

# INCIDENT ACTION PLAN

Be brief and concise with your entries

<b>Location</b> Bayou Corne Sink Hole	<b>Control Level</b> Company Supervisory	<b>Operational Period</b> From 11/5/12      To 11/6/12	
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<b>1.0 SITUATION</b> Disease, community, environment  PROMPTS: Weather, disease trends, Resources, Hazards & safety  REFERENCE: Maps, weather reports, Sitreps, appreciation, warnings, alerts	<b>CURRENT</b> Sunny
	<b>PREDICT</b> Isolated thunderstorms

<b>2.0 OBJECTIVES (or MISSION)</b>  PROMPTS: Time & space  REFERENCE: Appreciation – control options, courses open to disease	<b>CURRENT</b> <b>Objective 1 - Gas Monitoring:</b>  3 Gas Monitors have been set up in the field and are obtaining data on a continuous basis. (See Attached Map for Locations)  The monitors are running on batteries which must be changed out every morning. Three monitors are located in the swamp and are required to be reached via airboats launched from TBC facilities.  The continuous monitoring data is collected at an office trailer located at Texas Brine Grand Bayou Facility. Monitoring the information on a 24 hours basis. Monitoring is being recorded for LEL, VOC, H2S and O2.  Respec Mining & Energy: In-place inclinometers and tilt meter monitoring system, weekly report. See Attached  <b>Objective 2- Elevation survey</b> taking place once a week.  <b>Objective 3- Sink hole observation.</b> See attached Map. Phase 2 of the remediation plan continues. We are using three vacuum trucks and four drum skimmers to remove hydrocarbons. See Attached Plan.
	<b>ALTERNATE</b>

<b>3.0 EXECUTION</b> add safety information as appropriate
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<b>GENERAL OUTLINE</b>  PROMPTS: Strategies & tactics (current/proposed/alternate)	<b>Safety Information: See Attached Safe Work Rules</b> <b>Reference IAP dated 8/9/12</b> <b>Additional to our Safe Work Rules for this project we are adding</b>
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<p>REFERENCE: Appreciation, Control Options</p>	<p><b>the awareness of insects, reptiles and animals.</b>  <b>Inspect location for flammability</b>  <b>Daily Safety Meetings</b>  <b>PPE Required on site: Respirator w/ VOC Cartridge, Gloves for sampling, eye protection, life preservers, hearing protection.</b></p>
<p>GROUPINGS</p>	<p>NA</p>
<p>TASKS Including PR &amp; Media</p>	<p>Same as above</p>
<p>COORDINATING INSTRUCTIONS</p> <p>PROMPTS: Timings, routes, assembly areas, staging areas</p>	<p>Texas Brine Grand Bayou Facility will be used as staging area.</p>
<p><b>4.0 ADMINISTRATION</b> (Logistics support)</p> <p>PROMPTS: Unit names, locations, contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised, stand by, enroute)</p>	
<p>SUPPLY WHO, WHAT, WHERE, WHEN of resources not readily available</p>	<p>NA</p>
<p>GROUND SUPPORT Transport of personnel, traffic mgt, refuelling, mechanical repair/maintenance</p>	<p>NA</p>
<p>COMMUNICATIONS Installation, maintenance, technical advice</p>	<p><b>Cell Phone &amp; Landline Communications:</b>  <b>Kenneth Blanchard – Area Manager – 985-██████████ (985-██████████)</b>  <b>kblanchard@texasbrine.com</b>  <b>Scott Borne – Facility Manager – 985-██████████ (985-██████████)</b>  <b>sborne@texasbrine.com</b>  <b>Joel Miller, PE – Consultant – 337-██████████ (337-██████████) joel.miller@cox-internet.com</b>  <b>Bruce Martin – Operations/PR – 713-██████████ (281-██████████)</b>  <b>bmartin@texasbrine.com</b></p>

	<p>Mark Cartwright – Technical/Engineering – 713- (281- )  mcartwright@unitedbrine.com  Scott Whitelaw – Environmental/Safety – 713- (713- )  swhitelaw@tum.com</p>
<p><b>STAGING AREA/ FCP</b>  Setting up, communications,  staffing</p>	<p><b>Texas Brine Grand Bayou Facility</b>  <b>1301 Hwy 70 South, Belle Rose, La 70341</b></p>
<p><b>5.0 ADMINISTRATION</b> (Logistics services)</p> <p>PROMPTS: Unit names, locations, contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised, stand by, enroute)</p>	
<p><b>FACILITIES</b>  Security, waste, cleaning</p>	<p><b>NA</b></p>
<p><b>CATERING</b></p>	<p><b>NA</b></p>
<p><b>OH&amp;S/MEDICAL</b>  Medical plan, first aid plan</p>	<p><b>Call 911</b></p>
<p><b>FINANCE</b></p>	<p><b>NA</b></p>
<p><b>TRAVEL</b></p>	<p><b>NA</b></p>
<p><b>INDUCTION/ TRAINING</b></p>	<p><b>NA</b></p>
<p><b>ACCOMMODATION</b></p>	<p><b>NA</b></p>
<p><b>6.0 CONTROL, COORDINATION &amp; COMMUNICATION</b></p>	
<p><b>CONTROL &amp; COORDINATION STRUCTURE</b></p> <p>REFERENCE  Structural Chart</p>	<p><b>Plant Management Supervision / Contractor Work</b></p>

