



TISKILWA ETHANOL DERAILMENT - 2011

IOWA INTERSTATE RAILROAD, LTD. (IAIS)

Rail Line

MP 122.4

Tiskilwa, Bureau County, IL



FEATURES



Legend

-  Incident Location
-  Potential Run Off Path
-  Railroad



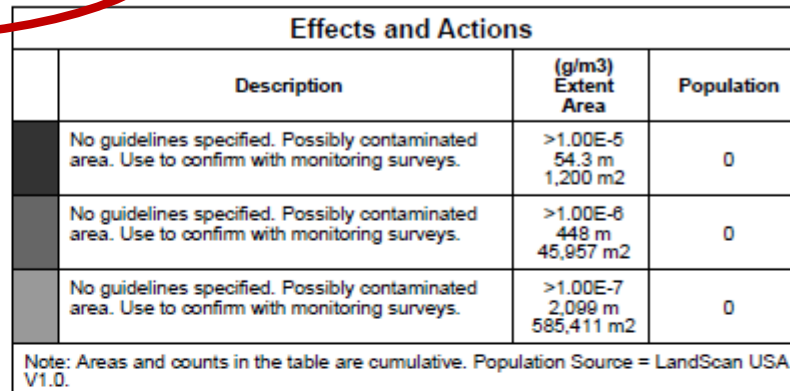


UNIFIED COMMAND





12-Hour Forecast
Automated Report - Actual Release



Effects or contamination from October 07, 2011 16:00 UTC to October 07, 2011 17:00 UTC
Release Location: 41.289058 N, 89.485233 W
Material: particulate
Generated On: October 07, 2011 16:12 UTC
Model: ADAPT/LODI
Comments:
 Hypothetical release
 of 1 kg starting at
 10/07/2011 16:00:00 UTC for 12 hr
 gridded met

Map Size: 2.5 km by 2.5 km Id: Production.roE19111.roC1

NARAC Operations: (onDuty Assessor); narac@ltnl.gov; 925-424-6465
Requested by: {Connee Foster (mgr); NARAC -- Operation; 202-282-9369; foster5@ltnl.gov}
Approved by: {IMAAC Operations Coordinator; IMAAC; 925-424-6465}

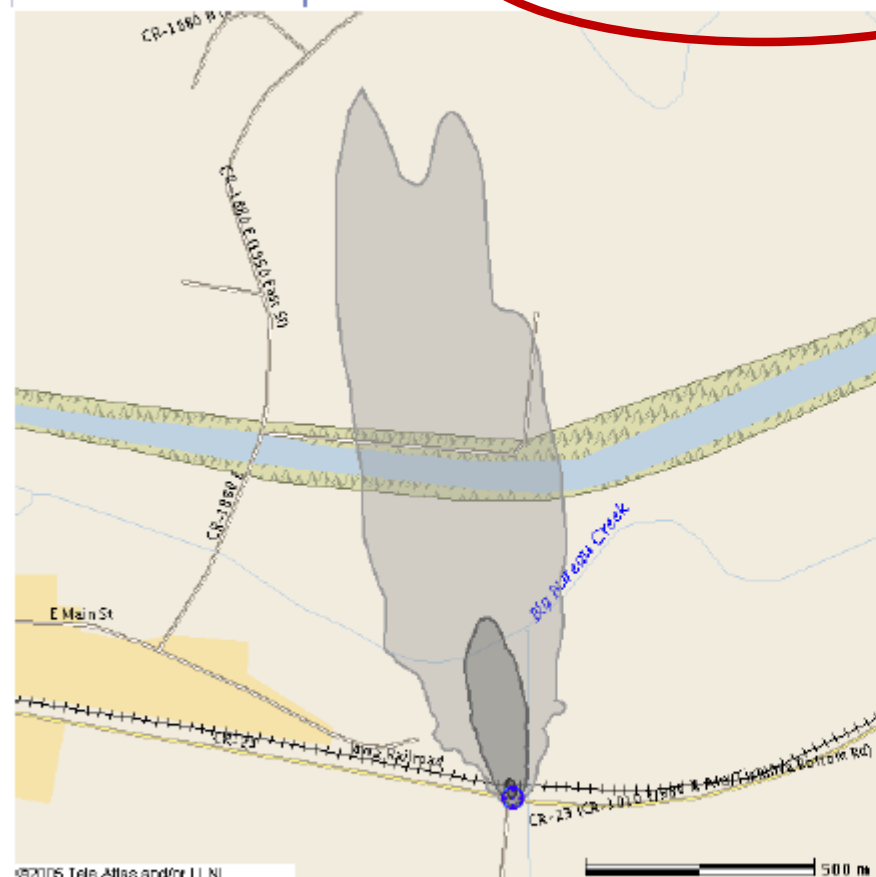


NARAC MODEL

Not For Public Dissemination

1 Hr Avg Air Conc. at 10/08/2011 00:00:00 UTC

12-Hour Forecast
Automated Report - Actual Release



Effects and Actions

	Description	(g/m3) Extent Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-5 44.4 m 800 m2	0
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-6 398 m 38,267 m2	0
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-7 1,593 m 498,723 m2	0

Note: Areas and counts in the table are cumulative. Population Source = LandScan USA V1.0.

