

CAMEO Suite

Software for

PREPAREDNESS and RESPONSE



Search for a Chemical

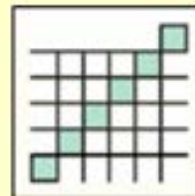
Search for a Facility



CAMEO
Chemicals



ALOHA



MARPLOT



Help



Facilities



Chemicals
In Inventory



Contacts



Incidents



Special
Locations



Routes

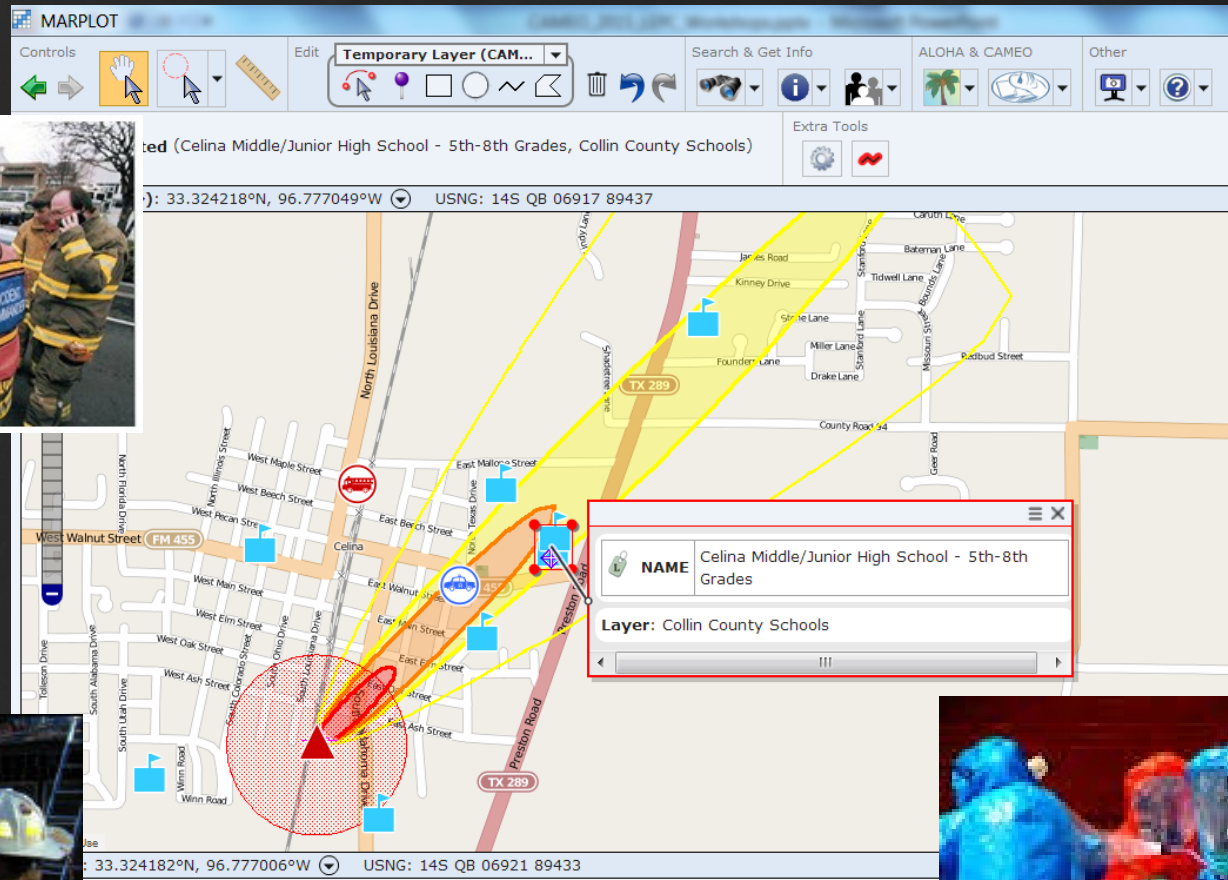


Resources



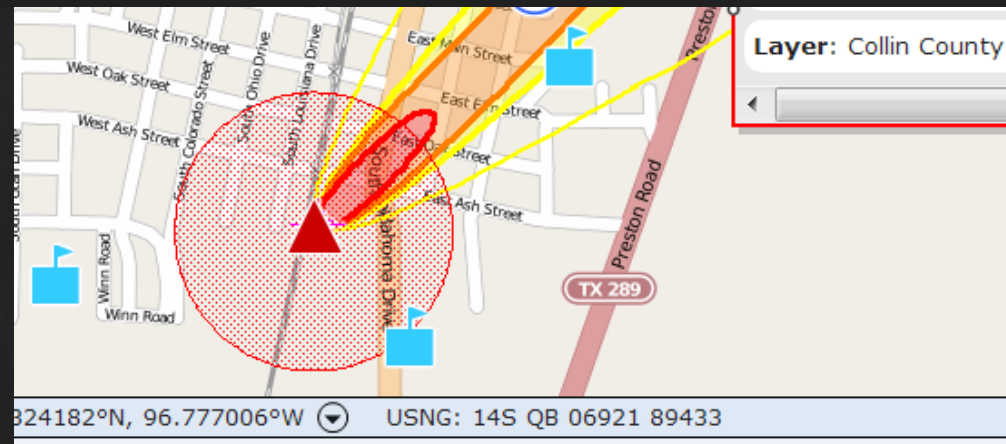
Screening &
Scenarios

CAMEO for RESPONSE





This scenario is a work of fiction. Names, places, and events are used in a fictitious manner. Any resemblance to actual persons, living or dead, or actual events is purely coincidental . . .



