



## Consequence Report

Set 2: 24hr NAM Forecast

24hr NAM Forecast - Actual Release

Issued: May 26, 2009 18:46 GMT

### SUMMARY:

This report describes the health effect consequences associated with a hypothetical fire release to the atmosphere from a generic source. This is an initial, automated NARAC product, not a final recommendation. Initial predictions are for a limited time period and areas affected may change at later times. Please consult NARAC staff (925-422-7627) for refined, quality assured predictions. Predictions should be confirmed and refined using measurements.

### PRODUCTS:

#### **1 Hr Avg Air Conc. at 05/26/2009 14:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 15:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 16:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 17:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 18:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 19:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 20:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 21:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

#### **1 Hr Avg Air Conc. at 05/26/2009 22:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/26/2009 23:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 00:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 01:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 02:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 03:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 04:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 05:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 06:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 07:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 08:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 09:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 10:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 11:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 12:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**1 Hr Avg Air Conc. at 05/27/2009 13:05:00 CDT**

Material: particulate

This product identifies relative magnitudes of air concentration from a release of a non-specific material. These levels should be confirmed by monitoring surveys.

**SOURCE INFORMATION:**

|                             |  |
|-----------------------------|--|
| Release Start Time:         | May 26, 2009 18:05 UTC                                       |
| Release Stop Time:          | May 27, 2009 18:05 UTC                                       |
| Release Location:           | (32.5825,-95.1989)   |
| Source Material and Amount: | 10 g of particulate  |
| Source Geometry:            | gaussian cloud top at 86 m                                   |
| Particle Size Distribution: | All particulate is in the respirable range from 1-10 microns |

**METEOROLOGY:**

No precipitation is included in this calculation

**CONTACT INFORMATION:**

Calculation requested on May 26, 2009 18:09 UTC by:

Eric Delgado, OSC EPA Region 6

Approved by: IMAAC Operations  
Approver organization: IMAAC  
Phone: 925-424-6465  
Email: imaac@lInl.gov  
Approved on: May 26, 2009 18:12 UTC

Classification: Not For Public Dissemination

**DISCLAIMER:**

NARAC Contact Information email: narac@lInl.gov or phone (925) 424-6465

## Not For Public Dissemination

These model predictions are intended to be guidance, and are not final recommendations. The accuracy of any prediction will be limited by the accuracy of the input data, such as estimates of the amount of material that becomes airborne and the available meteorological data for the area and time of the incident. Plume predictions may be for a limited time period, and may change at later times if new input data becomes available. Predictions should be confirmed and refined using field measurements. Air and ground concentration may be higher than predicted by this plume model simulation due the limited resolution of this particular simulation. For actual incidents or exercises, consult incident command and subject matter experts from the appropriate coordinating agency before making any decisions based on this model prediction.

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This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

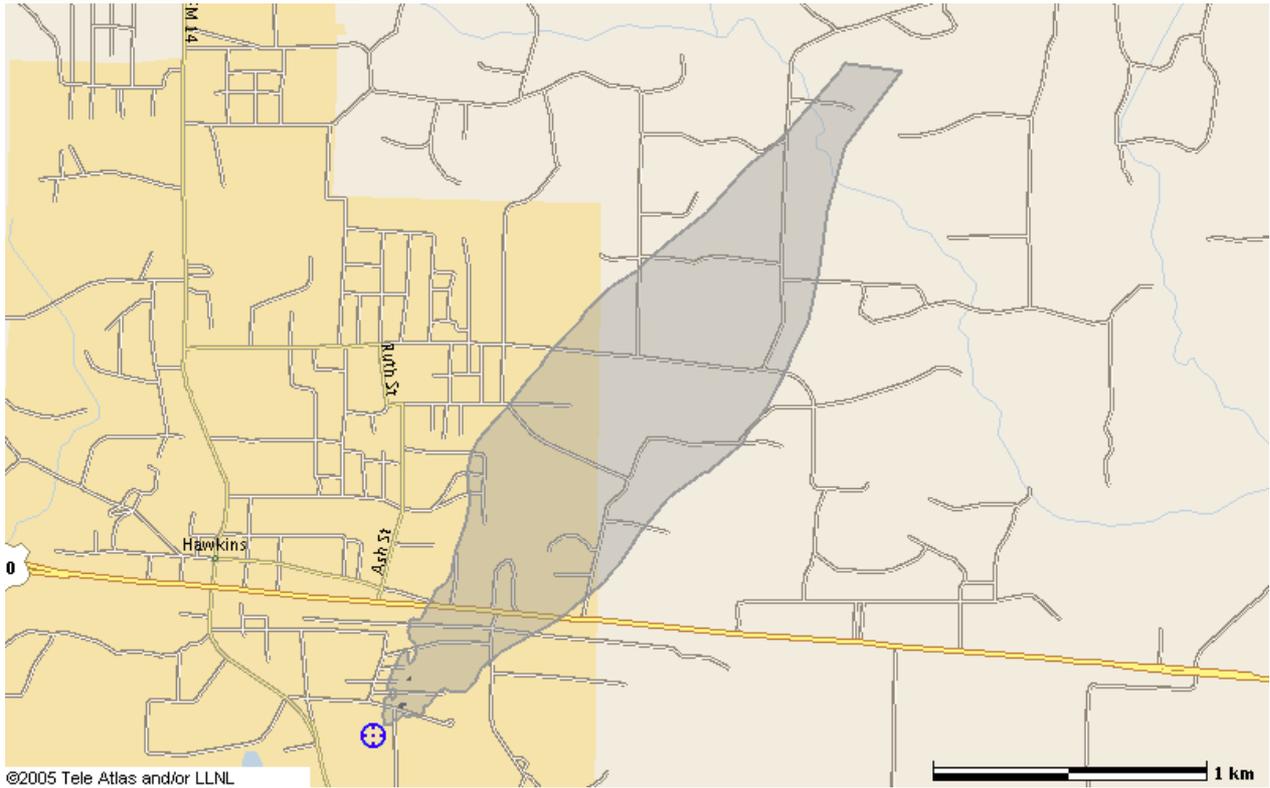
The Department of Homeland Security sponsored the production of this material under the Department of Energy contract for the management and operation of Lawrence Livermore National Laboratory.



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 14:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area       | Population |
|--|--|--------------|--------|------------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.3km  | 0.0004 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.1km  | 1.4 km2    | 40         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 18:05 UTC to May 26, 2009 19:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.6 km by 2.9 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

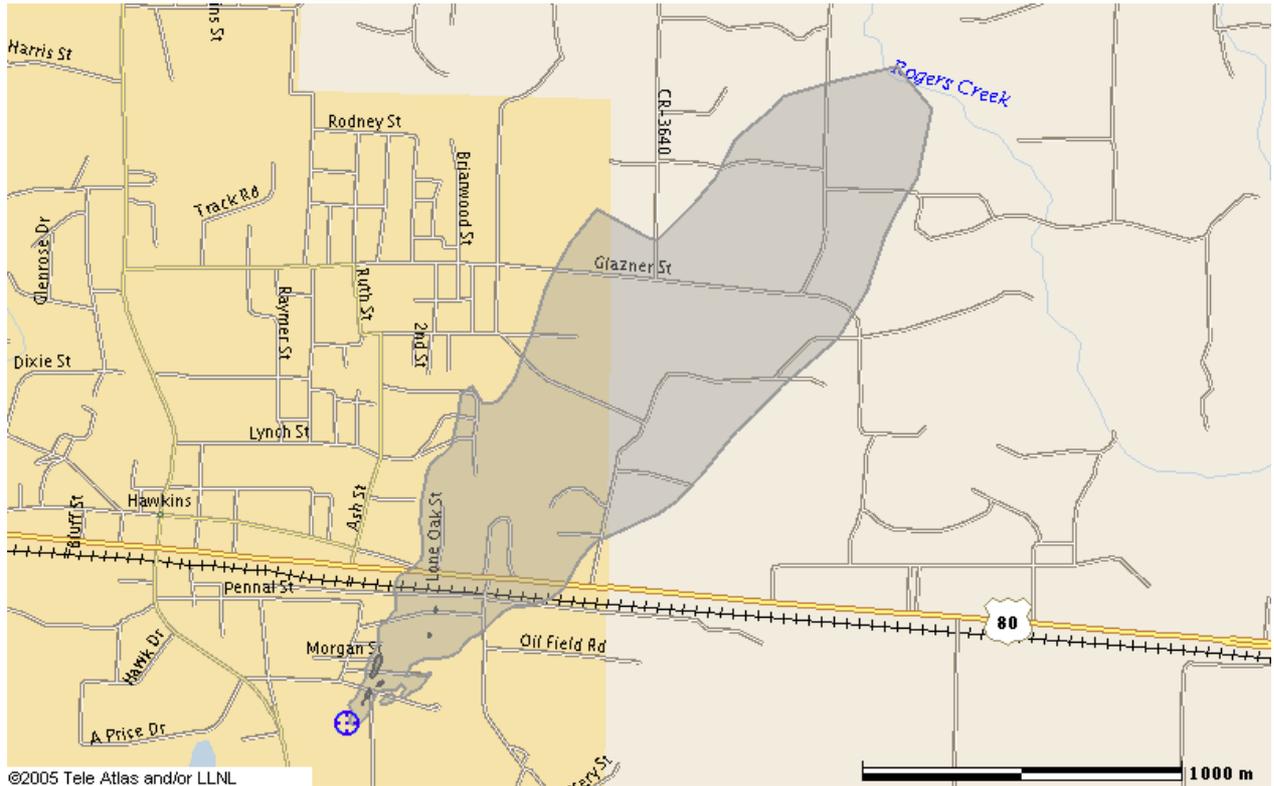
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 15:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |           |            |
|---------------------|--|--------------|--------|-----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area      | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.5km  | 0.003 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2.7km  | 1.4 km2   | 40         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 19:05 UTC to May 26, 2009 20:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.0 km by 2.5 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