Effects or contamination from October 07, 2011 23:00 UTC to October 08, 2011 00:00 UTC

Release Location: 41.289058 N, 89.485233 W

Material: particulate

Generated On: October 07, 2011 16:12 UTC

Model: ADAPT/LODI

Comments:

Hypothetical release

of 1 kg starting at

10/07/2011 16:00:00 UTC for 12 hr

gridded met

Map Size: 1.9 km by 1.9 km Id: Production.rcE19111.rcC1

NARAC Operations: (onDuty Assessor); narao@linl.gov; 925-424-8485

Requested by: (Connie Foster (mgr); NARAC -- Operation; 202-282-9389; foster5@linl.gov)

Approved by: (IMAAC Operations Coordinator; IMAAC; 925-424-8485)



Ethanol

MSDS SPILLED PRODUCT

Denatured with 2-5%
'Natural Gasoline'

= OIL (OPA funding)

Starting to see
undenatured (pure)
product shipments

MATERIAL SAFETY DATA SHEET

(Complies with 29 CFR 1910.1200)

PRODUCT NAME: FUEL ETHANOL
ADM PRODUCT CODE: 017609
SYNONYMS: Denatured Ethanol, Ethyl Alcohol - Denatured
CHEMICAL FORMULA: C₂H₅OH

SECTION I

MANUFACTURER: Archer Daniels Midland
4666 Faries Parkway
Decatur, IL 62526
EMERGENCY NUMBER: (800) 424-9300 Chemtrec (USA)
(217) 424-5200 ADM Corporate
INFORMATION: (888) 371-4408 or (563) 244-5208
DATE: July 27, 2009

SECTION II - Hazardous Ingredients/Identity Information

COMPONENTS:	CAS Number	OSHA PEL	ACGIH TLV	Volume
Ethanol (Ethyl Alcohol) 200 proof	0064-17-5			95-98%
Natural Gasoline	8006-61-9			2-5%
*Benzene	0071-43-2	1 ppm	10 ppm	<0.1%
*A chemical known to the State of California to cause cancer				

SECTION III - Physical/Chemical Characteristics

Boiling Point, °F	165-175
Reid Vapor Pressure, psi, 100°F	3.5
Vapor Density (Air = 1) at 172°F	1.6
Specific Gravity (H ₂ O=1) at 60°F	0.79
Evaporation Rate (Butyl Acetate=1)	3.2
Solubility in Water	Completely miscible
Appearance and Odor	Clear, colorless liquid; characteristic odor

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used):	Minus 5°F, Tag Open Cup
Auto ignition temperature:	>689°F
Flammable Limits (LEL):	3.3
Flammable Limits (UEL):	19.0
Extinguishing Media:	CO ₂ , dry chemical or water for small fires; polar solvent foam for large fires.
Special Fire Fighting Procedures:	Water is not effective until the alcohol contains approx. 80% water.
Unusual Fire and Explosion Hazards:	Flammable liquid.



UNDENATURED ETHANOL

(+ CORROSION INHIBITORS)