- **Where:** Ford & Sons Fertilizer and Grains
102 Ash Street, Celina, Oklahoma
- **What:** Ammonia release - amount unknown
- **Weather:** 50 degrees F, cloudy, humidity 60%, wind from the southwest at 7 mph

CAMEOfm - [Home]

File Edit Sharing Scripts Help

Search for a Chemical

Search for a Facility

CAMEOfm - [Facilities]

File Edit Record Search Sharing Scripts Help

Home View Record New Search Edit New Record Help 3 of 8 found

Found Facilities

Results of search for: Facility Name Contains characters ford

Name	Dept	Street Address
ATCHLEY RESOURCES, INC. - Casillas--Crawford #1		SEC 18-7N-4W W2SESWSW Sec. 11-T6N-R3W
Ford & Sons Fertilizer and Grains	Celina Location	102 E. Ash Street
Lance Ruffel--Guessford #1-8	McClain County	Sec. 8-6N-3W
Newfield - Burford C		Sec. 31-T5N-R4W
Samson Companies--CRAWFORD #1	MCCLAIN County	Sec. 12- 07N- 03W
Spess Lease--BURFORD B #1	MCCLAIN	SEC. 31-5N-4W
Williford Energy Company - George		NW, NE of Sec: 32-6N-3W

100% Browse

CAMEOfm - [Facilities]

File Edit Record Search Sharing Scripts Help

Home View List New Search Edit New Record Help 3 of 8 found

Facilities

Last Modified 5/5/2015

☐ Shipper Report Year 2014

Facility Name Ford & Sons Fertilizer and Grains

Department Celina Location Site 1 of 3

ID and Regs	State Fields	Map Data	Site Plan	Notes
Address	Facility Phones	Contacts	Chemical Inventory	Checklist
CAS	Chemical Name			
7664-41-7	AMMONIA (ANHYDROUS)			Datasheet

100% Browse 11:03 PM 5/10/2015

AMMONIA, ANHYDROUS

Select this Chemical in ALOHA
Go to ALOHA

CAMEO Chemicals

Home Help Add to MyChemicals Print Friendly Page

AMMONIA, ANHYDROUS

NON-FLAMMABLE GAS 2 INHALATION HAZARD INHALATION HAZARD 2 CORROSIVE 8

Chemical Identifiers | Hazards | Response Recommendations | Physical Properties | Regulatory Information | Alternate Chemical Names

Chemical Identifiers

What is this information?

MyChemicals

chemicals: 0 View MyChemicals Predict Reactivity

CAS Number 7664-41-7

UN/NA Number 1005

DOT Hazard Label
Non-Flammable Gas (domestic)
Inhalation Hazard (Special Provision 13) (domestic)
Poison Gas (international)
Corrosive (international)

CHRIS Code
AMA

NFPA 704

Diamond	Hazard	Value	Description
1	Health	3	Can cause serious or permanent injury.

GUIDE 125 GASES - CORROSIVE

POTENTIAL HAZARDS

HEALTH

- TOXIC; may be fatal if inhaled, ingested or absorbed through skin.
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- CALL CHEMICAL RESPONSE TELEPHONE NUMBER on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (300 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (basements, tunnels, etc.).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

ERG2012 GASES - CORROSIVE

EMERGENCY RESPONSE

The ERG doesn't predict that large amounts of toxic-by-inhalation gases will be produced if this material is spilled in water.

ERG Table 3: Initial Isolation and Protective Action Distances for Different Quantities of Six Common Toxic-by-Inhalation Gases

Transport Container	First Isolate in all Directions (Feet)	UN1005 Ammonia, anhydrous: Large Spills					
		Then Protect persons Downwind during					
		Day		Night		Night	
		Low Wind (<6 mph) (Miles)	Moderate Wind (6-12 mph) (Miles)	High Wind (>12 mph) (Miles)	Low Wind (<6 mph) (Miles)	Moderate Wind (6-12 mph) (Miles)	High Wind (>12 mph) (Miles)
Rail tank car	1600	1.4	0.8	0.6	3.9	1.6	
Highway tank truck or trailer	400	0.6	0.3	0.2	1.6	0.5	0.3
Agricultural nurse tank	200	0.4	0.2	0.2	0.9	0.3	0.2
Multiple small cylinders	100	0.2	0.1	0.1	0.5	0.2	0.1

Hazmat Table (49 CFR 172.101)

UN/NA	Proper Shipping Name	Hazard Class	Labels	Notes*
UN	Ammonia, anhydrous	2.2	2.2	Domestic (U.S.), Inhalation Hazard (Special Provision 13)
UN	Ammonia, anhydrous	2.3	2.3, 8	International, Inhalation Hazard Zone D

AMMONIA, ANHYDROUS

CAUTIONARY RESPONSE INFORMATION

Common Synonyms: Liquid ammonia

Physical Description: Colorless gas

Ammonia odor

Flammable Limits in Air: 15.0%-27.0%

Flash Point: Not flammable under conditions likely to be encountered

Storage Temperature: Ambient for pressurized cylinders, low temperature for ammonia at atmospheric pressure

Fire Extinguishing Agents: Stop flow of gas or liquid. Let fire burn

Fire Extinguishing Agents Not to Be Used: None

Special Hazards of Combustion Products: Not pertinent

Behavior in Fire: Not pertinent

Auto Ignition Temperature: <200°F

Electrical Hazards: Class I, Group D

Blowing Rate: 1 m/min

8.00 Adiabatic Flame Temperature: Currently not available

8.01 Breakdowns: Air to Fuel Ratio: 6.05 (Stoich)

8.02 Flame Temperature: Currently not available

8.03 Combustion Water Ratio (Based on Product): Currently not available

8.04 Minimum Oxygen Concentration for Combustion (MOC): Not listed

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: Corrosives with no heat effect