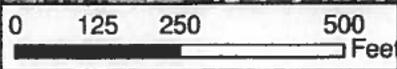
<p><b>COORDINATION &amp; LIAISON</b></p> <p>Local knowledge, police, agency reps, emergency mgt reps</p>	<p><b>NA</b></p>
<p><b>COMMUNICATIONS</b></p> <p>PROMPTS Communications structure, operational comms plan, information mgt</p>	<p><b>Plant Management – Contractor Communication via Cell Phone</b></p>

<p style="text-align: center;"><b>EXTRAS</b></p>	
<p><b>Attachments</b></p> <p>PROMPTS: maps, weather, organisational charts, resources, comms diagram</p>	<p><b>Site Map</b> <b>Current Weather</b> <b>Safe Work Rules</b></p>
<p><b>Plan developers</b></p> <p>PROMPTS PO, Logs Mgr, Controller</p>	<p><b>NA</b></p>
<p><b>Approval</b></p> <p>Controller, Ops Director</p>	<p><b>TBC Company Rep:</b> <i>David Bone</i> <b>FOSC:</b> <b>SOSC:</b> <b>POSC:</b></p>



**Legend**

-  Air Monitoring Stations (2012.08.17)
-  Board Road
-  Approximate Property Line
-  Sinkhole Extents (2012.08.14)



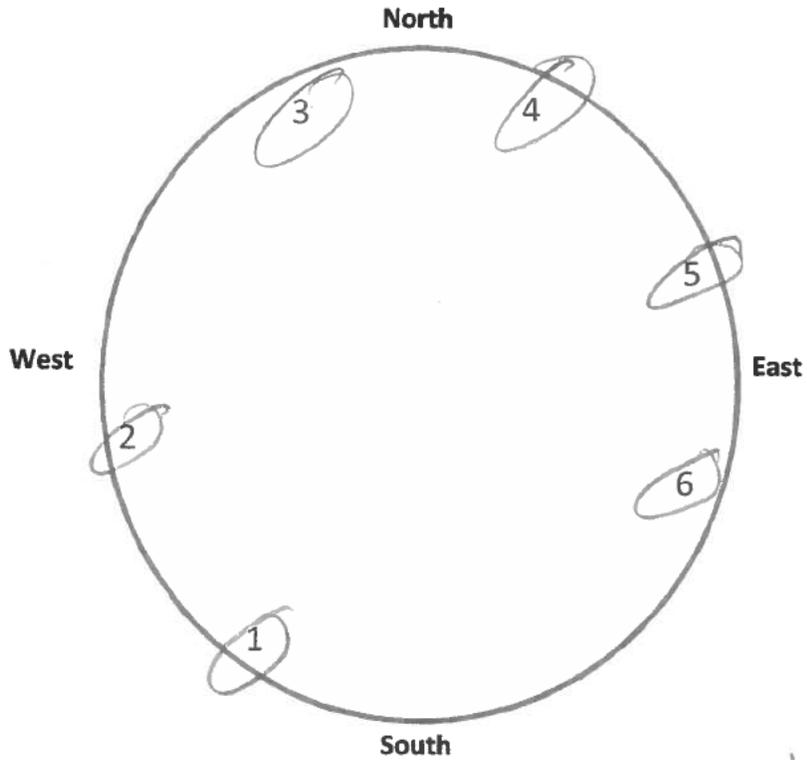
**Texas Brine Air Monitoring Locations  
8/17/2012 - current**

# Bayou Corne Sinkhole

Revised: 10/19/12

Date and Time: 11-4-12

	Time	Time	Time	Time
	7:00			
Tree 1	OK			
Tree 2	OK			
Tree 3	OK			
Tree 4	OK			
Tree 5	OK			
Tree 6	OK			



*Handwritten signature*

NOTE: Coordinates for each tree are forth coming.

TBC Oxy Grand Bayou Sinkhole Management Plan

Phase Two- Crude Oil/Vegetation/Debris Removal

10-12-2012

(THIS PLAN CAN BE ADJUSTED BY TBC FOR WEATHER RELATED ISSUES, OR SITE CONDITIONS)

This plan is being followed as an approach to sinkhole management. The primary focus for this plan is to:

1. Recover liquid hydrocarbons that are found on the surface of the sinkhole. By removing the free phase Hydrocarbons that are found on the surface of the sinkhole, off-site migration of these Hydrocarbons will be greatly reduced. Thus, limiting the impacts of the Hydrocarbons to the sinkhole surface and the immediate area. Additionally, the removal of the free phase Hydrocarbons will greatly reduce the "smell" associated with the sinkhole.
2. To further understand the dynamics of the sinkhole, through profiling and visual observation of the surface of the sinkhole.

Phase One focused on the removal of floating vegetation and debris within the sinkhole. To date, the vast majority of floating vegetation and debris has been cleaned and cleared off of the surface of the sinkhole area. On October 8, 2012, we began to bring on site equipment and staffing to move into Phase Two of the Sinkhole Management, Crude Oil Removal.

