From:

Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent:

Wednesday, January 28, 2009 12:13 PM

To:

Lobins, Craig

Subject: Baker

#### Craig,

I did get your message. After we got off of the phone I went back throught the data again. I made the decision at that time to reopen the Baker and had given the field direction at that time to go ahead and re-vent the Baker 4x7 annulus. In other words, Cabot put that in motion prior to your call.

I owe you some data and will send out shortly. I've got my assistant merging it in to one file for ease of review. You'll have it shortly. TSL

From: Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent: Wednesday, January 28, 2009 6:59 AM

To: Lobins, Craig
Subject: Thursday Call

Craig,

I have a daily drilling meeting at 8 AM. I'll call you shortly after, probably around 8:30 AM. That way I'm most up to date before we talk. TSL

## Kucsma, Paul

From:

Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent:

Friday, January 23, 2009 8:30 AM

To:

Lobins, Craig; Kucsma, Paul

Subject: Gas Sample

#### Craig,

Isotech lab sample 153679 says it is from the Bare well. Can you tell me what this represents? Is it 4x7 annulus or something different.

Also, lab sample 153680 is labeled "Pipeline". Can you tell me where on teh pipeline this sample was taken? Thanks. TSL

From:

Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent:

Wednesday, January 28, 2009 1:55 PM

To:

Lobins, Craig

Cc:

kenneth.Komoroski@klgates.com

Subject: LEL Reading

#### Craig,

Here are the LEL reading we have taken to date. Also, I have confirmed it was Bill Ely with a separator type device on his system. Since we are showing 0% LEL at Bill and Scott Ely, it may make sense to schedule a visit to those homes and look at their systems. There may be a reason why their wells are showing 0% LEL at the well but the water samples are showing a level of saturated methane.

Please e-mail your latest samples for the three Ely's and Hubert. Thanks. TSL

LOCATION	DATE	WELL % LEL	FOUNDATION/CRAWLSPACE % LEL	BASEMENT % LEL
Bill Ely	1/23/2009	0%		0%
Mike Ely	1/23/2009	10%	0%	
Scott Ely	1/23/2009	0%	0%	
Victoria Hubert	1/23/2009	20%	0%	
Julie Sautner	1/23/2009	50%	0%	
Fiorentino	1/23/2009	12%	0%	
Maye	1/23/2009	45%	0%	

READINGS TALEN PRIOR TC GESFORD 3
BAKER WELL 7" VENTED

LOCATI	ON	DATE	WELL % LEL	
Bill Ely		1/24/2009		0%
Mike Ely		1/24/2009	V.	100%
Scott Ely	•	1/24/2009		0%
Victoria Hub	ert	1/24/2009		20%
Julie Sautne	PF	1/24/2009	100%/ OVERRANGE	
Fiorentino	•	1/24/2009		13%
Maye	·	1/24/2009		0%

LOCATION	DATE	WELL % LEL	
Bill Ely	1/25/2009		0%
Mike Ely	1/25/2009		63%
Scott Ely	1/25/2009	·	0%
Victoria Hubert	1/25/2009		16%
Julia Sautner	1/25/2009	TV NEWS ON SITE	-
Fiorentino	1/25/2009		13%
Maye	1/25/2009	TV NEWS ON SITE	
		÷	

OCATION	DATE	WELL % LEL	FOUNDATION /CRAWLSPACE % LEL
Bill Ely	1/26/2009	0%	
Mike Ely	1/26/2009	35%	0%
Scott Ely	1/26/2009	0%	0%
Victoria Hubert	1/26/2009	19%	0%
Julia Sautner	1/26/2009	100% Overrange	0%
Fiorentino	1/26/2009	21%	0%
Maye	1/26/2009	100% Overrange	0%

LOCATION	DATE	WELL % LEL	FOUNDATION/CRAWLSPACE % LEL
Bill Ely	1/27/2009	0%	
Mike Ely	1/27/2009	13%	0%
Scott Ely	1/27/2009	0%	0%
Victoria Hubert	1/27/2009	23%	0%
Julia Sautner	1/27/2009	100%	0%
Fiorentino	1/27/2009	0%	0%
Maye	1/27/2009	0%	0%

Readings taken before SI of Baker well

Baker well 7" SI 1-27-09 @ 12:15pm Baker well 7" 20/10 open flow through 2"

From:

Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent:

Thursday, January 22, 2009 4:42 PM

To: Cc: Lobins, Craig; Kucsma, Paul kkomoroski@klng.com

Craig,

In reponse to our phone call on January 20, Cabot proposes the following.:

Methane and/or natural gas have been detected in residential water wells in Dimock Township, Susquehanna County, Pennsylvania. The water wells are located in the area where natural gas wells have been drilled by Cabot Oil & Gas Corporation ("Cabot"). Cabot has been in frequent communication with the Department of Environmental Protection ("DEP") and local fire and safety officials since the recent discovery of the methane/natural gas in residential water wells.

Cabot continues to work diligently to cooperate with DEP and local fire and safety officials to assess the public health, safety and environmental concerns associated with natural gas present in water supplies. Specifically, Cabot is:

- Temporarily supplying alternate water sources to the residences of B. Ely, M. Ely, S. Ely, and R. Hubbard;
- Drilling out the original cement plug and removing piping from the original Gesford #3 well drilling location and plans to re-plug this original drilling location from total depth to grade;
  - Monitoring gas release levels, if any, from the Gesford #3S well;
- Evaluating if there is gas release from the annular space of interior casing string of Gesford #3S well;
  - Investigating the seal integrity between the 4" and 7" casing in the Baker 1 well;
- Paying to have a water well professional evaluate the water supply systems for the Fiorentino and Sautner residences;
- Gathering well head and annular pressures from all wells and Cabot has invited DEP to participate in this information gathering; and
  - Reviewing the pressures and logs on any well with annular pressure.

Next, Cabot will:

- Review the pressures and logs on any well with annular pressure and devise a plan to either blow down or pump fluid to kill any non-productive gas zones on a well by well basis;
  - Submit well records to DEP. scanned copies are attached top this e-mail. Originals; and
  - Submit water testing data to DEP

From:

Tom Liberatore [Tom.Liberatore@cabotog.com] Thursday, January 22, 2009 4:53 PM Lobins, Craig; Kucsma, Paul

Sent:

To: Cc:

Komoroski, Kenneth

Subject:

Disregard

previous e-mail. sent prematurely. full e-0mail to follow shortly

From:

Tom Liberatore [Tom.Liberatore@cabotog.com]
Thursday, January 22, 2009 4:53 PM
Lobins, Craig; Kucsma, Paul
kkomoroski@klng.com

Sent:

To: Cc:

Subject:

Recall:

Importance:

High

Expires:

Saturday, January 24, 2009 4:53 PM

The sender would like to recall the message, "".