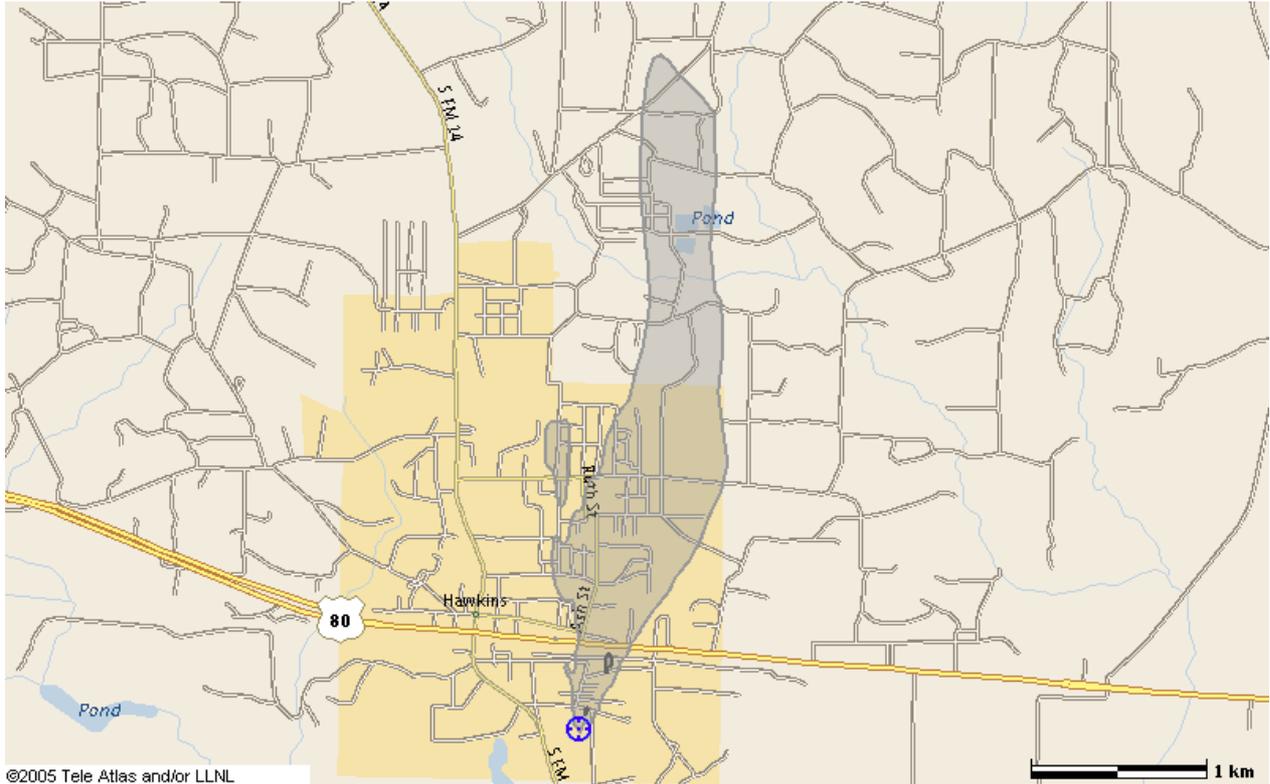
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



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1 Hr Avg Air Conc. at  
05/26/2009 16:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area      | Population |
|--|--|--------------|--------|-----------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.5km  | 0.003 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.9km  | 1.8 km2   | 160        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 20:05 UTC to May 26, 2009 21:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 7.2 km by 4.5 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

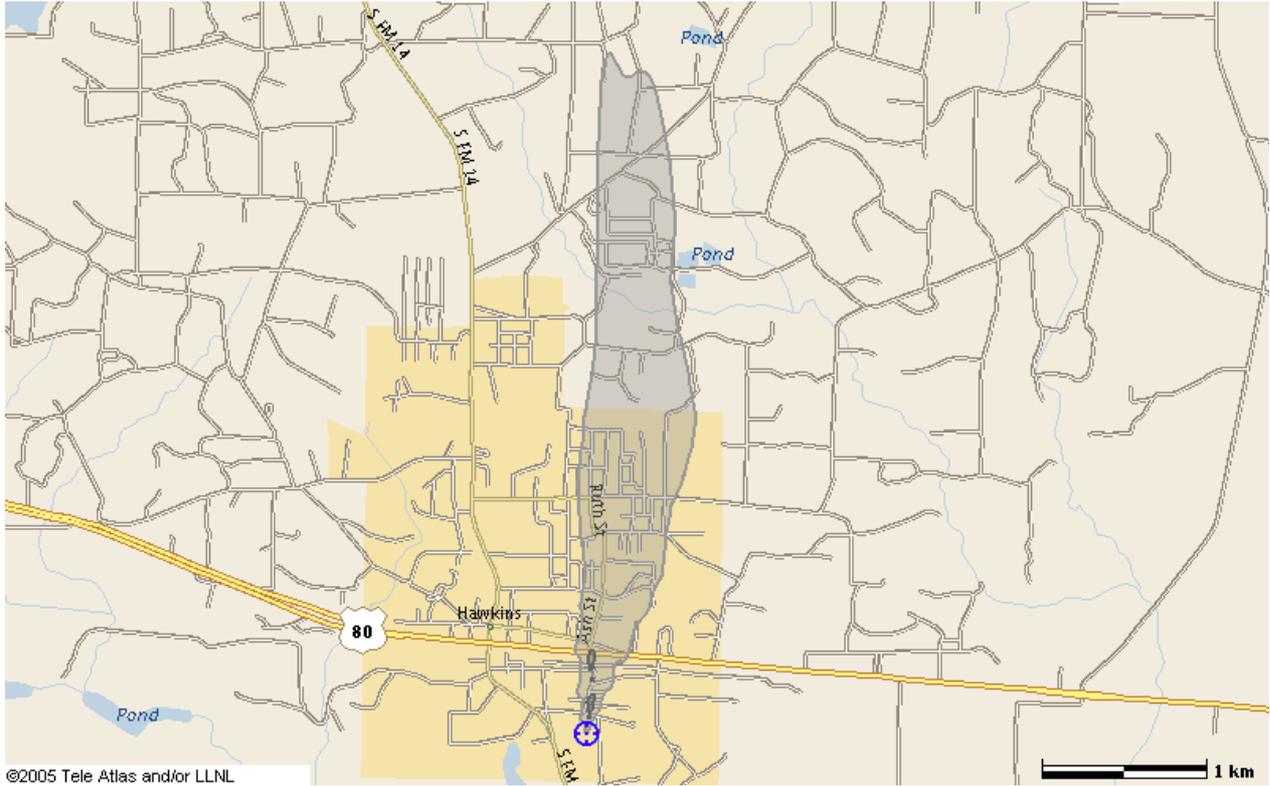
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 17:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area      | Population |
|--|--|--------------|--------|-----------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.5km  | 0.007 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 4.2km  | 1.9 km2   | 190        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 21:05 UTC to May 26, 2009 22:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 7.7 km by 4.8 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

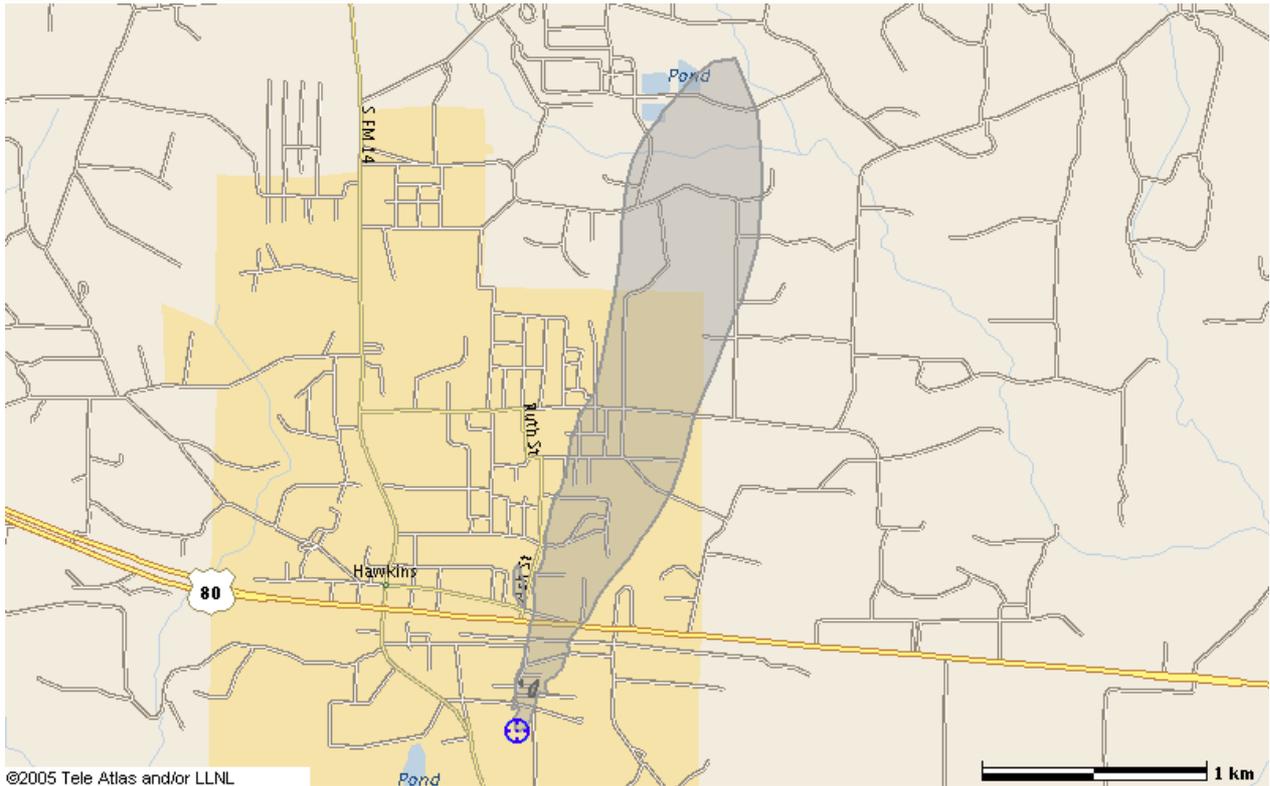
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 18:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area      | Population |
|--|--|--------------|--------|-----------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.002 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.2km  | 1.3 km2   | 90         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 22:05 UTC to May 26, 2009 23:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 5.6 km by 3.5 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

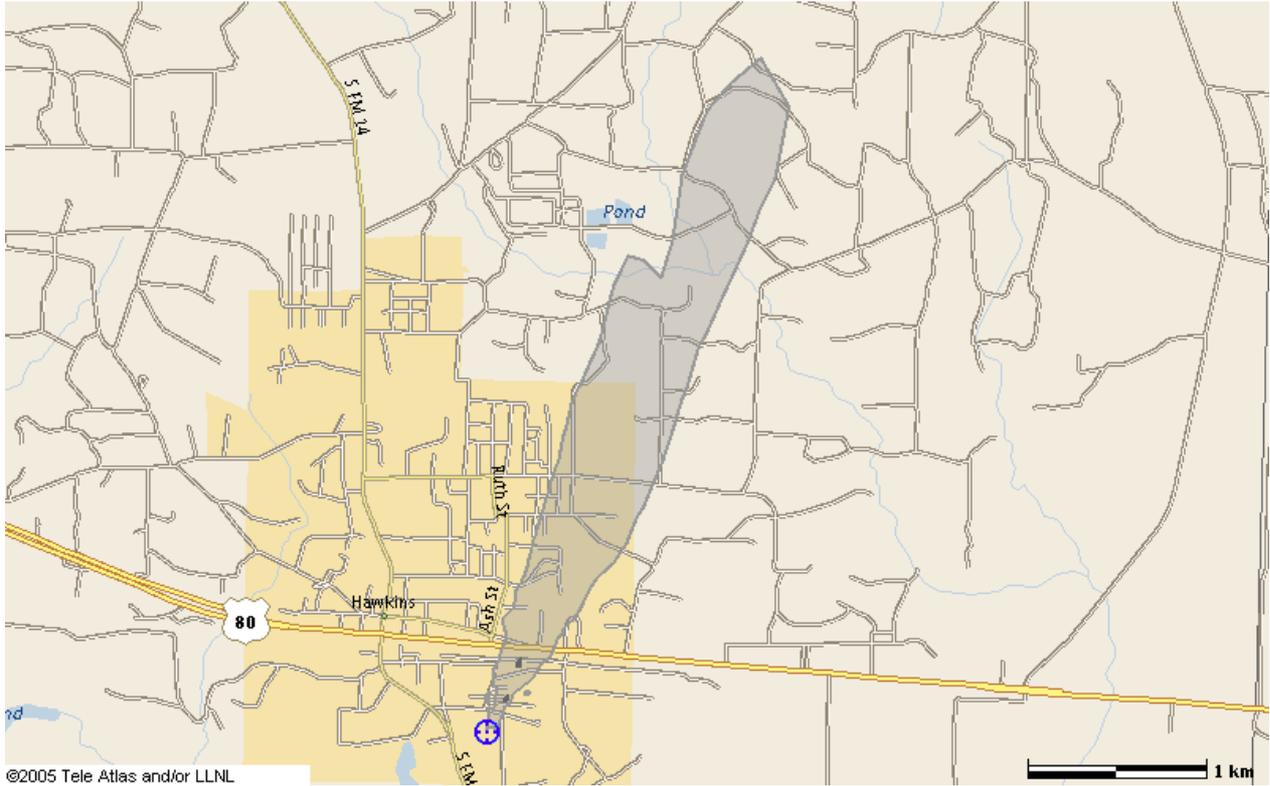
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



