

## **Petroglyph Operating Company, Inc. Monthly Report – June 2008**

Petroglyph Operating Company, Inc. (Petroglyph) is submitting this monthly report for the activities that have occurred at their Little Creek Field in the Raton Basin from the last date of data collection for the May Monthly Report (May 16, 2008) through June 15, 2008. Along with this monthly report, Petroglyph is submitting an electronic copy of all data including Microsoft Excel spreadsheets from which the attached summaries and graphs were created.

### **1.0 Investigation**

Aquifer Characterization: Drilling has been completed for all of the injection and recovery (pumping) wells in the remediation system. Table 1 presents the details of the drilling for each well and a summary of the presence of gas measured in each well, including the most recent measurements. The table also shows the completion intervals for each well. Logging information for Injection Well 8 Haeffner, which was not included in previous submittals, is included in electronic format on the attached disk.

Petroglyph continues to monitor gas production from the wells. Only Recovery 1 Kittleson, Recovery 3 PEI and Recovery 4 Barrett showed any gas production during this reporting period as indicated on Table 1. Petroglyph also continues to monitor gas in POCI 55 at approximately 595 feet in depth. The POCI 55 well does not show measurable gas flow at the surface. Attachment 1 provides the gas flow chart for POCI 55 well which was shut in during a portion of the reporting period.

A multi-well testing program has been designed for the wells to improve the characterization of the Poison Canyon Formation, specifically to evaluate the hydraulic conductivity and the connectivity of the sands in the aquifer that have been penetrated by the injection and recovery wells. As a first step, pressure gages have been installed in all wells and the wells were shut in. Injection wells were shut in first, followed by recovery wells. Pressure changes were monitored in the MIMMP wells and changes in methane venting were monitored in the nearby domestic wells. At the completed of the pressure change monitoring pump testing will be conducted on the MIMMP wells. The testing program is expected to take approximately 4 to 6 weeks and a final report will be prepared upon completion.

In addition to completing the drilling for all injection and recovery wells, Petroglyph has also completed approximately 95% of the pipeline system. The injection line was pressure tested in June 17, 2008 to 125 psig for 90 minutes. The recovery gas and water lines will be pressure tested on June 19<sup>th</sup> and 20<sup>th</sup>. Components of the tank venting and flare system have been received or are expected to be delivered in the near future.

Dissolved Methane Sampling: Petroglyph's consultant, Norwest Applied Hydrology, has completed initial sampling for dissolved methane in water wells within a one mile radius of the remediation system. Sampling results were included in the April monthly report. No additional sampling of these wells occurred during this reporting period.

## **2.0 Monitoring**

### Gas Pressure Monitoring

Barrett, Bergman, Coleman, and Meyer have continuous pressure monitoring for fluid levels that have been installed by Petroglyph. Information from these wells is downloaded monthly by Petroglyph and included in electronic format with this monthly report. Attachment 2 shows graphically the changes in pressure for each of these wells. As can be seen on the graphs, pressure is trending downward in all wells and this downward trend has not changed from previous monthly reports. Water levels are also measured in the Barrett and Meyer wells. As shown in Attachment 2, the water levels in both wells are trending downward as well and this downward trend has not changed from previous monthly reports.

Gas flow monitors have been installed by Petroglyph at the Angely, Bruington, Coleman, and Smith wells. Continuous gas flow monitoring occurs at Coleman and Smith, while gas flow is spot monitored with a gage and orifice tester at Angely and Bruington. Gas pressure at Bounds and Angely wells is currently monitored by COGCC or their consultant, however the data is presented in this report. The data from this monitoring is provided in Attachment 3. While gas flow can be variable, in general gas flow has shown an overall decrease in all wells. Gas flows from the Smith and Angely wells have dropped to zero in recent measurements and appear to be sustained at or near zero for the last several months. The Bruington well has decreased from approximately 35 mcf/day in January to less than 10 mcf/day in recent readings. In late May the Bounds well showed a decrease from approximately 2 mcf/day to less than 1 mcf/day, however as noted on the attached graph, the well has shown such a decrease in the past followed by a rebound to higher levels so it is not clear if the current decrease will be sustained in subsequent measurements.

### Fluid Levels in Petroglyph Production Wells

Eleven Petroglyph production wells are monitored for fluid level and casing pressure. An additional four Petroglyph production wells are continuously monitored for fluid level pressures. Three monitoring wells are also monitored for water levels. Changes in fluid levels in Petroglyph's production wells are shown graphically in Attachment 4. As shown in the attachment and as would be expected since Petroglyph is no longer pumping these wells to draw down water levels, water levels continue to rise in all wells although the rate of rise is slowing.

### Bi-Weekly and Monthly Water Well Monitoring

Petroglyph monitors or has monitored approximately 77 wells in the vicinity of the site, including one new well (Gonzalez) added during this monitoring period. Table 2 shows all of the wells that have ever been sampled, the sampling start date, the date of the last sample, the number of samples since the last reporting period and a description of the sampling results and any changes from the previous reporting period.

Of these 77 wells, 10 are no longer sampled or were not sampled during this reporting period. Sampling may vary during any one reporting period due to a variety of reasons. During this reporting period 52 wells were sampled on an approximately bi-weekly schedule, 13 were sampled once during the month and 2 wells had three or four samples during the reporting period.

As shown on Table 2, the monitoring results for the 67 wells sampled showed that 41 wells had no or insignificant change from the previous monitoring period measurements. Changes in % LEL, % by volume CH<sub>4</sub>, and % volume O<sub>2</sub> were evaluated to determine if the wells were showing an indication of increasing or decreasing methane gas content. Of the remaining 26 wells, 13 showed increases, with 3 of those only slight increases and 11 showed decreases with 9 only slight decreases. One well showed variable results which could be interpreted as both increasing and decreasing. The remaining well was a new well with no previous measurements.

#### Hand Held Measurements

Petroglyph conducts periodic ground surveys using a hand held methane detector at locations where gas has previously been detected, at locations where a property owner requests such a survey or at locations where previous surveys such as the helicopter survey have detected gas seepage. These surveys are conducted based on need or urgency so can range from several times a week to a one time survey based on concerns from a property owner. During this reporting period hand held measurements occurred at the 14 properties with 3 property owners (Coleman, Smith and Sample) having more than one survey during the reporting period. Results are included in the electronic database, and summarized in Table 3.

#### Helicopter Survey

Petroglyph has recently completed a helicopter survey for methane seepage (May 16, 17, and 18). Data from that survey has been transmitted to the COGCC under separate cover. Hand held methane detector ground surveys have been conducted for areas where the helicopter survey indicated a potential new presence of methane or to confirm other helicopter readings. The hand held surveys conducted during this reporting period in response to the helicopter survey results are described in Table 4.

### **3.0 Mitigation**

#### Methane Alarms

There are currently a total of 14 homes with alarm systems provided by Petroglyph and that number has not changed from previous reports. Petroglyph's contractor has completed the updating of alarm systems for 9 homeowners who requested the updated system with both visual and audible alarms.

#### Water Supply

Petroglyph is currently providing water to 12 homes with one addition (Edward Johnson) during this reporting period. Table 5 provides a list of the homes currently receiving

water. Water is delivered as needed and can vary from month to month due to residential water use and whether or not the homes are occupied.

#### Public Outreach

There was no public outreach during the reporting period.

#### Health and Safety/Emergency Planning

Petroglyph has recently hired an individual to fill the safety position at the site. This individual will start in July and will be responsible for hand-held methane surveys as well as responding to questions from homeowners with methane alarm systems. This individual will also do methane measurements in wells.

#### **4.0 Schedule**

The following is the currently anticipated schedule for the completion of testing for the injection system and implementation of Phase I, pumping and injection of water from the Poison Canyon Formation.

- Testing of the injection and recovery will begin July 7<sup>th</sup> and is expected to take from three to six weeks.
- Upon completion of testing, a report will be prepared and submitted to the COGCC and the EPA. Report preparation will take approximately three to four weeks and the report submittal is currently expected to occur in approximately mid to late August.
- At the time of submittal of the report, Petroglyph will request approval of the rule authorization and permission to inject Poison Canyon water from the EPA.
- Commencement of injection of the Poison Canyon water is currently anticipated to begin in late August or once all needed regulatory approvals have been obtained.
- Routine bi-weekly and monthly sampling will continue with new sampling sites added as needed. Sampling will be adjusted based on the monitoring results in accordance with the Petroglyph Monitoring and Response Plan submitted to the COGCC on April 7, 2008
- Hand held seep monitoring will continue as needed.

The currently anticipated schedule for the completion of Phase I is outlined in table form below. The schedule is contingent on a number of factors including weather conditions and equipment problems.

<b>Phase I Steps</b>	<b>Estimated Completion Date</b>
1. Testing of Mitigation Wells	Through July 28, 2008
2. Submittal of Final Mitigation Well Report	August 20, 2008 (depending on data availability)
4. Start of injection activities	August 28, 2008 (or once approval is obtained from the EPA)

**Table 1  
Remediation System Well Summary**

<b>Permit Number</b>	<b>Well Designation</b>	<b>Date Completed</b>	<b>Total Depth (feet below ground surface)</b>	<b>Water Flows While Drilling</b>	<b>Well Completion</b>	<b>Gas Flow</b>
275619	POCI 55 Monitoring Well	2/15/08	1050	Moderate to heavy	Slotted intervals at 526-541, 687-701, 744-754, 778-788, 896-976, and 1010-1049.	Maximum gas flow at 50 mcf/d when well first drilled. Measured at 34 on 3/6/08 and 0 on 5/9/08.
66755	Recovery Well 1 (Kittleson)	3/29/08	715	Moderate	Slotted intervals at 496-535, 614-625, 649-668	Significant gas encountered at 510 to 530 feet. Initially measured at 135 mcf/d on 3/25/08. Gas flow measured at 68 mcf/d on 4/14/08, 60 on 5/10/08, and 53.5 on 5/18/08.
66754	Recovery Well 2 (Reiss)	4/4/08	840	None	No water or gas encountered so well plugged and abandoned	No gas
66753	Recovery Well 3 (PEI)	4/7/08	625	Slight	Slotted interval 466-515 and 578-588	Encountered gas at 485 feet, Gas flow, 4.2" water column through a 1" orifice measured at 12 mcf/d initially. Reading of 15.5 mcf/d on 5/12/08 and 11 on 5/18/08.
66999	Recovery Well 4 (Barrett)	5/10/08	500	None	Slotted interval at 387-475	Initial gas flow of 3.8 mcf/day with a reading of 3.5 on 5/18/08.
276424	Injection Well 1 (Pascual)	4/29/08	600	Slight	Slotted intervals at 413-433 and 464-484	No gas
276425	Injection Well 2 (Gonzales)	4/14/08	600	Very slight	Slotted interval at 348-358, 399-499, 555-565	No gas

