



# **Incident Action Plan**

## ***Millard Anhydrous Ammonia Release***

**06/09/2014**

**Richland, Mississippi**

## Incident Action Plan

Incident: Lineage Logistics Anhydrous Ammonia Release  
Prepared By: Anton Avguchenko  
Period: #2: 06/11 06:00 - 06/12 06:00  
Version Name: P002V05 DRAFT

### Approved By

#### Organization

#### Name

#### Signature

U.S. EPA

Leo Francendese

*Leo Francendese* EPAOSC 6/11/14

MDEQ

John Mark Henderson

*John Mark Henderson* SOSOC 6/11/14

Millard

Vic Rockhill

*Vic Rockhill* 6-11-14

### Incident Photo



### Included in Action Plan

Include	Incident Forms	Include	Period Forms
<input checked="" type="checkbox"/>	Include Incident Cover	<input checked="" type="checkbox"/>	ICS 202 - Incident Objectives
<input checked="" type="checkbox"/>	ICS 201-1 - Incident Briefing	<input checked="" type="checkbox"/>	ICS 204 - Assignment List(s)
<input checked="" type="checkbox"/>	ICS 201-2 - Summary of Current Actions	<input checked="" type="checkbox"/>	ICS 205 - Communication Plan
<input type="checkbox"/>	ICS 201-3 - Organization Chart	<input checked="" type="checkbox"/>	ICS 206 - Medical Plan
<input checked="" type="checkbox"/>	ICS 201-4 - Resource Summary	<input checked="" type="checkbox"/>	ICS 207 - Organizational Chart
<input type="checkbox"/>	ICS 201-5 - Site Safety and Control Analysis	<input checked="" type="checkbox"/>	ICS 208 - Site Safety Plan(s)
<input type="checkbox"/>	Reactive Phase Weather Report	<input type="checkbox"/>	ICS 211P - Check In List
<input type="checkbox"/>	Reactive Phase Notifications	<input checked="" type="checkbox"/>	ICS 230 - Meeting Schedule
		<input checked="" type="checkbox"/>	Weather Report
		<input type="checkbox"/>	ICS 213 - General Message(s)
		<input type="checkbox"/>	ICS 214 - Activity Logs

## Incident Action Plan

Incident: Millard Anhydrous Ammonia Release	Prepared By: Anton Avguchenko
Period: #2: 06/11 06:00 - 06/12 06:00	Version Name: P002V06 DRAFT

### Approved By

Organization	Name	Signature
U.S. EPA	Leo Francendese	
MDEQ	John Mark Henderson	
Millard	Vic Rockhill	

### Incident Photo



### Included in Action Plan

Include	Incident Forms	Include	Period Forms
<input checked="" type="checkbox"/>	Include Incident Cover	<input checked="" type="checkbox"/>	ICS 202 - Incident Objectives
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<input checked="" type="checkbox"/>	ICS 201-2 - Summary of Current Actions	<input checked="" type="checkbox"/>	ICS 205 - Communication Plan
<input type="checkbox"/>	ICS 201-3 - Organization Chart	<input checked="" type="checkbox"/>	ICS 206 - Medical Plan
<input checked="" type="checkbox"/>	ICS 201-4 - Resource Summary	<input checked="" type="checkbox"/>	ICS 207 - Organizational Chart
<input type="checkbox"/>	ICS 201-5 - Site Safety and Control Analysis	<input checked="" type="checkbox"/>	ICS 208 - Site Safety Plan(s)
<input type="checkbox"/>	Reactive Phase Weather Report	<input type="checkbox"/>	ICS 211P - Check In List
<input type="checkbox"/>	Reactive Phase Notifications	<input checked="" type="checkbox"/>	ICS 230 - Meeting Schedule
		<input checked="" type="checkbox"/>	Weather Report
		<input type="checkbox"/>	ICS 213 - General Message(s)
		<input type="checkbox"/>	ICS 214 - Activity Logs

# Incident Action Plan

		<input type="checkbox"/>	Incident Critique
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## ICS 201-1: Incident Briefing

Incident: Millard Anhydrous Ammonia Release

Prepared By: Anton Avguchenko

Period: Initial Response

Version Name: 06/11/2014 17:43 CDT

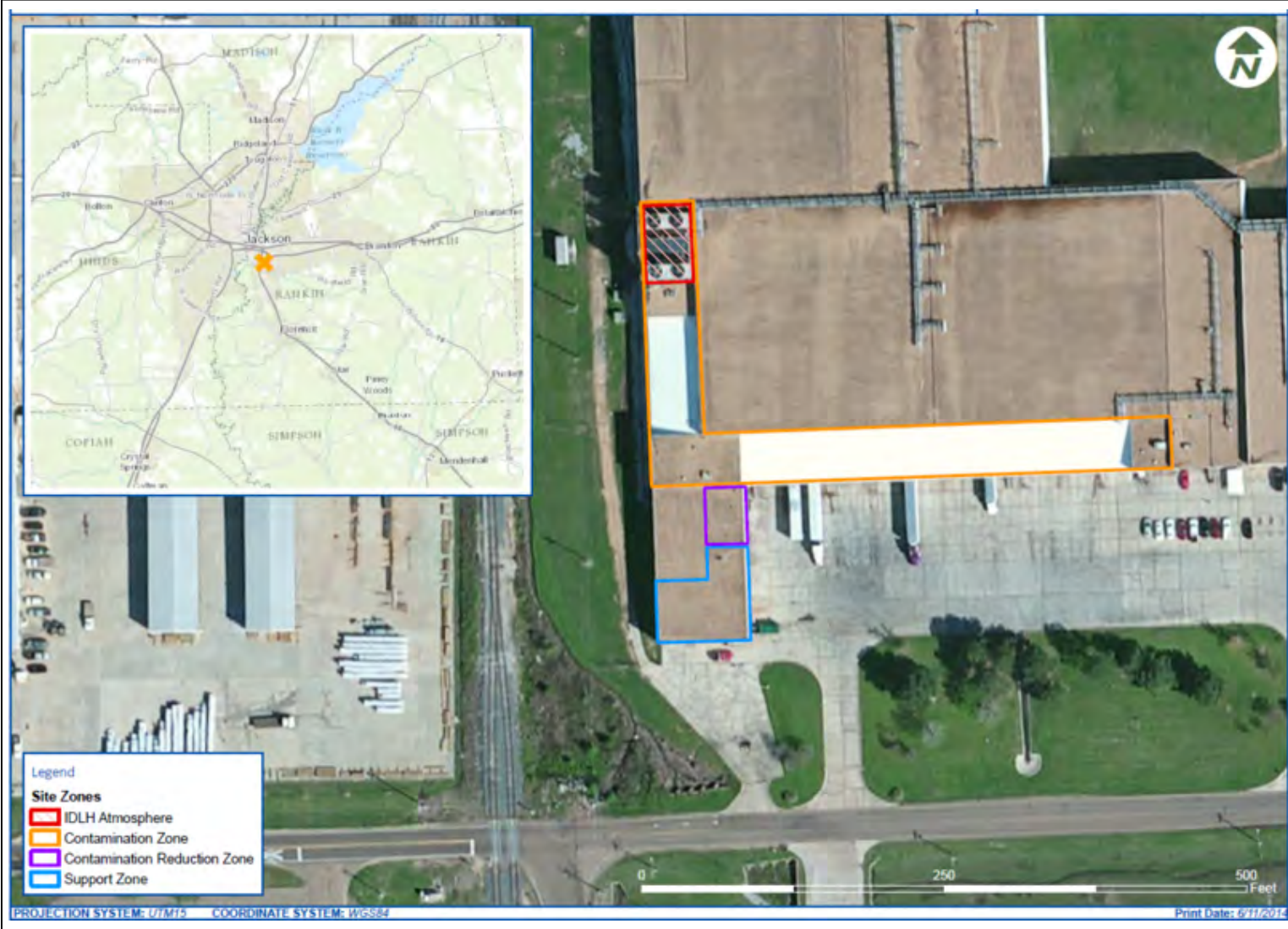
### Initial Situation

Ammonia release at Millard Refrigerated Services facility in Richland, MS. Conditions: mid-80s, wind 10-15 mph from SW, partly cloudy.

Piping rack on the ceiling of the motor room in the west end of the facility developed a leak. Vapors extended to the south and north dock. Ammonia migrated North and East offsite to KCS yard. Intermittent odors reported in the rail yard. Emergency exhaust fans in the Millard facility activated automatically at 300 ppm ammonia.

See Running Timeline in form 201-2 below for daily situational updates.

### Map Sketch



## ICS 201-2: Summary of Current Actions

Incident: Millard Anhydrous Ammonia Release	Prepared By: Anton Avguchenko
Period: Initial Response	Version Name: 06/11/2014 17:43 CDT

### Incident Objectives

1. Secure the bulk tank
2. Establish perimeter air monitoring
3. Identify and isolate the leaking system

### Summary of Actions & Events

Occurred At	Start Time	End Time	Body
06/09/2014	10:00	10:15	CTEH is notified by KCS of odors in KCS railyard. Richland FD Batallion chief confirms there's a leak in the building.
06/09/2014	10:30	11:00	USES arrives onsite. USES set up roaming air monitoring on KCS rail yard. KCS is sheltered in place.
06/09/2014	10:50	11:00	Incident Command initial briefing.
06/09/2014	11:18		MDEQ directs USES to conduct necessary response actions
06/09/2014	11:30		MDEQ directs CTEH to initiate 24-hr community air monitoring
06/09/2014	12:30	12:50	USES Safety Briefing
06/09/2014	12:55	13:20	First recon entry (Level A PPE). Closed king valve and another valve.
06/09/2014	13:20	13:35	Decon from first entry. Leak still active. IDLH atmosphere inside motor room.
06/09/2014	14:20	14:45	Second recon entry in Level A PPE. Secured more valves trying to isolate the leaking system.
06/09/2014	15:15	16:30	CTEH arrives onsite. Set up perimeter air monitoring.
06/09/2014	19:00	19:15	Third recon entry (Level B). Shut more valves to isolate the leaking system.
06/09/2014	19:45	20:00	Fourth recon entry to check the pressure gauges. Ammonia concentration in the air inside the motor room has decreased dramatically at this time.

## ICS 201-2: Summary of Current Actions

06/09/2014	20:15	20:30	Positive pressure ventilation fan set up at the personnel door leading into the motor room.
06/09/2014	20:30	23:59	Night ops -- air monitoring, maintain site security, maintain ventilation fan operation
06/10/2014	00:01	07:00	Night ops -- air monitoring, maintain site security, maintain ventilation fan operation
06/10/2014	01:00		MDEQ and USEPA OSC met with Lineage Logistics representative. Notice of Federal Interest is given.
06/10/2014	07:00	07:20	Job Safety meeting
06/10/2014	07:00		Lineage Logistics assumes all contractor costs and management
06/10/2014	08:40	08:55	Conducted sweep of the building to verify ammonia levels and determine PPE requirements
06/10/2014	08:55	09:15	Entry crew decon. The only exceedance of action level was in the motor room (87 ppm)
06/10/2014	09:25	09:45	Meeting debrief with results of entry
06/10/2014	10:00	10:45	IC Tactics Meeting
06/10/2014	10:30	11:00	Set up vac truck and hoses for decontamination of motor room
06/10/2014	11:30	12:00	IC Tactics meeting re-convenes
06/10/2014	13:20	13:25	Crew enters motor room in Level C.
06/10/2014	13:25	13:30	Crew exits to upgrade PPE
06/10/2014	13:30	13:40	Crew set up ventilation to clear South Dock area
06/10/2014	13:40	14:40	Sump in motor room is cleaned. Crews begin washing engine room floor.
06/10/2014	14:40		Crew exits motor room for decon.
06/10/2014	15:00	15:15	CTEH enters motor room to assess levels in the air seeking to downgrade PPE level.
06/10/2014	15:15	15:30	Wash crew re-enters engine room in level C PPE to decon floor.
06/10/2014	15:20	15:40	Millard maintenance crew enters motor room to assess pipe repair needs

## ICS 201-2: Summary of Current Actions

06/10/2014	15:30	15:40	Wash crew on stand down for pipe assessment. Pipe assessment crew finds another leak.
06/10/2014	15:40	16:00	Discussing plan of action to secure second leak.
06/10/2014	16:00	16:20	Set up second cascade system to allow two people to go up to the pipe system
06/10/2014	17:00	17:45	Two people enter motor room in Level B and closed the actuator valve. Leak is stopped.
06/10/2014	18:00	18:40	Debrief/Planning meeting
06/10/2014	19:30	20:15	Crew enters motor room. Closes another valve. Installs a jet pump on the coil and scrubbed the coil to prepare it for cutting.
06/10/2014	20:30	23:59	Purging operation begins.
06/11/2014	00:01	08:30	Purging operation continues
06/11/2014	07:00	07:30	Safety briefing
06/11/2014	07:45	08:05	CTEH made rounds to assess ammonia levels to confirm PPE level for entry.
06/11/2014	08:10		Millard and welders enter the motor room to assess the situation in the room
06/11/2014	08:30		Purging operation complete.
06/11/2014	08:40		Vacuumed out the last of the liquid from the tote
06/11/2014	09:10	09:30	Vacuumed liquid out of tunnel under the building
06/11/2014	09:45		Maintenance crew cut freezer wall
06/11/2014	10:00		pH of frac tank reads 9.0
06/11/2014	10:15		crews begin to wash motor room floor
06/11/2014	10:30	11:00	Crews sucking out liquid from floor in motor room with sump pump.
06/11/2014	11:20		Breaking down jet pump, cleaning around the site.
06/11/2014	12:20		Welding team enters to prep pipes for capping.