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1 Hr Avg Air Conc. at  
05/26/2009 19:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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| Effects and Actions |  |              |        |           |            |
|---------------------|--|--------------|--------|-----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area      | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.5km  | 0.001 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 4.1km  | 1.7 km2   | 100        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 26, 2009 23:05 UTC to May 27, 2009 00:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 7.1 km by 4.4 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

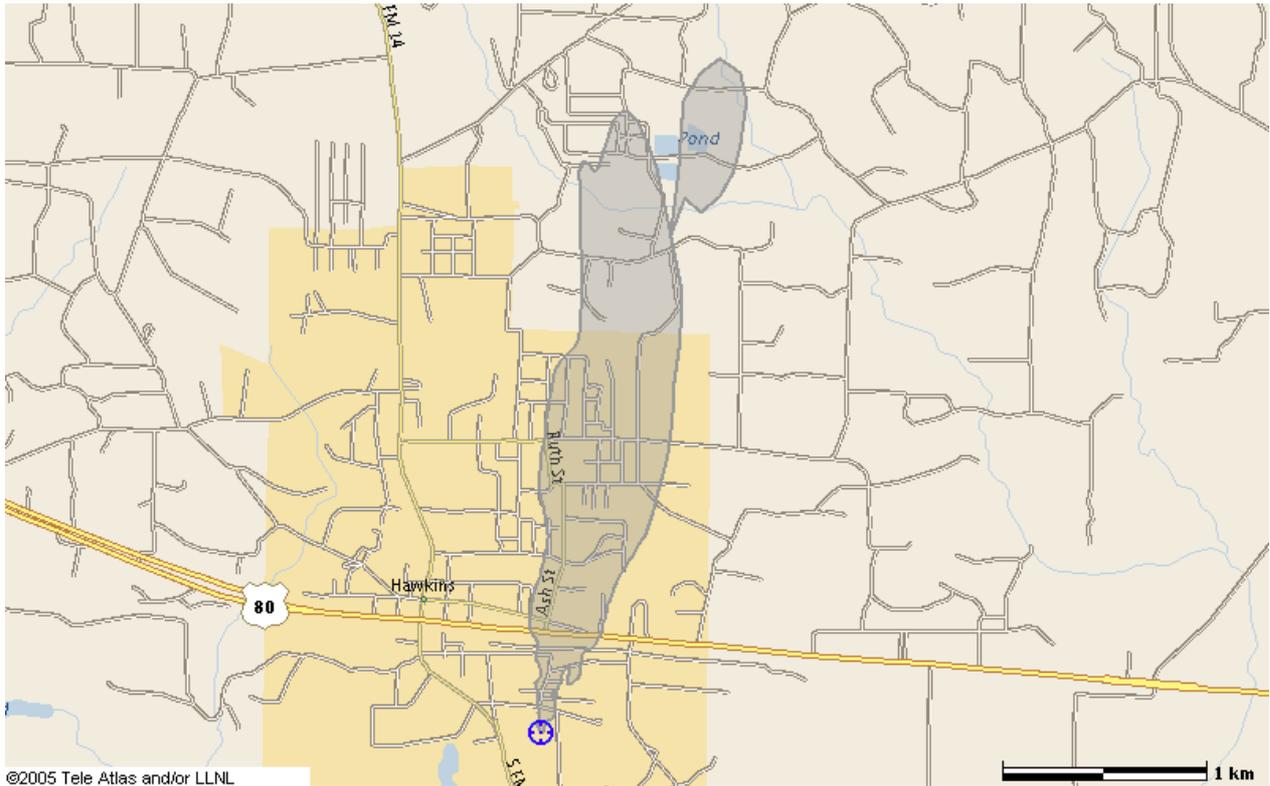
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 20:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area    | Population |
|--|--|--------------|--------|---------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.5km  | 1.5 km2 | 330        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 00:05 UTC to May 27, 2009 01:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 6.2 km by 3.9 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

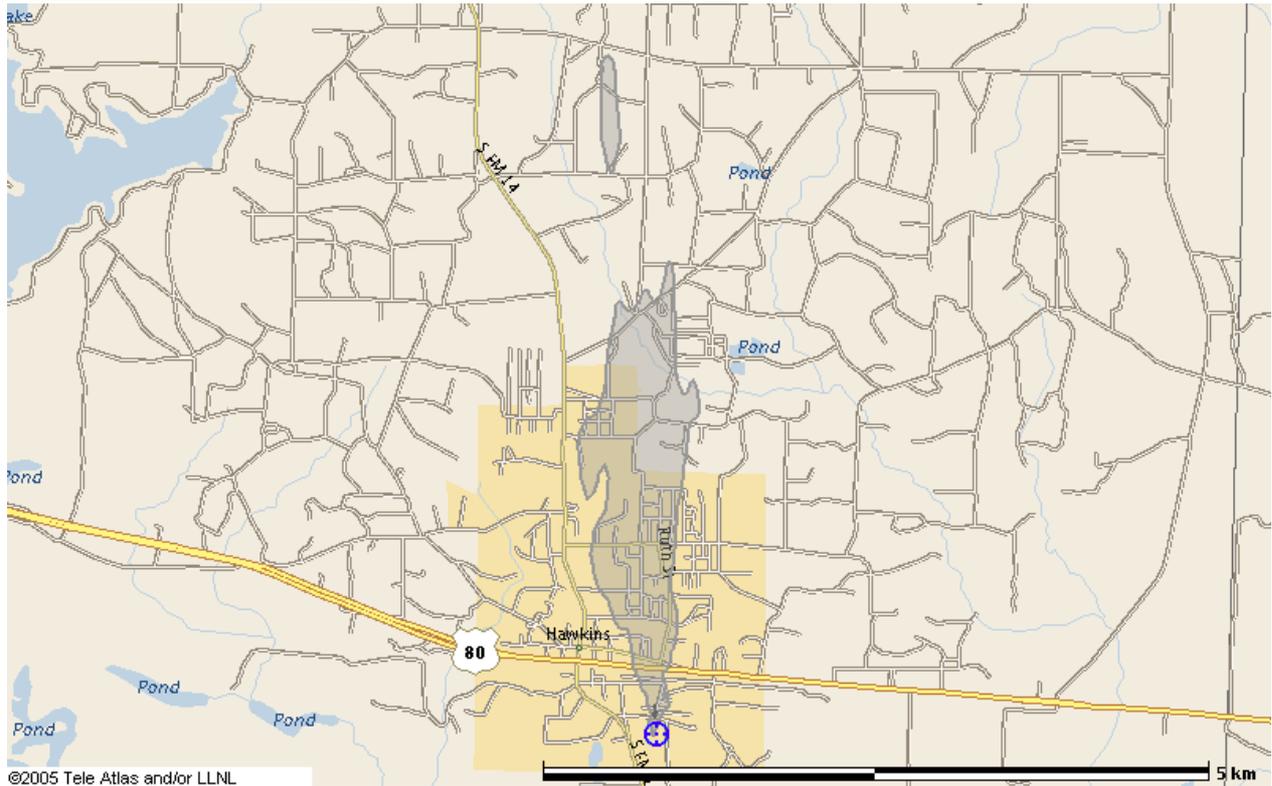
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 21:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |            |            |
|---------------------|--|--------------|--------|------------|------------|
|                     | Description  | Level (g/m3) | Extent | Area       | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.0008 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 5.2km  | 1.8 km2    | 570        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 01:05 UTC to May 27, 2009 02:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 9.5 km by 6.0 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

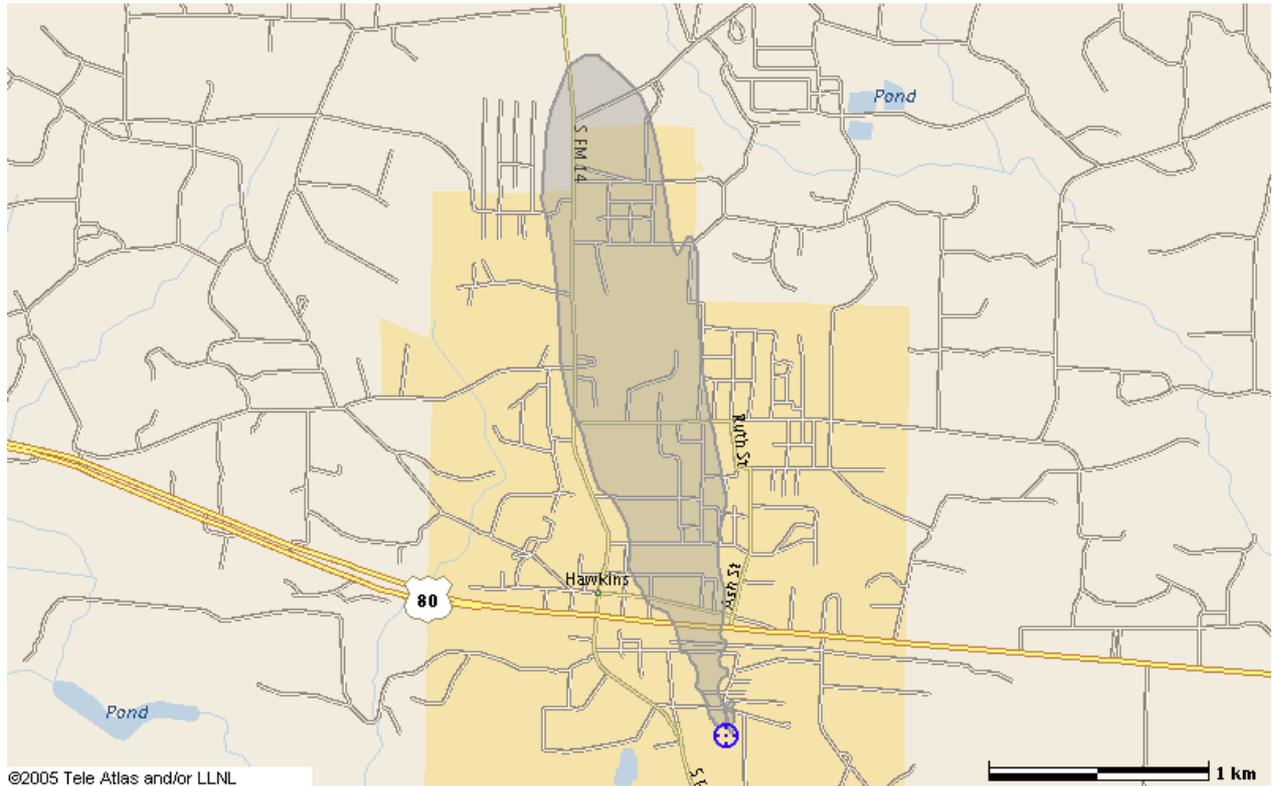
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 22:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |         |            |
|---------------------|--|--------------|--------|---------|------------|
|                     | Description  | Level (g/m3) | Extent | Area    | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.2km  | 1.4 km2 | 630        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 02:05 UTC to May 27, 2009 03:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 5.8 km by 3.6 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

