	4162348.00000	361.43	385.10	0.00	0.264600E-01	ALL	March 2010
671149.00000	4162348.00000	354.15	367.51	0.00	0.259133E-01	ALL	March 2010
665649.00000	4162448.00000	392.48	426.08	0.00	0.438800E-01	ALL	July 2010
665749.00000	4162448.00000	388.49	428.30	0.00	0.616133E-01	ALL	July 2010

665849.00000	4162448.00000	404.66	426.08	0.00	0.101887E+00	ALL	July 2010
665949.00000	4162448.00000	415.61	421.29	0.00	0.800300E-01	ALL	July 2010
666049.00000	4162448.00000	413.26	416.58	0.00	0.527333E-01	ALL	July 2010
666149.00000	4162448.00000	415.07	415.07	0.00	0.416733E-01	ALL	July 2010
665649.00000	4162548.00000	396.12	426.82	0.00	0.470733E-01	ALL	July 2010
665749.00000	4162548.00000	390.33	428.31	0.00	0.766200E-01	ALL	July 2010
666049.00000	4162548.00000	414.85	417.77	0.00	0.565100E-01	ALL	July 2010
666149.00000	4162548.00000	406.59	417.30	0.00	0.404333E-01	ALL	July 2010
665649.00000	4162648.00000	396.18	429.07	0.00	0.444067E-01	ALL	July 2010
665749.00000	4162648.00000	393.25	428.74	0.00	0.602033E-01	ALL	July 2010
665849.00000	4162648.00000	419.29	426.58	0.00	0.105300E+00	ALL	July 2010
665949.00000	4162648.00000	423.73	423.73	0.00	0.795233E-01	ALL	July 2010
666049.00000	4162648.00000	414.71	428.30	0.00	0.506433E-01	ALL	July 2010
666149.00000	4162648.00000	401.15	428.72	0.00	0.389700E-01	ALL	July 2010
665649.00000	4162748.00000	400.59	433.76	0.00	0.425300E-01	ALL	July 2010
665749.00000	4162748.00000	396.86	430.18	0.00	0.488167E-01	ALL	July 2010
665849.00000	4162748.00000	414.53	428.30	0.00	0.561233E-01	ALL	July 2010
665949.00000	4162748.00000	427.93	427.93	0.00	0.547800E-01	ALL	July 2010
666049.00000	4162748.00000	422.01	427.80	0.00	0.458000E-01	ALL	July 2010
666149.00000	4162748.00000	414.24	423.54	0.00	0.392767E-01	ALL	July 2010
661149.00000	4162848.00000	362.40	362.40	0.00	0.250833E-01	ALL	October 2009
661649.00000	4162848.00000	378.49	378.49	0.00	0.257033E-01	ALL	October 2009
662149.00000	4162848.00000	378.51	402.46	0.00	0.264300E-01	ALL	October 2009
662649.00000	4162848.00000	398.62	402.53	0.00	0.273767E-01	ALL	October 2009
663149.00000	4162848.00000	400.23	409.31	0.00	0.280167E-01	ALL	October 2009
663649.00000	4162848.00000	409.72	422.45	0.00	0.288900E-01	ALL	October 2009
664149.00000	4162848.00000	401.87	432.06	0.00	0.297400E-01	ALL	October 2009
664649.00000	4162848.00000	418.27	426.00	0.00	0.323267E-01	ALL	July 2010
664749.00000	4162848.00000	423.12	425.99	0.00	0.331533E-01	ALL	July 2010
664849.00000	4162848.00000	417.78	431.16	0.00	0.333100E-01	ALL	October 2009
664949.00000	4162848.00000	409.01	438.81	0.00	0.335600E-01	ALL	October 2009
665049.00000	4162848.00000	423.86	426.35	0.00	0.349400E-01	ALL	October 2009
665149.00000	4162848.00000	431.56	431.56	0.00	0.358900E-01	ALL	October 2009
665249.00000	4162848.00000	432.92	436.55	0.00	0.363867E-01	ALL	October 2009
665349.00000	4162848.00000	421.29	439.30	0.00	0.369267E-01	ALL	October 2009
665449.00000	4162848.00000	424.25	429.07	0.00	0.388667E-01	ALL	July 2010
665549.00000	4162848.00000	419.85	424.88	0.00	0.406800E-01	ALL	July 2010
665649.00000	4162848.00000	399.94	439.16	0.00	0.415267E-01	ALL	July 2010
665749.00000	4162848.00000	406.61	430.18	0.00	0.444800E-01	ALL	July 2010
665849.00000	4162848.00000	407.88	429.53	0.00	0.450233E-01	ALL	July 2010
665949.00000	4162848.00000	426.25	426.25	0.00	0.462633E-01	ALL	July 2010
666049.00000	4162848.00000	426.53	426.53	0.00	0.434067E-01	ALL	July 2010
666149.00000	4162848.00000	419.52	422.39	0.00	0.386033E-01	ALL	July 2010
666249.00000	4162848.00000	419.51	420.68	0.00	0.363233E-01	ALL	March 2010
666349.00000	4162848.00000	397.72	426.16	0.00	0.343767E-01	ALL	March 2010
666449.00000	4162848.00000	406.30	422.91	0.00	0.340500E-01	ALL	March 2010
666549.00000	4162848.00000	402.22	422.91	0.00	0.341767E-01	ALL	March 2010
667649.00000	4162848.00000	400.58	402.06	0.00	0.298833E-01	ALL	March 2010
668149.00000	4162848.00000	382.93	398.89	0.00	0.288367E-01	ALL	March 2010
668649.00000	4162848.00000	387.28	387.28	0.00	0.285700E-01	ALL	March 2010
669149.00000	4162848.00000	367.87	397.82	0.00	0.281200E-01	ALL	March 2010

669649.00000	4162848.00000	397.82	399.88	0.00	0.283033E-01	ALL	March 2010
670149.00000	4162848.00000	388.69	389.95	0.00	0.276333E-01	ALL	March 2010
670649.00000	4162848.00000	350.48	393.35	0.00	0.265567E-01	ALL	March 2010
671149.00000	4162848.00000	360.08	386.47	0.00	0.259167E-01	ALL	March 2010
664649.00000	4162948.00000	426.32	426.32	0.00	0.334200E-01	ALL	October 2009
664749.00000	4162948.00000	430.47	432.20	0.00	0.341733E-01	ALL	October 2009
664849.00000	4162948.00000	426.68	432.56	0.00	0.346100E-01	ALL	October 2009
664949.00000	4162948.00000	416.58	433.45	0.00	0.347767E-01	ALL	October 2009
665049.00000	4162948.00000	416.51	439.30	0.00	0.356667E-01	ALL	October 2009
665149.00000	4162948.00000	430.23	438.79	0.00	0.374433E-01	ALL	October 2009
665249.00000	4162948.00000	439.13	439.13	0.00	0.379567E-01	ALL	October 2009
665349.00000	4162948.00000	435.53	435.53	0.00	0.393067E-01	ALL	October 2009
665449.00000	4162948.00000	430.05	430.05	0.00	0.403800E-01	ALL	October 2009
665549.00000	4162948.00000	418.06	432.71	0.00	0.415600E-01	ALL	July 2010
665649.00000	4162948.00000	405.62	437.16	0.00	0.423033E-01	ALL	July 2010
665749.00000	4162948.00000	424.79	424.79	0.00	0.449300E-01	ALL	July 2010
665849.00000	4162948.00000	415.64	429.91	0.00	0.434200E-01	ALL	July 2010
665949.00000	4162948.00000	426.79	426.79	0.00	0.434467E-01	ALL	July 2010
666049.00000	4162948.00000	426.34	426.34	0.00	0.419433E-01	ALL	July 2010
666149.00000	4162948.00000	405.44	428.74	0.00	0.393867E-01	ALL	March 2010
666249.00000	4162948.00000	403.40	428.72	0.00	0.383033E-01	ALL	March 2010
666349.00000	4162948.00000	397.37	426.16	0.00	0.368767E-01	ALL	March 2010
664649.00000	4163048.00000	421.80	433.15	0.00	0.337833E-01	ALL	October 2009
664749.00000	4163048.00000	430.83	430.83	0.00	0.351100E-01	ALL	October 2009
664849.00000	4163048.00000	433.03	433.03	0.00	0.362433E-01	ALL	October 2009
664949.00000	4163048.00000	428.05	429.61	0.00	0.367033E-01	ALL	October 2009
665049.00000	4163048.00000	418.25	439.13	0.00	0.369867E-01	ALL	October 2009
665149.00000	4163048.00000	426.21	439.13	0.00	0.389233E-01	ALL	October 2009
665249.00000	4163048.00000	437.89	437.89	0.00	0.406633E-01	ALL	October 2009
665349.00000	4163048.00000	430.23	438.83	0.00	0.423000E-01	ALL	October 2009
665449.00000	4163048.00000	419.63	439.16	0.00	0.428033E-01	ALL	October 2009
665549.00000	4163048.00000	414.96	433.61	0.00	0.433900E-01	ALL	July 2010
665649.00000	4163048.00000	419.97	430.77	0.00	0.457733E-01	ALL	July 2010
665749.00000	4163048.00000	429.91	429.91	0.00	0.467233E-01	ALL	July 2010
665849.00000	4163048.00000	427.47	427.47	0.00	0.456267E-01	ALL	July 2010
665949.00000	4163048.00000	408.32	429.91	0.00	0.427100E-01	ALL	March 2010
666049.00000	4163048.00000	415.63	428.72	0.00	0.437467E-01	ALL	March 2010
666149.00000	4163048.00000	418.78	418.78	0.00	0.439500E-01	ALL	March 2010
666249.00000	4163048.00000	402.21	428.37	0.00	0.407767E-01	ALL	March 2010
664649.00000	4163148.00000	415.77	433.45	0.00	0.343867E-01	ALL	October 2009
664749.00000	4163148.00000	428.28	433.02	0.00	0.359200E-01	ALL	October 2009
664849.00000	4163148.00000	433.37	433.37	0.00	0.373767E-01	ALL	October 2009
664949.00000	4163148.00000	433.63	433.63	0.00	0.386433E-01	ALL	October 2009
665049.00000	4163148.00000	431.43	431.43	0.00	0.395867E-01	ALL	October 2009
665149.00000	4163148.00000	429.68	438.78	0.00	0.411733E-01	ALL	October 2009
665249.00000	4163148.00000	437.47	437.47	0.00	0.435567E-01	ALL	October 2009
665349.00000	4163148.00000	431.84	434.94	0.00	0.454633E-01	ALL	October 2009
665449.00000	4163148.00000	423.58	433.98	0.00	0.476567E-01	ALL	October 2009
665549.00000	4163148.00000	418.57	430.77	0.00	0.482533E-01	ALL	October 2009
665649.00000	4163148.00000	430.61	430.61	0.00	0.517300E-01	ALL	July 2010
665749.00000	4163148.00000	424.05	429.69	0.00	0.515433E-01	ALL	July 2010

665849.00000	4163148.00000	421.50	428.51	0.00	0.503600E-01	ALL	March 2010
665949.00000	4163148.00000	409.36	429.53	0.00	0.493367E-01	ALL	March 2010
666049.00000	4163148.00000	397.89	429.91	0.00	0.477567E-01	ALL	March 2010
666149.00000	4163148.00000	401.03	428.72	0.00	0.464367E-01	ALL	March 2010
666249.00000	4163148.00000	396.13	428.37	0.00	0.433867E-01	ALL	March 2010
664649.00000	4163248.00000	418.32	421.98	0.00	0.355867E-01	ALL	October 2009
664749.00000	4163248.00000	426.32	426.32	0.00	0.370333E-01	ALL	October 2009
664849.00000	4163248.00000	421.59	433.97	0.00	0.377200E-01	ALL	October 2009
664949.00000	4163248.00000	428.21	432.73	0.00	0.396133E-01	ALL	October 2009
665049.00000	4163248.00000	429.49	434.28	0.00	0.414533E-01	ALL	October 2009
665149.00000	4163248.00000	437.04	438.10	0.00	0.445033E-01	ALL	October 2009
665249.00000	4163248.00000	438.85	438.85	0.00	0.468100E-01	ALL	October 2009
665349.00000	4163248.00000	428.96	443.93	0.00	0.497633E-01	ALL	October 2009
665449.00000	4163248.00000	422.58	442.96	0.00	0.533267E-01	ALL	October 2009
665549.00000	4163248.00000	427.16	427.16	0.00	0.592000E-01	ALL	October 2009
665649.00000	4163248.00000	414.98	430.77	0.00	0.576933E-01	ALL	July 2010
665749.00000	4163248.00000	410.53	430.77	0.00	0.592967E-01	ALL	July 2010
665849.00000	4163248.00000	408.15	430.77	0.00	0.597867E-01	ALL	March 2010
665949.00000	4163248.00000	393.58	430.77	0.00	0.585633E-01	ALL	March 2010
666649.00000	4163248.00000	403.33	403.33	0.00	0.344367E-01	ALL	March 2010
665977.00000	4163280.00000	392.47	430.77	0.00	0.616800E-01	ALL	March 2010
665927.00000	4163302.00000	392.68	433.98	0.00	0.678533E-01	ALL	March 2010
665882.00000	4163324.00000	394.36	437.31	0.00	0.752933E-01	ALL	March 2010
665838.00000	4163350.00000	397.69	441.32	0.00	0.859833E-01	ALL	March 2010
665787.00000	4163352.00000	395.26	444.23	0.00	0.834200E-01	ALL	July 2010
665734.00000	4163353.00000	397.89	444.23	0.00	0.855633E-01	ALL	July 2010
665688.00000	4163378.00000	401.85	444.23	0.00	0.920367E-01	ALL	October 2009
665661.00000	4163427.00000	406.03	444.23	0.00	0.116930E+00	ALL	July 2010
665629.00000	4163473.00000	411.13	444.23	0.00	0.120080E+00	ALL	October 2009
665587.00000	4163505.00000	415.92	444.23	0.00	0.106090E+00	ALL	October 2009
665542.00000	4163535.00000	426.57	443.47	0.00	0.997300E-01	ALL	October 2009
665346.00000	4163608.00000	429.26	443.12	0.00	0.642533E-01	ALL	October 2009
665343.00000	4163662.00000	431.40	443.12	0.00	0.642967E-01	ALL	October 2009
665343.00000	4163717.00000	434.54	443.01	0.00	0.623833E-01	ALL	October 2009
665633.00000	4163747.00000	432.90	432.90	0.00	0.127127E+00	ALL	July 2010
665673.00000	4163750.00000	431.39	431.39	0.00	0.140597E+00	ALL	July 2010
665578.00000	4163773.00000	430.88	444.23	0.00	0.116423E+00	ALL	July 2010
665633.00000	4163773.00000	431.72	431.72	0.00	0.121480E+00	ALL	July 2010
665673.00000	4163778.00000	430.64	430.64	0.00	0.129367E+00	ALL	July 2010
665751.00000	4163781.00000	428.51	428.51	0.00	0.126467E+00	ALL	July 2010
665328.00000	4163783.00000	436.45	441.97	0.00	0.574133E-01	ALL	July 2010
665525.00000	4163787.00000	436.13	444.23	0.00	0.112700E+00	ALL	July 2010
665577.00000	4163787.00000	429.16	444.23	0.00	0.114173E+00	ALL	July 2010
665476.00000	4163790.00000	441.89	443.74	0.00	0.111617E+00	ALL	July 2010
665380.00000	4163794.00000	441.15	441.15	0.00	0.735767E-01	ALL	October 2009
665430.00000	4163806.00000	440.66	443.58	0.00	0.937233E-01	ALL	July 2010
665475.00000	4163817.00000	437.31	444.23	0.00	0.968600E-01	ALL	July 2010
665749.00000	4163848.00000	424.41	428.18	0.00	0.940133E-01	ALL	July 2010
665849.00000	4163848.00000	408.58	441.32	0.00	0.750567E-01	ALL	July 2010
661149.00000	4163348.00000	346.63	396.50	0.00	0.252133E-01	ALL	October 2009
661649.00000	4163348.00000	371.59	371.59	0.00	0.258800E-01	ALL	October 2009

662149.00000	4163348.00000	375.44	385.12	0.00	0.266400E-01	ALL	October 2009
662649.00000	4163348.00000	376.08	376.08	0.00	0.276933E-01	ALL	October 2009
663149.00000	4163348.00000	408.29	408.29	0.00	0.291767E-01	ALL	October 2009
663649.00000	4163348.00000	405.83	421.45	0.00	0.301667E-01	ALL	October 2009
664149.00000	4163348.00000	398.94	421.59	0.00	0.316433E-01	ALL	October 2009
664649.00000	4163348.00000	418.42	420.96	0.00	0.364600E-01	ALL	October 2009
664749.00000	4163348.00000	412.36	433.45	0.00	0.371067E-01	ALL	October 2009
664849.00000	4163348.00000	408.79	433.97	0.00	0.381967E-01	ALL	October 2009
664949.00000	4163348.00000	413.46	443.35	0.00	0.400800E-01	ALL	October 2009
665049.00000	4163348.00000	429.01	429.01	0.00	0.436067E-01	ALL	October 2009
665149.00000	4163348.00000	434.81	443.35	0.00	0.476300E-01	ALL	October 2009
665249.00000	4163348.00000	443.72	443.72	0.00	0.500667E-01	ALL	October 2009
665349.00000	4163348.00000	439.80	439.80	0.00	0.562067E-01	ALL	October 2009
665449.00000	4163348.00000	429.39	440.02	0.00	0.627167E-01	ALL	October 2009
665549.00000	4163348.00000	417.07	442.35	0.00	0.692000E-01	ALL	October 2009
665649.00000	4163348.00000	410.71	432.52	0.00	0.778233E-01	ALL	October 2009
666449.00000	4163348.00000	393.29	422.15	0.00	0.376300E-01	ALL	July 2010
666549.00000	4163348.00000	396.22	422.15	0.00	0.356833E-01	ALL	July 2010
666649.00000	4163348.00000	406.58	409.58	0.00	0.344567E-01	ALL	July 2010
667149.00000	4163348.00000	404.66	404.66	0.00	0.315833E-01	ALL	March 2010
667649.00000	4163348.00000	373.80	404.61	0.00	0.302800E-01	ALL	February 2010
668149.00000	4163348.00000	375.00	404.28	0.00	0.299400E-01	ALL	February 2010
668649.00000	4163348.00000	344.03	396.82	0.00	0.292033E-01	ALL	March 2010
669149.00000	4163348.00000	354.83	404.55	0.00	0.289400E-01	ALL	March 2010
669649.00000	4163348.00000	396.75	404.24	0.00	0.288133E-01	ALL	March 2010
670149.00000	4163348.00000	362.74	404.28	0.00	0.274067E-01	ALL	March 2010
670649.00000	4163348.00000	382.19	393.35	0.00	0.266833E-01	ALL	March 2010
671149.00000	4163348.00000	349.62	391.56	0.00	0.255467E-01	ALL	March 2010
664649.00000	4163448.00000	406.04	422.15	0.00	0.372333E-01	ALL	October 2009
664749.00000	4163448.00000	402.34	433.97	0.00	0.371033E-01	ALL	October 2009
664849.00000	4163448.00000	414.39	421.19	0.00	0.392000E-01	ALL	October 2009
664949.00000	4163448.00000	422.73	422.73	0.00	0.418167E-01	ALL	October 2009
665049.00000	4163448.00000	429.37	429.37	0.00	0.451633E-01	ALL	October 2009
665149.00000	4163448.00000	435.31	436.77	0.00	0.501833E-01	ALL	October 2009
665249.00000	4163448.00000	434.91	443.45	0.00	0.556833E-01	ALL	October 2009
665349.00000	4163448.00000	436.85	438.14	0.00	0.642767E-01	ALL	October 2009
665449.00000	4163448.00000	429.72	432.24	0.00	0.726133E-01	ALL	October 2009
665549.00000	4163448.00000	419.90	436.31	0.00	0.869700E-01	ALL	October 2009
666349.00000	4163448.00000	407.93	421.84	0.00	0.409967E-01	ALL	June 2010
666449.00000	4163448.00000	404.67	422.15	0.00	0.377600E-01	ALL	July 2010
666549.00000	4163448.00000	415.06	415.06	0.00	0.361533E-01	ALL	July 2010
666649.00000	4163448.00000	409.59	415.40	0.00	0.341133E-01	ALL	July 2010
664649.00000	4163548.00000	398.56	440.10	0.00	0.358600E-01	ALL	October 2009
664749.00000	4163548.00000	406.41	439.55	0.00	0.377833E-01	ALL	October 2009
664849.00000	4163548.00000	403.63	440.73	0.00	0.385567E-01	ALL	October 2009
664949.00000	4163548.00000	411.26	440.12	0.00	0.408400E-01	ALL	October 2009
665049.00000	4163548.00000	418.67	438.61	0.00	0.439200E-01	ALL	October 2009
665149.00000	4163548.00000	421.50	443.45	0.00	0.478533E-01	ALL	October 2009
665249.00000	4163548.00000	425.33	443.45	0.00	0.541000E-01	ALL	October 2009
666349.00000	4163548.00000	407.22	422.15	0.00	0.394800E-01	ALL	July 2010
666449.00000	4163548.00000	421.99	421.99	0.00	0.378767E-01	ALL	July 2010

666549.00000	4163548.00000	411.38	422.15	0.00	0.351333E-01	ALL	July 2010
666649.00000	4163548.00000	396.30	422.15	0.00	0.334667E-01	ALL	March 2010
664649.00000	4163648.00000	411.58	439.55	0.00	0.354167E-01	ALL	October 2009
664749.00000	4163648.00000	423.59	426.67	0.00	0.378233E-01	ALL	October 2009
664849.00000	4163648.00000	416.14	440.70	0.00	0.386367E-01	ALL	October 2009
664949.00000	4163648.00000	418.99	440.70	0.00	0.402333E-01	ALL	October 2009
665049.00000	4163648.00000	414.59	449.65	0.00	0.422400E-01	ALL	October 2009
665149.00000	4163648.00000	414.24	449.65	0.00	0.455867E-01	ALL	October 2009
665249.00000	4163648.00000	418.76	444.23	0.00	0.516200E-01	ALL	October 2009
666249.00000	4163648.00000	407.48	423.46	0.00	0.417533E-01	ALL	July 2010
666349.00000	4163648.00000	420.32	420.32	0.00	0.393233E-01	ALL	July 2010
666449.00000	4163648.00000	415.43	421.94	0.00	0.364733E-01	ALL	July 2010
666549.00000	4163648.00000	400.80	422.15	0.00	0.343600E-01	ALL	February 2010
664649.00000	4163748.00000	423.24	423.24	0.00	0.352933E-01	ALL	October 2009
664749.00000	4163748.00000	431.55	431.55	0.00	0.367233E-01	ALL	October 2009
664849.00000	4163748.00000	423.58	440.73	0.00	0.383067E-01	ALL	July 2010
664949.00000	4163748.00000	434.15	436.55	0.00	0.394200E-01	ALL	October 2009
665049.00000	4163748.00000	426.04	445.80	0.00	0.424033E-01	ALL	July 2010
665149.00000	4163748.00000	422.41	449.65	0.00	0.452833E-01	ALL	July 2010
665249.00000	4163748.00000	425.98	449.65	0.00	0.511833E-01	ALL	July 2010
666149.00000	4163748.00000	402.32	433.06	0.00	0.456100E-01	ALL	July 2010
666249.00000	4163748.00000	410.84	423.46	0.00	0.412667E-01	ALL	July 2010
666349.00000	4163748.00000	415.60	423.46	0.00	0.383400E-01	ALL	July 2010
666449.00000	4163748.00000	402.86	423.46	0.00	0.352367E-01	ALL	July 2010
665751.00000	4163831.00000	426.30	426.30	0.00	0.100543E+00	ALL	July 2010
661149.00000	4163848.00000	368.03	396.50	0.00	0.254467E-01	ALL	October 2009
661649.00000	4163848.00000	348.17	396.49	0.00	0.259567E-01	ALL	October 2009
662149.00000	4163848.00000	368.12	391.35	0.00	0.267900E-01	ALL	October 2009
662649.00000	4163848.00000	397.70	400.42	0.00	0.281533E-01	ALL	October 2009
663149.00000	4163848.00000	366.54	409.22	0.00	0.288100E-01	ALL	October 2009
663649.00000	4163848.00000	403.15	409.35	0.00	0.302100E-01	ALL	October 2009
664149.00000	4163848.00000	394.43	416.09	0.00	0.308167E-01	ALL	October 2009
664649.00000	4163848.00000	420.24	439.55	0.00	0.347500E-01	ALL	July 2010
664749.00000	4163848.00000	435.09	438.80	0.00	0.357000E-01	ALL	July 2010
664849.00000	4163848.00000	438.80	438.80	0.00	0.362800E-01	ALL	July 2010
664949.00000	4163848.00000	440.29	440.29	0.00	0.392200E-01	ALL	October 2009
665049.00000	4163848.00000	438.94	440.71	0.00	0.426533E-01	ALL	October 2009
665149.00000	4163848.00000	437.92	449.65	0.00	0.467333E-01	ALL	October 2009
665249.00000	4163848.00000	438.13	438.13	0.00	0.522600E-01	ALL	October 2009
665349.00000	4163848.00000	439.14	439.14	0.00	0.716767E-01	ALL	October 2009
665449.00000	4163848.00000	436.51	443.74	0.00	0.820100E-01	ALL	July 2010
665549.00000	4163848.00000	424.95	444.23	0.00	0.921633E-01	ALL	July 2010
665649.00000	4163848.00000	417.72	444.23	0.00	0.938867E-01	ALL	July 2010
666049.00000	4163848.00000	416.79	428.48	0.00	0.514067E-01	ALL	July 2010
666149.00000	4163848.00000	415.36	428.48	0.00	0.453733E-01	ALL	July 2010
666249.00000	4163848.00000	412.82	427.92	0.00	0.412000E-01	ALL	July 2010
666349.00000	4163848.00000	415.63	422.77	0.00	0.385500E-01	ALL	July 2010
666649.00000	4163848.00000	410.47	410.47	0.00	0.342467E-01	ALL	February 2010
667149.00000	4163848.00000	387.15	421.12	0.00	0.328233E-01	ALL	February 2010
667649.00000	4163848.00000	368.09	410.95	0.00	0.319133E-01	ALL	February 2010
668149.00000	4163848.00000	353.59	404.74	0.00	0.311700E-01	ALL	March 2010

668649.00000	4163848.00000	358.65	403.44	0.00	0.306033E-01	ALL	March 2010
669149.00000	4163848.00000	380.99	403.27	0.00	0.298633E-01	ALL	March 2010
669649.00000	4163848.00000	386.69	403.93	0.00	0.286500E-01	ALL	March 2010
664649.00000	4163948.00000	413.28	440.10	0.00	0.340000E-01	ALL	July 2010
664749.00000	4163948.00000	430.85	438.79	0.00	0.356233E-01	ALL	July 2010
664849.00000	4163948.00000	429.35	440.38	0.00	0.368300E-01	ALL	July 2010
664949.00000	4163948.00000	429.17	444.74	0.00	0.385500E-01	ALL	July 2010
665049.00000	4163948.00000	438.67	446.27	0.00	0.424867E-01	ALL	July 2010
665149.00000	4163948.00000	447.46	447.46	0.00	0.466600E-01	ALL	July 2010
665249.00000	4163948.00000	443.62	449.57	0.00	0.500400E-01	ALL	July 2010
665349.00000	4163948.00000	431.99	449.57	0.00	0.577367E-01	ALL	July 2010
665449.00000	4163948.00000	427.70	439.03	0.00	0.653133E-01	ALL	July 2010
665549.00000	4163948.00000	432.07	434.26	0.00	0.722133E-01	ALL	July 2010
665649.00000	4163948.00000	423.27	435.64	0.00	0.751633E-01	ALL	July 2010
665749.00000	4163948.00000	408.08	444.23	0.00	0.675833E-01	ALL	July 2010
665849.00000	4163948.00000	412.63	429.10	0.00	0.633133E-01	ALL	July 2010
665949.00000	4163948.00000	405.33	439.51	0.00	0.542867E-01	ALL	July 2010
666049.00000	4163948.00000	422.72	428.95	0.00	0.491100E-01	ALL	July 2010
666149.00000	4163948.00000	412.69	436.46	0.00	0.432967E-01	ALL	July 2010
666249.00000	4163948.00000	425.47	425.82	0.00	0.413367E-01	ALL	July 2010
666349.00000	4163948.00000	415.03	428.14	0.00	0.382000E-01	ALL	July 2010
666549.00000	4163948.00000	415.16	416.59	0.00	0.348533E-01	ALL	March 2010
666649.00000	4163948.00000	400.97	428.78	0.00	0.339833E-01	ALL	February 2010
664649.00000	4164048.00000	416.46	438.79	0.00	0.338567E-01	ALL	October 2009
664749.00000	4164048.00000	413.33	444.46	0.00	0.343800E-01	ALL	July 2010
664849.00000	4164048.00000	411.23	449.65	0.00	0.350967E-01	ALL	July 2010
664949.00000	4164048.00000	416.55	449.65	0.00	0.366667E-01	ALL	July 2010
665049.00000	4164048.00000	424.02	449.65	0.00	0.395333E-01	ALL	July 2010
665149.00000	4164048.00000	441.61	449.46	0.00	0.426600E-01	ALL	July 2010
665249.00000	4164048.00000	444.86	444.86	0.00	0.430433E-01	ALL	July 2010
665349.00000	4164048.00000	434.52	446.84	0.00	0.504500E-01	ALL	July 2010
665449.00000	4164048.00000	425.00	446.84	0.00	0.555433E-01	ALL	July 2010
665549.00000	4164048.00000	418.26	438.29	0.00	0.590900E-01	ALL	July 2010
665649.00000	4164048.00000	425.24	428.20	0.00	0.618100E-01	ALL	July 2010
665749.00000	4164048.00000	423.43	425.35	0.00	0.595633E-01	ALL	July 2010
665849.00000	4164048.00000	426.63	426.63	0.00	0.568567E-01	ALL	July 2010
665949.00000	4164048.00000	412.28	439.51	0.00	0.506233E-01	ALL	July 2010
666049.00000	4164048.00000	426.05	434.35	0.00	0.468600E-01	ALL	July 2010
666149.00000	4164048.00000	432.08	432.08	0.00	0.424800E-01	ALL	July 2010
666249.00000	4164048.00000	424.67	428.46	0.00	0.400733E-01	ALL	July 2010
666349.00000	4164048.00000	407.57	434.35	0.00	0.371000E-01	ALL	July 2010
666449.00000	4164048.00000	413.98	429.26	0.00	0.359900E-01	ALL	July 2010
666549.00000	4164048.00000	414.54	428.78	0.00	0.352367E-01	ALL	March 2010
666649.00000	4164048.00000	396.25	429.26	0.00	0.342333E-01	ALL	March 2010
664649.00000	4164148.00000	403.79	445.09	0.00	0.332600E-01	ALL	October 2009
664749.00000	4164148.00000	413.43	445.39	0.00	0.342367E-01	ALL	October 2009
664849.00000	4164148.00000	427.96	442.80	0.00	0.359467E-01	ALL	October 2009
664949.00000	4164148.00000	436.31	444.39	0.00	0.360000E-01	ALL	October 2009
665049.00000	4164148.00000	442.76	442.76	0.00	0.362867E-01	ALL	October 2009
665149.00000	4164148.00000	446.17	446.17	0.00	0.378967E-01	ALL	July 2010
665249.00000	4164148.00000	443.25	444.51	0.00	0.425933E-01	ALL	July 2010

665349.00000	4164148.00000	425.09	449.57	0.00	0.474733E-01	ALL	July 2010
665449.00000	4164148.00000	417.98	449.46	0.00	0.496033E-01	ALL	July 2010
665549.00000	4164148.00000	417.43	422.59	0.00	0.522933E-01	ALL	July 2010
665649.00000	4164148.00000	408.30	435.64	0.00	0.512167E-01	ALL	July 2010
665749.00000	4164148.00000	418.94	428.71	0.00	0.517200E-01	ALL	July 2010
665849.00000	4164148.00000	427.69	427.69	0.00	0.506033E-01	ALL	July 2010
665949.00000	4164148.00000	432.13	434.00	0.00	0.477667E-01	ALL	July 2010
666049.00000	4164148.00000	435.44	435.44	0.00	0.434833E-01	ALL	July 2010
666149.00000	4164148.00000	423.64	439.51	0.00	0.411967E-01	ALL	July 2010
666249.00000	4164148.00000	411.97	439.51	0.00	0.382700E-01	ALL	July 2010
666349.00000	4164148.00000	413.61	433.55	0.00	0.368100E-01	ALL	July 2010
666449.00000	4164148.00000	428.64	428.64	0.00	0.364333E-01	ALL	July 2010
666549.00000	4164148.00000	419.95	429.26	0.00	0.358900E-01	ALL	March 2010
666649.00000	4164148.00000	408.84	429.26	0.00	0.352433E-01	ALL	March 2010
664649.00000	4164248.00000	420.30	420.30	0.00	0.343067E-01	ALL	October 2009
664749.00000	4164248.00000	420.76	439.26	0.00	0.349800E-01	ALL	October 2009
664849.00000	4164248.00000	433.78	433.78	0.00	0.355567E-01	ALL	October 2009
664949.00000	4164248.00000	432.94	445.09	0.00	0.365167E-01	ALL	October 2009
665049.00000	4164248.00000	439.32	444.36	0.00	0.366400E-01	ALL	October 2009
665149.00000	4164248.00000	436.28	445.79	0.00	0.394000E-01	ALL	July 2010
665249.00000	4164248.00000	437.06	443.30	0.00	0.415633E-01	ALL	July 2010
665349.00000	4164248.00000	437.26	437.26	0.00	0.443267E-01	ALL	July 2010
665449.00000	4164248.00000	427.52	437.33	0.00	0.472467E-01	ALL	July 2010
665549.00000	4164248.00000	415.02	439.11	0.00	0.473833E-01	ALL	July 2010
665649.00000	4164248.00000	409.06	423.94	0.00	0.465167E-01	ALL	July 2010
665749.00000	4164248.00000	404.88	439.51	0.00	0.459033E-01	ALL	July 2010
665849.00000	4164248.00000	420.76	439.27	0.00	0.456933E-01	ALL	July 2010
665949.00000	4164248.00000	432.76	432.76	0.00	0.441967E-01	ALL	July 2010
666049.00000	4164248.00000	438.63	438.63	0.00	0.409733E-01	ALL	July 2010
666149.00000	4164248.00000	433.40	433.40	0.00	0.397300E-01	ALL	July 2010
666249.00000	4164248.00000	430.09	430.09	0.00	0.382933E-01	ALL	July 2010
666349.00000	4164248.00000	428.27	428.27	0.00	0.368600E-01	ALL	July 2010
666449.00000	4164248.00000	428.42	428.42	0.00	0.368667E-01	ALL	March 2010
666549.00000	4164248.00000	414.73	429.26	0.00	0.360500E-01	ALL	March 2010
666649.00000	4164248.00000	410.84	428.30	0.00	0.358033E-01	ALL	March 2010
661149.00000	4164348.00000	378.50	378.50	0.00	0.257700E-01	ALL	October 2009
661649.00000	4164348.00000	374.12	391.30	0.00	0.264100E-01	ALL	October 2009
662149.00000	4164348.00000	365.15	403.26	0.00	0.272000E-01	ALL	October 2009
662649.00000	4164348.00000	359.83	402.91	0.00	0.281500E-01	ALL	October 2009
663149.00000	4164348.00000	378.72	403.19	0.00	0.298133E-01	ALL	October 2009
663649.00000	4164348.00000	391.84	394.09	0.00	0.311800E-01	ALL	October 2009
664149.00000	4164348.00000	387.16	416.09	0.00	0.317400E-01	ALL	October 2009
664649.00000	4164348.00000	415.07	427.39	0.00	0.341567E-01	ALL	October 2009
664749.00000	4164348.00000	425.40	425.40	0.00	0.356400E-01	ALL	October 2009
664849.00000	4164348.00000	426.14	432.91	0.00	0.363267E-01	ALL	October 2009
664949.00000	4164348.00000	418.60	445.79	0.00	0.367033E-01	ALL	July 2010
665049.00000	4164348.00000	431.36	433.65	0.00	0.383533E-01	ALL	July 2010
665149.00000	4164348.00000	424.27	446.26	0.00	0.399600E-01	ALL	July 2010
665249.00000	4164348.00000	422.44	446.26	0.00	0.414733E-01	ALL	July 2010
665349.00000	4164348.00000	433.68	433.68	0.00	0.434100E-01	ALL	July 2010
665449.00000	4164348.00000	429.62	431.94	0.00	0.448767E-01	ALL	July 2010

665549.00000	4164348.00000	421.69	421.69	0.00	0.446900E-01	ALL	July 2010
665649.00000	4164348.00000	414.63	414.63	0.00	0.439233E-01	ALL	July 2010
665749.00000	4164348.00000	401.65	439.51	0.00	0.427900E-01	ALL	July 2010
665849.00000	4164348.00000	411.67	439.51	0.00	0.424633E-01	ALL	July 2010
665949.00000	4164348.00000	425.75	437.70	0.00	0.423667E-01	ALL	July 2010
666049.00000	4164348.00000	425.18	439.51	0.00	0.412067E-01	ALL	July 2010
666149.00000	4164348.00000	432.19	432.19	0.00	0.389267E-01	ALL	July 2010
666249.00000	4164348.00000	421.34	434.86	0.00	0.373867E-01	ALL	July 2010
666349.00000	4164348.00000	426.50	426.50	0.00	0.371667E-01	ALL	March 2010
666449.00000	4164348.00000	428.59	428.59	0.00	0.373333E-01	ALL	March 2010
666549.00000	4164348.00000	415.43	428.90	0.00	0.366967E-01	ALL	March 2010
666649.00000	4164348.00000	416.14	422.56	0.00	0.366900E-01	ALL	March 2010
667149.00000	4164348.00000	391.96	428.29	0.00	0.350267E-01	ALL	March 2010
667649.00000	4164348.00000	377.95	416.75	0.00	0.339067E-01	ALL	March 2010
668149.00000	4164348.00000	391.14	405.10	0.00	0.331533E-01	ALL	March 2010
668649.00000	4164348.00000	384.07	409.08	0.00	0.312967E-01	ALL	March 2010
669149.00000	4164348.00000	390.36	409.81	0.00	0.296233E-01	ALL	March 2010
669649.00000	4164348.00000	377.07	397.86	0.00	0.278067E-01	ALL	March 2010
661149.00000	4164848.00000	345.75	384.74	0.00	0.261267E-01	ALL	October 2009
661649.00000	4164848.00000	381.10	383.18	0.00	0.270533E-01	ALL	October 2009
662149.00000	4164848.00000	396.35	401.93	0.00	0.281800E-01	ALL	October 2009
662649.00000	4164848.00000	397.17	403.38	0.00	0.297233E-01	ALL	October 2009
663149.00000	4164848.00000	393.74	403.01	0.00	0.314100E-01	ALL	October 2009
663649.00000	4164848.00000	393.31	409.01	0.00	0.337567E-01	ALL	October 2009
664149.00000	4164848.00000	395.97	401.88	0.00	0.347467E-01	ALL	October 2009
664649.00000	4164848.00000	393.29	416.65	0.00	0.355267E-01	ALL	October 2009
665149.00000	4164848.00000	415.26	431.51	0.00	0.408667E-01	ALL	July 2010
665649.00000	4164848.00000	414.04	425.28	0.00	0.427400E-01	ALL	July 2010
666149.00000	4164848.00000	394.44	427.10	0.00	0.390433E-01	ALL	March 2010
666649.00000	4164848.00000	419.26	422.15	0.00	0.405400E-01	ALL	March 2010
667149.00000	4164848.00000	422.69	422.69	0.00	0.397100E-01	ALL	March 2010
667649.00000	4164848.00000	395.94	421.63	0.00	0.363433E-01	ALL	March 2010
668149.00000	4164848.00000	375.50	413.98	0.00	0.330400E-01	ALL	March 2010
668649.00000	4164848.00000	390.82	416.25	0.00	0.307600E-01	ALL	March 2010
669149.00000	4164848.00000	395.82	410.43	0.00	0.287133E-01	ALL	March 2010
669649.00000	4164848.00000	360.41	403.59	0.00	0.267200E-01	ALL	March 2010
665335.00000	4164979.00000	412.39	431.51	0.00	0.447133E-01	ALL	July 2010
665385.00000	4164979.00000	412.42	427.83	0.00	0.456000E-01	ALL	July 2010
665285.00000	4164980.00000	415.22	431.51	0.00	0.443933E-01	ALL	July 2010
665235.00000	4164981.00000	422.96	429.82	0.00	0.443600E-01	ALL	July 2010
665200.00000	4164982.00000	427.33	427.33	0.00	0.439833E-01	ALL	July 2010
665161.00000	4164989.00000	429.48	429.48	0.00	0.428233E-01	ALL	July 2010
665449.00000	4164998.00000	406.43	427.83	0.00	0.473767E-01	ALL	July 2010
665549.00000	4164998.00000	406.43	420.44	0.00	0.499867E-01	ALL	July 2010
665649.00000	4164998.00000	395.64	426.50	0.00	0.473933E-01	ALL	July 2010
665749.00000	4164998.00000	404.01	417.70	0.00	0.459000E-01	ALL	July 2010
665849.00000	4164998.00000	407.31	415.28	0.00	0.436233E-01	ALL	July 2010
665949.00000	4164998.00000	394.43	417.37	0.00	0.407800E-01	ALL	March 2010
666049.00000	4164998.00000	387.87	421.65	0.00	0.403133E-01	ALL	March 2010
666149.00000	4164998.00000	412.83	416.66	0.00	0.419200E-01	ALL	March 2010
665390.00000	4165024.00000	405.16	431.51	0.00	0.468000E-01	ALL	July 2010

665157.00000	4165051.00000	429.69	429.69	0.00	0.437533E-01	ALL	October 2009
665390.00000	4165074.00000	410.68	426.50	0.00	0.503867E-01	ALL	July 2010
665449.00000	4165098.00000	404.39	426.50	0.00	0.550700E-01	ALL	July 2010
665549.00000	4165098.00000	396.06	436.19	0.00	0.631700E-01	ALL	July 2010
665649.00000	4165098.00000	396.70	424.61	0.00	0.611767E-01	ALL	July 2010
665749.00000	4165098.00000	390.19	436.19	0.00	0.524167E-01	ALL	July 2010
665849.00000	4165098.00000	387.09	424.61	0.00	0.461267E-01	ALL	July 2010
665949.00000	4165098.00000	385.64	422.22	0.00	0.422400E-01	ALL	July 2010
666049.00000	4165098.00000	385.86	421.65	0.00	0.412700E-01	ALL	March 2010
666149.00000	4165098.00000	403.41	416.66	0.00	0.423900E-01	ALL	March 2010
665153.00000	4165101.00000	427.83	427.83	0.00	0.453900E-01	ALL	October 2009
665390.00000	4165124.00000	410.89	426.50	0.00	0.537000E-01	ALL	July 2010
665150.00000	4165151.00000	428.40	428.40	0.00	0.462533E-01	ALL	October 2009
665390.00000	4165174.00000	405.72	430.33	0.00	0.554500E-01	ALL	July 2010
665449.00000	4165198.00000	402.88	436.19	0.00	0.669633E-01	ALL	July 2010
665749.00000	4165198.00000	414.66	416.54	0.00	0.745633E-01	ALL	July 2010
665849.00000	4165198.00000	404.68	416.54	0.00	0.526233E-01	ALL	July 2010
665949.00000	4165198.00000	394.65	416.54	0.00	0.444933E-01	ALL	July 2010
666049.00000	4165198.00000	381.82	438.72	0.00	0.422800E-01	ALL	March 2010
666149.00000	4165198.00000	386.33	421.26	0.00	0.427267E-01	ALL	March 2010
665146.00000	4165200.00000	428.35	428.35	0.00	0.464533E-01	ALL	October 2009
665390.00000	4165224.00000	406.09	436.19	0.00	0.582400E-01	ALL	July 2010
665142.00000	4165250.00000	426.51	426.51	0.00	0.473067E-01	ALL	July 2010
665390.00000	4165274.00000	407.31	436.19	0.00	0.596367E-01	ALL	July 2010
665449.00000	4165298.00000	413.88	436.19	0.00	0.735433E-01	ALL	July 2010
665749.00000	4165298.00000	401.37	438.72	0.00	0.679633E-01	ALL	July 2010
665849.00000	4165298.00000	391.01	438.72	0.00	0.508133E-01	ALL	July 2010
665949.00000	4165298.00000	401.00	411.02	0.00	0.457233E-01	ALL	July 2010
666049.00000	4165298.00000	400.01	410.70	0.00	0.450200E-01	ALL	March 2010
666149.00000	4165298.00000	380.74	438.72	0.00	0.440600E-01	ALL	March 2010
665139.00000	4165300.00000	426.08	426.08	0.00	0.482867E-01	ALL	July 2010
665390.00000	4165324.00000	415.76	435.46	0.00	0.600000E-01	ALL	July 2010
661149.00000	4165348.00000	356.76	384.63	0.00	0.265733E-01	ALL	October 2009
661649.00000	4165348.00000	368.82	388.18	0.00	0.276067E-01	ALL	October 2009
662149.00000	4165348.00000	375.83	388.26	0.00	0.290000E-01	ALL	October 2009
662649.00000	4165348.00000	392.20	396.56	0.00	0.304700E-01	ALL	October 2009
663149.00000	4165348.00000	400.73	415.01	0.00	0.333767E-01	ALL	October 2009
663649.00000	4165348.00000	412.86	412.86	0.00	0.375967E-01	ALL	October 2009
664149.00000	4165348.00000	388.54	418.83	0.00	0.389800E-01	ALL	October 2009
664649.00000	4165348.00000	398.20	424.94	0.00	0.400100E-01	ALL	October 2009
666649.00000	4165348.00000	414.35	416.33	0.00	0.449600E-01	ALL	March 2010
667149.00000	4165348.00000	406.41	415.32	0.00	0.408833E-01	ALL	March 2010
667649.00000	4165348.00000	391.12	428.36	0.00	0.357967E-01	ALL	March 2010
668149.00000	4165348.00000	391.74	416.51	0.00	0.321133E-01	ALL	March 2010
668649.00000	4165348.00000	412.23	415.19	0.00	0.299000E-01	ALL	March 2010
669149.00000	4165348.00000	372.41	415.78	0.00	0.272100E-01	ALL	March 2010
669649.00000	4165348.00000	380.67	386.14	0.00	0.259233E-01	ALL	March 2010
665128.00000	4165349.00000	425.67	425.67	0.00	0.488467E-01	ALL	July 2010
665390.00000	4165374.00000	424.46	429.43	0.00	0.529233E-01	ALL	July 2010
665115.00000	4165397.00000	426.40	426.40	0.00	0.490000E-01	ALL	July 2010
665449.00000	4165398.00000	423.43	436.19	0.00	0.595533E-01	ALL	July 2010

665549.00000	4165398.00000	426.84	436.19	0.00	0.737067E-01	ALL	July 2010
665649.00000	4165398.00000	424.23	424.23	0.00	0.743900E-01	ALL	July 2010
665749.00000	4165398.00000	408.31	438.72	0.00	0.646367E-01	ALL	July 2010
665849.00000	4165398.00000	414.22	414.22	0.00	0.548667E-01	ALL	July 2010
665949.00000	4165398.00000	405.10	438.66	0.00	0.478800E-01	ALL	July 2010
666049.00000	4165398.00000	393.35	438.72	0.00	0.466200E-01	ALL	March 2010
666149.00000	4165398.00000	396.40	396.89	0.00	0.466000E-01	ALL	March 2010
665390.00000	4165424.00000	429.53	429.53	0.00	0.534133E-01	ALL	July 2010
665101.00000	4165445.00000	426.39	426.39	0.00	0.489467E-01	ALL	July 2010
665390.00000	4165474.00000	430.84	430.84	0.00	0.561300E-01	ALL	July 2010
665095.00000	4165494.00000	427.78	427.78	0.00	0.496300E-01	ALL	July 2010
665449.00000	4165498.00000	434.98	434.98	0.00	0.603900E-01	ALL	July 2010
665549.00000	4165498.00000	434.83	434.83	0.00	0.691600E-01	ALL	July 2010
665649.00000	4165498.00000	416.27	438.72	0.00	0.745067E-01	ALL	July 2010
665749.00000	4165498.00000	414.02	438.72	0.00	0.652567E-01	ALL	July 2010
665849.00000	4165498.00000	420.31	438.66	0.00	0.577367E-01	ALL	July 2010
665949.00000	4165498.00000	414.73	414.73	0.00	0.514233E-01	ALL	July 2010
666049.00000	4165498.00000	406.26	409.27	0.00	0.496767E-01	ALL	March 2010
666149.00000	4165498.00000	388.26	438.72	0.00	0.475167E-01	ALL	March 2010
665390.00000	4165524.00000	429.06	434.92	0.00	0.595767E-01	ALL	July 2010
665099.00000	4165544.00000	430.81	430.81	0.00	0.501333E-01	ALL	July 2010
665390.00000	4165574.00000	422.82	435.46	0.00	0.632300E-01	ALL	July 2010
665103.00000	4165594.00000	431.16	431.16	0.00	0.513800E-01	ALL	July 2010
665449.00000	4165598.00000	432.31	432.31	0.00	0.729033E-01	ALL	July 2010
665549.00000	4165598.00000	435.56	435.56	0.00	0.944667E-01	ALL	July 2010
665649.00000	4165598.00000	437.53	438.41	0.00	0.103257E+00	ALL	July 2010
665749.00000	4165598.00000	434.95	437.66	0.00	0.808067E-01	ALL	July 2010
665849.00000	4165598.00000	416.70	438.72	0.00	0.652033E-01	ALL	July 2010
665949.00000	4165598.00000	398.79	438.72	0.00	0.535300E-01	ALL	July 2010
666049.00000	4165598.00000	391.84	438.72	0.00	0.500500E-01	ALL	March 2010
666149.00000	4165598.00000	389.83	438.72	0.00	0.490400E-01	ALL	March 2010
665390.00000	4165624.00000	420.95	435.51	0.00	0.662800E-01	ALL	July 2010
665107.00000	4165644.00000	432.10	432.10	0.00	0.523133E-01	ALL	July 2010
665390.00000	4165674.00000	418.75	439.44	0.00	0.689433E-01	ALL	July 2010
665111.00000	4165693.00000	432.02	432.02	0.00	0.545567E-01	ALL	July 2010
665449.00000	4165698.00000	426.05	439.03	0.00	0.847800E-01	ALL	July 2010
665849.00000	4165698.00000	423.48	424.04	0.00	0.747633E-01	ALL	July 2010
665949.00000	4165698.00000	406.10	438.72	0.00	0.561533E-01	ALL	July 2010
666049.00000	4165698.00000	390.88	439.67	0.00	0.515900E-01	ALL	March 2010
666149.00000	4165698.00000	402.13	416.71	0.00	0.516900E-01	ALL	March 2010
665390.00000	4165724.00000	423.63	436.83	0.00	0.722333E-01	ALL	July 2010
665103.00000	4165742.00000	428.39	434.03	0.00	0.571467E-01	ALL	July 2010
665391.00000	4165774.00000	430.80	436.33	0.00	0.747400E-01	ALL	July 2010
665091.00000	4165791.00000	423.03	439.52	0.00	0.581800E-01	ALL	July 2010
663649.00000	4165798.00000	390.80	417.98	0.00	0.394700E-01	ALL	October 2009
663749.00000	4165798.00000	400.49	417.98	0.00	0.414700E-01	ALL	October 2009
663849.00000	4165798.00000	415.66	415.66	0.00	0.443367E-01	ALL	October 2009
663949.00000	4165798.00000	416.93	416.93	0.00	0.460800E-01	ALL	October 2009
664049.00000	4165798.00000	413.86	413.86	0.00	0.475800E-01	ALL	October 2009
664149.00000	4165798.00000	414.80	422.85	0.00	0.495833E-01	ALL	October 2009
664249.00000	4165798.00000	421.38	421.38	0.00	0.517900E-01	ALL	October 2009