5.2 Reactivity with Common Materials: Corrosive to metals and polymers

4. FIRE HAZARDS

7. SHIPPING INFORMATION

7.1 Grades of Purity: Commercial, industrial, reagent, electronic, and metallurgical grades all have purity greater than 99.9%

7.2 Storage Temperature: Ambient for pressurized cylinders, low temperature for ammonia at atmospheric pressure

7.3 Venting: Safety relief 250 psi for ammonia under pressure. Pressure-relief for ammonia at atmospheric pressure

7.4 Venting: Safety relief 250 psi for ammonia under pressure. Pressure-relief for ammonia at atmospheric pressure

7.5 MSD Publication Category: Currently not available

7.6 Ship Type: 2

7.7 Barge Hull Type: 2

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Poison gas

8.2 49 CFR Class: 2.3

8.3 49 CFR Package Group: Not listed

8.4 Marine Pollution: No

8.5 NFPA Hazard Classification: Category: Classification Health Hazard (H302) 3 Flammability (F302) 2 Instability (I200) 0

8.6 EPA Reportable Quantity: 100

8.7 EPA Pollution Category: II

8.8 RCRA Waste Number: Not listed

8.9 EPA/FWCA List: Yes

* There are three notes: (1) whether the displayed information is for domestic (U.S.) or international shipping (if neither is specifically indicated, it applies to both), (2) whether the proper shipping name must include one or more technical names of the hazardous material in parentheses, and (3) whether the hazardous material is an inhalation hazard.

Draw Isolation and Protection Zones in MARPLOT

The screenshot displays the MARPLOT software interface. At the top, the title bar reads "MARPLOT". Below it is a toolbar with various icons for navigation and editing. The "Selection Info" section indicates "1 object selected (Ford & Sons Fertilizer and Grains, Tier 2 Facilities EHS Collin County TX)". The "Click Point" section shows coordinates: 33.318373°N, 96.785427°W and USNG: 14S QB 06150 88772. The main map area shows a street grid with a red circular isolation zone centered on a point. A popup window displays the following information:

- NAME: Ford & Sons Fertilizer and Grains
- Layer: Tier 2 Facilities EHS Collin County TX

The bottom status bar shows the cursor coordinates: 33.320794°N, 96.779612°W and USNG: 14S QB 06686 89052. The bottom right corner mentions "Data CC-BY-SA by OpenStreetMap".

Review Site Plans, photos, facility Risk Management Plan

CAMEOfm - [Facilities]