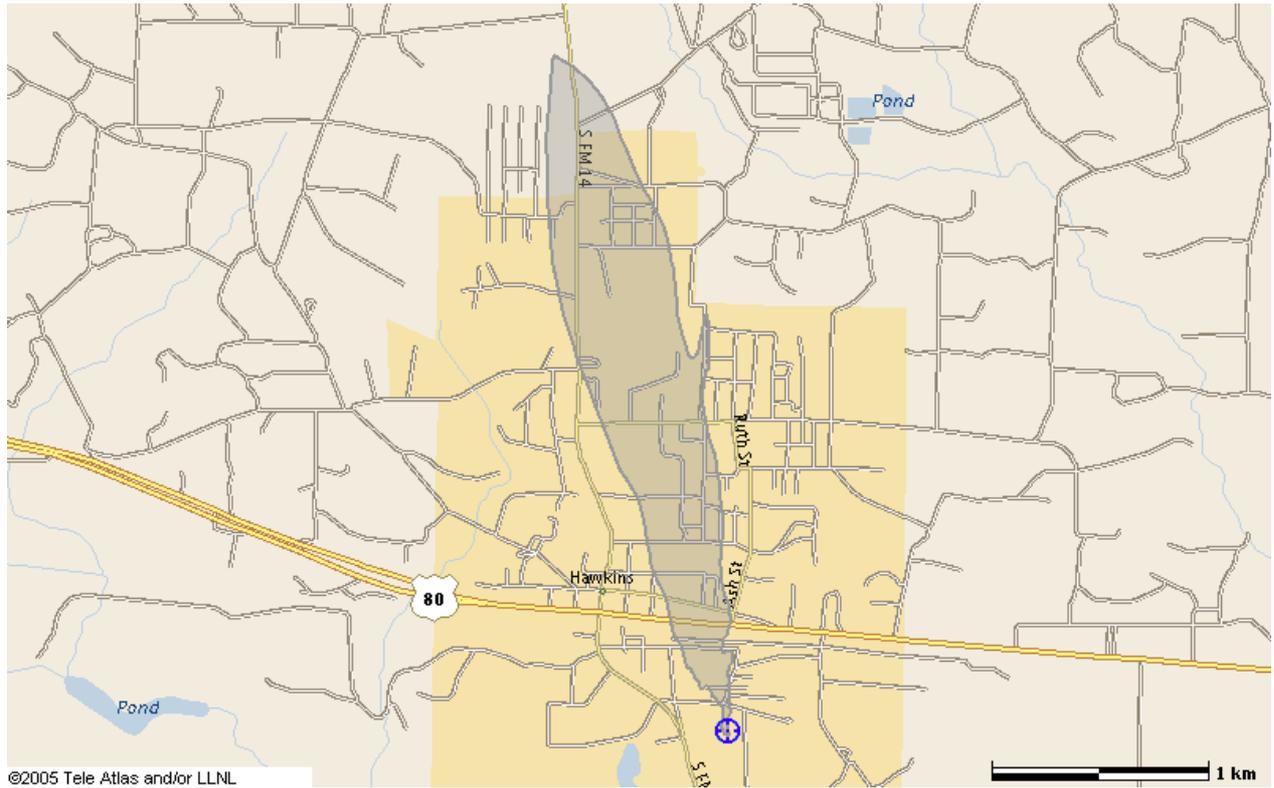
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/26/2009 23:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area    | Population |
|--|--|--------------|--------|---------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.3km  | 1.2 km2 | 580        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 03:05 UTC to May 27, 2009 04:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 5.9 km by 3.7 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

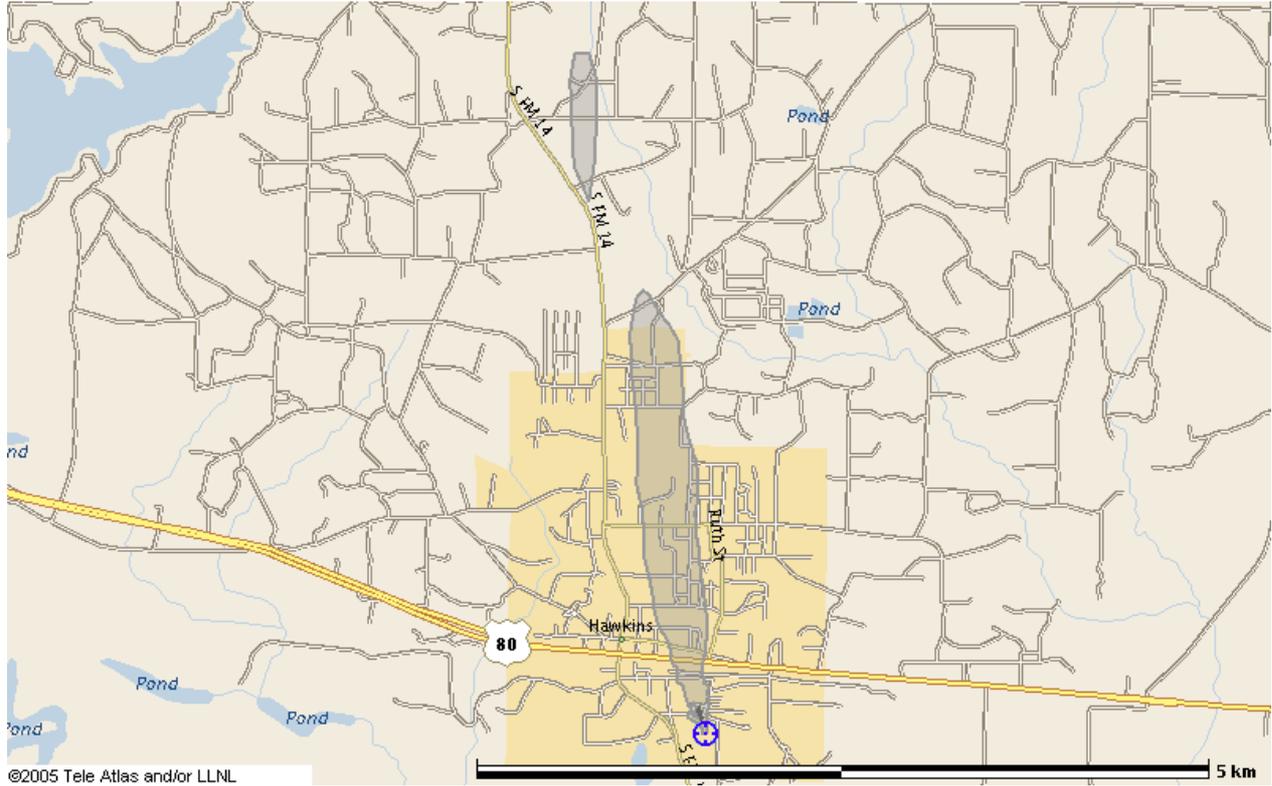
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 00:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |           |            |
|---------------------|--|--------------|--------|-----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area      | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.001 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 4.8km  | 1.1 km2   | 410        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 04:05 UTC to May 27, 2009 05:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 8.7 km by 5.4 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

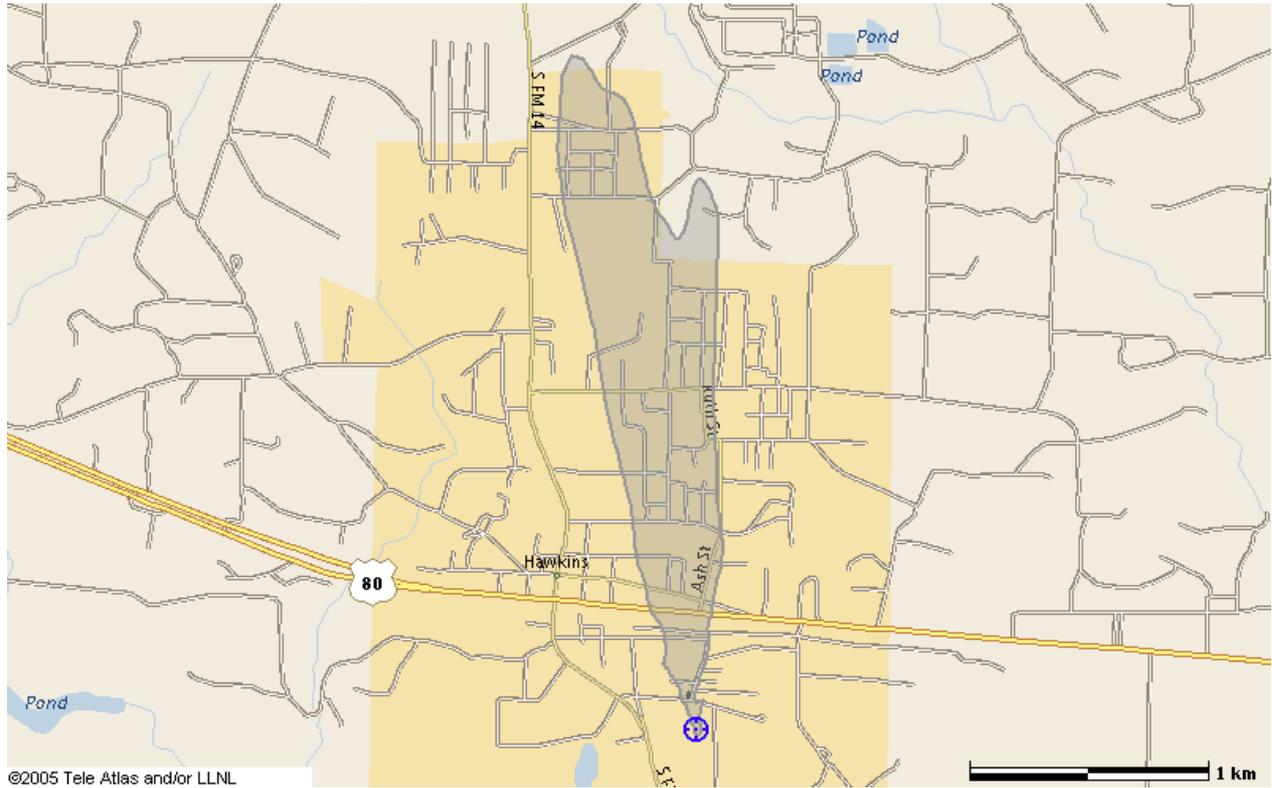
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 01:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |            |            |
|---------------------|--|--------------|--------|------------|------------|
|                     | Description  | Level (g/m3) | Extent | Area       | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.0002 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2.9km  | 1.0 km2    | 520        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 05:05 UTC to May 27, 2009 06:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 5.3 km by 3.3 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

