INCIDENT ACTION PLAN

Be brief and concise with your entries

Location Bayou Corne Sink Hole	Control Level Company Supervisory	Operational Period From 4/8/13 To 4/9/13

1.0 SITUATION Disease, community, environment PROMPTS: Weather, disease trends, Resources, Hazards & safety REFERENCE: Maps, weather reports, Sitreps, appreciation, warnings, alerts	**CURRENT** Sunny **PREDICTION** Sunshine and partly cloudy throughout the day. 10% chance of precipitation. High Temperature near 80.
2.0 OBJECTIVES (or MISSION) PROMPTS: Time & space REFERENCE: Appreciation – control options, courses open to disease	**CURRENT** **Objective 1 -** Gas Monitoring: 3 Gas Monitors have been set up in the field and are obtaining data on a continuous basis. 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 **Objective 2-** Elevation survey taking place once a week. **Objective 3-** Sinkhole observation. **Continuing to monitor slough on the sinkhole. Operations are being performed on or around the sinkhole.** ALTERNATE
3.0 EXECUTION add safety information as appropriate	
GENERAL OUTLINE PROMPTS: Strategies & tactics (current/proposed/alternate)	**Safety Information: See Attached Safe Work Rules Reference IAP dated 8/9/12** **Additional to our Safe Work Rules for this project we are adding the awareness of insects, reptiles and animals.**

REFERENCE: Appreciation, Control Options	**Inspect location for flammability** **Daily Safety Meetings** **PPE Required on site: Respirator w/ VOC Cartridge, Gloves for sampling, eye protection, life preservers, hearing protection.**
GROUPINGS	**NA**
TASKS Including PR & Media	**Same as above**
COORDINATING INSTRUCTIONS PROMPTS: Timings, routes, assembly areas, staging areas	**Texas Brine Grand Bayou Facility will be used as staging area.**

4.0 ADMINISTRATION (Logistics support)

PROMPTS: Unit names, locations, contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised, stand by, enroute)

SUPPLY WHO, WHAT, WHERE, WHEN of resources not readily available	**NA**
GROUND SUPPORT Transport of personnel, traffic mgt, refuelling, mechanical repair/maintenance	**NA**
COMMUNICATIONS Installation, maintenance, technical advice	**Cell Phone & Landline Communications:** **Kenneth Blanchard – Area Manager – 985-[redacted] (985-[redacted])** **kblanchard@texasbrine.com** **Scott Borne – Facility Manager – 985-[redacted](985[redacted])** **sborne@texasbrine.com** **Joel Miller, PE – Consultant – 337[redacted] (337[redacted]) joel.miller@cox-internet.com** **Bruce Martin – Operations/PR – 713-[redacted](281[redacted]** **bmartin@texasbrine.com** **Mark Cartwright – Technical/Engineering – 713[redacted] (281-[redacted]**

	mcartwright@unitedbrine.com **Scott Whitelaw – Environmental/Safety – 713[redacted] (713-[redacted]** **swhitelaw@tum.com**
STAGING AREA/ FCP Setting up, communications, staffing	**Texas Brine Grand Bayou Facility** **1301 Hwy 70 South, Belle Rose, La 70341**

5.0 ADMINISTRATION (Logistics services)

PROMPTS: Unit names, locations, contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised, stand by, enroute)

FACILITIES Security, waste, cleaning	**NA**
CATERING	**NA**
OH&S/MEDICAL Medical plan, first aid plan	**Call 911**
FINANCE	**NA**
TRAVEL	**NA**
INDUCTION/ TRAINING	**NA**
ACCOMMODATION	**NA**

6.0 CONTROL, COORDINATION & COMMUNICATION

CONTROL & COORDINATION STRUCTURE REFERENCE Structural Chart	**Plant Management Supervision / Contractor Work**
COORDINATION &	**NA**

LIAISON Local knowledge, police, agency reps, emergency mgt reps	
COMMUNICATIONS PROMPTS Communications structure, operational comms plan, information mgt	**Plant Management – Contractor Communication via Cell Phone**