664349.00000	4165798.00000	416.19	428.18	0.00	0.507400E-01	ALL	October 2009
664449.00000	4165798.00000	407.78	434.69	0.00	0.495533E-01	ALL	October 2009
664549.00000	4165798.00000	407.18	435.75	0.00	0.494067E-01	ALL	October 2009
664649.00000	4165798.00000	423.03	423.03	0.00	0.513633E-01	ALL	October 2009
664749.00000	4165798.00000	428.86	428.86	0.00	0.521300E-01	ALL	October 2009
664849.00000	4165798.00000	421.33	437.55	0.00	0.526300E-01	ALL	July 2010
664949.00000	4165798.00000	419.26	435.13	0.00	0.534400E-01	ALL	July 2010
665449.00000	4165798.00000	431.12	431.12	0.00	0.867767E-01	ALL	July 2010
665749.00000	4165798.00000	413.05	439.67	0.00	0.109033E+00	ALL	July 2010
665849.00000	4165798.00000	409.58	439.67	0.00	0.680067E-01	ALL	July 2010
665949.00000	4165798.00000	399.12	439.67	0.00	0.553000E-01	ALL	March 2010
666049.00000	4165798.00000	400.72	430.04	0.00	0.544067E-01	ALL	March 2010
666149.00000	4165798.00000	411.75	418.23	0.00	0.547400E-01	ALL	March 2010
665391.00000	4165824.00000	433.54	433.54	0.00	0.729367E-01	ALL	July 2010
665079.00000	4165839.00000	418.97	448.24	0.00	0.581733E-01	ALL	July 2010
661149.00000	4165848.00000	354.16	375.96	0.00	0.270667E-01	ALL	October 2009
661649.00000	4165848.00000	379.01	379.01	0.00	0.282300E-01	ALL	October 2009
662149.00000	4165848.00000	378.55	385.60	0.00	0.295100E-01	ALL	October 2009
662649.00000	4165848.00000	368.83	394.67	0.00	0.316000E-01	ALL	October 2009
663149.00000	4165848.00000	396.27	396.27	0.00	0.350100E-01	ALL	October 2009
666649.00000	4165848.00000	378.56	414.10	0.00	0.455800E-01	ALL	March 2010
667149.00000	4165848.00000	399.62	424.90	0.00	0.390067E-01	ALL	March 2010
667649.00000	4165848.00000	419.43	419.43	0.00	0.343033E-01	ALL	March 2010
668149.00000	4165848.00000	419.71	419.71	0.00	0.305167E-01	ALL	March 2010
668649.00000	4165848.00000	390.77	420.88	0.00	0.276567E-01	ALL	July 2010
669149.00000	4165848.00000	401.57	409.56	0.00	0.266167E-01	ALL	July 2010
669649.00000	4165848.00000	366.18	405.26	0.00	0.253467E-01	ALL	July 2010
665391.00000	4165874.00000	434.90	446.57	0.00	0.719800E-01	ALL	July 2010
665051.00000	4165881.00000	428.35	438.74	0.00	0.597433E-01	ALL	July 2010
663649.00000	4165898.00000	400.61	400.61	0.00	0.407667E-01	ALL	October 2009
663749.00000	4165898.00000	401.57	417.63	0.00	0.424700E-01	ALL	October 2009
663849.00000	4165898.00000	405.50	417.98	0.00	0.445633E-01	ALL	October 2009
663949.00000	4165898.00000	407.38	417.98	0.00	0.465433E-01	ALL	October 2009
664049.00000	4165898.00000	400.05	434.00	0.00	0.476700E-01	ALL	October 2009
664149.00000	4165898.00000	409.10	434.00	0.00	0.509500E-01	ALL	October 2009
664249.00000	4165898.00000	421.98	421.98	0.00	0.551467E-01	ALL	October 2009
664349.00000	4165898.00000	426.31	426.31	0.00	0.568333E-01	ALL	October 2009
664449.00000	4165898.00000	414.53	434.69	0.00	0.539800E-01	ALL	October 2009
664549.00000	4165898.00000	407.20	450.13	0.00	0.529000E-01	ALL	October 2009
664649.00000	4165898.00000	417.17	450.13	0.00	0.539733E-01	ALL	October 2009
664749.00000	4165898.00000	431.51	431.51	0.00	0.550167E-01	ALL	October 2009
664849.00000	4165898.00000	432.94	432.94	0.00	0.553833E-01	ALL	July 2010
664949.00000	4165898.00000	421.81	447.51	0.00	0.571600E-01	ALL	July 2010
665449.00000	4165898.00000	434.30	444.62	0.00	0.850800E-01	ALL	July 2010
665549.00000	4165898.00000	430.45	430.45	0.00	0.102863E+00	ALL	July 2010
665649.00000	4165898.00000	427.96	427.96	0.00	0.108690E+00	ALL	July 2010
665749.00000	4165898.00000	420.84	427.99	0.00	0.825600E-01	ALL	July 2010
665849.00000	4165898.00000	403.28	439.67	0.00	0.626100E-01	ALL	July 2010
665949.00000	4165898.00000	407.75	430.04	0.00	0.589600E-01	ALL	March 2010
666049.00000	4165898.00000	414.61	425.40	0.00	0.586867E-01	ALL	March 2010
666149.00000	4165898.00000	419.00	419.00	0.00	0.580400E-01	ALL	March 2010

665024.00000	4165923.00000	430.29	441.87	0.00	0.601133E-01	ALL	July 2010
665391.00000	4165924.00000	439.68	445.91	0.00	0.731567E-01	ALL	July 2010
664997.00000	4165965.00000	429.40	448.24	0.00	0.618533E-01	ALL	July 2010
665391.00000	4165975.00000	443.95	443.95	0.00	0.895000E-01	ALL	March 2010
663649.00000	4165998.00000	392.23	401.70	0.00	0.410100E-01	ALL	October 2009
663749.00000	4165998.00000	391.72	417.98	0.00	0.428400E-01	ALL	October 2009
663849.00000	4165998.00000	391.79	417.98	0.00	0.446833E-01	ALL	October 2009
663949.00000	4165998.00000	392.83	433.24	0.00	0.468100E-01	ALL	October 2009
664049.00000	4165998.00000	393.44	434.69	0.00	0.490400E-01	ALL	October 2009
664149.00000	4165998.00000	402.19	434.69	0.00	0.523967E-01	ALL	October 2009
664249.00000	4165998.00000	415.84	434.69	0.00	0.572933E-01	ALL	October 2009
664349.00000	4165998.00000	432.13	432.13	0.00	0.619567E-01	ALL	October 2009
664449.00000	4165998.00000	422.98	434.69	0.00	0.611433E-01	ALL	October 2009
664549.00000	4165998.00000	417.39	450.13	0.00	0.592967E-01	ALL	October 2009
664649.00000	4165998.00000	422.85	450.13	0.00	0.601200E-01	ALL	October 2009
664749.00000	4165998.00000	427.76	450.13	0.00	0.606333E-01	ALL	October 2009
664849.00000	4165998.00000	439.84	439.84	0.00	0.573433E-01	ALL	October 2009
665449.00000	4165998.00000	439.95	439.95	0.00	0.774333E-01	ALL	July 2010
665549.00000	4165998.00000	423.72	446.57	0.00	0.769333E-01	ALL	July 2010
665649.00000	4165998.00000	417.55	443.67	0.00	0.737367E-01	ALL	July 2010
665749.00000	4165998.00000	413.13	430.78	0.00	0.672800E-01	ALL	March 2010
665849.00000	4165998.00000	421.60	429.52	0.00	0.668633E-01	ALL	March 2010
665949.00000	4165998.00000	427.93	430.04	0.00	0.658667E-01	ALL	March 2010
666049.00000	4165998.00000	414.70	430.04	0.00	0.613633E-01	ALL	March 2010
666149.00000	4165998.00000	407.64	430.04	0.00	0.582867E-01	ALL	March 2010
665391.00000	4166006.00000	443.75	443.75	0.00	0.917600E-01	ALL	July 2010
664969.00000	4166007.00000	431.80	447.51	0.00	0.626133E-01	ALL	July 2010
664942.00000	4166048.00000	432.59	448.20	0.00	0.634600E-01	ALL	July 2010
665391.00000	4166052.00000	440.83	443.81	0.00	0.769567E-01	ALL	March 2010
664910.00000	4166086.00000	439.14	443.95	0.00	0.624067E-01	ALL	October 2009
663649.00000	4166098.00000	380.39	417.63	0.00	0.412833E-01	ALL	October 2009
663749.00000	4166098.00000	387.68	391.59	0.00	0.435567E-01	ALL	October 2009
663849.00000	4166098.00000	392.86	409.13	0.00	0.462300E-01	ALL	October 2009
663949.00000	4166098.00000	399.56	416.78	0.00	0.491633E-01	ALL	October 2009
664049.00000	4166098.00000	405.88	422.05	0.00	0.525500E-01	ALL	October 2009
664149.00000	4166098.00000	397.44	434.69	0.00	0.543667E-01	ALL	October 2009
664249.00000	4166098.00000	412.20	434.69	0.00	0.601600E-01	ALL	October 2009
664349.00000	4166098.00000	425.49	434.69	0.00	0.670033E-01	ALL	October 2009
664449.00000	4166098.00000	427.84	427.84	0.00	0.697667E-01	ALL	October 2009
664549.00000	4166098.00000	419.95	450.13	0.00	0.667467E-01	ALL	October 2009
664649.00000	4166098.00000	430.81	450.13	0.00	0.678600E-01	ALL	October 2009
664749.00000	4166098.00000	438.51	450.13	0.00	0.632167E-01	ALL	October 2009
665449.00000	4166098.00000	436.38	436.38	0.00	0.806533E-01	ALL	March 2010
665549.00000	4166098.00000	426.27	438.56	0.00	0.810133E-01	ALL	March 2010
665649.00000	4166098.00000	418.58	423.38	0.00	0.766767E-01	ALL	March 2010
665749.00000	4166098.00000	419.64	419.64	0.00	0.736833E-01	ALL	March 2010
665849.00000	4166098.00000	419.52	426.58	0.00	0.704033E-01	ALL	March 2010
665949.00000	4166098.00000	419.66	430.04	0.00	0.676267E-01	ALL	March 2010
666049.00000	4166098.00000	417.82	417.82	0.00	0.644933E-01	ALL	March 2010
666149.00000	4166098.00000	413.36	415.59	0.00	0.607667E-01	ALL	March 2010
665391.00000	4166102.00000	436.48	437.95	0.00	0.802367E-01	ALL	March 2010

664873.00000	4166120.00000	443.05	443.05	0.00	0.641100E-01	ALL	October 2009
665391.00000	4166152.00000	432.24	436.47	0.00	0.857400E-01	ALL	March 2010
664836.00000	4166154.00000	445.08	445.08	0.00	0.665800E-01	ALL	October 2009
664799.00000	4166188.00000	447.59	450.13	0.00	0.685167E-01	ALL	October 2009
663649.00000	4166198.00000	381.46	401.88	0.00	0.428733E-01	ALL	October 2009
663749.00000	4166198.00000	387.97	412.63	0.00	0.447300E-01	ALL	October 2009
663849.00000	4166198.00000	392.24	422.05	0.00	0.473000E-01	ALL	October 2009
663949.00000	4166198.00000	399.39	424.84	0.00	0.512367E-01	ALL	October 2009
664049.00000	4166198.00000	410.49	423.94	0.00	0.561933E-01	ALL	October 2009
664149.00000	4166198.00000	419.01	422.05	0.00	0.613300E-01	ALL	October 2009
664249.00000	4166198.00000	406.89	434.69	0.00	0.628800E-01	ALL	October 2009
664349.00000	4166198.00000	411.08	435.62	0.00	0.685867E-01	ALL	October 2009
664449.00000	4166198.00000	428.16	432.35	0.00	0.781733E-01	ALL	October 2009
664549.00000	4166198.00000	431.09	431.09	0.00	0.787733E-01	ALL	October 2009
664649.00000	4166198.00000	435.77	450.13	0.00	0.751567E-01	ALL	October 2009
665449.00000	4166198.00000	430.77	435.18	0.00	0.914067E-01	ALL	March 2010
665549.00000	4166198.00000	427.53	433.35	0.00	0.901467E-01	ALL	March 2010
665649.00000	4166198.00000	412.51	437.97	0.00	0.805533E-01	ALL	March 2010
665749.00000	4166198.00000	412.53	420.30	0.00	0.761300E-01	ALL	March 2010
665849.00000	4166198.00000	410.62	423.07	0.00	0.719800E-01	ALL	March 2010
665949.00000	4166198.00000	420.31	422.57	0.00	0.708967E-01	ALL	March 2010
666049.00000	4166198.00000	416.05	416.05	0.00	0.659567E-01	ALL	March 2010
666149.00000	4166198.00000	411.95	421.50	0.00	0.613533E-01	ALL	March 2010
665391.00000	4166202.00000	429.13	434.95	0.00	0.922067E-01	ALL	March 2010
664763.00000	4166222.00000	447.38	447.38	0.00	0.718833E-01	ALL	October 2009
665391.00000	4166252.00000	421.73	444.76	0.00	0.969800E-01	ALL	March 2010
664733.00000	4166261.00000	444.99	444.99	0.00	0.778367E-01	ALL	October 2009
663649.00000	4166298.00000	392.00	392.00	0.00	0.452700E-01	ALL	October 2009
663749.00000	4166298.00000	395.65	398.48	0.00	0.475267E-01	ALL	October 2009
663849.00000	4166298.00000	399.85	413.00	0.00	0.499967E-01	ALL	October 2009
663949.00000	4166298.00000	410.04	411.59	0.00	0.542600E-01	ALL	October 2009
664049.00000	4166298.00000	411.33	413.51	0.00	0.589900E-01	ALL	October 2009
664149.00000	4166298.00000	417.69	424.84	0.00	0.658300E-01	ALL	October 2009
664249.00000	4166298.00000	420.88	420.88	0.00	0.713667E-01	ALL	October 2009
664349.00000	4166298.00000	420.49	420.49	0.00	0.771800E-01	ALL	October 2009
664449.00000	4166298.00000	422.97	433.39	0.00	0.855800E-01	ALL	October 2009
664549.00000	4166298.00000	430.53	436.56	0.00	0.920567E-01	ALL	October 2009
664649.00000	4166298.00000	438.98	438.98	0.00	0.875733E-01	ALL	October 2009
665449.00000	4166298.00000	413.30	446.52	0.00	0.973833E-01	ALL	March 2010
665549.00000	4166298.00000	421.29	428.03	0.00	0.960567E-01	ALL	March 2010
665649.00000	4166298.00000	408.72	436.61	0.00	0.842400E-01	ALL	March 2010
665749.00000	4166298.00000	396.95	444.99	0.00	0.766900E-01	ALL	March 2010
665849.00000	4166298.00000	414.14	422.12	0.00	0.762967E-01	ALL	March 2010
665949.00000	4166298.00000	422.16	422.16	0.00	0.734433E-01	ALL	March 2010
666049.00000	4166298.00000	402.88	423.07	0.00	0.640767E-01	ALL	March 2010
666149.00000	4166298.00000	416.55	421.50	0.00	0.621667E-01	ALL	March 2010
665391.00000	4166302.00000	411.57	449.91	0.00	0.987133E-01	ALL	March 2010
664710.00000	4166306.00000	442.28	442.28	0.00	0.866500E-01	ALL	October 2009
661149.00000	4166348.00000	351.99	377.87	0.00	0.269167E-01	ALL	October 2009
661649.00000	4166348.00000	340.49	386.11	0.00	0.281433E-01	ALL	October 2009
662149.00000	4166348.00000	350.56	385.75	0.00	0.300067E-01	ALL	October 2009

662649.00000	4166348.00000	359.23	385.64	0.00	0.324933E-01	ALL	October 2009
663149.00000	4166348.00000	379.46	390.79	0.00	0.367667E-01	ALL	October 2009
666649.00000	4166348.00000	392.76	413.22	0.00	0.419333E-01	ALL	March 2010
667149.00000	4166348.00000	368.36	411.73	0.00	0.337467E-01	ALL	July 2010
667649.00000	4166348.00000	396.60	422.20	0.00	0.305467E-01	ALL	July 2010
668149.00000	4166348.00000	400.58	420.64	0.00	0.282767E-01	ALL	June 2010
668649.00000	4166348.00000	415.44	415.44	0.00	0.270633E-01	ALL	June 2010
669149.00000	4166348.00000	389.36	408.98	0.00	0.254100E-01	ALL	June 2010
669649.00000	4166348.00000	392.93	403.89	0.00	0.245967E-01	ALL	July 2010
664687.00000	4166350.00000	439.72	439.72	0.00	0.962633E-01	ALL	October 2009
665391.00000	4166352.00000	410.62	449.91	0.00	0.104913E+00	ALL	March 2010
664664.00000	4166394.00000	437.26	437.26	0.00	0.108140E+00	ALL	October 2009
663649.00000	4166398.00000	389.13	399.58	0.00	0.464833E-01	ALL	October 2009
663749.00000	4166398.00000	394.98	405.14	0.00	0.498667E-01	ALL	October 2009
663849.00000	4166398.00000	401.36	412.63	0.00	0.536200E-01	ALL	October 2009
663949.00000	4166398.00000	404.34	413.08	0.00	0.570167E-01	ALL	October 2009
664049.00000	4166398.00000	405.94	412.90	0.00	0.610033E-01	ALL	October 2009
664149.00000	4166398.00000	405.62	424.84	0.00	0.662600E-01	ALL	October 2009
664249.00000	4166398.00000	411.21	423.98	0.00	0.747100E-01	ALL	October 2009
664349.00000	4166398.00000	406.52	440.57	0.00	0.796600E-01	ALL	October 2009
664449.00000	4166398.00000	409.43	450.13	0.00	0.884167E-01	ALL	October 2009
664549.00000	4166398.00000	423.84	441.28	0.00	0.105513E+00	ALL	October 2009
665449.00000	4166398.00000	409.48	439.13	0.00	0.104970E+00	ALL	March 2010
665549.00000	4166398.00000	399.36	446.52	0.00	0.928333E-01	ALL	March 2010
665649.00000	4166398.00000	403.58	434.72	0.00	0.877400E-01	ALL	March 2010
665749.00000	4166398.00000	394.06	436.61	0.00	0.794867E-01	ALL	March 2010
665849.00000	4166398.00000	409.30	422.12	0.00	0.764433E-01	ALL	March 2010
665949.00000	4166398.00000	416.06	420.95	0.00	0.720567E-01	ALL	March 2010
666049.00000	4166398.00000	408.69	421.20	0.00	0.643233E-01	ALL	March 2010
666149.00000	4166398.00000	396.99	423.03	0.00	0.572933E-01	ALL	March 2010
665391.00000	4166402.00000	415.41	439.13	0.00	0.113487E+00	ALL	March 2010
664641.00000	4166439.00000	436.49	436.49	0.00	0.120423E+00	ALL	October 2009
665391.00000	4166452.00000	427.18	434.02	0.00	0.126780E+00	ALL	March 2010
664618.00000	4166483.00000	440.19	440.19	0.00	0.130180E+00	ALL	October 2009
663649.00000	4166498.00000	378.83	415.11	0.00	0.467600E-01	ALL	October 2009
663749.00000	4166498.00000	380.86	422.85	0.00	0.500167E-01	ALL	October 2009
663849.00000	4166498.00000	383.66	427.69	0.00	0.542867E-01	ALL	October 2009
663949.00000	4166498.00000	387.05	433.96	0.00	0.591700E-01	ALL	October 2009
664049.00000	4166498.00000	389.81	439.56	0.00	0.643533E-01	ALL	October 2009
664149.00000	4166498.00000	391.83	440.57	0.00	0.698333E-01	ALL	October 2009
664249.00000	4166498.00000	398.68	440.57	0.00	0.773200E-01	ALL	October 2009
664349.00000	4166498.00000	412.94	440.57	0.00	0.911700E-01	ALL	October 2009
664449.00000	4166498.00000	421.73	440.57	0.00	0.106267E+00	ALL	October 2009
664549.00000	4166498.00000	432.11	440.57	0.00	0.124483E+00	ALL	October 2009
665449.00000	4166498.00000	425.95	433.57	0.00	0.121827E+00	ALL	March 2010
665549.00000	4166498.00000	410.57	436.51	0.00	0.102503E+00	ALL	March 2010
665649.00000	4166498.00000	402.70	434.02	0.00	0.910867E-01	ALL	March 2010
665749.00000	4166498.00000	394.17	433.79	0.00	0.807467E-01	ALL	March 2010
665849.00000	4166498.00000	391.22	427.10	0.00	0.724200E-01	ALL	March 2010
665949.00000	4166498.00000	403.23	422.12	0.00	0.672333E-01	ALL	March 2010
666049.00000	4166498.00000	412.91	412.91	0.00	0.626700E-01	ALL	March 2010

666149.00000	4166498.00000	389.26	423.03	0.00	0.542900E-01	ALL	March 2010
665391.00000	4166502.00000	433.28	433.28	0.00	0.130283E+00	ALL	March 2010
664594.00000	4166527.00000	440.02	440.02	0.00	0.137517E+00	ALL	October 2009
665391.00000	4166552.00000	431.28	431.28	0.00	0.132683E+00	ALL	March 2010
664561.00000	4166563.00000	439.47	439.47	0.00	0.141120E+00	ALL	October 2009
664523.00000	4166597.00000	439.07	439.07	0.00	0.145197E+00	ALL	October 2009
663649.00000	4166598.00000	379.35	427.14	0.00	0.480867E-01	ALL	October 2009
663749.00000	4166598.00000	389.55	422.17	0.00	0.517967E-01	ALL	October 2009
663849.00000	4166598.00000	397.78	422.17	0.00	0.565533E-01	ALL	October 2009
663949.00000	4166598.00000	401.31	422.85	0.00	0.622033E-01	ALL	October 2009
664049.00000	4166598.00000	400.08	434.23	0.00	0.685733E-01	ALL	October 2009
664149.00000	4166598.00000	408.19	434.23	0.00	0.785000E-01	ALL	October 2009
664249.00000	4166598.00000	415.86	439.24	0.00	0.911633E-01	ALL	October 2009
664349.00000	4166598.00000	413.94	440.05	0.00	0.102450E+00	ALL	October 2009
664449.00000	4166598.00000	433.32	439.24	0.00	0.131047E+00	ALL	October 2009
665449.00000	4166598.00000	425.75	425.75	0.00	0.129883E+00	ALL	March 2010
665549.00000	4166598.00000	422.16	427.10	0.00	0.114840E+00	ALL	March 2010
665649.00000	4166598.00000	408.93	428.85	0.00	0.946467E-01	ALL	March 2010
665749.00000	4166598.00000	411.58	416.93	0.00	0.838167E-01	ALL	March 2010
665849.00000	4166598.00000	392.06	427.10	0.00	0.694833E-01	ALL	March 2010
665949.00000	4166598.00000	389.06	422.56	0.00	0.619500E-01	ALL	March 2010
666049.00000	4166598.00000	395.72	418.86	0.00	0.569100E-01	ALL	March 2010
666149.00000	4166598.00000	393.88	416.65	0.00	0.518033E-01	ALL	March 2010
665391.00000	4166602.00000	423.66	434.89	0.00	0.135153E+00	ALL	March 2010
664492.00000	4166635.00000	439.36	439.36	0.00	0.148043E+00	ALL	October 2009
665391.00000	4166652.00000	412.62	438.82	0.00	0.131443E+00	ALL	March 2010
664465.00000	4166677.00000	437.04	439.34	0.00	0.147753E+00	ALL	October 2009
663649.00000	4166698.00000	388.74	427.14	0.00	0.491233E-01	ALL	October 2009
663749.00000	4166698.00000	383.67	427.69	0.00	0.522367E-01	ALL	October 2009
663849.00000	4166698.00000	399.98	422.85	0.00	0.577533E-01	ALL	October 2009
663949.00000	4166698.00000	413.15	419.96	0.00	0.655033E-01	ALL	October 2009
664049.00000	4166698.00000	418.28	421.44	0.00	0.739067E-01	ALL	October 2009
664149.00000	4166698.00000	407.52	434.92	0.00	0.789000E-01	ALL	October 2009
664249.00000	4166698.00000	425.90	429.61	0.00	0.993533E-01	ALL	October 2009
664349.00000	4166698.00000	427.48	434.70	0.00	0.116630E+00	ALL	October 2009
665449.00000	4166698.00000	406.67	438.80	0.00	0.123663E+00	ALL	March 2010
665549.00000	4166698.00000	416.34	424.83	0.00	0.110433E+00	ALL	March 2010
665649.00000	4166698.00000	418.56	421.81	0.00	0.942667E-01	ALL	March 2010
665749.00000	4166698.00000	406.70	422.68	0.00	0.768467E-01	ALL	March 2010
665849.00000	4166698.00000	391.99	424.83	0.00	0.650000E-01	ALL	March 2010
665949.00000	4166698.00000	389.14	421.81	0.00	0.580900E-01	ALL	June 2010
666049.00000	4166698.00000	389.24	421.58	0.00	0.538933E-01	ALL	June 2010
666149.00000	4166698.00000	389.24	421.58	0.00	0.500567E-01	ALL	June 2010
665391.00000	4166702.00000	412.37	437.90	0.00	0.137443E+00	ALL	March 2010
664433.00000	4166714.00000	434.87	434.87	0.00	0.138397E+00	ALL	October 2009
664389.00000	4166737.00000	434.17	434.17	0.00	0.125970E+00	ALL	October 2009
665392.00000	4166752.00000	415.66	432.55	0.00	0.144037E+00	ALL	March 2010
664344.00000	4166760.00000	434.02	434.02	0.00	0.115760E+00	ALL	October 2009
664299.00000	4166782.00000	432.60	432.60	0.00	0.106877E+00	ALL	October 2009
663649.00000	4166798.00000	392.96	427.14	0.00	0.483467E-01	ALL	October 2009
663749.00000	4166798.00000	394.85	427.14	0.00	0.522033E-01	ALL	October 2009

663849.00000	4166798.00000	392.06	427.87	0.00	0.562300E-01	ALL	October 2009
663949.00000	4166798.00000	398.65	432.51	0.00	0.622100E-01	ALL	October 2009
664049.00000	4166798.00000	418.77	423.12	0.00	0.741367E-01	ALL	October 2009
664149.00000	4166798.00000	426.70	426.70	0.00	0.862533E-01	ALL	October 2009
665449.00000	4166798.00000	408.94	432.55	0.00	0.119337E+00	ALL	March 2010
665549.00000	4166798.00000	397.58	435.61	0.00	0.932367E-01	ALL	March 2010
665649.00000	4166798.00000	397.35	429.85	0.00	0.785067E-01	ALL	March 2010
665749.00000	4166798.00000	389.02	430.85	0.00	0.699267E-01	ALL	June 2010
665849.00000	4166798.00000	390.20	422.68	0.00	0.632933E-01	ALL	June 2010
665949.00000	4166798.00000	389.80	422.08	0.00	0.576367E-01	ALL	June 2010
666049.00000	4166798.00000	399.40	421.58	0.00	0.537867E-01	ALL	June 2010
666149.00000	4166798.00000	391.38	422.08	0.00	0.492867E-01	ALL	June 2010
665392.00000	4166802.00000	416.72	426.16	0.00	0.142093E+00	ALL	March 2010
664255.00000	4166805.00000	429.43	429.43	0.00	0.993300E-01	ALL	October 2009
664210.00000	4166828.00000	427.25	427.25	0.00	0.944333E-01	ALL	October 2009
661149.00000	4166848.00000	359.23	366.87	0.00	0.260133E-01	ALL	October 2009
661649.00000	4166848.00000	344.81	372.64	0.00	0.270567E-01	ALL	October 2009
662149.00000	4166848.00000	361.24	385.49	0.00	0.287900E-01	ALL	October 2009
662649.00000	4166848.00000	382.03	384.50	0.00	0.316833E-01	ALL	October 2009
663149.00000	4166848.00000	394.35	397.00	0.00	0.369800E-01	ALL	October 2009
666649.00000	4166848.00000	389.33	416.19	0.00	0.364233E-01	ALL	June 2010
667149.00000	4166848.00000	413.21	415.59	0.00	0.319533E-01	ALL	June 2010
667649.00000	4166848.00000	365.25	422.66	0.00	0.280367E-01	ALL	June 2010
668149.00000	4166848.00000	359.83	420.64	0.00	0.262200E-01	ALL	June 2010
668649.00000	4166848.00000	385.47	416.58	0.00	0.252267E-01	ALL	July 2010
669149.00000	4166848.00000	386.98	415.38	0.00	0.243967E-01	ALL	July 2010
669649.00000	4166848.00000	388.06	397.16	0.00	0.237933E-01	ALL	July 2010
664166.00000	4166850.00000	426.17	426.17	0.00	0.890267E-01	ALL	October 2009
665392.00000	4166852.00000	404.22	433.52	0.00	0.123693E+00	ALL	March 2010
664129.00000	4166883.00000	423.65	423.65	0.00	0.833867E-01	ALL	October 2009
663649.00000	4166898.00000	402.28	427.14	0.00	0.478200E-01	ALL	October 2009
663749.00000	4166898.00000	409.06	427.14	0.00	0.523567E-01	ALL	October 2009
663849.00000	4166898.00000	394.34	427.69	0.00	0.547100E-01	ALL	October 2009
663949.00000	4166898.00000	410.69	421.94	0.00	0.629067E-01	ALL	October 2009
664049.00000	4166898.00000	418.01	421.66	0.00	0.723833E-01	ALL	October 2009
665449.00000	4166898.00000	396.36	433.92	0.00	0.104873E+00	ALL	June 2010
665549.00000	4166898.00000	393.69	434.24	0.00	0.895633E-01	ALL	June 2010
665649.00000	4166898.00000	390.68	434.72	0.00	0.774867E-01	ALL	June 2010
665749.00000	4166898.00000	399.36	422.34	0.00	0.694867E-01	ALL	June 2010
665849.00000	4166898.00000	397.61	420.96	0.00	0.619433E-01	ALL	June 2010
665949.00000	4166898.00000	395.89	422.43	0.00	0.558600E-01	ALL	June 2010
666049.00000	4166898.00000	410.69	419.62	0.00	0.527433E-01	ALL	June 2010
666149.00000	4166898.00000	408.00	421.58	0.00	0.483000E-01	ALL	June 2010
665392.00000	4166902.00000	397.89	434.09	0.00	0.115007E+00	ALL	June 2010
664095.00000	4166920.00000	421.87	421.87	0.00	0.784267E-01	ALL	October 2009
665392.00000	4166952.00000	403.22	426.38	0.00	0.120200E+00	ALL	June 2010
664062.00000	4166957.00000	422.06	422.06	0.00	0.742567E-01	ALL	October 2009
664023.00000	4166988.00000	422.01	422.01	0.00	0.697367E-01	ALL	October 2009
663649.00000	4166998.00000	415.45	427.14	0.00	0.473267E-01	ALL	October 2009
663749.00000	4166998.00000	422.44	422.44	0.00	0.522533E-01	ALL	October 2009
663849.00000	4166998.00000	412.55	427.14	0.00	0.546600E-01	ALL	October 2009

663949.00000	4166998.00000	418.62	418.62	0.00	0.621433E-01	ALL	October 2009
665449.00000	4166998.00000	402.42	432.03	0.00	0.103973E+00	ALL	June 2010
665549.00000	4166998.00000	403.90	434.24	0.00	0.861867E-01	ALL	June 2010
665649.00000	4166998.00000	409.69	422.34	0.00	0.749000E-01	ALL	June 2010
665749.00000	4166998.00000	414.93	414.93	0.00	0.668433E-01	ALL	June 2010
665849.00000	4166998.00000	400.54	427.26	0.00	0.569900E-01	ALL	June 2010
665949.00000	4166998.00000	405.80	422.08	0.00	0.525100E-01	ALL	June 2010
666049.00000	4166998.00000	416.77	422.08	0.00	0.500467E-01	ALL	June 2010
666149.00000	4166998.00000	414.32	422.08	0.00	0.462600E-01	ALL	June 2010
665392.00000	4167002.00000	408.69	412.30	0.00	0.119350E+00	ALL	June 2010
663980.00000	4167014.00000	420.64	420.64	0.00	0.650300E-01	ALL	October 2009
663938.00000	4167040.00000	418.44	418.44	0.00	0.604333E-01	ALL	October 2009
665392.00000	4167052.00000	410.92	425.78	0.00	0.110677E+00	ALL	June 2010
663895.00000	4167067.00000	417.69	417.69	0.00	0.564600E-01	ALL	October 2009
663853.00000	4167093.00000	419.52	419.52	0.00	0.537100E-01	ALL	October 2009
663649.00000	4167098.00000	418.18	427.11	0.00	0.443800E-01	ALL	October 2009
663749.00000	4167098.00000	424.46	427.11	0.00	0.487800E-01	ALL	October 2009
665449.00000	4167098.00000	417.06	425.78	0.00	0.953900E-01	ALL	June 2010
665549.00000	4167098.00000	413.98	434.24	0.00	0.795900E-01	ALL	June 2010
665649.00000	4167098.00000	417.13	426.78	0.00	0.705800E-01	ALL	June 2010
665749.00000	4167098.00000	418.31	424.30	0.00	0.631833E-01	ALL	June 2010
665849.00000	4167098.00000	408.15	426.95	0.00	0.549833E-01	ALL	June 2010
665949.00000	4167098.00000	416.82	421.48	0.00	0.520033E-01	ALL	June 2010
666049.00000	4167098.00000	418.88	421.80	0.00	0.485067E-01	ALL	June 2010
666149.00000	4167098.00000	417.32	421.90	0.00	0.450733E-01	ALL	June 2010
665392.00000	4167102.00000	413.17	431.38	0.00	0.102277E+00	ALL	June 2010
663810.00000	4167120.00000	419.82	419.82	0.00	0.507700E-01	ALL	October 2009
663768.00000	4167146.00000	420.60	420.60	0.00	0.483167E-01	ALL	October 2009
665392.00000	4167152.00000	416.81	431.91	0.00	0.991867E-01	ALL	July 2010
663725.00000	4167172.00000	420.64	420.64	0.00	0.460400E-01	ALL	July 2010
665449.00000	4167198.00000	425.50	425.50	0.00	0.940633E-01	ALL	July 2010
665549.00000	4167198.00000	422.42	434.24	0.00	0.770133E-01	ALL	July 2010
665649.00000	4167198.00000	425.19	427.49	0.00	0.680900E-01	ALL	July 2010
665749.00000	4167198.00000	423.87	426.11	0.00	0.601700E-01	ALL	July 2010
665849.00000	4167198.00000	421.36	421.36	0.00	0.538867E-01	ALL	July 2010
665949.00000	4167198.00000	422.43	422.43	0.00	0.498067E-01	ALL	July 2010
666049.00000	4167198.00000	422.21	422.21	0.00	0.462867E-01	ALL	July 2010
666149.00000	4167198.00000	407.56	422.51	0.00	0.416533E-01	ALL	July 2010
663683.00000	4167199.00000	417.24	421.46	0.00	0.440300E-01	ALL	July 2010
665392.00000	4167202.00000	422.61	430.80	0.00	0.104387E+00	ALL	July 2010
663638.00000	4167216.00000	416.02	418.45	0.00	0.427900E-01	ALL	July 2010
663588.00000	4167218.00000	415.25	415.25	0.00	0.415900E-01	ALL	July 2010
663538.00000	4167220.00000	415.25	415.25	0.00	0.405767E-01	ALL	July 2010
663489.00000	4167225.00000	415.39	415.39	0.00	0.394000E-01	ALL	July 2010
663442.00000	4167243.00000	414.48	414.48	0.00	0.383433E-01	ALL	July 2010
665392.00000	4167252.00000	429.34	430.78	0.00	0.109407E+00	ALL	July 2010
663395.00000	4167260.00000	411.43	411.43	0.00	0.372333E-01	ALL	July 2010
663348.00000	4167277.00000	410.04	410.04	0.00	0.363667E-01	ALL	July 2010
663301.00000	4167295.00000	411.56	411.56	0.00	0.358633E-01	ALL	July 2010
665449.00000	4167298.00000	431.69	431.69	0.00	0.964467E-01	ALL	July 2010
665549.00000	4167298.00000	433.15	433.15	0.00	0.805333E-01	ALL	July 2010

665649.00000	4167298.00000	426.28	433.78	0.00	0.689033E-01	ALL	July 2010
665749.00000	4167298.00000	417.73	433.78	0.00	0.581567E-01	ALL	July 2010
665849.00000	4167298.00000	419.48	422.63	0.00	0.528567E-01	ALL	July 2010
665949.00000	4167298.00000	412.80	423.00	0.00	0.472700E-01	ALL	July 2010
666049.00000	4167298.00000	415.44	421.80	0.00	0.443467E-01	ALL	July 2010
666149.00000	4167298.00000	409.96	422.09	0.00	0.411700E-01	ALL	July 2010
665392.00000	4167302.00000	431.21	431.21	0.00	0.108937E+00	ALL	July 2010
663254.00000	4167312.00000	414.09	414.09	0.00	0.354400E-01	ALL	July 2010
663207.00000	4167329.00000	416.63	419.02	0.00	0.351467E-01	ALL	July 2010
663161.00000	4167347.00000	419.77	419.77	0.00	0.347767E-01	ALL	July 2010
661149.00000	4167348.00000	369.59	372.07	0.00	0.247333E-01	ALL	October 2009
661649.00000	4167348.00000	347.98	385.17	0.00	0.254467E-01	ALL	July 2010
662149.00000	4167348.00000	373.05	373.05	0.00	0.267700E-01	ALL	July 2010
662649.00000	4167348.00000	385.20	385.20	0.00	0.286733E-01	ALL	July 2010
666649.00000	4167348.00000	416.95	421.90	0.00	0.337233E-01	ALL	July 2010
667149.00000	4167348.00000	394.72	422.69	0.00	0.292067E-01	ALL	July 2010
667649.00000	4167348.00000	392.82	422.68	0.00	0.271300E-01	ALL	July 2010
668149.00000	4167348.00000	346.57	422.68	0.00	0.253700E-01	ALL	July 2010
668649.00000	4167348.00000	381.59	381.59	0.00	0.246400E-01	ALL	July 2010
669149.00000	4167348.00000	384.41	415.73	0.00	0.239500E-01	ALL	July 2010
669649.00000	4167348.00000	367.98	404.49	0.00	0.233367E-01	ALL	July 2010
665392.00000	4167352.00000	430.68	430.68	0.00	0.107870E+00	ALL	July 2010
663123.00000	4167377.00000	413.97	420.42	0.00	0.340333E-01	ALL	July 2010
665449.00000	4167398.00000	431.15	431.15	0.00	0.949333E-01	ALL	July 2010
665549.00000	4167398.00000	432.01	432.01	0.00	0.818700E-01	ALL	July 2010
665649.00000	4167398.00000	419.11	434.72	0.00	0.679933E-01	ALL	July 2010
665749.00000	4167398.00000	409.15	434.72	0.00	0.576933E-01	ALL	July 2010
665849.00000	4167398.00000	402.43	434.72	0.00	0.512100E-01	ALL	July 2010
665949.00000	4167398.00000	398.12	426.66	0.00	0.465667E-01	ALL	July 2010
666049.00000	4167398.00000	397.68	423.00	0.00	0.431567E-01	ALL	July 2010
666149.00000	4167398.00000	392.06	422.68	0.00	0.401500E-01	ALL	July 2010
665392.00000	4167402.00000	431.15	431.15	0.00	0.105843E+00	ALL	July 2010
663093.00000	4167417.00000	411.81	411.81	0.00	0.336333E-01	ALL	July 2010
665392.00000	4167452.00000	431.87	431.87	0.00	0.103283E+00	ALL	July 2010
663067.00000	4167458.00000	410.73	410.73	0.00	0.332533E-01	ALL	July 2010
665435.00000	4167459.00000	431.56	431.56	0.00	0.952967E-01	ALL	July 2010
665485.00000	4167459.00000	430.96	430.96	0.00	0.876233E-01	ALL	July 2010
665535.00000	4167459.00000	431.99	431.99	0.00	0.806467E-01	ALL	July 2010
665556.00000	4167488.00000	432.39	432.39	0.00	0.782133E-01	ALL	July 2010
665649.00000	4167498.00000	424.83	424.83	0.00	0.686667E-01	ALL	July 2010
665749.00000	4167498.00000	422.57	422.57	0.00	0.611267E-01	ALL	July 2010
665849.00000	4167498.00000	419.69	422.49	0.00	0.547767E-01	ALL	July 2010
665949.00000	4167498.00000	413.50	413.50	0.00	0.491167E-01	ALL	July 2010
666049.00000	4167498.00000	401.62	422.07	0.00	0.443433E-01	ALL	July 2010
666149.00000	4167498.00000	389.76	422.49	0.00	0.408900E-01	ALL	July 2010
663072.00000	4167508.00000	409.27	409.27	0.00	0.332867E-01	ALL	July 2010
665555.00000	4167538.00000	429.75	429.75	0.00	0.768800E-01	ALL	July 2010
663078.00000	4167557.00000	406.19	406.19	0.00	0.328100E-01	ALL	July 2010
665554.00000	4167588.00000	424.63	429.23	0.00	0.751333E-01	ALL	July 2010
665649.00000	4167598.00000	424.79	424.79	0.00	0.664200E-01	ALL	July 2010
665749.00000	4167598.00000	414.93	425.11	0.00	0.576133E-01	ALL	July 2010

665849.00000	4167598.00000	410.82	422.49	0.00	0.523533E-01	ALL	July 2010
665949.00000	4167598.00000	406.31	422.49	0.00	0.481433E-01	ALL	July 2010
666049.00000	4167598.00000	394.99	422.49	0.00	0.441333E-01	ALL	July 2010
666149.00000	4167598.00000	400.98	421.90	0.00	0.419333E-01	ALL	July 2010
663089.00000	4167606.00000	403.41	403.41	0.00	0.324933E-01	ALL	July 2010
665521.00000	4167606.00000	422.43	432.08	0.00	0.774200E-01	ALL	July 2010
665471.00000	4167607.00000	425.95	425.95	0.00	0.847033E-01	ALL	July 2010
665421.00000	4167608.00000	424.64	424.64	0.00	0.915933E-01	ALL	July 2010
665394.00000	4167629.00000	420.91	429.76	0.00	0.939033E-01	ALL	July 2010
663106.00000	4167653.00000	401.82	402.64	0.00	0.321567E-01	ALL	July 2010
665402.00000	4167678.00000	417.96	423.71	0.00	0.897700E-01	ALL	July 2010
665449.00000	4167698.00000	418.15	422.92	0.00	0.820700E-01	ALL	July 2010
665549.00000	4167698.00000	420.74	420.74	0.00	0.715667E-01	ALL	July 2010
665649.00000	4167698.00000	424.15	424.15	0.00	0.642867E-01	ALL	July 2010
665749.00000	4167698.00000	411.68	426.55	0.00	0.555600E-01	ALL	July 2010
665849.00000	4167698.00000	405.40	424.83	0.00	0.503367E-01	ALL	July 2010
665949.00000	4167698.00000	400.42	422.49	0.00	0.466333E-01	ALL	July 2010
666049.00000	4167698.00000	395.03	422.90	0.00	0.437067E-01	ALL	July 2010
666149.00000	4167698.00000	412.88	416.38	0.00	0.428800E-01	ALL	July 2010
663120.00000	4167700.00000	403.38	403.38	0.00	0.321000E-01	ALL	July 2010
665427.00000	4167721.00000	411.82	430.69	0.00	0.825367E-01	ALL	July 2010
663114.00000	4167750.00000	403.40	403.40	0.00	0.317533E-01	ALL	July 2010
665452.00000	4167764.00000	412.12	422.92	0.00	0.782767E-01	ALL	July 2010
665483.00000	4167798.00000	416.81	421.50	0.00	0.751367E-01	ALL	July 2010
665649.00000	4167798.00000	422.08	422.08	0.00	0.619067E-01	ALL	July 2010
665749.00000	4167798.00000	421.39	421.39	0.00	0.559933E-01	ALL	July 2010
665849.00000	4167798.00000	415.89	420.89	0.00	0.506833E-01	ALL	July 2010
665949.00000	4167798.00000	400.79	427.20	0.00	0.456567E-01	ALL	July 2010
666049.00000	4167798.00000	396.32	427.86	0.00	0.428800E-01	ALL	July 2010
666149.00000	4167798.00000	409.09	422.44	0.00	0.418500E-01	ALL	July 2010
663109.00000	4167799.00000	403.84	403.84	0.00	0.317100E-01	ALL	July 2010
665533.00000	4167799.00000	420.80	420.80	0.00	0.709100E-01	ALL	July 2010
665549.00000	4167799.00000	421.11	421.11	0.00	0.694900E-01	ALL	July 2010
665583.00000	4167800.00000	421.07	421.07	0.00	0.665267E-01	ALL	July 2010
665591.00000	4167843.00000	420.27	420.27	0.00	0.649633E-01	ALL	July 2010
661149.00000	4167848.00000	359.03	359.03	0.00	0.244800E-01	ALL	July 2010
661649.00000	4167848.00000	385.42	385.42	0.00	0.252867E-01	ALL	July 2010
662149.00000	4167848.00000	378.48	385.51	0.00	0.260433E-01	ALL	July 2010
662649.00000	4167848.00000	387.57	403.33	0.00	0.275500E-01	ALL	July 2010
666649.00000	4167848.00000	409.44	419.88	0.00	0.344867E-01	ALL	July 2010
667149.00000	4167848.00000	383.84	422.69	0.00	0.295233E-01	ALL	July 2010
667649.00000	4167848.00000	382.00	422.63	0.00	0.270233E-01	ALL	July 2010
668149.00000	4167848.00000	381.37	422.26	0.00	0.254433E-01	ALL	July 2010
668649.00000	4167848.00000	365.42	416.51	0.00	0.243300E-01	ALL	July 2010
669149.00000	4167848.00000	415.84	415.84	0.00	0.240333E-01	ALL	July 2010
669649.00000	4167848.00000	368.09	416.61	0.00	0.231433E-01	ALL	July 2010
663103.00000	4167849.00000	403.48	403.48	0.00	0.315133E-01	ALL	July 2010
665593.00000	4167893.00000	421.62	425.94	0.00	0.642800E-01	ALL	July 2010
663097.00000	4167899.00000	403.64	403.64	0.00	0.313933E-01	ALL	July 2010
665595.00000	4167943.00000	426.40	426.40	0.00	0.642267E-01	ALL	July 2010
663076.00000	4167944.00000	405.76	405.76	0.00	0.310533E-01	ALL	July 2010

663056.00000	4167989.00000	408.11	408.11	0.00	0.310367E-01	ALL	July 2010
665597.00000	4167993.00000	425.33	425.33	0.00	0.631133E-01	ALL	July 2010
663035.00000	4168035.00000	409.55	409.55	0.00	0.310633E-01	ALL	July 2010
665603.00000	4168042.00000	422.79	427.01	0.00	0.615133E-01	ALL	July 2010
663014.00000	4168080.00000	409.96	409.96	0.00	0.309767E-01	ALL	July 2010
665635.00000	4168080.00000	420.64	428.44	0.00	0.585133E-01	ALL	July 2010
665667.00000	4168119.00000	418.18	432.37	0.00	0.557900E-01	ALL	July 2010
663016.00000	4168130.00000	408.49	408.49	0.00	0.313200E-01	ALL	July 2010
665699.00000	4168157.00000	420.73	433.63	0.00	0.540867E-01	ALL	July 2010
663019.00000	4168180.00000	405.77	405.77	0.00	0.320467E-01	ALL	July 2010
661149.00000	4167848.00000	359.03	359.03	0.00	0.244800E-01	ALL	July 2010
661649.00000	4167848.00000	385.42	385.42	0.00	0.252867E-01	ALL	July 2010
662149.00000	4167848.00000	378.48	385.51	0.00	0.260433E-01	ALL	July 2010
662649.00000	4167848.00000	387.57	403.33	0.00	0.275500E-01	ALL	July 2010
663149.00000	4167848.00000	402.45	402.45	0.00	0.312133E-01	ALL	July 2010
665649.00000	4167848.00000	421.60	421.60	0.00	0.610133E-01	ALL	July 2010
666149.00000	4167848.00000	407.55	422.65	0.00	0.412800E-01	ALL	July 2010
666649.00000	4167848.00000	409.44	419.88	0.00	0.344867E-01	ALL	July 2010
667149.00000	4167848.00000	383.84	422.69	0.00	0.295233E-01	ALL	July 2010
667649.00000	4167848.00000	382.00	422.63	0.00	0.270233E-01	ALL	July 2010
668149.00000	4167848.00000	381.37	422.26	0.00	0.254433E-01	ALL	July 2010
668649.00000	4167848.00000	365.42	416.51	0.00	0.243300E-01	ALL	July 2010
669149.00000	4167848.00000	415.84	415.84	0.00	0.240333E-01	ALL	July 2010
669649.00000	4167848.00000	368.09	416.61	0.00	0.231433E-01	ALL	July 2010
661149.00000	4168348.00000	377.37	377.37	0.00	0.240100E-01	ALL	July 2010
661649.00000	4168348.00000	367.85	380.09	0.00	0.244567E-01	ALL	July 2010
662149.00000	4168348.00000	379.73	384.05	0.00	0.253300E-01	ALL	July 2010
662649.00000	4168348.00000	394.77	402.93	0.00	0.270500E-01	ALL	July 2010
663149.00000	4168348.00000	400.09	400.09	0.00	0.317033E-01	ALL	July 2010
665649.00000	4168348.00000	418.79	432.56	0.00	0.538567E-01	ALL	July 2010
666149.00000	4168348.00000	433.87	433.87	0.00	0.392467E-01	ALL	July 2010
666649.00000	4168348.00000	415.01	421.74	0.00	0.332733E-01	ALL	July 2010
667149.00000	4168348.00000	394.63	415.66	0.00	0.299233E-01	ALL	July 2010
667649.00000	4168348.00000	359.03	420.95	0.00	0.274567E-01	ALL	July 2010
668149.00000	4168348.00000	349.88	423.26	0.00	0.259267E-01	ALL	July 2010
668649.00000	4168348.00000	339.01	416.51	0.00	0.247300E-01	ALL	July 2010
669149.00000	4168348.00000	376.33	415.38	0.00	0.240200E-01	ALL	July 2010
669649.00000	4168348.00000	343.04	416.61	0.00	0.232467E-01	ALL	July 2010
661149.00000	4173848.00000	358.83	361.62	0.00	0.237767E-01	ALL	July 2010
661649.00000	4173848.00000	350.12	354.43	0.00	0.243233E-01	ALL	July 2010
662149.00000	4173848.00000	308.50	373.19	0.00	0.246000E-01	ALL	July 2010
662649.00000	4173848.00000	349.79	373.26	0.00	0.251367E-01	ALL	July 2010
663149.00000	4173848.00000	363.95	372.94	0.00	0.253867E-01	ALL	July 2010
663649.00000	4173848.00000	387.25	387.25	0.00	0.255900E-01	ALL	July 2010
664149.00000	4173848.00000	383.40	383.40	0.00	0.256167E-01	ALL	July 2010
664649.00000	4173848.00000	396.66	396.66	0.00	0.257800E-01	ALL	July 2010
665149.00000	4173848.00000	392.81	392.81	0.00	0.256033E-01	ALL	July 2010
665649.00000	4173848.00000	378.91	385.98	0.00	0.251900E-01	ALL	July 2010
666149.00000	4173848.00000	363.06	379.87	0.00	0.247800E-01	ALL	July 2010
666649.00000	4173848.00000	374.49	391.95	0.00	0.247300E-01	ALL	July 2010
667149.00000	4173848.00000	371.28	391.65	0.00	0.246733E-01	ALL	July 2010