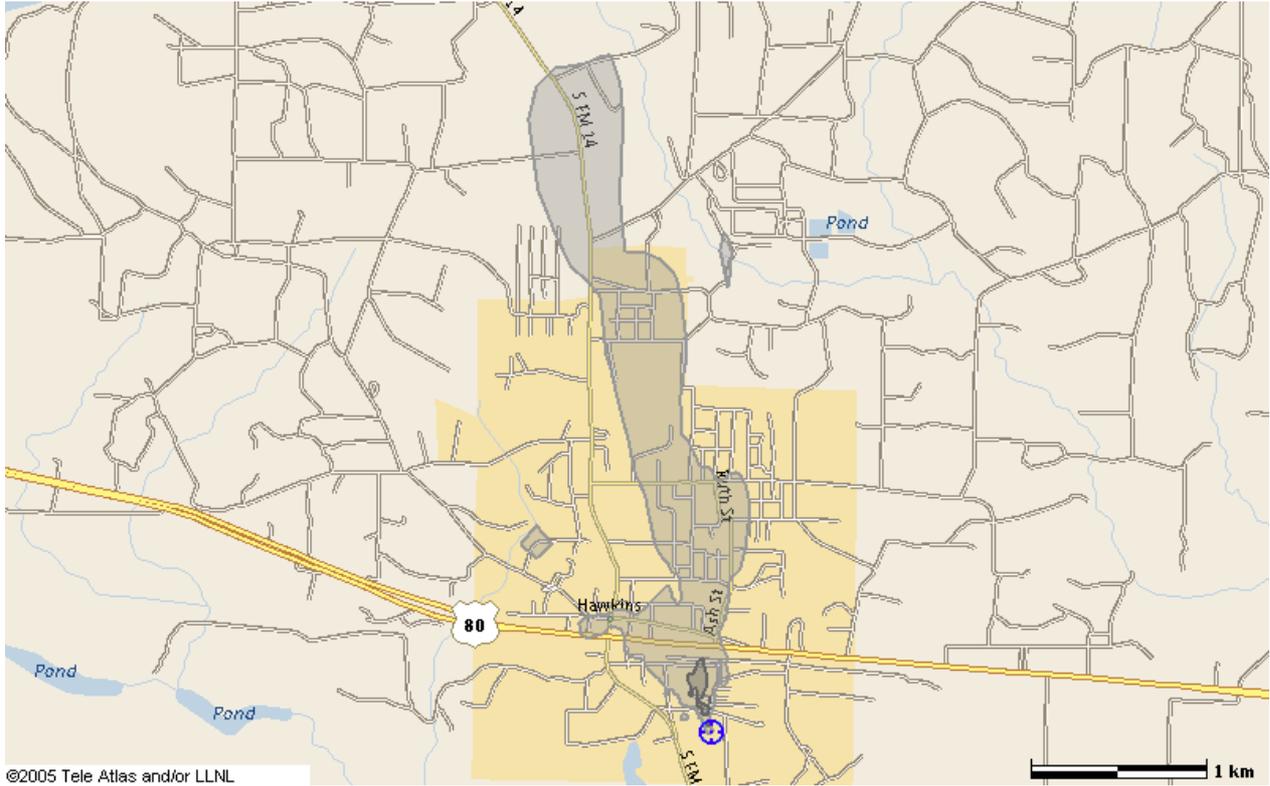
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 02:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |          |            |
|---------------------|--|--------------|--------|----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area     | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.4km  | 0.02 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 4.0km  | 1.6 km2  | 570        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 06:05 UTC to May 27, 2009 07:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 7.2 km by 4.5 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lInl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

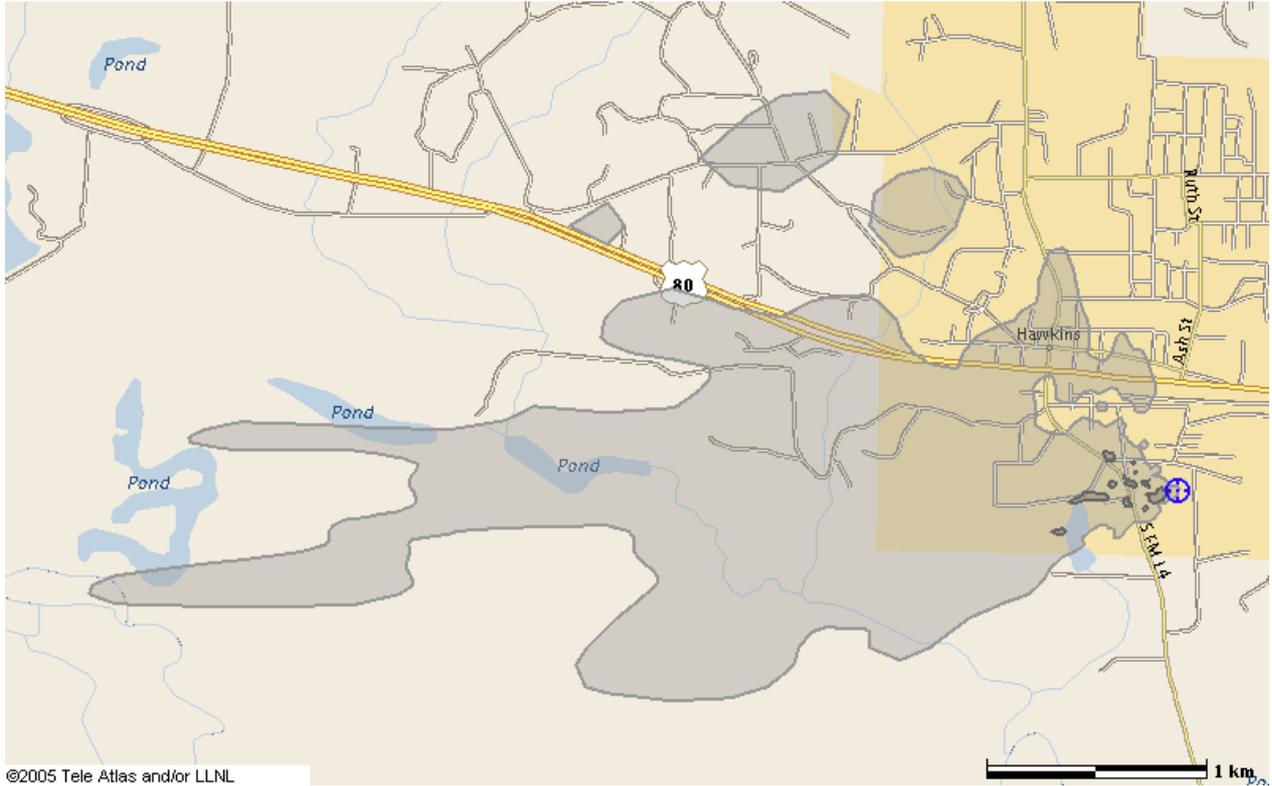
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 03:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |          |            |
|---------------------|--|--------------|--------|----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area     | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.6km  | 0.02 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 5.0km  | 4.7 km2  | 160        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 07:05 UTC to May 27, 2009 08:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 5.8 km by 3.6 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

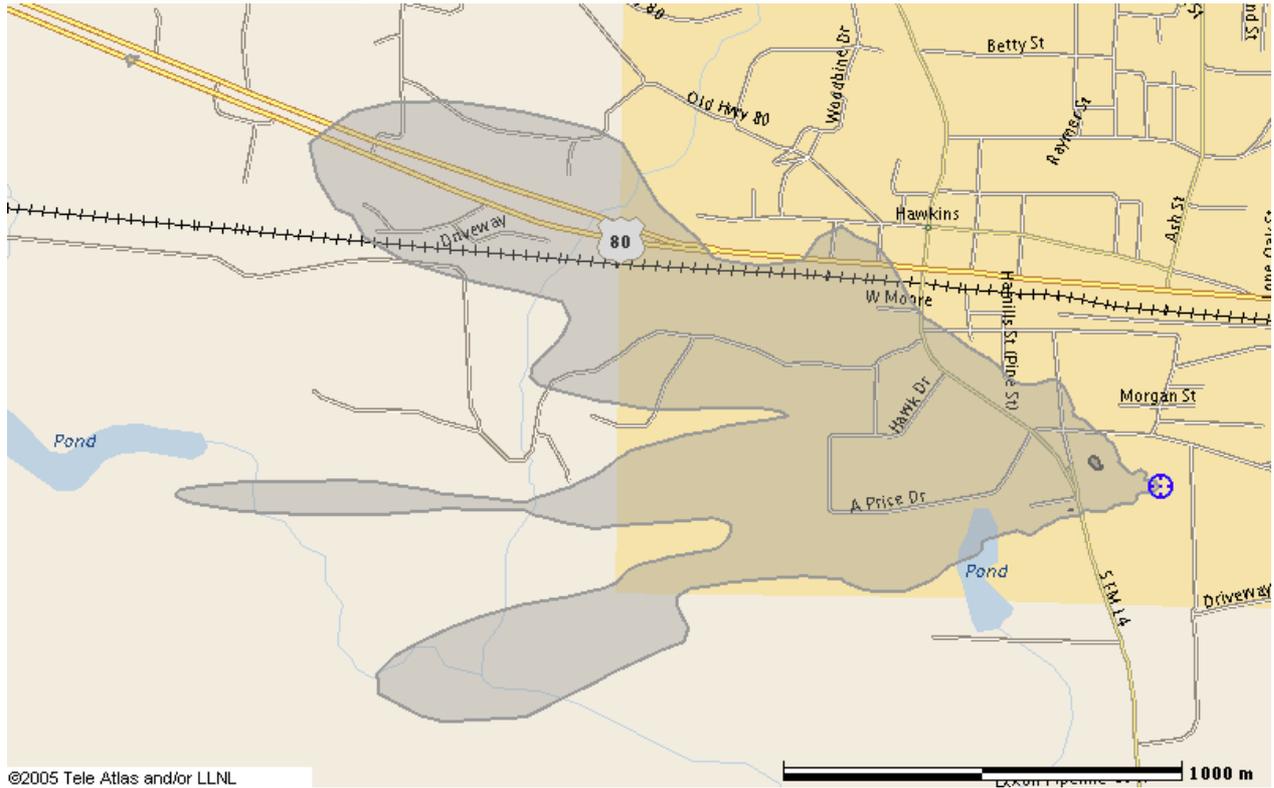
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 04:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area       | Population |
|--|--|--------------|--------|------------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.0008 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2.8km  | 1.4 km2    | 80         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 08:05 UTC to May 27, 2009 09:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 3.2 km by 2.0 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}

