



# Texas Brine Company, LLC

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April 15, 2013

Commissioner James H. Welsh  
P.O. Box 94275  
Baton Rouge, LA 70804

**RE: In response to State of Louisiana Department of Natural Resources Office of Conservation's Second Amendment to Declaration of Emergency and Directive**

Commissioner Welsh,

In response to the Second Amendment and Declaration of Emergency and Directive order issued by the Louisiana Department of Natural Resources (LDNR), Office of Conservation on September 25, 2012, Texas Brine Company, LLC (TPC) understands the seven items listed in the document.

In the above mentioned, TBC was specifically directed and ordered to perform certain tasks outlined in the above mentioned document. Below are the required responses, as directed.

1. TBC's counsel provided LDNR legal counsel with a response to Directives 1-3 on September 28, 2012.
2. TBC understands Directive 4, which is to provide all daily logs and field notes from all contractors conducting investigation into subsidence and natural gas bubbling. The Daily Action Summary and results for current information can be found in the Attachment section of this report.
3. TBC understands Directive 5, which directs TBC to immediately allow for split or share any sample taken on site related to Well 3A (Serial Number 974265), the cavern, other wells facilities or other site locations. The Daily Action Summary of today's collection can be found in Attachment section of this report.
4. TBC understands Directive 6, which directs TBC to immediately report the results (final and preliminary) of any tests, logs samples or data collection performed on Well 3A, the cavern, other wells, facilities or site locations that indicate a change in any previously known conditions related to the investigation of the subsidence or natural gas bubbling

events, and continue to report any such results. The Daily Action Summary and the Results related to this Directive can be found in Attachment section of this report.

5. TBC understands the Directive 7, which states that TBC will provide a daily summary of all tests, or logs performed or samples taken from Well 3A and the cavern as well as any results of those tests or logs, including preliminary as of September 25, 2012 and going forward. The Daily Summary and Results related to this Directive can be found in Attachment section of this report.

Please note that the drilling rig used for the Observation Well 3A has been removed and the site is being rigged down and returned to pre-drilling condition. As such, daily drilling reports for this well have ceased. Plans are being made for longer term potential gas venting/flaring requirements and possible hydrocarbon material recover from Well 3A.

In addition, previous daily summary reports issued to LDNR have included significant duplicate information as there is a fair amount of overlap in the information requested in each of the Directives included in the September 25, 2012 order. All requested information associated with the Directives issued in the September 25, 2012 order are included in the Attachment section of this report.

TBC believes that the submittal of this report satisfies the requirements of the Declaration of Emergency and Directive issued on September 25, 2012. As directed this report is submitted by email to [conservationorder@la.gov](mailto:conservationorder@la.gov), ref. "Emergency Declaration-Texas Brine Company LLC-9/25/2012.