From:

Tom Liberatore [Tom.Liberatore@cabotog.com] Friday, January 23, 2009 8:30 AM Lobins, Craig; Kucsma, Paul

Sent: To:

Subject:

Gas Sample

Craig,

Isotech lab sample 153679 says it is from the Bare well. Can you tell me what this represents? is it 4x7 annulus or something different.

Also, lab sample 153680 is labeled "Pipeline". Can you tell me where on teh pipeline this sample was taken? Thanks. TSL

From:

Tom Liberatore [Tom.Liberatore@cabotog.com]

Sent:

Thursday, January 22, 2009 5:02 PM

To:

Lobins, Craig; Kucsma, Paul

Cc:

Komoroski, Kenneth

Subject:

Follow up to Jan 20 phone call





PA Pressure Water
Data.xls (25 KB) llts\_Sample Data\_Cr
Craig,

As follow up to our discussionon Jan 20, Cabot is submitting a plan regarding efforts to identify the source of methane in the water at various points in Susquehanna County. Outlined below are steps Cabot is going forward with. Also attached are some of the requested data to include pressure summary and water well test data. I will forward an e-mail with well records attached. Cabot currently has a drilling rig on the Gesford 3 well. Cabot has vented a few wells as shown on the attached pressure summary. Finally, Cabot has had a water well specialist on the Fiorentino and Sautner wells today. We will provide updqates as we get them. Please call Ken or myself with questions or for discussion.

Methane and/or natural gas have been detected in residential water wells in Dimock Township, Susquehanna County, Pennsylvania. The water wells are located in the area where natural gas wells have been drilled by Cabot Oil & Gas Corporation ("Cabot"). Cabot has been in frequent communication with the Department of Environmental Protection ("DEP") and local fire and safety officials since the recent discovery of the methane/natural gas in residential water wells.

Cabot continues to work diligently to cooperate with DEP and local fire and safety officials to assess the public health, safety and environmental concerns associated with natural gas present in water supplies. Specifically, Cabot is:

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- Drilling out the original cement plug and removing piping from the original Gesford #3 well drilling location and plans to re-plug this original drilling location from total depth to grade;
  - Monitoring gas release levels, if any, from the Gesford #3S well;
- Evaluating if there is gas release from the annular space of interior casing string of Gesford #3S well;
  - Investigating the seal integrity between the 4" and 7" casing in the Baker 1 well;
- Paying to have a water well professional evaluate the water supply systems for the Fiorentino and Sautner residences;
- Gathering well head and annular pressures from all wells and Cabot has invited DEP to participate in this information gathering; and
  - Reviewing the pressures and logs on any well with annular pressure.

Next, Cabot will:

- Review the pressures and logs on any well with annular pressure and devise a plan to either blow down or pump fluid to kill any non-productive gas zones on a well by well basis;
  - Submit well records to DEP; and
  - Submit water testing data. To DEP
- Suggest that DEP put a public notice out that homeowners should vent make sure all water well systems are vented as standard safety practice.

In addition to the action items listed above, Cabot has retained SE Technologies to develop a groundwater evaluation program focusing on the possible sources and pathways of methane in the regional water supply. A professional geologist from SE Technologies visited the Dimock Township well locations earlier this week and met with residents to obtain firsthand information on water well depth, casing depth and other relevant information. Cabot has asked SE Technologies to prepare a proposal for immediate review of possible sources of methane/natural gas in the regional water supply.



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ENVIRONMENTAL PROTECTION NORTHWEST REGIONAL OFFICE

December 4, 2008

Anthony Oprendek Water Quality Specialist Oil & Gas Management Pennsylvania DEP 230 Chestnut Street Meadeville, PA 16335-2481

RE: Sau

Sautner Water Well

Dear Mr. Oprendek:

As a follow-up to our telephone conversation on November 25, 2008, Cabot is submitting the attached information for your review. The attached is support documentation to Cabot's position regarding the Sautner's water well. While Cabot ultimately decided to put in place an upgraded water treatment system, Cabot by no means believes its activities on the Baker #1 is responsible for the problem the Saunter's experienced in their well.

The information provided includes:

Partial well history and drilling report for the Baker #1. This record shows the date the water aquifer was penetrated, the duration the aquifer was exposed and the method the aquifer was cased and cemented. Note that the Baker #1 dusted through the strategraphically equivalent section to the Sautner water well. The Baker #1 did not encounter water until 990', which is 390' below the strategraphically equivalent section to the Sautner water well. The final 114' of the 12-1/4" hole was drilled on foam. The water aquifer was exposed to foam drilling from 11:30 PM on 8/14 through 1:30 PM on 8/15 or 14 hours before the plug landed on the 9-5/8" cement job.

<u>Timeline of events</u>. The Saunter's complaint was received 28 days after the plug had been landed on the 9-5/8" casing. The timeline was generated internally by Wesley Smith. The fact that the water aquifer could not sustain itself in the initial pump tests indicate that the aquifer was being affected by dry conditions. We also believe that the activity of changing pumps stirred up sediment in the well. Finally the house had a system with sediment filter in place; one would assume there was a reason for such a system.

<u>Cross Section</u>. Cabot generated a structure map of the Catskill Sandstone using electric logs. The structure dips regionally to the SE. The Saunter's water aquifer is approximately 30' higher on structure than in the Baker #1. The wells are approximately 1000' apart and the Saunter's water well is lateral to the Baker well.

<u>DEP Press Release regarding drought conditions</u>. While this doesn't mention Susquehanna County specifically, it does support the fact that area experienced dry conditions from mid-summer through the fall.

Anthony Oprendek December 4, 2008 Page 2

Again, Cabot feels the attached data supports its position that the activities on the Baker well are not responsible for the Saunter's water well problems. To recap, the Saunter's have lived in the house 7 months and have no prior history regarding well performance. The home had a filter and treatment system in place. The aquifer was penetrated while drilling on air, there were no contaminates introduced. The aquifer was exposed to foam drilling and cementing for 14 hours with the zone totally isolated by cement and casing. The Saunter's well is physically up dip and lateral by 1000' to the Baker well. The problem manifested itself about 30 days later during very dry conditions. While Cabot was proactive in addressing this issue, those actions could have exacerbated the problem. If the aquifer was in a low flow phase due to dry conditions, sediments could have been disturbed by pulling the pump and pump testing the aquifer. Stirred up sediment could have influenced subsequent testing and been responsible for color issues.