AIR / WATER MONITORING





AIR MONITORING/SAMPLING





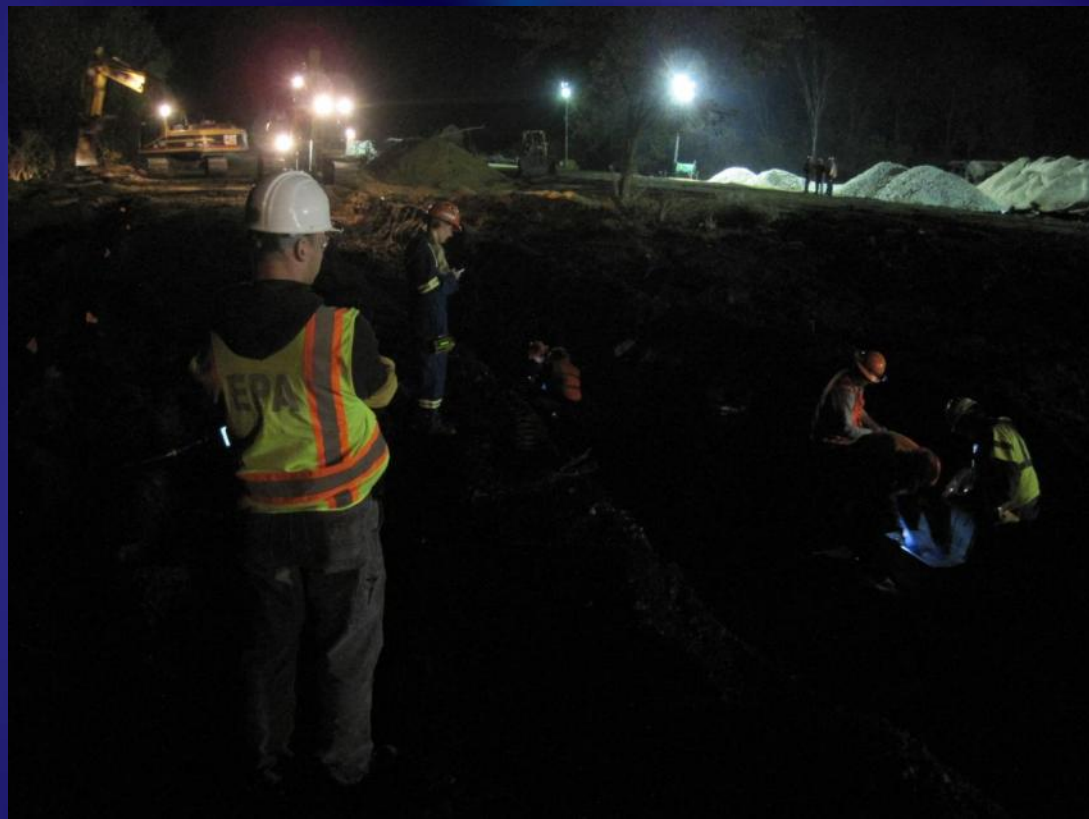
AIR MONITORING

Track
Excavation





SOIL SAMPLING





SAMPLING PLAN

CTEH

Center for Toxicology and Environmental Health, L.L.C.

5120 North Shore Drive North Little Rock, AR 72118 Phone: 501.801.8500 Fax: 501.801.8501 www.cteh.com

Working Draft

SAMPLING AND ANALYSIS PLAN

ETHANOL RELEASE

TISKILWA, ILLINOIS

Prepared On Behalf Of:
Iowa Interstate Railroad

PREPARED BY:

CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, L.L.C.
5120 NORTH SHORE DRIVE
NORTH LITTLE ROCK, AR 72118
501-801-8500
www.cteh.com

October 9, 2011

Revised October 10, 2011
Revised October 13, 2011

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APPENDIX A – ETHANOL MSDS











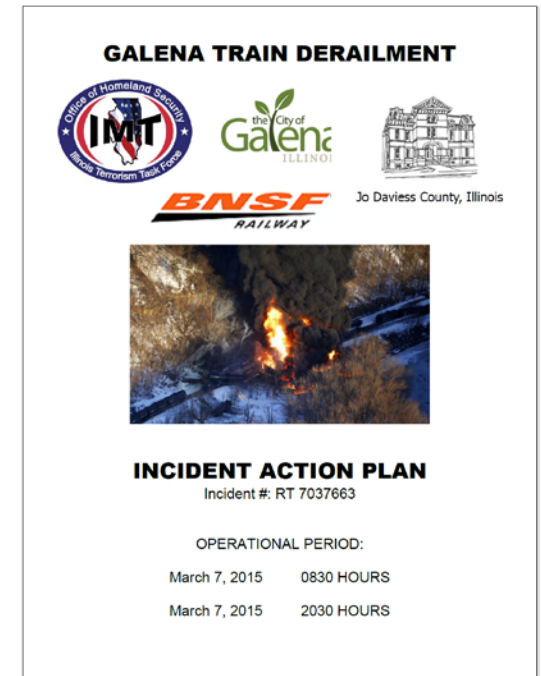


BNSF Galena Train Derailment - 2015



Response Management

- IEMA/Galena FD used NIMS from the onset
 - 2 separate 'IAPs' being developed (BNSF & IL IMT)
 - NOFI issued to BNSF by US EPA
 - IEPA & USEPA coordinated from Day 1
 - US EPA deployed 'IMT Lite'
- US EPA / IEMA established UC on Day 4
 - US EPA
 - Illinois EPA
 - Galena FD / Jo Daviess County EMA
 - BNSF Railway
- 1st combined IAP developed for OP#4



IC to UC Transition

- Composition of UC
- UC selected based on:
 - Responsibility, Authority, Expertise
 - PHMSA, FRA, OSHA, IEMA, IL IMT left off
- Strategy was to populate KLPs with qualified personnel w/ longevity on site (EPA shadow or deputy)
- Utilize BNSF contractor CTEH's IAP software