Crude Oil removal will take place on near the mat road that was constructed on September 24, 2012. Texas Brine began reconstruction of the mat road at well pad #3, going toward the sinkhole. This road has been constructed of river sand, filter fabric and wooden mats. The mat road has been constructed in the previous footprint, to the outside and on the eastern side of the sinkhole.

As discussed in the Phase One Plan for Sinkhole Management, the mat road will play a vital part in our recovery of oiled vegetation and crude oil removal. Texas Brine plans to collect crude oil via physical means with skimmers, and vacuums. We will also use Air Boats to sweep the surface of the sinkhole. Texas Brine has fabricated an oil collection box that will be placed at the end of the mat road, in the water, that will assist in the collection of crude oil.

Product that is recovered will be placed into a frac tank and stored for disposal. These Frac tanks are stored near the sinkhole in an orderly fashion. The vacuum trucks that are used are inspected for leaks and drips prior to leaving the facility for disposal. Occasionally, the Long-reach boom and operator may have to go back out on the mat road to sweep in additional debris that has been swept in by the air boats. The additional debris will be handled as discussed in Phase One. As a safety precaution, the truck driver will be instructed to remain in his vehicle with on ready should any movement be observed on the sinkhole. The truck driver will remain at/in his vehicle during the loading process. A spotter will be placed in a stationary location on Well Pad # 3 to watch for any movement of trees or debris in the sinkhole. Additionally, there will be supervision of the project entire project by TBC Employees.

Texas Brine is following the advice offered by LA DNR and pursuing the use of Oil Gator, as an in-situ remediation of crude oil in hard to reach places or in marginal places where oil may have escaped the containment boom. Texas Brine will not proceed with the use of this material or other materials until approval has been issued by the lead agency on this incident. The use of any such absorbent material will be used to augment the traditional physical oil removal procedures.

If any personnel or contractors are allowed onto the sinkhole, then air monitoring devices will be used to monitor the levels of VOC's on the site.

The safe execution of this activity is the goal of TBC. This is why every person entering the property, must wear proper PPE (Hard Hat, Long Pants, Steel Toed Boots, and Safety Glasses).

## Site Specific Safety Plan for Remediation of the Bayou Corne Sink Hole

The following plan is a site specific plan for the remediation of the Bayou Corne sink hole which will be achieved in two Phases. Phase one will include the construction of an access road to the sink hole which will allow the use of a long reach excavator. The excavator will be used to remove vegetation near the access road and place into roll off boxes. Phase two will consist of placing one or more airboats with attached rakes that will be used to push vegetation towards the access road where it will be removed and placed in roll off boxes. By removing the vegetation this allow us the use o skimmers and absorbent booms to aid in hydrocarbon removal

### Site Setting

The Texas Brine facility is located at 1301 Hwy 70, Belle Rose, LA 70341. The facility is located South of 70. The site is located on raised pads and roads but the property is otherwise swamp. A site map is attached. The nearest hospital Our Lady of the Lake is located in Napoleonville, LA. which is a 15 minute trip

### Site Specific Hazards

The site is located in a swamp setting and potential dangers may be present. Personnel should be aware of

Alligators

Wasps

Snakes

Spiders

### Emergency Contact

911 will used in any emergency.

Cell phones on site

### Site Safety

#### Safety Meeting

Held at the beginning of each shift.

#### PPE Requirements

Hard hat

Safety Glasses

Steel toe boots

#### Air Monitoring

A system of air monitoring devices have been placed across the property surrounding the sink hole. One air monitoring device is located next to the access road

Airboats will have hand held monitors on there person at all times when on the sink hole

#### Spotters and Warnings

A person or persons armed with an air horn will be placed on site looking for safety issues such as

Leaning trees

Falling trees

Ground Movement

Driver of the truck attached to the roll off box will remain in the truck at all times and will be ready to vacate the access road on signal.

#### Heavy Equipment

Long reach excavator

#### Environmental

Vegetation will be placed in lined roll off boxes and disposed of

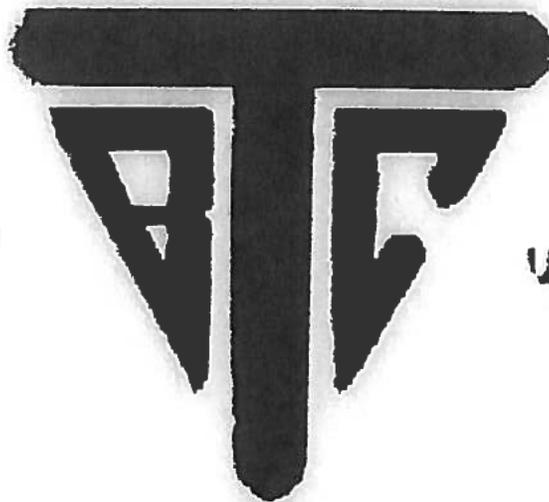
Airboats will remain inside the containment boom once entered

Decon of airboats will take place on location pad next to access road.