Cabot ultimately decided to pay for an upgrade to an existing system even thought the problem appeared to be the results of natural conditions. Cabot also replaced a well pump unnecessarily. Cabot is confident that the well issues would have corrected themselves naturally as the aquifer recharged during wetter conditions. Cabot is aware that its activity coincided with the dry conditions and it is easy to explain away the problem due to Cabot's presence. We chose to correct the problem in good faith. Cabot suggests an additional round of sampling once conditions improve as a final measure in determining if Cabot's interpretation is correct before an official decision is made claiming that Cabot's activities affected this well.

Upon review, please call with questions or for discussion.

Sincerely

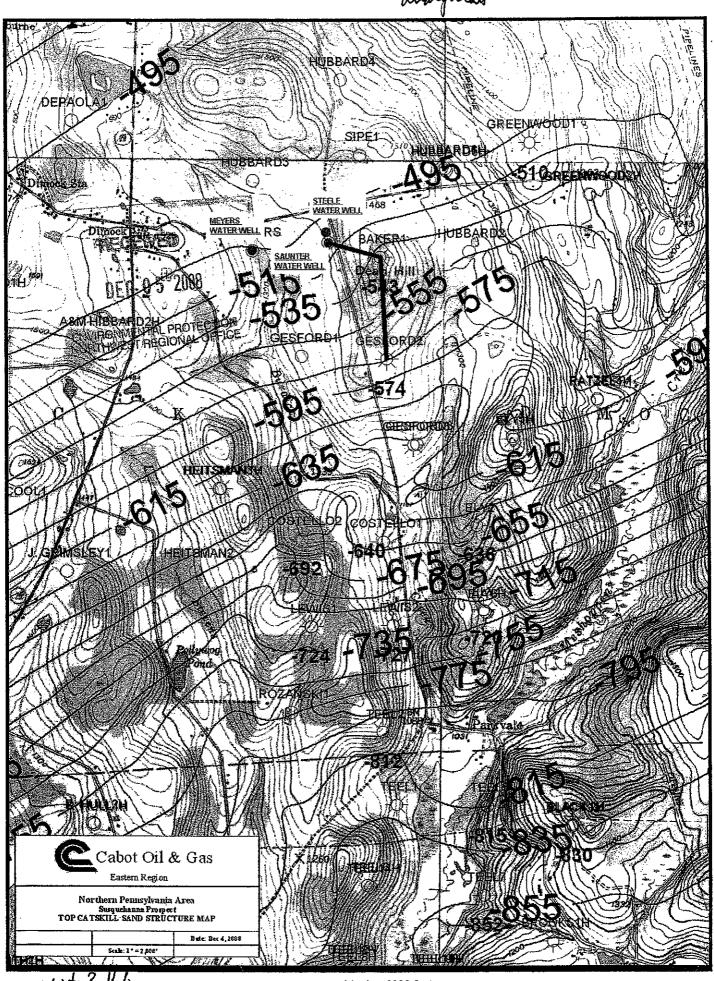
Thomas S. Liberatore VP & Region Manager

RECEIVED

DEC 05 2008

**ENVIRONMENTAL PROTECTION NORTHWEST REGIONAL OFFICE** 

analyticals van



@ Wats Buffers

1 inch = 2000 feet

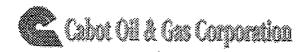
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### Well History

17-Sep-08

Region Name: Eastern Region Well Name: BAKER #1 AFE Number: Type: Operator: Cabot Oil & Gas Corporation Artesia Number: Susquehanna County, PA Spud Date: 08/13/2008 Program Year: Completion Date: Location: DIMOCK TWP.MUNICIPALITY- SPRINGVILLE QUAD Prospect: Glasgow Formation: Lower Marcellus Lease Number: AFE DHC/CWC: Date of First Prod: Net AFE DHC/CWC: Rig/Contractor: GasSearch Rig #9 PBTD: TD: 7450 Service Contractor: Permit No: 3711520026 Pipeline: Drop Date: API Number: 3711520026 COGC WI / NRI: 100.00000% UWI: BPO / APO: 0.00000% 0.00000% GL / KB Elev: 1545 / 1555 Rig Release: 2-DEV DRILLING Project Type: 08/14/2008 Current Depth: Daily Cost: AFE Cost to Date: WOC till 0800 hrs. NU and chain down diverter. Current Status: Day1. Wait on hydraulic repairs. Spud Baker #1 at 9:00pm. Drill 44' of 17-1/2" hole and set 13-3/8" conductor. Grout from surface with 25 sks portland cement. WOC, N/U diverter. 08/15/2008 Current Depth: 1,104 **Daily Cost:** AFE Cost to Date: Current Status: TOOH for 9-5/8" casing. Day 2. Drill 12-1/4" hole, dusting to 990'. Soaping from 990' to 1080'. Current Depth: Daily Cost: AFE Cost to Date **Current Status:** Drilling 8-3/4" hole, dusting. Day 3. TOOH, R/U run 25 jts of 9-5/8" csg, shoe at 1094', insert at 1052'. Pump 20 bbls H20, 15 bbl gel, 10 bbl H20 followed by 380 sks of Class A with 2% CaCl and 83 bbls displacement. Returned 10 bbls cement to surface. CIP @ 1300 HRS. WOC, M/U 8-3/4" assy RIH, drill out float equipment. Drill 8-3/4" hole from 1104' to 1431', dusting. 08/17/2008 Current Depth: **Daily Cost:** AFE Cost to Date: **Current Status:** Drilling 6-1/4" hole, dusting. Day 4. Continued drilling 8-3/4" hole from 1431' to 1544', dusting. Circulated and continued holt, TOOH. Ran 36 its of 7" CSG, 5 its of 23# J55 STC and 31 its of 19# LS STC. Shoe depth 1534', insert depth 1492'. R/U BJ Services and pump 40 bbls H20 ahead, 30 bbls gel spacer, and 10 bbls H20. Mixed and pumped 140 sks Lead cement Class A with 4% gel, 2% CaCl, 0.2% defoamer, 1/4 flake, and 0.4% fluid loss, and tailed in with 100 sks tail cement Class A with 2% CaCl. Displace with 59 bbls H20, 10 bbl returns to surface. CIP @ 1345 HRS. WOC. N/U install lines and pressure test. 08/18/2008 Current Depth: 2,300 **Daily Cost:** AFE Cost to Date: Current Status: Drilling 6-1/4" hole, soaping Day 5. Drill 6-1/4" hole, dusting from 1544' to 2300'. FW at 2300' plugged hammer. Switch over to soap drilling 6-1/4" hole, soaping. 08/19/2008 Current Depth: 2.865 Daily Cost: AFE Cost to Date: **Current Status:** Drilling 6-1/4" hole, soaping. Day 6. Drilled 6-1/4" hole, soaping from 2300' KB to 2865' KB.