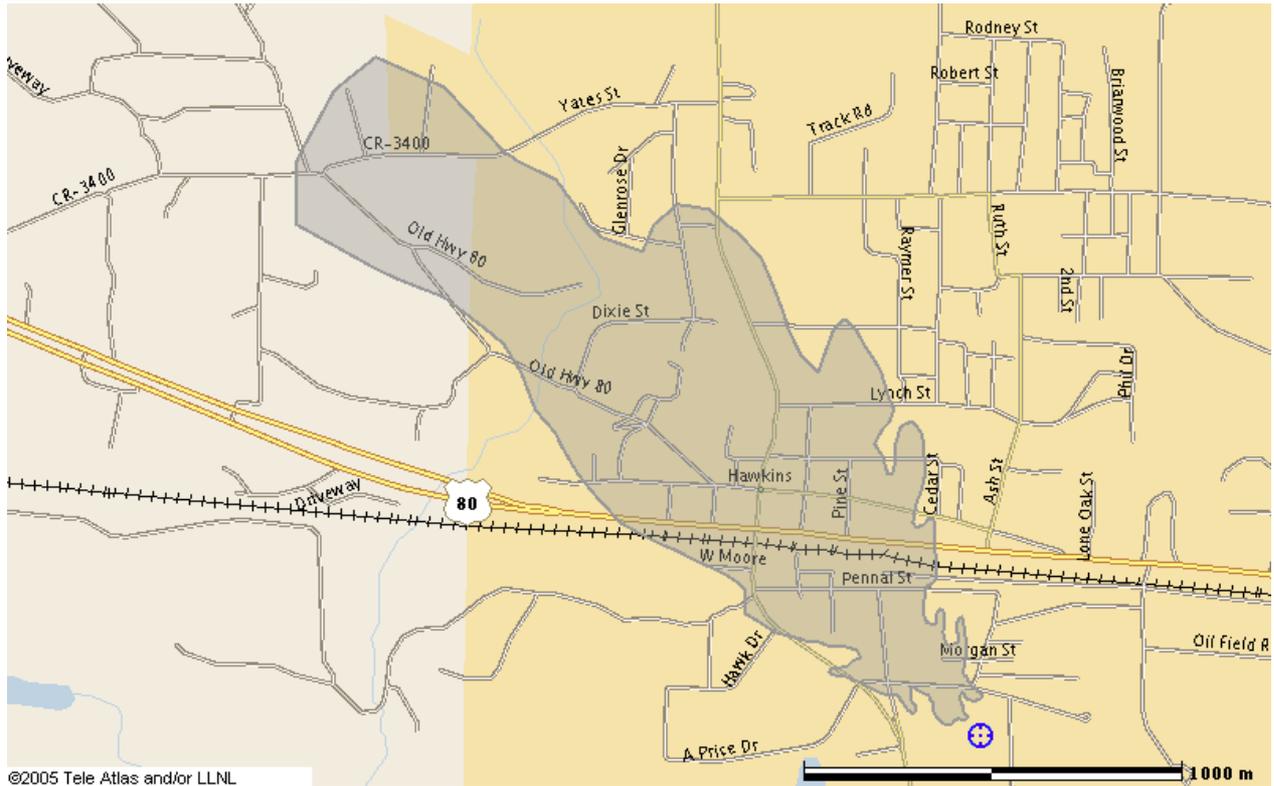
Not For Public Dissemination



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 05:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area    | Population |
|--|--|--------------|--------|---------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2.4km  | 1.2 km2 | 360        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 09:05 UTC to May 27, 2009 10:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 3.4 km by 2.1 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}

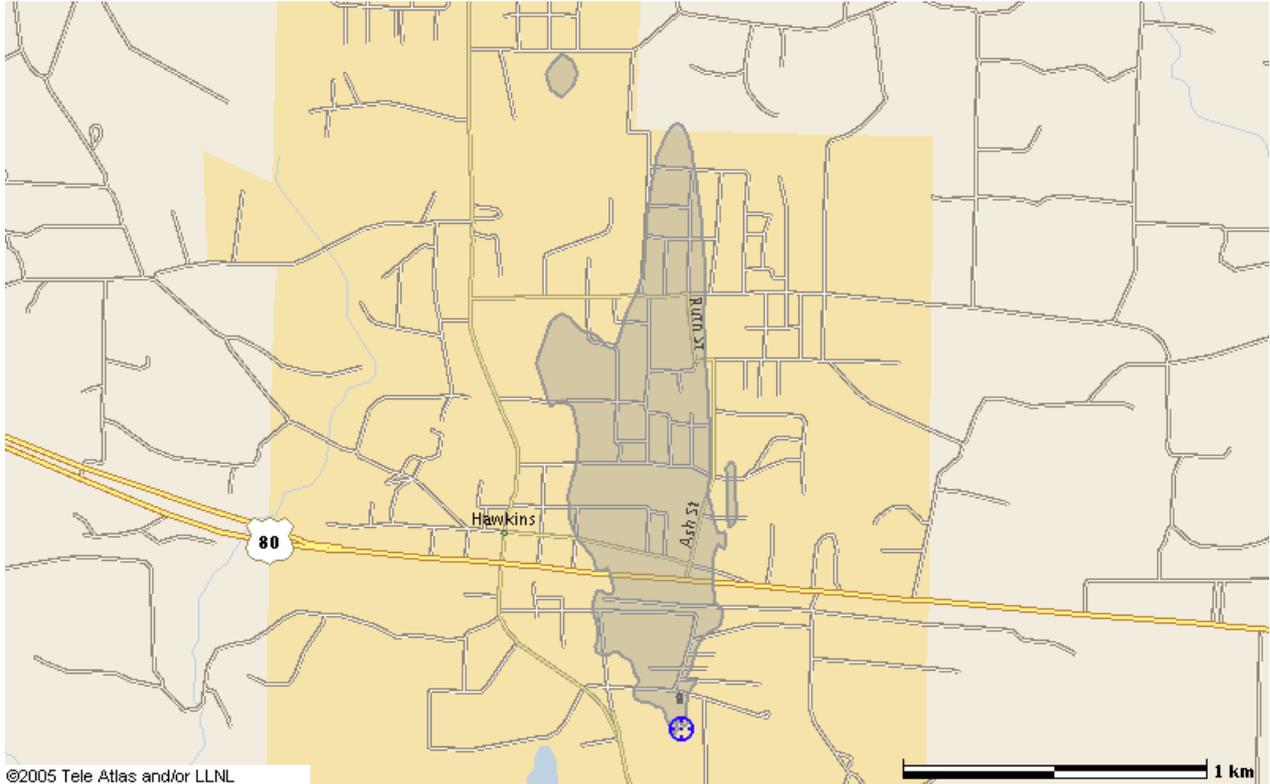
Not For Public Dissemination



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 06:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area       | Population |
|--|--|--------------|--------|------------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 171m   | 700 m2     | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2,288m | 650,276 m2 | 320        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 10:05 UTC to May 27, 2009 11:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.2 km by 2.6 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

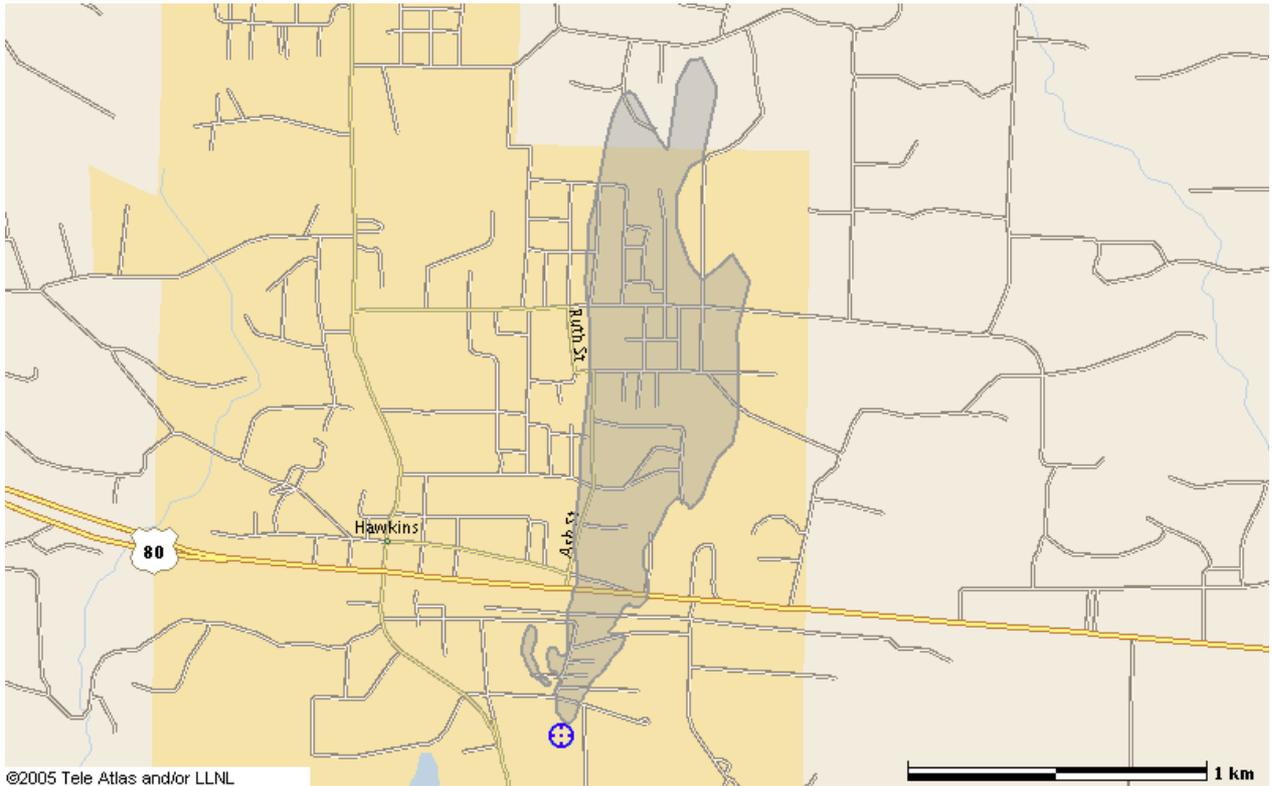
**Requested by:** {Eric Delgado; OSC EPA Region 6}

**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



1 Hr Avg Air Conc. at  
05/27/2009 07:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area       | Population |
|--|--|--------------|--------|------------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2,336m | 731,633 m2 | 290        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 11:05 UTC to May 27, 2009 12:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.2 km by 2.6 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