## ICS 201-2: Summary of Current Actions

06/11/2014	12:50		Hooked up jet pump to the 2in liquid line to continue purging.
06/11/2014	17:00		Weld and cap operations complete

## ICS 201-4: Resource Summary

Incident: Millard Anhydrous Ammonia Release

Prepared By: Anton Avguchenko

Period: Initial Response

Version Name: 06/11/2014 17:43 CDT

### Resources

ID	Supplier	Resource Type	Description	Qty	Size	Contact & Phone	Area Of Operations	Status	Status Date Time
	Richland FD		Fire Truck + engine company	3					
	Richland FD		Air Compressor	1					
	Richland FD		Rehab Trailer	1					
	Richland FD		Incident command trailer	1					
	Richland FD		Light Plant						
	CTEH		AreaRAE 5-gas Monitor	4					
	CTEH		GasTec GV-100 Piston Pump	3					
	CTEH		Hand-held Data Collection PDA	4					
	CTEH		MultiRAE Plus 5-gas Monitor	4					
	CTEH		ProRAE Host Control Kit	1					
	CTEH		RAE Link 3 (Mesh Kit)	1					
	CTEH		SKC Analytical Pump	8					
	CTEH		Vehicle	6					
	CTEH		Responder	11					
	CTEH		GasTec GV-100 Piston Pump	2					
	CTEH		Hand-held Data Collection PDA	2					
	CTEH		MultiRAE Plus 5-gas Monitor	2					
	CTEH		Vehicle	2					
	USES		Responder	10					
	USES		Pickup truck	6					
	USES		Response trailer	1					
	USES		SCBA	8					
	USES		4-gas+ PID	2					
	USES		intrinsically safe flashlight	1					
	USES		cell phone	3					
	USES		Level B suits	5					
	USES		Level A suits	4					
	USES		Level A chemical boots	5					
	USES		Polycoat QC suits	7					
	USES		Butyl gloves	10					
	USES		Chemical Tape	4					

**Operational Period #2**  
**06/11 06:00 - 06/12 06:00**

## ICS 202: Incident Objectives

Incident: Millard Anhydrous Ammonia Release	Prepared By: Ashley Reardon
Period: #2: 06/11 06:00 - 06/12 06:00	Version Name: 06/11/2014 15:28 CDT

### Objective(s)

1. Life safety
2. Incident stabilization
3. Property preservation
4. Environment

### Operational Period Command Emphasis

1. Isolate remaining valves
2. Wash floors
3. Evacuate NH3 from coils
4. Controlled evacuation of south dock with fans
5. Hot work (cut & cap)

### General Situational Awareness

1. Site orientation
2. Slips, trips, and falls

## ICS 202: Incident Objectives

3. Safety around equipment
4. Heat stress/hydration
5. Heavy machinery
6. Congested staging and work areas



## ICS 204 - Assignment List

Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Air Monitoring	Division / Group:	Community Air Monitoring
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

### Tactical Objective

Monitor the community for potential off site impact and record/report

### Assignments

Real-time hand-held air monitoring

Integrated sampling for ammonia

Data management and reporting


### Resources Required

Resource Identifier	Leader	# of Units	Contact	Notes
Environmental Scientist (Days)	JT Wilson	2	501-366-7971	
Environmental Scientist (Nights)	JT Wilson	3	501-366-7971	

### Assignment Progress and Issues

Underway and ongoing. Planning on resource decrease during for the next operational period.

### Location of Work

Community surrounding the incident site in Richland, MS.

ICS 204 - Assignment List	
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Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Air Monitoring	Division / Group:	Operations Air Monitoring
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

Tactical Objective	
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<p>Monitor workers for potential exposure during entry, decon, rescue, and support operations. Record and report data.</p>
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Assignments	
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Real-time hand-held air monitoring
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Data management and reporting
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	<b>Resources Required</b>

Resources Required	
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Resource Identifier	Leader	# of Units	Contact	Notes
Environmental Scientist (Days)	JT Wilson	7	501-366-7971	
Data Management	Jason Callahan	1	501-366-8044	
Response Management	Anton Avguchenko	1	501-258-0933	

Assignment Progress and Issues	
Task 1: Literature Review	Completed 80% by 10/25/2023. Minor issues with citation formatting.
Task 2: Data Collection	Completed 60% by 11/05/2023. Significant issues with data accuracy.
Task 3: Analysis	Completed 40% by 11/15/2023. Major issues with statistical methods.
Task 4: Writing	Completed 20% by 11/25/2023. Minor issues with grammar and clarity.
Task 5: Final Review	Completed 10% by 12/05/2023. Major issues with overall structure and coherence.

Underway and ongoing.
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Location of Work	
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In the hot zone and work area related to operations.

## ICS 204 - Assignment List

Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Operations	Division / Group:	Entry Operations
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

### Tactical Objective

Enter facility to mitigate ammonia release.

### Assignments

Isolate remaining valves

Wash floors, pump out sump

Evacuate NH3 from coils

Controlled evacuation of south dock with fans

Hot work (cut & cap)


### Resources Required

Resource Identifier	Leader	# of Units	Contact	Notes
Entry Technician	Mack Crapps	3		

### Assignment Progress and Issues

Underway and ongoing.

### Location of Work

In the hot zone and work area related to operations.

## ICS 204 - Assignment List

Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Operations	Division / Group:	Decon Operations
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

### Tactical Objective

Set up and maintenance of decon area as well as decontamination of entry personnel.

### Assignments


### Resources Required

Resource Identifier	Leader	# of Units	Contact	Notes
Decon Technician	Mack Crapps	2		

### Assignment Progress and Issues

Underway and ongoing.

### Location of Work

Decontamination area inside south dock area of Millard facility.

## ICS 204 - Assignment List

Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Operations	Division / Group:	Rescue Operations
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

### Tactical Objective

Standby for potential rescue of entry personnel.

### Assignments

Maintain equipment necessary for emergency entry

Rescue entry personnel in case of emergency


### Resources Required

Resource Identifier	Leader	# of Units	Contact	Notes
Rescue Technician	Mack Crapps	3		

### Assignment Progress and Issues

Underway and ongoing.

### Location of Work

Staging area outside of hot zone.



## ICS 204 - Assignment List

Incident:	Millard Anhydrous Ammonia Release	Period:	#2: 06/11 06:00 - 06/12 06:00
Branch:	Operations	Division / Group:	Support Operations
Prepared By:	Ashley Reardon	Version Name:	06/11/2014 15:28 CDT
Unit:			

### Tactical Objective

Support onsite operations.

### Assignments

Assist with entry and decon team donning PPE

Retrieval of needed supplies

Operations management


### Resources Required

Resource Identifier	Leader	# of Units	Contact	Notes
Support Personnel	Mack Crapps	5		

### Assignment Progress and Issues

Underway and ongoing.

### Location of Work

In the support zone and decon area.

## ICS 205: Communication Plan

Incident: Millard Anhydrous Ammonia Release	Prepared By: Ashley Reardon
Period: #2: 06/11 06:00 - 06/12 06:00	Version Name: 06/11/2014 15:28 CDT

### Radio Listings

Zone Grp.	Ch #	Function	Channel Name / Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone / NAC	TX Freq N or W	TX Tone / NAC	Mode (A, D or M)	Remarks

### Phone Listings

Name	Title	Phone	Radio	Email	Other
Don Warren	CTEH - Planning Section Chief	601-278-7814	<input type="checkbox"/>		
Dr. Paul Nony	CTEH - Toxicologist	501-352-3131	<input type="checkbox"/>		
J.T. Wilson	CTEH - Project Manager	501-366-7971	<input type="checkbox"/>		
John Mark Henderson	DEQ	601-906-8655	<input type="checkbox"/>		
Leo Francendese	EPA	404-606-2223	<input type="checkbox"/>		
Mack Crapps	USES - Project Manager	601-317-9496	<input type="checkbox"/>		
Mark Hales	USES - Safety Officer	601-522-4089	<input type="checkbox"/>		
Mike Gettinger	USES - Operations Supervisor	601-278-7835	<input type="checkbox"/>		

### Additional Comments

## ICS 206: Medical Plan

Incident: Millard Anhydrous Ammonia Release

Prepared By: Ashley Reardon

Period: #2: 06/11 06:00 - 06/12 06:00

Version Name: 06/11/2014 15:28 CDT

### First Aid Stations

Name	Location	EMT On Site	Phone	Radio
Incident Command				

### Transportation (Ground and/or Air Ambulance Services)

Name	Location	Paramedics	Phone	Radio

### Hospitals

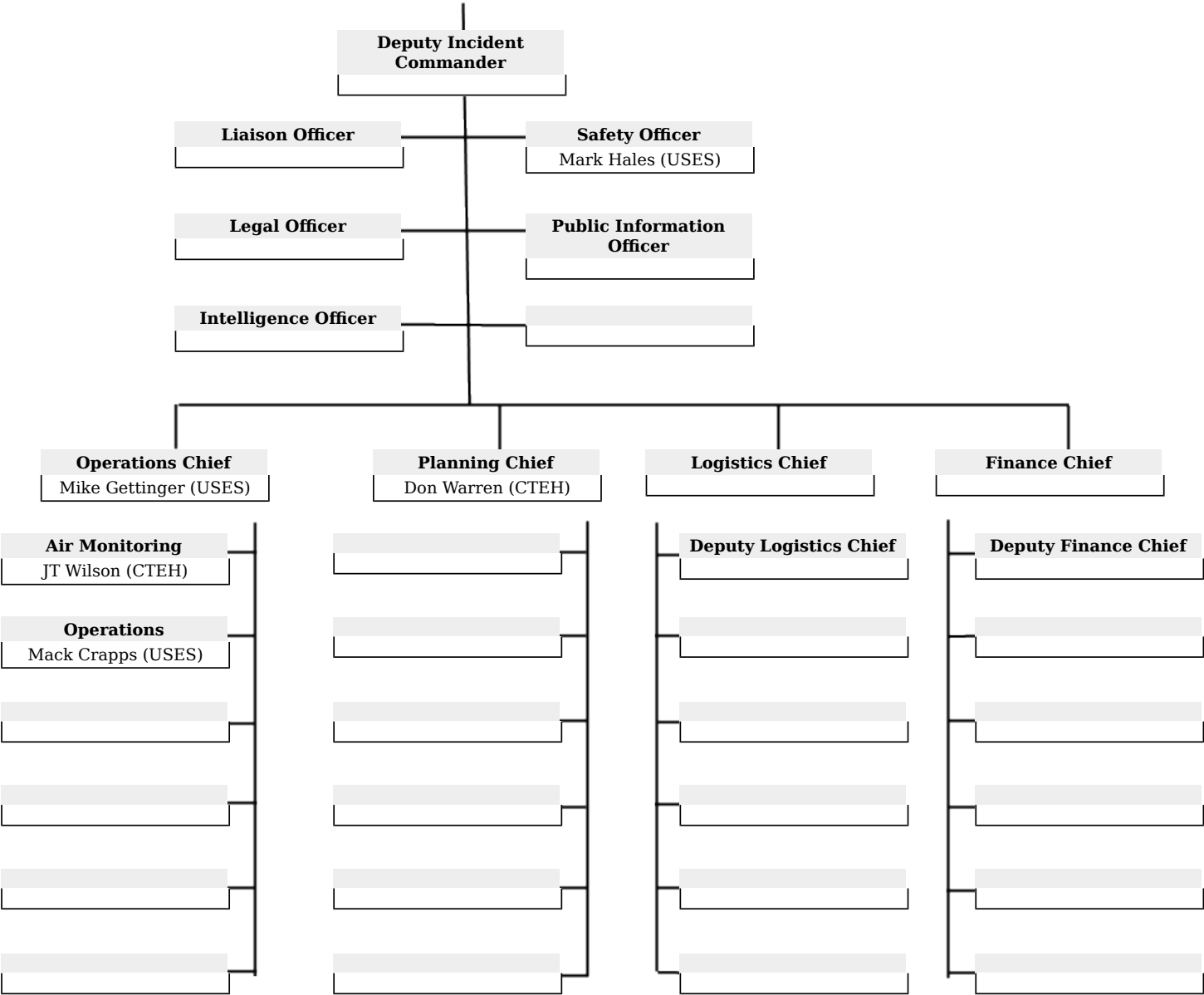
Name	Location	Burn Center	Helipad	Phone	Radio
University of MS Med Center	2500 North State St, Jackson, MS 39212			601-984-1000	
St. Dominic Hospital	969 Lakeland Dr, Jackson, MS 39216			601-200-2000	

### Special Medical Emergency Procedures

ICS 207: Organizational Chart

Incident: Millard Anhydrous Ammonia Release	Prepared By: Ashley Reardon
Period: #2: 06/11 06:00 - 06/12 06:00	Version Name: 06/11/2014 15:28 CDT

<b>Federal</b>	<b>Incident Commander</b>	<b>State</b>	<b>Local</b>	<b>Internal Advisor</b>
Leo Francendese	Vick Rockwell (Millard)	John Mark Henderson		



<b>ICS 208: Site Safety Plan - On Site</b>										
Incident: Millard Anhydrous Ammonia Release						Prepared By: Ashley Reardon				
Period: #2: 06/11 06:00 - 06/12 06:00						Version Name: 06/11/2014 15:28 CDT				
Applies to Site: On Site										
Chemical / Material Hazards										
Chemical	UEL	LEL	Ceiling / ILDH	STEL	PEL	Flash Pt	Vapor Pressure (mm)	Vapor Density	Specific Gravity	Boiling Point
Ammonia	27%	15.5%	300 ppm		50ppm					
Carbon Dioxide					5000ppm					
Air Monitoring										
O <sub>2</sub> %: 20.9									LEL %: 0.0	
Benzene (ppm): 0.0									H <sub>2</sub> S (ppm): 0.0	
Other: Ammonia - no detections in the community, 3-10 ppm in facility/perimeter.										
Physical Hazards										
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Animal / Plant / Insect         </div> <div style="width: 50%;"> <input type="checkbox"/> Cold Stress         </div> <div style="width: 50%;"> <input type="checkbox"/> Confined Space         </div> <div style="width: 50%;"> <input type="checkbox"/> Electrical Shock         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Heavy Equipment         </div> <div style="width: 50%;"> <input type="checkbox"/> Excavation         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Fatigue         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Heat Stress         </div> <div style="width: 50%;"> <input type="checkbox"/> Lightning         </div> <div style="width: 50%;"> <input type="checkbox"/> Noise         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Other         </div> <div style="width: 50%;"> <input type="checkbox"/> Powerlines         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Slips / Trips / Falls         </div> <div style="width: 50%;"> <input type="checkbox"/> Vehicle Traffic         </div> <div style="width: 50%;"> <input type="checkbox"/> Water         </div> </div>										
Personal Protective Equipment (PPE)										
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> APR         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Chemical Resistant Boots         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Chemical Resistant Gloves         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Chemical Resistant Suit         </div> <div style="width: 50%;"> <input type="checkbox"/> FRC         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Hard Hat         </div> <div style="width: 50%;"> <input type="checkbox"/> Hearing Protection         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Eye Protection         </div> <div style="width: 50%;"> <input type="checkbox"/> PAPR         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Protective Boots         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> SCBA         </div> <div style="width: 50%;"> <input type="checkbox"/> Life Jacket         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Other         </div> </div>										
Engineering Controls										
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Cooling Trailer         </div> <div style="width: 50%;"> <input type="checkbox"/> Fall Protection         </div> <div style="width: 50%;"> <input type="checkbox"/> Fire Extinguisher         </div> <div style="width: 50%;"> <input type="checkbox"/> Fluids         </div> <div style="width: 50%;"> <input type="checkbox"/> Heat Trailer         </div> <div style="width: 50%;"> <input type="checkbox"/> Life Line         </div> <div style="width: 50%;"> <input type="checkbox"/> Lockout / Tagout         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Guards Posted         </div> <div style="width: 50%;"> <input type="checkbox"/> Retrieval System         </div> <div style="width: 50%;"> <input type="checkbox"/> Safety Harness         </div> <div style="width: 50%;"> <input type="checkbox"/> Signs / Barricades         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Other         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Rest Period         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Ventilate         </div> <div style="width: 50%;"> <input type="checkbox"/> Zones Established         </div> </div>										
Additional Control Measures										
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> Decontamination         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Facilities provided - OSHA 29 CFR 1910.120m         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Facilities provided - OSHA 29 CFR 1910.120n         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Illumination         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Sanitation         </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> Stations established         </div> </div>										
Organization										
<b>Title:</b>					<b>Name:</b>			<b>Telephone / Radio:</b>		
Incident Commander					Vick Rockwell					