EXTRAS	
Attachments PROMPTS:: maps, weather, organisational charts, resources, comms diagram	**Current Weather** **Safe Work Rules**
Plan developers PROMPTS PO, Logs Mgr, Controller	**NA**
Approval Controller, Ops Director	**TBC Company Rep: William Booher** **FOSC:** **SOSC:** **POSC:**

Belle Rose, Louisiana, United States

Today's Forecast: Monday, 8 Apr 2013

80°F
67°F

Sky Conditions: Partly Cloudy
Sunrise: 6:45 AM **Sunset:** 7:27 PM
Wind: SSE (157°) @ 13Mph
Precipitation Probability: 10%

View your complete Local Weather »

Extended Forecast Full 10-Day Forecast »

Tuesday 9 Apr 2013	Wednesday 10 Apr 2013	Thursday 11 Apr 2013	Friday 12 Apr 2013
			
AM Clouds/PM Sun	Scattered Thunderstorms	Rain	Partly Cloudy
83°F	80°F	72°F	73°F
69°F	64°F	48°F	49°F

Detailed Forecast

Today:
Partly to mostly cloudy. High near 80F. Winds SSE at 10 to 20 mph.
Tonight:
Partly cloudy skies during the evening will give way to cloudy skies overnight. Low 67F. Winds SE at 10 to 20 mph.
Tomorrow:
Clouds giving way to sun . Highs in the low 80s and lows in the upper 60s.

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 of 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 accsess 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.

Revised 8/3/2012

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. The proposed use of Oil Gator will not replace the use of traditional physical oil spill removal.

If any personnel or contractors are allowed onto the sinkhole, then personal air monitoring devises will be used to monitor air quality/exposure while on the siinkhole.

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).

April 8, 2013

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

Dear Mr. Martin:

RE: In-Place Inclinometer, Tiltmeter, and Water-Level Monitoring System, Napoleonville Dome Weekly Report: March 30, 2013, Through April 5, 2013

RESPEC is pleased to submit this weekly report on the in-place inclinometer (IPI), tiltmeter, and water-level monitoring system installed around the sinkhole located near the western flank of the Napoleonville Dome, Assumption Parish, Louisiana. Water-level data in this letter and the attached Excel file are submitted in response to Directive #5 contained in the October 11, 2012, Third Amendment to Declaration of Emergency and Directive from the Department of Natural Resources Office of Conservation. IPI and tiltmeter data are also attached as Excel files.

The monitoring locations are illustrated in Figure 1 and graphs that illustrate the tilt data, as recorded by each instrument, are provided in Figures 2 through 4. The IPI data for the *X*-directions and *Y*-directions are plotted separately in Figures 2 and 3, respectively, and 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 1/1,000 of a degree. Inclinometer alarm levels are set at ± 1.0 degree and tiltmeter alarms are set at ± 0.5 degree.

In the past few weeks, IPI-3 had been tilting toward the sinkhole. On March 30 at 8:45 a.m., the system sent an amber alarm when the *X*-direction tilt value exceeded 1.000 degree. All of the alarm recipients received the alarm either by text message or email, which constitutes a successful test of the early-warning system.

IPI-3 was removed on April 4, 2013, at 15:00 and relocated approximately 200 feet northwest of its original location and renamed “IPI-3a” on April 5, 2013, at 11:30. Sinkhole sloughing was slowly encroaching on the inclinometer and there was danger of loss into the sinkhole. The map in Figure 1 illustrates the old location of IPI-3 and the new location of IPI-3a. The IPI-3a datum was zeroed on April 5, 2013, at 11:30 to reset the instrument.

Water levels inside the sinkhole berm have been dropping since the berm was closed. The water levels inside the berm are estimated to be 2 feet lower than those outside the berm. The water levels around the Pad 3 water-level logger dropped far enough that the data were not

reflective of the sinkhole water levels. The area was visited on April 4 in an attempt to locate another place to install the logger; however, the swamp on both sides (north and south) of the Pad 3 access road is no longer under water. If the logger is placed too close to the sinkhole, where water is deep enough, there is a good chance of losing it in a sloughing event. Therefore, Pad 3 water-level data were removed from this letter and are not included in the attached spreadsheet. Water-level data from IPI-2 accurately reflects water levels in the sinkhole. The water-level temporal trends at the IPI-2 and Rig Access Road transducers are illustrated in Figure 5.