'IMT' Meetings Progression



VIP Briefing – Day 5 (Monday)



OPS Briefing – Day 6

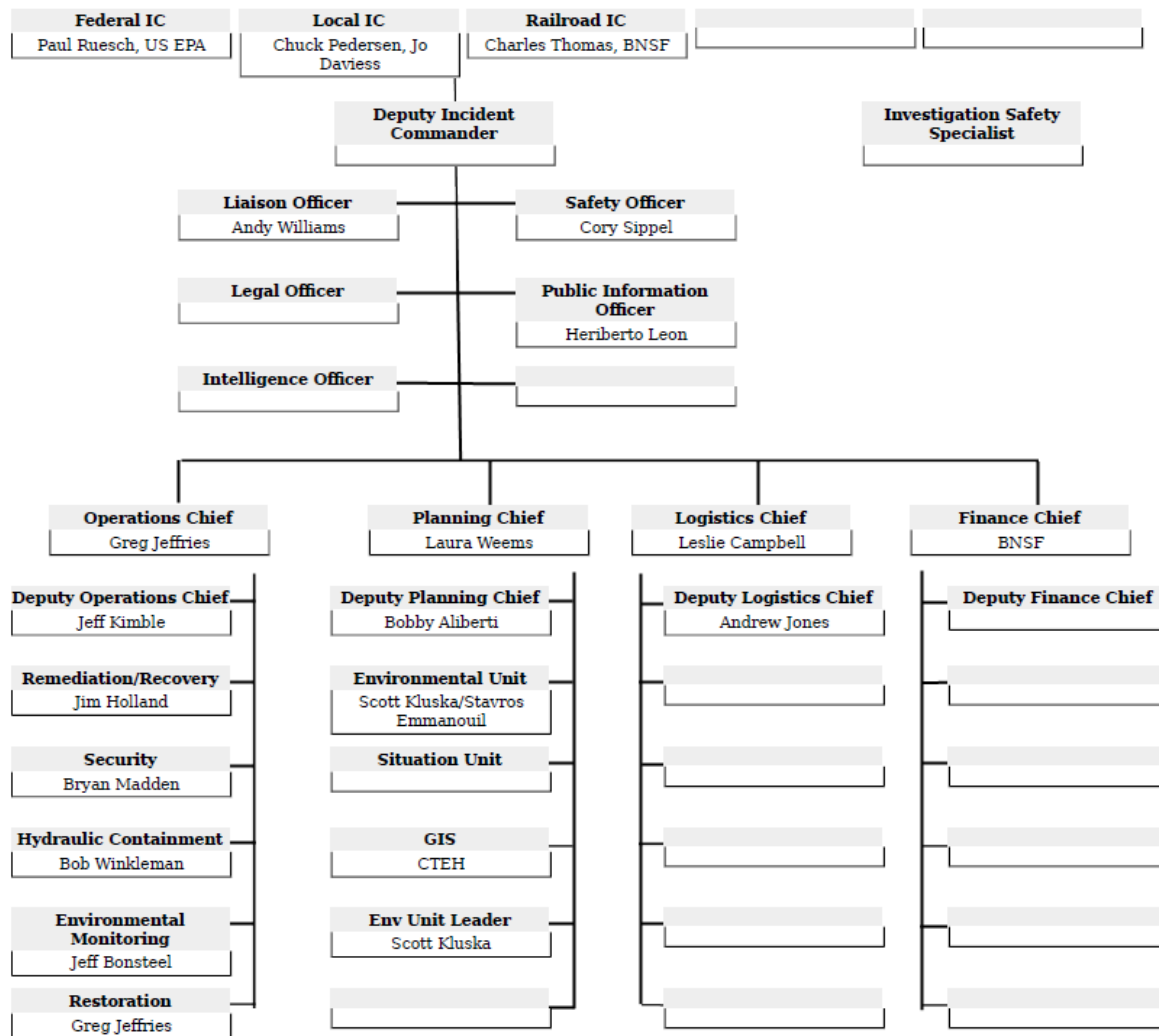


OPS Briefing – Day 12



Incident Action Plan		
Incident: BNSF Galena Derailment		Prepared By: Anton Avguchenko
Period: #10: 03/17/2015 07:00 CDT - 03/25/2015 07:00 CDT		Version Name: P010V02
Approved By: <i>[Signature]</i>		
Organization	Name	Signature
U.S. EPA REGION 5	PAUL RUECH	<i>[Signature]</i>
BNSF	Charles Thompson	<i>[Signature]</i>
JO DAVIES EMA	CHARLES THOMPSON	<i>[Signature]</i>
Incident Photo		
		