ICS 208: Site Safety Plan - On Site		
Deputy Incident Commander		
Safety Officer	Mark Hales	
Public Information Officer		
Other		
<b>Emergency Plan</b>		
<input type="checkbox"/> Alarm System		
<input type="checkbox"/> Evacuation Plan		
<input checked="" type="checkbox"/> First aid location	At Incident Command	
<b>Notified</b>		
<input checked="" type="checkbox"/> Hospital	Phone:	
<input checked="" type="checkbox"/> Ambulance	Phone: 911	
<input checked="" type="checkbox"/> Air Ambulance	Phone: AeroCare - 800-823-1911	
<input checked="" type="checkbox"/> Fire	Phone: 911	
<input checked="" type="checkbox"/> Law Enforcement	Phone: 911	
<input type="checkbox"/> Emergency response/rescue	Phone:	

ICS 230: Daily Meeting Schedule				
Incident: Millard Anhydrous Ammonia Release			Prepared By: Anton Avguchenko	
Period: #2: 06/11 06:00 - 06/12 06:00			Version Name: 06/11/2014 15:28 CDT	
Meetings				
Meeting Name	Date / Time	Purpose	Attendees	Location
Tactics Meeting	06/11/2014 10:00 CDT		RP, EPA, FD, USES, CTEH	

## Weather Report

Incident: Millard Anhydrous Ammonia Release		Prepared By: Ashley Reardon	
Period: #2: 06/11 06:00 - 06/12 06:00		Version Name: 06/11/2014 15:28 CDT	
Present Conditions			
Date:	06/11/2014	Chance Precip.:	10.0
Sunrise:	05:53	Sunset:	20:07
High °F:	85.0	Low °F:	65.0
Wind Speed MPH:	10.0	Wind Direction From:	W
Visibility:		Clouds:	Clear
Water °F:		Atmosphere Pressure:	
Lightning:			
Day Notes:	<p>Forecast:&nbsp;Mostly sunny. High around 85F. Winds W at 10 to 20 mph.</p>		
Night Notes:			
12 Hour Forecast			
Date:	06/10/2014	Chance Precip.:	10.0
High °F:	85.0	Low °F:	65.0
Wind Speed MPH:	5.0	Wind Direction From:	SSW
Visibility:		Clouds:	Clear
Water °F:		Atmosphere Pressure:	
Lightning:			
Day Notes:			
Night Notes:	<p>Forecast: Clear skies. Low around 65F. Winds SW at 5 to 10 mph.</p>		
24 Hour Forecast			
Date:	06/11/2014	Chance Precip.:	50.0
High °F:	91.0	Low °F:	71.0
Wind Speed MPH:	5.0	Wind Direction From:	SW
Visibility:		Clouds:	Clear to Mostly Cloudy
Water °F:		Atmosphere Pressure:	
Lightning:			
Day Notes:	<p>Forecast:&nbsp;Generally sunny despite a few afternoon clouds. High 91F. Winds SW at 5 to 10 mph.</p>		
Night Notes:	<p>Forecast: Mostly cloudy skies early. Scattered thunderstorms developing late. Low 71F. Winds light and variable. Chance of rain 50%.</p>		



**Millard Refrigerated Services  
Ammonia Release  
Richland, MS**

**Waste Management Plan**

**1.0 General**

This Waste Management Plan specifies the procedure for the management, control, and disposition of any material specified as “waste” for the cleanup of ammonia and ammonia contaminated waste from an ammonia release that occurred at the Millard Refrigerated Warehouse Facility, in Richland, MS

The anticipated wastes generated during this product are:

- a. Contaminated Water
- b. Contaminated Sorbents, and Debris
- c. General Trash from Operations, (PPE, Drink Bottles, ETC...)

The procedures in this document will apply to all operations on the site and all owners, contractors, subcontractors, and owner’s representatives will fall under its prevue for the duration determined by the Federal On Scene Coordinator (FOSC), State On Scene Coordinator (SOSC), and Millard Representatives. The goal of this plan is to minimize the amount of waste generated in accordance with proper waste minimization procedures, to properly characterize waste for disposal, and to properly containerize, transport and dispose of wastes.

**2.0 Waste Minimization**

Millard and USES hold to stringent guidelines for the removal and disposal of waste materials and one of the more important of these is waste minimization. No waste will be stored or containerized in a way that it may contaminated other media producing more waste if possible, Neither will waste be generally characterized as contaminated without due consideration if contamination truly exists. This can be done with visual inspection, onsite testing, or offsite testing. Beyond these rules all parties will strive to find other ways to minimize waste generation onsite as much as realistically possible.

### **3.0 Waste Streams and Proper Handling Procedures**

#### **A. Contaminated water:**

All waste waters contaminated with ammonia will be collected utilizing a vacuum tanker truck as a collection vessel. Once the Vacuum truck is at capacity they will be offloaded into an onsite Frac tank to await disposal. Once the onsite tankage is full the material will be characterized and either discharged to the sanitary sewer or transported to a permitted disposal facility capable of accepting liquids.

All wastes will be transported on Bills of Ladings or Manifests from the project site to the disposal facility or Sewer Lift Station. The Bills of Ladings will be signed by a Representative of Millard as well as the transporting driver. This will continue until all waste waters from this project have been disposed of.

#### **B. Contaminated Sorbents and Debris**

All contaminated sorbents, and debris from this project will be containerized into bags or drums for storage at an onsite staging location and labeled. Once a suitable number of containers have been filled they will be transported to a non-hazardous disposal facility permitted to accept these wastes.

Once the Profiles are approved and the waste accepted into the applicable landfill, Manifest documents will be prepared and signed by a Millard Representative and transported to the proper landfill.

#### **C. General Trash from Operations, (PPE, Drink Bottles, ETC...)**

All general trash from the site from day to day response activities will be containerized into 55 gallon drum liners and stored onsite until the end of response activities. Once all onsite activities are complete the bags of waste will be transferred into a roll off box or other waste receptacle and transported to the above reference non-hazardous landfill for disposal as general waste and debris.

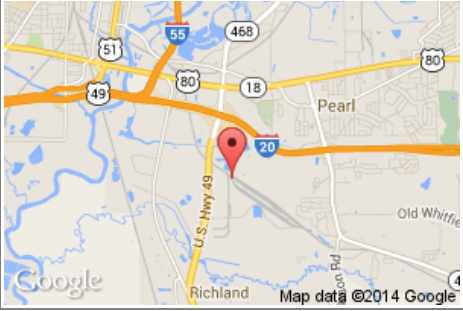

### **4.0 Waste Reporting**

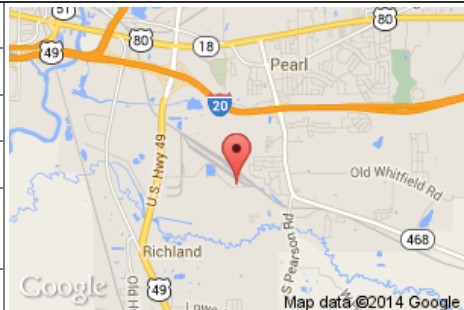

At the end of the project all waste disposal activities will be summarized in a waste disposal report and presented to Millard. The report will include copied of all applicable disposal documents and weight tickets, if needed.



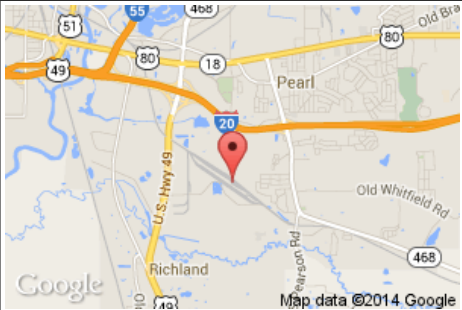

## 5.0 Available Disposal Facilities


Facility		Address	Wastes Accepted
Republic Services Little Dixie Landfill		1716 N County Line Rd, Ridgeland, MS	Non Hazardous Solid Wastes
Waste Management Clearview Landfill		2253 Mudline Rd,	Non Hazardous Solid and Liquid Wastes for Solidification
Liquid Environmental Solutions		Avenue A, Mobile, AL 36615	Non Hazardous Industrial Liquid Wastes
Chemical Waste Management		36964 Alabama Highway 17 North, Milemarker 163 Emelle, AL 35459 USA	Non Hazardous Industrial Liquid Wastes Hazardous Solids Hazardous Liquids

Date Time	2014/06/09 16:47	
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT01	
Secondary ID	North end of rail yard	
Location	North end of railyard NE of facility. Possible FRT location 32.260807037353516, -90.1553726196289	
Initials	Andrew Henault	
Comments	FRT01 established at North end railyard	

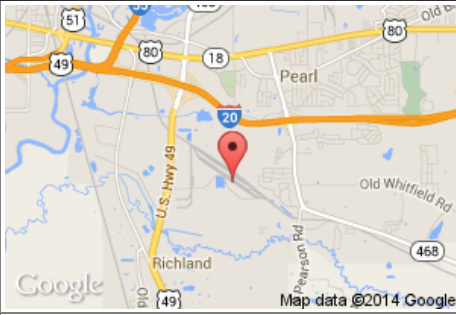

Date Time	2014/06/09 16:48			
Siera Type	Survey (Candidate Fixed Location)			
Primary ID	FRT07			
Secondary ID	Cul de sac on Sandy Ln			
Location	Cul de sac on Sandy Ln 32.251808166503906, -90.14372253417969			
Initials	Bailey Williams	Map data ©2014 Google alGlobe, U.S. Geological Survey, USDA Farm Service Agency,		
Comments	Near 790 Sandy Ln, 100 yards north of KCS line.			

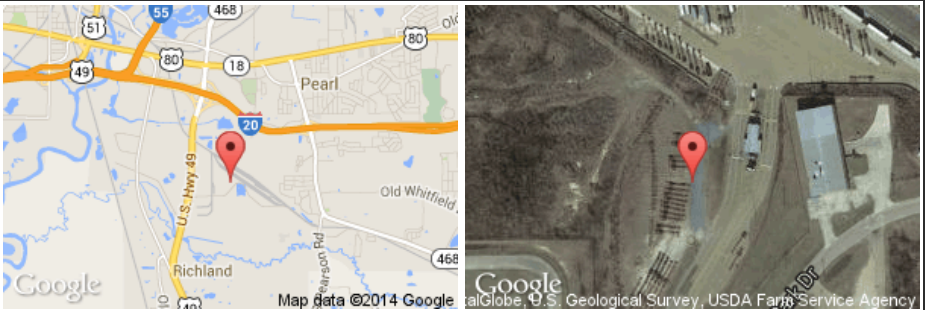


Date Time	2014/06/09 16:55	
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT02	
Secondary ID	KCS Mechanical Dept	
Location	KCS Mechanical Dept 32.25541305541992, -90.14617156982422	
Initials	Andrew Henault	
Comments	New fixed realtime location SE of facility	

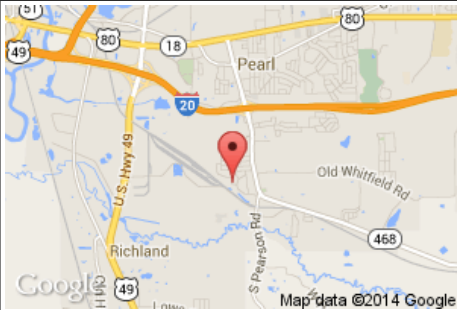

Date Time	2014/06/09 17:13	
Siera Type	Survey (Candidate Fixed Location)	
Primary ID	FRT06	
Secondary ID	Ward's Wrecker Service	
Location	Ward's Wrecker Service; 1101 Childre St 32.2471923828125, -90.13190460205078	
Initials	Bailey Williams	
Comments	50 yards from KCS line	



Date Time	2014/06/09 17:15	
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT03	
Secondary ID	Construction site	
Location	Construction site East of facility 32.254188537597656, -90.14707946777344	
Initials	Andrew Henault	
Comments	East of facility	

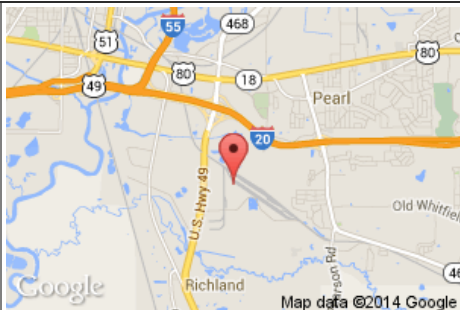
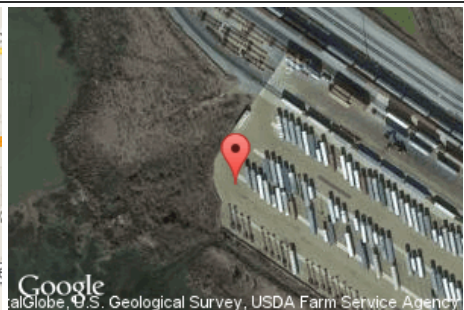
Date Time	2014/06/09 17:20	
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT04	
Secondary ID	KCS Gate 5	
Location	KCS gate 05 Intermodal Yard 32.255859375, -90.1521224975586	
Initials	Andrew Henault	
Comments	East of facility	

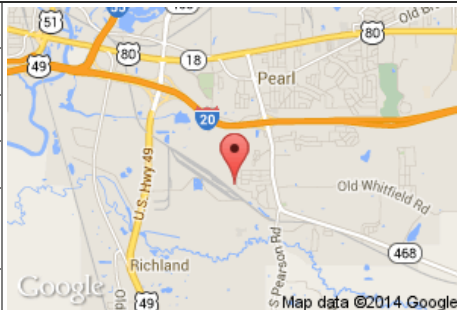



Date Time	2014/06/09 17:28	 
Siera Type	Survey (Candidate Fixed Location)	
Primary ID	FRT08	
Secondary ID	325 Brad Cir	
Location	325 Brad Cir 32.25186538696289, -90.13744354248047	
Initials	Bailey Williams	
Comments	In first curve to the right, near KCS entry	