Bruce E. Martin

Vice President, Operations

Texas Brine Company, LLC

## **Summary Table for Daily Events**

TBC Oxy Grand Bayou Data Management-Environmental									
Contractor	Responsibilities	Collected By		Date Collected	Delivered to Lab	Results from Lab	Laboratory	Method	Date to Agencies
Sage	Stationary Air Monitoring	Steve Shaughnessy - 08:05 - 09:15 Pete Hyatt IV (Code Red) - 07:00 - 17:00		4/12 - 4/14/2013	NA	NA	NA	AreaRAE Monitors	4/13 - 4/15/2013
	Residential Air Monitoring	Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities.		NA	NA	NA	NA	NA	NA
	Gas Seep Sampling	No work performed		4/12 - 4/14/2013	NA	NA	NA	NA	NA
	Well Gas Sampling	Steve Shaughnessy - Lead Bijet Mukherjee - Support 12:05-12:15		3/4/2013	Yes	Yes	Isotech	Isotopic	4/14/2013
	Under Slab Gas Sampling	No work performed		4/12 - 4/14/2013	NA	NA	NA	NA	NA
	Indoor Air Monitoring	Steve Shaughnessy & Jill Martin Site 166 - 11:08 - 11:26		4/12 - 4/14/2013	NA	NA	NA	Hand-held Multipro Monitor	4/13/2013
Respec	Inclinometers/Tilt Meters	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	InSAR Reflector Installations	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Subsidence Survey-Fenstermaker	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Shallow Geophone Installation	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Deep Geophone Installation	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Amendment #3, Directive #2	4/12 - 4/14/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Expansion of geoprobe gas sampling locations	4/12 - 4/14/2013	Recon sites	P. Smith	NA	NA	NA	NA	NA
Miller	Weekly Stability Survey	No Work Performed		4/12 - 4/14/2013	NA	NA	NA	NA	NA
	Misc. Survey Work	No Work Performed		4/12 - 4/14/2013	NA	NA	NA	NA	NA
	Sinkhole Hydro/Perimeter Survey	Matt Fore		April 12, 2013	NA	NA	NA	NA	NA
Pisani	Surface Water	NA		NA	NA	NA	NA	NA	NA
	Industrial Well Water	NA		NA	NA	NA	NA	NA	NA
	MRAA Well Water	PMR		4/10/2013 & 4/12/2013	NA	NA	GCAL	Chloride, Bromide and Sulfate (Inorganic Anions) – SW-846 9056A, Conductivity – SM 2510B, TDS – SM 2540C, Cations/metals – SW-846 6010B, Carbonate & Bicarbonate Alkalinity – SM 2320B, BTEX – SW-846 8260B, TPH Fractions – TX 1006/LA 1006, and Dissolved Gases – RSK-175, Chloride, Bromide and Sulfate (Inorganic Anions) – SW-846 9056A, Conductivity – SM 2510B, TDS – SM 2540C, Cations/metals – SW-846 6010B, Carbonate & Bicarbonate Alkalinity – SM 2320B, BTEX – SW-846 8260B, TPH Fractions – TX 1006/LA 1006, and Dissolved Gases – RSK-175	NA
	Geoprobe Wells	NA		NA	NA	NA	NA	NA	NA
<b>Grand Bayou Well 3A</b>									
Daily Operations at 3A		Summary of Today's events							
4/13 - 4/15/2013		Oxy 3A							
	7am	504.38		4/13/2013					
	7am	516.56		4/14/2013					
	7am	542.58		4/15/2013					
4/13 - 4/15/2013		Relief Well #1							
4/13 - 4/15/2013		See ORW-01 Flare Spreadsheet							

## **Attachments**

## **Daily Action Summary**

**April 12, 2013**

### **Stationary Air Monitoring**

- Steve Shaughnessy onsite from 08:05 to 09:15. Changed out the monitors between 08:30 and 09:06. Collected data from the monitoring database and forwarded to Jonathan Brockhaus in the Baton Rouge office for processing.

Sage has been requested to suspend monitoring at location RW-1. Air monitoring will continue at ST-1, ST-2, ST-3, and OG 3A-1. Additionally, air monitoring will be conducted at a new monitoring location, TR-1, which is located between the onsite trailers. See attached map for the five current air monitoring locations.

- Pete Hyatt IV of Code Red (monitor sub-contractor) onsite from 07:00 to 17:00. Assisted in battery change outs and maintenance of the monitoring equipment.

### **Residential Air Monitoring**

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

### **Gas Seep Sampling**

- Not Scheduled

### **Well Gas Sampling**

- Not Scheduled

### **Under Slab Gas Sampling**

- Not Scheduled

### **Air Indoor Monitoring**

- Steve Shaughnessy and Jill Martin performed the in-home LEL and H<sub>2</sub>S monitoring between 11:08 and 11:26 for Site 166. Data collected from the monitoring was forwarded to Jill Martin in the Baton Rouge office for processing.