Included in Action Plan		
☐ Incident Forms ☐ Include Incident Cover ☐ ICS 201-1 - Incident Briefing ☐ ICS 201-2 - Summary of Current Actions ☐ ICS 201-3 - Organization Chart ☐ ICS 201-4 - Resource Summary ☐ ICS 201-5 - Site Safety and Control Analysis ☐ Reactive Phase Weather Report ☐ Reactive Phase Notifications	☐ Period Forms ☒ ICS 202 - Incident Objectives ☐ ICS 203 - Organization Assignment Lists ☒ ICS 204 - Assignment List(s) ☒ ICS 205 - Communication Plan ☒ ICS 206 - Medical Plan ☒ ICS 207 - Organizational Chart ☒ ICS 208 - Site Safety Plan(s) ☐ ICS 211P - Check In List ☐ ICS 213 - General Message(s) ☒ ICS 214 - Activity Logs ☐ ICS 215 - Operational Planning Worksheet ☒ ICS 230 - Meeting Schedule ☐ Weather Report ☐ Incident Critique	☐ Attachments ☒ 208 Safety Message/Plan ☒ 205a - Communications List ☒ Oil Spill Contingency Plan ☒ Water Influx Contingency Plan ☒ 209 Situational Update ☒ Site Map ☒ ICS 203 OP10 ☒ Site Road map ☒ Plan Tracker ☒ ICS 233 - Open Action Items

ICS 202: Incident Objectives	
Incident: BNSF Galena Derailment	Prepared By: Anton Avguchenko
Period: #10: 03/17/2015 07:00 CDT - 03/25/2015 07:00 CDT	Version Name: 03/17/2015 08:25 CDT
Objective(s)	
1. SAFETY OF RESIDENTS & RESPONDERS 2. PROTECT ENVIRONMENT AND CONTROL RUNOFF 3. STABILIZE SITE 4. MONITOR ENVIRONMENTAL CONDITIONS/IMPACTS 5. FACILITATE INVESTIGATIONS & PRODUCT RECOVERY/REMEDIATION 6. RESTORE DERAILMENT SITE 7. ENSURE SAFE AND EFFECTIVE TRACK OPERATIONS 8. ENSURE CONSTRUCTION OF SITE CONTROLS	
Operational Period Command Emphasis	
INITIATE TRANSITION OF REGULATORY OVERSIGHT FROM USEPA TO ILEPA RELOCATE COMMAND POST COMMUNICATE HEALTH AND SAFETY PLAN TO ALL RESPONDERS TRAIN RESPONDERS ON-TRACK SAFETY COMMUNICATE CONTINGENCY PLAN TO ALL RESPONDERS CONTINUE COMMUNICATIONS AMONG RESPONDERS AND RESPONSE AGENCIES IMPROVE COMMON OPERATING PICTURE AT THE SITE AND THE ICP UPDATE THE CONTAINMENT/CONTINGENCY PLAN	
LIMITATIONS/CONSTRAINTS	
TRACK WINDOWS	
General Situational Awareness	
ENVIRONMENTAL SAMPLING CONTINUES (SURFACE WATER ONLY) INSTALLATION OF SHEETPIILING WALL DELIVERY OF WATER TREATMENT SYSTEM COMMAND SITE HAS NIGHTTIME SECURITY ONLY WORK SITE STILL HAS 24HR SECURITY	