# TEXAS BRINE COMPANY, LLC AND AFFILIATED COMPANIES

Safe Work Practices

UNDERGROUND  
STORAGE, LLC



UNITEDBRINE

UNITEDBRINE

TEXAS BRINE COMPANY, LLC

INDUSTRIAL  
SERVICES MANUAL, LLC



American Chemical Society

American  
Chemical Society  
Council

November 5, 2012

Mr. Bruce Martin  
Vice President of Operations  
Texas Brine Company, LLC  
4800 San Felipe  
Houston, TX 77056

Dear Mr. Martin:

**RE: In-Place Inclinometer and Tiltmeter Monitoring System, Napoleonville Dome  
Weekly Report: October 27 Through November 02, 2012**

RESPEC is pleased to submit this weekly report on the in-place inclinometer (IPI) and tiltmeter monitoring system installed around the sinkhole located near the western flank of the Napoleonville Dome, Assumption Parish, Louisiana. The locations of IPIs and tiltmeters are shown in Figure 1. Graphs illustrating the data, as recorded by each IPI and tiltmeter, are provided in Figures 2–4. The IPI data for the *X*-directions and *Y*-directions are plotted separately in Figures 2 and 3, respectively. The tiltmeter data for both the *X*- and *Y*-directions are plotted in Figure 4. A condition reflecting no changes in ground movement plots as a horizontal line on these graphs. Note that the instruments installed are very sensitive; they can measure ground tilt to less than 1/100 of a degree. Alarm levels are set at  $\pm 1.0$  degree for all inclinometers and  $\pm 0.5$  degree for all tiltmeters.

Figure 5 shows water level in feet with respect to the bottom of the IPI-3 housing. The installed transducer is intended to protect the IPI equipment by sending an alarm when water levels become too high. A water level of 0 feet would indicate that the water is at the bottom of the IPI-3 housing; a positive value indicates the housing is submerged or partially submerged. Negative values, as shown in Figure 5, indicate that the water level remains below the bottom of the IPI-3 housing.

During the sloughing event on Tuesday, October 30, Tiltmeter IPI-4 recorded slight movement (0.01 degree) away from the sinkhole from approximately 16:30 to 17:00 as shown in Figure 2. Movements recorded by other IPIs and tiltmeters were within value-to-value variations and thus, do not indicate movement beyond the resolution of the instruments. The water level measured at IPI-2 during the sloughing event, showed a drop of approximately 0.05 foot between 16:15 and 17:00, as shown in Figure 5. Other IPI and tiltmeter data indicated stable conditions over the past week. Change in tilt values at IPI-3 on October 27, as shown in Figures 2 and 3, were caused by InSAR reflector construction activities at the site.

Sincerely,



Eric L. Krantz  
Engineer

ELK:llf

cc: Mr. Mark Cartwright, Texas Brine Company, LLC  
Mr. Scott Borne, Texas Brine Company, LLC  
Project Central File 2153 — Category C



Figure 1. Inclinator and Tiltmeter Locations.