DFC 0 5 2008



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#### SAUTNER - TIMELINE OF EVENTS

#### 9/12/2008

-E-Mail from T.S. Calkins stating the complaint from Mr. Sautner:

"The Sautner's say there water turned cloudy (gray color). Also, mentioned that approximately 2 weeks ago, he changed the filter on there system because the water flow had decreased. They had a plumber check the valves that control the water supply to their house, but they say this wasn't the source of the problem."

-Calkins had Quantum go that night and take a sample.

-Calkins recommended that we take the Sautner's some drinking water, but since this was Friday and late in the day, we had nobody at our PA office to do so. Cabot had Quantum take several cases of bottled water when they went to sample.

#### 9/15/2008

- -Results from the sample came in. Everything but the iron content came back normal.
- -The iron increased from 0.011 mg/L (pre-drill) to 1.81 mg/L.

#### 9/15/2008 - 9/18/2008

- -Cabot's recommendation was to flow the water well to flush out the iron.
- -The Sautner's agreed to flow their water.
- -Cabot initially wanted to flow the well for 8 hours and then take another sample to see if the iron would have decreased any. When flowing the well, the pump stopped only after 4 hours of flowing. Cabot recommended that we give the well overnight to replenish and then flow again for 8 hours. This time the well only flowed for approx. 2 hours before the pump stopped.
- -The Sautner's complained that flowing the well for this amount of time would burn up the pump.
- -Cabot made them aware that if we damaged there pump during this process, we would replace it.
- -Also, during this time the Sautner's were complaining that the water had stained their appliances: dishwasher, washer, silverware, plates, pots and pans, etc. So Cabot purchased some water tanks to plumb into there house during this time and hired a cleaner to come in and take a look at their appliances. During this time, we supplied them with paper plates and plastic silverware.
- -The Sautner's insisted that we do not use chlorinated water, but well water when filling the tanks.
- -Cabot used the well water from our PA office to fill the tank up. Cabot then un-hooked the water well from their house and plumbed in the tank water that was filled with the well water from our PA office.

#### 9/18/2008

-Scheduled Quantum take another sample from the well to see if flowing the well had decreased the iron content.

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#### 9/18/2008 - 9/22/2008

-Cabot filled the tanks for the weekend and let the water well recharge over the weekend.

#### 9/22/2008

-Received results from 9/18/2008 sample. The results were as follows: Well iron content – 0.294 mg/L

### 9/23/2008

-Scheduled Quantum to take another sample of the well water after recharging over the weekend, thinking that the iron would decrease more.

#### 9/24/2008

- -Received results from the 9/23/2008 sample. The results were as follows: Well iron content -0.887 mg/L
- -Cabot decided to hire a certified well-water inspector/installer.
- -The PA office found Larry Drake.
- -Cabot contacted Mr. Drake, informed him of the situation, and asked him to do whatever he thought he could do to lower the iron in the water.
- -His recommendation was to purge the well.

#### 9/24/2008 - 9/30/2008

- -Mr. Drake decided to pull the pump that was in the well and install a new pump to purge the well. This was so that the Sautner's could not put blame on Cabot for burning there pump up during the purge of the well.
- -After 2 purges we recommended to Mr. Drake that it would be a good idea for us to take a sample through the filtering system, not straight from the well. This would give us a true representation of how the water would be coming through the house. He agreed.
- -Cabot presented this to the Sautner's.
- -The Sautner's were not pleased with the recommendation and told Cabot that they did not want dirty water running through their system.
- -The Sautner's claim that Mr. Drake told them that hooking up the well to run through the system would be a bad idea, and that he was only doing what Cabot told him to do.
- -Cabot scheduled for another sample.

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#### 10/1/2008

-Scheduled Mr. Drake to flow the well and Quantum to take a final sample.

- -Once Quantum took the final sample and left, Mr. Drake continued to purge the well a 3<sup>rd</sup> time. Just before the well was completely purged, Mr. Drake took a glass and obtained a sample from the very bottom of the well, which was muddy and had sediment from the bottom of the well. He then took the glass of muddy/sediment water to the Sautner's and told them that the water in the glass was what there water in the well looked like.
- -When speaking with Quantum, they wanted to run an extra test of hardness to see if this could be causing any of the discoloration.

#### 10/2/2008

-Received the results from the 10/1/2008 sample. The results were as follows:

Well iron content: 0.389 mg/L Well hardness: 92.0 mg/L

(60-120 mg/L is considered moderately hard)

- -Cabot then spoke with the Sautner's about the results and recommended that it would be a good idea to speak with the laboratory about the issue for a better explanation of the condition of their water. The Sautner's then could ask questions and get feedback from the lab.
- -Cabot set up a 3-way phone conversation between the Sautner's, Cabot, and Quantum.
- -During the conversation, Quantum explained the reason why the house had a filtering system when they bought the house. There had to of been a sediment problem before. The same with the UV light. If there was no problem with coliform, then why would the UV light be on the system when they bought the house.
- -We then got on the topic of Mr. Drake. The Sautner's claim that Mr. Drake told them he was only doing what Cabot told him to do. Cabot then informed the Sautner's this was not true. That when we contacted Mr. Drake, Cabot wanted him to do whatever he thought was best to fix the problem.
- -Due to confusion with Mr. Drake, Quantum recommended that we use another company to take a look at the situation. The Sautner's were fine with this. Quantum recommended David Beavers and Company.

#### 10/3/2008-10/6/2008

- -Cabot contacted David Beavers on 10/3/2008. Mr. Beavers agreed to go to the house that morning to inspect the situation.
- -Mr. Beavers concluded that the entire filter system was not hooked up in the correct order and would need a slight update, the UV light would need replaced, and possibly the water softener recharged. The UV light needed to be the last thing that the water should pass through, not the first. He did not think too much of the filter that the Sautner's have on there system either. He believes that the Sautner's would need a different type of filter to pull any of the iron/sediment out of the water.
- -Mr. Beavers then wanted to hook the pump up, and do a slow purge of the well, instead of a complete draining of the well. He says this would help recharge the well.
- -When testing the old pump prior to installation, Mr. Beavers concluded that the pump did not work.
- -Cabot then agreed to purchase a new pump to replace the broken pump.