The water levels with respect to zero datum on March 30, 2013, at 12 a.m. are depicted in Figure 6. Rig Access Road showed a relative 0.02-foot subsidence with respect to IPI-2 throughout the week. Water-level data indicate that subsidence at Rig Access Road is slowing as compared to the previous week's subsidence of about 0.04 foot. Note that the transducer mounting post at Rig Access Road is driven into native soils approximately 20 to 30 feet from the edge of the fill used to construct the new berm.

Sincerely,

Eric L. Krantz
Engineer

ELK:llf

Enclosure

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

Figure 1. Monitoring Locations Showing the New Location of IPI-3a.

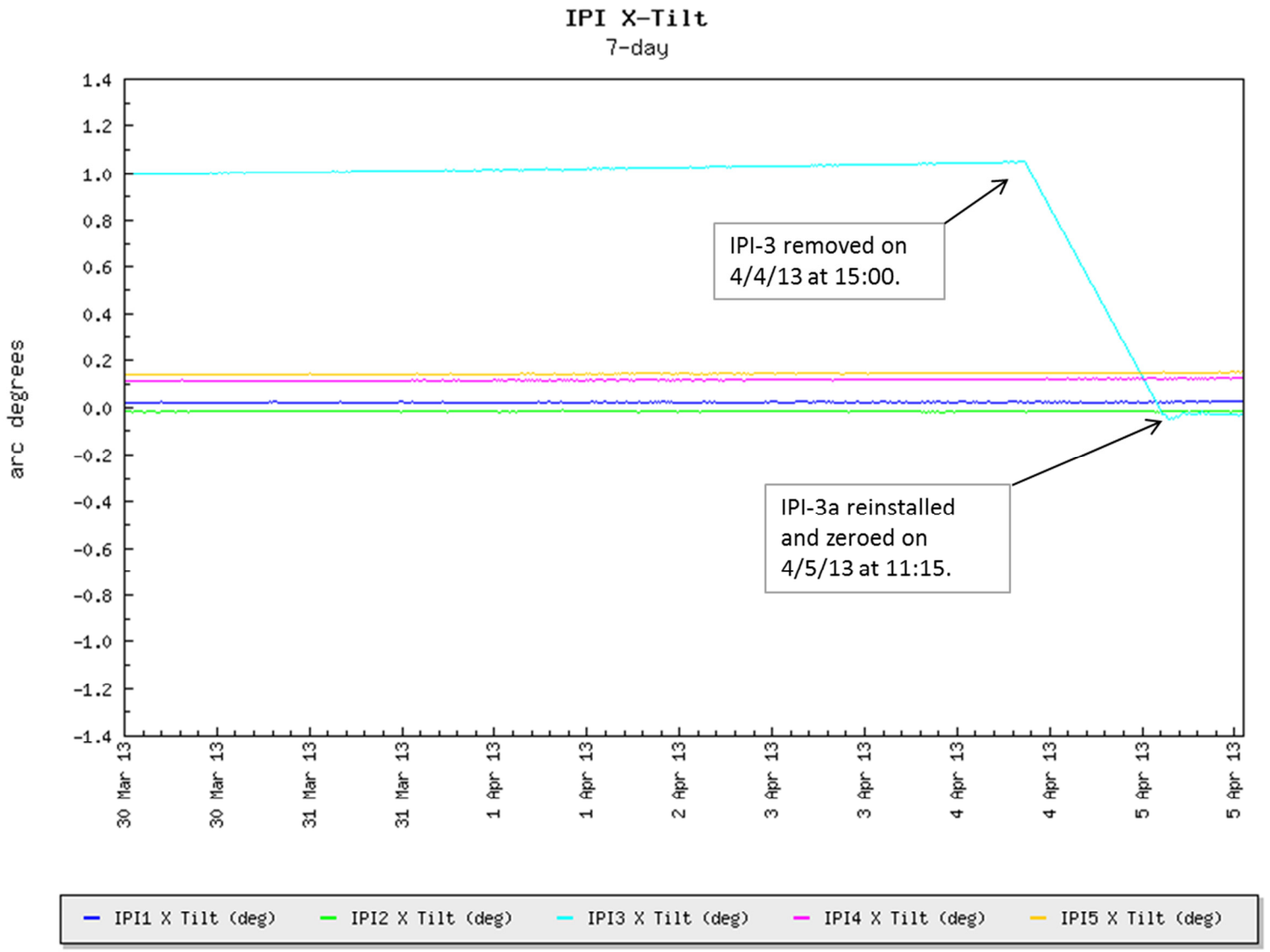

Figure 2. Inclinometer *X*-Direction Temporal Trends.