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276426	Injection Well 3 (Benevides)	4/19/08	725	None	Slotted intervals at 411-431 and 599-609	No gas
276427	Injection Well 4 (Rohr)	5/6/08	675	Moderate	Slotted intervals at 551-570, 601-611, and 647-657	Slight detectable gas production
276428	Injection Well 5 (Rohr)	5/1/08	750	Very slight	Slotted intervals at 405-415, 497-507, 590-610, 694-714	5.6 mcf/day on 5/09/08
276430	Injection Well 6 (Masters)	4/10/08	725	Heavy	Slotted intervals at 414-424, 504-524, 576-596, and 680-690	Slight detectable gas production, not measured
276431	Injection Well 7 (Walden)	4/25/08	750	Very slight	Slotted intervals at 507-517, 559-579, 631-651	Slight detectable gas production, not measured
276432	Injection Well 8 (Haeffner)	4/22/08	650	Slight	Slotted intervals at 342-362, 466-486, 591-601	No gas

**Table 2**  
**Water Well Measurements for the Period of May 15 to June 15, 2008**

Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	If sampled, description of results
20783	Goemmer Cattle	9/24/07	5/21/08	5/21/08	No change from previous measurements
230572	Willis	7/11/07	6/03/08	5/22/08 and 6/03/08	No change from previous measurements
84106	Rohr	7/06/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
93386	Lowry	7/12/07	5/21/08	5/21/08	No change from previous measurements
203536	Hurley	8/2/07	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• No change in LEL</li> <li>• H2S increased slightly from 25 ppm to 28 ppm</li> <li>• O2 % volume slightly decreased from 15.3 to 9</li> <li>• CO increased from 0 to 5</li> <li>• CH4 % volume increased slightly from 45 to 47 during the reporting period.</li> </ul>
121013	Schafer	8/15/07	5/21/08	5/21/08	No change from previous measurements
123144	Searle	7/11/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
145915	Carsella	7/11/07	6/03/08	5/22/08 and 6/03/08	No change from previous measurements
169043	Burge	7/11/07	6/02/08	5/22/08 and 6/02/08	No change from previous measurements
181278	Bounds	7/12/07	5/28/08	5/07/08, 5/14/08, 5/21/08, 5/28/08	No change from previous measurements except H2S decreased from 3.5 to 0.5 ppm
191079	Brian Dale (?)	8/15/07	5/21/08	5/21/08	<ul style="list-style-type: none"> <li>• %LEL decreased from 26 to 0</li> <li>• CH4 % decreased from 9 to 0</li> <li>• O2 % increased from 14.5 to 20.9</li> <li>• No change to CO and H2S</li> </ul>
192144	Snow	8/2/07	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to &gt;100</li> <li>• CH4 % increased from 0 to 5</li> <li>• O2 % decreased from 20.9 to 0</li> <li>• CO increased from 0 to 10</li> <li>• H2S increased from 0 to 1.5</li> </ul>
192203	Rankin	7/12/07	5/21/08	5/21/08	No change from previous measurements

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193520X	McEntee	8/2/07	6/02/08	5/21/08 and 6/02/08	No change at wellhead although 5/21/ measurement showed slight increase in Ch4 and decrease in O2. At east wellhead: <ul style="list-style-type: none"> <li>• %LEL decreased from 59 to 23</li> <li>• CH4 % decreased from 2.95 to 1.15</li> <li>• O2 % increased from 19.1 to 20.9</li> <li>• No change to CO and H2S</li> </ul>
193521	Ping	7/11/07	10/19/07	None	No longer sampled
196371	Lyon	8/15/07	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to &gt;100</li> <li>• CH4 % increased from 0 to 5</li> <li>• O2 % decreased from 20.9 to 4.3</li> <li>• Co increased from 0 to 5</li> <li>• No change to H2S</li> </ul>
197472	Williams/Bartlett	8/15/07	8/15/07	None	No longer sampled
205195	Johnson	8/15/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to 13</li> <li>• CH4 % increased from 0 to 0,65</li> <li>• O2 % decreased from 20.9 to 16.9</li> <li>• No change to CO and H2S</li> </ul> 2 <sup>nd</sup> Well <ul style="list-style-type: none"> <li>• %LEL no change at &gt;100</li> <li>• CH4 % slight increase from 10 to 11</li> <li>• O2 % decreased slightly from 2 to 0</li> <li>• CO increased from 5 to 10</li> <li>• H2S decreased from 3 to 1.5</li> </ul>
210526	Bruington	8/7/07	2/29/08	None	Not sampled during this reporting period
215322	Petroglyph	7/6/07	9/24/07	None	Not sampled during this reporting period
216732	Petroglyph	7/11/07	9/24/07	None	Not sampled during this reporting period
	Petroglyph	2/13/08	2/13/08	None	Not sampled during this reporting period
215706	Brice	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements



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219376	White	8/2/07	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to &gt;100</li> <li>• CH4 % increased from 0 to 5</li> <li>• O2 % decreased from 18.6 to 2.2</li> <li>• CO remained at 0</li> <li>• H2S increased slightly from 0 to 1</li> </ul>
221465	Evenden	8/2/07	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• %LEL increased from 5 to 29</li> <li>• CH4 % was not measured at last measurement, but decreased from 45 to 1.45 from previous measurements</li> <li>• O2 % decreased from 13.5 to 10.2</li> <li>• No change to CO and H2S</li> </ul>
222294	Cramer	8/3/07	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to &gt;100</li> <li>• CH4 % increased from 0 to 5</li> <li>• O2 % decreased from 20.9 to 1.3</li> <li>• CO increased from 0 to 43</li> <li>• No change to H2S</li> </ul>
222539	Lively	7/6/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
235292	Kerman/Hanson	7/6/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
235516	Colorado Switzer	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
236272	Houghtling	7/6/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• % LEL remains unchanged at &gt;100</li> <li>• CH4 % volume has decreased slightly from 90 to 87</li> <li>• O2% volume remains at 0</li> <li>• H2S has decreased from 1.5 to 0 ppm</li> <li>• CO has increased from 1.5 to 15</li> </ul>
238209	Salazar	8/15/07	5/21/08	5/21/08	No change from previous measurements
238689	Angely	7/5/07	5/28/08	5/07/08, 5/14/08, 5/21/08, 5/28/08	No change from previous measurements for H2S, CO, O2 and CH4. % LEL has decreased from 8 to 3.

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239657	Smith	7/5/07	6/02/08	5/21/08 and 6/02/08	<p>At Wellhead: No change in previous measurements, but 5/21/08 measurement increased values for % LEL, CH<sub>4</sub>, CO and H<sub>2</sub>S with decreased O<sub>2</sub></p> <p>At Well Vent:</p> <ul style="list-style-type: none"> <li>• % LEL unchanged at &gt;100</li> <li>• CH<sub>4</sub> % increased from 8 to 86</li> <li>• O<sub>2</sub>% volume has decreased from 18.7 to 0</li> <li>• H<sub>2</sub>S has increased slightly from 3.5 to 4.5 ppm</li> <li>• CO has increased from 0 to 15</li> </ul> <p>With the 5/21/ measurement showing decreased values for % LEL, CH<sub>4</sub>, H<sub>2</sub>S and CO and increased values for O<sub>2</sub>. The cistern showed unchanged values except for a slight increase in H<sub>2</sub>S from 0 to 2.5.</p>
240947	Wolahan	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements in 6/02/08 readings, but some variation in 5/21/08 readings.
244403	Bergman	7/6/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• % LEL remains unchanged at &gt;100</li> <li>• CH<sub>4</sub> % volume has decreased from 49 to 18</li> <li>• O<sub>2</sub>% volume has increased from 8.9 to 15</li> <li>• H<sub>2</sub>S and CO remain unchanged at 0 ppm</li> </ul>
246775	Sharp	9/9/07	6/02/08	5/22/08 and 6/02/08	No change from previous measurements
248680	Campbell	8/14/07	1/2/08	None	Not sampled during this reporting period

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248862	Meyer	8/14/07	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• % LEL no change &gt;100</li> <li>• CH4 % volume has decreased from 83 to 67</li> <li>• O2% volume has increased from 0 to 3.4</li> <li>• H2S has decreased from 35 to 1.5</li> <li>• CO has increased from 5 to 10</li> </ul> With decreased %LEL and CH4 and increased O2 in 5/22/08 reading.
248983	Tobias	8/3/07	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• % LEL has changed decreased from 17 to 8</li> <li>• CH4 % volume has decreased slightly from 0.9 to 0.35</li> <li>• O2 has decreased from 20.9 to 17.6</li> <li>• No change in CO</li> <li>• H2S has increased from 0 to 1.5</li> </ul>
249181	Hentschel	9/9/07	6/03/08	5/22/08 and 6/03/08	No change from previous measurements
249362	Andexler	9/9/07	9/9/07	None	No longer sampled (at landowner request)
250369	Martin	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
252931	Derowitsch	7/6/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements at wellhead or well vent with some variations in the 5/21/08 measurement. No change at cistern.
253317	Gonzalez	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
254577	Ryerson	9/9/07	6/03/08	5/22/08 and 6/03/08	No change from previous measurements
255929	Conley	7/11/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
256504	Hopke	7/5/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• No change in % LEL at 0</li> <li>• CH4 % volume has decreased from 49 to 32</li> <li>• O2% volume has increased from 8.6 to 12.5</li> <li>• H2S has increased from 1.5 to 2.5 ppm</li> <li>• CO decreased from 10 to 0</li> </ul>
257113	Masters	7/6/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements

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257994	Barrett	7/12/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• % LEL decreased from &gt;100 to 0</li> <li>• CH4 % volume has decreased from 41 to 0 with a high reading of 81 on 5/21/08</li> <li>• O2% volume has increased from 10.6 to 20.9</li> <li>• CO and H2S show no change</li> </ul>
259122	Higgins	9/26/07	6/03/08	5/22/08 and 6/03/08	No change from previous measurements
260097	Dee	7/5/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
264581	Ireland	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
267694	Coleman	7/5/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements for wellhead. Minor variations at well vent.
267695	Speh	9/4/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
269435	Goacher	7/11/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
270552	Chaves	9/9/07	6/03/08	5/22/08 and 6/03/08	No changes from previous measurements
271136	May	7/12/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
274468	Roloff	9/9/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
235515	English	8/16/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
258815	Goodwin	7/12/07	6/02/08	5/21/08 and 6/02/08	<ul style="list-style-type: none"> <li>• %LEL decreased slightly from 2 to 0</li> <li>• H2S decreased from 1.5 to 0</li> <li>• No changes to other parameters</li> </ul>
16861-F	Golden Cycle Land	7/12/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
84108-A	Mc Pherson	7/6/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
16861-F <sup>1</sup>	Unknown	8/13/07	6/02/08	5/21/08 and 6/02/08	No changes from previous measurements
	Andreatta	8/14/07	6/03/08	5/22/08 and 6/03/08	No changes from previous measurements
	Anselmo	8/14/07	8/14/07	None	No longer sampled
	Dernell	8/15/07	5/21/08	5/21/08	No change from previous measurements
	Unknown	8/15/07	8/15/07	None	No longer sampled
	Lang	10/29/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
220100	Cordova	10/30/07	6/02/08	5/21/08 and 6/02/08	No change from previous measurements
234836	White, Jim	1/4/08	5/22/08	5/22/08	<ul style="list-style-type: none"> <li>• % LEL increased from 0 to &gt;100</li> <li>• CH4 % volume increased from 0 to 5</li> <li>• O2% volume decreased from 20.9 to 0</li> <li>• H2S and CO remain unchanged at 0</li> </ul>

**Table 2  
Water Well Measurements for the Period of May 15 to June 15, 2008**

<b>Permit Number</b>	<b>Name</b>	<b>Sampling Start Date</b>	<b>Last Sample</b>	<b>Samples Since Last Monthly Report</b>	<b>If sampled, description of results</b>
192509	Eddleman, Paul	1/17/08	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• % LEL has decreased from 5 to 0</li> <li>• CH4 % volume not measured</li> <li>• O2% volume has decreased from 20.9 to 0</li> <li>• H2S increased from 0 ppm to 3</li> <li>• CO has increased from 0 ppm to 27</li> </ul>
226536	Eddleman, Todd	1/17/08	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• % LEL has increased from 0 to &gt;100</li> <li>• CH4 % volume has increased from 0 to 5</li> <li>• O2% volume has decreased from 20.9 to 7.8</li> <li>• H2S remains unchanged at 0</li> <li>• CO has increased from 0 ppm to 15</li> </ul>
31935	Garza-Vela	1/30/08	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• % LEL has increased from 0 to &gt;100</li> <li>• CH4 % volume has increased from 0 to 5</li> <li>• O2% volume has decreased from 20.9 to 0</li> <li>• H2S has increased from 0 to 1</li> <li>• CO has increased from 0 ppm to 5</li> </ul>
271524-A	Modlish	1/30/08	6/03/08	5/22/08 and 6/03/08	No change from previous measurements for % LEL, CH4, and CO. H2S increased from 0 to 1 and O2 decreased from 20.9 to 14.5.
271748	Sample	3/10/08	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• %LEL increased from 0 to &gt;100</li> <li>• CH4 % increased from 0 to 5</li> <li>• CO increased from 0 to 15</li> <li>• H2S remains unchanged at 0</li> <li>• O2 % volume decreased from 20.9 to 5.3</li> </ul>
197128	Roberts	4/08/08	6/03/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• %LEL increased from 5 to &gt;100</li> <li>• CH4 % volume at 5</li> <li>• O2 % decreased from 18.2 to 6.7</li> <li>• CO and H2S remain at 0</li> </ul>

**Table 2  
Water Well Measurements for the Period of May 15 to June 15, 2008**

<b>Permit Number</b>	<b>Name</b>	<b>Sampling Start Date</b>	<b>Last Sample</b>	<b>Samples Since Last Monthly Report</b>	<b>If sampled, description of results</b>
	Gonzalez	5/22/08	6/3/08	5/22/08 and 6/03/08	<ul style="list-style-type: none"> <li>• %LEL &gt;100</li> <li>• CH4 % volume at 87</li> <li>• O2 % at 0</li> <li>• CO ppm at 5</li> <li>• H2S ppm at 2.5</li> </ul>

**Table 3  
Hand Held Gas Meter Results for the Period of May 15 through June 15, 2008**

Name	Date	Time	Weather Conditions	RMLD Readings				Notes
				N	E	W	S	
Kent Smith	5/23/08		15 Wind 60°	22 - 42	34 - 48	20 - 34	18 - 38	Reading - Brion Stephen
	6/11/08	11:00	30-40 Wind	19 - 38	48	18 - 28	28 - 41	Inside house: Kitchen 19 - 30, Living Rm 20 - 28, Well Vent 180 - 290. Reading - Garry Laursen & Brion Stephen
Mitch Sample	5/23/08	10:00	5 Wind 70°					Kitchen ceiling 37 - 54 (faucet running 2 min 34 - 56). Living Rm - ceiling 36 - 51. Basement SE corner 28, NE corner 21 - 34. Background 24 - 47. Cistern vent 37 - 64. Well vent 48 - 54.
	6/13/08	11:30	5-10 wind Sunny	Outside House 55	Outside House 30 - 50	Outside House 55 - 58	Outside House 26 - 50	Kitchen ceiling 38 - 40 (faucet running). Great Rm - ceiling 28 - 30. Basement SE corner 32 - 34, NE corner 42 - 48. Background 30. Cistern 98. Well Vent 77. Reading taken by - Garry Laursen & Brion Stephen
Terri Kerman	6/12/08	9:30	5 Wind Sunny	Outside of house 34	Outside of house 34	Outside of house 30	Outside of house 51	Garage front 60 Cistern not hooked up yet. Well vent 38-54. Living Rm 21 - 24, Den 36, Crawl Space 20 - 38. Background 24 - 36. Reading - Garry Laursen and Brion Stephen
Bruington	6/13/08	10:00	No Wind Sunny	House 27 - 44	House 28 - 44	House 24 - 40	House 28 - 42	Background 30. Shed 45 Reading - Garry Laursen & Brion Stephen
Jim White	6/13/08	12:30	5-10 Wind Sunny	Outside House 28 - 60	Outside House 38 - 112 PCV Drain	Outside House 28 - 33	Outside House 30 - 54	128 by house steps. Reading Garry Laursen & Brion Stephen.

**Table 3  
Hand Held Gas Meter Results for the Period of May 15 through June 15, 2008**

Name	Date	Time	Weather Conditions	RMLD Readings				Notes
				N	E	W	S	
					Pipe			
Donald Derowitsch	6/12/08	10:45	20 Wind Sunny	Outside House 38 - 54	Outside House 28 - 36	Outside House 26 - 33	Outside House 32 - 38	Background 20 - 30. Check swamp cooler during summer. Reading Garry Larsen & Brion Stephen.
Jack Houghtling	6/12/08	11:00	15 Wind	Outside House 33 - 42	Outside House 29 - 39	Outside House 26 - 34	Outside House 36 - 50	Background 30 - 40. Cistern Vent 71. Reading - Garry Laursen & Brion Stephen
Vince Coleman	6/12/08	10:15	15 Wind Sunny	Outside House 23 - 34	Outside House 52	Outside House 30 - 40	Outside House 30 - 34	Background 30 - 40 Reading Garry Laursen & Brion Stephen
	6/12/08	10:15	15 Wind Sunny	Outside House 23 - 34	Outside House 52	Outside House 30 - 40	Outside House 30 - 34	Background 30 - 40 Reading Garry Laursen & Brion Stephen
	6/13/08	15:30	10-15 Wind	Outside House 37 - 42	Outside House 38 - 41	Outside House 28 - 38	Outside House 37 - 54	Basement 26 - 40 East corner by cistern. Crawl space 28-35. Kitchen Hall 28 - 34. Reading Garry Laursen & Brion Stephen
John Ireland/ Kevin Murrphy	6/12/08	13:30	10-15 Wind Sunny	Outside House 40 - 58	Outside House 32 - 48	Outside House 30 - 40	Outside House 28 - 44	Background 30 - 40 Well 36 - 40. Reading Garry Laursen & Brion Stephen.
Janet Campbell	6/12/08	14:00	20 Wind	Outside House 30 - 42	Outside House 39 - 58	Outside House 36 - 54	Outside House 26 - 36	Great Rm 23 - 30 Loft 23 - 29 Basement 23 - 28 Reading - Garry Lauresn & Brion Stephen.
Petroglyph h/ aka Calvin Haupt	6/12/08	14:00	15-20 Wind	38 - 50	25 - 40	40 - 540	20 - 30	Direction from old house foundation. Background 25 - 30. Leachfield 50. 100' South of house Site 106 Power Pole Deadman 98 - 136. Reading - Garry Laursen & Brion Stephen.



**Table 3  
Hand Held Gas Meter Results for the Period of May 15 through June 15, 2008**

Name	Date	Time	Weather Conditions	RMLD Readings				Notes
				N	E	W	S	
Richard Goodwin	6/12/08	13:00	10 Wind Sunny	Outside House 26 - 33	Outside House 40 - 50	Outside House 28 - 34	Outside House 27 - 480	Basement West 29 -32, South 43, North 26, East 25. Cistern Vent 48. Kitchen 25 - 32, Dining 29 -36, Garage 32 - 38 Reading - Garry Laursen & Brion Stephen
Bruce Hopke	6/12/08	10:30	15 Wind	Outside House 31 - 40	Outside House 28 - 36	Outside House 38 - 60	Outside House 32 - 44	Cistern 43. Well Vent 280. Reading - Garry Laursen & Brion Stephen.
Bill Cordova	6/12/08	16:00	15-20 Wind Sunny	Outside House 30 - 40	Outside House 28 - 46	Outside House 40 - 50	Outside House 32 - 46	Living Rm 30 Kitchen 28 -30 Water running in sink 40 -50 West from house 100' on ridge 75. Reading - Garry Laursen & Brion Stephen

**Table 4  
Hand Held Gas Meter of Helicopter Survey Identified Points**

<b>Name</b>	<b>Date</b>	<b>Time</b>	<b>Weather Conditions</b>	<b>Location</b>	<b>Notes</b>
	Date	Time	Weather Conditions	Location	Notes
# 1	6/12/08	11:30	15 Wind	New hit by Hwy 160 & RR Tracks	RMLD 50 - 60 w/ 70 as highest read North & South side of RR track 200 ft West of driveway.
# 2	6/11/08		25-30 Wind	Purple F2 Dike on hill behind 10-02.	Background read 50 - 60. High read 90.
	6/13/08		5-10 Wind		126 by road. 140 150 ft West of road. 150 on ridge.
# 3	6/12/08		10-20 Wind	Dike on hogback behind Lathrop Park. C4 - C2 Purple by Lake.	RMLD Background 30 - 40. High read 70 South side of ridge. High read 110 North side of ridge.
# 4	6/13/08	11:00	5-10 Wind	Mine venting along Ideal Canyon Road. Purple A-14.	Many reading of 90 - 100. High reading 138.
# 6	6/13/08	15:30	5-10 Wind	Old Pictou Camp site (COGCC soil survey area) NW of Walsenburg A - Z.	Background 40 - 60 @ old slag pile. High readings 80 - 95. Highest reading East 100' of slag pile 136.