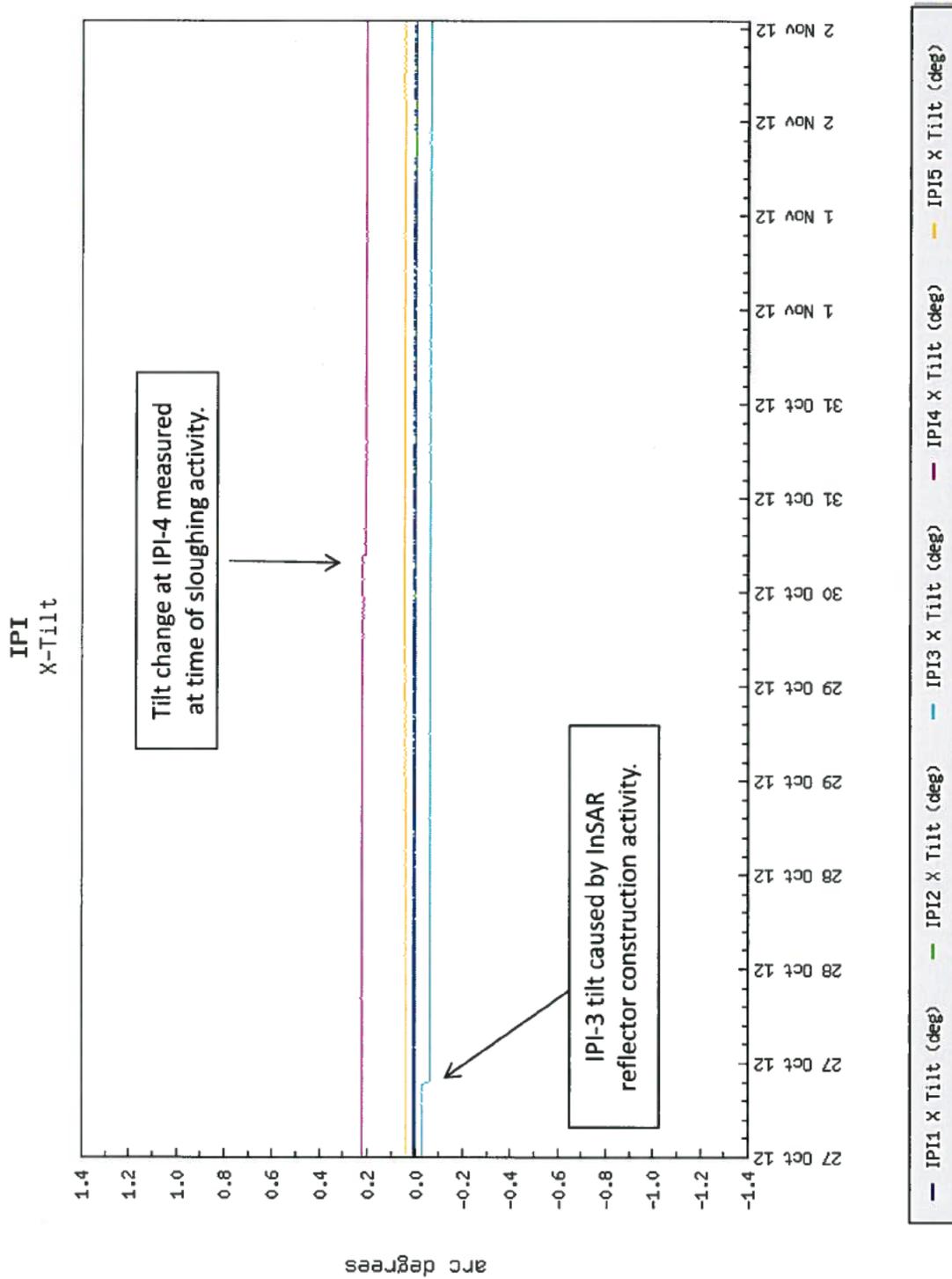


Figure 2. Inclinometer X-Direction Temporal Trends.

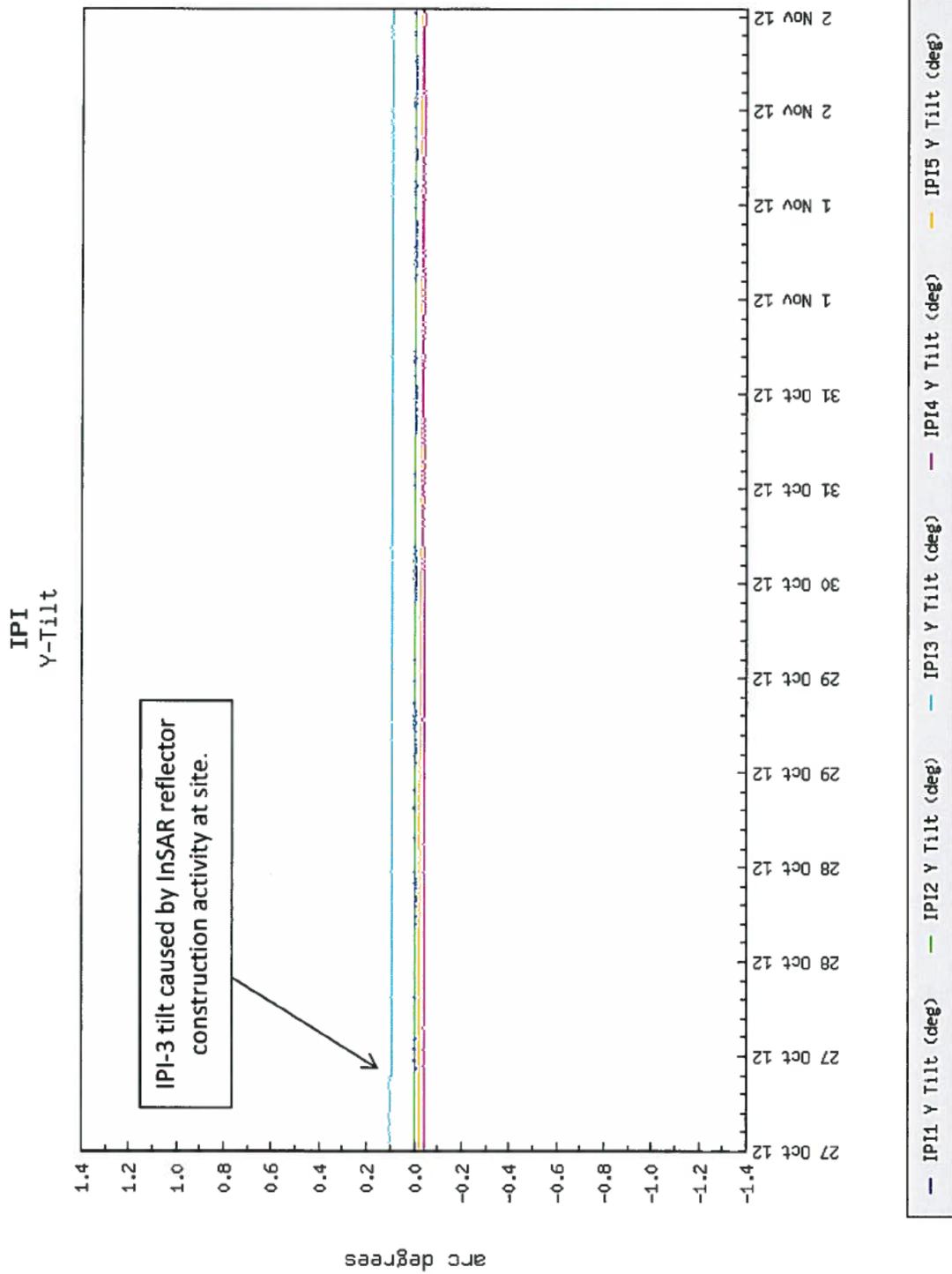


Figure 3. Inclinometer Y-Direction Temporal Trends.