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-After installation, Mr. Beavers set a regulator on the pump and started the slow purge of the well. Mr. Beavers wanted to let the well flow over the weekend and check the status of the water on Monday, 10/6/2008.

#### 10/6/2008

-Mr. Beavers showed up to check the status of the well and no one was home. After waiting 90 minutes, he phoned the Sautner's and left a message on there system to call him to set up a time for him to check on the well.

#### 10/7/2008

-Mrs. Sautner's contacted Mr. Beavers and scheduled for him to check there well. However, Mr. Beavers got held up on a job until 10:00pm and was unable to check on the well. He did call Mrs. Sautner's and let her know he wasn't coming.

#### 10/8/2008

-Beavers well drilling were able to schedule a time to come to check the water from the well.

#### 10/9/2008

- -Cabot had an internal meeting to discuss the situation. Cabot reviewed its data which indicates drilling operations did not cause the Sautner's water issues (proven by geology, time of events, and water condition). Cabot wanted to obtain one last sample through the filter system so we could compare with the pre-drill sample (which was taken through the filter).
- -Contacted Beavers well drilling to hook up well through filter so Quantum could obtain a sample. However, Beavers well drilling could not schedule in for this day, but could work it in the next.

#### 10/10/2008

- -Waited on Beavers well drilling to contact me to schedule the water sample.
- -Beavers well drilling contacted me around 1:00pm and were able to schedule in around 3:00pm.
- -Tried calling the Sautner's to inform them. Was unable to contact Sautners.
- -Beavers well drilling showed up and waited approx. 30 min. before leaving.
- -I told Beavers well drilling that we would schedule with them on Monday.

#### 10/13/2008

- -Contacted the Sautner's to schedule the sample. The Sautner's were fine with sampling today.
- -The Sautner's told Cabot that they personally had Culligan come and inspect the situation (to get a 2<sup>nd</sup> opinion). Culligan recognized the situation, and recommended a certain type of system. Culligan claims that the well water is turbid, and it could possibly come from a formation above the water reservoir. Culligan claims that they had previously worked with the same problems in water wells near that area, and told the people that the problems could have possibly been caused by other companies drilling operations.

-Both Beavers well drilling and Quantum showed up to hook the system up and take a sample.

#### 10/14/2008

- -Results of 10/13/2008 sample came in. Iron content after filtering through entire system is 2.65 mg/L. Hardness is 2.0 mg/L.
- -Tom L., Randy S. and Wes S. had a meeting discussing results. After observing results, we concluded that the iron content from the well was lower than the iron content coming through the system. (The softener could need cleaned, the softener could be retaining iron.) Both Tom L. and Randy S. want to take one last sample, both from the well itself, and after the water is filtered through there system and compare the results.
- -Delberta Steele (Sautner's neighbor) phoned me with complaints that her water is discolored and cloudy. They have been experiencing these effects for the past 2 weeks. They have lived in this house for 8 years and have had no issues like this. As far as she knows, they do not have any type of filtering system on there water.

#### 10/15/2008

- -Scheduled Quantum to sample the Sautners well both directly from the well with no system, and then taking a sample after the water passes through the system. Quantum will also sample Delberta Steeles water well.
- -While on Sautners location, Quantum phoned in and described how bad the water looked coming from the well. He was very concerned about running the dirty water through the softener, thinking that it could damage the softener. Quantum wanted the okay to by-pass the softener and only use the UV Light and sediment filter on the system. Cabot agreed.

#### 10/16/2008

-Received iron content results for both Sautners and Steeles.

Sautners directly from well - 6.20 mg/L

Sautners through system (by-pass softener) – 1.58 mg/L

Steele water well - 0.453 mg/L

-Waiting on full list of results, which will be available on 10/20/2008.

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#### 10/20/2008

- -Received full parameters of results from Quantum.
- -The Steele results show everything to be within normal range, with a little spike in iron 0.453mg/L (<0.3 mg/L is normal range)
- -The Sautner results from the well show a spike in iron -6.2 mg/L (3 other tests taken directly from the well give an average iron content of 0.53 mg/L).
- -The Sautner results passing through the system show a big decrease in iron (from 6.2 mg/L to 1.58 mg/L) and TSS (from 58 mg/L to 8mg/L)

#### 10/21/2008

- -Recommendation from Cabot to purchase DA Beavers system for Sautners. Will pay to have installed, but Sautners will be responsible for maintenance.
- -Will do nothing for the Steele residence since the results came back normal.

#### 10/22/2008

- -When contacting the Sautners about the recommendation, the Saunters were unsure about the system, and wanted to know more. We told her we would set up a meeting with DA Beavers so she could ask questions.
- -The Sautners then found another company that installs water systems and claim they have treated this type of water before. The company is 'Water Medic'.
- -Cabot calls and speaks with Bob. Bob explains his system and what his system will do to fix the turbidity and iron problem. It turns out to be nearly the exact same system that DA Beavers recommended and a little cheaper.
- -When telling the Sautners that the 'Water Medic' system would be the same as the DA Beavers system, she insisted on using the Water Medic because he came highly recommended.
- -After speaking with Tim T. about this, he was fine with going with the 'Water Medic', but wanted to make sure he is certified to do the work.

#### 10/23/2008

- -Cabot contacted Bob at 'Water Medic' to check certification.
- -Cabot then gave Bob at 'Water Medic' the green light to install the system.

#### 10/24/2008

- -The system was installed.
- -Bob at 'Water Medic' told us to give the system approx. 1-2 weeks to break the system in before the water would be drinkable.
- -Cabot explained to Mrs. Sautner that we would continue to supply her with drinking water until we knew her water was safe to drink. Mrs. Sautner agreed.

#### 11/9/2008

-Scheduled Quantum to take last sample.