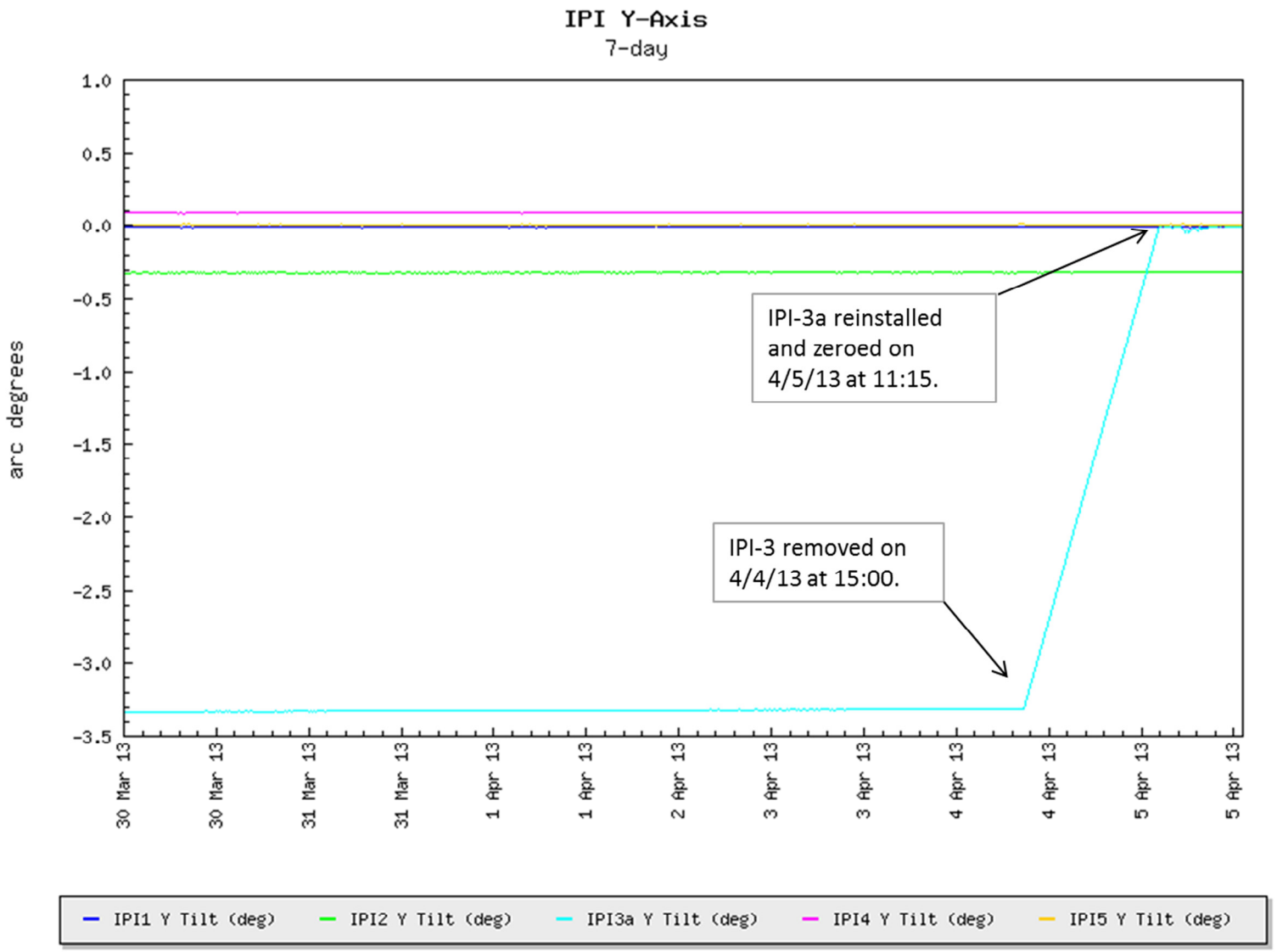

Figure 3. Inclinometer *Y*-Direction Temporal Trends.