667649.00000	4173848.00000	330.91	391.36	0.00	0.242633E-01	ALL	July 2010
668149.00000	4173848.00000	357.43	386.02	0.00	0.239767E-01	ALL	July 2010
668649.00000	4173848.00000	386.86	397.32	0.00	0.236867E-01	ALL	July 2010
669149.00000	4173848.00000	384.00	384.00	0.00	0.232400E-01	ALL	July 2010
669649.00000	4173848.00000	343.62	391.65	0.00	0.227767E-01	ALL	July 2010
661149.00000	4173348.00000	351.86	377.05	0.00	0.237533E-01	ALL	July 2010
661649.00000	4173348.00000	353.99	367.64	0.00	0.244433E-01	ALL	July 2010
662149.00000	4173348.00000	343.75	355.31	0.00	0.250133E-01	ALL	July 2010
662649.00000	4173348.00000	351.90	351.90	0.00	0.255400E-01	ALL	July 2010
663149.00000	4173348.00000	355.94	361.43	0.00	0.258533E-01	ALL	July 2010
663649.00000	4173348.00000	367.42	379.50	0.00	0.260000E-01	ALL	July 2010
664149.00000	4173348.00000	383.16	383.16	0.00	0.262033E-01	ALL	July 2010
664649.00000	4173348.00000	372.63	390.84	0.00	0.261533E-01	ALL	July 2010
665149.00000	4173348.00000	378.39	391.09	0.00	0.260433E-01	ALL	July 2010
665649.00000	4173348.00000	379.60	390.64	0.00	0.257000E-01	ALL	July 2010
666149.00000	4173348.00000	371.25	398.54	0.00	0.253000E-01	ALL	July 2010
666649.00000	4173348.00000	393.90	396.37	0.00	0.253767E-01	ALL	July 2010
667149.00000	4173348.00000	379.15	403.58	0.00	0.251333E-01	ALL	July 2010
667649.00000	4173348.00000	321.57	404.13	0.00	0.244733E-01	ALL	July 2010
668149.00000	4173348.00000	356.49	386.29	0.00	0.241133E-01	ALL	July 2010
668649.00000	4173348.00000	396.83	396.83	0.00	0.238100E-01	ALL	July 2010
669149.00000	4173348.00000	373.13	398.72	0.00	0.232333E-01	ALL	July 2010
669649.00000	4173348.00000	353.31	392.29	0.00	0.228500E-01	ALL	July 2010
661149.00000	4172848.00000	374.65	382.04	0.00	0.239033E-01	ALL	July 2010
661649.00000	4172848.00000	368.59	385.83	0.00	0.245600E-01	ALL	July 2010
662149.00000	4172848.00000	320.27	385.83	0.00	0.251300E-01	ALL	July 2010
662649.00000	4172848.00000	318.03	373.26	0.00	0.257500E-01	ALL	July 2010
663149.00000	4172848.00000	329.45	379.61	0.00	0.262500E-01	ALL	July 2010
663649.00000	4172848.00000	344.86	384.76	0.00	0.264867E-01	ALL	July 2010
664149.00000	4172848.00000	340.85	391.26	0.00	0.265200E-01	ALL	July 2010
664649.00000	4172848.00000	386.34	386.34	0.00	0.270200E-01	ALL	July 2010
665149.00000	4172848.00000	385.20	385.20	0.00	0.267967E-01	ALL	July 2010
665649.00000	4172848.00000	385.36	396.51	0.00	0.263567E-01	ALL	July 2010
666149.00000	4172848.00000	374.60	398.25	0.00	0.258933E-01	ALL	July 2010
666649.00000	4172848.00000	372.64	386.39	0.00	0.257667E-01	ALL	July 2010
667149.00000	4172848.00000	350.65	360.65	0.00	0.253567E-01	ALL	July 2010
667649.00000	4172848.00000	338.94	360.73	0.00	0.247667E-01	ALL	July 2010
668149.00000	4172848.00000	341.09	401.56	0.00	0.241633E-01	ALL	July 2010
668649.00000	4172848.00000	387.50	400.86	0.00	0.238000E-01	ALL	July 2010
669149.00000	4172848.00000	373.11	391.31	0.00	0.232967E-01	ALL	July 2010
669649.00000	4172848.00000	361.50	392.02	0.00	0.229133E-01	ALL	July 2010
661149.00000	4168848.00000	331.25	385.51	0.00	0.234733E-01	ALL	July 2010
661649.00000	4168848.00000	361.18	365.87	0.00	0.241333E-01	ALL	July 2010
662149.00000	4168848.00000	368.62	372.66	0.00	0.251800E-01	ALL	July 2010
662649.00000	4168848.00000	383.23	383.23	0.00	0.272567E-01	ALL	July 2010
663149.00000	4168848.00000	409.49	409.49	0.00	0.314500E-01	ALL	July 2010
663649.00000	4168848.00000	385.47	385.47	0.00	0.364567E-01	ALL	July 2010
664149.00000	4168848.00000	377.95	391.81	0.00	0.469600E-01	ALL	July 2010
664649.00000	4168848.00000	403.67	403.67	0.00	0.531667E-01	ALL	July 2010
665649.00000	4168848.00000	425.20	425.20	0.00	0.476933E-01	ALL	July 2010
666149.00000	4168848.00000	424.41	427.12	0.00	0.379267E-01	ALL	July 2010

666649.00000	4168848.00000	399.72	416.17	0.00	0.314333E-01	ALL	July 2010
667149.00000	4168848.00000	363.18	428.78	0.00	0.284867E-01	ALL	July 2010
667649.00000	4168848.00000	386.33	428.69	0.00	0.272700E-01	ALL	July 2010
668149.00000	4168848.00000	391.19	427.64	0.00	0.262800E-01	ALL	July 2010
668649.00000	4168848.00000	377.68	416.68	0.00	0.251767E-01	ALL	July 2010
669149.00000	4168848.00000	347.23	416.68	0.00	0.242433E-01	ALL	July 2010
669649.00000	4168848.00000	367.90	410.82	0.00	0.236767E-01	ALL	July 2010
661149.00000	4170848.00000	354.06	354.06	0.00	0.241600E-01	ALL	July 2010
661649.00000	4170848.00000	365.49	382.42	0.00	0.250700E-01	ALL	July 2010
662149.00000	4170848.00000	389.31	389.31	0.00	0.261100E-01	ALL	July 2010
662649.00000	4170848.00000	369.80	391.40	0.00	0.272767E-01	ALL	July 2010
663149.00000	4170848.00000	387.38	387.38	0.00	0.295600E-01	ALL	July 2010
663649.00000	4170848.00000	373.16	373.16	0.00	0.309967E-01	ALL	July 2010
664149.00000	4170848.00000	354.27	379.73	0.00	0.313567E-01	ALL	July 2010
664649.00000	4170848.00000	383.81	383.81	0.00	0.323167E-01	ALL	July 2010
665149.00000	4170848.00000	387.99	408.39	0.00	0.320700E-01	ALL	July 2010
665649.00000	4170848.00000	386.62	403.92	0.00	0.310200E-01	ALL	July 2010
666149.00000	4170848.00000	398.24	415.12	0.00	0.304833E-01	ALL	July 2010
666649.00000	4170848.00000	392.07	416.34	0.00	0.289267E-01	ALL	July 2010
667149.00000	4170848.00000	410.82	410.82	0.00	0.274900E-01	ALL	July 2010
667649.00000	4170848.00000	383.85	397.50	0.00	0.257167E-01	ALL	July 2010
668149.00000	4170848.00000	353.91	404.00	0.00	0.246000E-01	ALL	July 2010
668649.00000	4170848.00000	388.76	404.00	0.00	0.241233E-01	ALL	July 2010
669149.00000	4170848.00000	377.00	406.85	0.00	0.236633E-01	ALL	July 2010
669649.00000	4170848.00000	402.31	408.18	0.00	0.235233E-01	ALL	July 2010
661149.00000	4169848.00000	339.12	378.45	0.00	0.234633E-01	ALL	July 2010
661649.00000	4169848.00000	382.51	382.51	0.00	0.246833E-01	ALL	July 2010
662149.00000	4169848.00000	378.53	398.02	0.00	0.261667E-01	ALL	July 2010
662649.00000	4169848.00000	396.55	396.55	0.00	0.281267E-01	ALL	July 2010
663149.00000	4169848.00000	379.32	390.85	0.00	0.302533E-01	ALL	July 2010
663649.00000	4169848.00000	394.49	394.49	0.00	0.345767E-01	ALL	July 2010
664149.00000	4169848.00000	376.27	404.74	0.00	0.369600E-01	ALL	July 2010
664649.00000	4169848.00000	385.77	390.98	0.00	0.385733E-01	ALL	July 2010
665149.00000	4169848.00000	378.63	400.76	0.00	0.408733E-01	ALL	July 2010
665649.00000	4169848.00000	392.23	420.90	0.00	0.454867E-01	ALL	July 2010
666149.00000	4169848.00000	420.80	428.67	0.00	0.355900E-01	ALL	July 2010
666649.00000	4169848.00000	417.55	417.55	0.00	0.308600E-01	ALL	July 2010
667149.00000	4169848.00000	423.48	428.49	0.00	0.284400E-01	ALL	July 2010
667649.00000	4169848.00000	393.90	422.29	0.00	0.261167E-01	ALL	July 2010
668149.00000	4169848.00000	383.82	404.49	0.00	0.252333E-01	ALL	July 2010
668649.00000	4169848.00000	398.34	409.11	0.00	0.247433E-01	ALL	July 2010
669149.00000	4169848.00000	389.07	409.64	0.00	0.241600E-01	ALL	July 2010
669649.00000	4169848.00000	418.29	421.86	0.00	0.240800E-01	ALL	July 2010
661149.00000	4171848.00000	395.25	397.21	0.00	0.243833E-01	ALL	July 2010
661649.00000	4171848.00000	373.22	396.40	0.00	0.247233E-01	ALL	July 2010
662149.00000	4171848.00000	377.85	377.85	0.00	0.256933E-01	ALL	July 2010
662649.00000	4171848.00000	379.66	379.66	0.00	0.269700E-01	ALL	July 2010
663149.00000	4171848.00000	362.45	373.34	0.00	0.278133E-01	ALL	July 2010
663649.00000	4171848.00000	343.03	366.32	0.00	0.281867E-01	ALL	July 2010
664149.00000	4171848.00000	369.48	391.92	0.00	0.286400E-01	ALL	July 2010
664649.00000	4171848.00000	362.83	398.00	0.00	0.287100E-01	ALL	July 2010

665149.00000	4171848.00000	385.47	392.34	0.00	0.287000E-01	ALL	July 2010
665649.00000	4171848.00000	397.72	397.72	0.00	0.282200E-01	ALL	July 2010
666149.00000	4171848.00000	373.89	414.52	0.00	0.274900E-01	ALL	July 2010
666649.00000	4171848.00000	379.27	390.00	0.00	0.271900E-01	ALL	July 2010
667149.00000	4171848.00000	357.65	397.35	0.00	0.261900E-01	ALL	July 2010
667649.00000	4171848.00000	374.45	379.88	0.00	0.253267E-01	ALL	July 2010
668149.00000	4171848.00000	340.79	398.81	0.00	0.243267E-01	ALL	July 2010
668649.00000	4171848.00000	377.59	399.10	0.00	0.239033E-01	ALL	July 2010
669149.00000	4171848.00000	377.54	398.76	0.00	0.234133E-01	ALL	July 2010
669649.00000	4171848.00000	395.68	395.68	0.00	0.231400E-01	ALL	July 2010
661149.00000	4169348.00000	351.99	376.53	0.00	0.234167E-01	ALL	July 2010
661649.00000	4169348.00000	382.95	382.95	0.00	0.243167E-01	ALL	July 2010
662149.00000	4169348.00000	372.06	392.84	0.00	0.255900E-01	ALL	July 2010
662649.00000	4169348.00000	399.42	399.42	0.00	0.281600E-01	ALL	July 2010
663149.00000	4169348.00000	383.59	396.79	0.00	0.306733E-01	ALL	July 2010
663649.00000	4169348.00000	391.29	395.96	0.00	0.356400E-01	ALL	July 2010
664149.00000	4169348.00000	370.69	402.25	0.00	0.405533E-01	ALL	July 2010
664649.00000	4169348.00000	382.35	396.54	0.00	0.432233E-01	ALL	July 2010
665149.00000	4169348.00000	397.23	401.39	0.00	0.449433E-01	ALL	July 2010
665649.00000	4169348.00000	424.79	424.79	0.00	0.548300E-01	ALL	July 2010
666149.00000	4169348.00000	397.32	427.92	0.00	0.363733E-01	ALL	July 2010
666649.00000	4169348.00000	415.31	415.31	0.00	0.319033E-01	ALL	July 2010
667149.00000	4169348.00000	400.58	422.38	0.00	0.281867E-01	ALL	July 2010
667649.00000	4169348.00000	424.62	428.51	0.00	0.274733E-01	ALL	July 2010
668149.00000	4169348.00000	414.55	427.66	0.00	0.260833E-01	ALL	July 2010
668649.00000	4169348.00000	396.30	427.50	0.00	0.250933E-01	ALL	July 2010
669149.00000	4169348.00000	385.18	415.13	0.00	0.244033E-01	ALL	July 2010
669649.00000	4169348.00000	394.85	409.61	0.00	0.239433E-01	ALL	July 2010
661149.00000	4171348.00000	371.38	391.02	0.00	0.243467E-01	ALL	July 2010
661649.00000	4171348.00000	363.73	391.22	0.00	0.248700E-01	ALL	July 2010
662149.00000	4171348.00000	373.88	391.07	0.00	0.257467E-01	ALL	July 2010
662649.00000	4171348.00000	381.00	381.00	0.00	0.272433E-01	ALL	July 2010
663149.00000	4171348.00000	344.12	392.34	0.00	0.283367E-01	ALL	July 2010
663649.00000	4171348.00000	360.58	360.58	0.00	0.294933E-01	ALL	July 2010
664149.00000	4171348.00000	380.12	382.02	0.00	0.301167E-01	ALL	July 2010
664649.00000	4171348.00000	386.30	391.05	0.00	0.304933E-01	ALL	July 2010
665149.00000	4171348.00000	376.62	393.37	0.00	0.299233E-01	ALL	July 2010
665649.00000	4171348.00000	395.90	421.88	0.00	0.294467E-01	ALL	July 2010
666149.00000	4171348.00000	406.38	428.47	0.00	0.291500E-01	ALL	July 2010
666649.00000	4171348.00000	376.21	416.24	0.00	0.278967E-01	ALL	July 2010
667149.00000	4171348.00000	390.65	390.65	0.00	0.268533E-01	ALL	July 2010
667649.00000	4171348.00000	369.34	403.85	0.00	0.254200E-01	ALL	July 2010
668149.00000	4171348.00000	344.40	396.34	0.00	0.244600E-01	ALL	July 2010
668649.00000	4171348.00000	368.40	385.94	0.00	0.239267E-01	ALL	July 2010
669149.00000	4171348.00000	381.17	398.05	0.00	0.235100E-01	ALL	July 2010
669649.00000	4171348.00000	410.57	410.57	0.00	0.234200E-01	ALL	July 2010
661149.00000	4170348.00000	365.82	372.26	0.00	0.238867E-01	ALL	July 2010
661649.00000	4170348.00000	379.41	379.41	0.00	0.250833E-01	ALL	July 2010
662149.00000	4170348.00000	379.25	385.27	0.00	0.262433E-01	ALL	July 2010
662649.00000	4170348.00000	388.57	388.57	0.00	0.277067E-01	ALL	July 2010
663149.00000	4170348.00000	364.76	380.70	0.00	0.297100E-01	ALL	July 2010

663649.00000	4170348.00000	376.51	376.51	0.00	0.325533E-01	ALL	July 2010
664149.00000	4170348.00000	384.32	390.80	0.00	0.341800E-01	ALL	July 2010
664649.00000	4170348.00000	367.50	399.03	0.00	0.343967E-01	ALL	July 2010
665149.00000	4170348.00000	400.35	400.35	0.00	0.356767E-01	ALL	July 2010
665649.00000	4170348.00000	409.20	415.74	0.00	0.348300E-01	ALL	July 2010
666149.00000	4170348.00000	419.25	422.76	0.00	0.330600E-01	ALL	July 2010
666649.00000	4170348.00000	391.47	422.50	0.00	0.297900E-01	ALL	July 2010
667149.00000	4170348.00000	421.84	421.84	0.00	0.280700E-01	ALL	July 2010
667649.00000	4170348.00000	381.94	403.03	0.00	0.258600E-01	ALL	July 2010
668149.00000	4170348.00000	368.83	410.24	0.00	0.247700E-01	ALL	July 2010
668649.00000	4170348.00000	401.12	409.58	0.00	0.244567E-01	ALL	July 2010
669149.00000	4170348.00000	404.10	404.10	0.00	0.240700E-01	ALL	July 2010
669649.00000	4170348.00000	407.99	408.87	0.00	0.237167E-01	ALL	July 2010
661149.00000	4172348.00000	386.72	386.72	0.00	0.241100E-01	ALL	July 2010
661649.00000	4172348.00000	375.00	385.86	0.00	0.246300E-01	ALL	July 2010
662149.00000	4172348.00000	360.77	385.12	0.00	0.254867E-01	ALL	July 2010
662649.00000	4172348.00000	348.42	373.90	0.00	0.263233E-01	ALL	July 2010
663149.00000	4172348.00000	329.64	379.54	0.00	0.268733E-01	ALL	July 2010
663649.00000	4172348.00000	372.96	379.89	0.00	0.275433E-01	ALL	July 2010
664149.00000	4172348.00000	379.46	379.46	0.00	0.277267E-01	ALL	July 2010
664649.00000	4172348.00000	381.28	385.61	0.00	0.278500E-01	ALL	July 2010
665149.00000	4172348.00000	396.36	396.36	0.00	0.277900E-01	ALL	July 2010
665649.00000	4172348.00000	391.36	398.07	0.00	0.271767E-01	ALL	July 2010
666149.00000	4172348.00000	387.09	408.68	0.00	0.267400E-01	ALL	July 2010
666649.00000	4172348.00000	359.04	391.88	0.00	0.263000E-01	ALL	July 2010
667149.00000	4172348.00000	366.13	388.41	0.00	0.258533E-01	ALL	July 2010
667649.00000	4172348.00000	349.97	380.49	0.00	0.250267E-01	ALL	July 2010
668149.00000	4172348.00000	364.78	385.73	0.00	0.243433E-01	ALL	July 2010
668649.00000	4172348.00000	391.62	398.83	0.00	0.238933E-01	ALL	July 2010
669149.00000	4172348.00000	364.52	391.74	0.00	0.233233E-01	ALL	July 2010
669649.00000	4172348.00000	391.56	391.56	0.00	0.230500E-01	ALL	July 2010
665196.93750	4168977.50000	406.68	406.68	0.00	0.606567E-01	ALL	July 2010
665149.18750	4168963.00000	405.46	405.46	0.00	0.592100E-01	ALL	July 2010
665101.06250	4168949.50000	405.08	405.08	0.00	0.588267E-01	ALL	July 2010
665211.56250	4168948.50000	407.77	407.77	0.00	0.521600E-01	ALL	July 2010
665052.93750	4168935.75000	404.97	404.97	0.00	0.586467E-01	ALL	July 2010
664855.18750	4168929.75000	406.02	406.02	0.00	0.573633E-01	ALL	July 2010
664905.06250	4168926.50000	407.19	407.19	0.00	0.628067E-01	ALL	July 2010
665003.93750	4168926.00000	405.48	405.48	0.00	0.603300E-01	ALL	July 2010
664954.68750	4168920.25000	406.89	406.89	0.00	0.623600E-01	ALL	July 2010
665210.81250	4168898.50000	403.10	406.88	0.00	0.502600E-01	ALL	July 2010
664453.18750	4168891.75000	394.31	394.31	0.00	0.619800E-01	ALL	July 2010
664849.93750	4168885.25000	403.93	407.05	0.00	0.535867E-01	ALL	July 2010
664405.06250	4168878.25000	389.55	396.81	0.00	0.592200E-01	ALL	July 2010
664359.00000	4168859.50000	385.09	396.81	0.00	0.586600E-01	ALL	July 2010
664459.50000	4168851.25000	391.52	391.52	0.00	0.527367E-01	ALL	July 2010
665210.00000	4168848.50000	395.91	409.31	0.00	0.499633E-01	ALL	July 2010
664312.87500	4168840.25000	380.12	396.81	0.00	0.580500E-01	ALL	July 2010
664849.93750	4168835.25000	404.30	404.30	0.00	0.537433E-01	ALL	July 2010
664267.12500	4168820.25000	378.14	378.14	0.00	0.574600E-01	ALL	July 2010
664458.31250	4168801.25000	387.25	402.17	0.00	0.518767E-01	ALL	July 2010

664221.31250	4168800.00000	377.92	377.92	0.00	0.567733E-01	ALL	July 2010
665209.25000	4168798.50000	397.37	409.88	0.00	0.507400E-01	ALL	July 2010
664849.93750	4168785.25000	401.53	402.66	0.00	0.542233E-01	ALL	July 2010
664175.50000	4168780.00000	378.72	390.81	0.00	0.559767E-01	ALL	July 2010
664129.68750	4168760.00000	382.10	391.45	0.00	0.550533E-01	ALL	July 2010
664457.12500	4168751.25000	386.42	397.39	0.00	0.523233E-01	ALL	July 2010
665208.50000	4168748.50000	404.18	405.91	0.00	0.521900E-01	ALL	July 2010
664083.87500	4168740.00000	385.63	391.45	0.00	0.538933E-01	ALL	July 2010
664849.93750	4168735.25000	395.59	402.66	0.00	0.545500E-01	ALL	July 2010
664038.06250	4168720.00000	389.73	389.73	0.00	0.527700E-01	ALL	July 2010
663991.50000	4168701.75000	391.63	391.63	0.00	0.530800E-01	ALL	July 2010
664455.93750	4168701.25000	383.81	397.39	0.00	0.529167E-01	ALL	July 2010
665207.75000	4168698.50000	406.67	406.67	0.00	0.534333E-01	ALL	July 2010
664849.93750	4168685.25000	389.38	408.26	0.00	0.550833E-01	ALL	July 2010
663944.50000	4168684.75000	391.67	391.67	0.00	0.545867E-01	ALL	July 2010
663897.50000	4168667.75000	389.62	389.62	0.00	0.549100E-01	ALL	July 2010
664454.75000	4168651.25000	380.68	395.88	0.00	0.536300E-01	ALL	July 2010
663850.43750	4168650.75000	386.99	397.00	0.00	0.498600E-01	ALL	July 2010
665207.00000	4168648.50000	402.90	406.34	0.00	0.541700E-01	ALL	July 2010
664849.93750	4168635.25000	389.00	397.37	0.00	0.562667E-01	ALL	July 2010
663804.00000	4168632.50000	382.43	397.77	0.00	0.472933E-01	ALL	July 2010
664468.93750	4168616.25000	379.82	396.18	0.00	0.544400E-01	ALL	July 2010
664518.93750	4168616.25000	381.24	381.24	0.00	0.549333E-01	ALL	July 2010
664568.93750	4168616.25000	382.61	382.61	0.00	0.552800E-01	ALL	July 2010
664618.93750	4168616.25000	384.14	384.14	0.00	0.556267E-01	ALL	July 2010
664668.93750	4168616.25000	384.70	384.70	0.00	0.559233E-01	ALL	July 2010
664718.93750	4168616.25000	386.31	395.60	0.00	0.562733E-01	ALL	July 2010
664768.93750	4168616.25000	386.21	395.73	0.00	0.564433E-01	ALL	July 2010
664818.93750	4168616.25000	386.32	395.73	0.00	0.565467E-01	ALL	July 2010
663760.00000	4168608.75000	379.14	397.85	0.00	0.477067E-01	ALL	July 2010
665206.18750	4168598.50000	402.94	402.94	0.00	0.554033E-01	ALL	July 2010
663715.93750	4168585.00000	379.37	397.77	0.00	0.473600E-01	ALL	July 2010
663671.81250	4168561.50000	381.00	381.00	0.00	0.461300E-01	ALL	July 2010
665205.43750	4168548.50000	398.13	402.61	0.00	0.562567E-01	ALL	July 2010
663627.68750	4168538.00000	383.66	401.35	0.00	0.441733E-01	ALL	July 2010
666120.00000	4160500.00000	374.50	410.64	0.00	0.805467E-01	ALL	July 2010
666182.00000	4160500.00000	393.22	398.51	0.00	0.121283E+00	ALL	July 2010
666239.00000	4160500.00000	396.00	398.31	0.00	0.144127E+00	ALL	July 2010
666305.00000	4160500.00000	384.53	410.64	0.00	0.102350E+00	ALL	July 2010
666350.00000	4160587.00000	403.35	409.42	0.00	0.144687E+00	ALL	July 2010
666365.00000	4160626.00000	407.51	407.51	0.00	0.945567E-01	ALL	July 2010
666365.00000	4160720.00000	408.98	408.98	0.00	0.705733E-01	ALL	July 2010
666295.00000	4160720.00000	404.20	406.52	0.00	0.119233E+00	ALL	July 2010
666245.00000	4160720.00000	397.66	408.65	0.00	0.139037E+00	ALL	July 2010
666195.00000	4160720.00000	383.52	410.65	0.00	0.120193E+00	ALL	July 2010
666145.00000	4160720.00000	378.05	416.24	0.00	0.910333E-01	ALL	July 2010
666131.00000	4160569.00000	378.10	410.64	0.00	0.126530E+00	ALL	July 2010
666131.00000	4160569.00000	378.10	410.64	0.00	0.126530E+00	ALL	July 2010
665881.00000	4162444.00000	412.09	421.88	0.00	0.972267E-01	ALL	July 2010
665823.00000	4162444.00000	400.63	426.58	0.00	0.882333E-01	ALL	July 2010
665881.00000	4162626.00000	423.70	423.70	0.00	0.133080E+00	ALL	July 2010

665823.00000	4162626.00000	410.73	427.78	0.00	0.108737E+00	ALL	July 2010
665938.00000	4162626.00000	422.80	422.80	0.00	0.970600E-01	ALL	July 2010
665774.00000	4162626.00000	396.65	428.54	0.00	0.743500E-01	ALL	July 2010
665774.00000	4162444.00000	393.18	428.12	0.00	0.684300E-01	ALL	July 2010
665938.00000	4162444.00000	416.31	418.62	0.00	0.819900E-01	ALL	July 2010
665774.00000	4162573.00000	396.32	428.31	0.00	0.914733E-01	ALL	July 2010
665774.00000	4162517.00000	396.75	428.30	0.00	0.974000E-01	ALL	July 2010
665948.00000	4162573.00000	421.32	421.32	0.00	0.123727E+00	ALL	July 2010
665948.00000	4162517.00000	421.57	421.57	0.00	0.144977E+00	ALL	July 2010
665649.00000	4165298.00000	421.48	421.48	0.00	0.932700E-01	ALL	July 2010
665607.00000	4165343.00000	423.35	423.35	0.00	0.103150E+00	ALL	July 2010
665652.00000	4165238.00000	421.10	421.10	0.00	0.107083E+00	ALL	July 2010
665648.00000	4165199.00000	418.66	420.02	0.00	0.104427E+00	ALL	July 2010
665618.00000	4165179.00000	413.01	421.31	0.00	0.139103E+00	ALL	July 2010
665595.00000	4165174.00000	409.99	422.22	0.00	0.138043E+00	ALL	July 2010
665529.00000	4165201.00000	401.59	436.19	0.00	0.112783E+00	ALL	July 2010
665529.00000	4165260.00000	406.40	436.19	0.00	0.142213E+00	ALL	July 2010
665557.00000	4165346.00000	418.73	436.19	0.00	0.110390E+00	ALL	July 2010
665400.00000	4169632.00000	403.14	408.95	0.00	0.820467E-01	ALL	July 2010
665457.00000	4169652.00000	406.38	406.38	0.00	0.117737E+00	ALL	July 2010
665531.00000	4169680.00000	401.96	401.96	0.00	0.988433E-01	ALL	July 2010
665609.00000	4169714.00000	399.42	410.35	0.00	0.614267E-01	ALL	July 2010
665584.00000	4169770.00000	396.17	396.17	0.00	0.683700E-01	ALL	July 2010
665560.00000	4169843.00000	393.69	395.49	0.00	0.554167E-01	ALL	July 2010
665479.00000	4169828.00000	391.46	395.90	0.00	0.724333E-01	ALL	July 2010
665396.00000	4169812.00000	396.71	396.71	0.00	0.768167E-01	ALL	July 2010
665324.00000	4169841.00000	393.47	396.61	0.00	0.518300E-01	ALL	July 2010
665290.00000	4169797.00000	394.95	394.95	0.00	0.509333E-01	ALL	July 2010
665346.00000	4169769.00000	399.17	399.17	0.00	0.681200E-01	ALL	July 2010
665337.00000	4169705.00000	398.39	398.39	0.00	0.695000E-01	ALL	July 2010
665500.00000	4165635.00000	432.77	432.77	0.00	0.926700E-01	ALL	July 2010
665500.00000	4165690.00000	433.02	436.27	0.00	0.111363E+00	ALL	July 2010
665500.00000	4165740.00000	433.55	439.03	0.00	0.122660E+00	ALL	July 2010
665500.00000	4165790.00000	434.94	434.94	0.00	0.115920E+00	ALL	July 2010
665500.00000	4165860.00000	432.81	432.81	0.00	0.974300E-01	ALL	July 2010
665550.00000	4165635.00000	435.80	435.80	0.00	0.117940E+00	ALL	July 2010
665550.00000	4165860.00000	434.11	434.11	0.00	0.123617E+00	ALL	July 2010
665600.00000	4165635.00000	436.08	436.08	0.00	0.144310E+00	ALL	July 2010
665600.00000	4165860.00000	432.18	437.97	0.00	0.147533E+00	ALL	July 2010
665650.00000	4165635.00000	437.86	437.86	0.00	0.139803E+00	ALL	July 2010
665650.00000	4165860.00000	429.58	429.58	0.00	0.142837E+00	ALL	July 2010
665700.00000	4165635.00000	435.55	438.66	0.00	0.115253E+00	ALL	July 2010
665700.00000	4165860.00000	427.37	427.37	0.00	0.117057E+00	ALL	July 2010
665750.00000	4165635.00000	432.94	437.66	0.00	0.948633E-01	ALL	July 2010
665750.00000	4165690.00000	425.93	438.72	0.00	0.119217E+00	ALL	July 2010
665750.00000	4165740.00000	419.03	439.67	0.00	0.125870E+00	ALL	July 2010
665750.00000	4165790.00000	411.82	439.67	0.00	0.110533E+00	ALL	July 2010
665750.00000	4165860.00000	421.06	427.99	0.00	0.914300E-01	ALL	July 2010
665377.00000	4163553.00000	397.89	444.23	0.00	0.620000E-01	ALL	October 2009
665456.00000	4163553.00000	397.89	444.23	0.00	0.720000E-01	ALL	October 2009
665504.00000	4163553.00000	397.89	444.23	0.00	0.810000E-01	ALL	October 2009

APPENDIX F – MODELING PROTOCOL

Protocol for Air Dispersion Modeling and Lead Emission Estimates Associated with the 2011 Lead SIP for the Area Surrounding the Buick Resource Recycling Facility

Prepared For:

Buick Resource Recycling Facility

18594 Hwy KK

Boss MO 65440

Prepared By:

Shell Engineering & Associates, Inc.

2403 West Ash

Columbia MO 65203

June 9, 2011

Table of Contents

Table of Contents i
List of Tables ii
List of Figures ii
1.0 Introduction 1
1.1 Overview 1
1.2 Facility Location 3
1.3 BRRF Process Description 3
1.3.1 Raw Material Preparation & Pretreatment 3
1.3.2 Smelting 5
1.3.3 Refining 6
1.3.4 Proposed Process Change 7
2.0 Lead Emission Estimates 11
3.0 Meteorological Data 16
4.0 Dispersion Model Input Parameters 19
4.1 Model Selection 19
4.2 Model Version Numbers 19
4.3 Control Options 20
4.4 Source Parameters 20
4.5 Building Profile Information 21
4.6 Receptor Information 21

List of Tables

Table 2-1. BRRF Lead Emission Factors 13
Table 4-1. Building Profile Information 23

List of Figures

Figure 1-1. General Location 9
Figure 1-2. BRRF Plant Layout 10
Figure 3-1. Meteorological Station Locations.....18
Figure 4-1. Building Locations and Dimensions.....24

1.0 Introduction

1.1 Overview

The United States Environmental Protection Agency (USEPA) promulgated a revised National Ambient Air Quality Standard (NAAQS) for lead on October 15, 2008. The revision reduced the standard by 90%, from 1.5 $\mu g/m^3$ (quarterly average) to 0.15 $\mu g/m^3$ (3-month rolling average).

The revision to the standard required the Missouri Department of Natural Resources (MDNR) to designate the attainment status of all areas of the state. Through the use of existing ambient monitoring and atmospheric dispersion modeling data, the MDNR designated two areas as nonattainment for the revised lead standard:

1. **Herculaneum Nonattainment Area.** Area surrounding the Doe Run Company's primary smelter in Herculaneum, MO and
2. **Buick/Viburnum Trend Nonattainment Area.** Area surrounding the Buick Resource Recycling Facility (BRRF) near Boss, MO.

The purpose of this document is to outline the methodology that will be used to perform the atmospheric dispersion modeling associated with incorporating the Buick/Viburnum Trend Nonattainment Area into the Missouri Lead State Implementation Plan (SIP). Shell Engineering and Associates, Inc. has been contracted by the BRRF to develop all necessary emissions inventories and model input data. All of the inventories and analyses will be developed in cooperation with staff from the MDNR and EPA Region 7.

The Buick/Viburnum Trend Nonattainment Area was defined on a section basis and includes parts of three counties.

1. **Iron County:** T34N, R1W, sec. 6-7, 18-19, 30-32 and T34N, R2W, sec. 1-3, 10-15, 22-27, 34-36
2. **Dent County:** T34N, R2W, sec. 4, 9, 16, 21, 28, 33
3. **Reynolds County:** T33N, R1W, sec. 5-7 and T33N, R2W, sec. 1-3, 11-12

Atmospheric dispersion modeling will be used as the primary tool for determining what controls are necessary to achieve attainment. The first step is commonly referred to as the actual value modeling analysis. This analysis determines how well the model predicts actual measured concentrations. An hourly emission inventory is developed for each source in the nonattainment area and the model is run for each active monitor location using actual monitor inlet heights. The daily measured data is then compared to the concentrations predicted by the model. Emphasis is placed on how well the model predicts the high 3-month rolling average lead concentration for each monitor, or at a minimum at a location in close proximity to the monitor. However, it is also important that the frequency distributions be similar.

Once it is determined that the model is predicting reliably, the next step is the Design Value Modeling Analysis. This analysis uses all of the same model input parameters as the Actual Value Modeling Analysis, however, the emission rates are based on the Maximum Hourly Design Rate (MHDR) of the facility. Any federally enforceable conditions the facility is subject to can be included in the analysis. The purpose of this analysis is to determine the concentration that could potentially occur if the facility was operated continuously at its MHDR. A culpability analysis is then performed to determine the individual sources contributing to the high concentrations. The culpability analysis is then used to develop a control strategy.

The final modeling analysis is the Control Strategy Modeling Analysis. This analysis takes into account all of the control technologies and operational limits identified in the control strategy. The high 3-month rolling modeled concentration must be less than the NAAQS.

1.2 Facility Location

The BRRF is located approximately three miles east of Boss, MO in northwest Iron County. The facility is approximately 90 miles southwest of St. Louis and 125 miles east of Springfield. The UTM coordinates of the facility referenced to the 1983 North American Datum, Zone 15 are 664.8 km east and 4167.1 km north. The elevation in the facility ranges from approximately 1,360 to 1,440 ft-asl.

A map showing the general location of the area has been provided as Figure 1-1. A map showing the layout of the BRRF has been provided as Figure 1-2.

1.3 BRRF Process Description

The BRRF's secondary lead production operation is divided into three major areas:

1. Raw Material Preparation & Pretreatment
2. Smelting
3. Refining

1.3.1 Raw Material Preparation & Pretreatment

The facility receives raw material in the form of large industrial batteries, small automotive batteries, coke, limestone, silica, glass, scrap steel, scrap lead metal and other lead bearing materials contained in drums.

Batteries are drained and shredded. The battery storage bunker is designed with an acid resistant primary liner system, including an acid brick floor, and a leak detection system. Electrolyte from the broken batteries drains to a sump and currently is subsequently pumped to one of the two 40,000 gallon rubber-lined process tanks for further processing into sodium sulfate (Na2SO4).

The shredded batteries are then fed to a feed hopper. The feed hopper in turn discharges onto a conveyor. The conveyor then takes the schredded batteries to

the hammer mill. The hammer mill further reduces the physical size of the battery and its components to facilitate separation of the paste, plastic, grids, post and separators. Separated lead scrap from the batteries (lead plates, posts, and intercell connectors) are collected and stored in a truck for subsequent charging to the furnace. The hammer mill is vented to the Breaking Desulfurizing Crystallizing (BDC) Scrubber to capture acid mist, PM-10 and lead. A water screen receives the shredded feed from the hammermill where the feed materials are spray washed to remove the paste fraction of the broken batteries.
The battery paste is transferred to one of the two desulfurization reaction tanks and mixed with slurry of sodium carbonate (Na2CO3), which is prepared in a soda ash slurry tank. Paste desulfurization involves the chemical removal of sulfur from the lead battery paste. The Na2CO3 reacts with the lead sulfate (PbSO4) in the battery paste to produce a lead carbonate (PbCO3) paste and a Na2SO4 solution. This process improves the furnace efficiency by reducing the need for fluxing agents to reduce lead-sulfur compounds to lead metal. The process also reduces sulfur dioxide (SO2) furnace emissions.

Plastic components and separators are washed and separated in the hydrodynamic separator and poly wash system. Plastic components are sold to be made into new battery cases. Seperators may be mixed with paste for use in the reverberatory furnace as a flux/reductant; alternately they are charged to the multi-hearth furnace as well.

Lead bearing scrap cable is sweated in a propane-fired Reclamation (sweat) Furnace to separate lead from metals with higher melting points and non-metal contaminants. This lead bullion is tapped from the Reclamation Furnace for further processing in the Refinery. The exhaust from the Reclamation Furnace is first vented to an afterburner to control volatile organic materials driven off in the furnace, and then to the main baghouse for particulate control.

1.3.2 Smelting

Battery parts except acid and plastic go to the reverb or blast furnace. The reverb has a lightly reducing bath with a slightly oxidizing atmosphere which produces a stream of lead and a lead oxide reverb slag. The lead oxide reverb slag goes to the blast furnace which is heavily reducing and converts the lead oxide, drosses and other recycled material to lead with minor impurities. These 2 processes work together to recycle the lead containing materials into lead after refining that can be used by industry.

The Blast Furnace produces hard lead containing antimony. Shredded scrap metal, primary or secondary blast furnace slag, reverb slag, scrap iron, coke, recycled dross, recycles products flue/baghouse dust, limestone, silica, glass and fluxes are used as charge materials to the furnace. The raw materials are fed through a series of conveyors and layered in the Blast Furnace with coke. As the material slowly moves through the furnace, the material becomes fluid as the coke reduces and melts the charge. In the process, the lead oxide is reduced to elemental lead, and the limestone, silica and iron form a slag by-product. Fugitive emissions from the Blast Furnace are controlled by a baghouse.
The molten lead and slag are transferred to a settler that separates the two components. The lead is poured into a transfer pot and is further processed in the refinery. The slag is sent through a water granulation system, may be chemically treated, and shipped off-site for disposal or disposed on-site in a permitted landfill.

The exhaust from the Blast Furnace is transferred through a cooling chamber to the main baghouse for particulate matter control. The dust captured in the main baghouse is conveyed by enclosed screw conveyors to the reverb furnace.

The Reverberatory Furnace produces soft lead. Soft lead is a product with low antimony content and is typically produced from the battery paste processed in the BDC building. The battery paste, post, grids, soda ash, coke breeze and

separators are transferred from the paste storage building and continuously fed to the Reverberatory Furnace through screw feeders.

The Reverberatory Furnace has an oxy-fuel burner system rated at 40 million BTU/hr. The fuel source for this furnace is propane and pure oxygen. Gases exit the furnace at 2300-2400°F and drop vertically into a brick lined cooling chamber where it is cooled to 600-1000°F. The gases leave the cooling chamber vertically and are cooled enough to be handled in the steel ducts. The exhaust gases are then transferred to the main baghouse for particulate and lead control.

The reverb furnace burners operate normally between 20% and 70% excess oxygen (percent above that needed for combustion of the propane). This allows the operators to ensure that the sulfur leaves the furance as SO2 and not a reduced form of sulfur. However, the bath itself is operated slightly reducing through the addition of coke breeze. The coke breeze reacts directly with lead oxide to form lead in the bath.

The slag is almost continuously tapped via a water cooled launder. The slag produced in the Reverberatory Furnace is recycled back to either the Reverberatory Furnace or the Blast Furnace. The lead tap is made intermittently through an underflow siphon leadwell from the Reverberatory Furnace to a 225 ton dross kettle. The lead bullion is then further refined in the dross plant and refinery to meet specific customer specifications.

1.3.3 Refining

Refining and casting the crude lead from the blast furnace, reverberatory furnace, sweat furnace and remelt scrap lead consists of softening, alloying, and oxidation depending on the degree of purity or alloy type desired in batch type kettles.

The D-1, D-2, D-3, D-4, & D-5 kettles are considered the drossing kettles. Agents used to create dry dross typically include coke breeze, saw dust, and ebonite. The lead is pumped to refinery kettles and the dross is transferred to a granulation system and screw or to a quench tank.

The refining kettles are normally used to remove impurities from the lead. Refining is accomplished by adding reagents, such as, pyrite and sulfur into the molten lead. These form either intermetallic dross, oxide dross or chemical compounds which dross. The dross containing the impurities is then shimmed off the kettle and sent to the Blast Furnace as dry or granulated dross. When required, the copper-free lead metal is treated for tin, antimony, and arsenic removal or addition in kettles prior to being pumped to the Cleanup Kettles. The Cleanup Kettles are normally used to remove the last remaining antimony from the lead or to make final additions to the lead for specific alloys. After the metal is checked, it is pumped to one of the casting operations. Refining kettles are equipped with kettle ventilation from the main baghouse, south refinery baghouse and north refinery baghouse to capture particulate matter.

From the casting kettle, the lead is then pumped to the casting machines. The lead can be cast into 1 ton blocks, 100-lb pigs, 60-lb pigs, or 25-lb links (5 lb. x 5) or billets. Product is then stored to allow final cooling and then is loaded and shipped to the customer.

1.3.4 Proposed Process Change

The facility has submitted a construction permit application to add new pollution control equipment to their existing reverberatory furnace. The construction permit is expected to be issued in June 2011. The permit will include the installation of a new afterburner, baghouse, and dry scrubber (a second baghouse is a component of the dry scrubber) for control of the reverberatory furnace process gases. The new equipment will replace the existing, less

efficient, sodium carbonate based sulfur removal process. As a result, minor portions of the raw material preparation and pretreatment description will change.

Figure 1-1. General Location

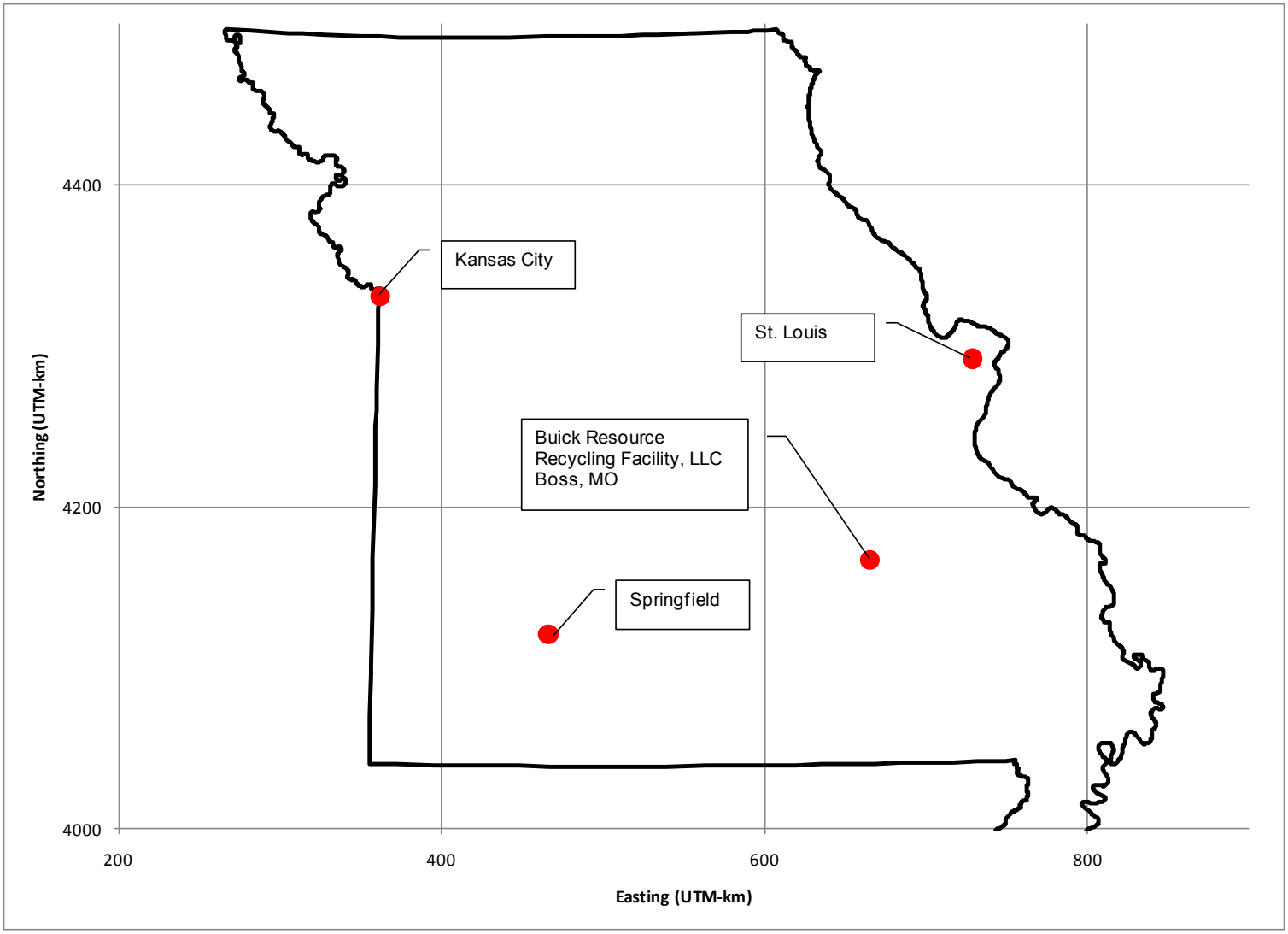
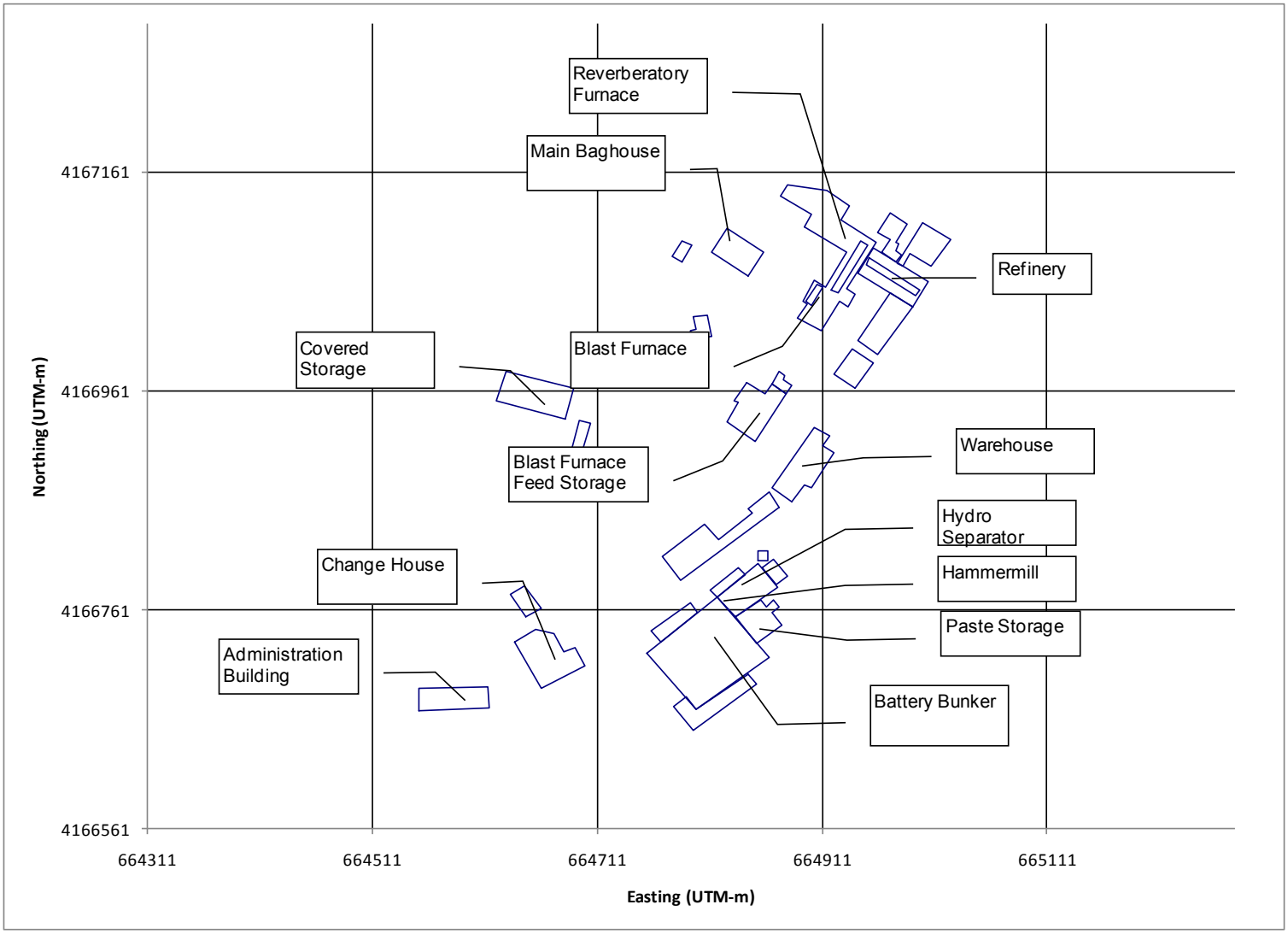


Figure 1-2. BRRF Plant Layout



2.0 Lead Emission Estimates

Emission estimates are required for three scenarios:

1. actual hourly emissions for the years of 2009-10 for use in the actual value analysis,
2. maximum hourly emissions for use in the design value analysis, and
3. controlled/conditioned emissions for use in the control strategy analysis.