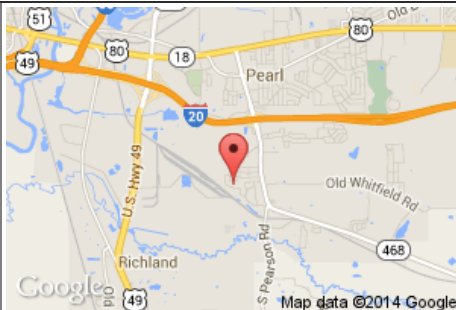



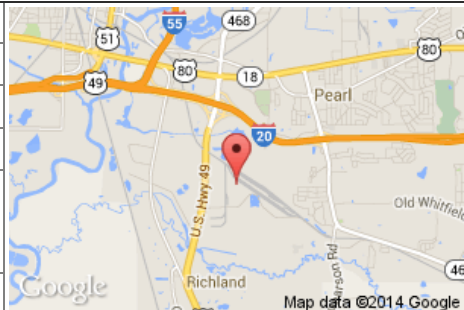
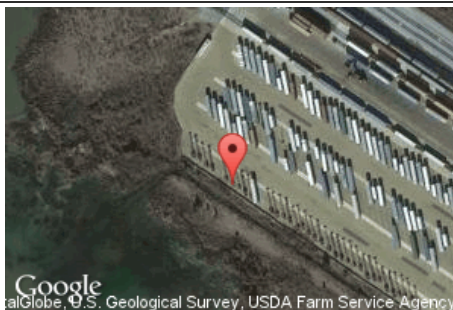


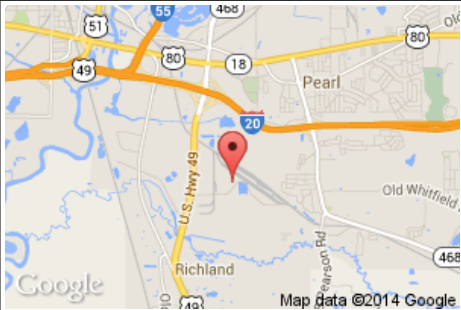

Date Time	2014/06/09 17:30		
Siera Type	Survey (New Fixed Location)		
Primary ID	FRT05		
Secondary ID	Intermodal Yard		
Location	NW end of Intermodal Yard 32.25799560546875, -90.15416717529297		
Initials	Andrew Henault		
Comments	North side of facility		

Date Time	2014/06/09 17:33			
Siera Type	Survey (Candidate Fixed Location)			
Primary ID	FRT10			
Secondary ID	Cul de sac on Two Pines			
Location	Cul de sac on Two Pines 32.25429916381836, -90.14149475097656			
Initials	Bailey Williams			
Comments	Near 1014 Two Pines road			



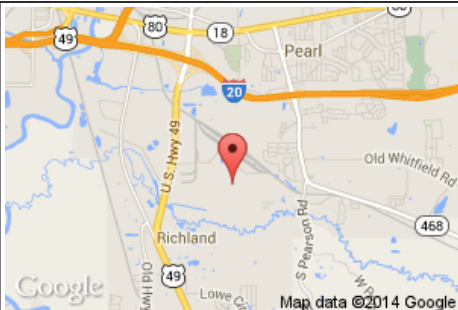
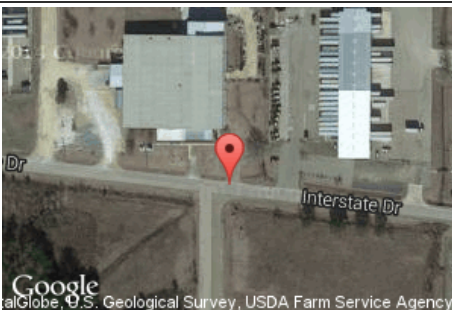
Date Time	2014/06/09 17:51			
Siera Type	Survey (Candidate Fixed Location)			
Primary ID	FRT09			
Secondary ID	Cristy Ln cul de sac			
Location	Cristy Ln cul de sac 32.25364303588867, -90.13910675048828			
Initials	Bailey Williams			
Comments				

Date Time	2014/06/09 17:52			
Siera Type	Instrument (AreaRAE)			
Primary ID	AR01			
Secondary ID	292-500700			
Location	Intermodal area of KCS yard along retaining wall 32.257564544677734, -90.15390014648438			
Initials	Sam Head			
Comments	Unit deployed north of Millard facility			

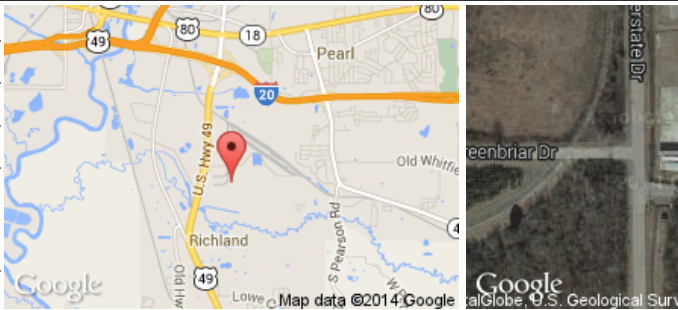
Date Time	2014/06/09 17:59	
Siera Type	Instrument (AreaRAE)	
Primary ID	AR02	
Secondary ID	292-504107	
Location	KCS Gate 05 AR location 2 32.255531311035156, -90.15208435058594	
Initials	Andrew Henault	
Comments	New AreaRAE deployment at KCS 05 NW of facility	



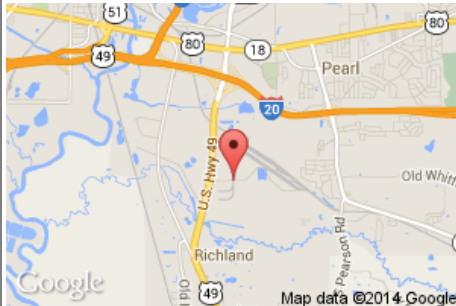
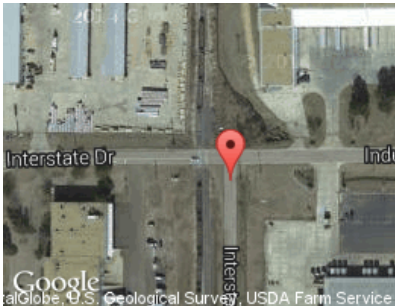


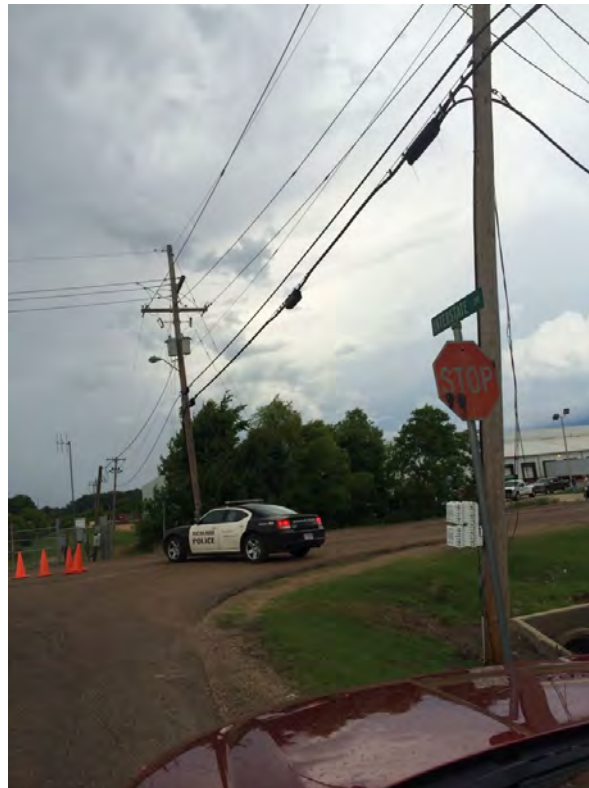
Date Time	2014/06/09 18:03			
Siera Type	Survey (New Fixed Location)			
Primary ID	FRT11			
Secondary ID	Diane Dr & Industrial Park Dr			
Location	FRT 11-Diane Dr and Interstate Dr intersection 32.24912643432617, -90.14789581298828			
Initials	Brittney Voss	Map data ©2014 Google, Google, U.S. Geological Survey, USDA Farm Service Agency		
Comments	Industrial park community fixed real time location			



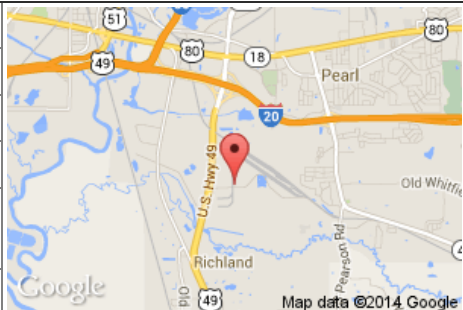
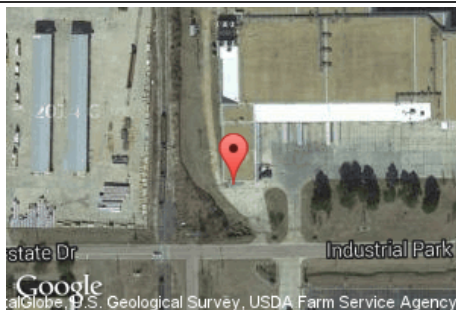
Date Time	2014/06/09 18:09	
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT12	
Secondary ID	Driveway of Mondelez Intl.	
Location	FRT 12- Driveway of Mondelez International on Interstate Dr, closest to intersection of Conway PI 32.24992752075195, -90.15567779541016	
Initials	Brittney Voss	
Comments		



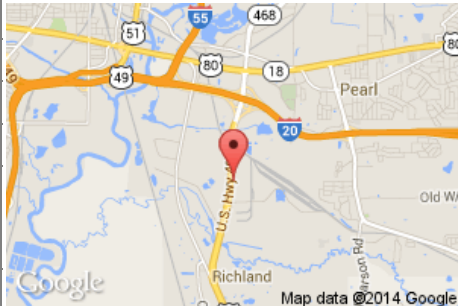
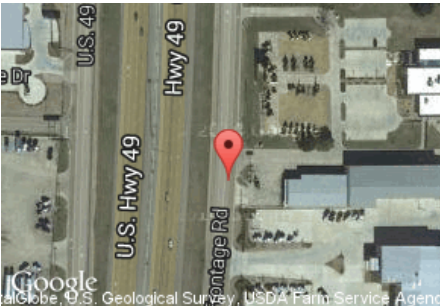
Date Time	2014/06/09 18:17			
Siera Type	Survey (New Fixed Location)			
Primary ID	FRT13			
Secondary ID	Interstate Dr & Industrial Park Dr			
Location	FRT 13-intersection of Interstate Dr and Industrial Park Dr 32.253074645996094, -90.15608978271484			
Initials	Brittney Voss	Map data ©2014 Google		
Comments				



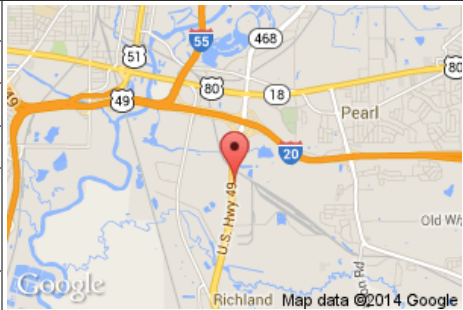
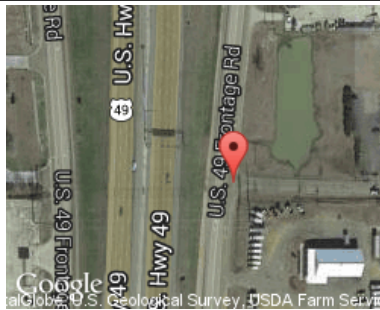


Date Time	2014/06/09 18:18			
Siera Type	Event (Entry)			
Primary ID	Facility Entry			
Secondary ID				
Location	South side 32.253623962402344, -90.15580749511719			
Initials	Dave Backus	Map data ©2014 Google		
Comments	Workers donned level B for facility entry.			

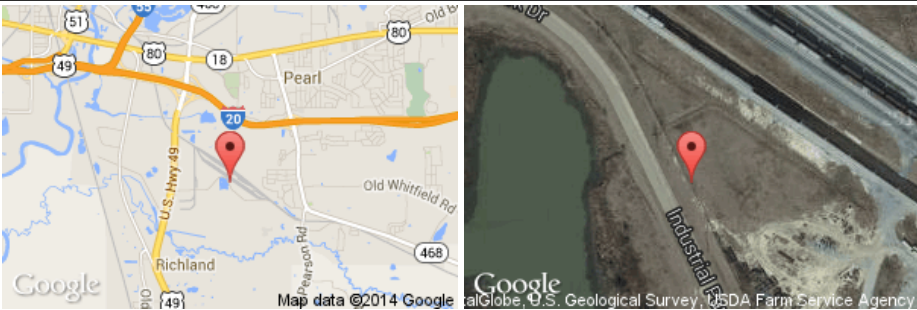


Date Time	2014/06/09 18:21			
Siera Type	Survey (New Fixed Location)			
Primary ID	FRT14			
Secondary ID	Hitachi Driveway			
Location	FRT 14-driveway of Hitachi, on US 49 Frontage Rd 32.25713348388672, -90.16041564941406			
Initials	Brittney Voss			
Comments				



Date Time	2014/06/09 18:26	 
Siera Type	Survey (New Fixed Location)	
Primary ID	FRT15	
Secondary ID	Owens & Minor driveway	
Location	FRT 15-driveway of Owens & Minor along US 49 Frontage Rd 32.261226654052734, -90.16016387939453	
Initials	Brittney Voss	
Comments		

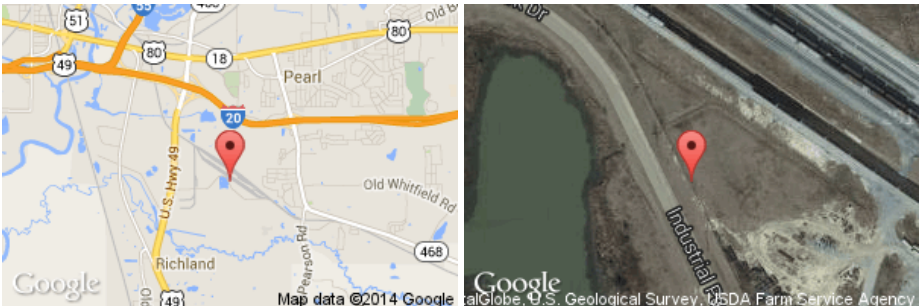


Date Time	2014/06/09 18:37	
Siera Type	Instrument (Repeater)	
Primary ID	Repeater 1	
Secondary ID	251-901051	
Location	Repeater deployment 32.25455856323242, -90.1484146118164	
Initials	Jeremy Gueringer	
Comments	Deployed repeater along KCS fencelin by fire hydrant.	