RSI-2153-12-039

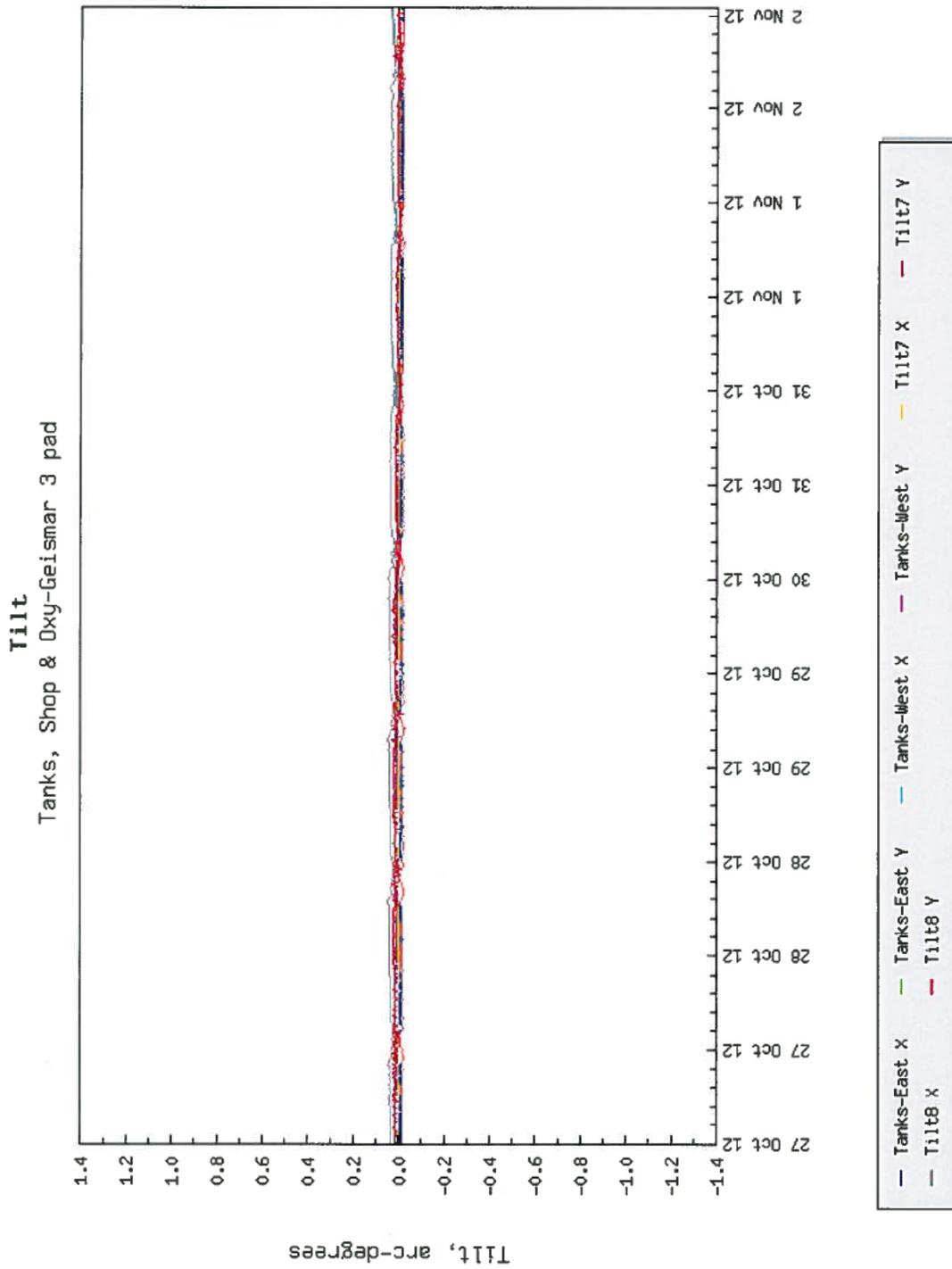


Figure 4. Tiltmeter Temporal Trends.