The actual hourly emissions for January 2009 through December 2010 will be estimated from daily production data, lead emission factor, and typical hours of operation using the following equation:

$ER = (P * EF) / H$

ER = Hourly Lead Emission Rate (lb/hr)

P = Daily Production Rate (Production-Units/dy)

EF = Lead Emission Factor (lb/Production-Unit)

H = Hours of Operation for the Day (hr/dy)

The actual hourly emissions will be modeled for all days that on-site meteorological data and measured ambient lead concentrations within the nonattainment area exist. The results of this analysis will then used to determine how well the model predicts the measured ambient lead concentrations. If the actual value analysis is able to replicate the measured concentrations, additional confidence can be placed on the results of the design value analysis which is used in the development of the control strategy.

The maximum hourly emissions for use in the design value analysis will be estimated from the MHDR and lead emission factor using the following equation:

$ER_{Max} = MHDR * EF$

ER_{Max} = Maximum Hourly Lead Emission Rate (lb/hr)

MHDR = Maximum Hourly Design Production Rate (Production-Units/hr)

EF = Lead Emission Factor (lb/Production-Unit)

The controlled emissions used in the control strategy analysis will be calculated from the maximum hourly emission rate and control efficiency using the following equation:

$$ERCntrl = ERMax * (100-C)/100$$

ERCntrl = Controlled Hourly Lead Emission Rate (lb/hr)

ERMax = Maximum Hourly Lead Emission Rate (lb/hr)

C = Control Efficiency of Selected Technology (%)

It may also be necessary to correct the emission rate for any operational limits taken to model compliance with the NAAQS.

The proposed emission factors that will be utilized for estimating lead emissions at the BRRF have been summarized in Table 2-1.

Table 2-1. BRRF Lead Emission Factors

EIQ Emission Point No.	Source Description	Source Type	Factor Units	Emission Factor (lb/Unit)	Emission Factor Source
8	Main Stack	Point Source	Tons-Pb-Produced (Blast and Reverberatory Furnaces)	0.0154	5/20/09 Stack Test (0.270/17.50=1.54E-02 lb/Tons-Pb-Produced (Blast, Reverb))
10	Blast Furnace Fugitives	Line of volume sources at equal intervals along roof monitor.	Tons-Pb-Produced (Blast Furnace)	0.268	Estimated from building concentrations measured by the facility in May 2008.
11	Reverberatory Furnace Fugitives	Line of volume sources at equal intervals along roof monitor.	Tons-Pb-Cast	0.0303	Estimated from building concentrations measured by the facility in May 2008.
12	Refinery/Casting Fugitives	Line of volume sources at equal intervals along roof monitor.	Tons-Pb-Cast	0.028	Estimated from building concentrations measured by the facility in May 2008.

EIQ Emission Point No.	Source Description	Source Type	Factor Units	Emission Factor (lb/Unit)	Emission Factor Source
13	Outside Material Storage-Material Handling	Volume sources representing the dumping and loading of material.	Tons-Material-Handled	Varies by Wind Speed and Material Moisture Content	AP42, Section 13.2.4, Equation 1 and Material Pb Content.
13	Outside Material Storage-Wind Erosion	Area source representing the actual size of the individual storage areas	Area (Acres or square meters)	Varies by Wind Speed and Threshold Friction Velocity	AP42, Section 13.2.5 and Material Pb Content.
16	BDC Scrubber	Point Source	Tons-Batteries-Processed	0.00313	11/3-11/4/05 Stack Test (0.081/25.69=3.13E-03 lb/Tons-Batteries-Processed)
22-23	Dross Kettle Heat Stacks	Point Sources	Tons-Pb-Cast	0.001038	4/28-30/99 Test of the No.4 Kettle Heat Stack at Doe Run Herculaneum. (0.0182/35 = 0.000519 lb/ton-Pb-Cast). Multipled by 2 for number of stacks (0.000519*2=0.001038).
24-28	Refinery Kettle Heat Stacks	Point Sources	Tons-Pb-Cast	0.00355	3/1-2/99 Test of the No.3 Kettle Heat Stack at Doe Run Herculaneum. (0.0289/39.72 = 0.000709 lb/ton-Pb-Cast). Multipled by 5 for number of stacks (0.000709*5=0.00355).
31A	Drum Shredder Dump	Point Source	Tons-Material-Shredded	0.000947	8/30/05 Stack Test (0.003/3.17=9.47E-04 lb/Tons-Material-Shredded)

EIQ Emission Point No.	Source Description	Source Type	Factor Units	Emission Factor (lb/Unit)	Emission Factor Source
31B	Drum Shredder Hygiene	Point Source	Tons-Material-Shredded	0.00804	8/10-8/11/05 Stack Test (0.017/2.08=8.04E-03 lb/Tons-Material-Shredded)
31C	Drum Shredder Main	Point Source	Tons-Material-Shredded	0.0181	8/23/05 Stack Test (0.050/2.76=1.81E-02 lb/Tons-Material-Shredded)
71	Reverberatory Furnace Building Ventilation Baghouse Stack	Point Source	Tons-Pb-Produced (Reverberatory Furnace)	0.013	7/22/09 Stack Test (0.170/13.04=1.30E-02 lb/Tons-Pb-Produced (Reverb))
72	Refinery Kettle Ventilation Baghouse Stack	Point Source	Tons-Pb-Cast	0.00853	12/22/05 Stack Test (0.108/12.67=8.53E-03 lb/Ton-Pb-Cast)
81	Refinery Kettles and Dross Screw Ventilation Baghouse Stack	Point Source	Tons-Pb-Cast	0.00299	7/23/2009 Stack Test (0.050/16.75=2.99E-03 lb/Ton-Pb-Cast)
95	Blast Furnace Feed Storage Building Ventilation Baghouse Stack	Point Source	Tons-Blast Furnace Feed-Charged	N/A	Will be stack tested in July 2011
74-79	In-Plant Haul Roads	Area sources	Vehicle-Miles-Traveled	Varies by Vehicle Weight and Silt Loading	AP42, Section 13.2.1, Equation 1 and Surface Material Pb Content. Actual silt loading data collected inside the facility will be used.
N/A	Outside Plant Roads (Highway KK and 32)	Area sources	Vehicle-Miles-Traveled	Varies by Vehicle Weight and Silt Loading	AP42, Section 13.2.1, Equation 1 and Surface Material Pb Content. Actual silt loading data collected along Highway KK will be used.

3.0 Meteorological Data

Three (3) meteorological datasets will be utilized:

1. on-site (BRRF) wind and temperature data,
2. surface data from Farmington, MO and
3. upper air soundings from Springfield, MO (WBAN 13995)

A map showing the general location of the meteorological stations in relation to the source has been provided as Figure 3-1.

Six (6) meteorological parameters are collected on-site:

1. 10m Wind Speed
2. 10m Wind Direction
3. 10m Sigma Theta
4. 2m Temperature
5. Barometric Pressure
6. Rain

15-minute average on-site data will be used. The 1-hour averages will be calculated using AERMET. Any missing data substitution will be fully documented.

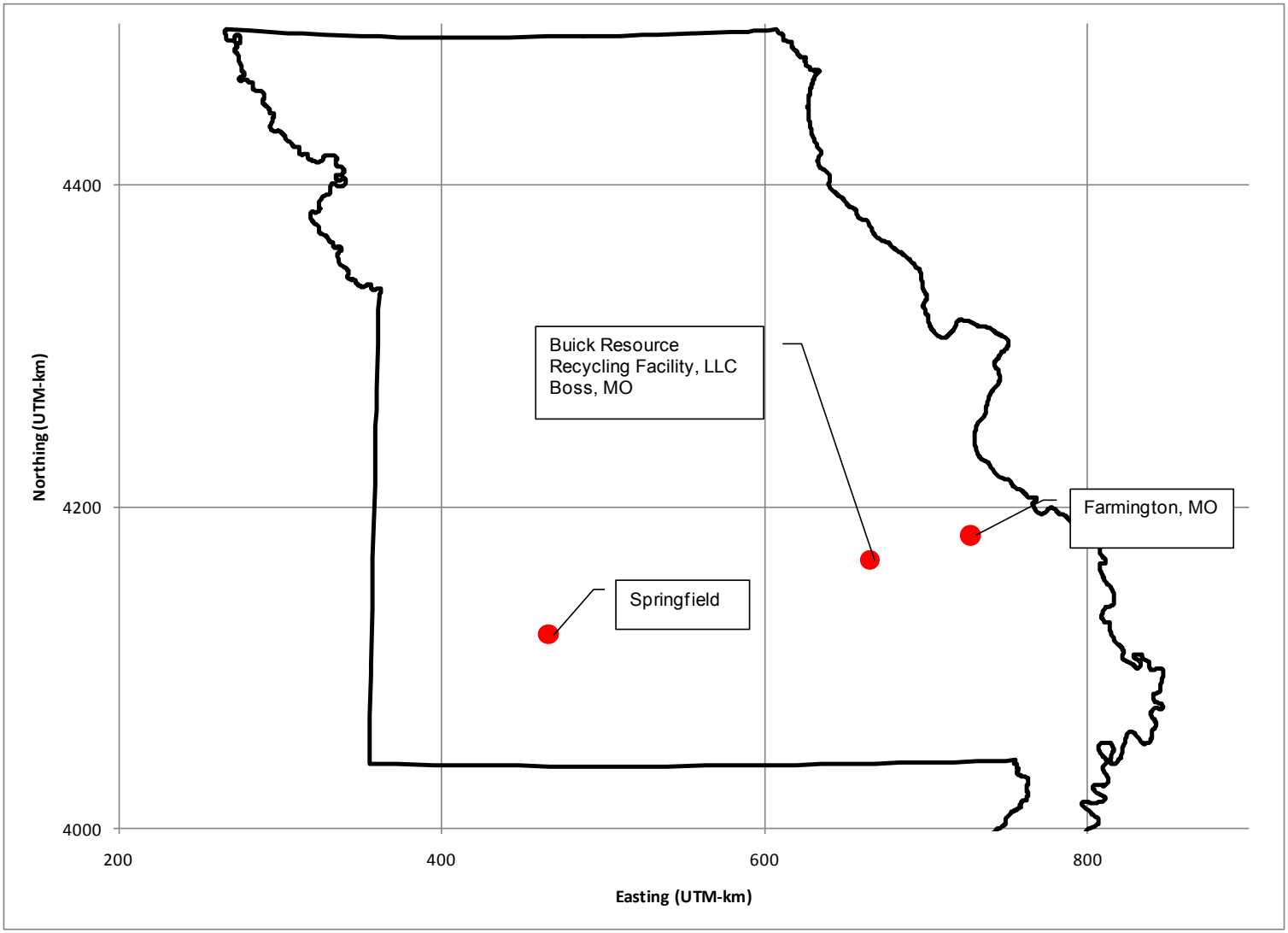
Data collected on-site is preferred, however, the data collected at the facility has some limitations. Solar radiation and delta temperature measurements are not collected, which means that cloud cover data must be obtained from a different location (Farmington, MO). Also, mixing height data is not collected at the facility, therefore, the closest upper-air station was chosen (Springfield, MO). Twice-daily upper air soundings will be downloaded from the NOAA/ESRL Radiosonde Database in a metric FSL format. All levels will be downloaded.

Since wind data is collected on-site, the Farmington, MO surface data was selected primarily based on proximity to the source. Surface data will be extracted from the NCDC's Full Global ISH Set on DVD.

The meteorological data will be compiled for the three year time period between January 2008 and December 2010.

The surface parameters required for the AERMET Stage 3 processing will be calculated using AERSURFACE. 1992 National Land Cover Data (NLCD 1992) downloaded from the USGS Seamless Data Server will be used. The data will be downloaded in a GeoTIFF format. The data has a resolution of 30 meters.

Figure 3-1. Meteorological Station Locations



4.0 Dispersion Model Input Parameters

4.1 Model Selection

The air quality modeling for this project will be accomplished using the AERMOD dispersion modeling system. The AERMOD system was developed by AERMIC, a collaboration of the American Meteorological Society (AMS) and the U.S. Environmental Protection Agency (EPA). The AERMOD system is a steady-state plume model that incorporates air dispersion based on planetary boundary layer (PBL) turbulence structure and scaling concepts, including treatment of both surface and elevated sources, both simple and complex terrain.

In addition to the dispersion model itself, referred to simply as AERMOD, the AERMOD system includes two regulatory component pre-processors for meteorological and terrain data. The meteorological component, AERMET, processes commercially available surface and upper air hourly meteorological data to produce profile and surface files that characterize the PBL for the dispersion model. The terrain data component, AERMAP, processes digital elevation data to calculate terrain elevations as well as a representative terrain-influence height associated with each receptor location.

AERSURFACE will be used to calculate the surface characteristics for AERMET.

BPIPPRM will be used to calculate the direction specific building profile information required as input by AERMOD.

LEADPOST will be used to calculate the 3-month rolling average concentrations.

4.2 Model Version Numbers

The following model/processor version numbers will be used:

1. AERMOD - Version 11103
2. AERMET - Version 11059
3. AERMAP - Version 11103

4. AERSURFACE - Version 08009
5. BPIPPRM - Version 04274
6. LEADPOST - Version 09096

4.3 Control Options

The DFAULT, CONC and DRYDPLT model control options will be utilized. The DFAULT option specifies that only regulatory default options will be allowed and the CONC option specifies that pollutant concentrations will be calculated. The DRYDPLT option specifies that dry depletion estimates will be included in the calculations.

4.4 Source Parameters

Stacks will be modeled as point sources. The location of the point source is defined as the center of the base of the stack. Point sources also require the input of the stack height, stack gas temperature, stack gas exit velocity, and the inner stack diameter.

Roof monitors will be modeled as a line of volume sources. The location of the volume source is defined as the center of the volume. The elevation is at the base terrain height above sea level. Volume sources require the input of release height, initial lateral dispersion, and initial vertical dispersion. A stable plume boundary of 2.15 standard deviations from the center line is assumed. The release height will be set equal to the center of the roof monitor. The initial lateral dispersion will be set equal to the center-to-center spacing divided by 2.15. The initial vertical dispersion is equal to the height of the building divided by 2.15.

Outside material handling (ie truck unloading to storage, truck loading with a front end loader) sources will be modeled as single volume sources. The elevation is at the base terrain height above sea level. Volume sources require the input of release height, initial lateral dispersion, and initial vertical dispersion. A stable

plume boundary of 2.15 standard deviations from the center line is assumed. The release height will be set equal to the center of the roof monitor. The initial lateral dispersion will be set equal to the center-to-center spacing divided by 2.15. The initial vertical dispersion is equal to the height of the building divided by 2.15.

Wind erosion from outside storage piles will be modeled as area sources. The area sources will be defined as rectangles with the approximate shape and orientation of the storage pile. The elevation is at the base terrain height above sea level (elevation at the bottom of the pile). The release height will be set equal to the height of the pile and it will be assumed that there is no initial vertical dispersion.

Haul roads will be modeled as area sources. The area sources will be defined as rectangles with the approximate shape and orientation of the actual road. The release height is assumed to be at ground level and a initial vertical dispersion of 1.4m will be assumed.

4.5 Building Profile Information

The Building Profile Input Program with PRIME (BPIPPRM) will be used to calculate direction specific building profile data. Since the sources are located in close proximity to a number of buildings at the facility, building downwash will affect the dispersion of the plume. The degree downwash affects the plume depends on the size and orientation of the buildings close to the stack.

The building locations and heights have been summarized in Table 4-1. A map showing the location and orientation of each building at the facility has been provided as Figure 4-1.

4.6 Receptor Information

Receptors will be placed at 50m intervals around the ambient boundary. Five hundred meter (500m) and 1km grids will be included out to 5km and 10km from

the facility, respectively. One hundred meter (100m) cartesian grids will be placed around points of maximum impact on the west side near the BRRF entrance and to the east of the facility.

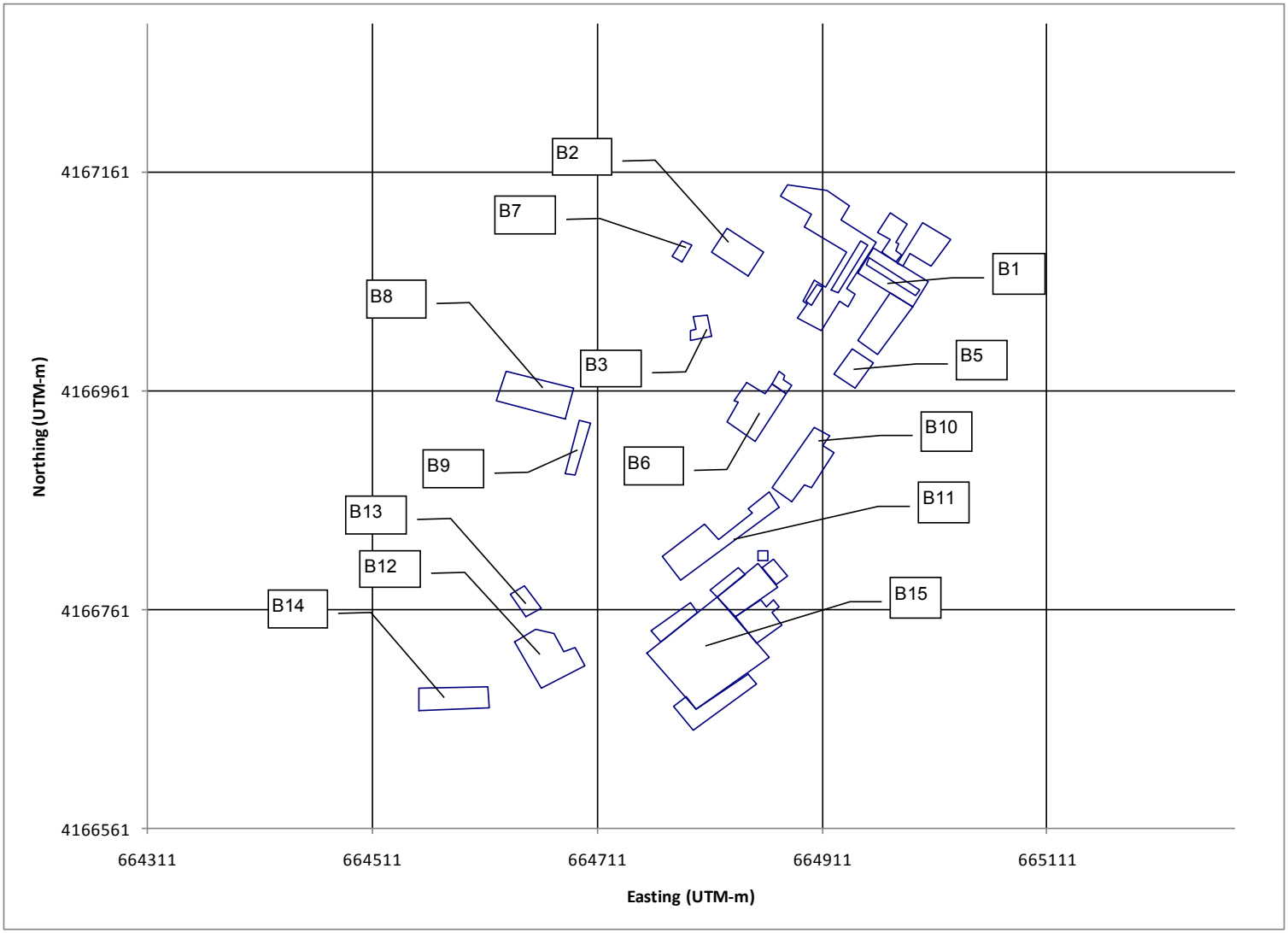
Receptors will also be placed at the location of monitors sited within the nonattainment area.

The terrain elevations and hill heights will be calculated for each receptor using Aermap (Aermod's terrain pre-processor). One(1) arc-second National Eleveation Data (NED) downloaded from the USGS Seamless Data Server will be used. The data will be downloaded in a GeoTIFF format.

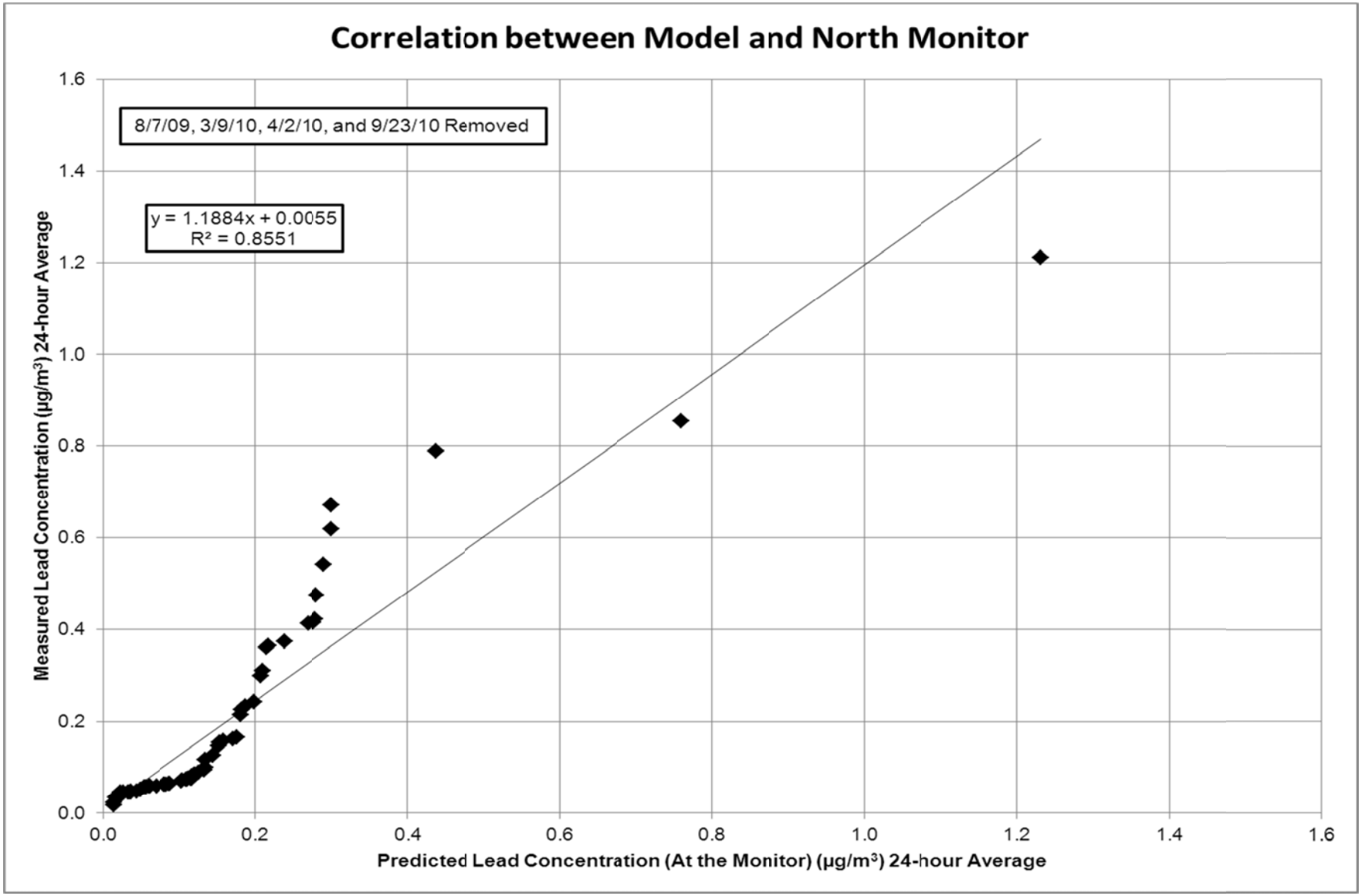
Table 4-1. Building Profile Information

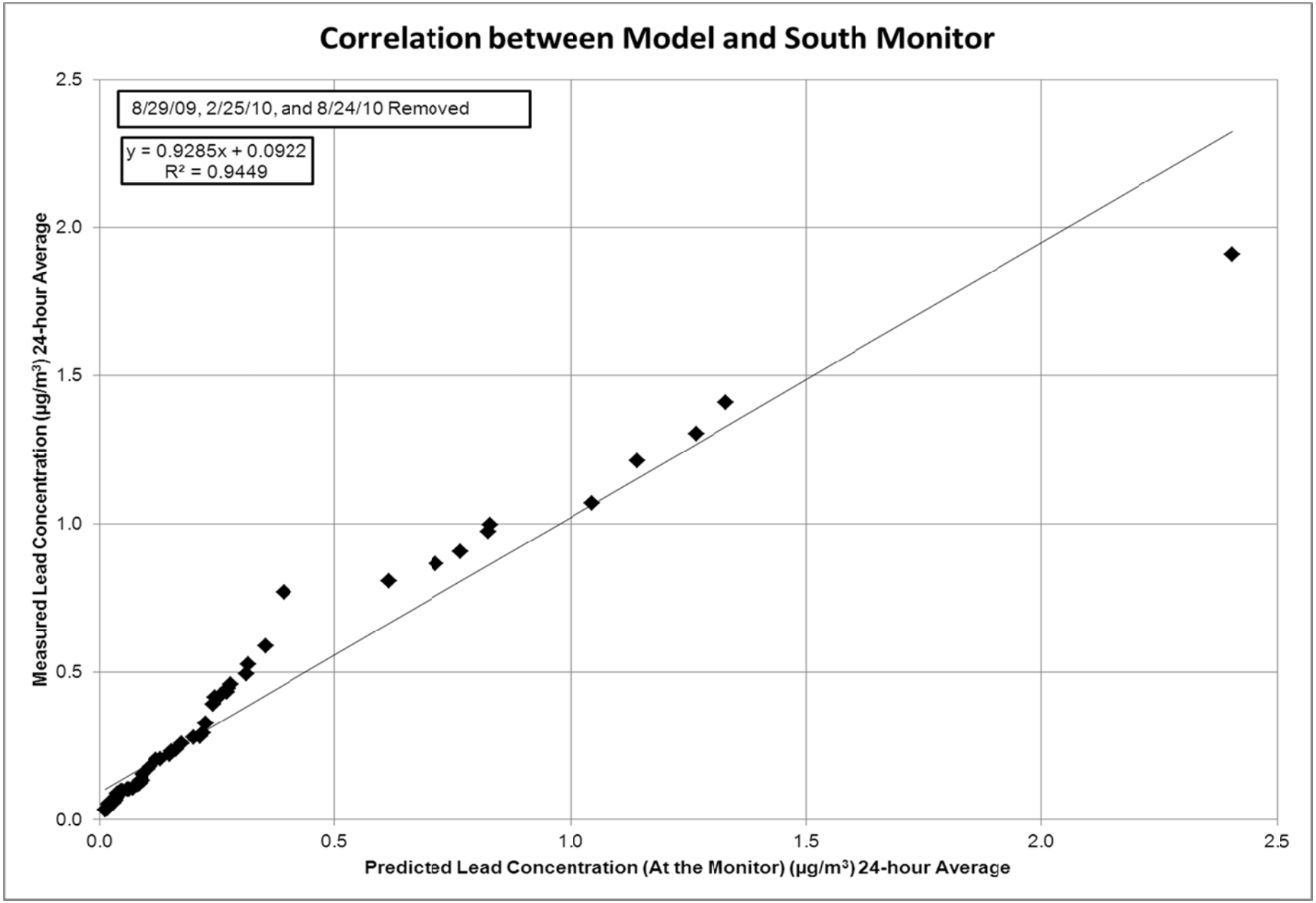
Building ID from Map	No. of Tiers	Base Elevation (m-asl)	No. of Corners	Tier Height (m)	Tier Height (ft)	Easting (UTM-m)	Northing (UTM-m)
B1	8	428	4	10.97	36	664991	4167038
			4	22.86	75	664942	4167069
			4	24.08	79	664953	4167082
			19	24.69	81	664895	4167111
			4	25.91	85	664919	4167053
			4	25.91	85	664912	4167055
			10	10.97	36	664964	4167087
			6	18.29	60	664978	4167078
B2	1	426	4	19.81	65	664846	4167066
B3	1	426	6	6.10	20	664812	4167011
B5	1	427	4	5.49	18	664940	4166964
B6	2	428	8	7.32	24	664844	4166968
			6	9.14	30	664866	4166968
B7	1	423	4	6.10	20	664786	4167079
B8	1	417	4	7.62	25	664682	4166936
B9	1	419	4	10.06	33	664682	4166886
B10	1	428	8	5.49	18	664884	4166859
B11	1	428	8	9.75	32	664872	4166855
B12	1	429	7	4.57	15	664638	4166732
B13	1	427	4	3.66	12	664648	4166755
B14	1	437	4	4.57	15	664553	4166669
B15	7	429	6	6.10	20	664845	4166703
			5	12.19	40	664754	4166722
			8	9.75	32	664834	4166754
			4	19.81	65	664818	4166772
			4	6.10	20	664767	4166731
			4	6.10	20	664818	4166773
			4	13.41	44	664858	4166800
B16	1	428	4	26.52	87	664854	4166806

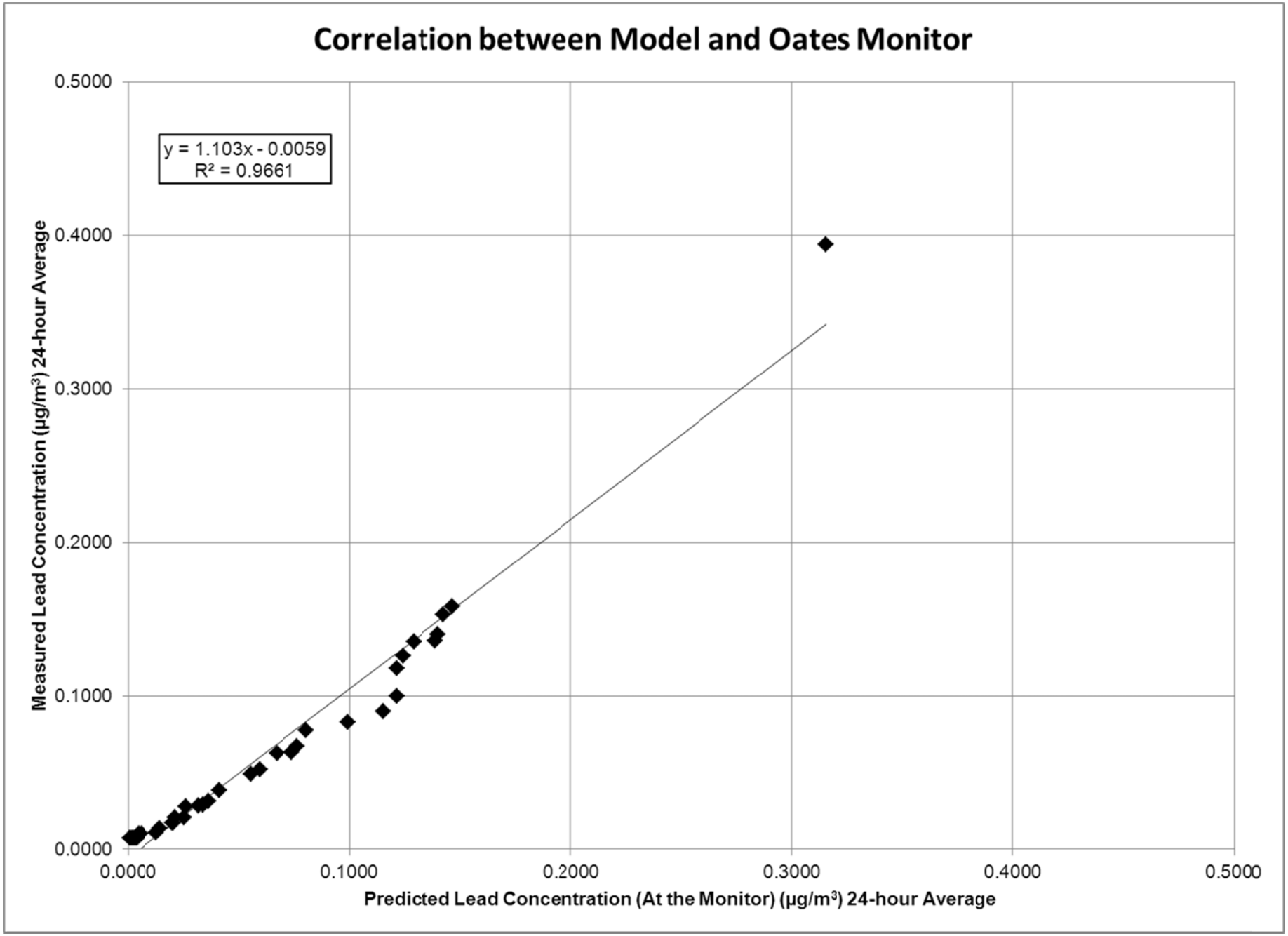
Figure 4-1. Building Locations and Dimensions



APPENDIX G – MODEL PERFORMANCE EVALUATION




Correlation between Model and South Monitor
8/29/09, 2/25/10, and 8/24/10 Removed
y = 0.9285x + 0.0922
R² = 0.9449
Measured Lead Concentration (µg/m³) 24-hour Average
Predicted Lead Concentration (At the Monitor) (µg/m³) 24-hour Average
0.0
0.5
1.0
1.5
2.0
2.5


Correlation between Model and Oates Monitor
y = 1.103x - 0.0059
R² = 0.9661
0.5000
0.4000
0.3000
0.2000
0.1000
0.0000
Measured Lead Concentration (µg/m³) 24-hour Average
0.0000
0.1000
0.2000
0.3000
0.4000
0.5000
Predicted Lead Concentration (At the Monitor) (µg/m³) 24-hour Average

APPENDIX H – EMISSION FACTORS & EMISSION CONTROLS (Base & Future Cases)

Base Case - The following table shows all modeled emission sources for the BRRF and the Buick mine/mill, and the Casteel mine. The emission rate used in the model run script is calculated either by multiplying the Pb emission factor, throughput, control efficiency, and hours/day; or by calculating the emission rate directly from a specified emission limit. This table includes all control measures operating during 2009 & 2010.

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BR_P8	Main Stack	1.54E-02		134786		*2.99E-02*	
BR_V10A-B	Blast Furnace Fugitives	*2.79E-01*	*lbs Pb/ton*	*37271*	*tons/yr*	*1.50E-01*	*Estimated from building concentrations measured by the facility in MAY 2008*
BR_V11A-C	Reverberatory Furnace Fugitives	*6.96E-02*	*lbs Pb/ton*	*146029*	*tons/yr*	*1.46E-01*	
BR_V12A-F	Refinery/ Casting Fugitives	*3.86E-02*	*lbs Pb/ton*	*160380*	*tons/yr*	*8.89E-02*	
BR_P16	BDC Scrubber	3.13E-03	lbs Pb/ton	192847	tons batteries processed	*8.67E-03*	3-4 NOV 05 stack test
BR_P22-23	Dross Kettle Heat Stacks	1.04E-03	lb Pb/ton Pb cast	160380	ton Pb cast	*2.39E-03*	28-30 APR 99 stack test (Herculaneum)
BR_P24-28	Refinery Kettle Heat Stacks	3.55E-03	lb Pb/ton Pb cast	160380	ton Pb cast	*8.19E-03*	1-2 MAR 99 stack test (Herculaneum)
BR_P31A	Drum Shredder Dump	9.47E-04	lb Pb/ ton material shredded	19761	tons material shredded/yr	*2.69E-04*	30 AUG 05 stack test
BR_P31B	Drum Shredder Hygiene	8.04E-03	lb Pb/ ton material shredded	19761	tons material shredded/yr	*2.29E-03*	10-11 AUG 05 stack test
BR_P31C	Drum Shredder Main	*1.81E-02*	lb Pb/ ton material shredded	19761	tons material shredded/yr	*5.14E-03*	*See Consent Judgement*
BR_P71	Reverberatory Furnace Building Ventilation Baghouse Stack	*1.30E-02*	*lbs Pb/ton*	*97502*	*tons/yr*	*1.82E-02*	
BR_P72	Refinery Kettle Ventilation Baghouse Stack	*8.53E-03*	lb Pb/ton Pb cast	*160380*	ton Pb cast/yr	*1.97E-02*	
BR_P81	Refinery Kettles and Dross Screw Ventilation Baghouse Stack	2.99E-03	lb Pb/ton Pb cast	160380	ton Pb cast/yr	*6.90E-03*	23 JUL 09 stack test
BR_V13A	Blast Furnace Bunker	3.09E-04		150867		*1.34E-03*	
BR_V13B	Unloading at Material Storage	2.51E-03		38933		*2.81E-03*	
BR_V13C	Loading at Material Storage	2.51E-03		38933		*2.81E-03*	
BR_A13E	Wind Erosion - Dross Storage	3.82E-02	lb /m^2/yr	1089	m^2	*5.98E-04*	AP42, Section 13.2.5 and Material Pb Content.
BR_A13F	Wind Erosion - Slag Cleanup Storage	1.09E-02	lb /m^2/yr	1089	m^2	*1.71E-04*	
BR_A13G	Wind Erosion - Blast Furnace Slag Storage	4.04E-03	lb /m^2/yr	113586	m^2	*6.61E-03*	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BR_HRABXX	BRRF Inplant Haul Road Segment AB	*7.29E-03*	*lbs/VMT*	*13815*	*VMT/yr*	*3.77E-04*	road dust test in 2000 & material Pb content
BR_HRBCXX	BRRF Inplant Haul Road Segment BC	8.83E-03	lbs/VMT	1041	VMT/yr	*3.44E-05*	
BR_HRBDXX	BRRF Inplant Haul Road Segment BD	6.12E-03	lbs/VMT	5669	VMT/yr	*1.30E-04*	
BR_HRDEXX	BRRF Inplant Haul Road Segment DE	6.50E-03	lbs/VMT	5163	VMT/yr	*1.25E-04*	
BR_HREFXX	BRRF Inplant Haul Road Segment EF	4.35E-03	lbs/VMT	61	VMT/yr	*9.99E-07*	
BR_HREGXX	BRRF Inplant Haul Road Segment EG	6.58E-03	lbs/VMT	9347	VMT/yr	*2.30E-04*	
BR_HRGHXX	BRRF Inplant Haul Road Segment GH	6.77E-03	lbs/VMT	468	VMT/yr	*1.19E-05*	
BR_HRGIXX	BRRF Inplant Haul Road Segment GI	6.41E-03	lbs/VMT	1455	VMT/yr	*3.49E-05*	
BR_HRIJXX	BRRF Inplant Haul Road Segment IJ	6.46E-03	lbs/VMT	3034	VMT/yr	*7.33E-05*	
BR_HRJKXX	BRRF Inplant Haul Road Segment JK	5.80E-03	lbs/VMT	2111	VMT/yr	*4.58E-05*	
BR_HRKLXX	BRRF Inplant Haul Road Segment KL	5.11E-03	lbs/VMT	1613	VMT/yr	*3.08E-05*	
BR_HRLMXX	BRRF Inplant Haul Road Segment LM	5.34E-03	lbs/VMT	660	VMT/yr	*1.32E-05*	
BR_HRMNXX	BRRF Inplant Haul Road Segment MN	6.31E-03	lbs/VMT	1342	VMT/yr	*3.17E-05*	
BR_HRNOXX	BRRF Inplant Haul Road Segment NO	7.46E-03	lbs/VMT	274	VMT/yr	*7.65E-06*	
BR_HRNPXX	BRRF Inplant Haul Road Segment NP	6.54E-03	lbs/VMT	111	VMT/yr	*2.72E-06*	
BR_HRNQXX	BRRF Inplant Haul Road Segment NQ	6.44E-03	lbs/VMT	611	VMT/yr	*1.47E-05*	
BR_HRLRXX	BRRF Inplant Haul Road Segment LR	4.94E-03	lbs/VMT	1681	VMT/yr	*3.10E-05*	
BR_HRRSXX	BRRF Inplant Haul Road Segment RS	4.35E-03	lbs/VMT	612	VMT/yr	*9.97E-06*	
BR_HRRTXX	BRRF Inplant Haul Road Segment RT	6.52E-03	lbs/VMT	1044	VMT/yr	*2.55E-05*	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BR_HRRUXX	BRRF Inplant Haul Road Segment RU	6.72E-03	lbs/VMT	69	VMT/yr	*1.74E-06*	
BR_HRUVXX	BRRF Inplant Haul Road Segment UV	0.00E+00	lbs/VMT	0	VMT/yr	*0.00E+00*	
BR_HRDVXX	BRRF Inplant Haul Road Segment DV	6.23E-03	lbs/VMT	52	VMT/yr	*1.21E-06*	
BR_HRIWXX	BRRF Inplant Haul Road Segment IW	5.05E-03	lbs/VMT	683	VMT/yr	*1.29E-05*	
BR_HRJXXX	BRRF Inplant Haul Road Segment JX	8.93E-03	lbs/VMT	247	VMT/yr	*8.25E-06*	
BR_HRXYXX	BRRF Inplant Haul Road Segment XY	1.04E-02	lbs/VMT	257	VMT/yr	*1.00E-05*	
BR_HRKZXX	BRRF Inplant Haul Road Segment KZ	1.04E-02	lbs/VMT	84	VMT/yr	*3.28E-06*	
BU_UG	Underground Mine	4.79E-04	lb/ton ore mined	924435	tons ore mined/yr	*6.37E-03*	June 2009 Test of Sweetwater Vent Shaft No. 6. Lead emissions for each of four vents were assumed proportional to flow.
BU_V13	Unload Hoist Can	1.85E-05	lb Pb/ton ore handled	924435	tons ore handled/yr	*2.45E-04*	
BU_V16	Truck Load-In	1.53E-05	lb Pb/ton ore handled	893920	tons ore handled/yr	*1.97E-04*	
BU_V17	Conveyor #2205	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V17	Screen	3.02E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*7.62E-04*	
BU_V19	Sec. Crusher	*6.79E-05*	*lb Pb/ton ore handled*	1755397	*tons ore handled/yr*	*1.71E-03*	
BU_V20	Conveyor #3020	*1.70E-05*	*lb Pb/ton ore handled*	*2334678*	*tons ore handled/yr*	*5.70E-04*	Emission factor from January 28, 1998 letter from MDNR to Asarco. Emission factors were developed from stack
BU_V20	Sec. Screen(2)	*3.02E-05*	*lb Pb/ton ore handled*	*2334678*	*tons ore handled/yr*	*1.01E-03*	
BU_V20	Oversize Bin Loadout	*1.70E-05*	*lb Pb/ton ore handled*	*579281*	*tons ore handled/yr*	*1.41E-04*	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BU_V20	Screen Feed Bins	*1.70E-05*	*lb Pb/ton ore handled*	*2334678*	*tons ore handled/yr*	*5.70E-04*	testing above ground equipment at the Westfork mill prior to the control device. Lead emissions were assumed proportional to the material lead content.
BU_V20	Conveyor #3045	*1.70E-05*	*lb Pb/ton ore handled*	*579281*	*tons ore handled/yr*	*1.41E-04*	
BU_V23A	Conveyor #3050	1.70E-05	lb Pb/ton ore handled	*579281*	tons ore handled/yr	*1.41E-04*	
BU_V23A	Tertiary Crusher	6.79E-05	lb Pb/ton ore handled	*579281*	tons ore handled/yr	*5.65E-04*	
BU_V25	Conveyor #3060	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V26	Conveyor #4003	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V28	Conveyor #4005	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V28	Conveyor #4010	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V28	Conveyor #4015	1.70E-05	lb Pb/ton ore handled	1755397	tons ore handled/yr	*4.28E-04*	
BU_V33	Conveyor #4470 - Pb	*3.91E-04*	*lb Pb/ ton concentrate handled*	*29733*	*tons concentrate handled/yr*	*1.67E-04*	*AP42, Section 13.2.4, Equation 1 and Material Pb Content. Control from Multimedia Consent Decree*
BU_V33	Conveyor #4475 - Pb	*3.91E-04*	*lb Pb/ ton concentrate handled*	*29733*	*tons concentrate handled/yr*	*1.67E-04*	
BU_V33	Conveyor #4480 - Pb	*3.91E-04*	*lb Pb/ ton concentrate handled*	*29733*	*tons concentrate handled/yr*	*1.67E-04*	
BU_V36	Conveyor #4370 - Zn	1.12E-05	lb Pb/ ton concentrate handled	9842	tons concentrate handled/yr	*1.58E-06*	AP42, Section 13.2.4, Equation 1 and Material Pb Content.
BU_V36	Conveyor #4375 - Zn	1.12E-05	lb Pb/ ton concentrate handled	9842	tons concentrate handled/yr	*1.58E-06*	
BU_V36	Conveyor #43XX - Cu	2.17E-05	lb Pb/ ton concentrate handled	8820	tons concentrate handled/yr	*2.75E-06*	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BU_V40	Partially Enclosed Storage - Load In	*3.00E-04*	*lb Pb/ ton concentrate handled*	*117705*	*tons concentrate handled/yr*	*5.07E-04*	*MDNR Storage Pile Vehicular Activity Equation & Material Pb Content and AP42 Section 13.2.4 Equation 1 & Material Pb Content. Control from Multimedia Consent*
BU_V40	Partially Enclosed Storage - Load Out	*3.00E-04*	*lb Pb/ ton concentrate handled*	*117705*	*tons concentrate handled/yr*	*5.07E-04*	
BU_V40	Partially Enclosed Storage - VA	*1.75E-02*	*lb Pb/ ton concentrate handled*	*117705*	*tons concentrate handled/yr*	*2.97E-02*	
BU_A48	Tailings Pile	1.13E+00	lbs Pb/acre/yr	500	acre	*8.11E-03*	Universal Soil Loss Equation and Material Pb Content
BU_HRABXX	Buick Mine/Mill Inplant Haul Road Segment AB	4.85E-04	lb Pb/VMT	15901	VMT/yr	*1.11E-04*	AP42, Section 13.2.1 and Material Pb Content.
BU_HRBCXX	Buick Mine/Mill Inplant Haul Road Segment BC	4.85E-04	lb Pb/VMT	8238	VMT/yr	*5.74E-05*	
BU_HRBDXX	Buick Mine/Mill Inplant Haul Road Segment BD	4.85E-04	lb Pb/VMT	3501	VMT/yr	*2.44E-05*	
BU_HRDEXX	Buick Mine/Mill Inplant Haul Road Segment DE	2.61E-04	lb Pb/VMT	737	VMT/yr	*2.77E-06*	
BU_HRDFXX	Buick Mine/Mill Inplant Haul Road Segment DF	7.10E-04	lb Pb/VMT	415	VMT/yr	*4.24E-06*	
BU_HRGHXX	Buick Mine/Mill Haul Road Segment GH	4.85E-04	lb Pb/VMT	91	VMT/yr	*6.36E-07*	
BU_HRHIXX	Buick Mine/Mill Haul Road Segment HI	8.19E-02	lb Pb/VMT	167	VMT/yr	*1.97E-04*	AP42, Section 13.2.2 and Material Pb Content.
CA_UG	Underground Mine	4.09E-04	lb Pb/ton ore mined	555787	Tons-Ore-Mined/yr	*3.27E-03*	
CA_V8	Unld Hoist Can	1.58E-05	lb Pb/ton ore mined	555787	Tons-Ore-Mined/yr	*1.26E-04*	Emission factor from January 28, 1998 letter from MDNR to Asarco. Emission
CA_V9	Truck Loadout	1.58E-05	lb Pb/ton ore mined	555787	Tons-Ore-Mined/yr	*1.26E-04*	
CA_HRABXX	Casteel Mine Inplant Haul Road Segment AB	4.85E-04	lb Pb/VMT	15882	VMT/yr	*1.11E-04*	AP42, Section 13.2.1 and Material Pb Content.
HWY_KKXX	Highway KK	*5.85E-05*	*lb Pb/VMT*	*6356875*	*VMT/yr*	*5.35E-03*	
HWY_32_XX	Highway 32	*1.95E-04*	*lb Pb/VMT*	*2233778*	*VMT/yr*	*6.26E-03*	

Future Case - The following table shows all modeled emission sources for the BRRF, the Buick mine/mill, the Casteel mine and the K & D Crushing operation. The emission rate used in the model run script is calculated either by multiplying the Pb emission factor, throughput, control efficiency, and hours/day; or by calculating the emission rate directly from a specified emission limit. This table includes all required control measures listed in Chapter 5.