**Table 5**  
**Residences Receiving Water**

Jerry Angely	Has received water provided by PEI in the past but his well is currently working now
Kent Smith	Has received water provided by PEI
Alan Cramer	Has received water provided by PEI
Tom Gonzales	Has received water provided by PEI
Spencer/Carol Snow	Has received water provided by PEI
Bruington	Has received water provided by PEI
Todd Eddleman	Has received water provided by PEI
Paul Eddleman	Has received water provided by PEI
Jim White	Has received water provided by PEI
Edward Lyon	New to list as of 3/12/08
Donald Sharp	New to list as of 3/14/08
Edward Johnson	New to list as of 6/6/08

**Attachment 1**  
**Gas Flow in Monitoring Well POCI 55**

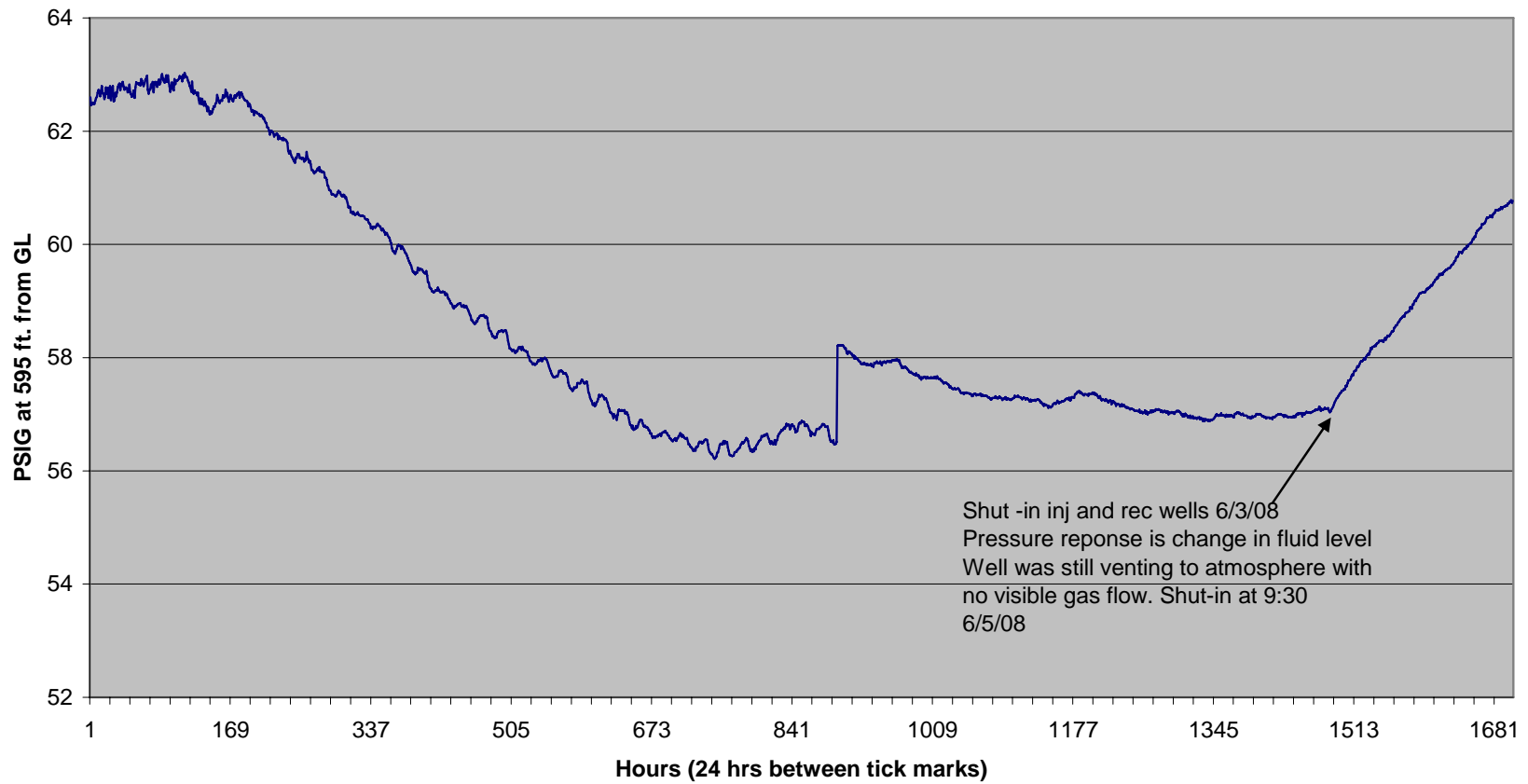
**POCI 55 Monitor Well from 4/2/08 to 6/12/08**