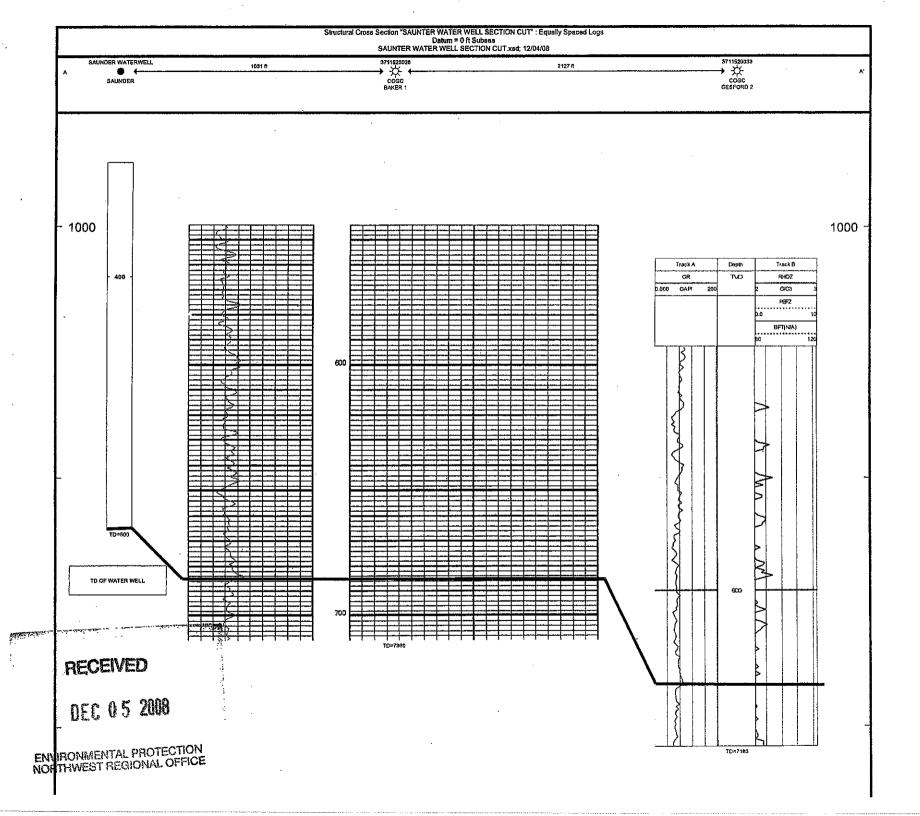
#### 11/20/2008

- -Cabot received the full results showing all numbers within drinking regulations.
- -Contacted Mrs. Sautner to explain results, and she agreed that there would be no reason to continue to supply drinking water to her house.
- -Cabot mentioned to Mrs. Sautner that we promised her Cabot would hire a cleaning company to come and clean her appliances. She now refused and told us that there would be no need for us to do that.
- -Cabot then mentioned that we would be putting together a release form, stating all our findings, and upon her acceptance she would sign the release form ending Cabot's responsibility from here on.

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## COMMONWEALTH OF PENNSYLVANIA Dept. of Environmental Protection

Commonwealth News Bureau Room 308, Main Capitol Building Harrisburg, PA 17120

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FOR IMMEDIATE RELEASE

11/7/2008

ENVIRONMENTAL PROTECTION NORTHWEST REGIONAL OFFICE

**CONTACT:** 

Tom Rathbun

Phone: (717) 787-1323

# DEP DECLARES DROUGHT WATCH IN 29 WESTERN, NORTH CENTRAL PENNSYLVANIA COUNTIES

Below Normal Rainfall Prompts Call for Voluntary Water Conservation

HARRISBURG – The Department of Environmental Protection issued a drought watch today for 29 Pennsylvania counties as precipitation deficits continue and stream flow levels fall in the western and north central areas of the state. "The commonwealth has received below-normal precipitation over the past two to three months that have resulted in rainfall deficits of as much as five inches in parts of western and north central Pennsylvania," said acting DEP Secretary John Hanger. "Recent rainfalls have not been enough to bring streamflow and groundwater levels back to normal, so we are asking residents and businesses to conserve water until we get more substantial precipitation in these areas of the state." Although conditions are better in the eastern portion of the state, county groundwater well levels have shown signs of stress and conditions are being monitored closely by DEP.

A drought watch declaration is the first level — and least severe — of the state's three drought classifications. It calls for a voluntary 5 percent reduction in non-essential water use.

DEP will send letters to all water suppliers in the affected counties, notifying them of the need to monitor their supplies and update their drought contingency plans as necessary. In addition to precipitation totals, DEP monitors groundwater levels, streamflows, soil moisture and water supply storage. "There are a number of simple steps that homeowners and businesses can take to immediately reduce water consumption without being inconvenienced," said Hanger. "Hopefully, these conservation measures will allow us to maintain adequate groundwater

and streamflow levels as we head into the winter months."

DEP offers the following tips for conserving water around the home: In the bathroom: • Install low-flow plumbing fixtures and aerators on faucets; • Check for household leaks – a leaking toilet can waste up to 200 gallons of water a day; • Take short showers instead of baths.

Kitchen/laundry areas: • Replace older appliances with high efficiency, front loading models that use about 30 percent less water and 40-50 percent less energy; • Run dishwashers and washing machines only with full loads; • Keep water in the refrigerator to avoid running water from a faucet until it is cold. The department also offers water conservation recommendations for commercial and industrial users such as food processors, hotels and motels, schools and colleges, as well as water audit procedures for large water customers. Water conservation tips and drought information can be found online at <a href="https://www.depweb.state.pa.us">www.depweb.state.pa.us</a>, keyword: drought.

EDITOR'S NOTE: The drought watch covers Allegheny, Armstrong, Beaver, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Lycoming, McKean, Mercer, Potter, Somerset, Tioga, Venango, Warren, Washington, and Westmoreland counties.

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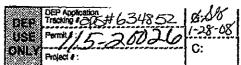
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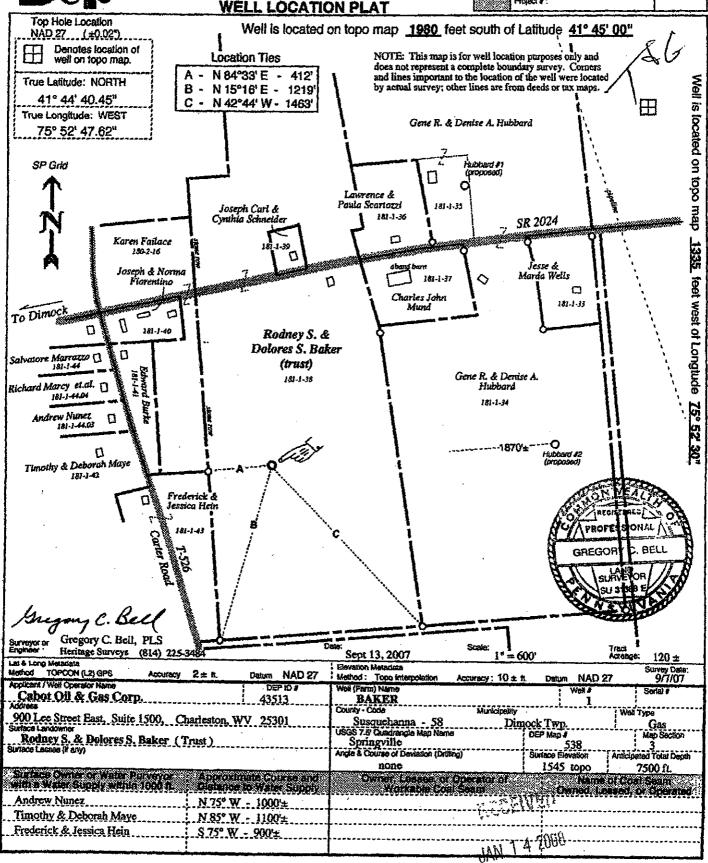
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### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Oil and Gas Management Program