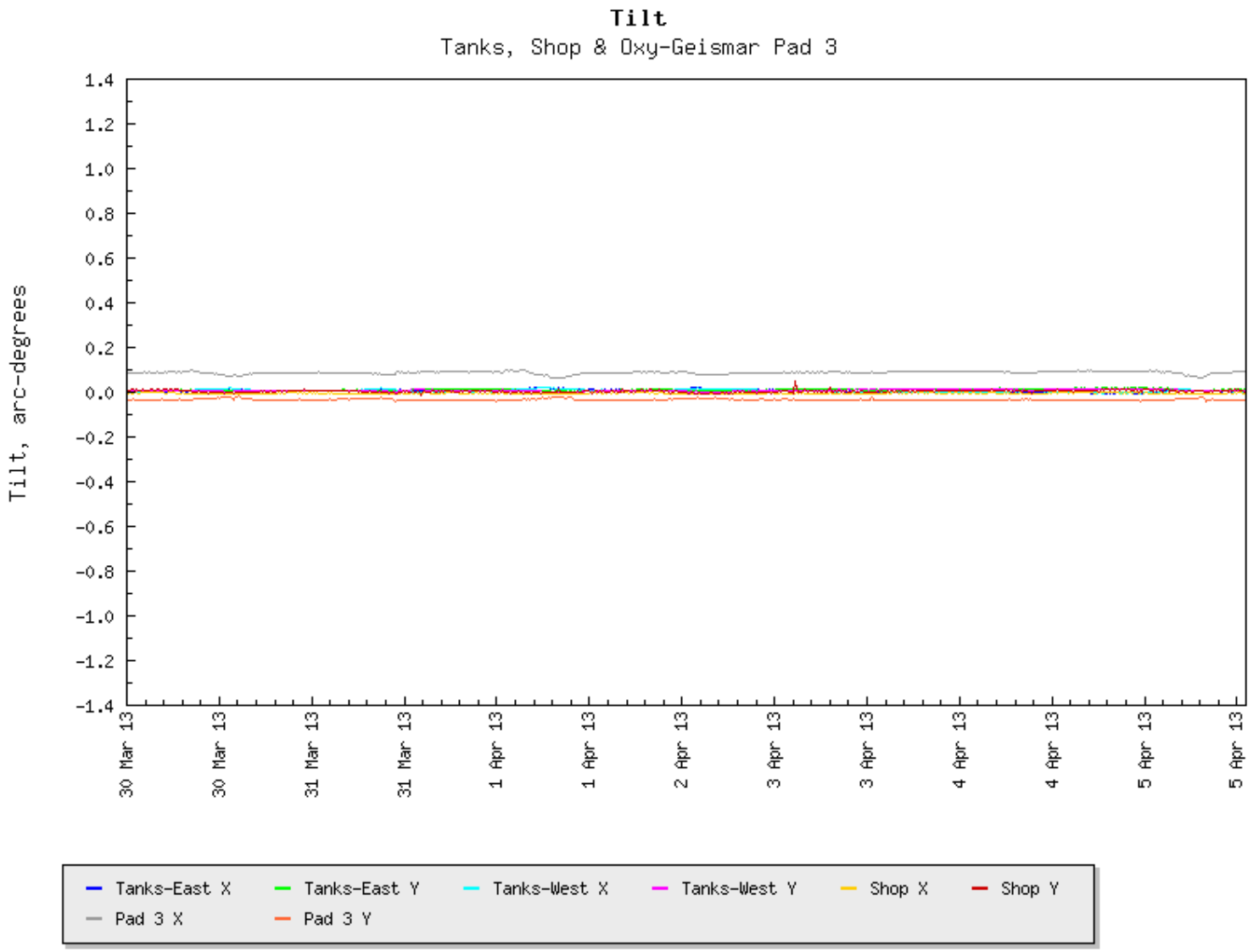

Figure 4. Tiltmeter Temporal Trends.