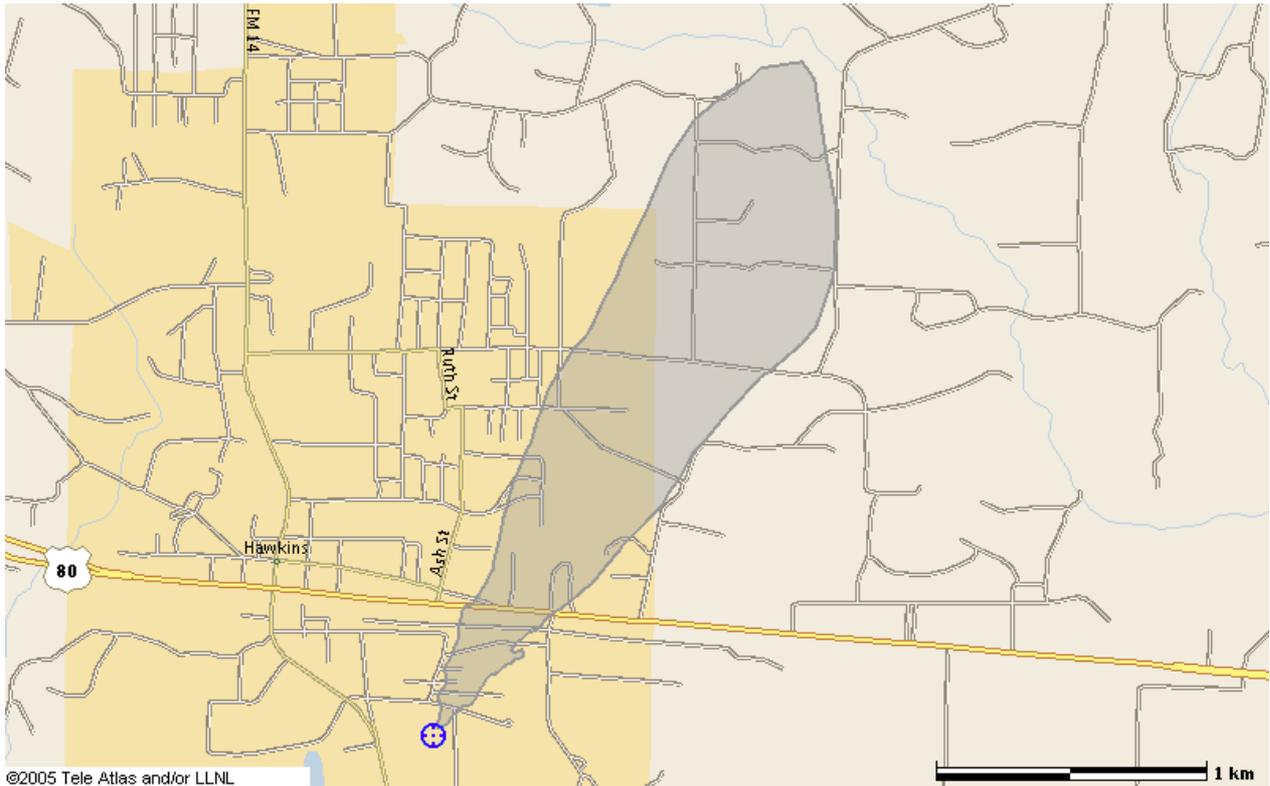
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 08:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |         |            |
|---------------------|--|--------------|--------|---------|------------|
|                     | Description  | Level (g/m3) | Extent | Area    | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 2.9km  | 1.4 km2 | 50         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 12:05 UTC to May 27, 2009 13:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.7 km by 2.9 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

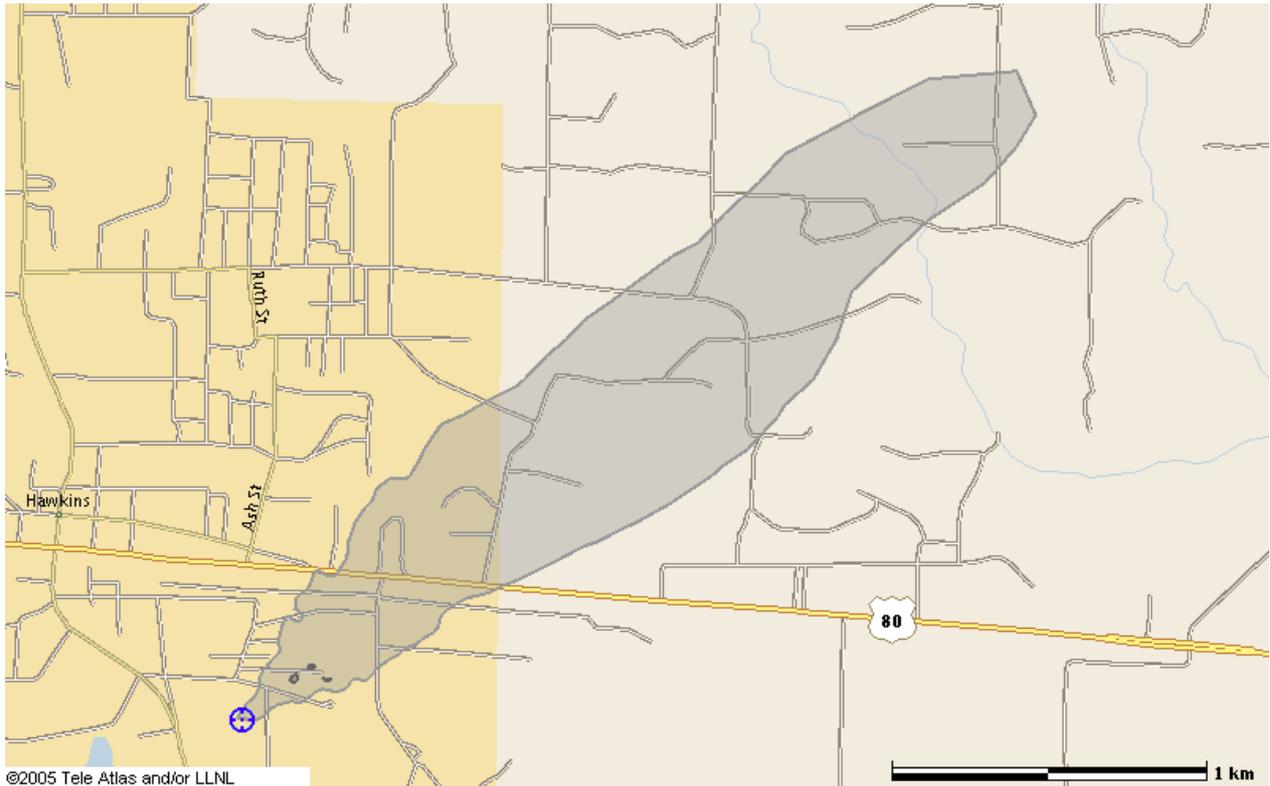
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 09:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |           |            |
|---------------------|--|--------------|--------|-----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area      | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.3km  | 0.001 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.2km  | 1.4 km2   | 10         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 13:05 UTC to May 27, 2009 14:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.0 km by 2.5 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

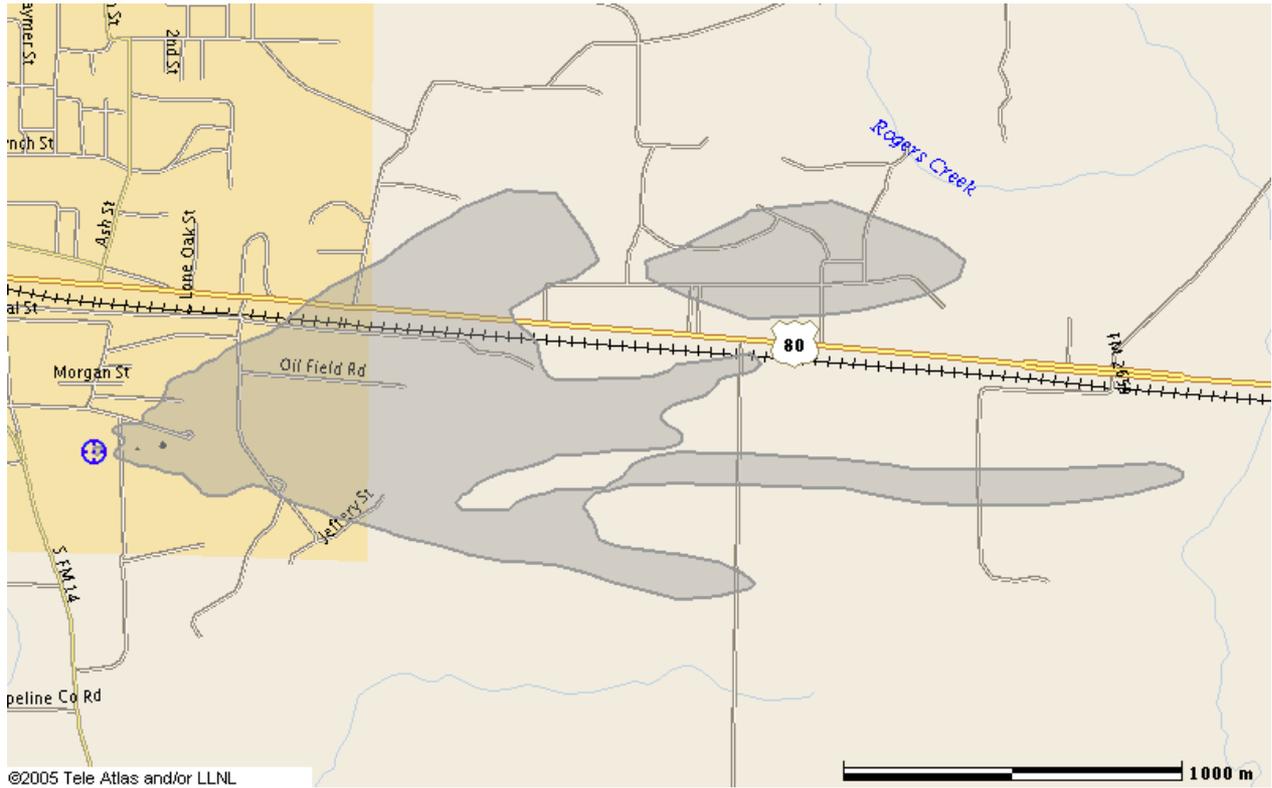
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 10:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |            |            |
|---------------------|--|--------------|--------|------------|------------|
|                     | Description  | Level (g/m3) | Extent | Area       | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.2km  | 0.0002 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 3.2km  | 1.4 km2    | 260        |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 14:05 UTC to May 27, 2009 15:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 3.7 km by 2.3 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lInl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