File

Edit

Record

Search

Sharing

Scripts

Help

Facilities

Last Modified 5/5/2015

☐ Shipper

Report Year 2014

Facility Name

Ford & Sons Fertilizer and Grains

Department

Celina Location

Site 1 of 3

Address

Facility Phones

Contacts

Chemical Inventory

Checklist

ID and Regs

State Fields

Map Data

Site Plan

Notes

Ford&SonsSiteMap.jpg

Ford&SonsAmmoniaRailcar.jpg

Ford&SonsCelinaEastGate.png

Ford&SonsCelinaNorthSide.png

Ford&SonsRMP.doc

Open

Back

Print

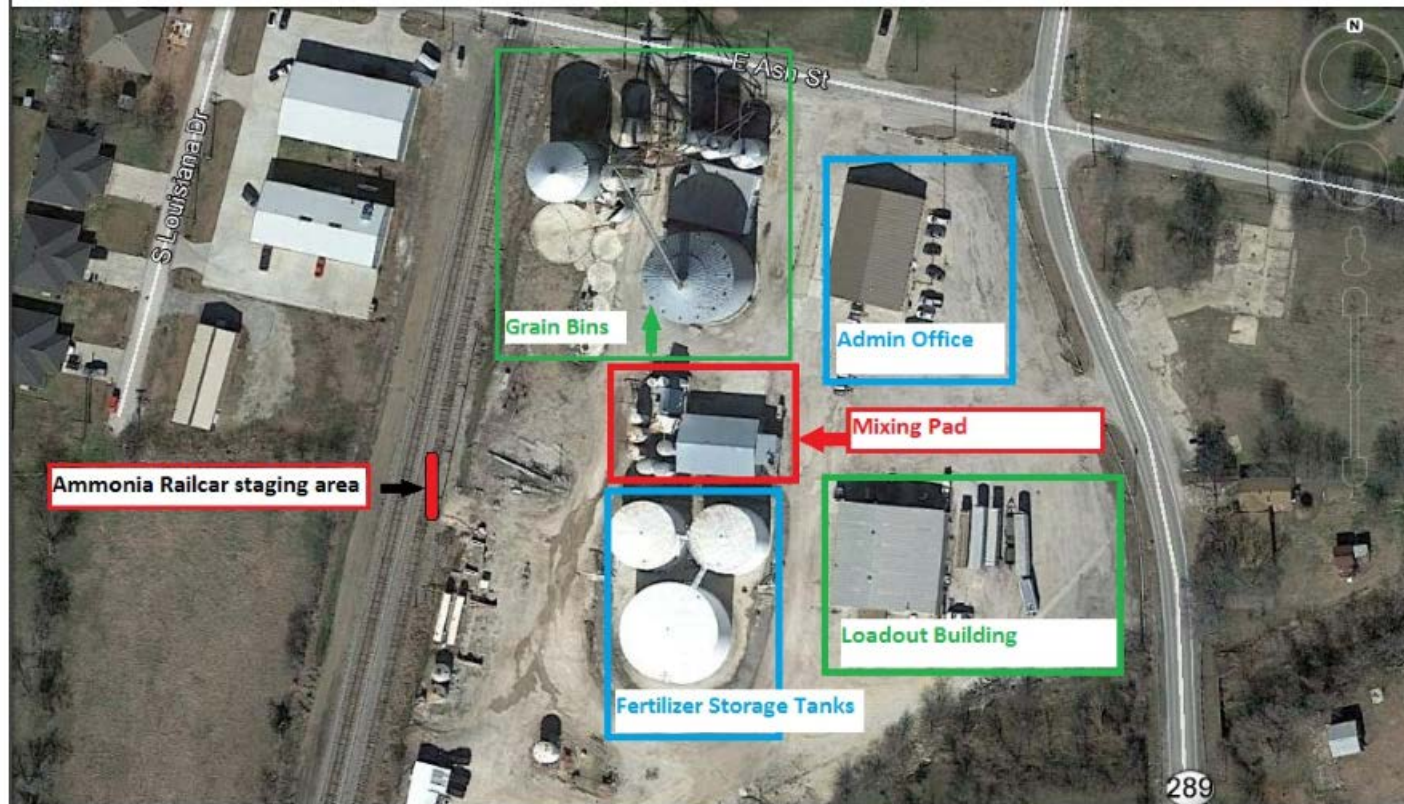


Plan 1 of 5



Site Plan for **Ford & Sons Fertilizer and Grains**

File name: Ford&SonsSiteMap.jpg



75*



Browse

Back

Print



Plan 2 of 5



Site Plan for **Ford & Sons Fertilizer and Grains**

File name: Ford&SonsAmmoniaRailcar.jpgg



75*



Browse



Back

Print



Plan 3 of 5



Site Plan for **Ford & Sons Fertilizer and Grains**

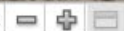
File name: Ford&SonsCelinaEastGate.png



Celina, Texas



75*



Browse



Back

Print



Plan 4 of 5



Site Plan for **Ford & Sons Fertilizer and Grains**

File name: Ford&SonsCelinaNorthSide.png



75*



Browse



RMP – Ford & Sons Fertilizer and Grains

Facilities

1.1 Source Identification:

a. Facility Name: Ford & Sons Fertilizer and Grains, Inc. - Celina

b. Parent Company #1 Name: -nac.

Parent Company #2 Name: -na-

1.2 EPA Facility Identifier: 100000070xxx

1.3 Other EPA Systems Facility ID: TX0000590xxx

1.4 Dun and Bradstreet Numbers (DUNS):

a. Facility DUNS: 26130690

b. Parent Company #1 DUNS: 0

4 of 5

EXECUTIVE SUMMARY

Ford & Sons Fertilizer and Grains, Inc. no longer receives, stores, or sells anhydrous ammonia at our facility in Celina. Ford & Sons Fertilizer and Grains now only uses anhydrous ammonia for making liquid fertilizer (11-37-0) on site by pipe reactor process.

Anhydrous ammonia used in this on-site process arrives at the facility via rail car or truck and is used in the process by the company that supplies the reactor. The maximum amount of anhydrous ammonia in the railcar is 460,000 pounds. The railcar is on site approximately 2 times/month.

Maines Fertilizer, Inc. P.O. Box 1271 El Dorado, KA 67042 (316)321-xxxx react our fertilizer for us.

From the time they arrive on site until they complete the process, they are responsible for the ammonia. Owner and Manager have received the following letter from Maines Fertilizer:

"This is to certify that Maines does have a written plan which, to the best of our knowledge, meets the requirements of the fourteen (14) elements under 29 CFR Part 1910 Process Safety Management of Highly Hazardous Chemicals and 40 CFR Part 68, Section 122(r).

Each Maines' Mix Unit carries a PSM/RMP manual; therefore, if you need to review our operating or mechanical integrity procedures, feel free to do so when our Units are on location. Copies of our inspection and testing records for ammonia hose, pressure relief devices, and hard plumbing are also carried on the Units, or they can be obtained from this office."

Ford & Sons has in place a plan to notify the Maines technicians when they arrive of the notification process in case of emergency in Celina. We also notify both fire and police prior to their arrival that we will be reacting fertilizer. Ford & Sons relies on the RMP in place for Maines Fertilizer, Inc. while they are on site



Resources

Request from IC: Additional Aid /Resources . . .

- Medical Facilities / Hospitals (Decon- Capable)
- Mutual Aid Responders - (HAZWOPER Trained)
- Health Services (Poison Control Center, State Health Services)
- Local / State Law Enforcement
- Federal State Emergency Contacts
- Municipal Public Works (Contacts / Resources)
- Specialized HAZMAT Contractors
- Technical Consultants (Equipment Helpline, CAMEO Helpline)
- Donut Shops (Countywide)



Resources

Search LEPC Database - Personnel or Equipment

CAMEOfm - [Resources]

File Edit Scripts Help

CAMEO Basic Search

Operator for text fields: ☒ Contains characters
☐ Contains word starting with

Supplier Name:

Supplier Type:

City:

Zip Code:

Phone District:

Item:

911 Center
Airport Crash/Rescue
Amateur Radio Assoc.
Ambulance, F. D.
Ambulance, Private
Bomb Disposal
Building Materials
Cellular Phones
Chemical Protective Clothing
Clinic Mobile
Computers