**Indoor Monitoring Locations**

**Through 04/12/2013**

**Sportsman Drive Locations**





**Indoor Monitoring Locations  
Through 04/12/2013  
Crawfish Stew Street Locations**





## **Indoor Monitoring Locations**

**Through 04/12/2013**

**Sauce Piquante Lane and Jambalaya Street Locations**





**Indoor Monitoring Locations  
Through 04/12/2013  
Grand Bayou Street Locations**



Indoor Residential Monitoring - Site 166  
 Bayou Corne, LA  
 April 12, 2013

Index	Rooms Monitored	Number of Readings Taken In Reach Area/Room	LEL Reading Results (%)	H <sub>2</sub> S Reading Results (ppm)
1	Kitchen	3	No Detectable Readings	No Detectable Readings
2	Pantry	2	No Detectable Readings	No Detectable Readings
3	Laundry Room	2	No Detectable Readings	No Detectable Readings
4	Master Bedroom	1	No Detectable Readings	No Detectable Readings
5	Closet in Master Bedroom	3	No Detectable Readings	No Detectable Readings
6	Bathroom in Master Bedroom	5	No Detectable Readings	No Detectable Readings
7	Dining Room	2	No Detectable Readings	No Detectable Readings
8	Living Room	2	No Detectable Readings	No Detectable Readings
9	Left Guest Bedroom	1	No Detectable Readings	No Detectable Readings
10	Closet in Left Guest Bedroom	3	No Detectable Readings	No Detectable Readings
11	Hall Closet	3	No Detectable Readings	No Detectable Readings
12	Hall Bathroom	4	No Detectable Readings	No Detectable Readings
13	Right Guest Bedroom	1	No Detectable Readings	No Detectable Readings
14	Closet in Right Guest Bedroom	3	No Detectable Readings	No Detectable Readings
15	Beneath House	4	No Detectable Readings	No Detectable Readings
16	Garage	3	No Detectable Readings	No Detectable Readings
17	Boat House	2	No Detectable Readings	No Detectable Readings



## Monitor Locations

April 12, 2013

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Relief Well					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					RW-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/12/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 09:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	2.1	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	21.0	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.8	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	3.7	20.9
04/12/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	4.6	20.9
04/12/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	5.2	20.9
04/12/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	2.4	20.9
04/12/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	1.0	20.9
04/12/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/12/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/12/2013 10:00:00 PM	0.0	<1.0	<1.0	0.0	21.1	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/12/2013 11:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 12:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9

Notes:  
Sage has been requested to suspend monitoring at location RW-1. Air monitoring will continue at ST-1, ST-2, ST-3, and OG 3A-1. Additionally, air monitoring will be conducted at a new monitoring location, TR-1, which is located between the onsite trailers. On 4/12/13, monitoring stopped at 9:04 AM at RW-1 and began at 9:06 AM at TR-01.

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Relief Well					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					RW-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/12/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 09:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	2.1	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	21.0	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.8	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	3.7	20.9
04/12/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	4.6	20.9
04/12/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	5.2	20.9
04/12/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	2.4	20.9
04/12/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	1.0	20.9
04/12/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	<1.0	20.9
04/12/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/12/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/12/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/12/2013 10:00:00 PM	0.0	<1.0	<1.0	0.0	21.1	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/12/2013 11:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 12:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9

Notes:  
Sage has been requested to suspend monitoring at location RW-1. Air monitoring will continue at ST-1, ST-2, ST-3, and OG 3A-1. Additionally, air monitoring will be conducted at a new monitoring location, TR-1, which is located between the onsite trailers. On 4/12/13, monitoring stopped at 9:04 AM at RW-1 and began at 9:06 AM at TR-01.

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Relief Well					Onsite Trailers									
	ST-3					ST-2					ST-1					OG 3A-1					RW-1					TR-1									
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)					
04/12/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 09:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	21.0	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.8	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	21.3	<1.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 10:00:00 PM	0.0	<1.0	<1.0	0.0	21.1	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/12/2013 11:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 12:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 01:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 02:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 03:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 04:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/13/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9

Notes:  
Sage has been requested to suspend monitoring at location RW-1. Air monitoring will continue at ST-1, ST-2, ST-3, and OG 3A-1. Additionally, air monitoring will be conducted at a new monitoring location, TR-1, which is located between the onsite trailers. On 4/12/13, monitoring stopped at 9:04 AM at RW-1 and began at 9:06 AM at TR-01.

## **Daily Action Summary**

**April 13, 2013**

### **Stationary Air Monitoring**

- Steve Shaughnessy onsite from 7:55 to 09:00. Changed out the monitors between 08:18 and 08:39. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Pete Hyatt IV of Code Red (monitor sub-contractor) onsite from 07:00 to 11:00. Assisted in battery change outs and maintenance of the monitoring equipment.