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	Control Efficiency (%)	Control Description	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BR_P8	*Main Stack*						*Limit to 0.7 lb/hr*	*8.81E-02*	*See Consent Judgement*
BR_P100	**New Baghouse Stack**						**Limit to 0.7 lb/hr**	**8.81E-02**	**See Consent Judgement**
BR_V10	*Blast Furnace Fugitives*	*2.79E-01*	*lbs Pb/ton*	*35672*	*tons/yr*	*98*	*LEV & negative pressure in excess of MACT*	*2.86E-03*	*Estimated from building concentrations measured by the facility in MAY 2008*
BR_V11	*Reverberatory Furnace Fugitives*	*6.36E-02*	*lbs Pb/ton*	*140810*	*tons/yr*	*98*		*2.58E-03*	
BR_V12	*Refinery/ Casting Fugitives*	*3.86E-02*	*lbs Pb/ton*	*140810*	*tons/yr*	*98*		*1.56E-03*	
BR_P16	BDC Scrubber	3.13E-03	lbs Pb/ton	243018	tons batteries processed			1.09E-02	3-4 NOV 05 stack test
BR_P22	Dross Kettle Heat Stacks	5.19E-04	lb Pb/ton Pb cast	148510	ton Pb cast			1.11E-03	28-30 APR 99 stack test (Herculaneum)
BR_P23	Dross Kettle Heat Stacks	5.19E-04	lb Pb/ton Pb cast	148510	ton Pb cast			1.11E-03	
BR_P24	Refinery Kettle Heat Stacks	7.09E-04	lb Pb/ton Pb cast	140810	ton Pb cast			1.44E-03	1-2 MAR 99 stack test (Herculaneum)
BR_P25	Refinery Kettle Heat Stacks	7.09E-04	lb Pb/ton Pb cast	140810	ton Pb cast			1.44E-03	
BR_P26	Refinery Kettle Heat Stacks	7.09E-04	lb Pb/ton Pb cast	140810	ton Pb cast			1.44E-03	
BR_P27	Refinery Kettle Heat Stacks	7.09E-04	lb Pb/ton Pb cast	140810	ton Pb cast			1.44E-03	
BR_P28	Refinery Kettle Heat Stacks	7.09E-04	lb Pb/ton Pb cast	140810	ton Pb cast			1.44E-03	
BR_P31A	Drum Shredder Dump	9.47E-04	lb Pb/ ton material shredded	15693	tons material shredded			2.14E-04	30 AUG 05 stack test
BR_P31B	Drum Shredder Hygiene	8.04E-03	lb Pb/ ton material shredded	15693	tons material shredded			1.81E-03	10-11 AUG 05 stack test
BR_P31C	*Drum Shredder Main*						*Limit to 0.025 lb/hr*	*3.15E-03*	*See Consent Judgement*
BR_P71	*Reverberatory Furnace Building Ventilation Baghouse Stack*						*Limit to 0.08 lb/hr*	*1.01E-02*	
BR_P72	*Refinery Kettle Ventilation Baghouse Stack*						*Limit to 0.006 lb/hr*	*7.55E-04*	
BR_P81	Refinery Kettles and Dross Screw Ventilation Baghouse Stack	2.99E-03	lb Pb/ton Pb cast	148510	ton Pb cast			6.39E-03	23 JUL 09 stack test
BR_P94	**Blast Furnace Feed Storage Baghouse**	**1.15E-02**	**lb Pb/ton Pb**	**140000**	**tons**	**98.1**	**baghouse & negative pressure**	**4.40E-04**	**AP42, Section 13.2.4, Equation 1 and Material Pb Content.**
BR_V13	**Blast Furnace Feed Storage Baghouse fugitives**	**1.15E-02**	**lb Pb/ton Pb**	**140000**	**tons**	**95**		**1.16E-03**	
BR_A13E	Wind Erosion - Dross Storage	3.82E-02	lb /m^2/yr	1089	m^2			5.98E-04	AP42, Section 13.2.5 and Material Pb Content.
BR_A13F	Wind Erosion - Slag Cleanup Storage	1.09E-02	lb /m^2/yr	1089	m^2			1.71E-04	
BR_A13G	Wind Erosion - Blast Furnace Slag Storage	4.04E-03	lb /m^2/yr	113586	m^2			6.61E-03	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	Control Efficiency (%)	Control Description	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BR_HRABXX	*BRRF Inplant Haul Road Segment AB*	*7.29E-03*	*lbs/VMT*	*13814*	*VMT/yr*	*98.7*	*Truck tire wash (95%) + Estimated control efficiency for water sprays*	*1.88E-05*	
BR_HRBCXX	BRRF Inplant Haul Road Segment BC	8.83E-03	lbs/VMT	1041	VMT/yr	74		*3.44E-05*	
BR_HRBDXX	BRRF Inplant Haul Road Segment BD	6.12E-03	lbs/VMT	5669	VMT/yr	74		*1.30E-04*	
BR_HRDEXX	BRRF Inplant Haul Road Segment DE	6.50E-03	lbs/VMT	5163	VMT/yr	74		*1.25E-04*	
BR_HREFXX	BRRF Inplant Haul Road Segment EF	4.35E-03	lbs/VMT	61	VMT/yr	74		*9.99E-07*	
BR_HREGXX	BRRF Inplant Haul Road Segment EG	6.58E-03	lbs/VMT	9347	VMT/yr	74		*2.30E-04*	
BR_HRGHXX	BRRF Inplant Haul Road Segment GH	6.77E-03	lbs/VMT	468	VMT/yr	74		*1.19E-05*	
BR_HRGIXX	BRRF Inplant Haul Road Segment GI	6.41E-03	lbs/VMT	1455	VMT/yr	74		*3.49E-05*	
BR_HRIJXX	BRRF Inplant Haul Road Segment IJ	6.46E-03	lbs/VMT	3034	VMT/yr	74		*7.33E-05*	
BR_HRJKXX	BRRF Inplant Haul Road Segment JK	5.80E-03	lbs/VMT	2111	VMT/yr	74		*4.58E-05*	
BR_HRKLXX	BRRF Inplant Haul Road Segment KL	5.11E-03	lbs/VMT	1613	VMT/yr	74		*3.08E-05*	
BR_HRLMXX	BRRF Inplant Haul Road Segment LM	5.34E-03	lbs/VMT	660	VMT/yr	74		*1.32E-05*	
BR_HRMNXX	BRRF Inplant Haul Road Segment MN	6.31E-03	lbs/VMT	1342	VMT/yr	74	Estimated control efficiency for water sprays	*3.17E-05*	road dust test in 2000 & material Pb content
BR_HRNOXX	BRRF Inplant Haul Road Segment NO	7.46E-03	lbs/VMT	274	VMT/yr	74		*7.65E-06*	
BR_HRNPXX	BRRF Inplant Haul Road Segment NP	6.54E-03	lbs/VMT	111	VMT/yr	74		*2.72E-06*	
BR_HRNQXX	BRRF Inplant Haul Road Segment NQ	6.44E-03	lbs/VMT	611	VMT/yr	74		*1.47E-05*	
BR_HRLRXX	BRRF Inplant Haul Road Segment LR	4.94E-03	lbs/VMT	1681	VMT/yr	74		*3.10E-05*	
BR_HRRSXX	BRRF Inplant Haul Road Segment RS	4.35E-03	lbs/VMT	612	VMT/yr	74		*9.97E-06*	
BR_HRRTXX	BRRF Inplant Haul Road Segment RT	6.52E-03	lbs/VMT	1044	VMT/yr	74		*2.55E-05*	
BR_HRRUXX	BRRF Inplant Haul Road Segment RU	6.72E-03	lbs/VMT	69	VMT/yr	74		*1.74E-06*	
BR_HRUVXX	BRRF Inplant Haul Road Segment UV	0.00E+00	lbs/VMT	0	VMT/yr	74		*0.00E+00*	
BR_HRDVXX	BRRF Inplant Haul Road Segment DV	6.23E-03	lbs/VMT	52	VMT/yr	74		*1.21E-06*	
BR_HRIWXX	BRRF Inplant Haul Road Segment IW	5.05E-03	lbs/VMT	683	VMT/yr	74		*1.29E-05*	
BR_HRJXXX	BRRF Inplant Haul Road Segment JX	8.93E-03	lbs/VMT	247	VMT/yr	74		*8.25E-06*	
BR_HRXYXX	BRRF Inplant Haul Road Segment XY	1.04E-02	lbs/VMT	257	VMT/yr	74		*1.00E-05*	
BR_HRKZXX	BRRF Inplant Haul Road Segment KZ	1.04E-02	lbs/VMT	84	VMT/yr	74		*3.28E-06*	
BU_UG	Underground Mine	4.79E-04	lb/ton ore mined	1536114	tons ore mined/yr			1.06E-02	June 2009 Test of Sweetwater Vent Shaft No. 6. Lead emissions for each of four vents were assumed proportional to flow.

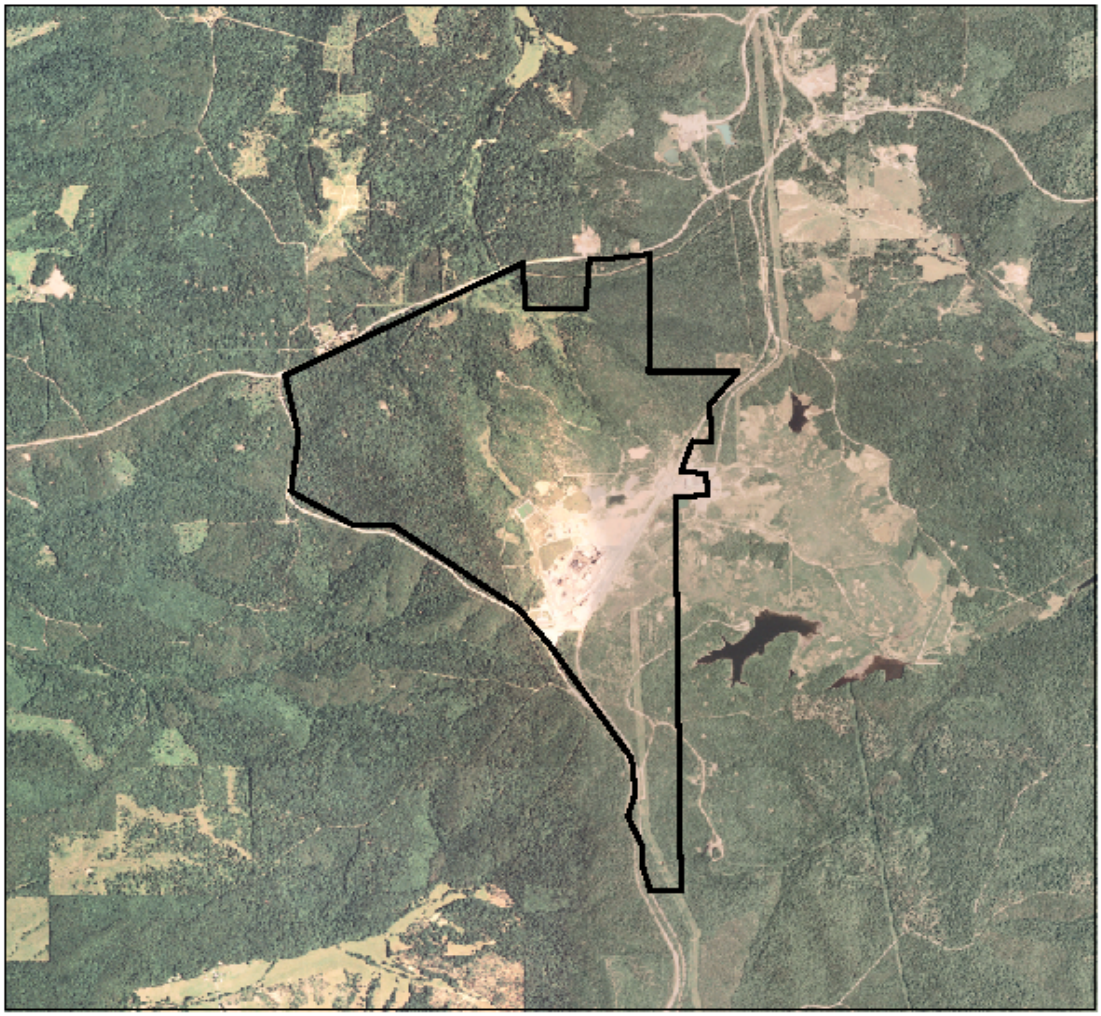
Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	Control Efficiency (%)	Control Description	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BU_V13	Unload Hoist Can	1.85E-05	lb Pb/ton ore handled	1536114	tons ore handled/yr	90	AP42 11.19.2-2 for 3% moisture	4.08E-05	Emission factor from January 28, 1998 letter from MDNR to Asarco. Emission factors were developed from stack testing above ground equipment at the Westfork mill prior to the control device. Lead emissions were assumed proportional to the material lead content.
BU_V16	Truck Load-In	1.53E-05	lb Pb/ton ore handled	937018	tons ore handled/yr			2.06E-04	
BU_V17	Conveyor #2205	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr	90	*AP42 11.19.2-2 for 3% moisture*	4.89E-05	
BU_V17	Screen	3.02E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr	90		8.69E-05	
BU_V19	*Sec. Crusher*	*6.79E-05*	*lb Pb/ton ore handled*	*2002986*	*tons ore handled/yr*	*90*		*1.96E-04*	
BU_V20	*Conveyor #3020*	*1.70E-05*	*lb Pb/ton ore handled*	*2669980*	*tons ore handled/yr*	*90*		*6.52E-05*	
BU_V20	*Sec. Screen(2)*	*3.02E-05*	*lb Pb/ton ore handled*	*2669980*	*tons ore handled/yr*	*90*		*1.16E-04*	
BU_V20	*Oversize Bin Loadout*	*1.70E-05*	*lb Pb/ton ore handled*	*667495*	*tons ore handled/yr*	*90*		*1.63E-05*	
BU_V20	*Screen Feed Bins*	*1.70E-05*	*lb Pb/ton ore handled*	*2669980*	*tons ore handled/yr*	*90*		*6.52E-05*	
BU_V20	*Conveyor #3045*	*1.70E-05*	*lb Pb/ton ore handled*	*666994*	*tons ore handled/yr*	*90*		*1.63E-05*	
BU_V23A	Conveyor #3050	1.70E-05	lb Pb/ton ore handled	666994	tons ore handled/yr			1.63E-04	
BU_V23A	Tertiary Crusher	6.79E-05	lb Pb/ton ore handled	666994	tons ore handled/yr			6.51E-04	
BU_V25	Conveyor #3060	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr			4.89E-04	
BU_V26	Conveyor #4003	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr			4.89E-04	
BU_V28	Conveyor #4005	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr			4.89E-04	
BU_V28	Conveyor #4010	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr			4.89E-04	
BU_V28	Conveyor #4015	1.70E-05	lb Pb/ton ore handled	2002986	tons ore handled/yr			4.89E-04	
BU_P1	**Lead Concentrate Storage Baghouse**						**New source (0.00001 gr/dscf,**	**1.62E-03**	**Multimedia Consent Decree**
BU_V33	*Conveyor #4470 - Pb*	*3.91E-04*	*lb Pb/ ton concentrate handled*	*43133*	*tons concentrate handled/yr*	*95*	*Enclose and ventilate to new baghouse (BU_P1)*	*1.21E-05*	*AP42, Section 13.2.4, Equation 1 and Material Pb Content. Control from Multimedia Consent Decree*
BU_V33	*Conveyor #4475 - Pb*	*3.91E-04*	*lb Pb/ ton concentrate handled*	*43133*	*tons concentrate handled/yr*	*95*		*1.21E-05*	
BU_V33	*Conveyor #4480 - Pb*	*3.91E-04*	*lb Pb/ ton concentrate handled*	*43133*	*tons concentrate handled/yr*	*95*		*1.21E-05*	
BU_V36	Conveyor #4370 - Zn	1.12E-05	lb Pb/ ton concentrate handled	11645	tons concentrate handled/yr			1.87E-06	AP42, Section 13.2.4, Equation 1 and Material Pb Content.
BU_V36	Conveyor #4375 - Zn	1.12E-05	lb Pb/ ton concentrate handled	11645	tons concentrate handled/yr			1.87E-06	
BU_V36	Conveyor #43XX - Cu	2.17E-05	lb Pb/ ton concentrate handled	14049	tons concentrate handled/yr			4.38E-06	

Modeled Source ID	Source Description	Pb Emission Factor	Emission Factor Unit	Throughput	Throughput Units	Control Efficiency (%)	Control Description	2012 SIP Controlled Modeled Lead Emissions (g/s)	Emission Factor Source
BU_V40	*Partially Enclosed Storage - Load In*	*3.00E-04*	*lb Pb/ ton concentrate handled*	*166738*	*tons concentrate handled/yr*	*95*	*Enclose and ventilate to new baghouse (BU_P1)*	*3.59E-05*	*MDNR Storage Pile Vehicular Activity Equation & Material Pb Content and AP42 Section 13.2.4 Equation 1 & Material Pb Content. Control from Multimedia Consent Decree*
BU_V40	*Partially Enclosed Storage - Load Out*	*3.00E-04*	*lb Pb/ ton concentrate handled*	*166738*	*tons concentrate handled/yr*	*95*		*3.59E-05*	
BU_V40	*Partially Enclosed Storage - VA*	*1.75E-02*	*lb Pb/ ton concentrate handled*	*166738*	*tons concentrate handled/yr*	*95*		*2.10E-03*	
BU_A48	Tailings Pile	1.13E+00	lbs Pb/acre/yr	500	acre			8.11E-03	Universal Soil Loss Equation and Material Pb Content
BU_HRABXX	Buick Mine/Mill Inplant Haul Road Segment AB	4.85E-04	lb Pb/VMT	15901	VMT/yr			1.11E-04	AP42, Section 13.2.1 and Material Pb Content.
BU_HRBCXX	Buick Mine/Mill Inplant Haul Road Segment BC	4.85E-04	lb Pb/VMT	8238	VMT/yr			5.74E-05	
BU_HRBDXX	Buick Mine/Mill Inplant Haul Road Segment BD	4.85E-04	lb Pb/VMT	3501	VMT/yr			2.44E-05	
BU_HRDEXX	Buick Mine/Mill Inplant Haul Road Segment DE	2.61E-04	lb Pb/VMT	737	VMT/yr			2.77E-06	
BU_HRDFXX	Buick Mine/Mill Inplant Haul Road Segment DF	7.10E-04	lb Pb/VMT	415	VMT/yr			4.24E-06	
BU_HRGHXX	Buick Mine/Mill Haul Road Segment GH	4.85E-04	lb Pb/VMT	91	VMT/yr			6.36E-07	
BU_HRHIXX	Buick Mine/Mill Haul Road Segment HI	8.19E-02	lb Pb/VMT	167	VMT/yr			1.97E-04	AP42, Section 13.2.2 and Material Pb Content.
CA_V8	Unld Hoist Can	1.58E-05	lb Pb/ton ore mined	555787	Tons-Ore-Mined/yr	90	AP42 11.19.2-2 for 3% moisture	1.26E-05	Emission factor from January 28, 1998 letter from MDNR to Asarco. Emission factors were developed from stack testing above ground equipment at the Westfork mill prior to the control device. Lead emissions were assumed proportional to the material lead content.
CA_V9	Truck Loadout	1.58E-05	lb Pb/ton ore mined	555787	Tons-Ore-Mined/yr	90		1.26E-05	
CA_VKD	K&D crusher	2.36E-05	lb Pb/ton Pb	2347680	tons Pb/yr			7.97E-04	PM10 Permit * Pb content
CA_HRABXX	Casteel Mine Inplant Haul Road Segment AB	1.11E-04	lb Pb/VMT	15882	VMT/yr			2.54E-05	AP42, Section 13.2.1 and Material Pb Content.
HWY_KK_XX	*Highway KK*	*5.85E-05*	*lb Pb/VMT*	*6356875*	*VMT/yr*	*95*	*Truck wash*	*2.68E-04*	
HWY_32_XX	*Highway 32*	*1.95E-04*	*lb Pb/VMT*	*2233778*	*VMT/yr*	*95*	*Truck wash*	*3.13E-04*	

APPENDIX I – FENCELINE DIAGRAMS

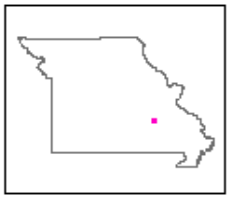
The following maps are visual representations of the ambient air boundaries as defined by facility fencelines and impassable terrain. The coordinates for the actual boundaries for new or modified fencelines are found in the tables accompanying each map, except for BRRF. The fenceline for BRRF is an existing and well defined boundary that is to be maintained and does not have a separate table.

Buick Resource & Recycling Facility Fenceline



0 0.5 1 2
Kilometers

Fenceline



Missouri Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
Prepared by Bern Johnson 8 NOV 2012

Buick Mill Fenceline

Existing Fenceline

Planned Fenceline

Confirmed as Too Steep to Fence

24-hour Guardhouse

Table of Coordinates along Ambient Boundary

Easting	Northing	µg/m^3
665977	4163280	0.062
665927	4163302	0.068
665882	4163324	0.075
665838	4163350	0.086
665787	4163352	0.083
665734	4163353	0.086
665688	4163378	0.092
665661	4163427	0.117
665629	4163473	0.120
665587	4163505	0.106
665542	4163535	0.100
665346	4163608	0.064
665343	4163662	0.064
665343	4163717	0.062
665633	4163747	0.127

Easting	Northing	µg/m^3
665673	4163750	0.141
665633	4163773	0.121
665673	4163778	0.129
665751	4163781	0.126
665328	4163783	0.057
665525	4163787	0.117
665577	4163787	0.113
665476	4163790	0.112
665380	4163794	0.074
665430	4163806	0.094
665475	4163817	0.097
665749	4163848	0.094
665849	4163848	0.075

Close-up photographs of areas [see 1 & 2] confirmed as “too steep to fence” terrain and impassable are shown on the following page I-3.

1

2

Casteel Mine Fenceline

Table of Coordinates along Ambient Boundary

Easting	Northing	$\mu g/m^3$
665630.83	4169713.27	0.055
665402.67	4169637.55	0.087
665388.15	4169675.70	0.117
665364.51	4169670.42	0.086
665355.98	4169691.70	0.081
665334.55	4169707.22	0.068
665351.96	4169735.64	0.077
665342.15	4169738.70	0.071
665351.41	4169760.97	0.072
665337.58	4169780.14	0.063
665293.68	4169796.44	0.051
665323.91	4169852.08	0.051
665379.71	4169827.00	0.066
665472.50	4169859.24	0.061
665514.67	4169855.51	0.059
665566.29	4169868.21	0.050
665584.62	4169789.75	0.063

Existing Fenceline

Planned Fenceline

Buick Mine - Vent 1 Fenceline

Table of Coordinates along Fenceline

Easting	Northing	$\mu g/m^3$
665546.23	4165183.45	0.112
665620.87	4165180.29	0.139
665637.15	4165187.56	0.114
665529.13	4165201.75	0.110
665529.13	4165260.75	0.117
665647.10	4165196.74	0.107
665656.22	4165211.47	0.105
665657.47	4165231.96	0.106
665626.87	4165256.41	0.107
665616.62	4165300.73	0.152
665611.45	4165328.08	0.117
665540.60	4165320.04	0.129

Existing Fenceline

Planned Fenceline

Buick Mine - Vent 2 Fenceline

Table of Coordinates along Fenceline

Easting	Northing	$\mu g/m^3$
665881	4162444	0.099
665823	4162444	0.089
665881	4162626	0.133
665823	4162626	0.109
665938	4162626	0.097
665774	4162626	0.074
665774	4162444	0.068
665938	4162444	0.086
665774	4162573	0.091
665774	4162517	0.097
665948	4162573	0.123
665948	4162517	0.145

Planned Fenceline

Buick Mine - Vent 3 Fenceline

Table of Coordinates along Fenceline

Easting	Northing	$\mu g/m^3$
666120	4160500	0.081
666182	4160500	0.121
666239	4160500	0.148
666305	4160500	0.103
666350	4160587	0.133
666365	4160626	0.113
666365	4160720	0.081
666295	4160720	0.120
666245	4160720	0.144
666195	4160720	0.122
666145	4160720	0.091
666131	4160569	0.127

Planned Fenceline

Buick Mine - Vent 6 Fenceline

Table of Coordinates along Fenceline

Easting	Northing	$\mu g/m^3$
665500	4165635	0.093
665500	4165690	0.111
665500	4165740	0.123
665500	4165790	0.116
665500	4165860	0.098
665550	4165635	0.118
665550	4165860	0.126
665600	4165635	0.144
665600	4165860	0.149
665650	4165860	0.140
665700	4165635	0.142
665700	4165860	0.113
665750	4165635	0.116
665750	4165690	0.095
665750	4165740	0.119
665750	4165790	0.126
665750	4165860	0.111
665650	4165635	0.091

Planned Fenceline

APPENDIX J - BAGHOUSE STANDARD OPERATING PROCEDURES & WORK PRACTICES MANUAL FOR FUGITIVE EMISSIONS

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

DEC 18 2012

Mr. James M. Lanzafame
The Doe Run Company
Resource Recycling Division
18594 Highway KK
Boss, MO 65440

RE: Baghouse Standard Operating Procedures Manual
Work Practice Manual
The Buick Resource Recycling Facility
Facility ID: 093-0009

Dear Mr. Lanzafame:

The Missouri Department of Natural Resources, Air Pollution Control Program received and reviewed the Baghouse Standard Operating Procedures Manual, and the Work Practice Manual, both dated November 2012. The Baghouse Standard Operating Procedures Manual was prepared and submitted in accordance with 40 CFR 63, Subpart X – *National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting*. The Work Practice Manual was prepared and submitted in accordance with 40 CFR 63, Subpart X – *National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting*, and Missouri Air Conservation Commission Rule 10 CSR 10-6.120(3).

With this letter the Air Pollution Control Program hereby approves the Baghouse Standard Operating Procedures Manual and the Work Practice Manual. Please be aware that future modifications to these documents must be submitted to the Air Pollution Control Program for review and approval.

Thank you for your attention to this matter. If you have any questions, I may be reached at the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Richard P. Swartz

Richard P. Swartz
Environmental Specialist

RPS:vs

c: Ms. Amy Baker, Southeast Regional Office
source file 093-0009

Baghouse Standard Operating Procedures Manual

40 CFR Section 63.548

Buick Resource Recycling Facility
18594 Hwy KK
Boss, MO 65440

November 2012

Table of Contents

I. Introduction 2

II. Inspection/ Maintenance Procedures 3

III. Bag Leak Detection System 4

IV. Corrective Action Procedures 5

I. Introduction

This plan is submitted in accordance with the secondary lead smelter MACT standard provisions, specifically 40 CFR 63.548, which requires the preparation and use of a standard operating procedures manual for all baghouses used to control process, process fugitive, or fugitive dust emission sources. The Doe Run Resource Recycling Division has six baghouse systems which fall under this requirement. The applicable processes are as follows: blast furnace, reverberatory furnace, smelting furnace lead taps, smelting furnace slag taps, and refining kettles

Name	**Type**	**Size (design)**	**Serves**
Main	Positive pressure, shaker type	450,000 acfm, 14 compartments, 416 bags each	Blast furnace, multi-hearth furnace, sweat furnaces, hygiene pickups
Reverb Hygiene	Negative pressure, pulse-jet	60,000 acfm, 4 compartments, 256 bags each	Reverb furnace area
North Refinery	Negative pressure, pulse-jet	20,000 acfm, 1 compartment, 306 bags	North refinery and dross plant kettles
South Refinery	Negative pressure, pulse-jet	60,000 acfm, 4 compartments, 240 bags each	South refinery kettles
Blast Furnace Feed Storage	Negative pressure, pulse-jet	40,000 acfm, 3 compartments, 196 bags each	Blast furnace feed storage building
Reverb Lead	Negative pressure, pulse-jet	75,000 acfm, 5 compartments, 196 bags each	Reverb furnace
Scrubber	Negative pressure, pulse-jet	75,000 acfm, 4 compartments 196 bags each	Reverb furnace

Main Baghouse: The baghouse system is a Wheelabrator (FS#5040) positive-pressure unit with an estimated maximum design rate of 450,000 scfm with fourteen individual compartments each containing 416 bags. Three major ventilation trunk lines feed the system, which include the Blast Furnace, Sweat Furnace, Multi-Hearth Furnace and the remaining processes including industrial hygiene ventilation points. The system is currently maintained by a three-man crew with additional support from maintenance personnel, other personnel and electricians.

Reverb Hygiene Baghouse: The baghouse system is a negative-pressure unit designed at 60,000 acfm with 4 individual compartments each containing 256 bags. The baghouse collects from industrial hygiene ventilation points in the Reverberatory furnace area. The system is maintained by a three-man crew with additional support from maintenance personnel and electricians.

North Refinery Baghouse: The baghouse system is a negative-pressure unit designed at 20,000 acfm with 1 compartment containing 306 bags. The baghouse currently ventilates Refinery kettles 1 through 4 and the refinery dross granulation screw. The system is maintained by a three-man crew with additional support from maintenance personnel and electricians.

South Refinery Baghouse: The baghouse system is a negative-pressure unit designed at 60,000 acfm with 4 individual compartments each containing 240 bags. The baghouse ventilates Refinery kettles 5-11. The system is maintained by a three-man crew with additional support from maintenance personnel and electricians.

Blast Furnace Feed Storage Building Baghouse: The baghouse system is a negative-pressure unit designed at approximately 40,000 acfm with 3 individual compartments each containing 196

bags. The baghouse ventilates the blast furnace feed building. The system is maintained by a three-man crew with additional support from maintenance personnel and electricians.

Reverb Lead Baghouse: This baghouse system is a negative-pressure unit designed at approximately 75,000 acfm with 5 individual compartments each containing 196 bags. The baghouse ventilates the reverberatory furnace immediately before the dry flue gas desulfurization scrubber. The system is maintained by the scrubber operators with additional support from maintenance personnel and electricians.

Scrubber Baghouse: This baghouse system is a negative-pressure unit designed at approximately 75,000 acfm with 4 individual compartments each containing 196 bags. The baghouse ventilates the reverberatory furnace immediately following the dry flue gas desulfurization scrubber. The system is maintained by the scrubber operators with additional support from maintenance personnel and electricians when needed.

Additional Baghouses

The Secondary Lead Smelting MACT was updated 1/5/2012 and is planned to become effective 1/6/2014. In order to meet the requirements of the revised MACT additional ventilation will be added at the Buick Resource Recycling Facility. Planning is underway to add this ventilation. Below is an outline of the anticipated additional baghouses that will fall under MACT regulation and existing baghouses that were previously exempt but will fall under the updated MACT requirements. When the updated MACT becomes effective the applicable baghouses or others that serve applicable areas (as defined in 40 CFR §63.548) will become subject to the requirements and recordkeeping listed in this document.

Name	Serves
Future 300,000 acfm	Blast Furnace, Sweat Furnaces, Multi-Hearth furnace, Blast Furnace Feed Building
Future CMSB	Covered Material Storage Building
Drum Shredder Process	Drum Shredder
Drum Shredder Hygiene	Drum Shredder Area
Lab Baghouse	Lab crusher

II. Inspection/ Maintenance Procedures

Main Baghouse

At a minimum, the baghouse crew will enter one compartment of the Main Baghouse on a weekly basis to visually inspect both shakers and conditions of the bags themselves. Additionally, shakers are checked in other compartments from the outside, primarily inspecting to ensure that they are operating properly. Primary areas inspected include bolts, bearings, couplings, and v-belts.

Applicable to all MACT Baghouses

Specific provisions for maintenance and inspection under 40 CFR 63.548 (c) include:

(1) Daily monitoring of pressure drop across each baghouse cell.

(a) A confined space entry permit is used to document all entries into the baghouse (see attached form). Pressure drop is recorded daily on the Baghouse Daily Monitoring Logs (SF-460-002)

(2) Daily confirmation that dust is being removed from the hoppers.

(3) Daily check of compressed air supply for pulse-jet baghouses.

(4) Daily checks of bag cleaning mechanisms are conducted to ensure all bearings, couplings, and bolts are in proper working order on the shaker system. Baghouse pressure drop is monitored daily to ensure all diaphragms, solenoids, air lines and compressors are in working order on the pulse air baghouses.

(5) Daily check of bag cleaning mechanisms for proper functioning.

(6) Not an applicable provision because spring-loaded (self-tensioning) devices are used.

(a) 6) Monthly check of bag tension on reverse air and shaker-type baghouses. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.

(7) Quarterly inspection of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks. Repairs are made when excess buildup of dust occurs in hoppers or when mechanical problems occur.

(8) Quarterly inspection of fans for wear, material build-up, and corrosion through visual inspection, vibration detectors, or equivalent means. The baghouse crew conducts sandblasting to clean fan surfaces and the maintenance department provides verification to reinstall/utilize fan. Preventative maintenance is conducted monthly on all fans.

(9) Continuous operation of a bag leak detection system.

Recordkeeping for daily maintenance/inspection activities of the Main, Reverb, North Refinery, South Refinery, and Blast Furnace Feed baghouses are recorded on the Baghouse Daily Monitoring Log (SF-460-002). The Baghouse Daily Monitoring Log tracks the pressure drop across baghouse cells. The worksheets are turned in to and stored by the Environmental Department. The Lead and Scrubber Baghouse records are kept by the scrubber operators in their operating log.

III. Bag Leak Detection System

All MACT applicable baghouses are equipped with a (Tribo flow) bag leak detection system on the outlet sides of the units. The monitor meets the requirements of 40 CFR 63.548(e)(1) through (e)(8) as shown below:

(1) A bag leak detection system (BLDS) must be certified by the manufacturer to have a detectable range capable of 1.0 mg/m3 (0.0044 grains per acfm) or less.

(i) The Tribogaurd III Bag Leak detection system being used has been manufacturer tested down to 0.005 mg/m3

(2) System provides outputs of relative particulate matter and outputs are continuously recorded.

(3) The system is equipped with an alarm system such that upon an alarm, at continuously manned security, the appropriate personnel can be immediately contacted.

(4) Bag leak detection system that works based on the triboelectric effect shall be installed, calibrated and maintained in a manner consistent with guidance provided in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015), and the manufacturer's written specifications and recommendations.

(5) Initial adjustment of the system shall at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and the alarm delay time.

(6) Following initial adjustment, the owner or operator shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the above reference in (4) and as advised by our outside consultant. In the event that a sensitivity adjustment must be made, the adjustment will not be increased more than 100% or decreased more than 50% over a 365-day period and only performed after the baghouse has been thoroughly checked and found to be in good operating condition prior to adjustments. If an adjustment is required in a greater range than the 100% increase or decreased more than 50% as noted above, a responsible official must certify the adjustment.

(7) This provision is not applicable because no wet acid scrubber is in place

(a) The bag leak detectors are located down-stream of the baghouse and upstream of any wet acid gas scrubber.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

IV. Corrective Action Procedures

Any alarms initiated from the bag leak detection system will be responded to in accordance with section 63.548, including but not limited to those actions outlined in 63.548 (f) (1) and (2) (i) through (vi). Once the problem has been corrected the compartment of concern will be returned back to service. Also, any alarms initiated from the bag leak detection system will be instantaneously recorded in the system's datalogger denoting date and time of occurrence. The Triboflow monitoring program will notify security and/or traffic personnel in the traffic office that an alarm has occurred, and at which baghouse. Traffic personnel will then contact the Production and/or Maintenance supervisor on duty of the alarm. During normal working hours, the supervisor will

contact the baghouse maintenance crew. During off shifts, the supervisor is responsible for initiating corrective action. The indicated baghouse receiving the alarm will then receive a visible check of the corresponding stack and/or outlet trail(s). If no indications of an actual baghouse problem are found, the Tribo-electric probe will then be checked and cleaned of debris and/or moisture to assure that the alarm is valid. If at any time during the alarm investigation a problem is identified, actions will be taken to minimize emissions, which may include but are not limited to, the following:

(1) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(2) Sealing off defective bags or filter media.

(3) Replacing defective bags or filter media, or otherwise repairing the control device.

(4) Sealing off a defective baghouse compartment.

(5) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(6) Shutting down the process producing the particulate emissions.

Records of bag leak detection system alarms and corrective actions will be kept by the environmental department.

WORK PRACTICE MANUAL

November 2012

Table of Contents

Item	Page No.
PURPOSE, USE AND CHANGE	2
ACTION TO PREVENT EXCESS PROCESS EMISSIONS	2
FURNACES	3
REFINERY	3
MAIN BAGHOUSE	3
YARD	4
BATTERY BREAKING AREA	4
MATERIAL STORAG/HANDLING AREA	4
RECORD KEEPING-GENERAL	4
SUSPENSION OF WORK PRACTICES	4
VENTILATION SURVEY	5
CAPITAL CONSTRUCTION PROJECTS	5
NEW PROVISIONS	5

Appendices

Appendix	Location/Usage	Page No.
A.1	SYSTEM AIR FLOW DIAGRAMS	7
A.2	PLANT MAP OF STREET WASHDOWN/WET SWEEPING	17
A.3	PLANT OPERATING LOGS	19

PURPOSE, USE AND CHANGE

This manual is written to comply with the Missouri Air Conservation Commission Rule 10 CSR 10-6.120(3)(C)2.A. which requires that:

> The owner or operator shall prepare, submit for approval, and then implement a process and area-specific work practice manual that will apply to locations of fugitive lead emissions at the installation;

10 CSR 10-6.120(3)(C)2.B. which requires that:

> The manual shall be the method of determining compliance with the provisions of this section. Failure to adhere to the work practices in the manual shall be a violation of this rule.

40 CFR 63.545 which requires that:

> Each owner or operator of a secondary lead smelter shall prepare and at all times operate according to a standard operating procedures manual that describes in detail the measures that will be put in place to control fugitive dust emission sources within the areas of the secondary lead smelter specified in 40 CFR 63.545(a)(1)-(5). The standard operating procedures manual shall be submitted to the Administrator or delegated authority for review and approval. The controls specified in the standard operating procedures manual shall at a minimum include the requirements of 40 CFR 63.545(c)(1)-(5)

On January 6, 2014, or the effective date of the revised Secondary Lead Smelting MACT (40 CFR 63 Subpart X) whichever is later, the section NEW PROVISIONS will become applicable. The NEW PROVISIONS section was written to comply with 40 CFR 63.545 which requires that:

> Applicable facilities must prepare, and at all times operate according to, a standard operating procedures manual that describes in detail the measures that will be put in place and implemented to control the fugitive dust emissions from the sources listed in paragraphs (a)(1) through (7) of this 40 CFR 63.545. The standard operating procedures manual shall be submitted to the Administrator or delegated authority for review and approval. The controls specified in the standard operating procedures manual shall at a minimum include the requirements of 40 CFR 63.545(c)(1)-(7)

Any change to the work practices in the manual requires prior written approval from the DNR director before any change becomes effective and goes into practice.

ACTION TO PREVENT EXCESS PROCESS EMISSIONS

Definitions:

> Accumulated materials: lead bearing particulate that has the potential to become easily re-entrained.
>
> Hose Down: to wet or reduce accumulated materials.
>
> Wetting: sufficient water to be used to ensure no visible emission immediately following hose down.

The following schedule of areas and frequencies of hose down to wet or reduce accumulated materials will be implemented. Hose down is to be practiced within the limits of protection of

the employee from steam explosions, electrical shock and or protection of the equipment from electrical shorting.

FURNACES

The blast furnace personnel will hose down the feed floor areas north and south of the charging slots once per shift on a daily basis to wet or reduce accumulated material during furnace operations.

The floor area in front of the blast furnace is to be hosed down once per shift on a daily basis to wet or reduce accumulated material during furnace operations.

The reverberatory furnace personnel will hose down the reverb furnace area and dross plant area once per shift on a daily basis to wet or reduce accumulated material during furnace operations.

Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 39 degrees F or whenever the application of water results in the formation of ice, which could result in injury to personnel or equipment.

The Supervisor's log will be used to record cleaning activities. Area personnel will record the date and shift during which the work was performed.

REFINERY

Refinery personnel will utilize an industrial vacuum sweeper once per shift on a daily basis to reduce accumulated material.

Refinery department will hose down the kettle floor daily to reduce accumulated material.

Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 39 degrees F or whenever the application of water results in the formation of ice, which could result in injury to personnel or equipment.

The Refinery Production Log will be used to record cleaning activities. Area personnel will record the date and shift during which the work was performed.

MAIN BAGHOUSE

The main baghouse will use screw conveyors to move captured dust back to the reverberatory furnace for recycling purposes.

The concrete floor beneath the baghouse will be hosed down on a weekly basis to wet or reduce accumulated material.

Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 39 degrees F or whenever the application of water results in the formation of ice, which could result in injury to personnel or equipment.

The Baghouse Daily Monitoring Log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

YARD

Water truck and wet vacuum sweeper truck will wet and sweep those areas of the plant that are accessible by the equipment on a daily basis. See Appendix A.2, plant layout, for water/sweeper truck routes.

Truck watering may be suspended during any period when the temperature is less than 39 degrees F, or whenever the application of water results in the formation of ice which could result in injury to plant personnel or equipment.

The operating logs will be used to record cleaning activities. Area personnel will record data and the shift during which the work was performed.

BATTERY BREAKING AREA

The wet vacuum sweeper truck will wet and sweep those areas of the Battery Receiving Dock Parking Lot Area that are accessible by the equipment once per shift on a daily basis.

The Water and Wet Vacuum Sweeper Truck Operating Logs will be used to record cleaning activities. Area personnel will record the date and shift during which the work was performed.

MATERIAL STORAGE/HANDLING AREA

Floor cleaning for the BSN receiving dock and RCRA containerized storage areas will involve use of an industrial vacuum sweeper unit once per day. Operation of this unit will be documented on the attached area inspection checklist denoted in the attached form. The blast furnace feed storage building meets the definition of a building enclosure and utilizes a tire wash at the exit point of the building.

RECORD KEEPING-GENERAL

Records will be maintained of regularly scheduled quarterly inspection, including ventilation surveys, made by the department performing the inspection of fugitive emissions such as hoods, air ducts and exhaust fans.

The attached forms will be used to document watering/cleaning activities.

Any suspension of work practices (i.e. due to weather conditions) will also be noted in the operating logs.

SUSPENSION OF WORK PRACTICES

A. Adverse Weather

The work practices that use the application of water as described herein may be suspended whenever the application of water result in the formation of ice which could result in injury to plant personnel, equipment, and or building structures.

B. Equipment Maintenance and Repair

Sweeping and application of water may also be suspended during those periods necessary to perform maintenance and repairs of equipment essential to the respective activity. Any maintenance and repair work shall be completed as soon as possible, and upon completion, the respective activity shall be immediately resumed in accordance with the stated practice.

C. Suspension of Production Operations

In the event that department production operations are suspended and shutdown, sweeping and watering applications in the department may be suspended for the duration of such period until normal operations are resumed. Any suspension of work practices (i.e. due to weather conditions) will also be noted in the weekly/monthly records.

D. Recordkeeping of Suspension of Work Practices

The department operating log will be used to record any suspension of work practices. The entry shall include the date of suspension, the reason and the date work practice is reinstated.

VENTILATION SURVEY

The plant ventilation systems listed in the appendices will be surveyed quarterly. Measurements will be compared to design or baseline measurements depending upon availability. All measurements will be compared with the previous quarters to determine need for attention. Systems air flow diagrams are contained in Appendix A.1. Records of ventilation surveys will be kept by the department performing the surveys.

CAPITAL CONSTRUCTION PROJECTS

1. Prevention of fugitive dust shall be a consideration in the planning of construction projects.
2. Where feasible, old building components will be cleaned by either vacuum or water hose prior to removal. Additional power washing may be performed, once the component has been removed to an area where electrical shock or shorting or existing equipment can be avoided.
3. Where feasible, in house water and sweeper trucks shall be used during construction projects to address dirt disturbed by trucks.
4. Water hoses/water sprays shall be used to address potential dust emissions during excavations should specific site conditions require such use.
5. Excavated materials shall be managed to minimize dust blowing. Examples include wetting with water hoses, surface treatment with dust binders, tarping for small and/or temporary piles and establishment of vegetation for long standing piles.

NEW PROVISIONS

The following provisions are required by the Secondary Lead Smelting MACT (40 CFR 63.545) and are not applicable until January 6, 2014, or the effective date of the Secondary Lead Smelting MACT whichever is later.

Cleaning – Where a cleaning practice is specified, cleaning will be done by wet wash or a vacuum equipped with a filter rated by the manufacturer to achieve 99.97 percent capture efficiency for 0.3 micron particles in a manner that does not generate fugitive lead dust. The portable industrial sweepers used at BRRF are equipped with a HEPA filter.

Plant roadways and paved areas – All roadways that are traveled more than one round trip per day are paved and wetted/swept twice per day. Truck watering may be suspended during any period when the temperature is less than 39 degrees F, whenever the application of water results in the formation of ice which could result in injury to plant personnel or equipment, on days when natural precipitation makes cleaning unnecessary or when sand/snow melt or a similar material has been

spread on plant roadways to provide traction on ice or snow. Records of pavement cleaning activities will be kept by the yard department.

Accidental Releases - In the case of an accidental release of lead dust exceeding 10 pounds (the CERCLA reportable quantity), cleaning of all in-plant affected areas will be initiated within 1 hour after detection.

Battery Storage Areas – All batteries not stored within a total enclosure will be inspected once each week. Broken batteries will be moved into an enclosure within 72 hours of identification and residue from broken batteries will be cleaned within 72 hours of identification. These inspections will be recorded by the BSN department and records will be maintained by the Environmental Department.

Materials Storage and Handling areas – Vehicles will be washed at the exit of all lead bearing materials storage and handling areas and then inspected. The inspection records will be kept by the department of the vehicle operator.

Equipment maintenance –One or more of the following methods must be used when performing maintenance activities that could generate lead dust in order to minimize emissions of fugitive dust.

- Perform maintenance inside a total permanent enclosure maintained at negative pressure.
- Perform maintenance inside a temporary enclosure and use a vacuum system either equipped with a HEPA Filter or routed to an existing control device permitted for this activity.
- Perform maintenance inside a partial enclosure and use wet suppression to prevent dust formation.
- Decontaminate equipment prior to removal from an enclosure.
- Immediate repair of ductwork or structural leaks without an enclosure is permissible if the time to construct a temporary enclosure would cause a higher level of emissions than if an enclosure were not constructed.
- Activities required for inspection of fabric filters and maintenance of filters that are in need of removal and replacement are not required to be conducted inside of total enclosures. Used Fabric Filters must be placed in sealed plastic bags or containers prior to removal from a baghouse.

Material Transport – Lead bearing dust will be transported within closed conveyor systems or sealed, leak-proof containers unless the collection and transport activities are contained within a total enclosure. All other lead bearing materials will be contained and covered for transport outside of a total enclosure in a manner than prevents spillage or dust formation. (Intact batteries and lead ingot products are exempt from these requirements.)

Appendix A.1

SYSTEM AIR FLOW DIAGRAMS

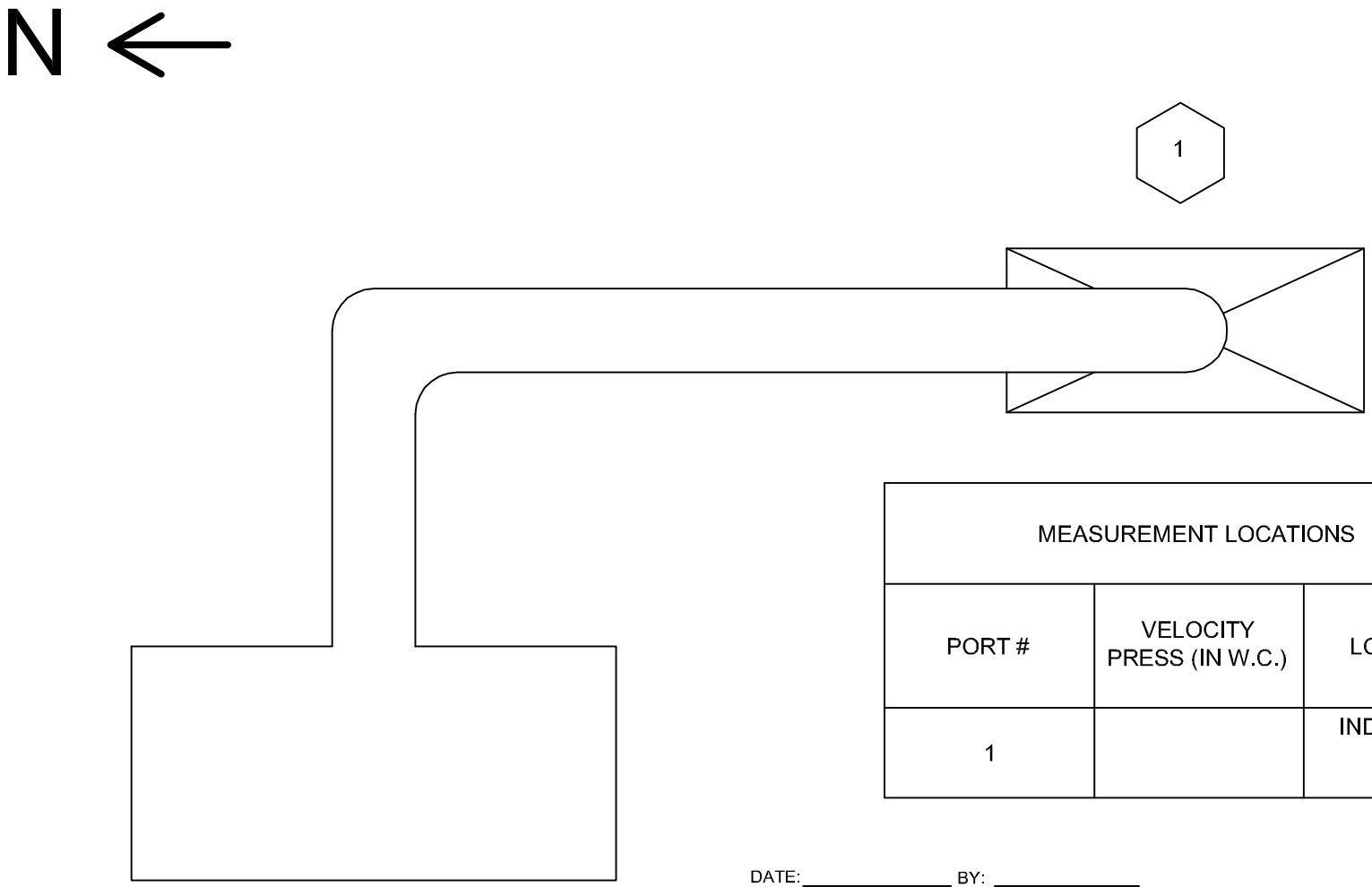
VENTILATION SYSTEMS	PAGE
Industrial Line BSN	8
Drum Shredder Ventilation	9
Drum Shredder Hygiene Ductwork	10
BSN Ventilation	11
BSN Ventilation	12
Reverb Furnace/Dross Area Baghouse	13
Refinery Area West Baghouse	14
Refinery Area East Baghouse	15

Ventilation Check

Date: _____

Perform visual check of ventilation hoods, air ducts and exhaust fans to insure fugitive emission control.