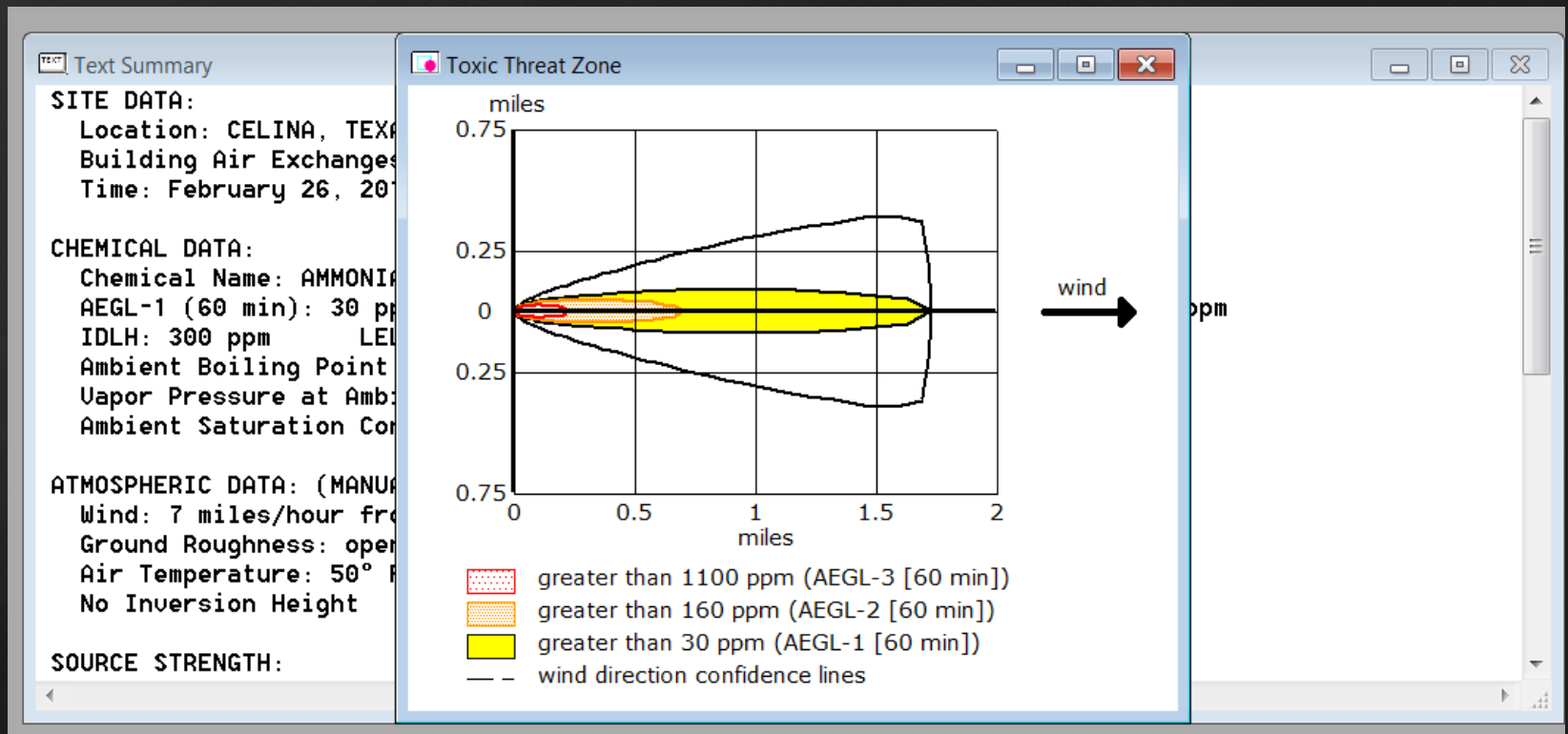
Advanced Search

Cancel

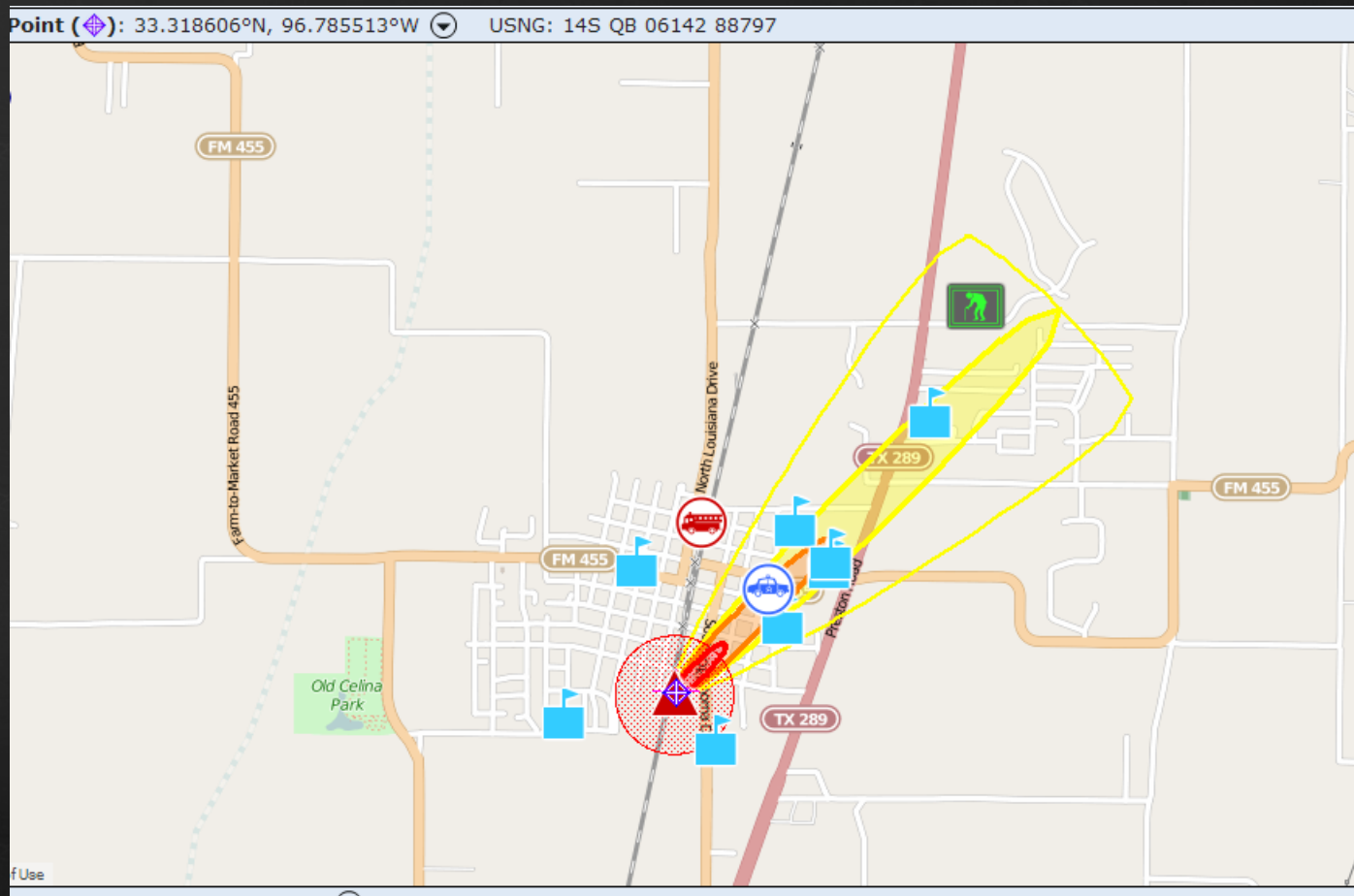
Search

ALOHA - Pre-modeled Worst Case Scenario

- “Ford & Sons NH3 Railcar - Worst Case.alo”



- Plume on MARPLOT map
- View Special Locations downwind/in footprint



Collin County OEM –
Turns to public notification. . .

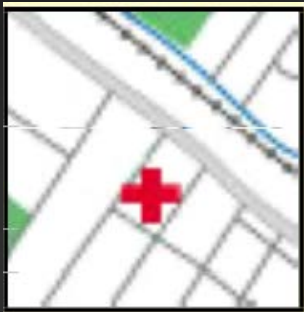
Priority Contacts:
Sensitive populations in footprint



Special Locations

- People / Places affected by a release or emergency
 - Schools / Childcare Facilities
 - Hospitals
 - Assisted Living

Special Locations		Last Modified 5/5/2015	
Location Name <input type="text" value="Celina Elementary School PreK - 2nd grades"/>			
Location Type <input type="text" value="School"/>		Building Type <input type="text" value="Single Story"/>	
Address	Population	Phones	Contacts
Map Data			
Site Plan			
Notes			
Hours of Operation <input type="text" value="07:35 - 15:00"/>			
Peak Season <input type="text" value="August 20 - June 3rd"/>			
Average		Population	Age
<input type="text" value="150"/>		<input type="text" value="5"/>	
		Min	Max
Daily Population		<input type="text" value="150"/>	<input type="text" value="180"/>
Seasonal Population		<input type="text" value="150"/>	<input type="text" value="180"/>



Special Locations

- Right-click on plume
- View list of all sensitive populations in the footprint

CAMEOfm - [SpecialLocations]

File Edit Record Search Sharing Scripts Help

Home View Record New Search Edit New Record Help 1 of 6 found

Found Special Locations

Special locations linked to the map.

Name	Location Type	Street Address	City	State	Zip
Celina Intermediate School - 3rd-4th	School	507 E. Malone St	Celina	TX	75009
Celina Middle School - 5th-6th Grades	School	706 E. Pecan Street	Celina	TX	75009
