## **INCIDENT ACTION PLAN**

Be brief and concise with your entries

Location			
Bayou	Corne		
Sink	Hole		

## Control Level **Company Supervisory**

**Operational Period** 

From 4/14/14

To 4/15/14

## 1.0 SITUATION

Disease, community, environment

#### PROMPTS:

Weather, disease trends, Resources, Hazards & safety

#### REFERENCE:

Maps, weather reports, Sitreps, appreciation, warnings, alerts

### **CURRENT**

Mostly cloudy

#### **PREDICTION**

Scattered thunderstorms in the morning, then mainly cloudy during the afternoon with thunderstorms likely. A few storms may be severe. 90% 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 - Demonstrating sinkhole containment and determining if additional sinkholes could form.

**Objective 2 -** Locating and mitigating the risk posed by the presence of shallow gas.

Objective 3 - Confirming the broader stability of the Napoleonville Salt Dome.

#### **Current Actions:**

(For planning purposes only, all activities are subject to change.)

### ORW, MRAA, CPT and PVW wells

- Conduct daily well readings and flare maintenance
- Monitor Bubble site 56
- Monitor continuous dewatering of ORWs 4, 54, and 48
- Troubleshoot and conduct maintenance on ORWs 14 and 15.
- Conduct routine monthly transducer downloads

#### Air Monitoring/Under-slab Ventilation

Conduct ventilation system inspections

## Sampling/Surveying

Collect samples from MRAA water wells 1, 6, and 8

#### **Tomorrow's Activities**

- Continue ventilation system inspections
- Conduct daily well readings and flare maintenance
- Conduct daily berm inspection
- Monitor Bubble site 56
- Continue ORW dewatering tests
  - Continue long term groundwater pumping for enhanced methane recovery

Version date: 3 May 2010

### Sinkhole Activity – Code 1

### 3.0 EXECUTION add safety information as appropriate

GENERAL OUTLINE

PROMPTS:

Safety Information: See Attached Safe Work Rules Reference IAP dated 8/9/12

IAP [Bayou Corne Sink Hole] - V#

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Strategies & tactics (current/proposed/alternate)	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 NA			
	NA .			
TASKS	Same as above			
Including PR & Media	Same as above			
COODDINATING	Tayon Bring Crond Boyou Facility will be used as storing area			
COORDINATING INSTRUCTIONS	Texas Brine Grand Bayou Facility will be used as staging area.			
PROMPTS:				
Timings, routes, assembly areas, staging areas				
4.0 ADMINISTRATION (Logistics support)				
PROMPTS: Unit names, locations stand by, enroute)	contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised,			
SUPPLY	NA			
WHO, WHAT, WHERE, WHEN of resources not readily				
available				
CDOLIND CLIDDODT	ALA.			
GROUND SUPPORT Transport of personnel, traffic	NA			
mgt, refuelling, mechanical repair/maintenance				
	Cell Phone & Landline Communications:			
COMMUNICATIONS Installation, maintenance,	Kenneth Blanchard – Area Manager – Research Communication (Communication)			
technical advice	Scott Borne – Facility Manager – Sporne @texasbrine.com			
	Joel Miller, PE - Consultant - joel.miller@cox-			
	internet.com  Bruce Martin – Operations/PR –			

	bmartin@texasbrine.com  Mark Cartwright – Technical/Engineering – mcartwright@unitedbrine.com  Scott Whitelaw – Environmental/Safety –		
	Scott Whitelaw – Environmental/Safety – 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 ADMINISTRAT	TION (Logistics services)		
PROMPTS: Unit names, locations stand by, enroute)	s, contact names, phone no's, timings, duties/tasks, routes, suppliers, quantities, status (required, organised,		
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	Plant Management Supervision / Contractor Work		
REFERENCE Structural Chart			

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

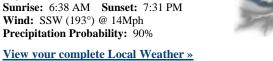
EXTRAS			
Attachments PROMPTS:: maps, weather, organisational charts, resources, comms diagram	Current Weather Safe Work Rules		
Plan developers PROMPTS PO, Logs Mgr, Controller	NA		
Approval Controller, Ops Director	TBC Company Rep: William Booher FOSC: SOSC: POSC:		

#### Belle Rose, Louisiana, United States

Today's Forecast: Monday, 14 Apr 2014

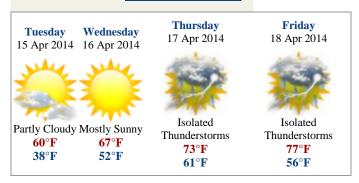
### 80°F 46°F

**Sky Conditions:** Thunderstorms Sunrise: 6:38 AM Sunset: 7:31 PM Wind: SSW (193°) @ 14Mph**Precipitation Probability: 90%** 





#### Extended Forecast Full 10-Day Forecast »



#### **Detailed Forecast**

#### Today:

Scattered thunderstorms in the morning, then mainly cloudy during the afternoon with thunderstorms likely. A few storms may be severe. High around 80F. Winds SSW at 10 to 20 mph. Chance of rain 90%.