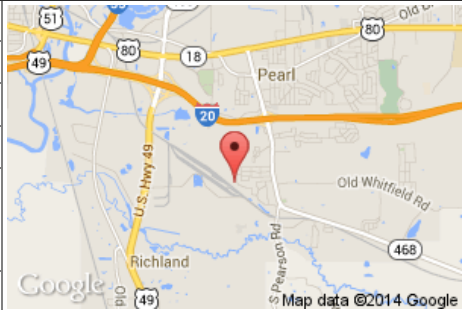
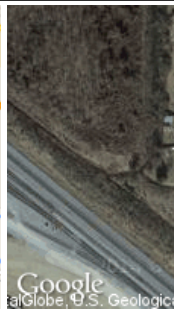




Continued - Photo 2

Date Time	2014/06/09 18:37	
Siera Type	Instrument (Repeater)	
Primary ID	Repeater 1	
Secondary ID	251-901051	
Location	Repeater deployment 32.25455856323242, -90.1484146118164	
Initials	Jeremy Gueringer	
Comments	Deployed repeater along KCS fencelin by fire hydrant.	

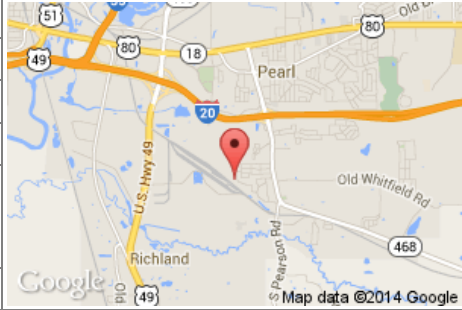
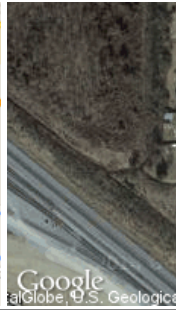


Date Time	2014/06/09 18:41	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0609AM005	
Secondary ID		
Location	On a no parking sign at the end of a service road off of Twin Pine Drive. FIXED STATION: Analytical Station 01. 32.25394058227539, -90.14144134521484	
Initials	Kyle Bennett	
Comments	Deploying sample.	



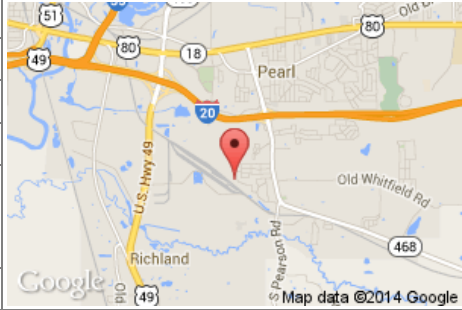
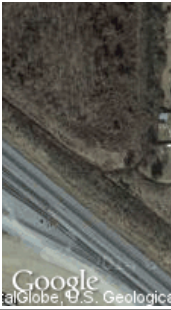


Continued - Photo 2

Date Time	2014/06/09 18:41	 
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0609AM005	
Secondary ID		
Location	On a no parking sign at the end of a service road off of Twin Pine Drive. FIXED STATION: Analytical Station 01. 32.25394058227539, -90.14144134521484	
Initials	Kyle Bennett	
Comments	Deploying sample.	



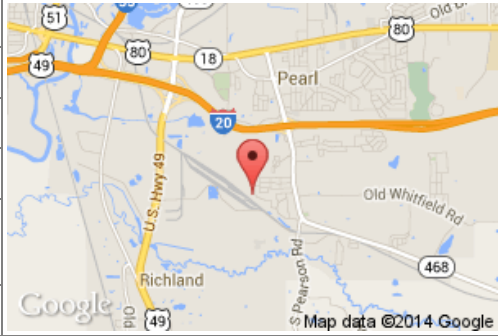

Continued - Photo 3

Date Time	2014/06/09 18:41	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0609AM005	
Secondary ID		
Location	On a no parking sign at the end of a service road off of Twin Pine Drive. FIXED STATION: Analytical Station 01. 32.25394058227539, -90.14144134521484	
Initials	Kyle Bennett	
Comments	Deploying sample.	







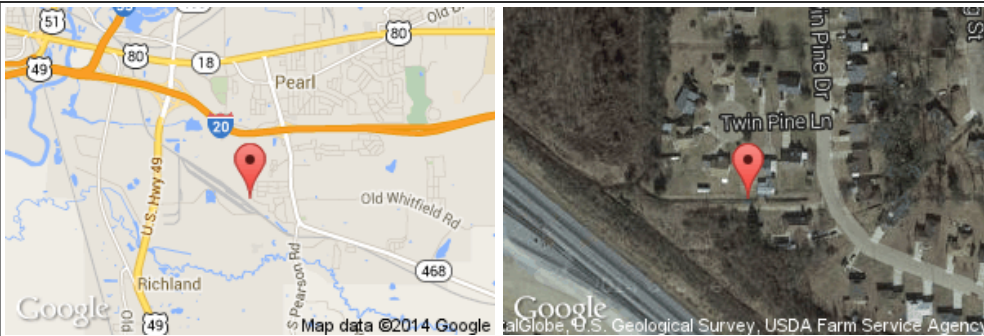
Date Time	2014/06/10 02:57	 
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM005	
Secondary ID	Analytical station 01	
Location	Analytical station 01 32.25393295288086, -90.14142608642578	
Initials	Louis Chacon	
Comments		



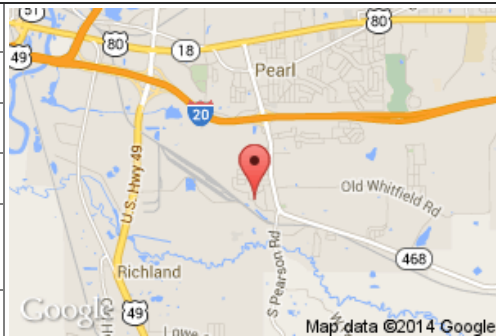

Continued - Photo 2

Date Time	2014/06/10 02:57	
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM005	
Secondary ID	Analytical station 01	
Location	Analytical station 01 32.25393295288086, -90.14142608642578	
Initials	Louis Chacon	
Comments		



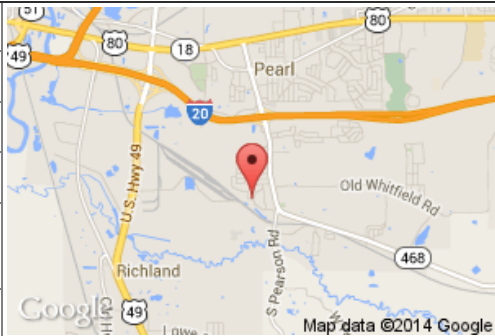

Date Time	2014/06/10 03:01	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM011	
Secondary ID	Analytical station 01	
Location	Analytical station 01 32.25392532348633, -90.14137268066406	
Initials	Louis Chacon	
Comments		



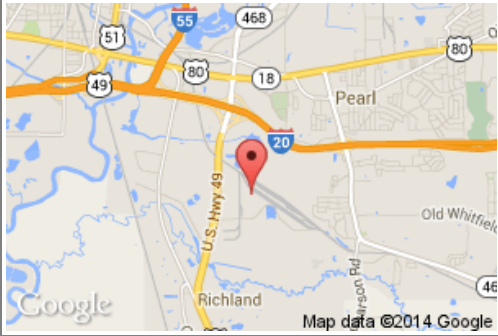
Date Time	2014/06/10 03:09		
Siera Type	Sample-Pickup (Integrated Air Sample)		
Primary ID	RIMS0609AM006		
Secondary ID	Analytical station 02		
Location	Analytical station 02 32.251609802246094, -90.13642883300781		
Initials	Louis Chacon		
Comments			



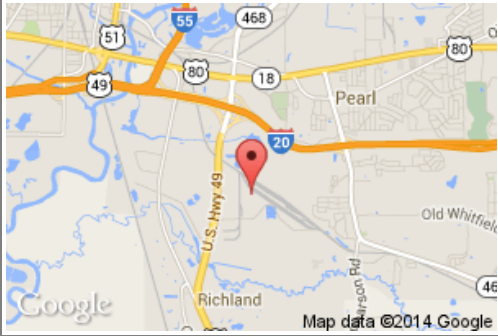



Date Time	2014/06/10 03:11	 
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM012	
Secondary ID	Analytical station 02	
Location	Analytical station 02 32.251670837402344, -90.13652801513672	
Initials	Louis Chacon	
Comments		



Date Time	2014/06/10 03:47	
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM001	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.2575798034668, -90.15396881103516	
Initials	Louis Chacon	
Comments		



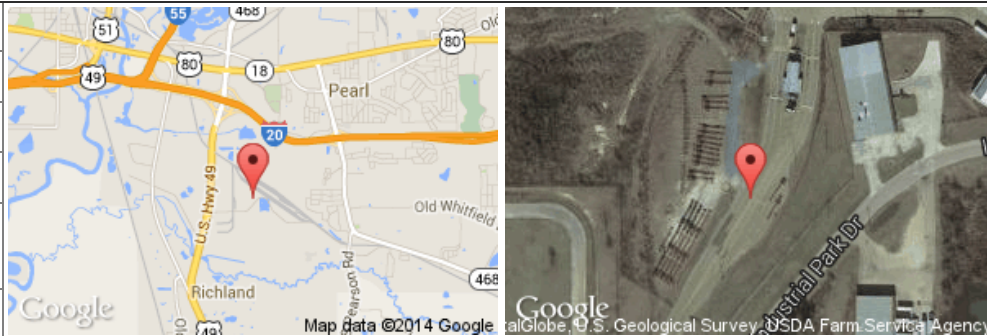
Date Time	2014/06/10 03:49	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM007	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25760269165039, -90.15388488769531	
Initials	Louis Chacon	
Comments		



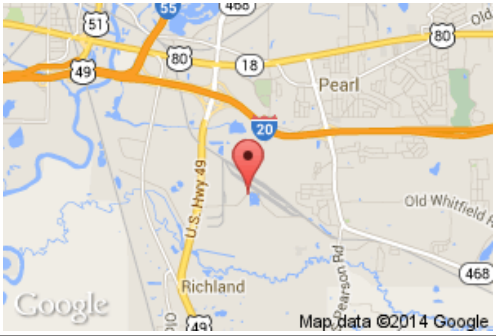





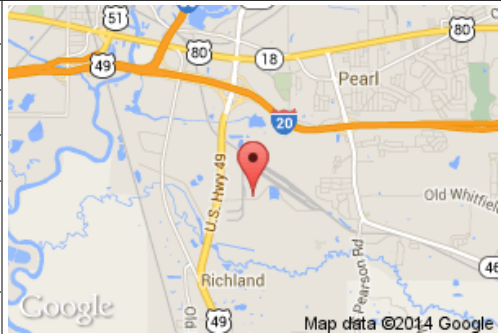

Date Time	2014/06/10 03:58
Siera Type	Sample-Pickup (Integrated Air Sample)
Primary ID	RIMS0610AM013
Secondary ID	Blank
Location	,
Initials	Louis Chacon
Comments	

Date Time	2014/06/10 04:08	
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM002	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25545120239258, -90.1519775390625	
Initials	Louis Chacon	
Comments		



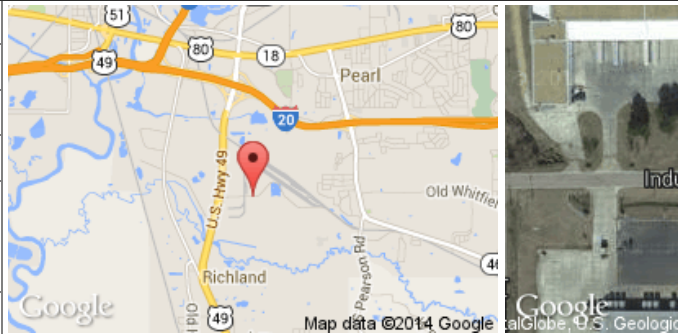
Date Time	2014/06/10 04:13	 
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM008	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.2552604675293, -90.15121459960938	
Initials	Louis Chacon	
Comments		



Date Time	2014/06/10 04:31	 
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM003	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.253868103027344, -90.15428161621094	
Initials	Louis Chacon	
Comments	Sample cap was not sealed tightly after sample pickup. Cap was tightend at 07:14.	