Receiving Dock Area -
Drum Shredder Area -
BSN Area -
Refinery and Casting Area -
Blast Furnace Area -
Reverberatory Furnace and Dross Plan Area -



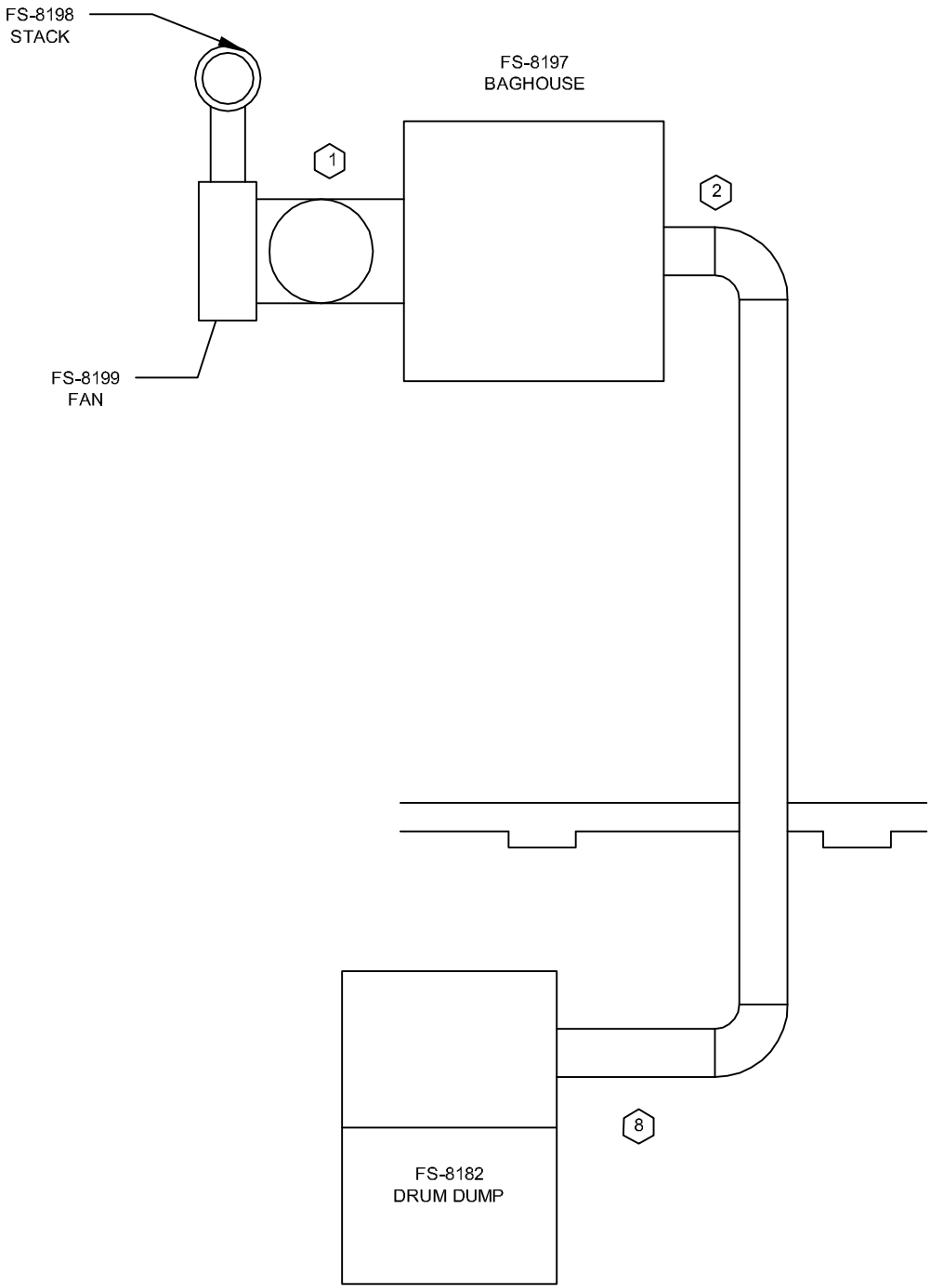
MEASUREMENT LOCATIONS		
PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		INDUSTRIAL LINE

DATE:_____ BY: _____
COMMENTS:_____

_____

_____

INDUSTRIAL LINE BDC



N

MEASUREMENT LOCATIONS		
PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		FAN INLET
2		BAGHOUSE INLET
8		DRUM DUMP

DATE: _____ BY: _____

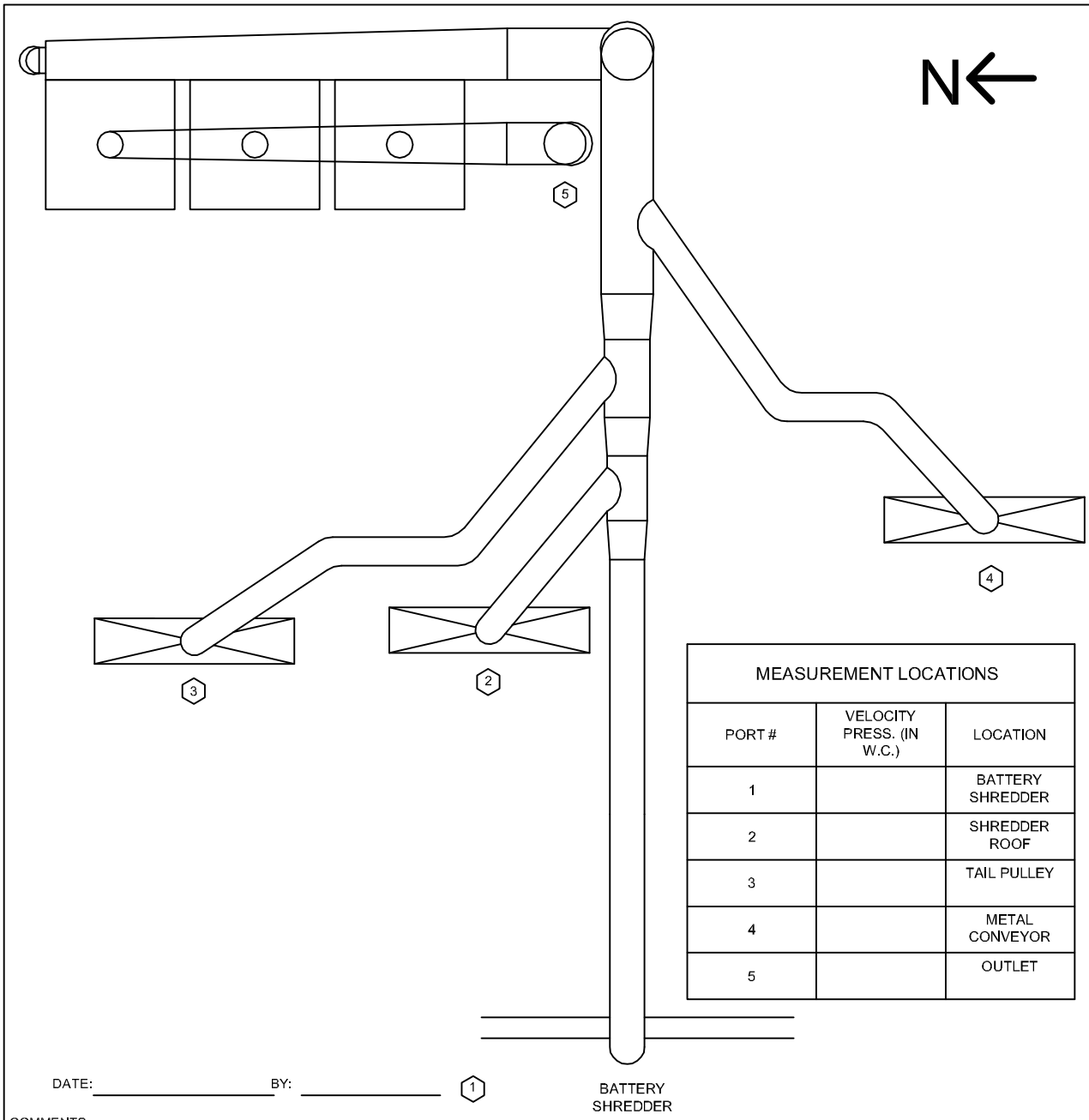
COMMENTS: _____

_____

_____

_____

DRUM SHREDDER VENTILATION SURVEY



MEASUREMENT LOCATIONS		
PORT #	VELOCITY PRESS. (IN W.C.)	LOCATION
1		BATTERY SHREDDER
2		SHREDDER ROOF
3		TAIL PULLEY
4		METAL CONVEYOR
5		OUTLET

DATE: _____ BY: _____

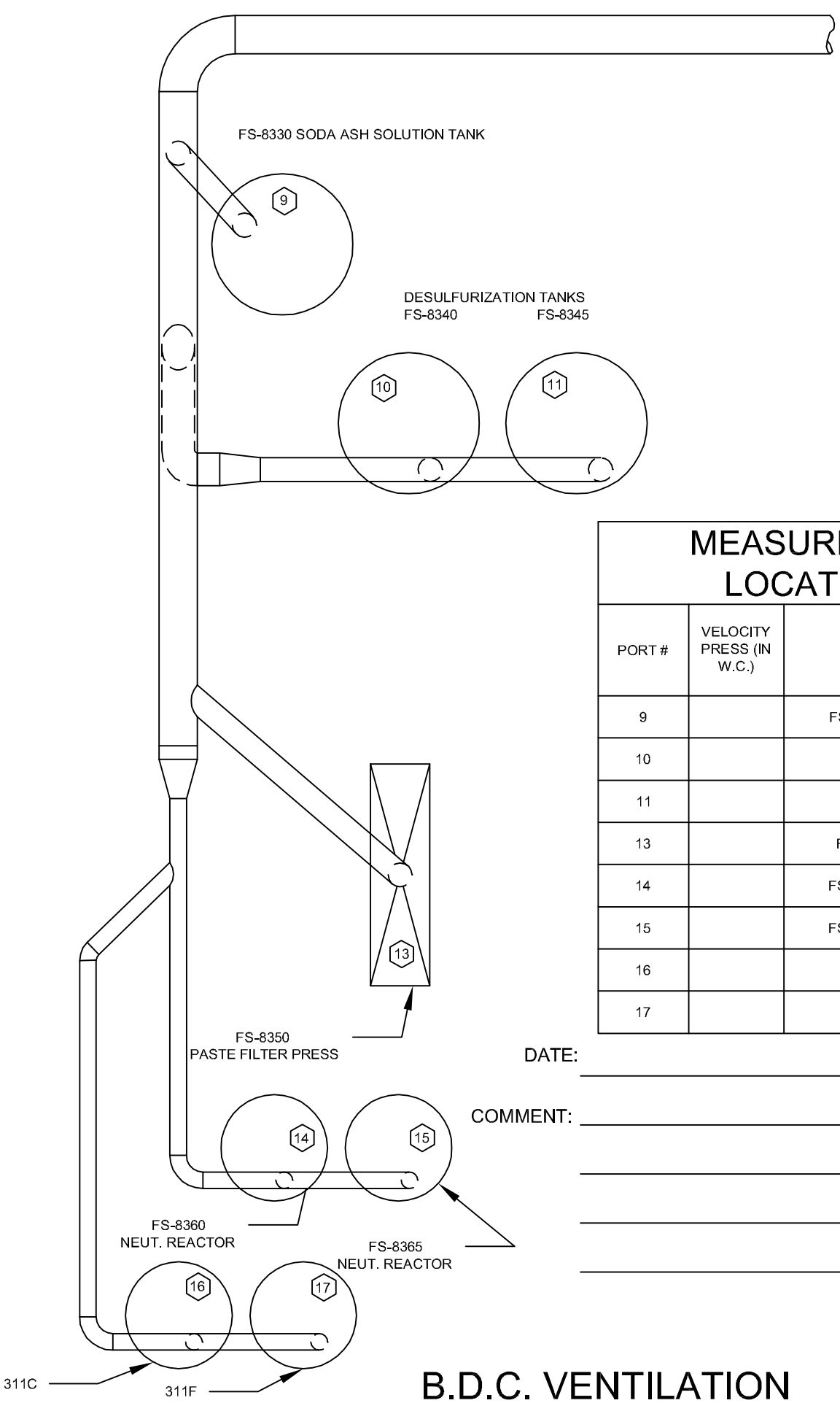
COMMENTS: _____

_____

_____

_____

DRUM SHREDDER HYGIENE DUCTWORK



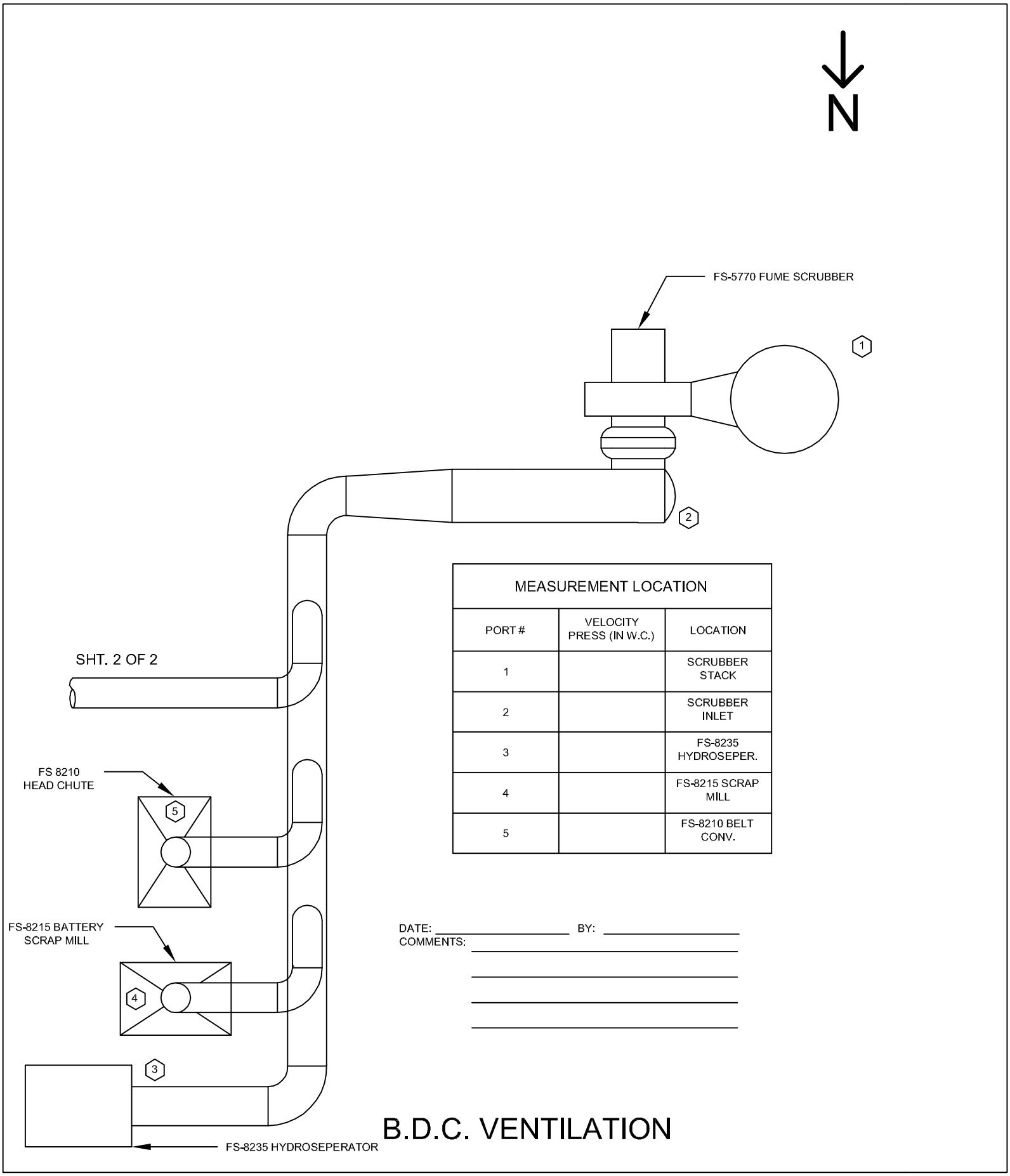
MEASUREMENT LOCATIONS

PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
9		FS-8330 SOLUTION TANK
10		FS-8340 DESUL. TANK
11		FS-8345 DESUL. TANK
13		FS-8350 FILTER PRESS
14		FS-8360 NEUT. REACTOR
15		FS-8365 NEUT. REACTOR
16		311C
17		311F

DATE: _____ BY: _____

COMMENT: _____

B.D.C. VENTILATION

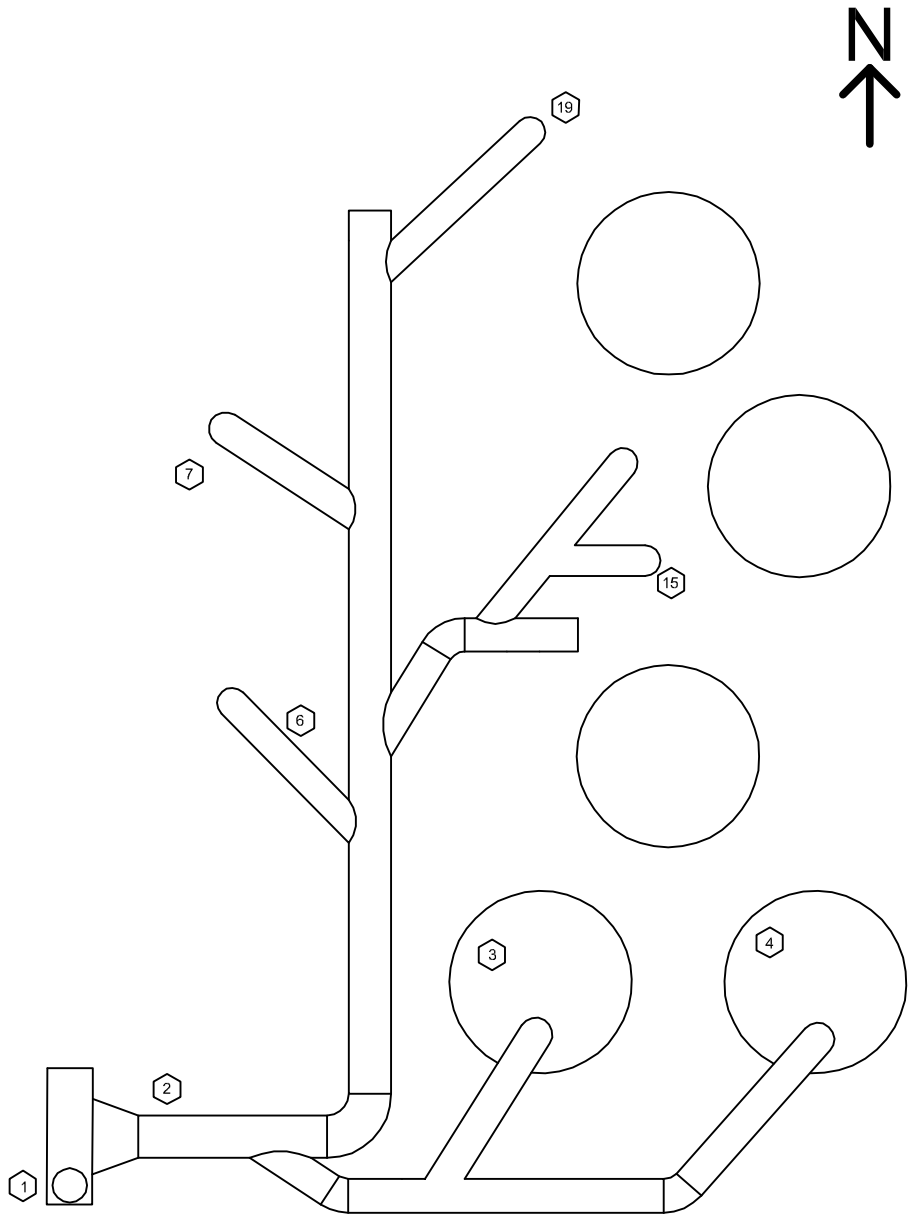


MEASUREMENT LOCATION

PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		SCRUBBER STACK
2		SCRUBBER INLET
3		FS-8235 HYDROSEPER.
4		FS-8215 SCRAP MILL
5		FS-8210 BELT CONV.

B.D.C. VENTILATION

MEASUREMENT LOCATIONS		
PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		DUCT OUTLET
2		DUCT INLET
3		FS-3300 KETTLE
4		FS-3301 KETTLE
6		SLAG LAUNDER
7		SLAG TAP
15		LEAD TAP
19		SCREW FEEDER



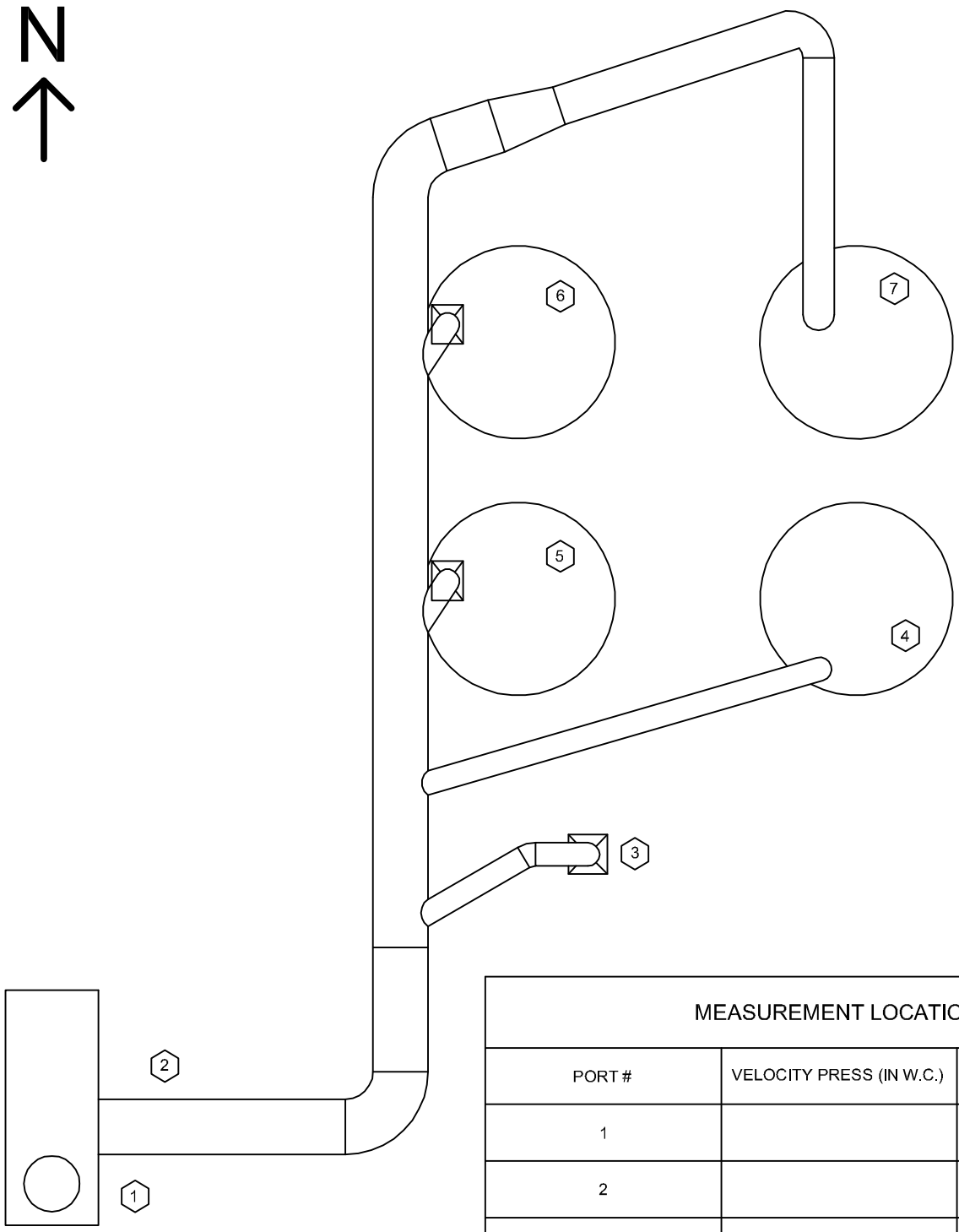
DATE: _____ BY: _____

COMMENTS: _____

_____

_____

REVERB FURNACE AND DROSS AREA VENTILATION SURVEY



MEASUREMENT LOCATION		
PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		DUCT OUTLET
2		DUCT INLET
3		DROSS DUMP
4		R-3 KETTLE
5		R-1 KETTLE
6		R-2 KETTLE
7		R-4 KETTLE

DATE: _____ BY: _____

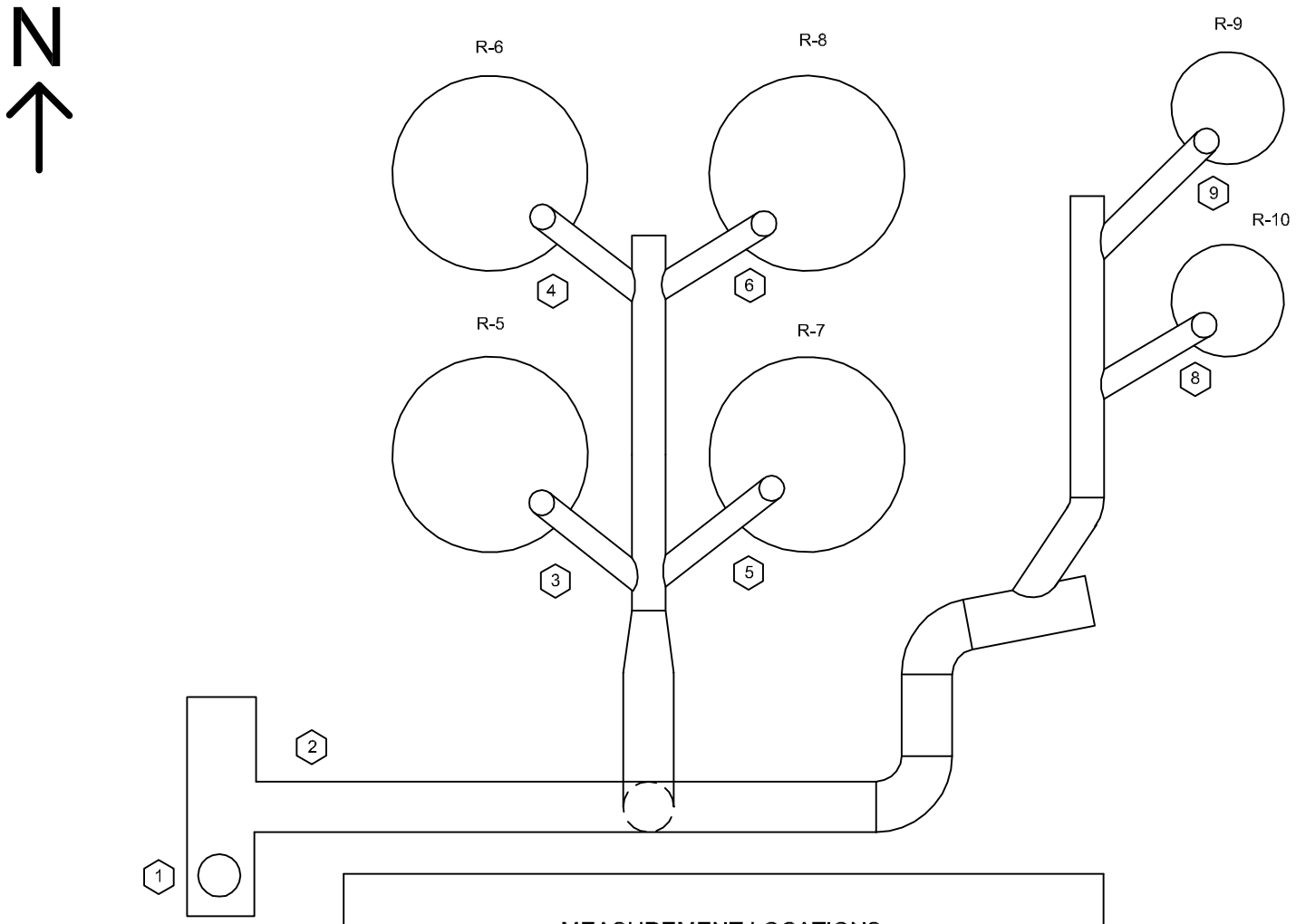
COMMENTS: _____

_____

_____

_____

REFINERY AREA - WEST VENTILATION SURVEY



MEASUREMENT LOCATIONS		
PORT #	VELOCITY PRESS (IN W.C.)	LOCATION
1		DUCT OUTLET
2		DUCT INLET
3		R-5 KETTLE
4		R-6 KETTLE
5		R-7 KETTLE
6		R-8 KETTLE
8		R-10 KETTLE
9		R-9 KETTLE

DATE: _____ BY: _____

COMMENTS: _____

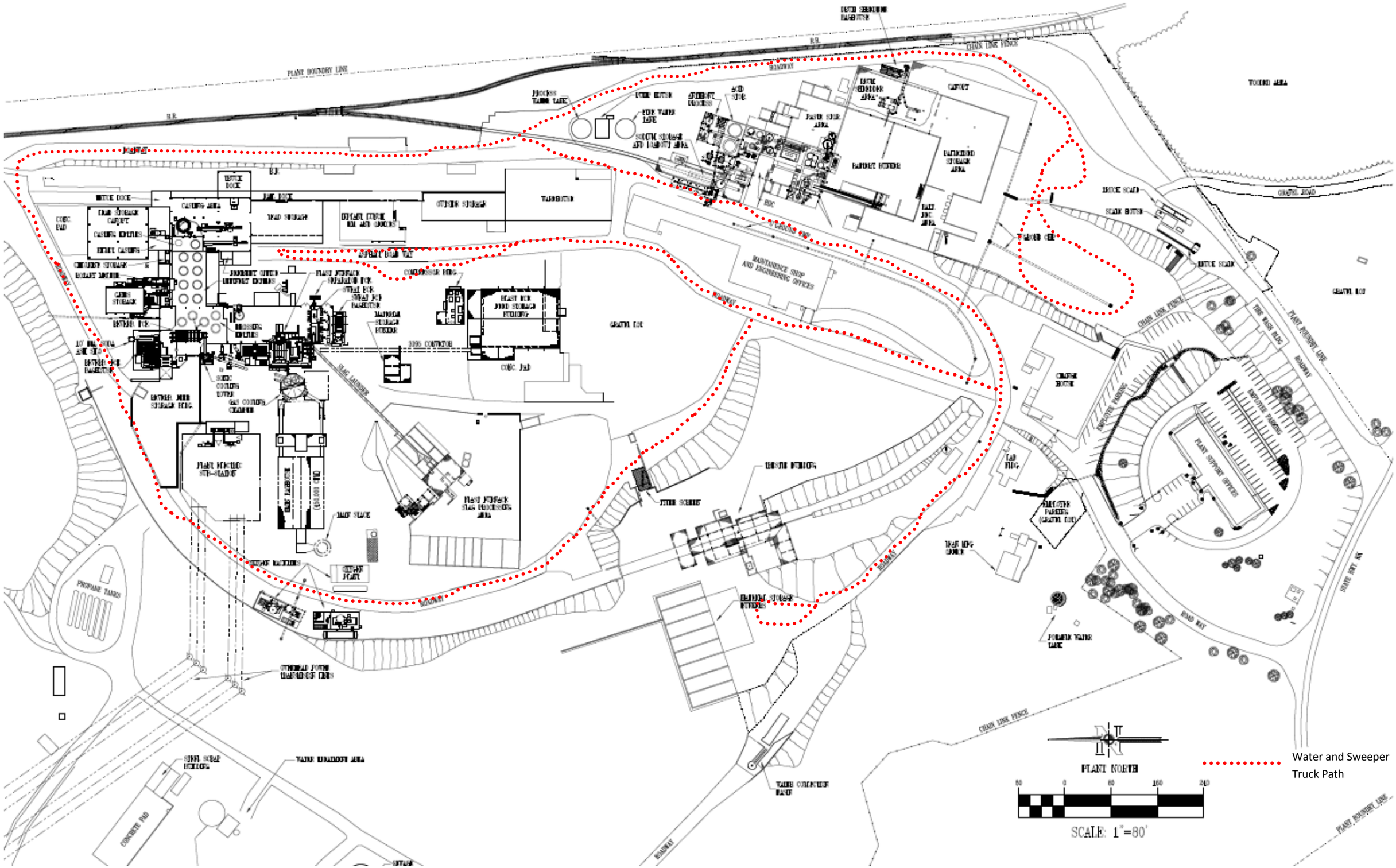
_____

_____

REFINERY AREA - EAST VENTILATION SURVEY

Appendix A.2

PLANT MAP OF STREET WASHDOWNS/SWEEPING


PLANT BOUNDRY LINE
ROADWAY
MAINTENANCE SHOP AND ENGINEERING OFFICES
PLANT SUPPORT OFFICES
PLANT NORTH
SCALE: 1"=80'
Water and Sweeper Truck Path

Appendix A.3

PLANT OPERATING LOGS

Refinery Production Log
Supervisor's Log – Blast Furnace
Supervisor's Log - Reverb
BDC Receiving Daily Inspection Log
Baghouse Daily Monitoring Log
Sweeper Truck Hours Ran
Water Truck Hours Ran

DAILY OPERATIONS LOG

XX/XX/XXXX

SUPERVISOR (D):		SUPERVISOR (N):	
KETTLEMAN (D):		KETTLEMAN (N):	

D1		D2		D3		D4		D5	
Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0
Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0
Status		Status		Status		Status		Status	

R1		R2		R3		R4		R5	
Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0
Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0
Status		Status		Status		Status		Status	
Lot#		Lot#		Lot#		Lot#		Lot#	

R6		R7		R8		R9		R10	
Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0	Soft Tons	0
Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0	Hard Tons	0
Status		Status		Status		Status		Status	
Lot#		Lot#		Lot#		Lot#		Lot#	
		Alloy		Alloy		Alloy		Alloy	

Floor Washed Days?		Floor Washed Nights?		OXIDE-D	19,000
Dock Floor Swept Days?		Dock Floor Swept Nights?		OXIDE-N	19,000

Kettle Inventory								
PHYSICAL	Soft	0	Hard	0	Total	0	LEAD 4 OXIDE	
PRODUCTION	Soft	105	Hard	254	Total	359	0	

REVERB	305	BLAST	155	OVRSIZE	20	REMELT	0	T-ADJUST	0
RVB Sb-D	0.00	RVB Sb-N	0.00	SCRAP	20	SOFTEN	180	I-ADJUST	0

SWEAT	DAYS	POUNDS PROCESSED	0	LBS PB	6,667	LBS CU	0
SWEAT	NIGHTS	POUNDS PROCESSED	0	LBS PB	6,667	LBS CU	0

Product #	ALLOY	Lot #	Ingot Size	SOFT	HARD
				180	
				180	
					180
Comments:				360	180
				CAST	540

BLAST FURNACE

Date	Charged(D)	Charged(N)	Total (Formula)	Lead(D)	Lead(N)	Total (Formula)	JackHammered Pb Pots	Baghouse Draft	OxyTankLevel	Air Compressor	Cleaned BF Area (D&N)	Air 24 hour avg	Blast Furnace Downtime	Scheduled Downtime	O2	Comments
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		
XX/XX/XXXX			0			0							0	0		

REVERB

Date	Feed-Day (305)	Feed-Night (305)	Feed-Total (610)	Pb-Day	Pb-Night	Pb-Total (Formula)	% Triple Shredded on (non auto)	Reverb Feed On Hand tons	Hours Scrubber Bypass Open	Reverb Downtime	Scheduled Downtime	QLime/Soda lbs	Coke lbs	Cleaned Reverb/Dross Plant Area	Wet/Clean Floor (Days)	Wet/Clean Floor (Nights)	Roof Inspected (Days)	Roof Inspected (Nights)	Comments
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			
XX/XX/XXXX																			

MMG0PF9 The Doe Run Company Pg 1
Run: 8/15/12 Preventive Maintenance
13:23:38

J/P # JOB PLAN TITLE
5 *RCRA* BDC RECEIVING DAILY INSPECTION LOG

C/C Eqp#	W/O #	Effective Date	Revision #	ISO
430 8620	0	10/31/97	1	

CC/EQP Desc: Battery Receiving & Bunker PALLETIZED STORAGE BUILDING

********** SAFETY REQUIREMENTS **********

**********ALWAYS FOLLOW PLANT SAFETY RULES**********

(STEVE OGLE)

********** WORK INSTRUCTIONS **********

****
RCRA PM
****

REPORT ANY CONDITIONS FOUND REQUIRING ADDITIONAL REPAIR TO THE MAINTENANCE COORDINATOR

RETURN FORM COMPLETED AND SIGNED TO MAINTENANCE PLANNER
FINAL COPY TO BE SENT TO ENVIRONMENTAL DEPARTMENT

FOR THE WEEK OF_____/_____20_____

********** JOB PLAN CHECKLIST **********

---------- L E G E N D ----------

V = VISUAL S = SOUND F = FEEL (TEMPERATURE & VIBRATION)
M = MECHANICAL E = ELECTRICAL I = INSPECTION

D = EQUIPMENT MUST BE DOWN R = EQUIPMENT MUST BE RUNNING

O.K. NR = NEEDS REPAIR S = SATISFACTORY US = UNSATISFACTORY

Method Code	Run Sts	Instructions	(S)	(US)	Comments
I	D	1. CHECK FOR EVIDENCE OF SPILLED, LEAKED, OR DRIPPED MATERIAL. WALK THE LENGTH OF THE DOCK. INSPECT AREA AROUND EACH OF THE BAY DOORS.	( )	( )	_____
I	D	2. CHECK FIBERGLASS TRENCH DRAIN TO BE SURE IT IS CLEAR. CHECK FOR EVIDENCE OF DAMAGE (CRACKS, CHIPS, FLAKING, etc.)	( )	( )	_____

MMG0PF2 The Doe Run Company Pg 2
Run: 8/15/12 Preventive Maintenance
13:23:38

J/P #	JOB PLAN TITLE
5	*RCRA* BDC RECEIVING DAILY INSPECTION LOG

C/C Eqp#	W/O #	Effective Date	Revision #	ISO
430 8620	0	10/31/97	1	

CC/EQP Desc: Battery Receiving & Bunker PALLETIZED STORAGE BUILDING

Method Code	Run Sts	Instructions	(S)	(US)	Comments
I	D	3. INSPECT DRUM SHREDDER AND SURROUNDING AREA FOR FOR SIGNS OF CORROSION	( )	( )	_____
I	D	4. INSPECT THE DRUM SHREDDER FLOOR FOR WASTE MATERIAL THAT IS OUTSIDE THE SUBPART X OPERATIONAL AREA AND THAT COULD ESCAPE A PERMITTED HAZARDOUS WASTE CONTAINMENT BUILDING OR SECONDARY CONTAINMENT AND THAT HAS NOT BEEN REMOVED	( )	( )	_____
I	D	5. Insure that receiving dock and palletized storage area are swept with the Tennant sweeper once per day.	( )	( )	_____
		Month:_____ Year:_____			
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	D	Day_____Time_____Initials_____	( )	( )	_____
I	R	3. INSPECT WALL FLOOR INTERFACE FOR GAPS,CRACKS, ETC.	( )	( )	_____
		4. INSPECT METAL SIDING AND ROOF FOR VISIBLE HOLES GAPS AND DETERIORATION			

GROUP LEADER'S INSTRUCTIONS:

- NOTIFY DEPARTMENT GROUP LEADER OF ANY HAZARDOUS DEFICIENCY FOUND DURING THE PM INSPECTION OF THIS EQUIPMENT.
- WRITE WORK ORDERS FROM COMMENTS WHICH INDICATE REPAIRS OR REPLACEMENTS AND HAVE DEPARTMENT GROUP LEADER SIGN THE WORK ORDERS AND SET PRIORITIES.
- RETURN THE PM INSPECTION CHECKLIST TO THE MAINTENANCE PLANNING DEPARTMENT AND REVIEW ANY ROUTINE REPAIRS THAT NEED TO BE MADE WITH AREA PLANNER.

PLANNER'S INSTRUCTIONS:

- DETERMINE IF DUPLICATE REPAIR WORK ORDERS EXIST IN CURRENT MAINTENANCE BACKLOG.
- ASSIST MAINTENANCE GROUP LEADER IN FOLLOWING THROUGH ON ITEMS THAT NEED ATTENTION.

INSPECTED BY: _____ DATE INSPECTED: / /

GROUP LEADER/PLANNER: _____ DATE REVIEWED: / /

NOTE: GROUP LEADERS/PLANNERS AND MAINTENANCE CREW SHOULD REVIEW AND DISCUSS REVISIONS AS NECESSARY FOR JOB PLANS.

The Doe Run Company
Buick Resource Recycling
Baghouse Daily Monitoring Log

Date: _____

Main Baghouse							BDC Scrubber	
EP08	CD9						EP72	
	North		South		Exit		Pressure Drop	Flow Rate
P. Drop								
Draft					Cool Chamber		Maintenance:	
Temp								
Fans								
Cell P. Drop	8		1					
	9		2					
	10		3					
	11		4					
	12		5					
	13		6					
	14		7					
Shaker Working								
Dust Collection								
Maintenance:								
Cleaned Floor beneath Main Baghouse? If not, why?								

** Floor beneath Main baghouse must be hosed down at least once/week. If area not cleaned during the week provide an explanation.*

South Refinery Hygiene Baghouse			North Refinery Baghouse		
EP71	CD?		EP72	CD 25	
Cell #	P. Drop	Air Supply	Cell #	P. Drop	Air Supply
1			1		
2			Pulsing Properly:		
3			Dust Collection		
4			Maintenance:		
Pulsing Properly:					
Dust Collection:					
Maintenance:					

BF Feed Building Hygiene Baghouse			Reverb Hygiene Baghouse		
EP72	CD?		EP71	CD?	
Cell #	P. Drop	Air Supply	Cell #	P. Drop	Air Supply
1			1		
2			2		Dust Collection
3			3		
Pulsing Properly:			4		
Dust Collection			Pulsing Properly:		
Maintenance:			Maintenance:		

SWEEPER TRUCK HOURS RAN

DATE	OPERATOR	MON	TUES	WED	THUR	FRI	SAT	SUN

SF-450-015
Issue Date 07/18/2011

WATER TRUCK HOURS RAN

DATE	OPERATOR	MON	TUES	WED	THUR	FRI	SAT	SUN

SF-450-014
Revised Date 07/18/2011

APPENDIX K - BUILDING FUGITIVE CAPTURE EFFICIENCY CORRESPONDENCE

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

JUL 2 4 2012

Ms. Stephanie Doolan
Lead SIP Coordinator
U.S. EPA Region VII
901 North Fifth Street
Kansas City, KS 66101

Dear Ms. Doolan:

Due to in part its unique status as a lead producing state, and containing the only remaining primary lead smelter located within the United States, Missouri has been at the forefront of developing state implementation plans (SIP)s for lead since the late 1970's. This process has resulted in decades of in-depth knowledge and experience with lead's characteristics as a pollutant, specifically in regards to modeling and control techniques.

On Wednesday, July 18, 2012, you convened a conference call for the purposes of discussing EPA's preliminary draft guidance / Q&A of the new Secondary Lead MACT that assumed a building fugitive capture efficiency of 95% based on the new MACT's control measures. Participants included staff from Buick Resource Recycling Facility (BRRF) and the Missouri Department of Natural Resources' Air Pollution Control Program (MDNR). During the call, MDNR asserted that previous SIP development work for the Herculaneum Primary Smelter has effectively applied a greater than 99% overall building fugitive capture efficiency with similar levels of ventilation and fugitive controls. The Herculaneum area continues to show excellent correlation between model performance and the air quality monitoring values. Also on the call, BRRF committed to building fugitive control projects for the SIP, currently in development, in excess of the requirements of the new Secondary Lead MACT. EPA staff requested a support document in order to demonstrate a more appropriate overall building fugitive capture efficiency. As a result, BRRF and MDNR technical staff coordinated very closely in the development of this support document.

BRRF and the MDNR's Air Pollution Control Program concur that the following factors, outlined briefly below, warrant the use of the 99% building fugitive overall capture efficiency:

- In its preliminary draft Q&A for the Secondary Lead MACT, EPA's engineering judgment derived a 95% capture efficiency based on negative pressure differential / ventilation controls consisting only of building ventilation. At BRRF, existing process / hood air ventilation systems known as Local Exhaust Ventilation (LEV) will be retained and improved upon. While LEV is not specifically required by the secondary MACT, BRRF will further modify the existing main baghouse to provide building ventilation and

Recycled Paper

- hygiene air control from the furnaces, drossing, and refining operations. The use of LEV is necessary for worker hygiene and will significantly reduce the overall lead concentration within the total enclosure (relative to an enclosure without LEV).

- As previously mentioned, the existing LEV will be improved and expanded. For example, improved kettle ventilation hoods will be added to the refining kettles to increase the point source capture efficiency. Additionally, the ductwork for the refinery and dross plant are to be reconfigured to a new single larger duct and expanded to include the dross plant screw.

- A new baghouse with a flow of 300,000 actual cubic feet per minute (acfm) will be added to provide enhanced process source control for the blast furnace, sweat furnaces, multi-hearth furnace and miscellaneous hygiene air.

- The additional and modified ventilation will provide additional air changes inside the building and increase the pressure differential to achieve 0.007 in. water pressure differential. Building pressure monitors will be installed in the blast furnace, reverberatory furnace, and refinery buildings as part of the baghouse and enclosure project.

- BRRF will install an estimated $350,000 of siding work as part of the total enclosure project. The building will have no natural draft openings (NDO), a continuous inflow of 200 feet per minute (fpm) will be maintained (0.007 in. water pressure differential used as a surrogate for monitoring), and all process and hygiene air will be cleaned by a baghouse. This means that the enclosure will meet the Method 204 definition of a permanent total enclosure, which according to the method means that a capture efficiency of 100% can be assumed for VOC emissions. The emissions of concern for this analysis are particulate lead, and due to their high settling rate, would be more easily captured than VOC.

- As stated above, EPA's own Method 204 assumes 100% capture efficiency for VOCs if four criteria are met. Method 204 Temporary Total Enclosure criteria 5.1 & 5.3-5.5 also apply to Permanent Total Enclosures. Two of the criteria, (negative pressure and closure of non-NDO's during operation) are met by the implementation of the Secondary Lead MACT. If the two other criteria are met, similar capture efficiency would be achieved for lead-bearing particles. Lead-bearing particles are very dense and settle out of the air quickly, while VOCs are gaseous emissions that stay dissolved in the air and can leak out of a building very readily along with any escaping air. Lead, though, requires a certain vertical wind component greater than its terminal velocity to stay suspended in the air. Moreover, due to inertial effects, heavy lead dust particles require a certain drift

- velocity to exit a building, not necessarily just any air egress as with VOCs. Moreover, because of the density of lead particles, a 90% capture efficiency has been used effectively for lead, by approved SIP modeling, for a simple drop-out or settling chamber consisting of nothing more than a building or enclosure with four walls and a ceiling with minimal (but greater than zero) openings. The system described here will have considerably greater levels of particle containment, capture & control (that are active not passive) thereby justifying another 90% capture control of the remaining fugitives resulting in an overall capture efficiency of 99%.

- Except for unusual circumstances involving employee safety, the facility is being designed to operate normally with all doors closed. There will be virtually no NDOs which are addressed in Method 204 criteria 5.1, 5.3 & 5.5. All ventilation intake air will be through purpose-built air intake ducts. This system will meet or exceed these criteria for total enclosures in Method 204. Moreover, all service vehicle or overhead door openings will be equipped with either quick-opening/closing automatic doors or metal roll up doors to minimize changes in differential pressure or building inflow during occasional but necessary traffic.

- For the 2012 Buick SIP revision, we request EPA approval to use a building fugitive capture efficiency of 99%. This level of control is based on the credits taken for the same controls at the most similar facility - the primary lead smelter at Herculaneum. Similar controls at Herculaneum were installed as part of two separate EPA-approved SIP revisions, in 2000 and 2007:

  - For the approved 2000 SIP revision, the Doe Run Company completely enclosed the Blast Furnace, Sinter, and Refinery buildings - the greatest sources of building fugitives. The existing Primary Lead Smelter MACT at the time required enclosure with baghouse performance standards, ventilation recordkeeping requirements, and baghouse failure alarms. The combination of these MACT requirements was credited with 99.3% reduction in building fugitives (see http://dnr.mo.gov/env/apcp/docs/2000herculaneumsip.pdf page 24).

  - For the 2007 approved SIP revision the Doe Run Company and the department performed a ventilation study, the results of which guaranteed an inflow of at least 200 fpm. This level was analogous to the current Secondary Lead Smelter MACT. This negative pressure differential, along with site specific upgrades to achieve it, were credited with an overall control of 97% (see http://dnr.mo.gov/env/apcp/docs/2007revision.pdf pages 27-28). The Herculaneum velocity inflow measurement testing scheme is conducted quarterly; while the BRRF differential will be measured continuously. In 2009, a supplement to this revision was developed to satisfy compliance verification provisions of the 2007 SIP revision by establishing fan amperages indicative of appropriate ventilation and building

- inflow rates corresponding to effective levels of lead particle capture, control and containment in the process buildings. On February 17, 2012, the EPA approved both of these Lead SIP revisions [77 FR 9529-9532].

- The combination of these two distinct steps, total enclosure and negative pressure differential, were credited with a combined building fugitive reduction of 99.979%. MDNR, in conjunction with BRRF, requests a lesser capture efficiency of 99% to account for differences in building size and shape, processes, and for an additional margin of safety.