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· [	1/6/2009	10/5/2008	5/28/2008	1/6/2009	9/14/2008	1/6/2009	1/6/2009	9/14/2008	5/13/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	11/5/2008	11/5/2
1	Depth-300'														
1	Harold Lewis	Harold Lewis	Harold Lewis	V. Switzer	V. Switzer	R: Seymour	The second secon	R. Seymour	Ron Teel	Rob Christian	Bill Ely	James Costello	Ray Kimble	Cleo Teel	Anne
	Sink		Pre-Drill			Sink	Pond			Pre-Drill	Pre-Drill	Pre-Dri∥	Pre-Drill	Post-Drill	Post-
TSS	<2.0	<2.0	<5	<2.0	<2.0	7.5	<2.0	<2.0	<5	<5	<5.0	<5.0	<5.0	<2.0	<2.
TDS .	180	127	144	170	130	120	160	125	135	247	136	125	148	93	21
Iron	<0.050	<0.050	<0.05	<0.050	<0.025	3.58	0.136	0.103	<0.05	<0.05	0.1	<0.05	0.07	<0.050	0.0
Magnesium	5,63	5.93	6.23	6.1	6.32	5.99	4.52	6.17	2.27	6.22	4:53	5,46	5.76	2.5	(E) (4)
Manganese	<0.025 0.178	Tribial and in the Milespecial Court		0.035	Nicobania delistropene scriboro	0.095	0.201	THE PROPERTY OF THE PARTY OF TH	Territor The General Procession Company Control	LAAT IS MINISTER OF FRANCE				<0.0050	<0.00
Barium Aluminum	<0.100			0.222 <0.100		0.255	0.087				American Co			0.09	0.2
Strentium	0.856	Handara Maria de Carresta	i de la companya de l	<0.100 0.766	n Sterile de la compa	<0.100 0.709	<0.100 0.081	e a company	(magamanana),		quecousposes en		kristore company a seco	<0.050	0.07
Chloride	5.3	5	5.3	6,22	<2.00	5.1	71.7	15.8	<2.0	84.1	3.7	3.4	5.4	0.041 14.4	0.5
Sulfide	લ	s1.0	<0.06	×1	1.3	- c1	<1	111	< 0.05	<0.05		3.4 en na	<0.05	14.4 <1.0	2.0 ≤1.
MBAS	<0.200	<0.20	0.08	<0.200	<0.020	<0.200	<0.200	<0.20	<0.05	0.07	0.07	0.06	0.07	<0.020	<0.0
Oil & Grease	<5.0	=≤5.0	:5	<5.0	<b>&lt;</b> 5.0	<5.0	<5.0	<5.0	∹ ≤6	<5	<5.0	<b>≤</b> 5.0	<5.0	<5.0	<5.
Total Coliform	<1	<1	0	<1	0	<1	240	<1	0	0	0	0	0	8	**************************************
Recal Coliforn	<1	151	. 0	<b></b>	0	1	240	51	i Ö	0.	0	0.55	0.55	8.5	4
Benzene Tolsene	<0.0005 <0.0005	<0.0005 £0.0005	<0.002 0.002	<0.0005 <0.0005	<0.0005 <0.0005	<0.0005 <0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.002	0.002	<0.0005	<0.00
Ethylbenzene	<0.0005	<0.0005	<0.002 <0.002	<0.0005	<0.0005	<0.0005	<0.0005 <0.0005	<0.0005 <0.0005	<0.002 <0.002	0.002	0.002	<0.002	0.003	<0.0005	<0.00
m.psXylenes	-0.0000 -0.0001a.	<0.0003 <0.001	<0.010	<0.000	<0.0003	<0.0003 √<0.001	<0.0005	<0.0005	<0.002 <0.010	<0.002 <0.010	<0.002 <0.010	<0.002 <0.010	<0.002	<0.0005	<0.00
o-Xylene	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.000 <0.002	<0.004 <0.0005	<0.00 <0.00
MTBE	<0.0005	<0.0005	- <0.002	-×0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	==0:002	<0.002	<0.002 *C.002	\$0.002	<0.0005 \$0.0005	<0.00
рН	7.34	7.65	7.4	7.67	7.6	7.34	6.54	7.71	8.7	7.1	7.1	7.3	7.3	6.31	8.3
LEL 1	SI SI	- 1	-0		<1		44.6	31.	0	0 x x	0 (	0	0	<11	: : : < 1
Hardness		The state of the s								***			The second secon	MECHANISM EMPLOYMENT OF THE PROPERTY OF THE PR	CANAL TO THE SECOND
Ethane (ug/L) iso-Butane (ug/L)	12 <0.050		Maria Arabada	250 0.37		0.007	1.6						36,619,61		
Methane (ug/L)	<0.050 600			0.37 4700		0.067 700	<0.050 640								
n-Butane (ug/L)	<0.050			1		0.13	<0.050				Exercise Management				
Propage (ug/L)	0.16			17		2.1	0.15								