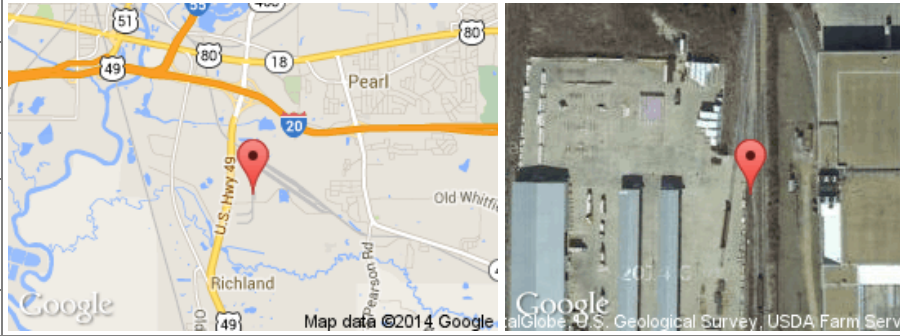


Date Time	2014/06/10 04:33	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM009	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.25312805175781, -90.15444946289062	
Initials	Louis Chacon	
Comments		



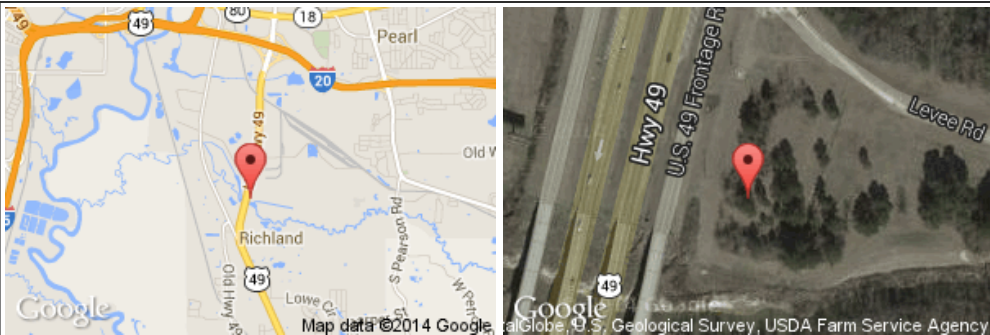
Date Time	2014/06/10 04:43	
Siera Type	Sample-Deployment (Integrated Air Sample)	
Primary ID	RIMS0610AM010	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tracks from incident site 32.2530517578125, -90.15730285644531	
Initials	Louis Chacon	
Comments		

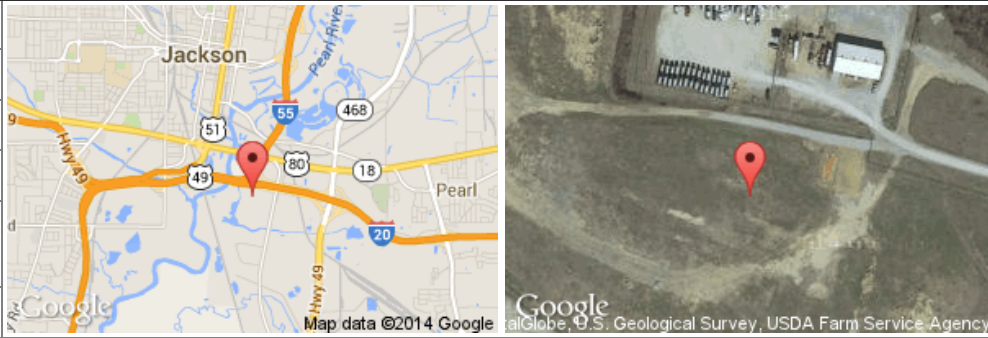


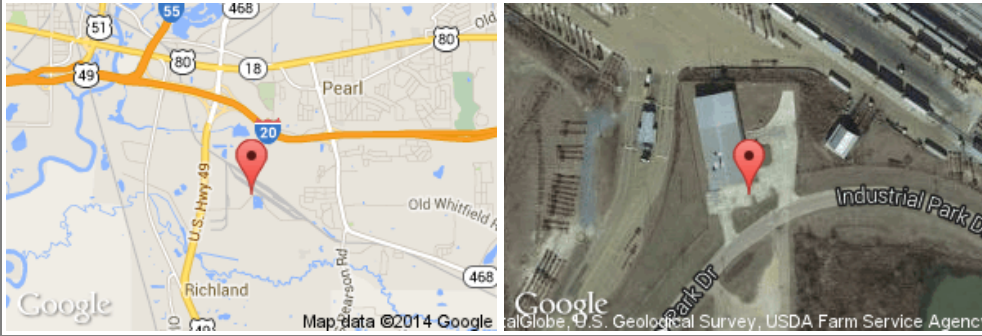
Date Time	2014/06/10 04:43	 The image consists of two parts. On the left is a Google Map showing a region with several highways (51, 49, 80, 18, 20) and a red pin marking a location near Richland and Pearl. On the right is an aerial photograph of the same area, showing industrial structures and a red pin marking the same location.
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0609AM004	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tacks from incident site 32.254493713378906, -90.15635681152344	
Initials	Louis Chacon	
Comments		



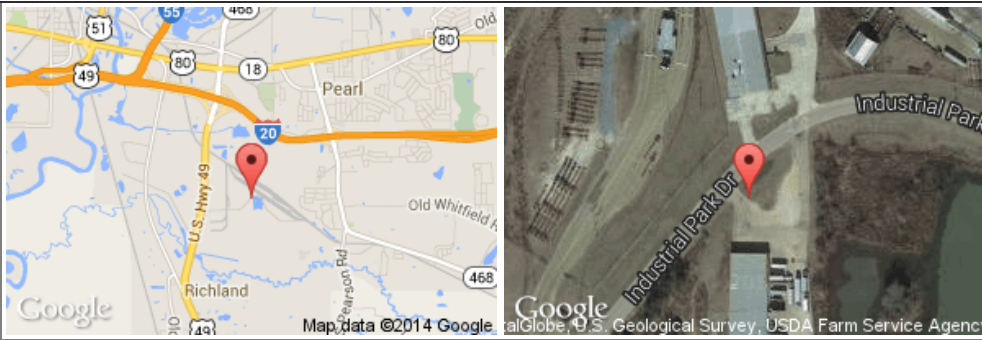


Date Time	2014/06/10 08:23	
Siera Type	Event (Observation)	
Primary ID	Facility Entry	
Secondary ID	Check gauges	
Location	Support zone 32.2459716796875, -90.16270446777344	
Initials	Bailey Williams	
Comments	Workers (Sam and Andy) suiting up in level B to make entry with USES. Other support zone workers in level D. Fan blowing in decon zone. Entered at 08:39, 4 people. Exited at 09:14	

Date Time	2014/06/10 09:21	
Siera Type	Safety (Observation)	
Primary ID	PPE Reduction	
Secondary ID	Level C	
Location	Millard Refrigeration 32.273502349853516, -90.17474365234375	
Initials	JT Wilson	
Comments	PPE transitioning from Level B to Level C	

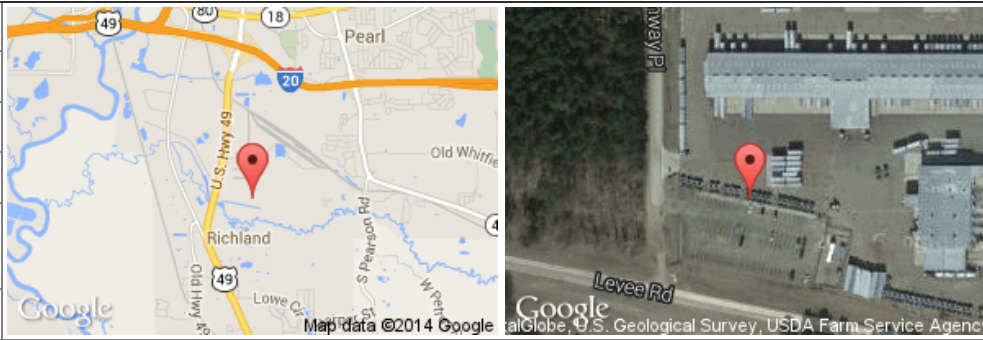
Date Time	2014/06/10 10:17	
Siera Type	Survey (Property)	
Primary ID	400 Industrial Park Drive	
Secondary ID	Sherwin Williams	
Location	Sherwin Williams parking lot 32.25575637817383, -90.15103149414062	
Initials	Andrew Jones	
Comments		



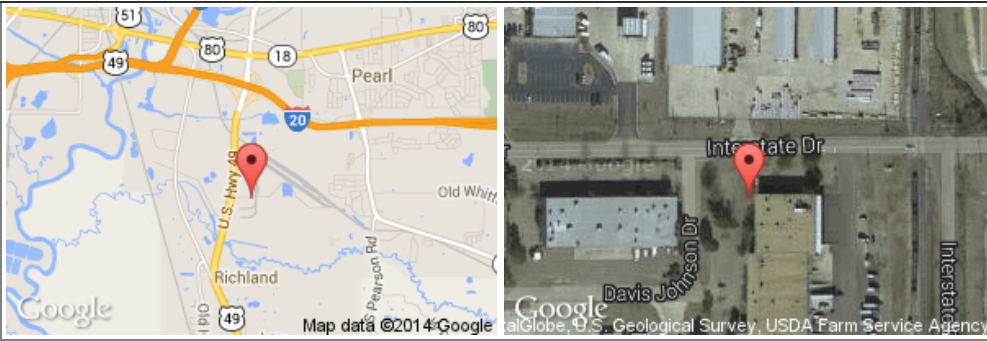
Date Time	2014/06/10 10:24	
Siera Type	Survey (Property)	
Primary ID	401 Industrial Park Drive	
Secondary ID	Seven Up Southeast	
Location	Seven Up Southeast 32.25521469116211, -90.15116119384766	
Initials	Andrew Jones	
Comments		





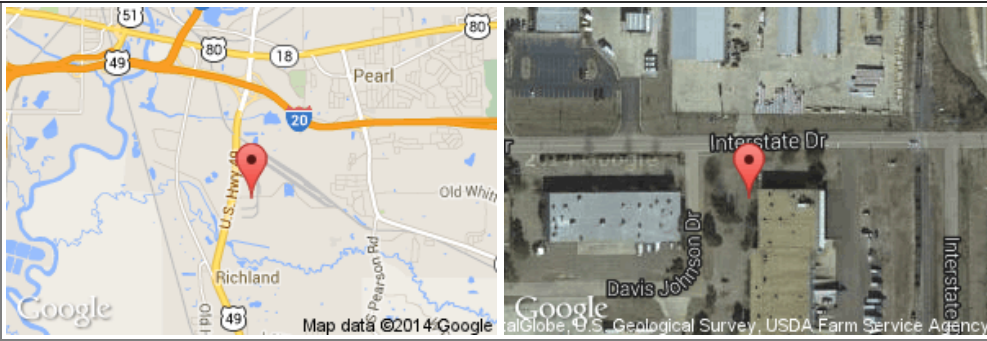
Date Time	2014/06/10 10:33	
Siera Type	Survey (Property)	
Primary ID	100 Con Way Place	
Secondary ID	Con Way Freight	
Location	Con Way Freight 32.24592971801758, -90.15541076660156	
Initials	Andrew Jones	
Comments		



Date Time	2014/06/10 10:39	
Siera Type	Survey (Property)	
Primary ID	181 Davis Johnson Drive Suite A	
Secondary ID	First Choice Medical Supply	
Location	First Choice Medical Supply 32.252925872802734, -90.15740203857422	
Initials	Andrew Jones	
Comments		





Date Time	2014/06/10 10:42	
Siera Type	Survey (Property)	
Primary ID	181 Davis Johnson Drive Suite C	
Secondary ID	Tyco Simplex Grinnell	
Location	Tyco Simplex Grinnell 32.252899169921875, -90.15742492675781	
Initials	Andrew Jones	
Comments		







Date Time	2014/06/11 01:06
Siera Type	Chain Of Custody (Field Forms)
Primary ID	
Secondary ID	
Location	,
Initials	Kyle Bennett
Comments	

Sample (AN##)	Location Description	Passive Pump	Start Time	Flow Rates (mL/minute)	Pump Period (minutes)	Vol. (L)	
				Pre-cal	Post-cal	Average	
AMØ1X8	Area RAE 1	837 453	1206	102.9	105.60	104.25	25.02
AMØ1X9	Area RAE 2	633 467	1215	102.3	105.48	103.89	24.93
AMØ16	Area RAE 3	671 631	1205	101.5	101.28	101.39	24.33
AMØ17	Area RAE 4	1267 1238	1208	101.4	103.10	102.25	24.54
AMØ1X4	Analytical Station 01 No Parking Sign	10007 1100	1207	102.71	117.57	110.14	26.43
AMØ1X5	Analytical Station 02 No.gherhard with Sign	633 453	1118	103.90	104.61	102.76	17.26

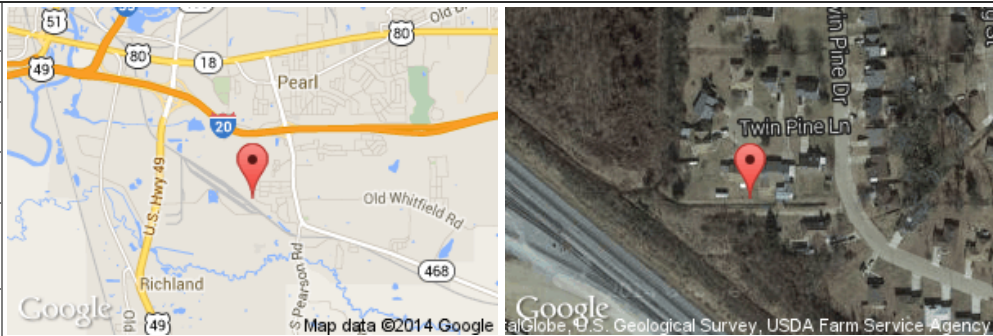
Project#: 106337 Location: Richmond, MS

ANalytical Air Sampling Data Sheet

Client: RIMSØPHARM USES

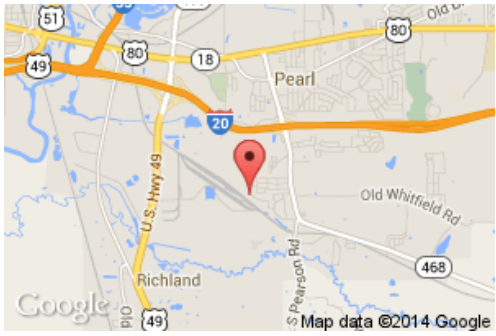

Sample Prefix (Location & Date)

Calibrator: BIOS Dyncal DC-Line SN 120372 Pump: SKC 224-PCXR8/TSI SP530 PP = Pump Period (pump run time) SP = Sample Period (sampling time, s/PP)

Date Time	2014/06/11 07:45	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM028	
Secondary ID	AS01	
Location	Analytical Station 01 32.25395202636719, -90.1414794921875	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge KL3266	

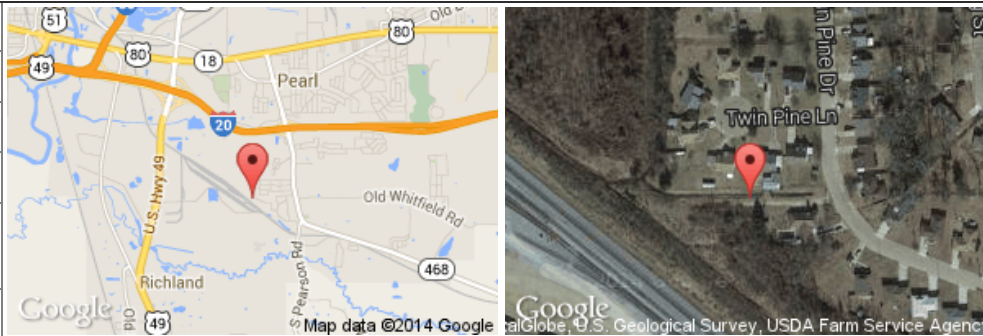


Continued - Photo 2

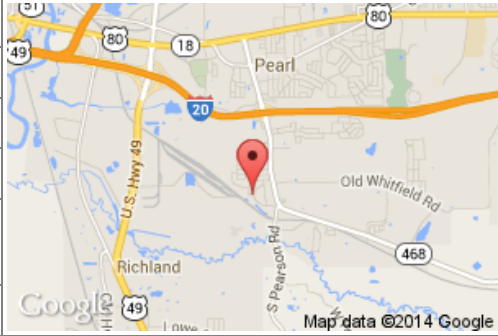

Date Time	2014/06/11 07:45	 
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM028	
Secondary ID	AS01	
Location	Analytical Station 01 32.25395202636719, -90.1414794921875	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge KL3266	