Celina Junior High 7th - 8th Grades	School	710 E. Pecan Street	Celina	TX	75009
841 North Preston Road, Celina	School	841 North Preston Road	Celina	TX	75009
Celina ISD Athletics Fieldhouse	school	503 East Pecan Street	Celina	TX	75009
Settlers Ridge Care Center	Nursing Home, 24	1280 Settlers Ridge Road	Celina	TX	75009



Special Locations

- View Detailed info on map objects
- MARPLOT Links to Special Locations

MARPLOT

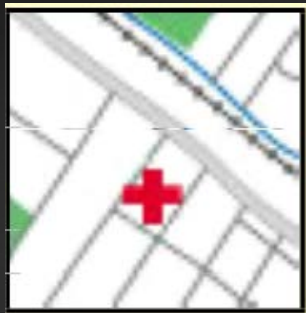
Controls: [Navigation icons] [Selection tool] [Edit tool] [Temporary Layer (CAM...)] [Search & Get Info] [ALOHA & CAMEO] [Other]

Selection Info: 1 object selected (Celina Middle/Junior High School - 5th-8th Grades, Collin County Schools)

Click Point (📍): 33.324218°N, 96.777049°W USNG: 14S QB 06917 89437

NAME: Celina Middle/Junior High School - 5th-8th Grades

Layer: Collin County Schools



Special Locations

- Hours
- Population
- Emergency Contact Number

CAMEOfm - [SpecialLocations]

File Edit Record Search Sharing Scripts Help

Home View List New Search Edit New Record Help 274 of 281 total

Special Locations

Last Modified 5/10/2015

Location Name

Location Type Building Type

Address Population Phones Contacts Map Data Site Plan

Hours of Operation

Peak Season

Average Population Age

Daily Population Min Max

Seasonal Population Min Max

CAMEOfm - [Contacts]

File Edit Record Search Sharing Scripts Help

Home View List New Search Edit New Record Help 338 of 921 total

Contacts

Last Modified 5/5/2015

First Name Last Name

Organization Title

Contact Type

Address Phones Notes

Type	Phone
24-hour	972-893-xxxx
Emergency	972-893-xxxx

Reverse 911
Shelter in Place
Red Cross Brings Kolaches
The Children are Saved!
The Town is Saved!
Successful Response!