**Permit # 275819**

**Lot 55 RRR**

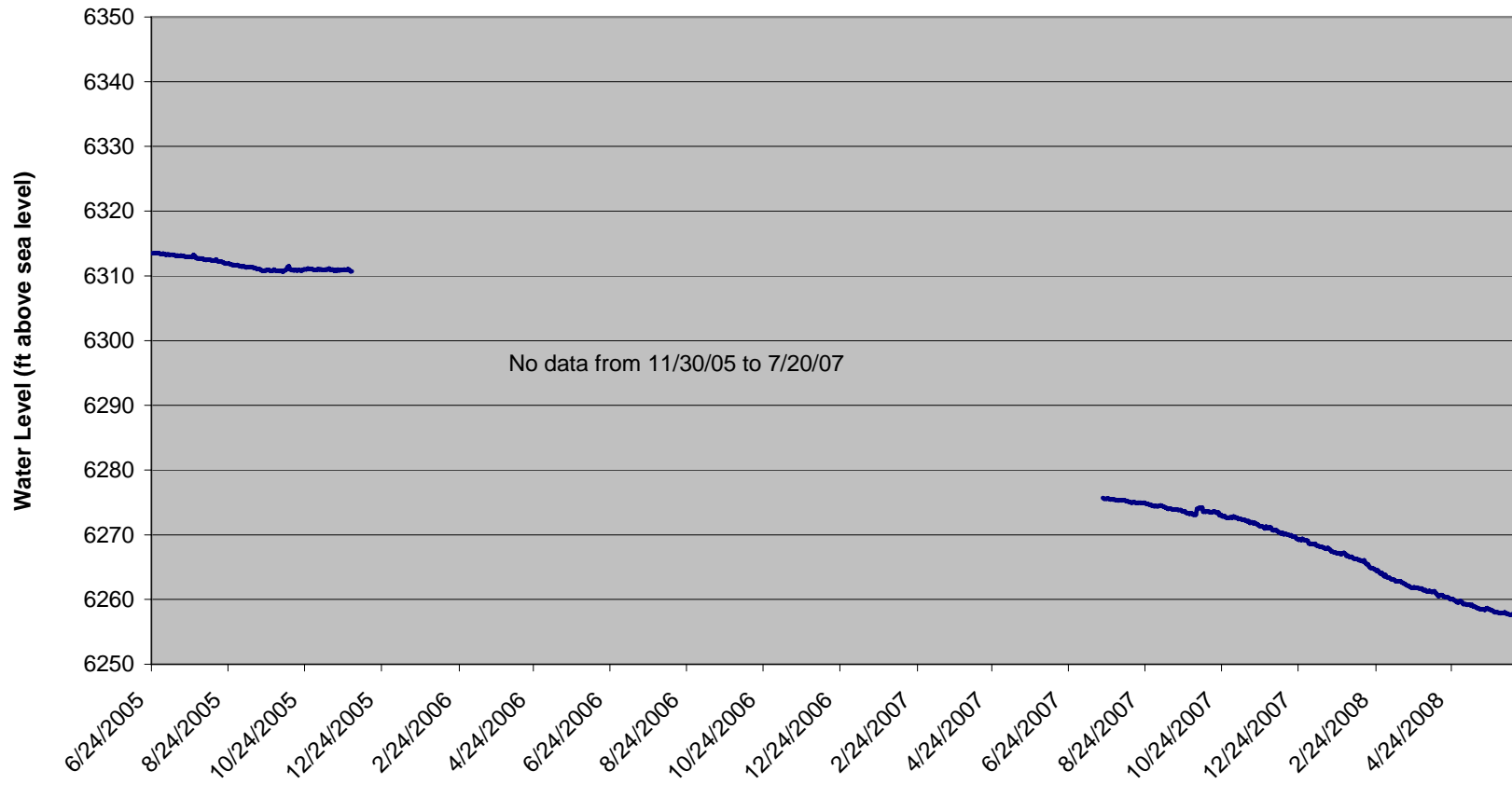
**SE SW Sec 3 29S 67W**

**GL elev. 6690'**

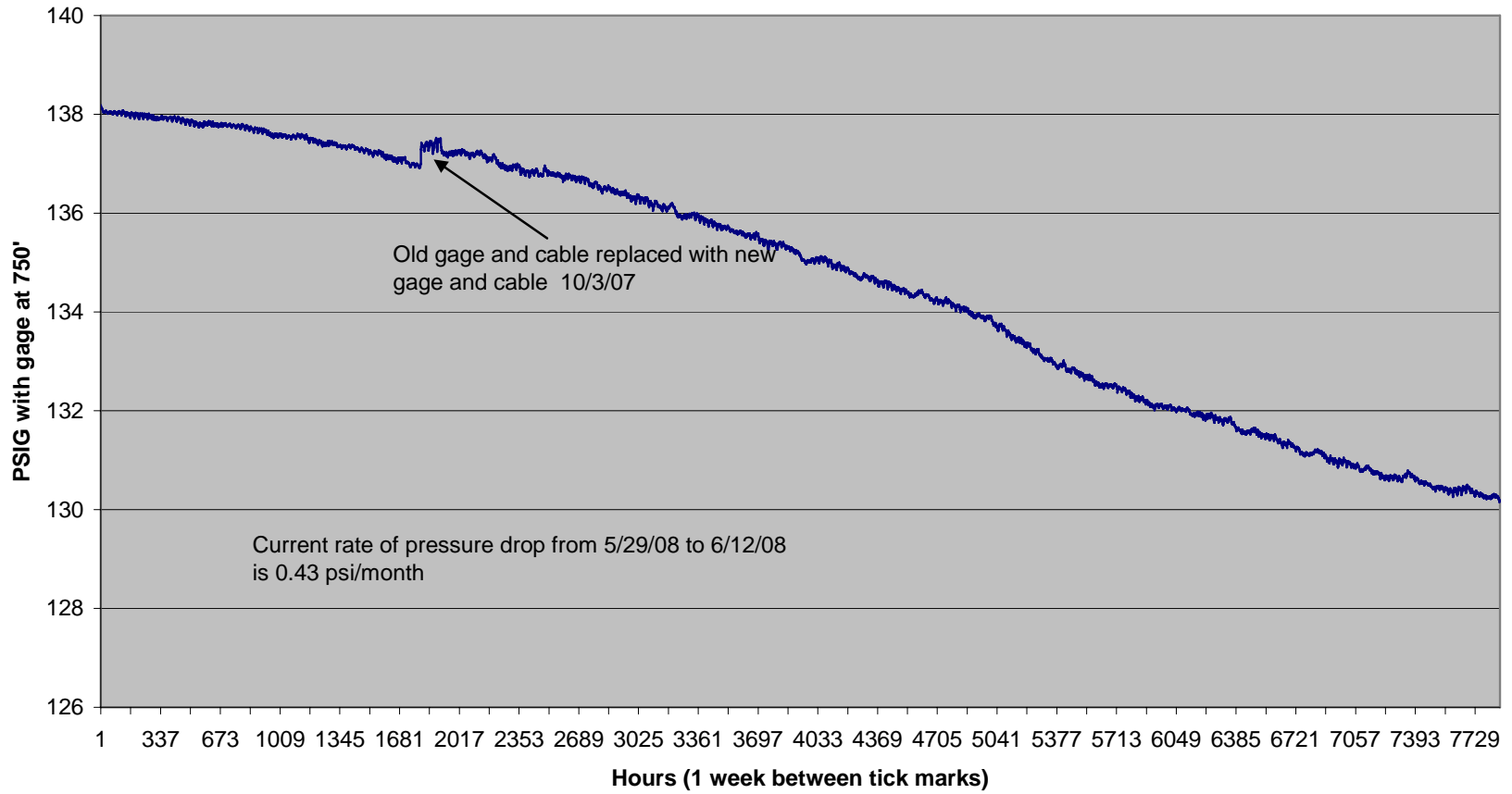


**Attachment 2**  
**Graphs of Pressure and Fluid Level Data From**  
**Barrett, Bergman, Coleman, and Meyer**

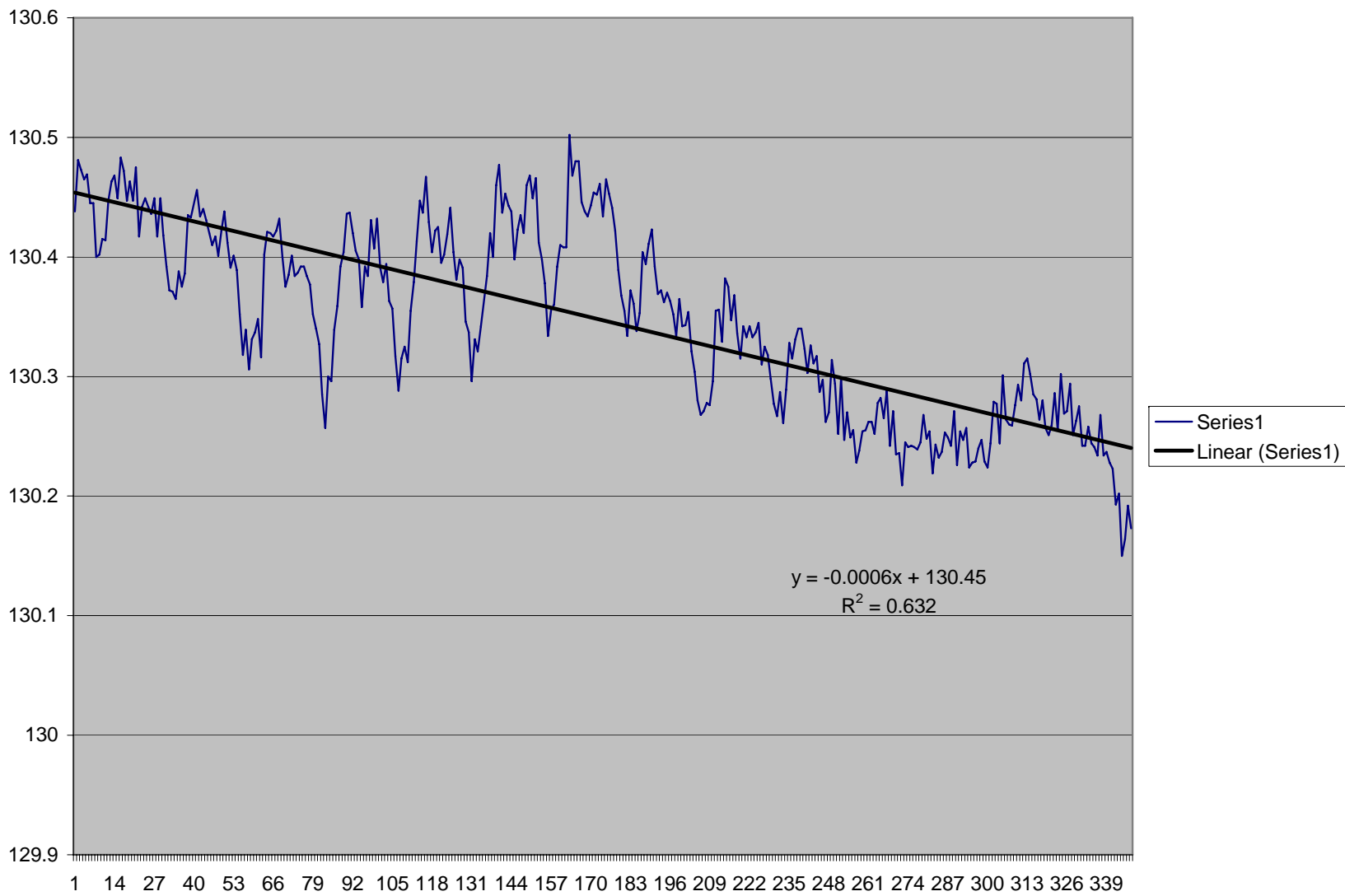
**Barrett WW**  
**Water Level from 6/24/05 to 6/12/08**  
**Permit # 257994**  
**Lot 57 RRR**  
**NW, SE Sec 3, T29S R67W**



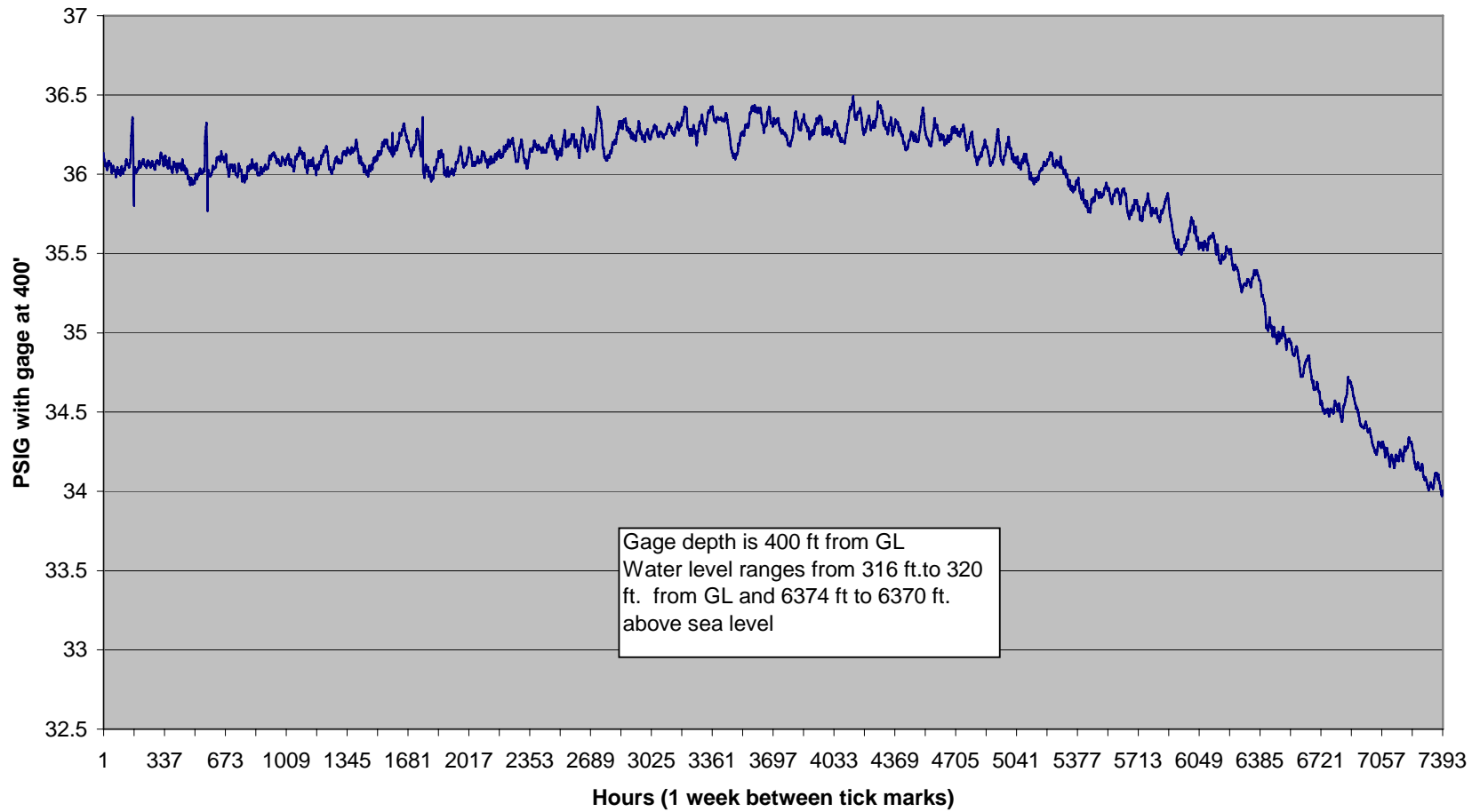
**Barrett WW from 7/20/07 to 6/12/08**  
**Permit # 257994**  
**Lot 57 RRR**  
**NW, SE Sec 3, T29S R67W**  
**G.L. elev. 6707'**