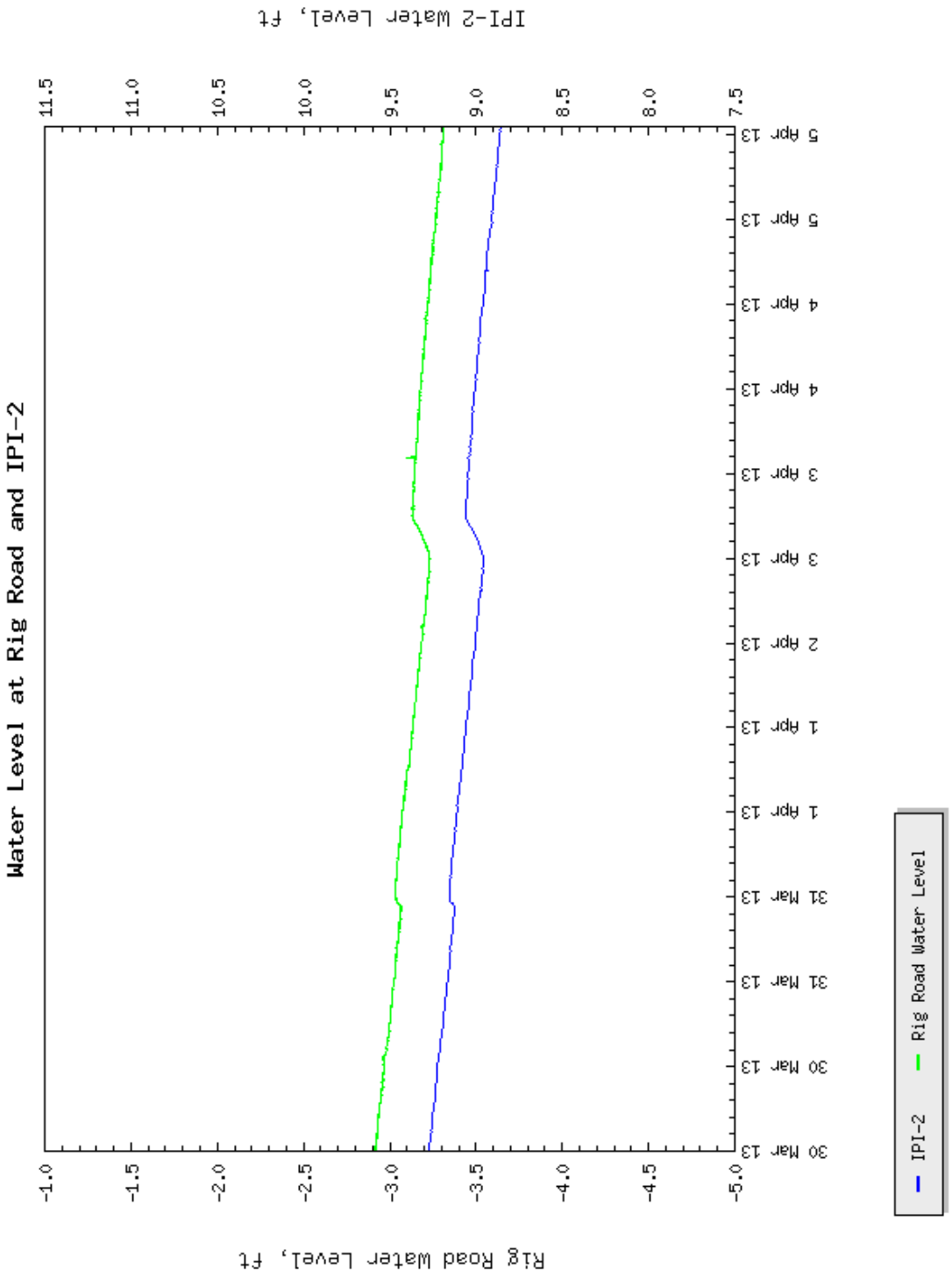

Figure 5. Water-Level Temporal Trends Showing Rig Access Road Data and IPI-2 Data.