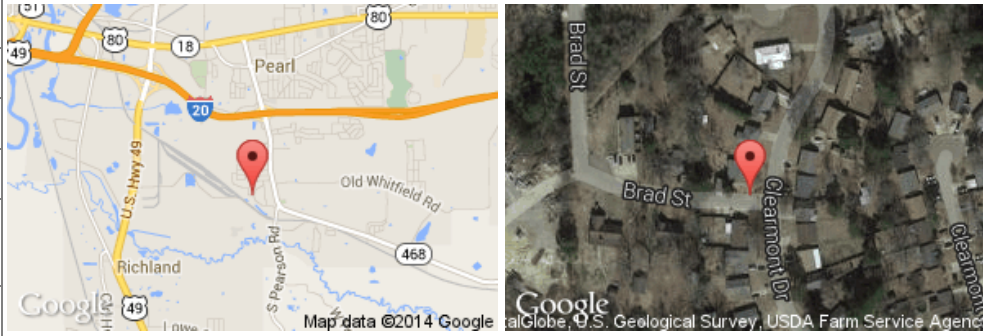
Date Time	2014/06/11 07:48	
Siera Type	Sample-Pickup (Integrated Air Sample)	
Primary ID	RIMS0610AM027	
Secondary ID	AS01	
Location	Analytical Station 01 32.25389099121094, -90.14139556884766	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge	



Date Time	2014/06/11 07:53	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM021	
Secondary ID	AS02	
Location	Analytical Station 02 32.25165939331055, -90.13648223876953	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge	

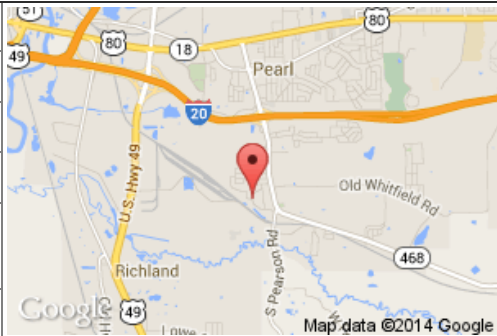



Continued - Photo 2

Date Time	2014/06/11 07:53	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM021	
Secondary ID	AS02	
Location	Analytical Station 02 32.25165939331055, -90.13648223876953	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge	

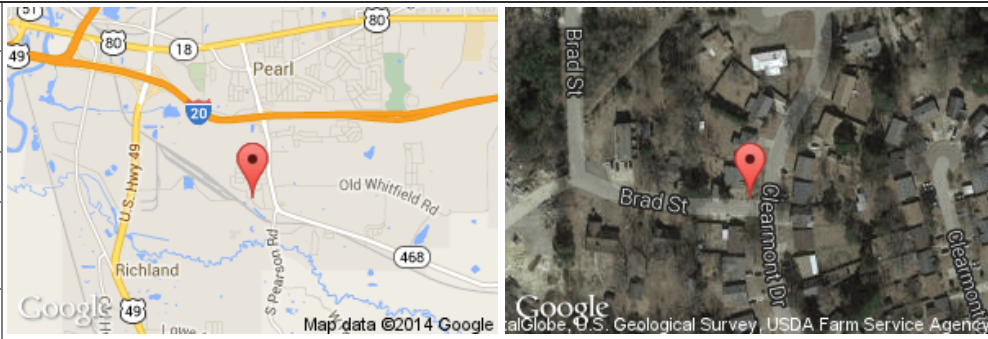




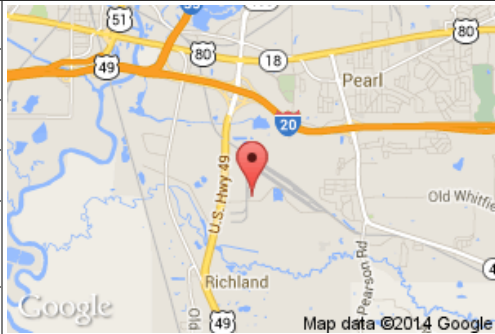

Date Time	2014/06/11 08:02	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM029	
Secondary ID	AS02	
Location	Analytical Station 02 32.251678466796875, -90.13645935058594	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge KL2507	



Continued - Photo 2

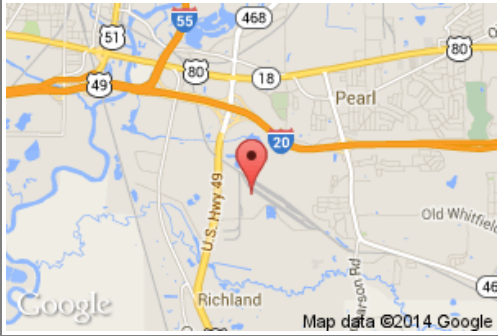

Date Time	2014/06/11 08:02	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM029	
Secondary ID	AS02	
Location	Analytical Station 02 32.251678466796875, -90.13645935058594	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge KL2507	



Date Time	2014/06/11 08:15	
Siera Type	Event (Entry)	
Primary ID	Millard employee escort	
Secondary ID		
Location	West loading dock 32.25390625, -90.15526580810547	
Initials	Kelly Scribner	
Comments	Escorted Millard employee.	

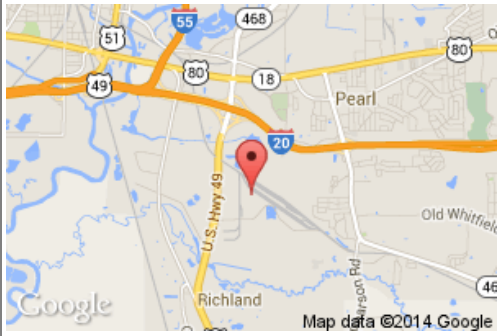





Date Time	2014/06/11 08:21	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM022	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25752639770508, -90.15385437011719	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge Sample KL3264	



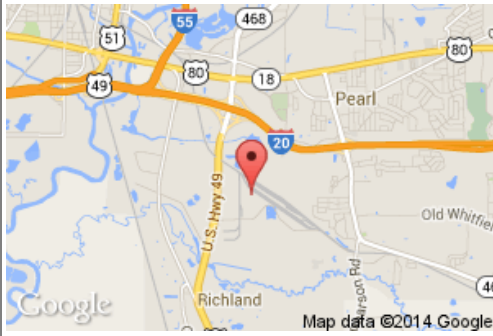

Continued - Photo 2

Date Time	2014/06/11 08:21	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM022	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25752639770508, -90.15385437011719	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge Sample KL3264	



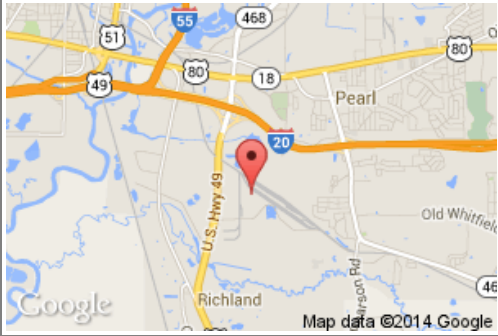



Continued - Photo 3

Date Time	2014/06/11 08:21	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM022	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25752639770508, -90.15385437011719	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge Sample KL3264	

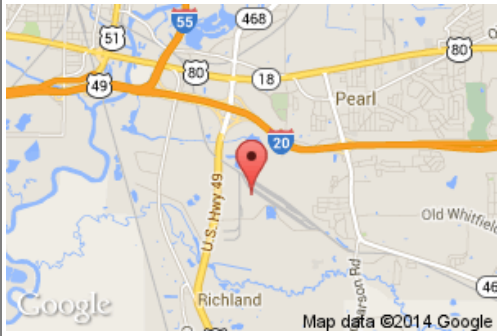





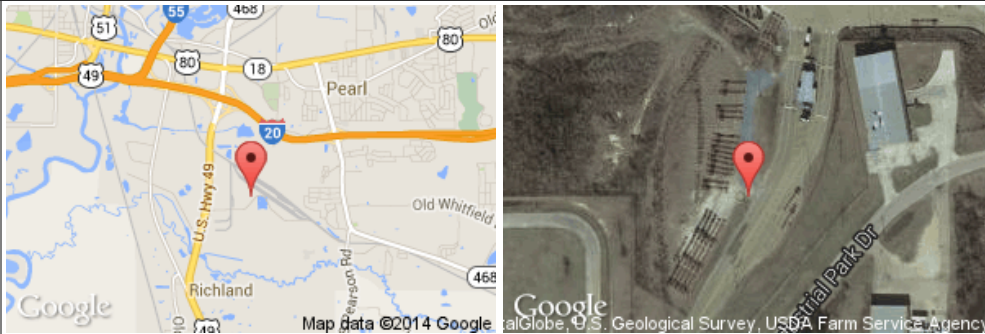
Date Time	2014/06/11 08:32	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM030	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25749588012695, -90.15380096435547	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge sample KL2614	



Continued - Photo 2

Date Time	2014/06/11 08:32	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM030	
Secondary ID	AR01	
Location	Intermodal area of KCS yard along retaining wall; Unit deployed north of Millard facility 32.25749588012695, -90.15380096435547	
Initials	Travis Sartain	
Comments	Deployed Ammonia Badge sample KL2614	

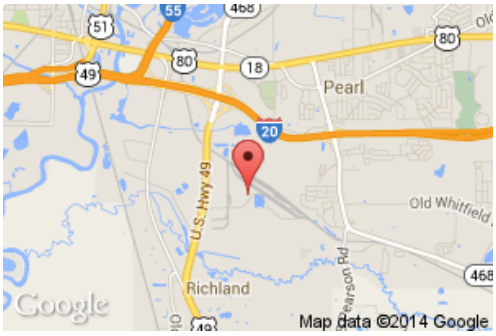



Date Time	2014/06/11 08:35	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM023	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25551986694336, -90.1520767211914	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge sample KL2787	



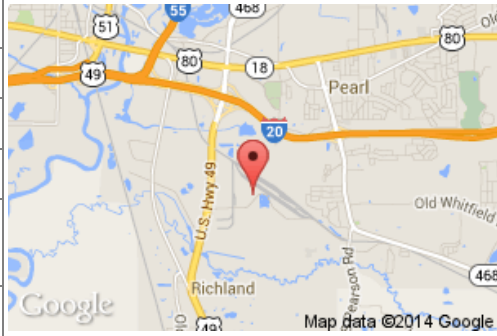



Continued - Photo 2

Date Time	2014/06/11 08:35	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM023	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25551986694336, -90.1520767211914	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge sample KL2787	

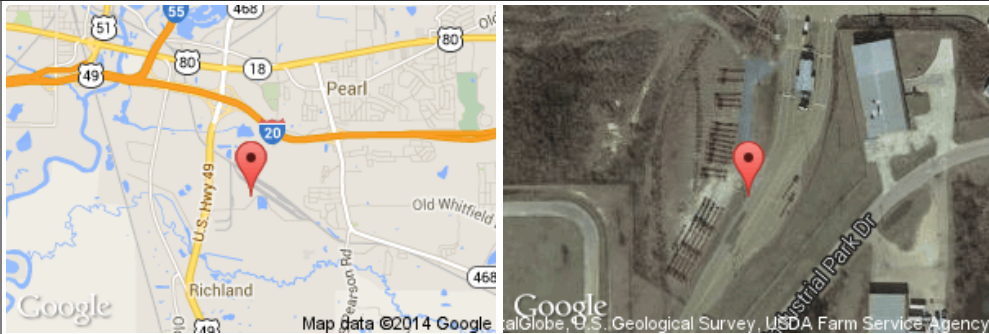


Continued - Photo 3

Date Time	2014/06/11 08:35	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM023	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25551986694336, -90.1520767211914	
Initials	Travis Sartain	
Comments	Picked up Ammonia Badge sample KL2787	

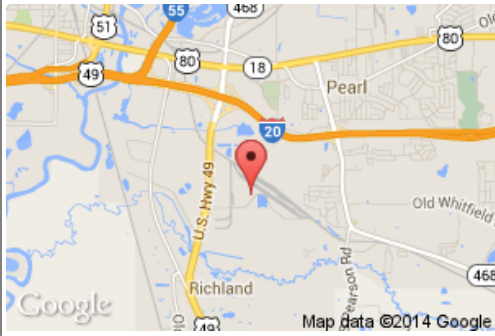





Date Time	2014/06/11 08:47	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM031	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25545883178711, -90.15206909179688	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL3249	

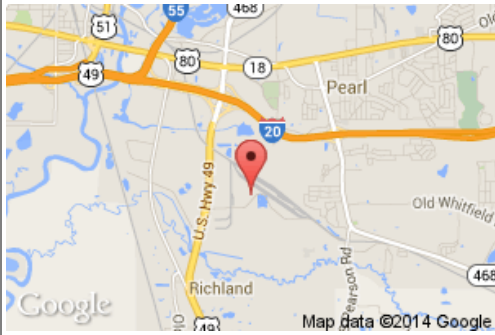




Continued - Photo 2


Date Time	2014/06/11 08:47	 
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM031	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25545883178711, -90.15206909179688	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL3249	



Continued - Photo 3

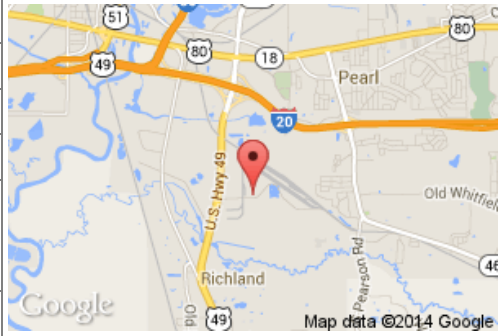

Date Time	2014/06/11 08:47	 
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM031	
Secondary ID	AR02	
Location	KCS Gate 05 AR location 2; New AreaRAE deployment at KCS 05 NW of facility 32.25545883178711, -90.15206909179688	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL3249	



Date Time	2014/06/11 08:52	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM024	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.2536506652832, -90.15422058105469	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2901	



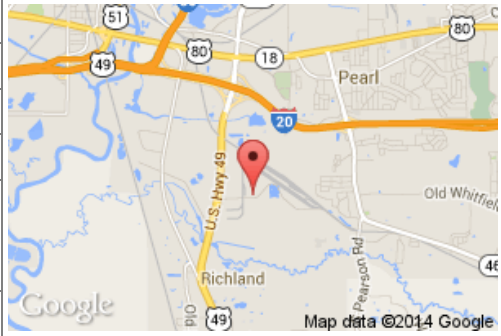

Continued - Photo 2

Date Time	2014/06/11 08:52	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM024	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.2536506652832, -90.15422058105469	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2901	