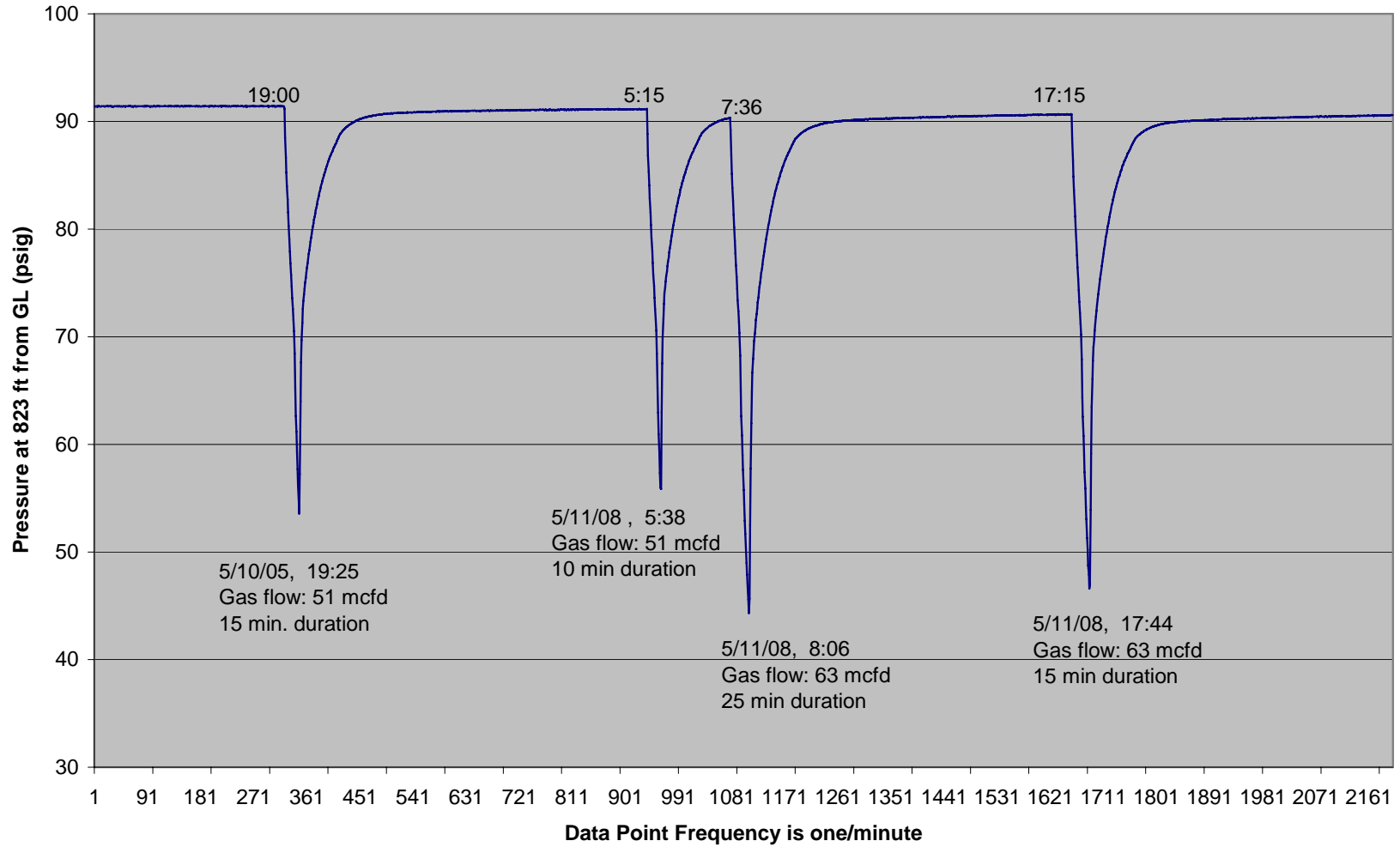




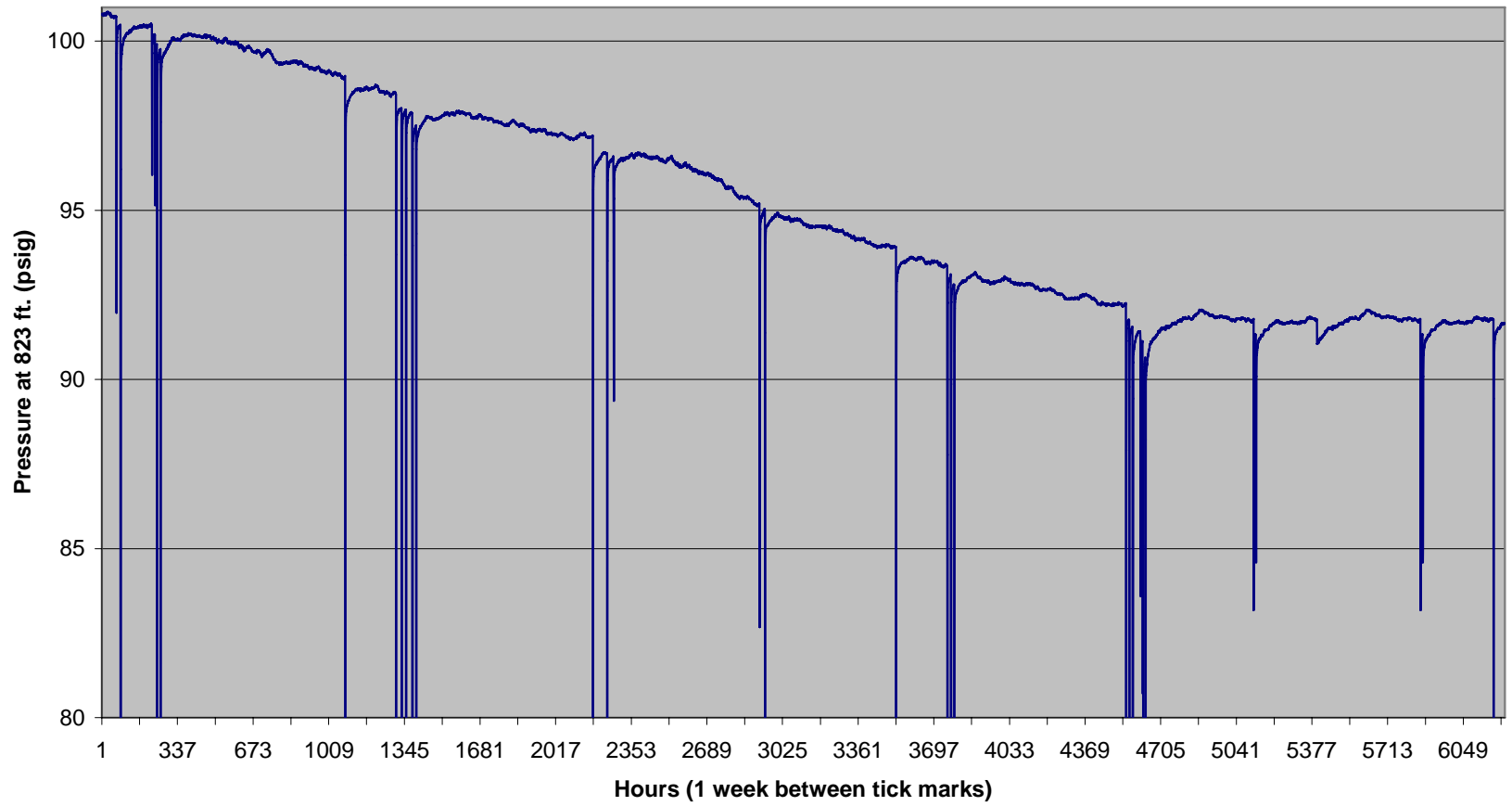
**Bergman WW pressure data from 8/9/07 to 6/12/08**  
**Permit # 24403, SW NW Sec 3 29S 67W**  
**Lot 48 RRR**



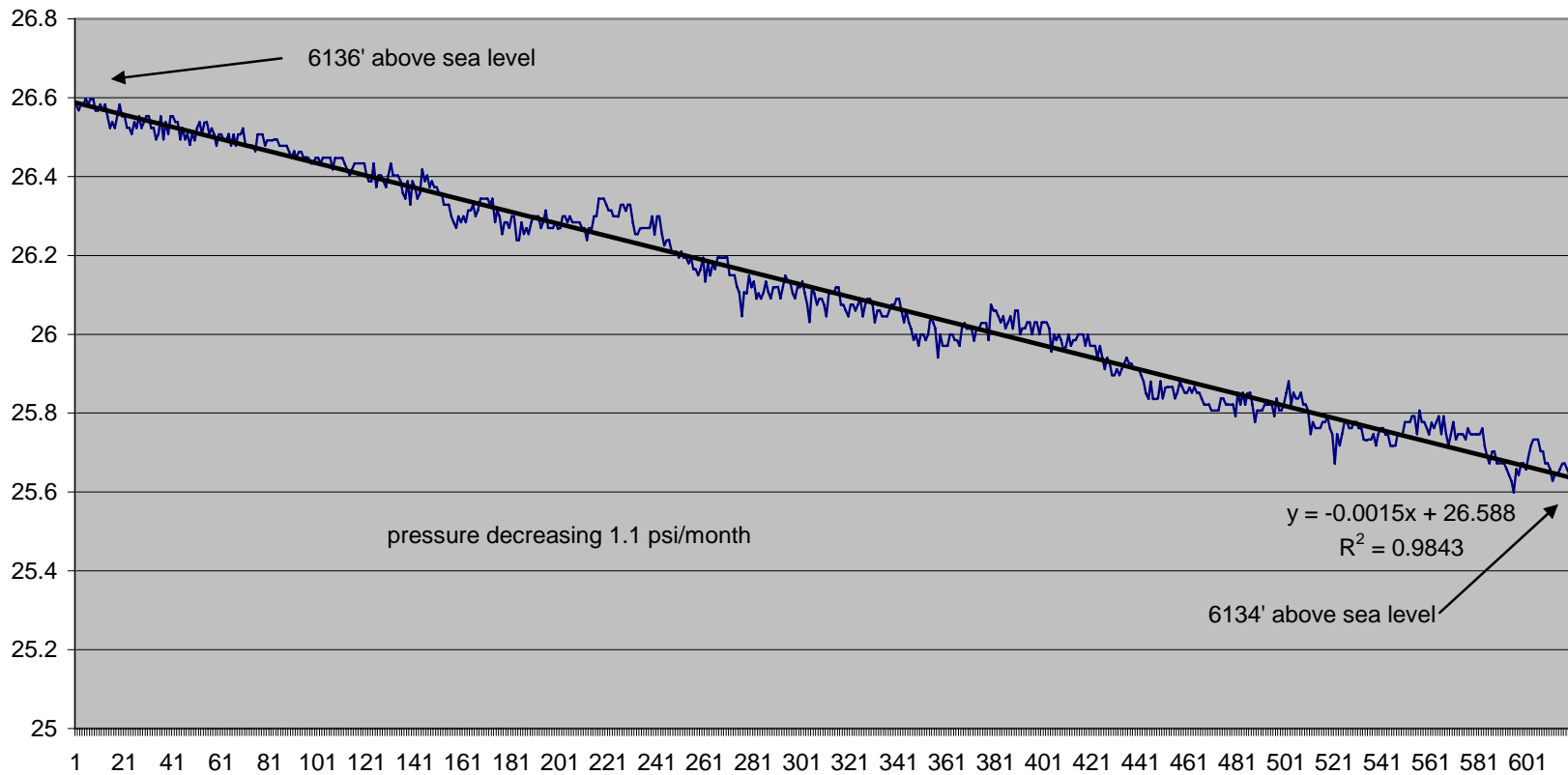
**Coleman WW (GL elev. 6848') Pressure Data from 5/10/08 to 5/12/08**