#### **Tonight:**

Thunderstorms in the evening with a few showers possible overnight. A few storms may be severe. Low 46F. Winds NW at 10 to 20 mph. Chance of rain 90%.

#### Tomorrow:

Partly cloudy. Highs in the low 60s and lows in the upper 30s.

## Site Safety Plan for Sinkhole and Surrounding Area

Seismic Code	Seismic Activity	Sinkhole Access	Berm Road Access	Work Allowed
1	Minimal to no seismic activity around/below sinkhole; 10 or fewer of the sharp seismic signals associated with rock movement, called mini-earthquakes (MEQs) or the longer signals associated with gas or liquid movement, called Very Long Periods (VLPs) within 24-hour period; allows work on sinkhole and inside berm area to continue	<ul> <li>Approved¹ work allowed only in designated areas of sinkhole. Some areas may be restricted due to unsafe conditions (e.g., leaning trees). Sinkhole grid system shown in Figure 1 will be used to define restricted areas for individual work activities.</li> <li>All vessels must have at least 2 persons. Workers must wear approved PFDs. No work allowed after sunset. Safety boat on standby.</li> </ul>	Access allowed on all berms and roads unless an area is physically barricaded.	Approved work allowed in unrestricted areas. Work area must be cleared of hazards and a Work Permit issued before start.
2	Indicates some increased seismic activity around/below sinkhole but not at a level that indicates imminent threat of sloughing or movement below sinkhole (10 to 50 MEQs or VLPs in 24 hours)	Code 1 requirements plus:  Each vessel inside designated sinkhole area (see Figure 2) must have a designated shoreline watch who is in constant radio communication with vessel.	Access allowed on all berms and roads unless an area is physically barricaded.	Code 1 requirements plus:
3	Indicates seismic activity has elevated to a point similar to what has been seen in past monitoring prior to a sloughing on the shore or movement beneath sinkhole (More than 50 MEQs or VLPs in 24 hours)	Code 1 requirements plus:	All berm roads are closed except the north berm from the TBC Access road to Rig Road (unless restricted for nonseismic reasons). All other berms open only to UTVs for personnel doing approved work. Anyone on a UTV must have a radio, air horn, and approved PFD.	<ul> <li>Code 1 and 2 requirements plus:</li> <li>Work is allowed on a case by case basis as determined by TBC Operations:</li> </ul>

- 1. All site work must be approved by TBC Response Operations.
- 2. The Texas Brine access road from Highway 70 to Pad 10 is not considered part of the designated containment berm for purposes of this document.
- 3. Codes are set by Assumption Parish Office of Emergency Management
  - Page 14-A, Texas Brine Company, LLC, Health and Safety Plan, Bayou Corne, Belle Rose, Louisiana, Sept 2013

## Site Safety for Sinkhole and Surrounding Area

In an effort to provide for a safe work environment in and around the Sink Hole, this procedure has been put in place to inform workers of their allowed Work Areas. This procedure is only guidance and should not exclude any other observation or safety precautions in place that may cause any danger to anyone. All workers entering the Texas Brine facility should be informed of the risks that are posed by this ongoing event.

This system has been developed using a Code System and is defined as follows:

## Code 1:

Is an all clear, with restriction to OXY pad 3 and the North pad area as indicated in the map below due to the concerns raised by Itaska.



# Code 2:

Restrict all activity from inside the Berm, but not the Berm itself or outside; recommend that all operations in the immediate vicinity of the sinkhole be halted immediately. The Inside Berm is defined as indicated on the map below in red.



# Code 3:

Restrict activity from inside and on the Berm, no work activity shall occur until Code level has been changed to allow. Continued monitoring of the berm for cracks and venting wells located adjacent to the berm. At this code level immediate notification shall be made of any changes that occur on sinkhole, swamp around sinkhole, or any changes to berm area. The Berm is defined as indicated in yellow on the map below.



# Communication:

All workers working in conjunction with this ongoing event shall be informed of these codes and communication protocol developed to inform everyone when codes may change at any time.