RSI-2153-12-040

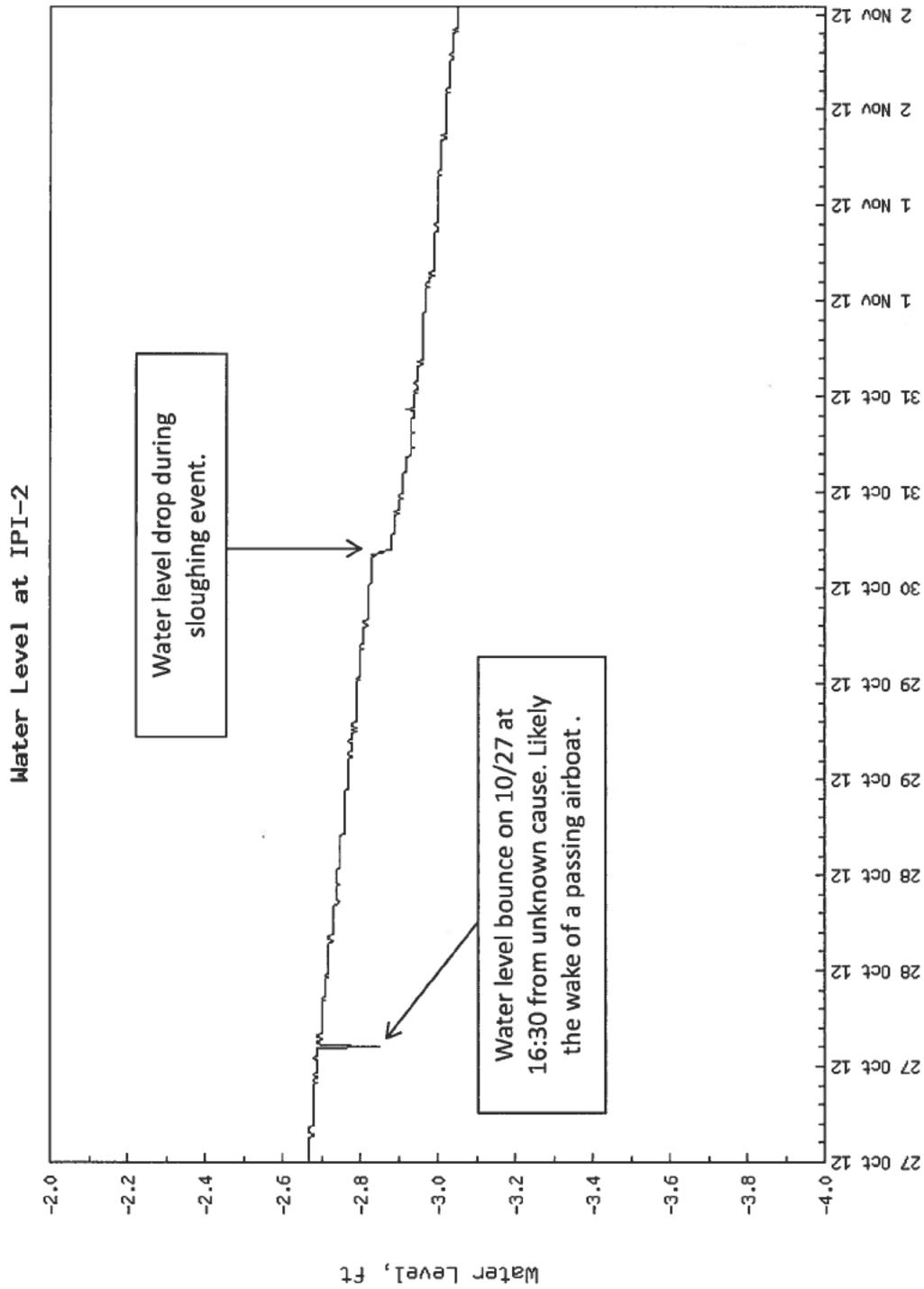
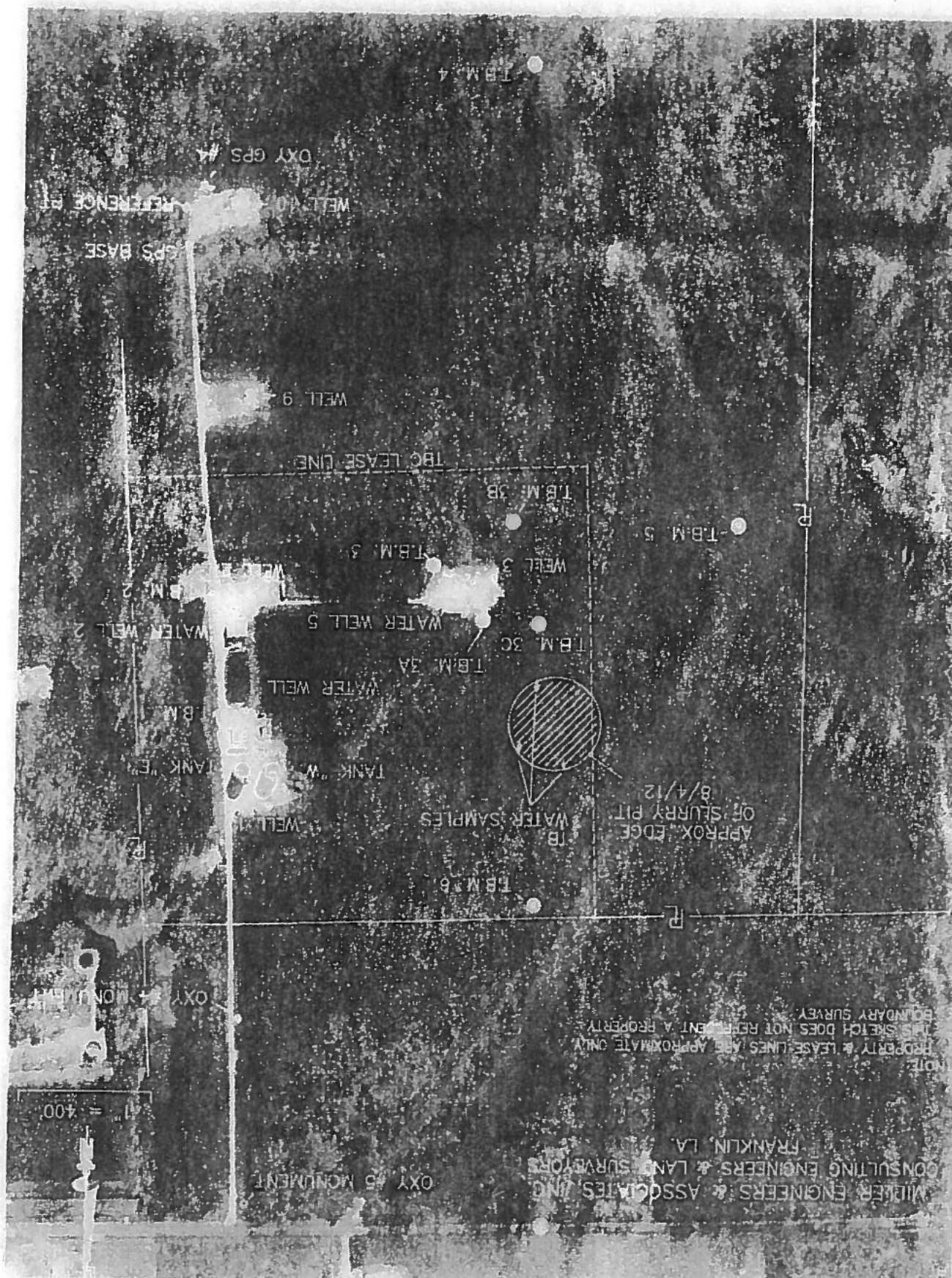