	Gesford #3 Water Complaint				
	1/6/2009	1/13/2009	7/9/2008	7/9/2008	
	Depth-300'	Depth-250'			
	Scott Ely	V. Hubert	Scott Ely	Martin Farnelli	
	Post Drill	Post Drill	Pre-Drill	Pre-Drill	
	Well	Well	Well	Spring	
TSS	<2.0	<2.0	<5	<5	
TÓS	290	170	151	144	
Iron	0.354	4.02	0.12	<0.005	
Magnesium	0.25	6:09	0.63	7.24	
Manganese	<0.025	0.035			
Barlum 1	0.082	0.219			
Aluminum	1.03	<0.100			
Strontium	0.126	0,9			
Chloride	6.2	2.39	4.8	5.4	
Sulfide	<1.	<1.00	. <1.00	<b>51.00</b>	
MBAS	<0.200	<0.200	<0.20	<0.20	
Oil & Grease	<5.0	<b>&lt;</b> 5.0	<6	- 55	
Total Coliform	<1	<1	0	0	
Fecal Coliform	, <1	(1. <b>-1</b> -1)	0	0.0	
Benzene	<0.0005	<0.0005	<0.0005	<0.0005	
Toluene	<0.0005	<0.0005	<0.0005	€0.0005	
Ethylbenzene	<0.0005	<0.0005	<0.0005	<0.0005	
m.p-Xyienes	₹0.001	<0.001	<0.0005	<0.0005	
o-Xylene	<0.0005	<0.0005	<0.2	<0.0005	
MTBE	< 0.0005	<0.0005	<0.2	≮0.0005	
рН	9.38	8.45	6. <del>9</del>	6.6	
LEL:	<1	4%	0	0.41	
Hardness					
Elhane (ug/L)	140	1600			
iso-Butane (ug/L)	<0.050	1.5			
Wethane (ug/L)	19000	124000			
n-Butane (ug/L)	<0.050	6.3			
Propane (ug/L)	0.958	77			

			7/9/2008	7/9/2008
Ron Carter	Todd Carter	Ron Carter, Jr.	Ron Carter	Marin Farn
			Pre-Drill	Pre-Drill
				Spring
<2.0	<2.0	<2.0	<5	<5
1045	104	100	- 89	144
<0.025	<0.025	<0.025	<0.005	<0.005
4.6	4.61	5.3	4.88	7.24
< 0.025	<0.025	<0.025		
0.049	0.05	0.059		
<0.050	0.05	<0.050		
0.156	0.154	0.167		
6.76	6.78	6.13	5.3	5.4
<1.0	<1.0	<1.0	<1.00	<1,00
<0.08	<0.080	<0.080	<0.20	<0.20
< 5.0	<5.0	<5,0	<5	1≮5
168	208	<1	0	0
168	208	:::×<1::::	0	# 140 ·
<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<0.0005	<0.0005	<0.0009	<0.0005	<0.0005
<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<0.001	<0.001	<0.001	<0.0006	₹0,0005
<0.0005	<0.0005	< 0.0005	<0.0005	<0.0005
<0.0005	<0.0005.	<0.0005	√ <0.0005 -	<0.0005
7.19	7.23	7.11	6.1	6.6
<1 .5	- <b>(3</b>	. 4	0	0.
	10000	S CHECK TO SERVE	30.000	4
Weekler T				

1/13/2009	1/13/2009	1/13/2009
Meshoppen Creek	Meshoppen Creek	PA Office
South of Operations	North of Operations	water well
<u> </u>		
<2.0	<2.0	<2.0
50	150	220
0.386	0.217	<0.100
216	207	7.61
2.16	0.039	<0.025
0.037	0,034	0.151
0.104	0.078	<0.100
C005	0.035	0.35
10.4	5.84	2.04
		×1
<0.20	<0.20	<0.20
<b>55</b> .0	≤6.0	*5
20	25	<1
120	35 25	Sec. \$15
<0.0005	<0.0005	<0.0005
<0.0005	¥0.9005 (;	<0.0005
<0.0005	<0.0005	<0.0005
	≤0.001 %	<0.001
<0.0005	<0.0005	<0.0005
<0.0005	<0.0005	<0.0005
7.77	7.85	7.68
		\$12
≤0,025	40.025	0.025
<0.050	<0.050	<0.050
77	10	0.97
<0.050	<0.050	<0.050
<0.050	<0.050 ±	X < 0.050

		PSIG					
		Does the			1		
. !	1	Well have			,	1	
Mall Name	Caud Data	a 9-5/8"	13-3/8" x 20"	9-5/8" x 13-	7" - 0 5(0"	4-1/2" x7"	
	Spud Date	Head	Annulus	3/8" Annulus	7" x 9-5/8"	Annulus	Comments (Any Sign of Gas At Surface and Where)
Baker 1	8/13/2008	1 1		Open	Open	520	No leaks
Black 1H	6/14/2008	<del></del>	<del>                                     </del>	Cellar Covered	<del> </del>	0	No leaks
Black 2H	7/10/2008		Cellar Covered	Cellar Covered	Open	0	No leaks
Brooks 1H	10/6/2008	No	<u> </u>	Open	Open	0	No leaks
Costello 1	7/26/2008	??	Cellar Covered	Cellar Covered	Open	345	No leaks. Vented on 1/22/08
Costello 2	8/19/2008	Yes	Cellar Covered	Cellar Covered	Burried	0	No leaks
Ely 1	10/23/2008	??		Frozen	Frozen	N/A	Producing up 7" - no 4-1/2" casing
Ely 2	7/24/2008	No		Open	Open	0	No leaks
Ely 4	3/30/2008	No		Open	Open	1200	No leaks
Ely 5H	12/7/2008	No		Open		N/A	Drilling 6-1/4" hole
Ely 6H	4/17/2008	Yes	Cellar Covered	Cellar Covered	Frozen	400	No leaks
Gesford 2	9/20/2008	??		Open	Open	590	No leaks
Gesford 3	9/25/2008	Yes			Cmt Shut	0	Gas around 20" and small leak on 9-5/8" x 13-3/8". Vented 1/22
Greenwood 1	9/27/2007	No		Open	Open	200	Report of cellar leak - not visable
Heitsman 1H	10/16/2008	No		Open	Open	0	No leaks
Hubbard 1	10/11/2008	No		Open	Open	200	No leaks
Lewis 1	6/16/2008	No	Cellar Covered	Cellar Covered	Cellar Covered	0	No leaks
Lewis 2	5/28/2008	No	Cellar Covered	Cellar Covered	Covered	<1	No leaks
Ratzel 1H	11/3/2008	Yes	Cellar Covered	Cellar Covered	340	N/A	No leaks - drilling 6-1/4" hole. Vented 1/22/08
Rozanski 1	12/18/2008	Yes	Cellar Covered	Cellar Covered	140	Open	Drilling 6-1/4" hole. Vented 1/22/08
Teel 1	10/11/2006	No	Cellar Covered	Cellar Covered	Solid BP	790	No leaks - solid bull plugs on 9-5/8"
Teel 2	2/25/2008	No	Cellar Covered	Cellar Covered	Solid BP	Solid BP	Needs valve on head
Teel 5	5/19/2008	No		Open	Open	200	
Teel 6	12/2/2008	Yes	Cellar Covered	Cellar Covered	Frozen	110	No leaks
Teel 7	5/8/2008	No		Open	Open	80	No leaks
Teel 8H	1/1/2009	Yes		0	0	N/A	Drilling 6-1/4" hole