Incidents

A Few Weeks Later . . . (document retention)

Reimbursement
Application

\$\$\$

APPROVED





INCIDENTS

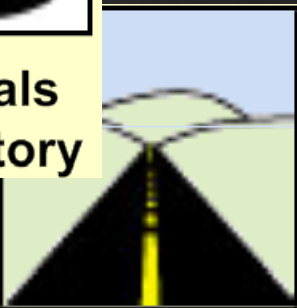
- Store Info on Specific Past Incidents
- All tied to a map object in MARPLOT
 - Field Reports /Form 201s
 - Receipts
 - Waste Manifests / Disposal Records
 - Sampling Results
 - Release amount
 - Final Reports

Celina Township / Collin County LEPC

Pre-plan for chemical releases in the community . . .



**Chemicals
In Inventory**



Routes





**Chemicals
In Inventory**

CHEMICALS IN INVENTORY

- Searched for specific chemicals / hazards
- Quickly generated lists of specified chemicals
- Compared Safety Data Sheets for Facilities



Chemicals
In Inventory

CHEMICALS IN INVENTORY

CAMEOfm - [ChemicalsInInventory]

File Edit Record Search Sharing Scripts Help

Home View Record New Search Edit New Record Help 1 of 7 found

Found Chemicals In Inventory

Results of search for: Chemical Name Contains characters ammonia

Report Year	Facility or Route Name	Chemical	Mixture	CAS	MSDS
2013	City of Norman Water Treatment Plant	ANHYDROUS AMMONIA	<input type="checkbox"/>	7664-41-7	
2013	Sysco of Oklahoma	AMMONIA (ANHYDROUS)	<input type="checkbox"/>	7664-41-7	
2013	Vaughan Foods	AMMONIA (ANHYDROUS)	<input type="checkbox"/>	7664-41-7	
2013	Lake Draper Water Treatment Plant	Ammonia	<input type="checkbox"/>	7664-41-7	
2013	Hiland Dairy Foods--Norman	AMMONIA (ANHYDROUS)	<input type="checkbox"/>	7664-41-7	
2014	Ford & Sons Fertilizer and Grains	AMMONIA (ANHYDROUS)	<input type="checkbox"/>	7664-41-7	
2014	Bama Foods, Limited Partnership	ANHYDROUS AMMONIA	<input type="checkbox"/>	7664-41-7	

100% Browse



ROUTES

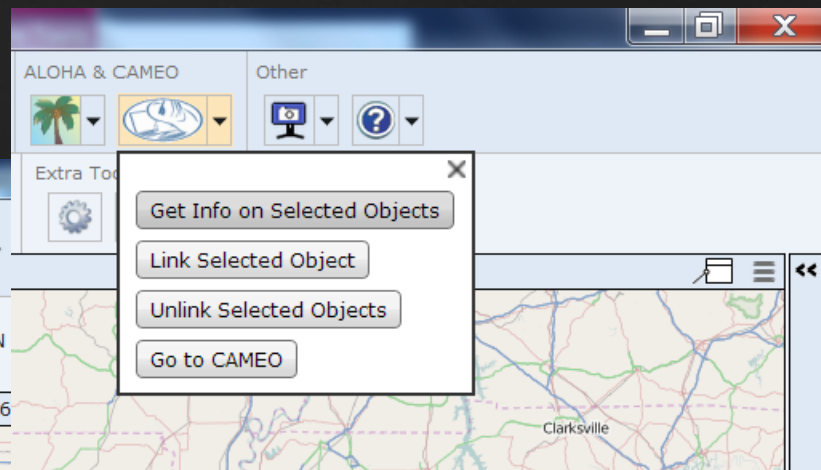
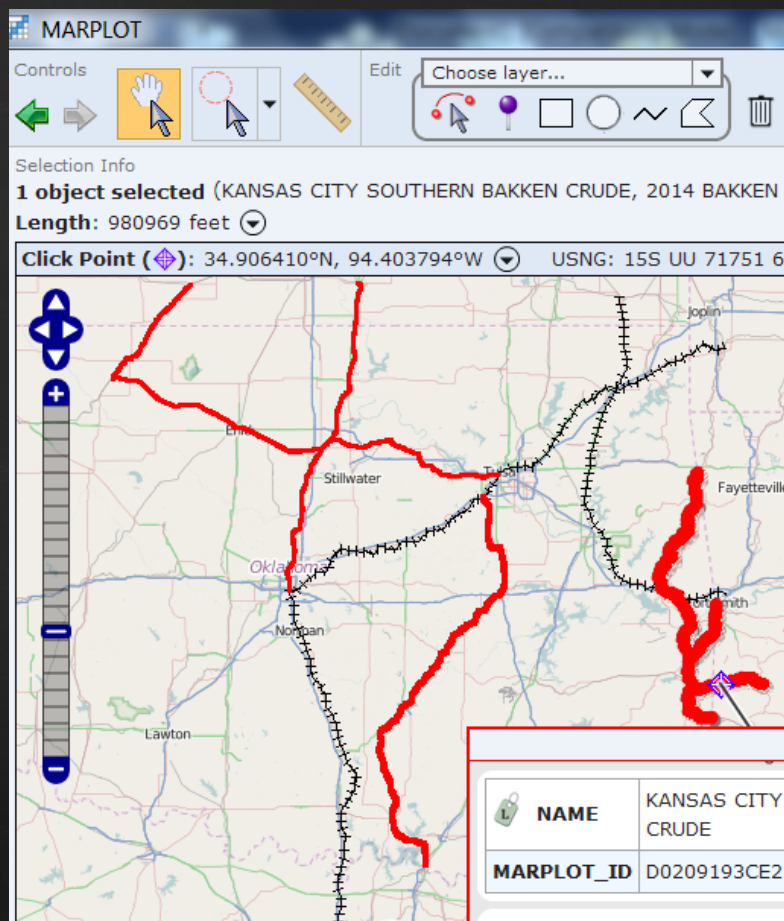
- Managed /Tracked:
 - Highway Routes - Commodity Flow Data
 - Pipelines - Contacts / Content
 - Rail Lines - Crude by Rail Information