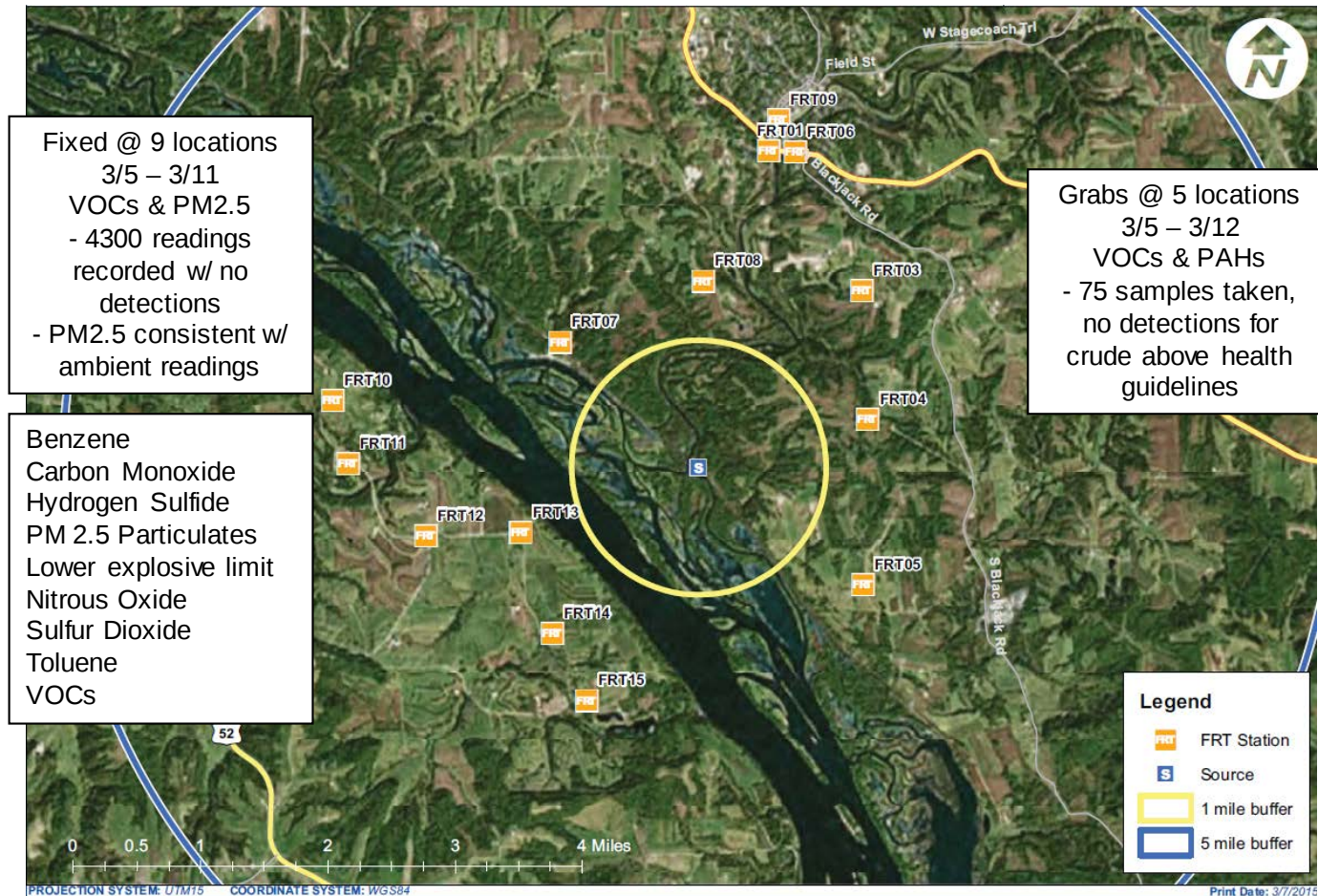
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Monitoring & Sampling

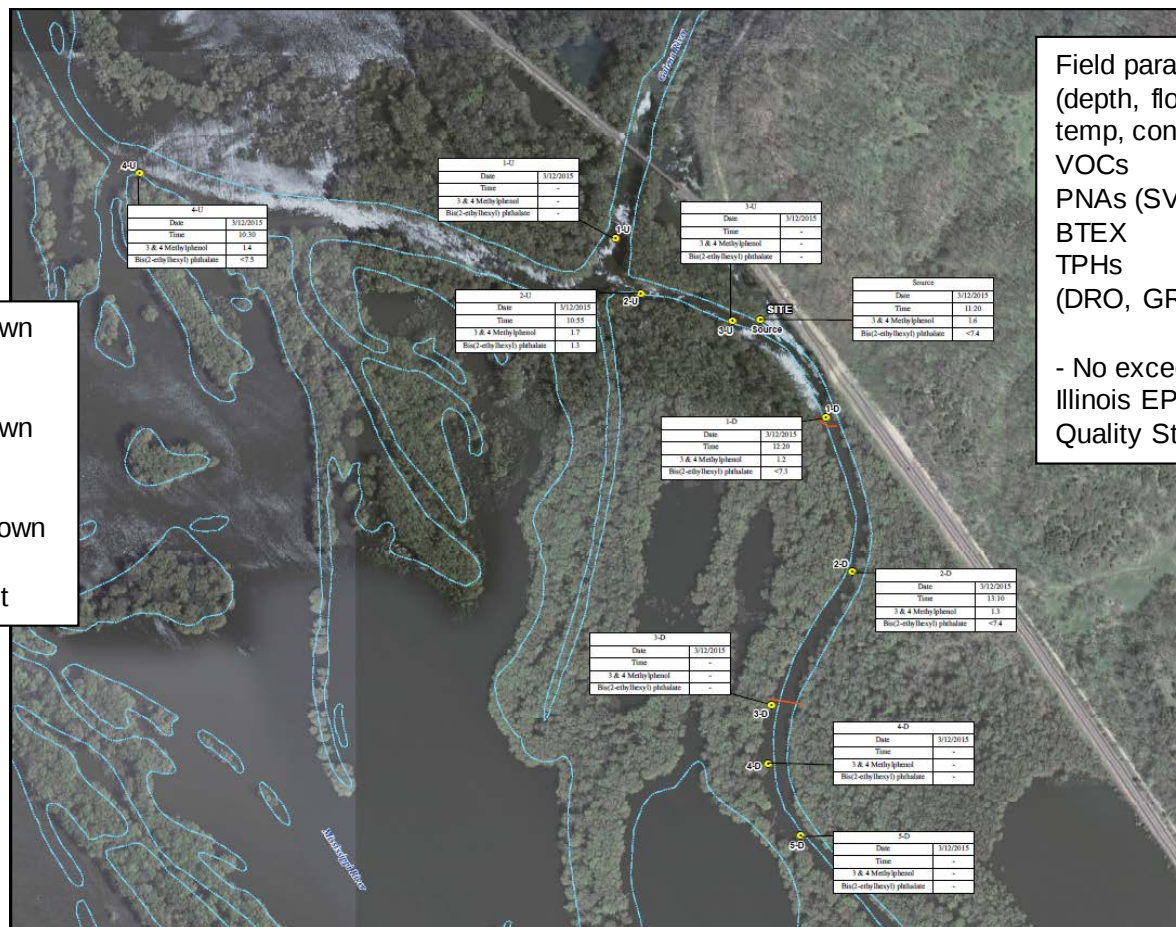
- Air
- Product
 - Fingerprint, SDS, analysis
- Surface Water
- Soil