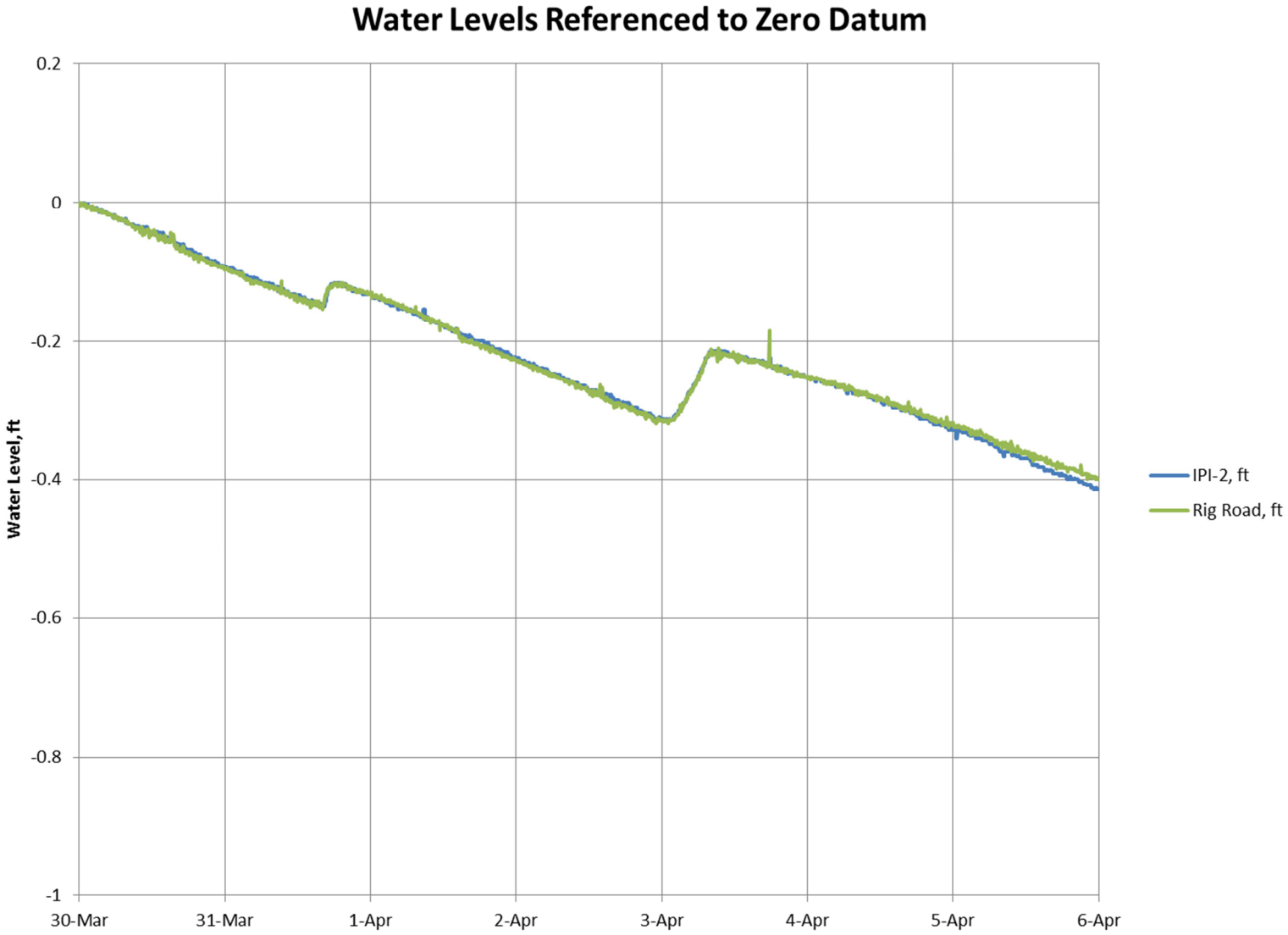

Figure 6. Water-Levels at IPI-2 and Rig Access Road Referenced to Zero Datum.