All Linked to MARPLOT Map



Routes

ROUTES



NAME	KANSAS CITY SOUTHERN BAKKEN CRUDE
MARPLOT_ID	D0209193CE230001



Routes

ROUTES

Routes

Last Modified 8/25/2014

Route Name

Route Type

Types of Vehicles

☐ Evacuation

☐ Snow

☐ School

☐ HAZMAT

☐ Mass Transit

Start Point

Endpoint

County/District

Fire District

Vehicles Per Day

☒ Route plotted in MARPLOT

Intersections

Chemical Inventory

Documents

Notes

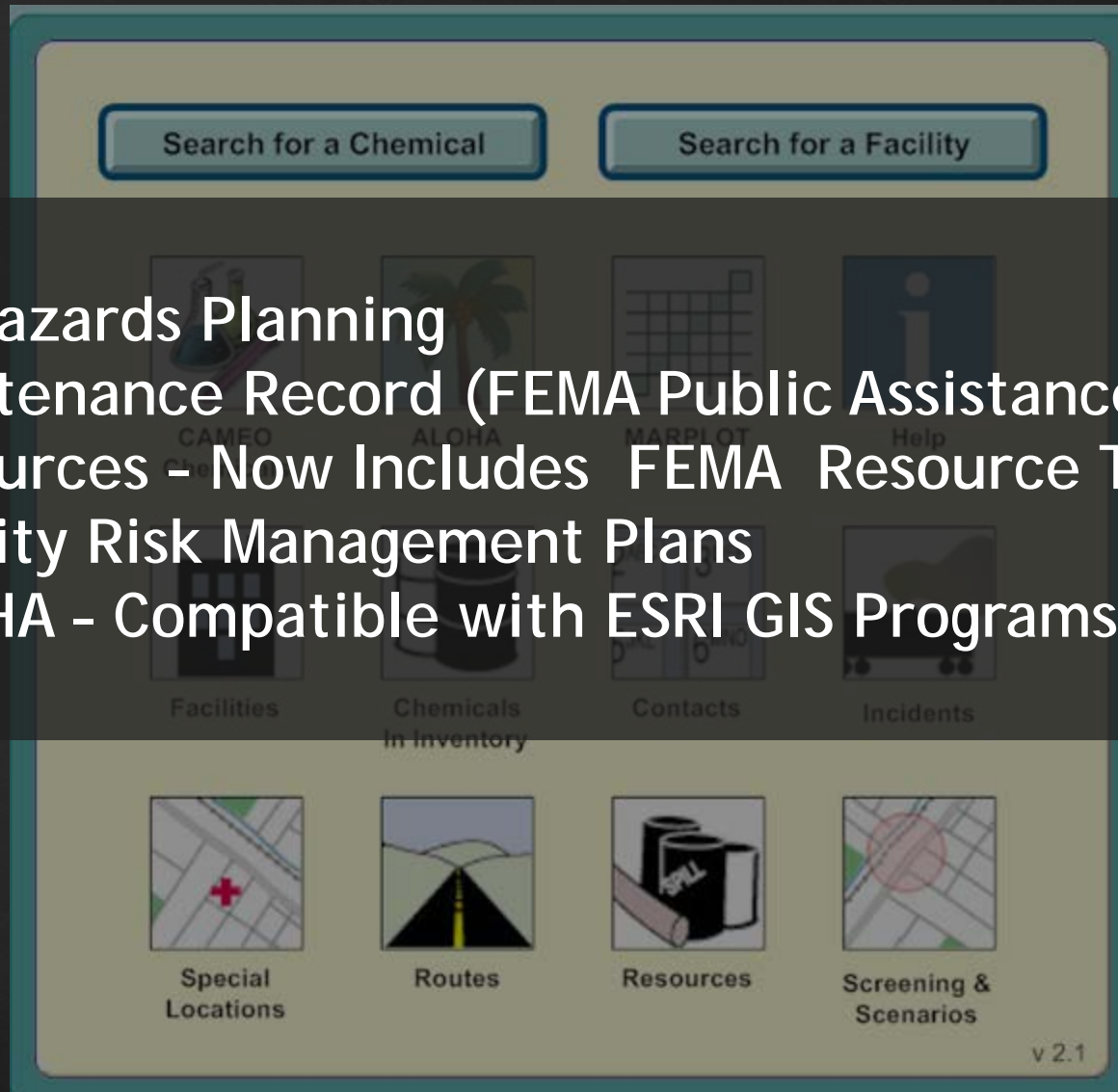
KANSAS CITY SOUTHERN RAIL BAKKEN CRUDE SHIPMENTS.pdf

KCS Bakken Unit Train Route email Notification.docx

KCS Bakken Unit Train Route.pdf

CAMEO IDEAS

- All Hazards Planning
- Maintenance Record (FEMA Public Assistance, Anyone?)
- Resources - Now Includes FEMA Resource Typing
- Facility Risk Management Plans
- ALOHA - Compatible with ESRI GIS Programs



Download CAMEO at:

<http://www2.epa.gov/cameo>



QUESTIONS?

Hilary Gafford

Hilary.gafford@westonsolutions.com