Air



Surface Water



4 up, source, 5 down
3/7 to 3/11

2 up, source, 2 down
3/11 to 3/27

2 up, source, 2 down
If > 1" rain
3/27 to present

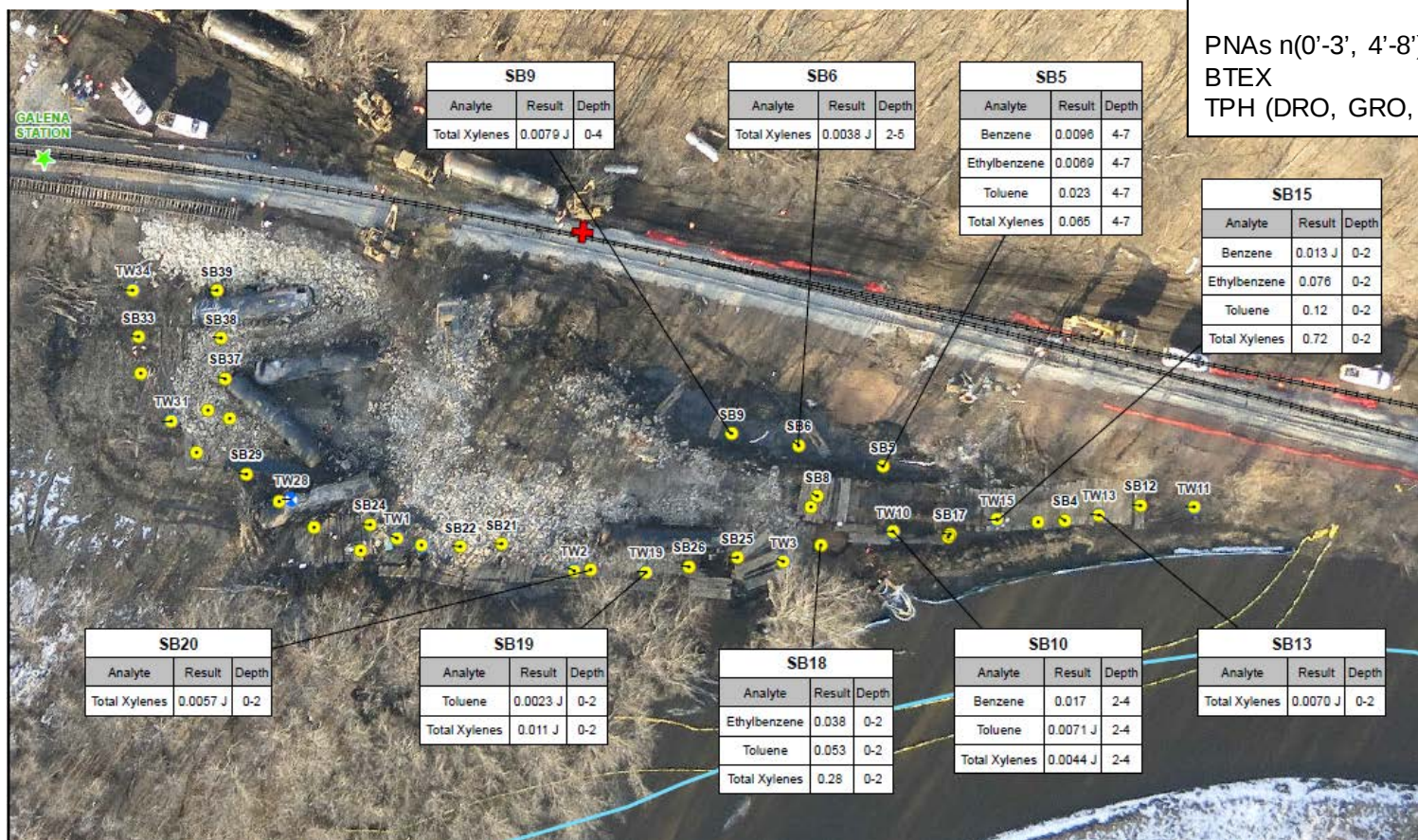
Field parameters:
(depth, flow, DO, ORP,
temp, cond, pH)
VOCs
PNAs (SVOCs)
BTEX
TPHs
(DRO, GRO, ORO)