### **Residential Air Monitoring**

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

### **Gas Seep Sampling**

- Not Scheduled

### **Well Gas Sampling**

- Isotech provided isotopic analytical results of the gas sample collected on March 4, 2013 from OG-1, which is North West of the Main Office. Accutest previously provided TO-15 results, which were submitted with the March 7, 2013 Daily Report. SPL previously provided LHG/S results, which were submitted with the March 20, 2013 Daily Report.

### **Under Slab Gas Sampling**

- Not Scheduled

### **Air Indoor Monitoring**

- Not Scheduled

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/13/2013 01:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 02:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 03:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 04:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.8
04/13/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 06:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
04/13/2013 07:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/13/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.8
04/13/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 11:00:00 PM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 12:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9

Notes:

Texas Brine - Belle Rose, Louisiana  
 Isotopic Analytical Results  
 Well Gas Sampling

Lab #340390

Sample Name: TB OG-1

Date Sampled: 03/04/2013

Component	mol %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide	ND			
Hydrogen Sulfide	NA			
Helium	0.0037			
Hydrogen	0.0179			
Argon	0.0330			
Oxygen	0.27			
Nitrogen	2.78			
Carbon Dioxide	0.33			
Methane	91.53	-39.92	-146.8	
Ethane	3.55	-26.23		
Ethylene	ND			
Propane	0.883	-23.57		
Propylene	ND			
Iso-butane	0.214	-23.99		
N-butane	0.191	-23.45		
Iso-pentane	0.0783			
N-pentane	0.0416			
Hexanes +	0.0786			
BTU/cf	1036			
Specific grav	0.606			



**Well Gas Sampling Location**

**March 4, 2013**

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/13/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
04/13/2013 06:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
04/13/2013 07:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
04/13/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.8
04/13/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
04/13/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
04/13/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/13/2013 11:00:00 PM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 12:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 01:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 02:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 03:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 04:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9

Notes:

## **Daily Action Summary**

**April 14, 2013**

### **Stationary Air Monitoring**

- Eric Rucinski onsite from 7:45 to 09:00. Changed out the monitors between 07:58 and 08:43. Collected data from the monitoring database and forwarded to Steve Shaughnessy in the Baton Rouge office for processing.
- Pete Hyatt IV of Code Red (monitor sub-contractor) onsite from 07:00 to 11:00. Assisted in battery change outs and maintenance of the monitoring equipment.

### **Residential Air Monitoring**

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

### **Gas Seep Sampling**

- Not Scheduled

### **Well Gas Sampling**

- Not Scheduled

### **Under Slab Gas Sampling**

- Not Scheduled

### **Air Indoor Monitoring**

- Not Scheduled

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/14/2013 01:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 02:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 03:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 04:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 06:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 07:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/14/2013 09:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 10:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 11:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 12:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 09:00:00 PM	0.0	<1.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 10:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 11:00:00 PM	0.0	1.7	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 12:00:00 AM	0.0	2.8	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:  
An additional monitor changeout occurred at TR-1 at 8:43 AM on 4/14/2013 due to a LEL sensor issue with RTU-6. RTU-6 will be serviced by the onsite technician before being re-deployed.

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Onsite Trailers				
	ST-3					ST-2					ST-1					OG 3A-1					TR-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
04/14/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 06:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 07:00:00 AM	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
04/14/2013 08:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	<1.0	20.9
04/14/2013 09:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 10:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 11:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 12:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 09:00:00 PM	0.0	<1.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 10:00:00 PM	0.0	<1.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/14/2013 11:00:00 PM	0.0	1.7	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 12:00:00 AM	0.0	2.8	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 01:00:00 AM	0.0	2.8	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 02:00:00 AM	0.0	2.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 03:00:00 AM	0.0	1.6	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 04:00:00 AM	0.0	2.9	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
04/15/2013 05:00:00 AM	0.0	3.4	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

An additional monitor changeout occurred at TR-1 at 8:43 AM on 4/14/2013 due to a LEL sensor issue with RTU-6. RTU-6 will be serviced by the onsite technician before being re-deployed.