Your consideration in this matter during upcoming consultation with other EPA staff is greatly appreciated. Should you have any further questions concerning this matter, please contact me by email at Joe.Winkelmann@dnr.mo.gov or by telephone at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Joe Winkelmann

Joe Winkelmann, P.E.
Environmental Engineer

JW:jm

ENGINEERS

1720 Walton Road, Blue Bell, PA 19422 610-828-3078 Fax 610-828-7842

September 12, 2012

E-MAIL
Mr. James M. Lanzafame
Environmental & Health Manager
The Doe Run Company
Buick Resource Recycling Division
18594 HWY KK
Boss, MO 65440-9501

Subject: Building Ventilation Design
Buick Resource Recycling Facility
IES Project No. EG120165.02

Dear Jim:

As a follow-up to our telephone conversation regarding the design parameters for the contiguous metals buildings (blast furnace, reverberatory furnace, sweat furnace, casting area, and refinery buildings), IES Engineers (IES) is pleased to submit the following summary for your use in the discussions with the EPA regarding the Buick Resource Recycling Facility (BRRF) SIP.

IES checked the process buildings, including the refinery, casting, reverb furnace area, blast furnace area, and sweat furnace area, for air flow required to maintain negative building pressure. IES used the following factor to determine the estimated flow: average dP of 0.044 in. wc.

The total estimated flow requirement under this scenario, with an assumed 2 personnel doors and 1 loading dock door open, plus cracks, is approximately 647,800 cfm. This figure is less than the total proposed design ventilation for the metals building of 703,200 cfm; hence, IES anticipates that the negative pressure in the building should exceed 0.044 in. wc. under normal conditions after the building is sealed. This negative pressure is approximately 6.3 times higher than the future secondary MACT requirement (0.044/0.007 = 6.28).

The total estimated open area for all cracks and doors is 964 ft^2. Given the above design conditions, if the open area is doubled, IES estimates that the average negative pressure in the building will drop to 0.011 in. wc. Both of these figures, design 0.044 in. wc. and the 0.011 in. wc., exceed the expected minimums under the requirements of the secondary lead MACT.

It is our understanding that BRRF intends to keep all doors closed during normal operation barring protection of employee welfare. Therefore, it is IES' opinion that the building will be maintained in a negative condition under a wide range of operating conditions.

Very truly yours

Bruce S. Miller /e/

Bruce S. Miller, P.E.
Senior Consulting Engineer

cc: J. Rutenbar, IES
A. Soni, IES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

RECEIVED
2012 SEP 18 PM 12:03
AIR POLLUTION CONTROL PGM

SEP 17 2012

Mr. Joe Winklemann, P.E.
Air Pollution Control Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

RE: Building Fugitive Capture Efficiency for SIP Modeling
Buick Resource Recycling Facility
Boss, Missouri

Dear Mr.Winklemann:

The U.S. Environmental Protection Agency (EPA) has received and reviewed your letter request dated July 24, 2012, regarding State Implementation Plan (SIP) attainment modeling for the Buick Resource Recycling Facility (BRRF). Specifically, the letter provides technical support for the Missouri Department of Natural Resources' (MDNR's) request for consideration to use an overall building fugitive capture efficiency in its modeling assumptions for the BRRF.

As background, the EPA has stated the following in its guidance "2008 Lead (Pb) National Ambient Air Quality Standards (NAAQS) Implementation Questions and Answers" found in the SIP Toolkit at http://www.epa.gov/airquality/lead/kitrules.html:

> "For modeling of secondary lead smelters, capture efficiency is needed for modeling of total enclosure emissions. At this time, 100% capture efficiency is not considered technically achievable in common practice. At this time, states that impose total enclosure controls in a manner consistent with the National Emission Standard for Hazardous Air Pollutants from Secondary Lead Smelting, 77 FR 555 (which includes requirements for enclosures and housekeeping), can assume a capture efficiency for total enclosures of no greater than 95%. A greater level of capture efficiency (up to 99%) may be demonstrated on a case-by-case basis taking into account site-specific factors and additional design or housekeeping provisions that go beyond what is assumed in the NESHAP. States should consult with their respective Regions for consideration of case-specific demonstrations claiming greater than 95% capture efficiency."

The EPA has reviewed your request for consideration to use a building fugitive capture efficiency of 99% at the BRRF and offers the following. As the EPA's guidance states, a level of capture efficiency greater than 95% may be demonstrated "based on site-specific factors and additional design or housekeeping provisions that go beyond what is assumed in the NESHAP." In our review of your technical support document, we believe the following

RECYCLED PAPER

two items can clearly be identified as "additional design or housekeeping provisions that go beyond what is assumed in the NESHAP:"

- Local Exhaust Vents (LEVs) will be retained and improved. It is stated, for example, that the kettle ventilation hoods will be expanded to increase capture efficiency.
- All service vehicle or overhead door openings will be equipped with either quick-opening/closing automatic doors or metal roll up doors to minimize changes in differential pressure or building inflow during occasional but necessary traffic.

The Secondary lead NESHAP does not include LEVs in its calculation to achieve the negative building pressure requirement of 0.007 inches water pressure, or 200 cubic feet per minute (cfm), although it is likely that LEVs within the building would be necessary regardless for occupational health reasons. Thus, the EPA agrees that the use of LEVs exceeds the assumptions of the NESHAP.

The EPA has determined that 90-100% hood capture efficiencies are possible, so an assumption of 80% capture from properly designed LEV is reasonable and conservative[1]. Thus, for sources within buildings that have LEVs, and meet the negative pressure requirement of the NESHAP, it is reasonable to estimate the combined capture efficiency as 99%. For sources within buildings that are not controlled by LEVs, the EPA does not agree that it is appropriate to assume a 99% capture efficiency for the purpose of SIP attainment modeling.

Likewise, equipping all service vehicle or overhead door openings with or metal roll up doors or quick opening/closing automatic doors also supersedes the requirements of the NESHAP. However, the NESHAP establishes an overall requirement for a negative building pressure requirement of 200 cfm. The technical support letter indicates that the facility expects to meet the NESHAP requirement, but not exceed it. Justification needs to be provided that the metal roll ups and quick-opening/closing doors contribute to a greater negative pressure than required by the NESHAP in order to count these improvements toward achieving a higher capture efficiency.

Further, the technical support letter relies on the EPA Method 204, "Criteria for and Verification of a Permanent or Temporary Total Enclosure" to make the case for the request for a 99% building fugitive capture efficiency. The technical support letter attempts to make the case for the request for a 99% building fugitive capture efficiency by stating that once the facility completes implementation of SIP control measures, it will meet the four Criteria for a Permanent Total Enclosure listed in Section 5 of Method 204. The EPA agrees that Method 204 is relevant guidance when considering the issue of capture efficiency of building and process enclosures, but it is important to note that Method 204 was specifically intended for volatile organic compounds (VOCs), rather than Pb (which is generally emitted as particulates, rather than in gaseous form).

The EPA does not agree that the technical support letter adequately demonstrates that the BRRF meets all the requirements of Method 204 for reasons cited as follows. Method 204 states that

---

[1] In Chapter 10 of EPA's APTI 413 Course *Control of Particulate Emissions*, (http://www.epa.gov/apti/Materials/APTI%20413%20student/413%20Student%20Manual/SM_ch%2010.pdf) hood capture efficiencies of 90% or above are used as examples.

"any NDO [Natural Draft Opening] shall be at least four equivalent opening diameters from each VOC emitting point unless otherwise specified by the Administrator." Distances between NDOs and sources need to be provided before the EPA can establish that the facility meets Criterion 5.1.

Criterion 5.3 states that the total area of all NDO's shall not exceed 5% of the surface area of the enclosure's four walls, floor, and ceiling. This information needs to be provided in order to consider whether BRRF meets this criterion.

As you acknowledge in your letter, lead particulates and gaseous VOCs behave differently when emitted to air; however, your argument fails to recognize that lead-bearing particulates (or any particulate matter) exhibit the characteristics of settling and adhering to surfaces, facilitating their migration and ability to escape capture in a way for which Method 204 does not account.

Although not explicit, Method 204 was intended for permanent and temporary enclosures within building enclosures. For example, without an external enclosure, there is no protection against the effects of wind on the ventilation system.

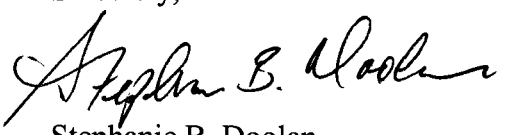
Finally, the technical support letter relies on previous experience with the Herculaneum primary lead smelter. The EPA's decision to approve the building fugitive capture efficiency of 97% in the 2007 attainment SIP for the Herculaneum facility was based on the results of the detailed, site-specific ventilation study reported in the 2009 supplement. The EPA believes it is inappropriate to apply that result to the BRRF which has not yet performed the same type of detailed ventilation study.

In summary, based on the technical support letter you have provided, the EPA believes that there is sufficient technical justification for approval of a 99% building fugitive capture efficiency for use in the attainment SIP modeling for sources that are controlled within the building by LEVs. The EPA is willing to consider supplemental information regarding the distances between sources and NDOs, and a technical justification that the negative pressure will be greater than 200 cfm following implementation of control measures should MDNR want to pursue this matter further.

Please note that any control measures assumed in the modeling must be permanent and enforceable. Also note that the control measures and attainment demonstration must undergo public notice and comment as a part of the rulemaking associated with the SIP revision.

If you have any questions, please do not hesitate to call me at (913) 551-7719 or you may contact me by email at doolan.stephanie@epa.gov.

Sincerely,



Stephanie B. Doolan
Air Planning and Development Branch

Shell Engineering
& Associates, Inc.

2403 West Ash
Columbia, MO 65203
573-445-0106
FAX (573) 445-0137
http://www.shellengr.com

Sent by Email

October 5, 2012

Joe Winkelmann, P.E.
Air Pollution Control Program
Missouri Department of Natural Resources
PO Box 176, Jefferson City, MO 65102-0176

Subject: Buick Resource Recycling Facility, LLC (093-0009)
Viburnum Area Lead SIP Attainment Modeling Demonstration
Building Fugitives Capture Efficiency for Total Enclosure

Introduction

The National Emission Standards For Hazardous Air Pollutants (NESHAP) From Secondary Lead Smelting regulations, codified at 40 CFR Part 63 Subpart X, were amended on January 5, 2012. Section 63.544 (Total Enclosure Standards) requires the Buick Resource Recycling Facility (BRRF) to totally enclose and ventilate the contiguous metals buildings. The ventilation must be sufficient to achieve negative pressure values of at least 0.007 inches of water. Additionally, inward flow through all Natural Draft Openings (NDOs) must be maintained. For sources that minimally comply with the regulations, the USEPA has recommended a 95% capture efficiency for sources of lead emissions within the total enclosure. A greater level of capture, up to 99%, may be used for methods that go beyond the requirements contained in the NESHAP.

The Local Exhaust Ventilation (LEV) at the BRRF will be retained and improved upon, which is not required by the secondary lead NESHAP. For sources inside the total enclosure which will have LEV, an additional 80% capture was conservatively assumed. This gives a total capture efficiency of 99% for sources with LEV inside of the total enclosure. It should be noted that capture efficiencies of 90-100% are commonly used for sources with well designed LEV, so the use of 80% should be conservative.

According to the BRRF, the only significant source of lead emissions within the contiguous metals buildings without LEV are the inline casting machines.

A five(5) step procedure to estimate the composite capture efficiency for the contiguous metals buildings fugitives has been provided below. The casting emissions were

estimated from the AP42 casting emission factor and the total emissions were estimated from concentration data collected by the BRRF.

Calculations

1. Calculate uncontrolled building fugitive emissions

Fugitive building emissions = 12.5 ton/yr (at 175000 ton/yr lead cast)

2. Calculate casting emissions using AP42 emission factor and 175,000 ton/yr lead cast

Casting emissions = 175000 (ton/yr) * 0.01 (lb/ton) / 2000 (lb/ton) = 0.875 ton/yr (casting emissions)

3. Calculate non-casting emissions by subtracting calculated casting emissions from the total

Non-casting emissions = 11.625 ton/yr (12.5-0.875)

4. Calculate controlled emissions for total enclosure using 99% for sources with LEV and 95% for sources with no LEV

Source Group	Uncontrolled Lead Emissions (ton/yr)	Control Efficiency (%)	Controlled Lead Emissions (ton/yr)
Non-Casting	11.625	99	0.116
Casting	0.875	95	0.044
Total	**12.500**		**0.160**

5. Calculate the composite capture efficiency from the total uncontrolled and controlled emissions

This gives a composite capture efficiency of 98.72% for the building enclosure (100-0.16/12.5*100)

Conclusion

We believe that a capture efficiency of 98.72% for the total enclosure of the contiguous metals building is justified. Please let me know if you have any questions or comments.

Sincerely,
Shell Engineering and Associates, Inc.
Joseph A. Stolle, PE
Senior Project Engineer

Cc: Jim Lanzafame (Doe Run)
Stacy Stotts (Stinson)

APPENDIX L – PUBLIC PARTICIPATION DOCUMENTS

Jay Nixon, Governor
Sara Parker Pauley, Director

A.. Pollution Control Program

Click to receive updates on this issue.

State Plan Actions

On Public Notice | Proposed for Adoption

On Public Notice

Missouri State Implementation Plan Revision - Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 2008 8-Hour Ground-Level Ozone National Ambient Air Quality Standard

Pursuant to Section 176(c) of the Clean Air Act, this Early Progress Plan establishes transportation conformity motor vehicle emission budgets for Missouri's portion of the St. Louis nonattainment area under the 2008 8-hour Ozone National Ambient Air Quality Standard, or NAAQS. The St. Louis nonattainment area was designated as a marginal nonattainment area for the 2008 8-hour Ozone NAAQS on May 21, 2012. The new motor vehicle budgets are based on a demonstration that emissions are st lily decreasing in the St. Louis area. Although the St. Louis nonattainment area has approved motor vehicle emissions budgets that have been used to demonstrate conformity under the 1997 8-hour Ozone NAAQS, new budgets are needed due to EPA's recent transition from an older on-road mobile source model, or Mobile 6, to the current on-road mobile model, or MOVES.

Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area
Appendices A through D

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Missouri State Implementation Plan Revision - Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Buick/Viburnum Trend Lead Nonattainment Area

This plan was developed to bring the Buick/Viburnum Trend area into attainment of the 2008 Lead National Ambient Air Quality Standard, or NAAQS, pursuant to Section 172(c) of the federal Clean Air Act. On Nov. 22, 2010, the EPA designated the Buick/Viburnum Trend as nonattainment for the 2008 Lead NAAQS based on air quality data from 2007-2009. This area encompasses portions of Iron, Reynolds and Dent counties and contains a secondary lead smelter, two lead mine/mill operations, and a fourth facility that crushes mineral ore. This plan includes an emissions inventory, control measures, contingency measures and a technical demonstration that the proposed emission controls will result in the attainment of the 2008 Lead NAAQS for the area.

Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Buick/Viburnum Trend Lead Nonattainment Area
Appendices A through M

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Missouri State Implementation Plan Revision - Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Herculaneum Lead Nonattainment Area

This plan was developed to bring Herculaneum, MO into attainment of the 2008 Lead National Ambient Air Quality Standard, or NAAQS, pursuant to Section 172(c) of the federal Clean Air Act. On Nov. 22, 2010, EPA designated the city limits of Herculaneum as nonattainment for the 2008 Lead NAAQS based on air quality data from 2007-2009. Herculaneum contains the nation's only primary lead smelter, which shall be shutting down its smelting (blast furnace and sinter plant) operations on or before April 30, 2014. This plan includes an emissions inventory, control measures, contingency measures and a technical demonstration that the proposed emission controls will result in the attainment of the 2008 Lead NAAQS for the area.

Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Herculaneum Lead Nonattainment Area
Appendices A through O

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Proposed for Adoption

Clean Air Act Section 111(d)/129 State Plan Revision — Section 111(d)/129 State Plan for Implementation of the Sewage Sludge Incinerator Emission Guidelines for Missouri

This plan was developed to demonstrate that the state of Missouri has the legal authority and enforceable mechanism in place to implement and enforce the Emission Guidelines and Compliance Times as set forth by the EPA in 40 CFR 60, Subpart MMMM for existing Sewage Sludge Incinerators. The plan references legal authority established in chapter 536 of the Revised Statutes of Missouri (RSMo) and the enforceable mechanism provided by the proposed new state rule, 10 CSR 10-6.191 Sewage Sludge Incinerators. This plan provides source and emission inventories of affected existing sewage sludge incinerators in the state. It also establishes emission limits, operating requirements and compliance times that are consistent with the federal emission guidelines as promulgated.

Clean Air Act Section 111(d)/129 State Plan Revision
Appendix A
Appendices B through F

Comments about this plan action were accepted through close of business Dec. 13, 2012. This plan is scheduled for adoption at the Feb. 5, 2013, Missouri Air Conservation Committee meeting.

Bechtel, Cheri

From: Missouri DNR <MODNR@public.govdelivery.com>
Sent: Friday, January 04, 2013 11:15 AM
To: Bechtel, Cheri
Subject: Courtesy Copy: Missouri DNR Air Public Notices Update

This is a courtesy copy of an email bulletin sent by Cheri Bechtel.

This bulletin was sent to the following groups of people:

Subscribers of Air Public Notices (413 recipients)

Missouri Department of
Natural Resources

Having trouble viewing this email? View it as a Web page.

SHARE

MISSOURI AIR CONSERVATION COMMISSION
WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO -- The Missouri Air Conservation Commission will hold a public hearing on Tuesday, February 5, 2013 beginning at 9 a.m. at the Elm Street Conference Center, 1730 East Elm Street, Lower Level, Bennett Springs Conference Room, Jefferson City, Missouri. The commission will hear testimony related to the following proposed action(s):

* 10 CSR 10-1.010 (amendment) General Organization

  The above rule action will not be submitted for inclusion in the Missouri State Implementation Plan because it has no bearing on attainment or maintenance of National Ambient Air Quality Standards and does not revise provisions in any approved state plan.

* 10 CSR 10-2.330 (amendment) Control of Gasoline Reid Vapor Pressure

* Missouri State Implementation Plan Revision – Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard – Buick/Viburnum Trend Lead Nonattainment Area

* Missouri State Implementation Plan Revision – Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard – Herculaneum Lead Nonattainment Area

* Missouri State Implementation Plan Revision – Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 2008 8-Hour Ground-Level Ozone National Ambient Air Quality Standard

If the Commission adopts the action(s), it will be the Department's intention to submit the action(s) to the U.S. Environmental Protection Agency to be included in Missouri's State Implementation Plan unless otherwise noted above.

Documents for the above item(s) will be available for review at the Missouri Department of Natural Resources, Air Pollution Control Program, 1659 Elm Street, Jefferson City, (573) 751-4817 and in the Public Notices section of the program web site http://dnr.mo.gov/env/apcp/public-notices.htm. This information will be available at least 30 days prior to the public hearing date.

The Department will accept written or email comments for the record until 5 p.m. on February 13, 2013. Please send written comments to Chief, Air Quality Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176. Email comments may be submitted via the program web site noted above. All written and email comments and public hearing testimony will be equally considered.

Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 526-3420. The Department requests persons intending to give verbal presentations also provide a written copy of their testimony to the commission secretary at the time of the public hearing.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the Program directly at (573) 751-4817, the Division of Environmental Quality's toll free number at (800) 361-4827, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

You are subscribed to the Air Public Notices topic for Missouri DNR. This information has recently been updated, and is now available at the link below. Thank you for your interest in the Air Public Notices.

http://dnr.mo.gov/env/apcp/rulemaking.htm

Update your subscriptions, modify your password or email address, or stop subscriptions at any time on your Subscriber Preferences Page. You will need to use your email address to log in. If you have questions or problems with the subscription service, please contact support@govdelivery.com.

This service is provided to you at no charge by Missouri DNR.

APPENDIX M – 2013 CONSENT JUDGEMENT

IN THE CIRCUIT COURT OF IRON COUNTY
STATE OF MISSOURI

STATE OF MISSOURI ex rel., Attorney General Chris Koster and the Missouri Department of Natural Resources and the Missouri Air Conservation Commission,	)	
Plaintiff	)	
v.	)	Case No. _____
The Buick Resource Recycling Facility, LLC and The Doe Run Resources Corporation,	)	
Defendants.	)	

CONSENT JUDGMENT

Plaintiff, State of Missouri, at the relation of Chris Koster, Attorney General, the Missouri Department of Natural Resources ("MDNR"), and the Missouri Air Conservation Commission ("Commission"), and defendants, the Buick Resource Recycling Facility, LLC ("BRRF") and The Doe Run Resources Corporation d/b/a The Doe Run Company ("Doe Run"), by and through counsel, hereby consent to the entry of this Consent Judgment.

WHEREAS, the State of Missouri, through MDNR, in consideration of BRRF's and Doe Run's agreement to complete the implementation of control strategies upon the time schedules as more fully set forth in the Consent Judgment below, and defendants, in consideration of the State of Missouri's agreement to accept the implementation of said control strategies as sufficient, under current information and belief, to attain the 2008 National Ambient Air Quality Standard for lead and to accept the time schedules for completion of such control strategies as being as expeditious as practicable, agree to entry of this Consent Judgment.

WHEREAS, in 2008, EPA revised the National Ambient Air Quality Standard for lead ("2008 Lead NAAQS"). 73 Fed. Reg. 66,964 (Nov. 12, 2008). The revision reduced the NAAQS for lead from

1.5 micrograms per cubic meter ($\mu g/m^3$) to 0.15 $\mu g/m^3$. On November 22, 2010, EPA designated portions of Iron, Dent and Reynolds Counties, Missouri (hereafter "Buick/Viburnum Trend"), as a 2008 Lead NAAQS nonattainment area. 75 Fed. Reg. 71,033, 71,042-43 (Nov. 22, 2010).

WHEREAS, MDNR and the Commission are preparing a State Implementation Plan ("SIP") revision to achieve attainment and maintenance of the 2008 Lead NAAQS in the Buick/Viburnum Trend nonattainment area ("2013 Lead NAAQS Attainment Demonstration SIP").

WHEREAS, as part of the 2013 Lead NAAQS Attainment Demonstration SIP, MDNR, the Commission, BRRF and Doe Run hereby agree that the Court may enter the Consent Judgment set forth below, to be binding on the parties, providing for a lead emission reduction program, which BRRF and Doe Run hereby agree to undertake and complete on the schedule set forth in this Consent Judgment. The parties, by their signatures hereto, acknowledge that they have read and understand the terms of this Consent Judgment and agree to be bound thereby. In the event that the Court does not approve of this Consent Judgment in its entirety and as agreed by the parties, the Consent Judgment shall be null and void and have no effect in this or any other proceedings. The parties understand that the terms of this Consent Judgment are enforceable by further order of this Court, and that this Court retains jurisdiction of the matter in order to enforce the terms of this Consent Judgment.

WHEREAS, this Consent Judgment takes into account all federally enforceable requirements, including injunctive relief provisions of the Consent Decree between BRRF, Doe Run, MDNR and the Environmental Protection Agency filed in the United States District Court in the Eastern District of Missouri, Case No. 4:10-cv-01895-JCH ("2011 Consent Decree"), and entered on December 21, 2011.

WHEREAS, this matter comes before the Court on the petition filed by the State of Missouri (the "State") and MDNR concurrently with this Consent Judgment.

WHEREAS, by agreeing to the terms of this Consent Judgment, BRRF and Doe Run do not admit any liability arising from the allegations set forth in the Petition.

NOW THEREFORE, without adjudication or admission of any issue of fact and with the consent of the parties, IT IS THEREFORE ORDERED, ADJUDGED AND DECREED as follows:

I. Objectives of the Parties

1. The objectives of the parties to this Consent Judgment are to implement control measures set forth herein in furtherance of attainment of the 2008 Lead NAAQS.

II. Jurisdiction

2. This Court has jurisdiction over this matter and of the parties consenting hereto pursuant to Section 643.151, RSMo, of the Missouri Air Conservation Law.

III. Parties Bound

3. The provisions of this Consent Judgment shall be binding upon the parties to this action as well as their agents, servants, employees, heirs, successors, assigns, and to all persons, firms, corporations, and other entities who are, or who will be, acting in concert or privity with, or on behalf of the parties to this action or their agents, servants, employees, heirs, successors, and assigns.

IV. Satisfaction

4. Upon completion of the terms of this Consent Judgment, BRRF and Doe Run are relieved of liability for violations alleged in the State's and MDNR's Petition.

V. Injunctive Relief

5. BRRF and Doe Run (as specifically indicated below) shall undertake and complete the following lead emission reduction program on the schedule set forth below. These control measures and the associated schedules are the reasonably available control measures to be implemented to attain the 2008 Lead NAAQS (as required by Section 172(c) of the Clean Air Act).

6. Projects Required: BRRF shall install the following lead emission control measures:

A. By February 4, 2013, at the south refinery, install a baghouse with a minimum design of 60,000 actual cubic feet per minute ("acfm") to improve refinery ventilation.

B. By February 4, 2013, relocate the baghouse with a minimum design of 38,000 acfm from the sweat furnace to blast furnace storage feed building.

C. By February 4, 2013, at the north refinery, remove the rotary melter and connect its baghouse to the north refinery process ducts to improve refinery ventilation.

D. By February 4, 2013, install a truck tire wash system for outbound traffic.

E. By February 4, 2013, install a pulse-jet baghouse with a minimum design of 75,000 acfm to improve reverberatory furnace process ventilation.

F. By February 4, 2013, after the 75,000 acfm (minimum) designed baghouse, install a dry lime SO_2 scrubber (reaction chamber followed by an associated minimum 65,000-acfm design baghouse) to further process exit gas stream before routing reverberatory furnace process gases to the main stack.

G. Enclose the refinery, blast furnace, reverberatory furnace, and dross plant buildings and install a baghouse with a minimum design of 300,000 acfm to achieve negative pressure consistent with the National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelting, 40 C.F.R. 63 Subpart X ("Secondary Lead MACT"), revised as of January 5, 2012. Install a new stack with a minimum height of 65 meters for this exhaust stream. Installation of the projects in paragraph 6.G. must be completed and operation commenced by the earlier of (1) the date the facility must comply with the total enclosure standards in the Secondary Lead MACT, revised as of January 5, 2012, and any subsequent revision; or, (2) January 5, 2015.

H. By December 31, 2013, install a 40-foot extension on the breaking separation and neutralization scrubber stack.

I. By December 31, 2013 construct an approximately 30,000 square foot building extension to the existing blast furnace feed storage building.

J. By October 31, 2014, improve process hood capture efficiency by installing batwing style ventilation covers, or covers with equivalent or better capture efficiency, on all refinery kettles.

K. By December 31, 2013, install quick closing powered doors at the door located at the north refinery warehouse, the door located at the south refinery warehouse, and the door at the reverberatory feed storage equipment entrance to minimize fugitive dust emissions from the buildings, to improve fugitive emission capture and to increase building negative pressure. After installation, these doors will be closed except for necessary service traffic or equipment sorties within these buildings, during periods not representative of normal operations, during periods of breakdown or maintenance of the doors, or when necessary for worker health and safety.

7. Projects Required: Doe Run shall install the following lead emission control measures:

A. By June 1, 2013, modify Buick Mine updraft vent 1 at UTM coordinates 665597 4165248, vent 2 at UTM 665867 4162535, vent 3 at UTM 666234 4160599, and vent 6 at UTM 665627 4165742 to achieve a vertical release, defined as 45 degrees from horizontal or greater.

B. By June 1, 2013, preclude public access at Casteel at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

C. By June 1, 2013, preclude public access at Buick Mine Vents 1, 2, 3, & 6 at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

D. By June 1, 2013, preclude public access at Buick Mine/Mill at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

8. Required Practices and Procedures.

A. Baghouse Standard Operating Procedures (SOP): BRRF has an MDNR-approved Baghouse SOP pursuant to the Secondary Lead MACT, revised as of January 5, 2012 for sources at the facility subject to the Secondary Lead MACT. After the applicable deadline for any baghouse projects installed pursuant to paragraph 6 (Projects Required) or paragraph 10 (Projects Required as Contingency Control Measures) and that is not otherwise subject to the Secondary Lead MACT, any such newly installed baghouse(s) shall be subject to the Baghouse SOP.

B. Baghouse Maintenance or Extended Periods of Non-Production (Shut Downs): BRRF may cease the operation of any of the ventilation system units used to achieve the appropriate amounts of negative pressure as required by paragraph 6.G above to perform maintenance on the ventilation system or if all of the lead processing units within a given building have been turned off for a minimum of twenty-four (24) consecutive hours.

C. Local Exhaust Ventilation (LEV) Operation: BRRF will operate LEVs at the following emission units, when the units are operating: (1) the reverberatory furnace; (2) FS-3300 and 3301 dross kettles; (3) refinery dross screw; (4) R-1 to R-10 refinery kettles; (5) the blast furnace; and, (6) the sweat furnaces.

D. BRRF must preclude public access at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP. BRRF shall notify MDNR of its intent to modify the location of any fencelines used to demonstrate compliance with this paragraph ninety (90) days prior to the commencement of construction.

E. Doe Run shall notify MDNR of its intent to modify the location of any fencelines used to demonstrate compliance with paragraphs 7.B.-D. ninety (90) days prior to the commencement of construction.

F. Recordkeeping and Reporting. Recordkeeping and reporting under this Consent Judgment are addressed by the recordkeeping and reporting requirements applicable to the facility pursuant to the Secondary Lead MACT, revised as of January 5, 2012.

G. Stack Emission Limits. BRRF will limit lead emissions to the atmosphere from certain stacks as set forth in the following table. BRRF is subject to the limit for EP100 and EP 8 after the completion of the project in paragraph 6.G. The limits for EP 31C, EPA 71, and EP 72 are effective consistent with the Secondary Lead MACT at 40 C.F.R. 63.546.

Stack Name	Stack ID	Emission Limitation
Main Stack	EP 8	0.7 lb/hour
New Blast Furnace Process and Building Ventilation Baghouse	EP 100	0.7 lb/hour
Drum Shredder Baghouse	EP 31C	0.025 lb/hour
Reverberatory Furnace Slag Tap Ventilation Baghouse	EP 71	0.08 lb/hour
North Refinery Baghouse	EP 72	0.006 lb/hour

Compliance will be determined via stack testing requirements and on a schedule that is consistent with the Secondary Lead MACT, revised as of January 5, 2012 except as follows. If any test does not show compliance with the limits herein, the facility will test the stack that tested above the limit and provide the stack test report or results within one hundred and twenty (120) days after the date of the test that failed to demonstrate compliance. If this subsequent test shows compliance, the prior exceedance will not be considered a violation of this Consent Judgment and compliance testing will return to a schedule consistent with the Secondary Lead MACT, revised as of January 5, 2012.

9. Monitoring

A. Missouri has a lead monitoring site network, the 2011 Missouri Ambient Air Quality Monitoring Network Plan, which was approved by EPA on December 12, 2011. MDNR will monitor consistent with the Monitoring Plan and any amendments thereto. Data from any MDNR, BRRF or Doe Run monitor that is not located within ambient air will be used solely for informational purposes and not for determining attainment with the 2008 Lead NAAQS.

B. BRRF has two non-ambient monitors at the sites known as the North and South BRRF monitoring sites. BRRF shall continue data collection from these monitors until data collected from the ambient air network for 36 three-month rolling averages shows continuous attainment with the 2008 Lead NAAQS, until BRRF or Doe Run no longer owns or operates the property where the monitors are located, or upon approval by MDNR that continued monitoring is not necessary.

C. BRRF has a meteorological station and shall continue to monitor meteorological data to support future dispersion modeling or other episode analysis. Meteorological data

collection shall include ten (10) meter wind speed, ten (10) meter wind direction, ten (10) meter ambient temperature, ambient barometric pressure, ten (10) meter sigma theta, ten (10) meter delta temperature, relative humidity, and precipitation. Meteorological data will also include two (2) meter ambient and delta temperature and incoming solar radiation within six (6) months after the effective date. Doe Run shall continue data collection from these monitors until data collected from the ambient air network for thirty-six (36) three-month rolling averages shows continuous attainment with the 2008 Lead NAAQS, until BRRF or Doe Run no longer owns or operates the property, or upon approval by MDNR that the continued monitoring is not necessary.

D. Meteorological monitoring shall be conducted pursuant to an MDNR-approved Quality Assurance Project Plan ("QAPP"). BRRF shall submit the QAPP to MDNR for review and approval within sixty (60) days of entry of this Consent Judgment.

E. BRRF shall provide to MDNR the air monitoring data analysis within thirty (30) days after the end of each calendar month.

F. BRRF shall provide to MDNR the meteorological monitoring data and quality assurance summaries in a quarterly report within forty-five (45) days after the end of each calendar quarter electronically in the format identified in the QAPP.

G. If BRRF or Doe Run purchases property where the MDNR Buick North East monitor is located, Doe Run or BRRF shall allow MDNR access to the property for the purposes of continuing the 2008 Lead NAAQS monitoring.

H. BRRF and Doe Run shall notify MDNR of any real property acquired or released from its possession in the Buick/Viburnum trend nonattainment area where an MDNR monitor is located or within where a BRRF fenceline to preclude public access is located

within thirty (30) days of the transaction being filed with the local Recorder of Deeds. This notification shall include a copy of the Warranty Deed and legal description of the property.

10. Projects Required as Contingency Control Measures

A. If the air quality data for any three-month rolling average period exceeds the 0.15 $\mu g/m^3$ three-month rolling average lead standard after completion and operation of projects and control measures identified in paragraph 6, or any extension date granted by the MDNR, BRRF shall begin implementation of these contingency measures upon written notification from MDNR, and shall complete the projects according to the following schedule. The triggering period for purposes of this provision will be the three-month calendar period following the implementation of the projects and control measures identified in paragraph 6. Additionally, if BRRF fails to make Reasonable Further Progress (defined as the completion and operation of the Projects Required in paragraph 6 of this Consent Judgment or required pursuant to this paragraph 10.B within the time frames set forth), BRRF shall begin implementation of the contingency measures upon written notification from MDNR, and shall complete the projects according to the following schedule. Any of the contingency projects listed herein may only be triggered at the earliest (and only if an exceedance of the 2008 Lead NAAQS is monitored) after a full three-month calendar period following the completion and operation of the preceding control project.[1]

i. Project B(i) shall be completed within nine (9) months from the date BRRF receives notification from MDNR to complete the contingency measure.

[1] For example, if project B(i) is completed and operational on February 15, 2016, the next contingency measure could be triggered only if and after the three month calendar period of March, April and May of that year showed an ambient monitored exceedance of the 2008 Lead NAAQS. As such, in that scenario the contingency could not be triggered before June 1, 2016.

ii. If in any three-month rolling period after completing and operating project B(i), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and BRRF will complete project B(ii) within a timeframe to be determined by BRRF and MDNR.

iii. If in any three-month rolling average period after completing and operating projects B(i) and B(ii), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and project B(iii) shall be completed within eighteen (18) months of receipt of the notice.

iv. If in any three-month rolling average period after completing and operating projects B(i) B(ii), and B(iii), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and project B(iv) shall be completed within twelve (12) months of receipt of the notice.

B. Contingency Projects.

i. Ventilate reverberatory feed storage building with a minimum design to achieve negative pressure of at least .007 inches of water column.

ii. Projects Technology Study for Fugitive Dust Control. Within a timeframe to be determined by BRRF and MDNR, BRRF shall submit a work plan to MDNR for a study of best practices and best available technology for industrial smelter or metal manufacturing facilities with similar fugitive emissions control challenges. The work plan is subject to approval by MDNR. The work plan shall provide that

the study shall be completed and delivered to MDNR within one hundred and eighty (180) days of approval of the work plan. The study will list all best practices and best available technologies identified and, for each technology or practice, will identify those technologies and/or practices that BRRF deems technically feasible and cost-effective for inclusion as Contingency Project B(ii), quantify associated emissions reductions, and provide a time frame for implementation of each. Within sixty (60) days of its receipt of the study, MDNR will advise BRRF whether the projects and timelines proposed by BRRF are acceptable and if MDNR agrees that any of the identified technologies or practices are not technically feasible or cost-effective. Upon approval or after sixty (60) days with no comment, those projects identified in the Study for completion and the deadlines therein shall become a part of this Consent Judgment and fully enforceable hereunder as contingency measures and shall be completed pursuant to the deadlines.

iii. Pave inbound truck parking lot.

iv. Evaluation of ventilation capacity at Main Baghouse. Within a timeframe to be determined by BRRF and MDNR, BRRF shall submit an evaluation of the Main Baghouse capacity and will identify any projects that are deemed technically feasible and cost-effective to redistribute any excess capacity identified in the evaluation and for inclusion as contingency measures and provide a time frame for implementation. Within sixty (60) days of its receipt of the evaluation, MDNR will advise BRRF whether the timelines proposed by BRRF are acceptable. Upon approval or after sixty (60) days with no comment, those projects identified by

BRRF and the deadlines therein shall become a part of this Consent Judgment and fully enforceable hereunder as contingency measures.

C. BRRF shall notify MDNR within ten (10) business days of BRRF's completion of the contingency measures. Within sixty (60) days of such completion, BRRF shall propose an additional quantified contingency measure and a proposed timeframe for completion to be added to this Consent Judgment. Upon approval by MDNR, the additional contingency measure shall become a part of this Consent Judgment and shall be fully enforceable hereunder.

D. If BRRF or Doe Run identifies and demonstrates to MDNR's satisfaction alternative control measure(s) that would achieve attainment with the 2008 Lead NAAQS, BRRF or Doe Run may substitute the new measure(s) for the contingency measure(s) identified above, or may change the order of implementation of the contingency measure(s) and time frames for completion identified above, upon approval of the MDNR's Director of the Air Pollution Control Program. Any substitute contingency measure shall include a schedule for completion.

E. Nothing in this agreement shall prevent BRRF from implementing any of these contingency measures prior to receiving notification from MDNR.

VI. Stipulated Penalties and Force Majeure

11. If the defendants fail to complete construction of the control measures set out in this Consent Judgment by the dates specified, defendants may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation

First through 30th day of noncompliance	$1,000.00
31st through 60th day of noncompliance	$2,000.00
61st through 90th day of noncompliance	$3,000.00
91st day of noncompliance and beyond	$5,000.00

If a performance test, conducted per the requirements of paragraph 8.G. of this Consent Judgment, fails to demonstrate compliance with the emission limits stated therein, BRRF may be subject to stipulated penalties according to the following schedule:

First test failure - $1,000

Second test failure - $2,000

Third test failure - $3,000

Fourth (and beyond) test failure – $5,000

If BRRF or Doe Run fails to comply with any other requirements of this Consent Judgment, BRRF or Doe Run may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation
First through 30th day of noncompliance	$200.00
31st through 60th day of noncompliance	$400.00
61st through 90th day of noncompliance	$600.00
91st day of noncompliance and beyond	$800.00

12. If any violation is enforceable by more than one agreement or regulatory requirement, MDNR agrees that it may only seek to enforce either the stipulated penalties discussed in paragraph 11

of this Consent Judgment, or the penalty for violation of the specified regulatory requirement, not both, against BRRF and/or Doe Run.

13. All penalties shall be paid within forty-five (45) days of the date of receipt of written notification of the assessment of stipulated penalty from MDNR unless the defendants challenge the penalty pursuant to the dispute resolution procedure outlined in Section VII. If the penalty is challenged, it shall not be paid until thirty (30) days after the Commission's determination that one or both defendants owe the stipulated penalty, and defendants have failed to use, or have exhausted, their rights to review the Commission's decision. If defendants exercise their right to appeal a decision of the Commission, payment will be due thirty (30) days after a final decision.

14. All penalties shall be paid by check made payable to the State of Missouri (Iron County Treasurer), and delivered to the Collections Specialist, Attorney General of Missouri, P.O. Box 899, Jefferson City, Missouri 65102-0899.

15. Upon the request of BRRF or Doe Run, MDNR may in its unreviewable discretion impose a lesser penalty or no penalty at all for violations subject to stipulated penalties. Stipulated penalties are deemed waived if not assessed within two (2) years after MDNR is aware of a violation.

16. The penalties set forth herein shall not apply in the event of a force majeure, as defined in this section. For the purposes of this Consent Judgment, force majeure shall be defined as any event arising from causes beyond the control of defendants and of any entity controlled by defendants, which delays or interferes with the performance of any obligation under this Consent Judgment notwithstanding defendants' best efforts to avoid such an event and fulfill the obligation. The requirement that defendants exercise "best efforts to avoid such an event" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any force majeure event (1) as it is occurring, and (2) following the force majeure event such that the adverse effect or

delay is minimized to the greatest extent practicable. Examples of events that are not force majeure events include, but are not limited to, increased costs or expenses of any work to be performed under this Consent Judgment, changed financial circumstances, or other financial or budgetary issues. Failure to apply for a required permit or approval, or to provide in a timely manner all information required to obtain a permit or approval necessary to meet the requirements of this Consent Judgment, are not force majeure events.

17. If any event occurs that is likely to delay or interfere with the performance of an obligation under this Consent Judgment, whether or not caused by a force majeure event, defendant shall notify MDNR by telephone within five (5) business days of defendant becoming knowledgeable of such event. Within ten (10) business days thereafter, defendant shall provide in writing to the State an explanation and description of the reasons for the delay, the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize its effects; a schedule for implementation of any measures to be taken to mitigate the event; and a statement as to whether, in the opinion of defendant, such an event may cause or contribute to the endangerment of public health, public welfare, or the environment. Defendants shall include with any notice all available documentation supporting the claims that the delay was attributable to a force majeure. Failure to comply with these requirements shall preclude defendant from asserting any claim of force majeure.

18. If the State agrees that the delay or anticipated delay is attributable to a force majeure event, then the State may agree to extend the time for performance of any obligation(s) under this Consent Judgment that is affected by the force majeure event for the time necessary to complete the obligation(s). The State will notify defendants in writing of the length of the extension, if granted, for performance of the obligation(s) affected by the force majeure event. An extension of the time for

performance of the obligation(s) affected by the force majeure event shall not, by itself, extend the time for performance of any other obligations.

19. If the State does not agree that a force majeure event has occurred, or does not agree on the length of any time extension sought by defendant, the issue shall be subject to the dispute resolution procedures set forth in Section VII. In any such proceeding, to qualify for force majeure defense, defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or noncompliance has been or will be caused by a force majeure event, that its duration was or will be warranted under the circumstances, that defendant exercised or is exercising due diligence by using its best efforts to avoid and mitigate its effects, and that defendant complied with the requirements of paragraph 15-16 above. Should defendant carry the burden set forth in this section, the delay or noncompliance at issue shall be deemed not to be a violation of the affected obligation of this Consent Judgment.

VII. Dispute Resolution

20. Any dispute that arises with respect to the meaning, application or implementation for any provision of this Consent Judgment may be subject to dispute resolution as provided herein, unless the Consent Judgment provision provides that dispute resolution is not available. Any dispute that arises with respect to the meaning, application or implementation of this Consent Judgment shall in the first instance be the subject of informal negotiations between defendants and MDNR. Notice of a dispute shall be given by the party alleging the dispute, shall be addressed in writing to the MDNR Director, and copied to the opposing party. Such notice shall state the specific grounds for the dispute, including any supporting documentation and the relief requested.

21. The MDNR and defendants shall have thirty (30) days from the receipt of the notice of the dispute to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing and

this Consent Judgment modified, if appropriate. If the parties to the dispute are unable to reach agreement within the thirty-day period and this period is not extended in writing by mutual agreement of the parties, the matter will be submitted to the Commission. The opposing party may file suggestions in opposition and include any documentation relevant to deciding the dispute. Said suggestions and documentation shall be submitted within fourteen (14) days of submission of the matter to the Commission. The Commission may hear evidence if needed to reach a decision. The Commission will issue a written decision following its review of the record submitted by the parties.

22. The parties will then be entitled to judicial review pursuant to Chapter 536, Revised Statutes of Missouri. The filing of a notice of dispute shall not automatically suspend, extend, postpone, or affect any parties' obligations under this Consent Judgment with respect to the disputed issue unless expressly provided herein or unless the parties agree to the extension, postponement or affect. This provision shall not be construed to prevent either party from requesting a stay of the party's obligations under this Consent Judgment.

VIII. Exceptional Events

23. Doe Run or BRRF may provide a demonstration to MDNR that a monitored exceedance at an ambient air monitor was the result of an "exceptional event" as the term is defined at 40 C.F.R. 50.1(j). If MDNR agrees that the demonstration supports the characterization of the monitored data as the result of an "exceptional event" as set forth in 40 C.F.R. 50.14, MDNR may flag the monitored data to be used as informational purposes only and may submit a demonstration to the Environmental Protection Agency. Nothing in this paragraph would preclude MDNR from tagging data that was due to an exceptional event and submitting a demonstration to EPA on its own accord or at the request of another party. Any data that is tagged by MDNR to be used for informational purposes cannot be used

as a basis to trigger contingency projects. This provision is not subject to Section VII "Dispute Resolution."

IX. Reservation

24. Nothing in this agreement shall be construed as a waiver of any obligation of defendants or as a permit to defendants under any other environmental laws applicable to defendants.

X. Modifications

25. This Consent Judgment may be modified or amended only by written agreement between the parties, which shall be filed with this Court.

XI. Termination

26. This Consent Judgment and the obligations herein shall terminate upon the payment of any stipulated penalties due and redesignation by the Environmental Protection Agency of the Buick/Viburnum Trend Lead Nonattainment Area as an attainment area for the 2008 Lead NAAQS. If the SIP revision is not approved by the EPA, the parties may terminate this Consent Judgment by written agreement.

27. In the event BRRF or Doe Run ceases operation of lead emission units subject to this Consent Judgment, Doe Run or BRRF shall notify MDNR and will be relieved of the injunctive relief or other required practices that were for the purpose of reducing lead emissions from the subject unit.

XII. Effective Date

28. This Consent Judgment is effective upon entry by the Court.

XIII. Notices

29. Unless otherwise specified herein, whenever notifications, submissions, or communications are made pursuant to the Consent Judgment they shall be made in writing and addressed as follows:

To the Missouri Department of Natural Resources:

Planning Section Chief
Air Pollution Control Program
Missouri Department of Natural Resources
1659 East Elm Street
Jefferson City, Missouri 65101

To The Doe Run Resources Corporation

Environmental Manager
The Doe Run Company
SEMO Mining Milling Division
P.O. Box 500
Viburnum, Missouri 65566

With a copy to:

Vice President of Environmental Health & Safety
The Doe Run Company
1801 Park 270 Drive, Suite 300
St. Louis, Missouri 63146

To Buick Resource Recycling Facility, LLC:

Environmental & Health Manager
The Doe Run Company
Buick Resource Recycling Facility
18594 Highway KK
Boss, Missouri 65440

With a copy to:

Vice President of Environmental Health & Safety
The Doe Run Company
1801 Park 270 Drive, Suite 300
St. Louis, Missouri 63146

SIGNATURES

BUICK RESOURCE RECYCLING FACILITY, LLC

BY: _____

DATE: _____

Steve Arnold, Plant Manager

THE DOE RUN RESOURCES CORPORATION

BY: _____

DATE: _____

Aaron Miller, Chief Operating Officer

MISSOURI DEPARTMENT OF NATURAL RESOURCES

BY: _____

DATE: _____

Leanne Tippett Mosby, Director

Division of Environmental Quality

MISSOURI AIR CONSERVATION COMMISSION

BY: _____

DATE: _____

David Zimmerman, Chairperson

ATTORNEY GENERAL OF MISSOURI

Chris Koster, Attorney General

BY: _____

DATE: _____

Kara Valentine, Assistant Attorney General

IN THE CIRCUIT COURT OF IRON COUNTY
STATE OF MISSOURI

STATE OF MISSOURI ex rel., Attorney General Chris Koster and the Missouri Department of Natural Resources and the Missouri Air Conservation Commission,	)	
Plaintiff	)	
v.	)	Case No. _____
The Buick Resource Recycling Facility, LLC and The Doe Run Resources Corporation,	)	
Defendants.	)	

CONSENT JUDGMENT

Plaintiff, State of Missouri, at the relation of Chris Koster, Attorney General, the Missouri Department of Natural Resources ("MDNR"), and the Missouri Air Conservation Commission ("Commission"), and defendants, the Buick Resource Recycling Facility, LLC ("BRRF") and The Doe Run Resources Corporation d/b/a The Doe Run Company ("Doe Run"), by and through counsel, hereby consent to the entry of this Consent Judgment.

WHEREAS, the State of Missouri, through MDNR, in consideration of BRRF's and Doe Run's agreement to complete the implementation of control strategies upon the time schedules as more fully set forth in the Consent Judgment below, and defendants, in consideration of the State of Missouri's agreement to accept the implementation of said control strategies as sufficient, under current information and belief, to attain the 2008 National Ambient Air Quality Standard for lead and to accept the time schedules for completion of such control strategies as being as expeditious as practicable, agree to entry of this Consent Judgment.

WHEREAS, in 2008, EPA revised the National Ambient Air Quality Standard for lead ("2008 Lead NAAQS"). 73 Fed. Reg. 66,964 (Nov. 12, 2008). The revision reduced the NAAQS for lead from

1.5 micrograms per cubic meter ($\mu g/m^3$) to 0.15 $\mu g/m^3$. On November 22, 2010, EPA designated portions of Iron, Dent and Reynolds Counties, Missouri (hereafter "Buick/Viburnum Trend"), as a 2008 Lead NAAQS nonattainment area. 75 Fed. Reg. 71,033, 71,042-43 (Nov. 22, 2010).

WHEREAS, MDNR and the Commission are preparing a State Implementation Plan ("SIP") revision to achieve attainment and maintenance of the 2008 Lead NAAQS in the Buick/Viburnum Trend nonattainment area ("2013 Lead NAAQS Attainment Demonstration SIP").

WHEREAS, as part of the 2013 Lead NAAQS Attainment Demonstration SIP, MDNR, the Commission, BRRF and Doe Run hereby agree that the Court may enter the Consent Judgment set forth below, to be binding on the parties, providing for a lead emission reduction program, which BRRF and Doe Run hereby agree to undertake and complete on the schedule set forth in this Consent Judgment. The parties, by their signatures hereto, acknowledge that they have read and understand the terms of this Consent Judgment and agree to be bound thereby. In the event that the Court does not approve of this Consent Judgment in its entirety and as agreed by the parties, the Consent Judgment shall be null and void and have no effect in this or any other proceedings. The parties understand that the terms of this Consent Judgment are enforceable by further order of this Court, and that this Court retains jurisdiction of the matter in order to enforce the terms of this Consent Judgment.

WHEREAS, this Consent Judgment takes into account all federally enforceable requirements, including injunctive relief provisions of the Consent Decree between BRRF, Doe Run, MDNR and the Environmental Protection Agency filed in the United States District Court in the Eastern District of Missouri, Case No. 4:10-cv-01895-JCH ("2011 Consent Decree"), and entered on December 21, 2011.

WHEREAS, this matter comes before the Court on the petition filed by the State of Missouri (the "State") and MDNR concurrently with this Consent Judgment.

WHEREAS, by agreeing to the terms of this Consent Judgment, BRRF and Doe Run do not admit any liability arising from the allegations set forth in the Petition.