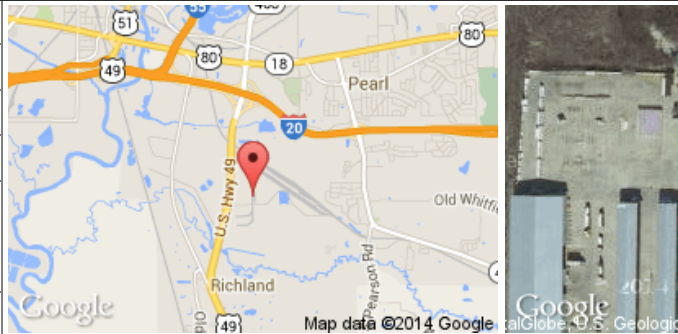




Continued - Photo 3


Date Time	2014/06/11 08:52	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM024	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.2536506652832, -90.15422058105469	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2901	



Date Time	2014/06/11 09:07	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM032	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.25455856323242, -90.1563491821289	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL2628	




Continued - Photo 2

Date Time	2014/06/11 09:07	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM032	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.25455856323242, -90.1563491821289	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL2628	





Continued - Photo 3

Date Time	2014/06/11 09:07	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM032	
Secondary ID	AR03	
Location	Arearae 3 deployment; Deployed arearae 3 in tree on northeast corner of Millard Refrigerated Services parking lot property in front of warehouse in an oak tree. 32.25455856323242, -90.1563491821289	
Initials	Travis Sartain	
Comments	Deployed Ammonia badge sample KL2628	



Date Time	2014/06/11 09:14	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM025	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tacks from incident site 32.254486083984375, -90.15636444091797	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2506	



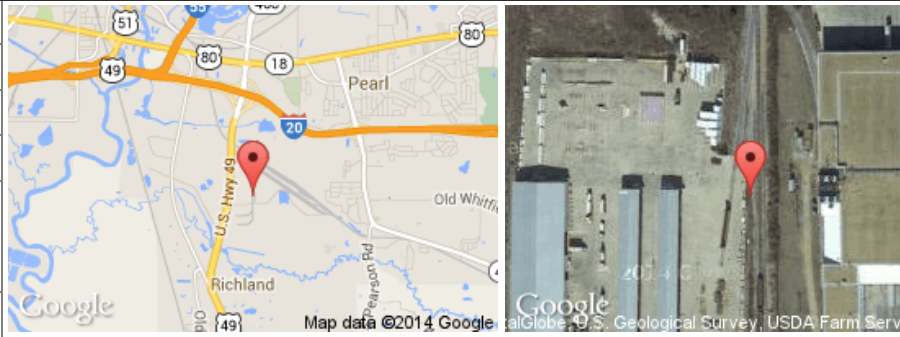


Continued - Photo 2

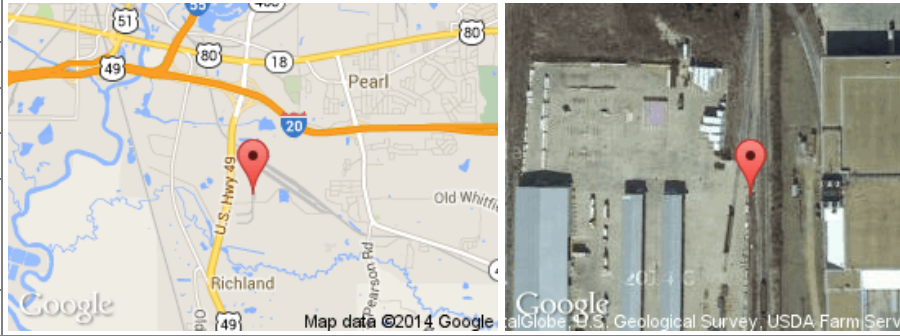
Date Time	2014/06/11 09:14	 
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM025	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tacks from incident site 32.254486083984375, -90.15636444091797	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2506	



Continued - Photo 3

Date Time	2014/06/11 09:14	
Siera Type	Sample-Pickup (OVM Badge)	
Primary ID	RIMS0610AM025	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tacks from incident site 32.254486083984375, -90.15636444091797	
Initials	Travis Sartain	
Comments	Picked up Ammonia badge sample KL2506	

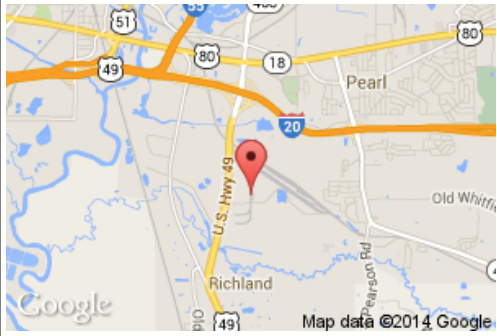



Date Time	2014/06/11 09:20	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM033	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tacks from incident site 32.254520416259766, -90.15637969970703	
Initials	Travis Sartain	
Comments	Deployed ammonia badge sample KL2635	





Continued - Photo 2

Date Time	2014/06/11 09:20	 
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM033	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tracks from incident site 32.254520416259766, -90.15637969970703	
Initials	Travis Sartain	
Comments	Deployed ammonia badge sample KL2635	

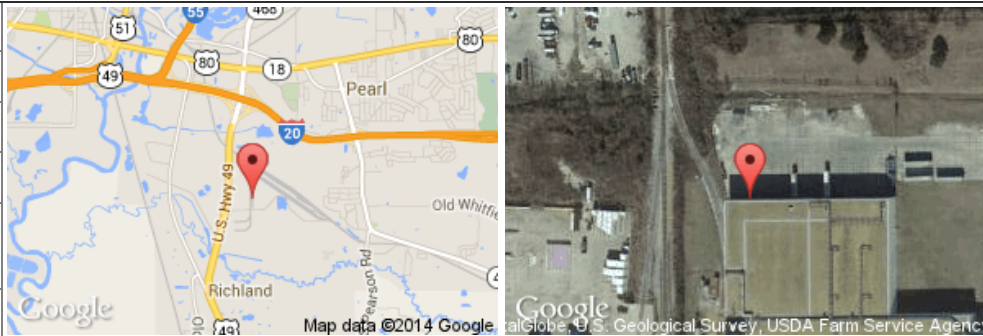





Continued - Photo 3

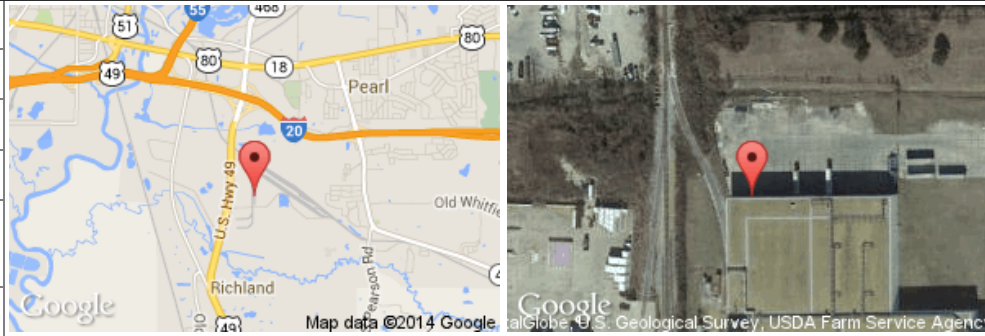
Date Time	2014/06/11 09:20	 
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM033	
Secondary ID	AR04	
Location	Fenceline of lumber yard directly West of incident site; Located across the tracks from incident site 32.254520416259766, -90.15637969970703	
Initials	Travis Sartain	
Comments	Deployed ammonia badge sample KL2635	



Date Time	2014/06/11 09:25	 The image consists of two side-by-side panels. The left panel is a Google Map showing a region with several highways (51, 49, 80, 18, 20, 80) and a red location pin near the intersection of U.S. Hwy 49 and Pearl Rd. The right panel is an aerial satellite view of the same area, showing a large industrial facility with a red location pin on its roof. The map data is dated 2014.
Siera Type	Event (Observation)	
Primary ID	Prep for hotwork	
Secondary ID		
Location	Freezer in facility 32.25529098510742, -90.15574645996094	
Initials	Kelly Scribner	 This is an aerial satellite view of the industrial facility mentioned in the location field. A red location pin is placed on the roof of a large building. The surrounding area includes some trees and other structures.
Comments	Removing palettes from area for cutting.	

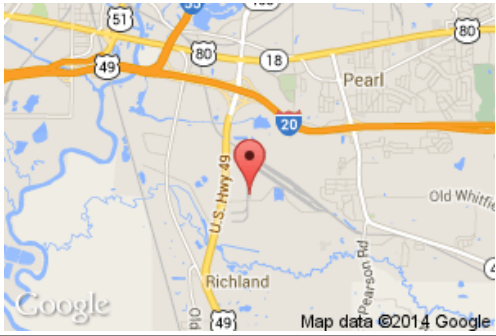
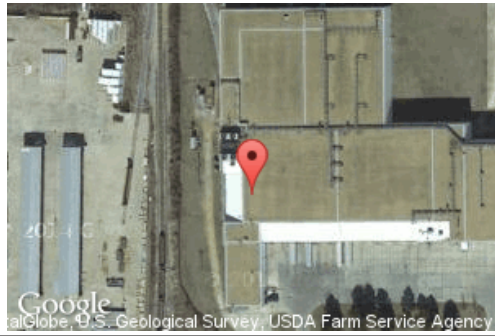


Continued - Photo 2

Date Time	2014/06/11 09:25	
Siera Type	Event (Observation)	
Primary ID	Prep for hotwork	
Secondary ID		
Location	Freezer in facility 32.25529098510742, -90.15574645996094	
Initials	Kelly Scribner	
Comments	Removing palettes from area for cutting.	

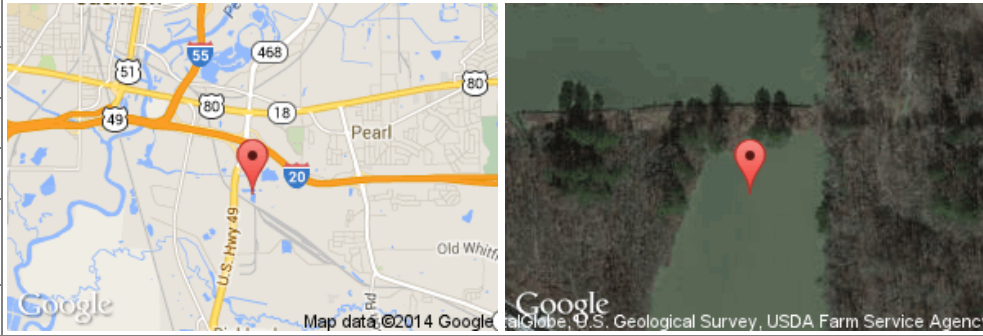




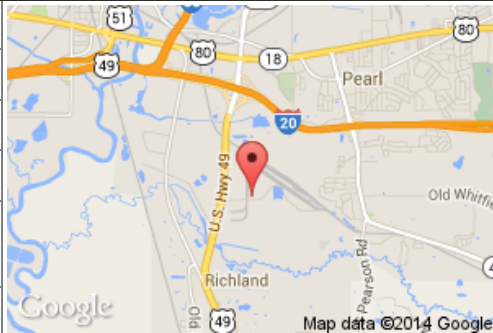
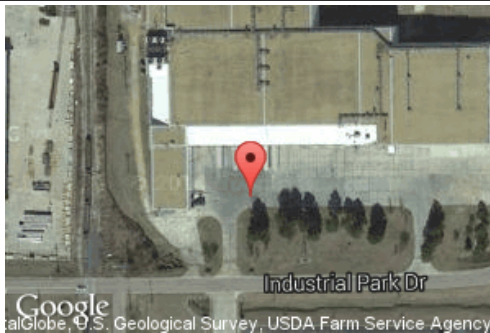
Date Time	2014/06/11 09:26	
Siera Type	Sample-Deployment (OVM Badge)	
Primary ID	RIMS0611AM034	
Secondary ID	Blank	
Location	Blank 32.2542610168457, -90.15570831298828	
Initials	Travis Sartain	
Comments	Field sample ammonia badge Blank KL2727	



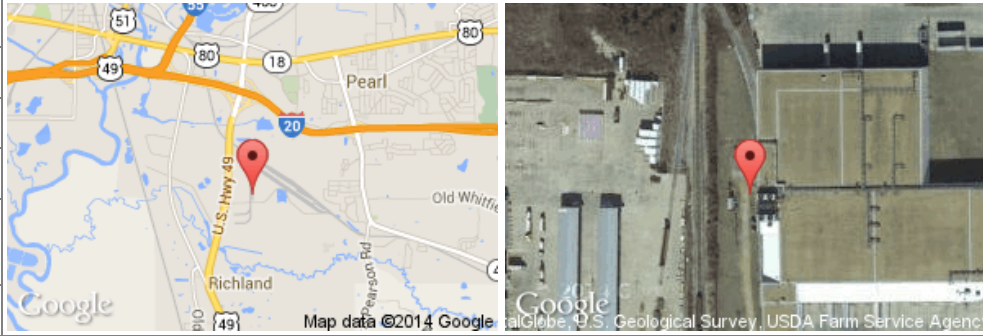


Date Time	2014/06/11 10:00	
Siera Type	Event (Observation)	
Primary ID	Former leak location	
Secondary ID	Motor room	
Location	Motor room; Leak 32.26358413696289, -90.15679931640625	
Initials	Bailey Williams	
Comments	Workers will be cutting and capping off pipes. Picture taken on top of tank.	



Date Time	2014/06/11 10:58	 
Siera Type	Survey (Frac Tank)	
Primary ID	MF-19	
Secondary ID		
Location	Frac tank located on south side of facility perimeter 32.25371551513672, -90.15523529052734	
Initials	Travis Sartain	Google Map data ©2014 Google aGlobe, U.S. Geological Survey, USDA Farm Service Agency
Comments	Workers asked CTEH personnel to take readings around frac tank that had been pumped into, all reading taken showed no detections and were entered into real-time	



Date Time	2014/06/11 12:02	
Siera Type	Event (Observation)	
Primary ID	Cutting	
Secondary ID		
Location	Incident site. 32.25459671020508, -90.15596771240234	
Initials	Kelly Scribner	
Comments	Cutting wall between freezer and mechanical room.	



Date Time	2014/06/11 13:22
Siera Type	Safety (Observation)
Primary ID	Freezer 6
Secondary ID	
Location	Freezer 6 at pipe repair site ,
Initials	Andrew Henault
Comments	Crew cutting and removing damaged pipe





Continued - Photo 2

Date Time	2014/06/11 13:22
Siera Type	Safety (Observation)
Primary ID	Freezer 6
Secondary ID	
Location	Freezer 6 at pipe repair site ,
Initials	Andrew Henault
Comments	Crew cutting and removing damaged pipe