# RESPEC Consulting & Services

Texas Brine, L.L.C.  
Assumption Parish, Louisiana  
Daily Field Report

Report By: David Gnage

Date: 4/12/13

Company: RESPEC

Work Order #:           ()

Personnel	Company	Job Title
Peter Smith, CPG	RESPEC	Staff Geologist

**Time Onsite:** Start Time: 9:30 End Time: 17:00

(Note: on-site time only reflects time on-site; it does not reflect time taken for off-site activities)

**Equipment Onsite:**

**Daily Activity:** Recon Bubble sites for drilling access to install 30 foot Geoprobe wells. Meet with on-site personnel regarding multiple items.

**Proposed Schedule:** Demobilize April 13<sup>th</sup>.

Initials: DJG

# RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 4-13-13

Company: RESPEC

Work Order #:                   ()

Personnel	Company	Job Title

**Time Onsite:** Start Time: NA End Time: NA

**Equipment Onsite:**

**Daily Activity:** No Field Work Conducted. RESPEC not on-site.

**Proposed Schedule:** No new work currently scheduled.

Initials: DJG

# RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 4-14-13

Company: RESPEC

Work Order #:                   ()

Personnel	Company	Job Title

**Time Onsite:** Start Time: NA End Time: NA

**Equipment Onsite:**

**Daily Activity:** No Field Work Conducted. RESPEC not on-site.

**Proposed Schedule:** No new work currently scheduled.

Initials: DJG

## **ME&A Daily Action Summary**

April 12, 2013

### **Subsidence Survey:**

- No Work Done

### **Sinkhole Perimeter/Hydrographic Survey:**

- Arrived @ 8:15 am
- Standby and return to office, sinkhole area was on Code 2, could not perform survey.
- Departed 9:00 am

### **Support Sinkhole Cleanup**

- No Work Done

### **Misc. Survey Work**

- No Work Done

## **ME&A Daily Action Summary**

April 13, 2013

### **Subsidence Survey:**

- No Work Done

### **Sinkhole Perimeter/Hydrographic Survey:**

- No Work Done

### **Support Sinkhole Cleanup**

- No Work Done

### **Misc. Survey Work**

- No Work Done

## **ME&A Daily Action Summary**

April 14, 2013

### **Subsidence Survey:**

- No Work Done

### **Sinkhole Perimeter/Hydrographic Survey:**

- No Work Done

### **Support Sinkhole Cleanup**

- No Work Done

### **Misc. Survey Work**

- No Work Done

# Michael Pisani & Associates

Texas Brine, L.L.C.

Assumption Parish, Louisiana

## Daily Field Report

Report By: Patrick Ritchie

Date: 4/10/2013

Company: MP&A

Work Order # 80-05

Health and Safety Meeting  YES  NO

Weather: 80 F mostly cloudy

Personnel	Company	Job Title
<u>Patrick Ritchie</u>	<u>MP&amp;A</u>	<u>Environmental Scientist</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

Site Activities: Start Time 8:30 End Time 17:00

**Equipment On-site:**

**Daily Activity:**  
Collect laboratory samples from the MRAA wells

Estimated time of completion:  
On-going

**Proposed schedule:**  
Conduct in-situ monitoring surface water transect and industrial water well locations  
Measure water level for the industrial water wells  
Measure pressure and water level at TBC Geoprobe locations  
Collect laboratory samples from the MRAA wells

On-going

Initials: PMR



# Michael Pisani & Associates

Texas Brine, L.L.C.

Assumption Parish, Louisiana

## Daily Field Report

Report By: Patrick Ritchie

Date: 4/12/2013

Company: MP&A

Work Order # 80-05

Health and Safety Meeting  YES  NO

Weather: 80 F mostly cloudy

<u>Personnel</u>	<u>Company</u>	<u>Job Title</u>
<u>Patrick Ritchie</u>	<u>MP&amp;A</u>	<u>Environmental Scientist</u>
<u> </u>	<u> </u>	<u> </u>
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<u> </u>	<u> </u>	<u> </u>

Site Activities: Start Time 9:15 End Time 15:30

**Equipment On-site:**

**Daily Activity:**  
Collect laboratory samples from the MRAA wells

Estimated time of completion:  
On-going

**Proposed schedule:**  
Conduct in-situ monitoring surface water transect and industrial water well locations  
Measure water level for the industrial water wells  
Measure pressure and water level at TBC Geoprobe locations  
Collect laboratory samples from the MRAA wells

On-going

Initials: PMR