NOW THEREFORE, without adjudication or admission of any issue of fact and with the consent of the parties, IT IS THEREFORE ORDERED, ADJUDGED AND DECREED as follows:

I. Objectives of the Parties

1. The objectives of the parties to this Consent Judgment are to implement control measures set forth herein in furtherance of attainment of the 2008 Lead NAAQS.

II. Jurisdiction

2. This Court has jurisdiction over this matter and of the parties consenting hereto pursuant to Section 643.151, RSMo, of the Missouri Air Conservation Law.

III. Parties Bound

3. The provisions of this Consent Judgment shall be binding upon the parties to this action as well as their agents, servants, employees, heirs, successors, assigns, and to all persons, firms, corporations, and other entities who are, or who will be, acting in concert or privity with, or on behalf of the parties to this action or their agents, servants, employees, heirs, successors, and assigns.

IV. Satisfaction

4. Upon completion of the terms of this Consent Judgment, BRRF and Doe Run are relieved of liability for violations alleged in the State's and MDNR's Petition.

V. Injunctive Relief

5. BRRF and Doe Run (as specifically indicated below) shall undertake and complete the following lead emission reduction program on the schedule set forth below. These control measures and the associated schedules are the reasonably available control measures to be implemented to attain the 2008 Lead NAAQS (as required by Section 172(c) of the Clean Air Act).

6. Projects Required: BRRF shall install the following lead emission control measures:

A. By February 4, 2013, at the south refinery, install a baghouse with a minimum design of 60,000 actual cubic feet per minute ("acfm") to improve refinery ventilation.

B. By February 4, 2013, relocate the baghouse with a minimum design of 38,000 acfm from the sweat furnace to blast furnace storage feed building.

C. By February 4, 2013, at the north refinery, remove the rotary melter and connect its baghouse to the north refinery process ducts to improve refinery ventilation.

D. By February 4, 2013, install a truck tire wash system for outbound traffic.

E. By February 4, 2013, install a pulse-jet baghouse with a minimum design of 75,000 acfm to improve reverberatory furnace process ventilation.

F. By February 4, 2013, after the 75,000 acfm (minimum) designed baghouse, install a dry lime SO_2 scrubber (reaction chamber followed by an associated minimum 65,000-acfm design baghouse) to further process exit gas stream before routing reverberatory furnace process gases to the main stack.

G. Enclose the refinery, blast furnace, reverberatory furnace, and dross plant buildings and install a baghouse with a minimum design of 300,000 acfm to achieve negative pressure consistent with the National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelting, 40 C.F.R. 63 Subpart X ("Secondary Lead MACT"), revised as of January 5, 2012. Install a new stack with a minimum height of 65 meters for this exhaust stream. Installation of the projects in paragraph 6.G. must be completed and operation commenced by the earlier of (1) the date the facility must comply with the total enclosure standards in the Secondary Lead MACT, revised as of January 5, 2012, and any subsequent revision; or, (2) January 5, 2015.

H. By December 31, 2013, install a 40-foot extension on the breaking separation and neutralization scrubber stack.

I. By December 31, 2013 construct an approximately 30,000 square foot building extension to the existing blast furnace feed storage building.

J. By October 31, 2014, improve process hood capture efficiency by installing batwing style ventilation covers, or covers with equivalent or better capture efficiency, on all refinery kettles.

K. By December 31, 2013, install quick closing powered doors at the door located at the north refinery warehouse, the door located at the south refinery warehouse, and the door at the reverberatory feed storage equipment entrance to minimize fugitive dust emissions from the buildings, to improve fugitive emission capture and to increase building negative pressure. After installation, these doors will be closed except for necessary service traffic or equipment sorties within these buildings, during periods not representative of normal operations, during periods of breakdown or maintenance of the doors, or when necessary for worker health and safety.

7. Projects Required: Doe Run shall install the following lead emission control measures:

A. By June 1, 2013, modify Buick Mine updraft vent 1 at UTM coordinates 665597 4165248, vent 2 at UTM 665867 4162535, vent 3 at UTM 666234 4160599, and vent 6 at UTM 665627 4165742 to achieve a vertical release, defined as 45 degrees from horizontal or greater.

B. By June 1, 2013, preclude public access at Casteel at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

C. By June 1, 2013, preclude public access at Buick Mine Vents 1, 2, 3, & 6 at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

D. By June 1, 2013, preclude public access at Buick Mine/Mill at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP.

8. Required Practices and Procedures.

A. Baghouse Standard Operating Procedures (SOP): BRRF has an MDNR-approved Baghouse SOP pursuant to the Secondary Lead MACT, revised as of January 5, 2012 for sources at the facility subject to the Secondary Lead MACT. After the applicable deadline for any baghouse projects installed pursuant to paragraph 6 (Projects Required) or paragraph 10 (Projects Required as Contingency Control Measures) and that is not otherwise subject to the Secondary Lead MACT, any such newly installed baghouse(s) shall be subject to the Baghouse SOP.

B. Baghouse Maintenance or Extended Periods of Non-Production (Shut Downs): BRRF may cease the operation of any of the ventilation system units used to achieve the appropriate amounts of negative pressure as required by paragraph 6.G above to perform maintenance on the ventilation system or if all of the lead processing units within a given building have been turned off for a minimum of twenty-four (24) consecutive hours.

C. Local Exhaust Ventilation (LEV) Operation: BRRF will operate LEVs at the following emission units, when the units are operating: (1) the reverberatory furnace; (2) FS-3300 and 3301 dross kettles; (3) refinery dross screw; (4) R-1 to R-10 refinery kettles; (5) the blast furnace; and, (6) the sweat furnaces.

D. BRRF must preclude public access at a minimum distance from the facility as indicated in Appendix I of the 2013 Lead NAAQS Attainment Demonstration SIP. BRRF shall notify MDNR of its intent to modify the location of any fencelines used to demonstrate compliance with this paragraph ninety (90) days prior to the commencement of construction.

E. Doe Run shall notify MDNR of its intent to modify the location of any fencelines used to demonstrate compliance with paragraphs 7.B.-D. ninety (90) days prior to the commencement of construction.

F. Recordkeeping and Reporting. Recordkeeping and reporting under this Consent Judgment are addressed by the recordkeeping and reporting requirements applicable to the facility pursuant to the Secondary Lead MACT, revised as of January 5, 2012.

G. Stack Emission Limits. BRRF will limit lead emissions to the atmosphere from certain stacks as set forth in the following table. BRRF is subject to the limit for EP100 and EP 8 after the completion of the project in paragraph 6.G. The limits for EP 31C, EPA 71, and EP 72 are effective consistent with the Secondary Lead MACT at 40 C.F.R. 63.546.

Stack Name	Stack ID	Emission Limitation
Main Stack	EP 8	0.7 lb/hour
New Blast Furnace Process and Building Ventilation Baghouse	EP 100	0.7 lb/hour
Drum Shredder Baghouse	EP 31C	0.025 lb/hour
Reverberatory Furnace Slag Tap Ventilation Baghouse	EP 71	0.08 lb/hour
North Refinery Baghouse	EP 72	0.006 lb/hour

Compliance will be determined via stack testing requirements and on a schedule that is consistent with the Secondary Lead MACT, revised as of January 5, 2012 except as follows. If any test does not show compliance with the limits herein, the facility will test the stack that tested above the limit and provide the stack test report or results within one hundred and twenty (120) days after the date of the test that failed to demonstrate compliance. If this subsequent test shows compliance, the prior exceedance will not be considered a violation of this Consent Judgment and compliance testing will return to a schedule consistent with the Secondary Lead MACT, revised as of January 5, 2012.

9. Monitoring

A. Missouri has a lead monitoring site network, the 2011 Missouri Ambient Air Quality Monitoring Network Plan, which was approved by EPA on December 12, 2011. MDNR will monitor consistent with the Monitoring Plan and any amendments thereto. Data from any MDNR, BRRF or Doe Run monitor that is not located within ambient air will be used solely for informational purposes and not for determining attainment with the 2008 Lead NAAQS.

B. BRRF has two non-ambient monitors at the sites known as the North and South BRRF monitoring sites. BRRF shall continue data collection from these monitors until data collected from the ambient air network for 36 three-month rolling averages shows continuous attainment with the 2008 Lead NAAQS, until BRRF or Doe Run no longer owns or operates the property where the monitors are located, or upon approval by MDNR that continued monitoring is not necessary.

C. BRRF has a meteorological station and shall continue to monitor meteorological data to support future dispersion modeling or other episode analysis. Meteorological data

collection shall include ten (10) meter wind speed, ten (10) meter wind direction, ten (10) meter ambient temperature, ambient barometric pressure, ten (10) meter sigma theta, ten (10) meter delta temperature, relative humidity, and precipitation. Meteorological data will also include two (2) meter ambient and delta temperature and incoming solar radiation within six (6) months after the effective date. Doe Run shall continue data collection from these monitors until data collected from the ambient air network for thirty-six (36) three-month rolling averages shows continuous attainment with the 2008 Lead NAAQS, until BRRF or Doe Run no longer owns or operates the property, or upon approval by MDNR that the continued monitoring is not necessary.

D. Meteorological monitoring shall be conducted pursuant to an MDNR-approved Quality Assurance Project Plan ("QAPP"). BRRF shall submit the QAPP to MDNR for review and approval within sixty (60) days of entry of this Consent Judgment.

E. BRRF shall provide to MDNR the air monitoring data analysis within thirty (30) days after the end of each calendar month.

F. BRRF shall provide to MDNR the meteorological monitoring data and quality assurance summaries in a quarterly report within forty-five (45) days after the end of each calendar quarter electronically in the format identified in the QAPP.

G. If BRRF or Doe Run purchases property where the MDNR Buick North East monitor is located, Doe Run or BRRF shall allow MDNR access to the property for the purposes of continuing the 2008 Lead NAAQS monitoring.

H. BRRF and Doe Run shall notify MDNR of any real property acquired or released from its possession in the Buick/Viburnum trend nonattainment area where an MDNR monitor is located or within where a BRRF fenceline to preclude public access is located

within thirty (30) days of the transaction being filed with the local Recorder of Deeds. This notification shall include a copy of the Warranty Deed and legal description of the property.

10. Projects Required as Contingency Control Measures

A. If the air quality data for any three-month rolling average period exceeds the 0.15 $\mu g/m^3$ three-month rolling average lead standard after completion and operation of projects and control measures identified in paragraph 6, or any extension date granted by the MDNR, BRRF shall begin implementation of these contingency measures upon written notification from MDNR, and shall complete the projects according to the following schedule. The triggering period for purposes of this provision will be the three-month calendar period following the implementation of the projects and control measures identified in paragraph 6. Additionally, if BRRF fails to make Reasonable Further Progress (defined as the completion and operation of the Projects Required in paragraph 6 of this Consent Judgment or required pursuant to this paragraph 10.B within the time frames set forth), BRRF shall begin implementation of the contingency measures upon written notification from MDNR, and shall complete the projects according to the following schedule. Any of the contingency projects listed herein may only be triggered at the earliest (and only if an exceedance of the 2008 Lead NAAQS is monitored) after a full three-month calendar period following the completion and operation of the preceding control project.[1]

i. Project B(i) shall be completed within nine (9) months from the date BRRF receives notification from MDNR to complete the contingency measure.

[1] For example, if project B(i) is completed and operational on February 15, 2016, the next contingency measure could be triggered only if and after the three month calendar period of March, April and May of that year showed an ambient monitored exceedance of the 2008 Lead NAAQS. As such, in that scenario the contingency could not be triggered before June 1, 2016.

ii. If in any three-month rolling period after completing and operating project B(i), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and BRRF will complete project B(ii) within a timeframe to be determined by BRRF and MDNR.

iii. If in any three-month rolling average period after completing and operating projects B(i) and B(ii), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and project B(iii) shall be completed within eighteen (18) months of receipt of the notice.

iv. If in any three-month rolling average period after completing and operating projects B(i) B(ii), and B(iii), the 0.15 $\mu g/m^3$ rolling three-month average lead standard is exceeded or BRRF fails to make Reasonable Further Progress, MDNR shall notify BRRF of such exceedance or failure and project B(iv) shall be completed within twelve (12) months of receipt of the notice.

B. Contingency Projects.

i. Ventilate reverberatory feed storage building with a minimum design to achieve negative pressure of at least .007 inches of water column.

ii. Projects Technology Study for Fugitive Dust Control. Within a timeframe to be determined by BRRF and MDNR, BRRF shall submit a work plan to MDNR for a study of best practices and best available technology for industrial smelter or metal manufacturing facilities with similar fugitive emissions control challenges. The work plan is subject to approval by MDNR. The work plan shall provide that

the study shall be completed and delivered to MDNR within one hundred and eighty (180) days of approval of the work plan. The study will list all best practices and best available technologies identified and, for each technology or practice, will identify those technologies and/or practices that BRRF deems technically feasible and cost-effective for inclusion as Contingency Project B(ii), quantify associated emissions reductions, and provide a time frame for implementation of each. Within sixty (60) days of its receipt of the study, MDNR will advise BRRF whether the projects and timelines proposed by BRRF are acceptable and if MDNR agrees that any of the identified technologies or practices are not technically feasible or cost-effective. Upon approval or after sixty (60) days with no comment, those projects identified in the Study for completion and the deadlines therein shall become a part of this Consent Judgment and fully enforceable hereunder as contingency measures and shall be completed pursuant to the deadlines.

iii. Pave inbound truck parking lot.

iv. Evaluation of ventilation capacity at Main Baghouse. Within a timeframe to be determined by BRRF and MDNR, BRRF shall submit an evaluation of the Main Baghouse capacity and will identify any projects that are deemed technically feasible and cost-effective to redistribute any excess capacity identified in the evaluation and for inclusion as contingency measures and provide a time frame for implementation. Within sixty (60) days of its receipt of the evaluation, MDNR will advise BRRF whether the timelines proposed by BRRF are acceptable. Upon approval or after sixty (60) days with no comment, those projects identified by

BRRF and the deadlines therein shall become a part of this Consent Judgment and fully enforceable hereunder as contingency measures.

C. BRRF shall notify MDNR within ten (10) business days of BRRF's completion of the contingency measures. Within sixty (60) days of such completion, BRRF shall propose an additional quantified contingency measure and a proposed timeframe for completion to be added to this Consent Judgment. Upon approval by MDNR, the additional contingency measure shall become a part of this Consent Judgment and shall be fully enforceable hereunder.

D. If BRRF or Doe Run identifies and demonstrates to MDNR's satisfaction alternative control measure(s) that would achieve attainment with the 2008 Lead NAAQS, BRRF or Doe Run may substitute the new measure(s) for the contingency measure(s) identified above, or may change the order of implementation of the contingency measure(s) and time frames for completion identified above, upon approval of the MDNR's Director of the Air Pollution Control Program. Any substitute contingency measure shall include a schedule for completion.

E. Nothing in this agreement shall prevent BRRF from implementing any of these contingency measures prior to receiving notification from MDNR.

VI. Stipulated Penalties and Force Majeure

11. If the defendants fail to complete construction of the control measures set out in this Consent Judgment by the dates specified, defendants may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation

First through 30th day of noncompliance	$1,000.00
31st through 60th day of noncompliance	$2,000.00
61st through 90th day of noncompliance	$3,000.00
91st day of noncompliance and beyond	$5,000.00

If a performance test, conducted per the requirements of paragraph 8.G. of this Consent Judgment, fails to demonstrate compliance with the emission limits stated therein, BRRF may be subject to stipulated penalties according to the following schedule:

First test failure - $1,000

Second test failure - $2,000

Third test failure - $3,000

Fourth (and beyond) test failure – $5,000

If BRRF or Doe Run fails to comply with any other requirements of this Consent Judgment, BRRF or Doe Run may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation
First through 30th day of noncompliance	$200.00
31st through 60th day of noncompliance	$400.00
61st through 90th day of noncompliance	$600.00
91st day of noncompliance and beyond	$800.00

12. If any violation is enforceable by more than one agreement or regulatory requirement, MDNR agrees that it may only seek to enforce either the stipulated penalties discussed in paragraph 11

of this Consent Judgment, or the penalty for violation of the specified regulatory requirement, not both, against BRRF and/or Doe Run.

13. All penalties shall be paid within forty-five (45) days of the date of receipt of written notification of the assessment of stipulated penalty from MDNR unless the defendants challenge the penalty pursuant to the dispute resolution procedure outlined in Section VII. If the penalty is challenged, it shall not be paid until thirty (30) days after the Commission's determination that one or both defendants owe the stipulated penalty, and defendants have failed to use, or have exhausted, their rights to review the Commission's decision. If defendants exercise their right to appeal a decision of the Commission, payment will be due thirty (30) days after a final decision.

14. All penalties shall be paid by check made payable to the State of Missouri (Iron County Treasurer), and delivered to the Collections Specialist, Attorney General of Missouri, P.O. Box 899, Jefferson City, Missouri 65102-0899.

15. Upon the request of BRRF or Doe Run, MDNR may in its unreviewable discretion impose a lesser penalty or no penalty at all for violations subject to stipulated penalties. Stipulated penalties are deemed waived if not assessed within two (2) years after MDNR is aware of a violation.

16. The penalties set forth herein shall not apply in the event of a force majeure, as defined in this section. For the purposes of this Consent Judgment, force majeure shall be defined as any event arising from causes beyond the control of defendants and of any entity controlled by defendants, which delays or interferes with the performance of any obligation under this Consent Judgment notwithstanding defendants' best efforts to avoid such an event and fulfill the obligation. The requirement that defendants exercise "best efforts to avoid such an event" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any force majeure event (1) as it is occurring, and (2) following the force majeure event such that the adverse effect or

delay is minimized to the greatest extent practicable. Examples of events that are not force majeure events include, but are not limited to, increased costs or expenses of any work to be performed under this Consent Judgment, changed financial circumstances, or other financial or budgetary issues. Failure to apply for a required permit or approval, or to provide in a timely manner all information required to obtain a permit or approval necessary to meet the requirements of this Consent Judgment, are not force majeure events.

17. If any event occurs that is likely to delay or interfere with the performance of an obligation under this Consent Judgment, whether or not caused by a force majeure event, defendant shall notify MDNR by telephone within five (5) business days of defendant becoming knowledgeable of such event. Within ten (10) business days thereafter, defendant shall provide in writing to the State an explanation and description of the reasons for the delay, the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize its effects; a schedule for implementation of any measures to be taken to mitigate the event; and a statement as to whether, in the opinion of defendant, such an event may cause or contribute to the endangerment of public health, public welfare, or the environment. Defendants shall include with any notice all available documentation supporting the claims that the delay was attributable to a force majeure. Failure to comply with these requirements shall preclude defendant from asserting any claim of force majeure.

18. If the State agrees that the delay or anticipated delay is attributable to a force majeure event, then the State may agree to extend the time for performance of any obligation(s) under this Consent Judgment that is affected by the force majeure event for the time necessary to complete the obligation(s). The State will notify defendants in writing of the length of the extension, if granted, for performance of the obligation(s) affected by the force majeure event. An extension of the time for

performance of the obligation(s) affected by the force majeure event shall not, by itself, extend the time for performance of any other obligations.

19. If the State does not agree that a force majeure event has occurred, or does not agree on the length of any time extension sought by defendant, the issue shall be subject to the dispute resolution procedures set forth in Section VII. In any such proceeding, to qualify for force majeure defense, defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or noncompliance has been or will be caused by a force majeure event, that its duration was or will be warranted under the circumstances, that defendant exercised or is exercising due diligence by using its best efforts to avoid and mitigate its effects, and that defendant complied with the requirements of paragraph 15-16 above. Should defendant carry the burden set forth in this section, the delay or noncompliance at issue shall be deemed not to be a violation of the affected obligation of this Consent Judgment.

VII. Dispute Resolution

20. Any dispute that arises with respect to the meaning, application or implementation for any provision of this Consent Judgment may be subject to dispute resolution as provided herein, unless the Consent Judgment provision provides that dispute resolution is not available. Any dispute that arises with respect to the meaning, application or implementation of this Consent Judgment shall in the first instance be the subject of informal negotiations between defendants and MDNR. Notice of a dispute shall be given by the party alleging the dispute, shall be addressed in writing to the MDNR Director, and copied to the opposing party. Such notice shall state the specific grounds for the dispute, including any supporting documentation and the relief requested.

21. The MDNR and defendants shall have thirty (30) days from the receipt of the notice of the dispute to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing and

this Consent Judgment modified, if appropriate. If the parties to the dispute are unable to reach agreement within the thirty-day period and this period is not extended in writing by mutual agreement of the parties, the matter will be submitted to the Commission. The opposing party may file suggestions in opposition and include any documentation relevant to deciding the dispute. Said suggestions and documentation shall be submitted within fourteen (14) days of submission of the matter to the Commission. The Commission may hear evidence if needed to reach a decision. The Commission will issue a written decision following its review of the record submitted by the parties.

22. The parties will then be entitled to judicial review pursuant to Chapter 536, Revised Statutes of Missouri. The filing of a notice of dispute shall not automatically suspend, extend, postpone, or affect any parties' obligations under this Consent Judgment with respect to the disputed issue unless expressly provided herein or unless the parties agree to the extension, postponement or affect. This provision shall not be construed to prevent either party from requesting a stay of the party's obligations under this Consent Judgment.

VIII. Exceptional Events

23. Doe Run or BRRF may provide a demonstration to MDNR that a monitored exceedance at an ambient air monitor was the result of an "exceptional event" as the term is defined at 40 C.F.R. 50.1(j). If MDNR agrees that the demonstration supports the characterization of the monitored data as the result of an "exceptional event" as set forth in 40 C.F.R. 50.14, MDNR may flag the monitored data to be used as informational purposes only and may submit a demonstration to the Environmental Protection Agency. Nothing in this paragraph would preclude MDNR from tagging data that was due to an exceptional event and submitting a demonstration to EPA on its own accord or at the request of another party. Any data that is tagged by MDNR to be used for informational purposes cannot be used

as a basis to trigger contingency projects. This provision is not subject to Section VII "Dispute Resolution."

IX. Reservation

24. Nothing in this agreement shall be construed as a waiver of any obligation of defendants or as a permit to defendants under any other environmental laws applicable to defendants.

X. Modifications

25. This Consent Judgment may be modified or amended only by written agreement between the parties, which shall be filed with this Court.

XI. Termination

26. This Consent Judgment and the obligations herein shall terminate upon the payment of any stipulated penalties due and redesignation by the Environmental Protection Agency of the Buick/Viburnum Trend Lead Nonattainment Area as an attainment area for the 2008 Lead NAAQS. If the SIP revision is not approved by the EPA, the parties may terminate this Consent Judgment by written agreement.

27. In the event BRRF or Doe Run ceases operation of lead emission units subject to this Consent Judgment, Doe Run or BRRF shall notify MDNR and will be relieved of the injunctive relief or other required practices that were for the purpose of reducing lead emissions from the subject unit.

XII. Effective Date

28. This Consent Judgment is effective upon entry by the Court.

XIII. Notices

29. Unless otherwise specified herein, whenever notifications, submissions, or communications are made pursuant to the Consent Judgment they shall be made in writing and addressed as follows:

To the Missouri Department of Natural Resources:

Planning Section Chief
Air Pollution Control Program
Missouri Department of Natural Resources
1659 East Elm Street
Jefferson City, Missouri 65101

To The Doe Run Resources Corporation

Environmental Manager
The Doe Run Company
SEMO Mining Milling Division
P.O. Box 500
Viburnum, Missouri 65566

With a copy to:

Vice President of Environmental Health & Safety
The Doe Run Company
1801 Park 270 Drive, Suite 300
St. Louis, Missouri 63146

To Buick Resource Recycling Facility, LLC:

Environmental & Health Manager
The Doe Run Company
Buick Resource Recycling Facility
18594 Highway KK
Boss, Missouri 65440

With a copy to:

Vice President of Environmental Health & Safety
The Doe Run Company
1801 Park 270 Drive, Suite 300
St. Louis, Missouri 63146

SIGNATURES

BUICK RESOURCE RECYCLING FACILITY, LLC

BY: _____

DATE: April 1, 2013

Steve Arnold, Plant Manager

THE DOE RUN RESOURCES CORPORATION

BY: _____

DATE: 4-8-13

Aaron Miller, Chief Operating Officer

MISSOURI DEPARTMENT OF NATURAL RESOURCES

BY: _____

DATE: _____

Leanne Tippett Mosby, Director

Division of Environmental Quality

MISSOURI AIR CONSERVATION COMMISSION

BY: _____

DATE: _____

David Zimmerman, Chairperson

SIGNATURES

BUICK RESOURCE RECYCLING FACILITY, LLC

BY: _____

DATE: _____

Steve Arnold, Plant Manager

THE DOE RUN RESOURCES CORPORATION

BY: _____

DATE: _____

Aaron Miller, Chief Operating Officer

MISSOURI DEPARTMENT OF NATURAL RESOURCES

BY: Leanne Tippett Mosby

DATE: 3/28/13

Leanne Tippett Mosby, Director

Division of Environmental Quality

MISSOURI AIR CONSERVATION COMMISSION

BY: Jack C. Baker

DATE: Mar 28 2013

Jack C. Baker, Chairman

ATTORNEY GENERAL OF MISSOURI

Chris Koster, Attorney General

BY: _____ for Kara Valentine

DATE: 3/25/2013

Kara Valentine, Assistant Attorney General

Jay Nixon, Governor
Sara Parker Pauley, Director

A.. Pollution Control Program

Click to receive updates on this issue.

State Plan Actions

On Public Notice | Proposed for Adoption

On Public Notice

Missouri State Implementation Plan Revision - Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 2008 8-Hour Ground-Level Ozone National Ambient Air Quality Standard

Pursuant to Section 176(c) of the Clean Air Act, this Early Progress Plan establishes transportation conformity motor vehicle emission budgets for Missouri's portion of the St. Louis nonattainment area under the 2008 8-hour Ozone National Ambient Air Quality Standard, or NAAQS. The St. Louis nonattainment area was designated as a marginal nonattainment area for the 2008 8-hour Ozone NAAQS on May 21, 2012. The new motor vehicle budgets are based on a demonstration that emissions are st lily decreasing in the St. Louis area. Although the St. Louis nonattainment area has approved motor vehicle emissions budgets that have been used to demonstrate conformity under the 1997 8-hour Ozone NAAQS, new budgets are needed due to EPA's recent transition from an older on-road mobile source model, or Mobile 6, to the current on-road mobile model, or MOVES.

Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area
Appendices A through D

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Missouri State Implementation Plan Revision - Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Buick/Viburnum Trend Lead Nonattainment Area

This plan was developed to bring the Buick/Viburnum Trend area into attainment of the 2008 Lead National Ambient Air Quality Standard, or NAAQS, pursuant to Section 172(c) of the federal Clean Air Act. On Nov. 22, 2010, the EPA designated the Buick/Viburnum Trend as nonattainment for the 2008 Lead NAAQS based on air quality data from 2007-2009. This area encompasses portions of Iron, Reynolds and Dent counties and contains a secondary lead smelter, two lead mine/mill operations, and a fourth facility that crushes mineral ore. This plan includes an emissions inventory, control measures, contingency measures and a technical demonstration that the proposed emission controls will result in the attainment of the 2008 Lead NAAQS for the area.

Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Buick/Viburnum Trend Lead Nonattainment Area
Appendices A through M

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Missouri State Implementation Plan Revision - Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Herculaneum Lead Nonattainment Area

This plan was developed to bring Herculaneum, MO into attainment of the 2008 Lead National Ambient Air Quality Standard, or NAAQS, pursuant to Section 172(c) of the federal Clean Air Act. On Nov. 22, 2010, EPA designated the city limits of Herculaneum as nonattainment for the 2008 Lead NAAQS based on air quality data from 2007-2009. Herculaneum contains the nation's only primary lead smelter, which shall be shutting down its smelting (blast furnace and sinter plant) operations on or before April 30, 2014. This plan includes an emissions inventory, control measures, contingency measures and a technical demonstration that the proposed emission controls will result in the attainment of the 2008 Lead NAAQS for the area.

Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard - Herculaneum Lead Nonattainment Area
Appendices A through O

Submit Comments Now

Comments about this plan action will be accepted through close of business Feb. 13, 2013.

Back to top

Proposed for Adoption

Clean Air Act Section 111(d)/129 State Plan Revision — Section 111(d)/129 State Plan for Implementation of the Sewage Sludge Incinerator Emission Guidelines for Missouri

This plan was developed to demonstrate that the state of Missouri has the legal authority and enforceable mechanism in place to implement and enforce the Emission Guidelines and Compliance Times as set forth by the EPA in 40 CFR 60, Subpart MMMM for existing Sewage Sludge Incinerators. The plan references legal authority established in chapter 536 of the Revised Statutes of Missouri (RSMo) and the enforceable mechanism provided by the proposed new state rule, 10 CSR 10-6.191 Sewage Sludge Incinerators. This plan provides source and emission inventories of affected existing sewage sludge incinerators in the state. It also establishes emission limits, operating requirements and compliance times that are consistent with the federal emission guidelines as promulgated.

Clean Air Act Section 111(d)/129 State Plan Revision
Appendix A
Appendices B through F

Comments about this plan action were accepted through close of business Dec. 13, 2012. This plan is scheduled for adoption at the Feb. 5, 2013, Missouri Air Conservation Committee meeting.

Bechtel, Cheri

From: Missouri DNR <MODNR@public.govdelivery.com>
Sent: Friday, January 04, 2013 11:15 AM
To: Bechtel, Cheri
Subject: Courtesy Copy: Missouri DNR Air Public Notices Update

This is a courtesy copy of an email bulletin sent by Cheri Bechtel.

This bulletin was sent to the following groups of people:

Subscribers of Air Public Notices (413 recipients)

Missouri Department of
Natural Resources

Having trouble viewing this email? View it as a Web page.

SHARE

MISSOURI AIR CONSERVATION COMMISSION
WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO -- The Missouri Air Conservation Commission will hold a public hearing on Tuesday, February 5, 2013 beginning at 9 a.m. at the Elm Street Conference Center, 1730 East Elm Street, Lower Level, Bennett Springs Conference Room, Jefferson City, Missouri. The commission will hear testimony related to the following proposed action(s):

* 10 CSR 10-1.010 (amendment) General Organization

  The above rule action will not be submitted for inclusion in the Missouri State Implementation Plan because it has no bearing on attainment or maintenance of National Ambient Air Quality Standards and does not revise provisions in any approved state plan.

* 10 CSR 10-2.330 (amendment) Control of Gasoline Reid Vapor Pressure

* Missouri State Implementation Plan Revision – Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard – Buick/Viburnum Trend Lead Nonattainment Area

* Missouri State Implementation Plan Revision – Attainment Demonstration for the 2008 Lead National Ambient Air Quality Standard – Herculaneum Lead Nonattainment Area

* Missouri State Implementation Plan Revision – Early Progress Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 2008 8-Hour Ground-Level Ozone National Ambient Air Quality Standard

If the Commission adopts the action(s), it will be the Department's intention to submit the action(s) to the U.S. Environmental Protection Agency to be included in Missouri's State Implementation Plan unless otherwise noted above.

Documents for the above item(s) will be available for review at the Missouri Department of Natural Resources, Air Pollution Control Program, 1659 Elm Street, Jefferson City, (573) 751-4817 and in the Public Notices section of the program web site http://dnr.mo.gov/env/apcp/public-notices.htm. This information will be available at least 30 days prior to the public hearing date.

The Department will accept written or email comments for the record until 5 p.m. on February 13, 2013. Please send written comments to Chief, Air Quality Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176. Email comments may be submitted via the program web site noted above. All written and email comments and public hearing testimony will be equally considered.

Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 526-3420. The Department requests persons intending to give verbal presentations also provide a written copy of their testimony to the commission secretary at the time of the public hearing.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the Program directly at (573) 751-4817, the Division of Environmental Quality's toll free number at (800) 361-4827, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

You are subscribed to the Air Public Notices topic for Missouri DNR. This information has recently been updated, and is now available at the link below. Thank you for your interest in the Air Public Notices.

http://dnr.mo.gov/env/apcp/rulemaking.htm

Update your subscriptions, modify your password or email address, or stop subscriptions at any time on your Subscriber Preferences Page. You will need to use your email address to log in. If you have questions or problems with the subscription service, please contact support@govdelivery.com.

This service is provided to you at no charge by Missouri DNR.

DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION

10 CSR 10-1.010 General Organization
10 CSR 10-2.330 Control of Gasoline Reid Vapor Pressure
Missouri State Implementation Plan Revisions
Missouri State Implementation Plan Revision - Early Progress Plan

Public Hearing
1730 East Elm Street
Jefferson City, Missouri
February 5, 2013
9 a.m.

Before:
Ron Boyer, Chairman
Mark S. Garnett (by phone)
Jack Baker
Gary Pendergrass

Reported by:
Melissa Bennett
Midwest Litigation Services
3432 West Truman Boulevard, Suite 207
Jefferson City, MO 65109
(573)636-7551

~~point.~~

~~COMMISSIONER GARNETT: Thank you. Thank you very much. Take care, everybody.~~

~~CHAIRMAN BOYER: Have safe travels.~~

~~COMMISSIONER GARNETT: Thank you.~~

~~CHAIRMAN BOYER: If the reporter wants to indicate that Mark Garnett has left the Commission at this point. Our legal counsel has advised us the remaining portion of the public hearing does not require a quorum. That's why we could do that. Okay. Bern Johnson, is that who's next?~~

MS. MOORE: Bern, Bob, and Joe will be doing this together.

(Bern Johnson, Bob Randolph, and Joe Winkelmann were sworn.)

CHAIRMAN BOYER: We can escape the hurry-up mode now, and you know, carry on like an ordinary Commission meeting.

MR. JOHNSON: Chairman, Members of the Commission, my name is Bern Johnson. I am employed by the Air Pollution Control Program located at 1659 Elm Street, Jefferson City, Missouri. I am here today to present testimony for the proposed revision to the State Implementation Plan regarding the attainment demonstrations under the 2008 National Ambient Air

Quality Standard for lead. The purpose of these revisions is to satisfy the federal Clean Air Act Section 172(c) requirements for the state's two nonattainment areas designated under the lead air quality standard that was revised by the U.S. Environmental Protection Agency in 2008. These two areas are the Buick/Viburnum Trend and the city of Herculaneum. I will present an overview of the two nonattainment areas as well as the applicable Clean Air Act requirements. Mr. Randolph will then present the proposed plan for the Buick nonattainment area followed by Mr. Winkelmann's presentation of the proposed plan for the Herculaneum nonattainment area.

On October 15, 2008, the United States Environmental Protection Agency revised the National Ambient Air Quality Standard for lead. The previous standard was established in 1978 at 1.5 micrograms of lead per cubic meter of air based on quarterly averaging. The new standard was strengthened by an order of magnitude to 0.15 micrograms per cubic meter. In addition, the time averaging basis was modified to three-months rolling.

Historically, Missouri has always had an extensive role in the mining and smelting of lead. The Department has therefore deployed and maintained

emission limits, including effective stack testing provisions; required practices and procedures, including continuous meteorological and air quality monitoring provisions; contingency measures; penalty provisions; and a dispute resolution section.

This concludes my testimony.

MR. RANDOLPH: Mr. Chairman, Members of the Commission, my name is Bob Randolph. I am employed with the planning section of the Air Pollution Control Program located at 1659 East Elm Street, Jefferson City, Missouri. I'm here today to present testimony for the proposed plan to address the federal Clean Air Act, Section 172(c) requirements for the Buick/Viburnum Trend Lead Nonattainment Area. Excerpts from the plan revision start on page 127 of your briefing document.

This plan includes an emissions inventory, control measures, contingency measures, and an air dispersion modeling demonstration that the proposed control strategy will result in the attainment of the 2008 Lead National Ambient Air Quality Standard for the area.

At the recycling facility, lead-bearing items such as automotive and industrial batteries are loaded into a shredder and battery acid is drained for

Missouri
Department of
Natural Resources

COMMENTS AND RESPONSES
AND
RECOMMENDATION FOR ADOPTION

PROPOSED REVISION TO
THE MISSOURI STATE IMPLEMENTATION PLAN —
ATTAINMENT DEMONSTRATION FOR THE
2008 LEAD NATIONAL AMBIENT AIR QUALITY STANDARD —
BUICK/VIBURNUM TREND LEAD NONATTAINMENT AREA

On February 5, 2013, the Missouri Air Conservation Commission held a public hearing concerning the proposed revision to the State Implementation Plan (SIP) for the Buick/Viburnum Trend Lead Nonattainment area. This plan was developed to bring this nonattainment area into attainment of the 2008 Lead National Ambient Air Quality Standard (NAAQS) pursuant to Section 172(c) of the federal Clean Air Act. On November 22, 2010, the EPA designated the boundaries of the Buick/Viburnum Trend area as nonattainment for the 2008 Lead NAAQS based on air quality data from 2007-2009. The lead nonattainment area includes four lead emitting sources. Specifically, these sources are the Buick Resource Recycling Facility (BRRF) which is a secondary lead smelter, The Doe Run Resources Corporation (Doe Run) Buick Mine and Mill, the Doe Run Casteel Mine, and K & D Crushing, which is located at the surface of the Casteel Mine. This plan includes an emissions inventory, control measures, contingency measures and a technical demonstration that the proposed emission controls will result in the attainment of the 2008 Lead NAAQS for the area. Fourteen (14) combined comments were received concerning this proposed plan during the public comment period. Revisions were made to the plan as a result of these public comments.

The complete document has not been reprinted in the briefing document due to its volume. The entire document is available for review at the Missouri Department of Natural Resources', Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri 65101, (573) 751-4817. The plan and its appendices are also available for viewing at http://www.dnr.mo.gov/env/apcp/stateplanrevisions.htm

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the plan action as amended. If the commission adopts this plan action, it will be the department's intention to submit this plan to the U.S. Environmental Protection Agency (EPA) for inclusion in the Missouri State Implementation Plan.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program (Air Program) received fourteen (14) comments from three (3) sources: EPA and combined comments on behalf of The Doe Run Resources Corporation (Doe Run) and Buick Resource Recycling Facility (BRRF) LLC.

COMMENT #1: EPA commented that in Section 4.1.D, Base Year Selection, modeling was conducted using meteorological data from August 1, 2009, to July 31, 2010. 40 CFR Part 51,

Appendix W requires the use of a minimum of one year for on-site meteorological data. Section 8.3.1.2 of Appendix W states that if one year or more (including partial years), up to five years, of site specific data is available; this data is preferred for use in air quality analyses. EPA acknowledged that data limitation issues played a role in the time period selected and requested additional information supporting the decision to utilize the specific time period chosen.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program appreciates EPA's cooperation in the development of this plan document. There were a number of limiting factors that reduced the potential data sets that could be considered after gathering and verifying model input data. The time period selected must have complete meteorological, emissions data, and monitoring data of sufficient quality that is representative of the base case (pre-control) evaluation period. Because the base case process configuration changed with process and emission control construction activities at BRRF beginning in November 2010, this marked the end of base case operations. Therefore, appropriate modeling datasets had to represent a period before November 2010.

A review of the available on-site meteorological data showed that the most significant limiting factor was meteorological data. Some meteorological data was available beginning in January 2008, but there were a variety of factors that further limited the use of all of this on-site data. For example, for a number of months, there were a number of operational issues (during the initial operation of the data collection equipment) that prevented collection of quality meteorological data. There were other documented instances where data was not recorded, sometimes no data at all for a number of days, due to interruptions initiated by storms, or various equipment malfunctions at BRRF, or other issues. Out of the remaining meteorological data set from January 2009 through October 2010, there were a limited number of months satisfying the minimum 90% data completeness requirements. For example, the recording instruments were damaged in a storm resulting in the loss of all on-site meteorological data from June 9, 2009 through July 13, 2009. Based on a quality review of the remaining available on-site meteorological data, the continuous data set that best represented the on-site locational specificity and satisfied completeness criteria was August 2009 through July 2010. Additionally, both monitoring data and hourly emissions data (for BRRF and the Buick Mine and Mill) were available for this same selected period. The selected base year period meets 40 CFR 51, Appendix W requirements to use a minimum of one year for on-site meteorological data.

As a result of EPA's comment, new language has been added to the plan to provide further discussion supporting the decision to use meteorological data for the selected one year period from August 1, 2009, to July 31, 2010.

COMMENT #2: EPA commented the information presented in Figure 5, Predicted Maximum Three-Month Rolling Average, of the plan is informative but also suggested an additional figure be provided to depict the predicted maximum three-month rolling average for lead in relation to the Buick/Viburnum Trend fencelines. EPA commented the additional figure should more clearly depict, perhaps through magnification of detail, that the predicted maximum three-month rolling average model results clearly indicate attainment of the 2008 Lead NAAQS along the fencelines.
RESPONSE AND EXPLANATION OF CHANGE: As a result of EPA's comment, two new figures have been added to complement the information in the Attainment Demonstration Figure 5 [one figure for BRRF and one figure for the Buick Mine/Mill]. The new higher resolution figures clearly show attaining receptors along the fencelines for both operations.

COMMENT #3: EPA commented that the plan should include the rationale and/or documentation that definitively demonstrates the areas depicted as "too steep to fence." EPA maintains this additional information is needed to fully support the assertion that such areas are indeed unnavigable and that public access is indeed sufficiently precluded in order to ensure that the public is not exposed to an area that is predicted to be in violation of the 2008 Lead NAAQS.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program reviewed the plan and supporting documentation and determined that additional discussion is appropriate to document the unnavigable status of any areas depicted as "too steep to fence" such as areas around the Buick Mill and Buick Mine vents. In addition, during this review it was established that fencing is possible surrounding two areas previously deemed "too steep to fence" – Buick Mine shaft vents 1 and 3. The revised SIP document now includes only one area designated and documented as "too steep to fence" as depicted in the Buick Mill figure in Appendix I. Additional language documenting the unnavigable status of this area has been added to the SIP document. For example, public access to the Buick Mill facility is precluded utilizing a combination of fenceline, a tailings impoundment that is not traversable by foot or vehicle, a mine water lake, and a twenty-four hour guard at the facility.

The fencelines surrounding Buick Mine shaft vents 1 and 3 have been expanded to require installation of fences such that the steepest terrain is now fenced. This is accomplished by expanding the required fenceline coordinates to allow contiguous fencelines that traverse less steep terrain while including the steepest terrain surrounding these mine shaft vents. The expansion of the required fencelines is now documented by the figures in Appendix I and by including a tabular listing of the minimum fenceline coordinates as part of Appendix I, in addition to inclusion of fenceline coordinates as part of the model run script. In summary, as a result of EPA's comment, the plan has been revised to include a discussion of the rationale used to verify that an area at the Buick Mill is unnavigable and documentation of expanded fencelines around the Buick Mine shaft vents 1 and 3.

COMMENT #4: EPA commented that Figure I-7 of Appendix I should be revised to include the (complete) fenceline to preclude public access to areas that exceed the 2008 Lead NAAQS.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program reviewed all of the Figures in Appendix I and determined Figure I-7 is incomplete by including only the existing fenceline along the northwest quadrant of the Buick Mill operation and an area on the South designated as "too steep to fence." As a result of EPA's comment, Figure I-7 of Appendix I has been revised to also include the proposed new fenceline, in addition to indicating the existing fenceline, both of which preclude public access.

COMMENT #5: EPA commented that the language in the 2013 Consent Judgment [see Appendix M of the plan] should be modified by clarifying that any future requests from BRRF to change the fencelines presented in Appendix I will only be permitted if the future proposed fencelines are larger than presented in Appendix I. The 2013 Consent Judgment language should be modified to clarify that any future requests to make fencelines smaller than the minimum referenced distance from the facility as modeled for the plan would require a modeling demonstration, a Consent Judgment modification and a SIP revision including public notice and comment.
RESPONSE AND EXPLANATION OF CHANGE: The SIP document requires Doe Run to notify the Air Program of all fenceline modifications. Any changes to the control strategy contained in the SIP document or any modifications to make the fenceline smaller will require a new corresponding SIP revision with appropriate air dispersion modeling. As a result of this

comment, all parties have agreed to remove the last sentence of paragraph 8.D. of the proposed Consent Judgment to avoid confusion because it could be interpreted to mean that only impact modeling, and not a full SIP revision, would be required in the event of a fenceline change below the minimum established levels. Any changes to the Consent Judgment have been reviewed and agreed to by the parties involved including the Missouri Attorney General's Office.

COMMENT #6: EPA commented that much of the language in paragraphs 8.D. and 8.E. of the 2013 Consent Judgment is duplicative and recommended deletion of the duplicative language.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, paragraph 8.E. has been deleted to eliminate duplicity.

COMMENT #7: Doe Run and BRRF commented they appreciate the cooperation and professionalism of the Air Program's Air Quality Planning Section staff throughout this lengthy and complex process. Doe Run and BRRF support the final approval of this plan by the Missouri Air Conservation Commission and assert that this SIP revision meets all applicable federal Clean Air Act requirements through enforceable control measures that demonstrate, through modeling, attainment of the 2008 Lead NAAQS.
RESPONSE: The Air Program also appreciates the support and cooperation of both Doe Run and BRRF in the development of this plan. No change was made to the SIP document as a result of this comment.

COMMENT #8: Doe Run and BRRF commented the Executive Summary and other parts of the SIP include a description of the relationship between the Doe Run Company and BRRF that they believe is not necessary for the SIP document. Similarly, Doe Run and BRRF suggested the removal of the corporate history in sections 1.1.B and 1.1.F as unnecessary to the SIP document. Doe Run also noted references to the Doe Run Company should reflect the name of the company as The Doe Run Resources Corporation d/b/a The Doe Run Company.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program maintains the description of the relationship between The Doe Run Resources Corporation d/b/a The Doe Run Company and BRRF is indeed necessary and should remain in the SIP document to clarify these operations are part of the same parent corporation. Similarly, corporate history information explains the progression of changes up to and including the present situation. During the development of the Attainment Demonstration, it was noted several times that BRRF and mining and milling operations were separate and wholly-owned subsidiaries of The Doe Run Resources Corporation. To further emphasize this separation, the signatories for the 2013 Consent Judgment include a representative for both. As a result of this comment and in an effort to further clarify as suggested, the first mention of the Doe Run Resources Corporation was changed to include the "d/b/a" detail and subsequent mentions will thereafter be referred to as Doe Run, specifically with respect to the Casteel Mine as well as the Buick Mine and Mill.

COMMENT #9: Doe Run and BRRF provided suggested revisions throughout the SIP document to clarify various details such as actual 2012 production information for BRRF and the Doe Run Buick Mine/Mill, update the process description and process flow diagrams to reflect current operations at BRRF, and ensure consistency with requirements per the 2013 Consent Judgment and other obligations. Other suggested clarifications address the status and obligations related to the 2011 multimedia Consent Decree, as well as descriptive source information for stationary sources located within the nonattainment area.

RESPONSE AND EXPLANATION OF CHANGE: As a result of these comments and a review of the entire Attainment Demonstration, changes were made throughout the document to provide clarification where appropriate.

COMMENT #10: In section 1.1.D, Doe Run and BRRF suggested the removal of statements regarding the ownership of land in the nonattainment area as well as removal of language discussing preclusion of public access since this information is provided in the Appendices.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, statements regarding land ownership were removed as suggested. However, as noted above in response to Comments #3 and #4 from EPA, additional language was added to the SIP document to provide more discussion regarding the area designated as "too steep to fence".

COMMENT #11: In section 2.1, Doe Run and BRRF suggested the removal of the discussion explaining the reasons for relocating a monitor to the Buick Northeast air monitoring site. Additional language was suggested for removal regarding the proximity of the Buick North and South monitors in relation to the BRRF fenceline because "close" is not defined. Doe Run and BRRF commented that this information does not seem necessary for the SIP.
RESPONSE AND EXPLANATION OF CHANGE: The Bixby West monitor is the monitor that was relocated to the current Buick Northeast monitor location. The Bixby West and Buick Northeast monitors were not existent at the time of the promulgation of the 2008 Lead NAAQS and resultant designation determinations. Once the Buick North and South monitors could no longer be used for sampling of ambient air, data from the Bixby West monitor became of critical importance to the determination of NAAQS compliance for the area. The SIP language about the relocation of this monitor is nearly identical to language presented in the state's air quality monitoring network plan, which is made public via the program's and EPA's websites. Since the Buick Northeast monitor has replaced the Bixby West monitor as the most significant location for NAAQS compliance monitoring, the history of the site is relevant to the plan. For these reasons, the Bixby West monitor relocation discussion remains in the SIP document.

Further, the purpose of this SIP revision is to bring the nonattainment area into compliance with the 2008 Lead NAAQS. The plan uses modeling to demonstrate attainment but ultimately air quality monitoring data must be used to show attainment. To this end, an appropriately designed, stable air quality monitoring network is important to the SIP revision. The unique geographical nature of this nonattainment area creates monitor siting criteria obstacles related to terrain, electricity availability and neighboring forests. There are very few appropriate sites available for air quality monitoring, making a discussion of the existing monitoring site locations in the public interest and therefore, relevant to this plan. Locations of the Buick North and South monitors are relevant because the data from these monitors was of critical importance in the designation of the nonattainment area after the lead standard was revised in 2008. These monitors later became nonambient because they are currently inside the fenceline. As a result of this comment, the vague reference to "close to locations outside the fenceline" has been clarified and the discussion of the history and significance of these two monitors has been retained.

COMMENT #12: Doe Run and BRRF suggested the removal of language summarizing control measures in section 6.1 and another summary (of key controls) in section 7 since this information is set forth elsewhere and to minimize any confusion.
RESPONSE: The language suggested for removal in the first paragraph of section 6.1 and the second paragraph of section 7 is not intended to repeat or summarize; rather, this language

provides examples of the key types of controls required to demonstrate compliance with the 2008 Lead NAAQS. No change was made to the SIP document as a result of this comment.

COMMENT #13: Doe Run and BRRF suggested revisions to Section 8.1 *List of Contingency Measures* to eliminate potential misinterpretation as to the schedule and implementation of the contingency measures.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program intended section 8.1 of the proposed plan to merely list contingency measures and refers the reader to the Consent Judgment for the exact details of how and when the contingency measures are to be implemented. Nonetheless, in deference to the comment and for clarity, edits similar to those suggested by Doe Run have been made to section 8.1 of the SIP document to better reflect the timeframe and triggering scheme of each individual contingency measure.

COMMENT #14: Doe Run and BRRF commented that they have provided a mark-up or red-line version of the SIP and Consent Judgment with numerous typographical corrections and minor clarifications, as well edits to make the documents consistent with those of the 2013 Herculaneum Lead Attainment Demonstration SIP revision where appropriate.
RESPONSE AND EXPLANATION OF CHANGE: The Air Program appreciates the thorough review of the plan documents by both Doe Run and BRRF, and as a result of this comment, has made many of the suggested minor edits. Any changes to the Consent Judgment have been reviewed and agreed to by the parties involved including the Missouri Attorney General's Office.