Figure 5. Water-Level Data: Water Level Measured at IPI-2.



1" = 400'

NOTE:  
PROPERTY & LEASE LINES ARE APPROXIMATE ONLY.  
THIS SKETCH DOES NOT REPRESENT A PROPERTY  
BOUNDARY SURVEY.

MILLER ENGINEERS & ASSOCIATES, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
FRANKLIN, LA.



Universal Time: Monday, 05 Nov 2012, 13:54

54°F Belle Rose, Louisiana

Enter City, State, Country or U.S. Zip code or Airport Id

Local Weather

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National News

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Weather Report

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Belle Rose, Louisiana

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Current Conditions - °F | °C

As of 6:53 AM on Monday 05 Nov 2012 (Local Time) from KBTR Reporting Station

Clear **54°F**  
Feels Like: 54°

Wind Chill: 54°    Ceiling: Unl  
Heat Index: 54°    Visibility: 7mi  
Dew Point: 53°    Wind: 0mph  
Humidity: 97%    Direction: NA NA  
Pressure: 30.07"    Gusts: NA

Report Text: KBTR 051253Z AUTO 00000KT 75M CLR 12/12 A3007 RMK AO2 SLP180 T01220117 TSHO 5

View Detailed Observations for the last 48 Hours - 14 Days

**Today's Forecast**

8 AM		62°
P Cloudy		
9 AM		65°
P Cloudy		
10 AM		68°
P Cloudy		

View Complete Hourly Forecast >

**Local Information**

**No Weather Alerts for this location**

Radar · Satellite · Surface Analysis

10 Day Forecast - °F | °C

View the Detailed Extended Forecast >

mon	tue	wed	thu	fri	sat	sun	mon	tue	wed
nov 05	nov 06	nov 07	nov 08	nov 09	nov 10	nov 11	nov 12	nov 13	nov 14
Iso T-Storms	P Cloudy	Sunny	Sunny	P Cloudy	P Cloudy	P Cloudy	Showers	M Sunny	AM Clouds
77° 52°	69° 46°	73° 47°	72° 51°	77° 57°	77° 62°	80° 60°	75° 49°	69° 51°	70° 57°

Details for Monday, November 05

Partly cloudy with a slight chance of thunderstorms. A few storms may be severe. High 77F. Winds light and variable. Chance of rain 30%.

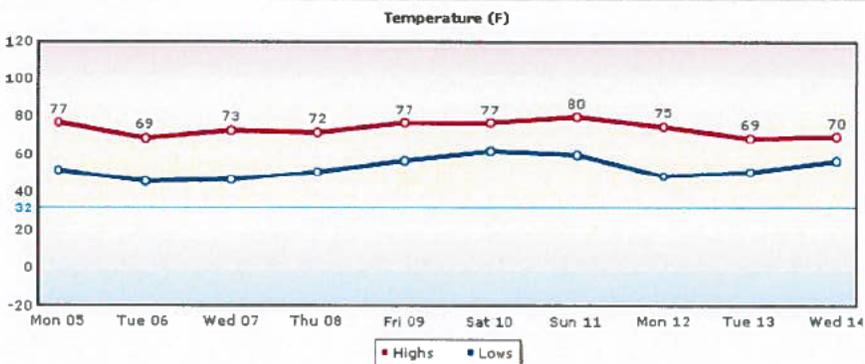
Evening: Isolated thunderstorms this evening, then skies turning partly cloudy after midnight. A few storms may be severe. Low 52F. Winds WNW at 5 to 10 mph. Chance of rain 30%.



Sunrise: 6:21 AM    Moonrise: 10:51 PM    Moonphase: Waning Gibbous    Direction: SSE (154°)  
 Sunset: 5:14 PM    Moonset: 11:40 AM    Speed: 5Mph(8Km, 4Kts)

Daily Forecast Chart

Chart Options: Temperature



Temperature UV Index Relative Humidity Precipitation Snow Clouds Wind

Daily Forecast Hourly Forecast Past Observations Historic Averages

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