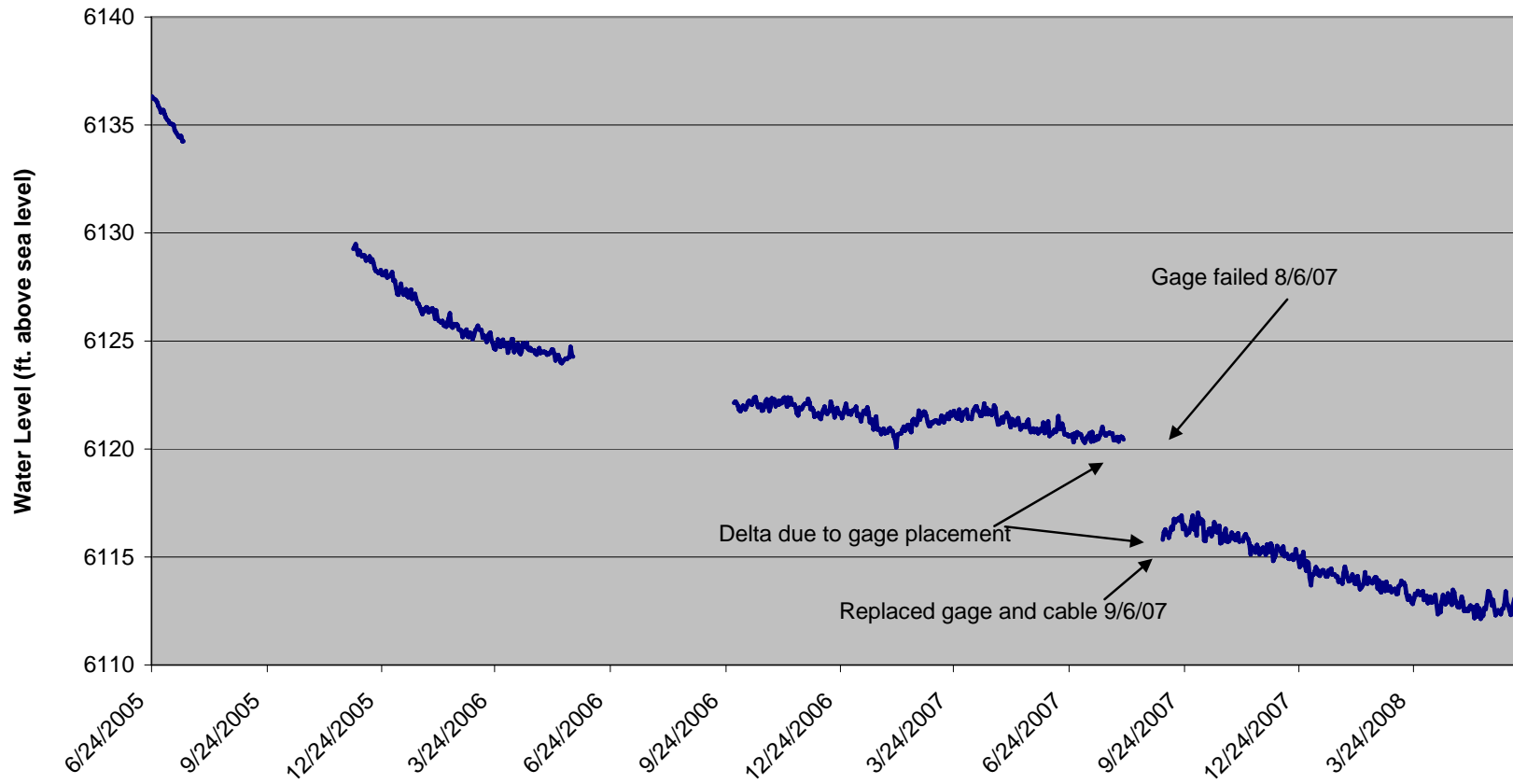
**Coleman WW Pressure Data from 10/31/07 to 6/16/08**  
**Permit # 267964 NE SW Sec 10 29S 67W**  
**Lot 70 RRR**  
**G.L. elev. 6848'**



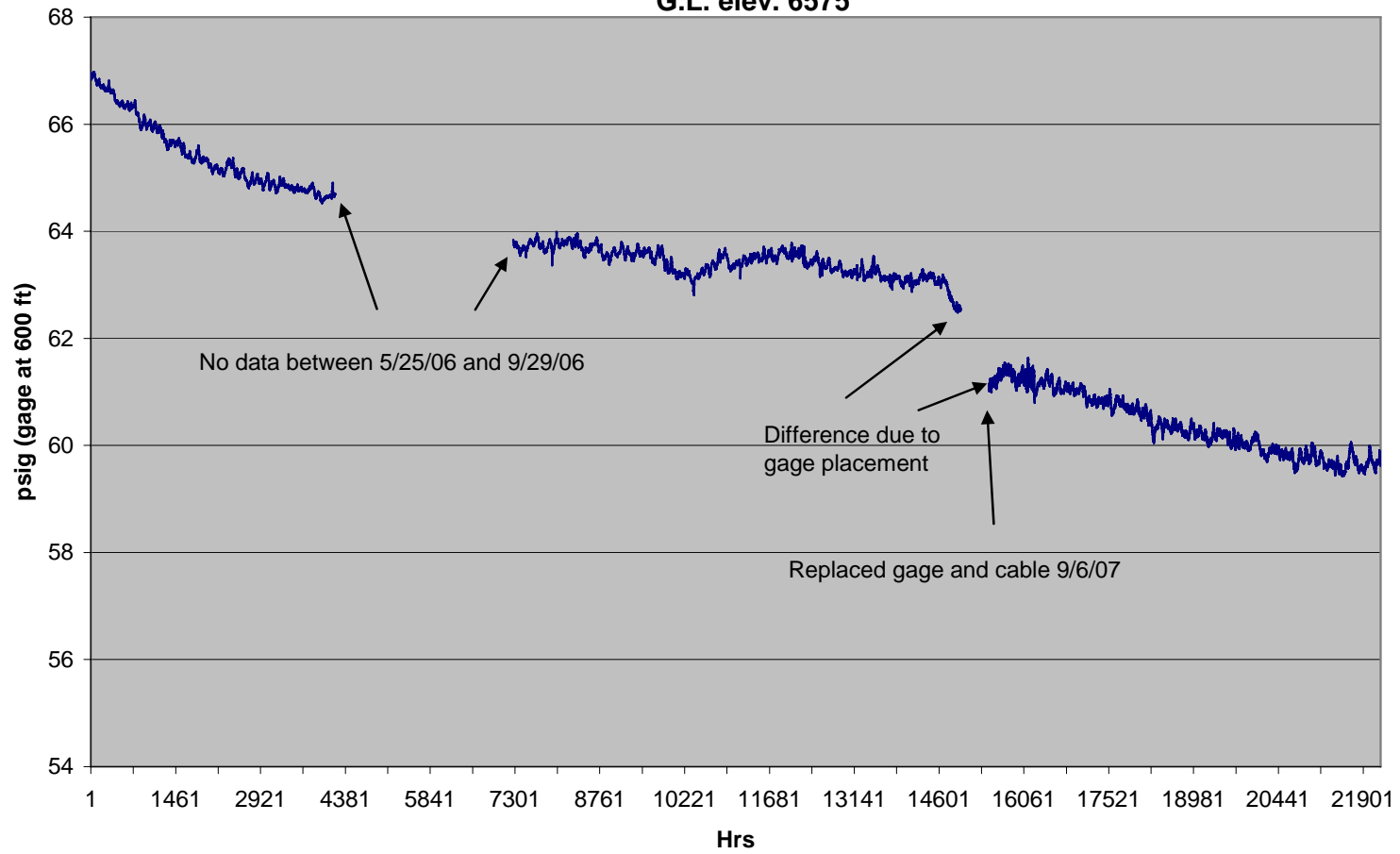
Meyer WW, Permit # 248862  
Lot 120 RRR  
SW, NE Sec 30 T28S R66W  
2203 FNL 1570 FEL  
6/23/05 to 7/19/05