- No exceedances of
Illinois EPA Surface Water
Quality Standards

Soils

- 143 samples from 35 borings screened
39 samples to lab

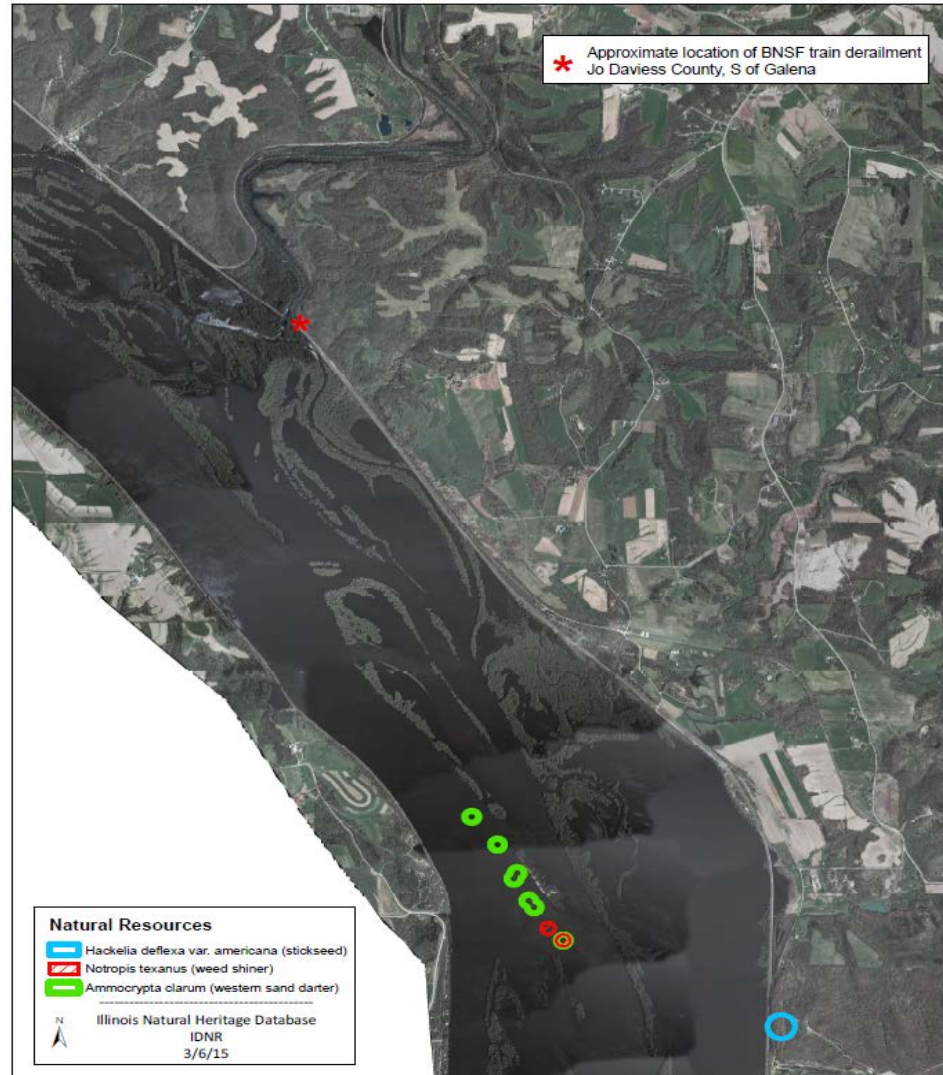
PNAs n(0'-3', 4'-8')
BTEX
TPH (DRO, GRO, ERO)



Endangered Species Act

NOAA SSC
initiated
consults

IDNR & US
FWS
did not identify
endangered
species at
derailment site



Contact

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