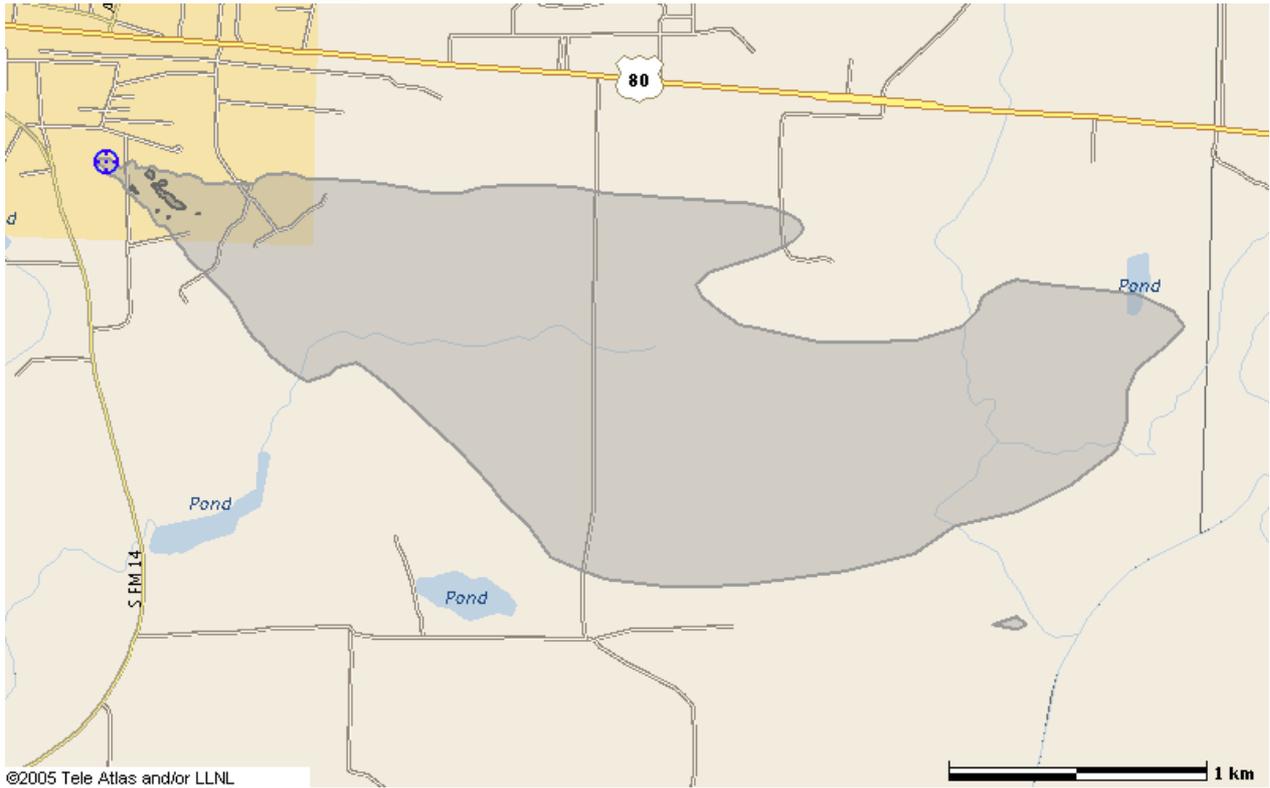
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 11:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area      | Population |
|--|--|--------------|--------|-----------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.4km  | 0.006 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 4.2km  | 3.8 km2   | 0          |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 15:05 UTC to May 27, 2009 16:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 4.9 km by 3.1 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

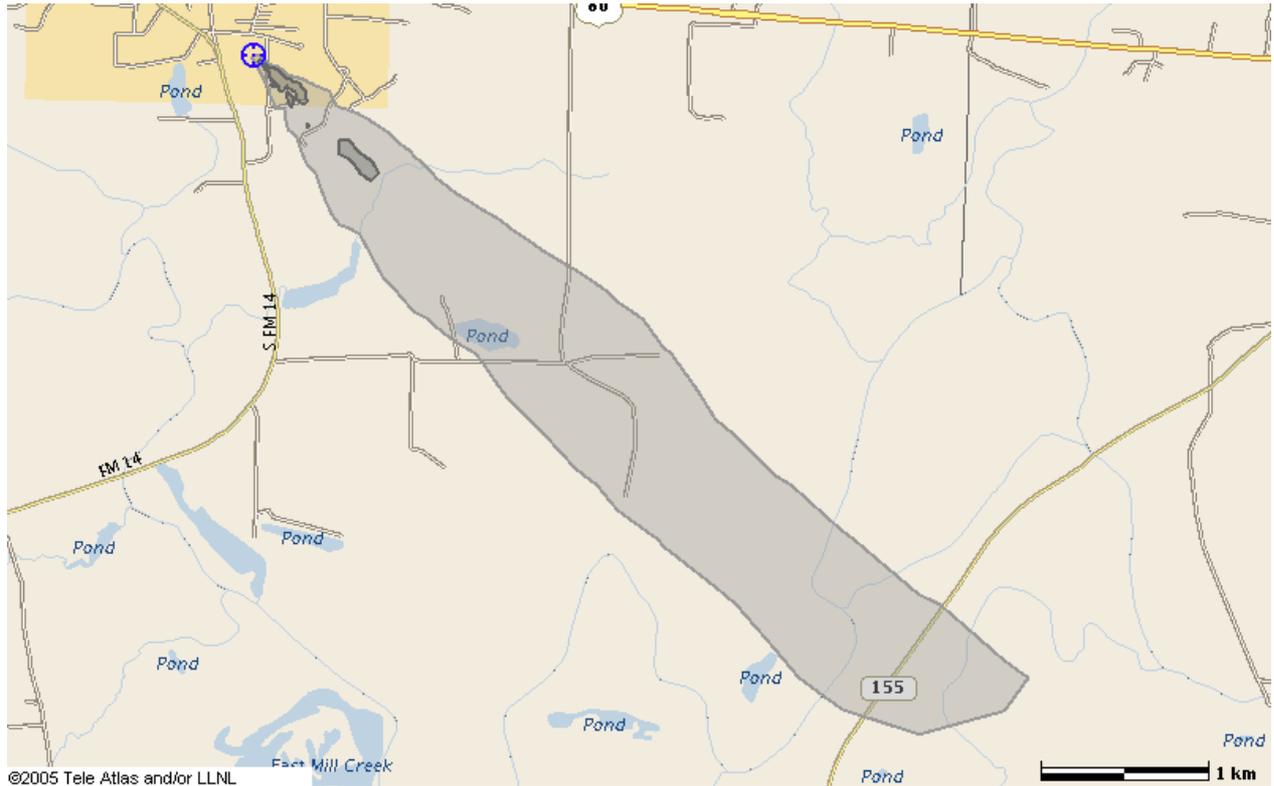
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 12:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



| Effects and Actions |  |              |        |          |            |
|---------------------|--|--------------|--------|----------|------------|
|                     | Description  | Level (g/m3) | Extent | Area     | Population |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 1.0km  | 0.05 km2 | 0          |
|                     | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 6.0km  | 4.4 km2  | 0          |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 16:05 UTC to May 27, 2009 17:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 7.6 km by 4.7 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@lInl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

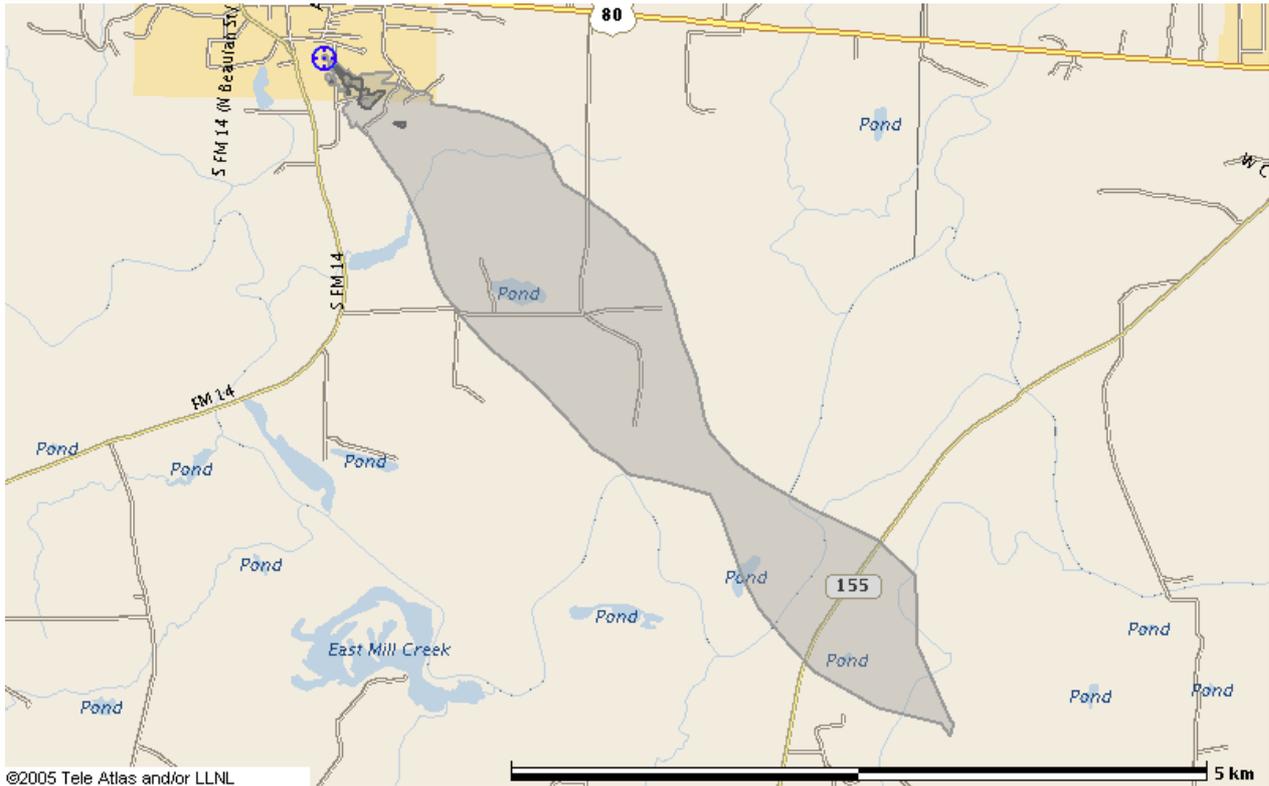
**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}



Not For Public Dissemination

1 Hr Avg Air Conc. at  
05/27/2009 13:05:00 CDT

Set 2: 24hr NAM Forecast  
24hr NAM Forecast - Actual  
Release



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**Effects and Actions**

|  | Description  | Level (g/m3) | Extent | Area     | Population |
|--|--|--------------|--------|----------|------------|
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-9     | 0.8km  | 0.03 km2 | 0          |
|  | No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys. | >1.00E-10    | 6.7km  | 5.3 km2  | 10         |

Note: Areas and counts in the table are cumulative. Population Source = LandScanUSA10.

Effects or contamination from May 27, 2009 17:05 UTC to May 27, 2009 18:05 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 26, 2009 18:08 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/26/2009 13:05:00 CDT for 1 day

gridded met

**Map Size:** 9.1 km by 5.7 km **Id:** Production.rcE17023.rcC1

**NARAC Operations:** ( onDuty Assessor ); narak@llnl.gov; 925-424-6465

**Requested by:** {Eric Delgado; OSC EPA Region 6}

**Approved by:** {IMAAC Operations; IMAAC; 925-424-6465}

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