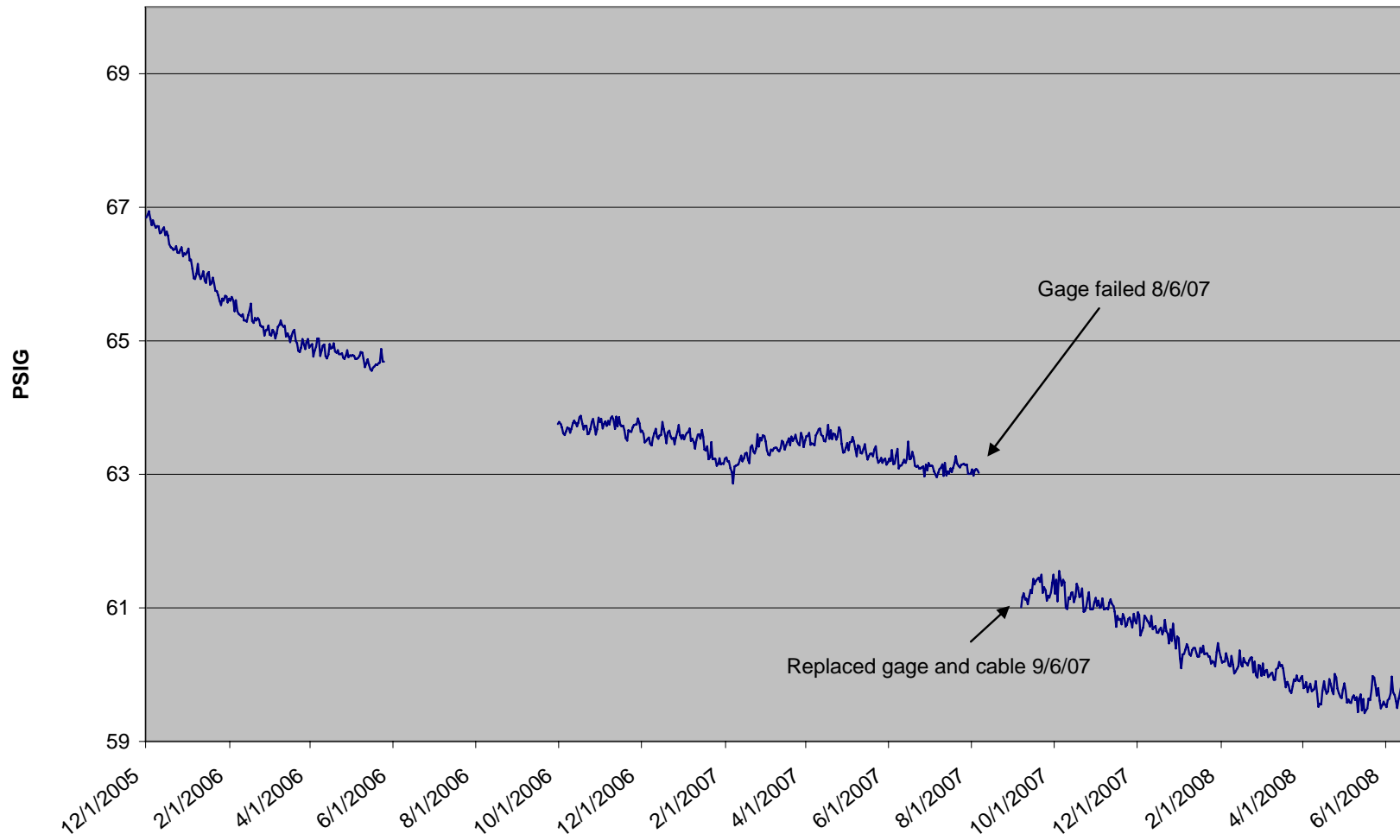
Meyer WW Water Level from 6/24/05 to 6/12/08  
Permit # 248862  
Lot 120 RRR  
SW, NE Sec 30 T28S R66W



Meyers WW 11/30/05 to 6/12/08  
Permit # 248862  
Lot 120 RRR  
SW, NE Sec 30 T28S R66W  
G.L. elev. 6575'



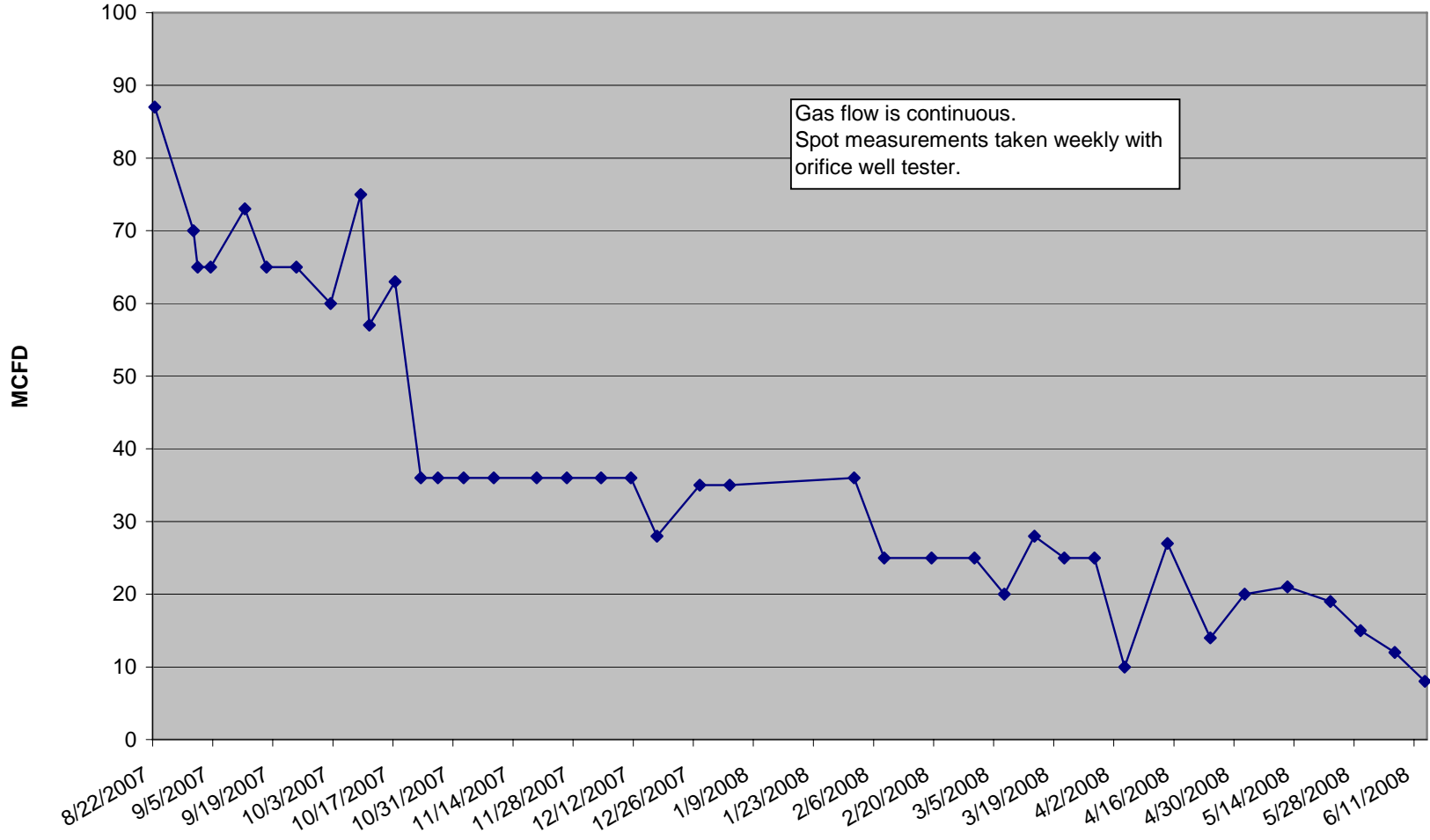
Meyers WW BHP from 12/1/05 to 6/12/08



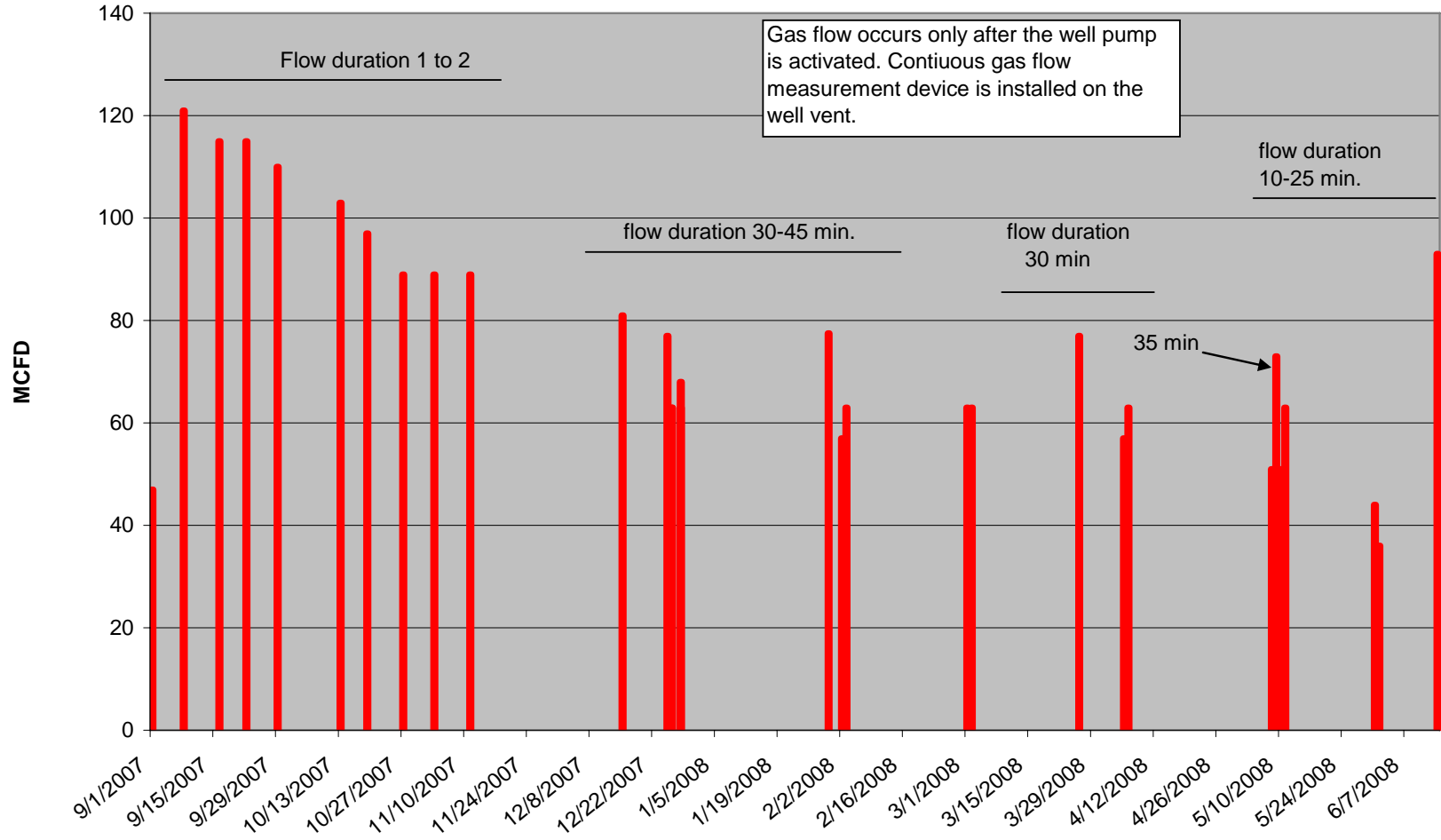


**Attachment 3**  
**Gas Flow Measurements at Bruington, Coleman, Angely, Bounds, and Smith**

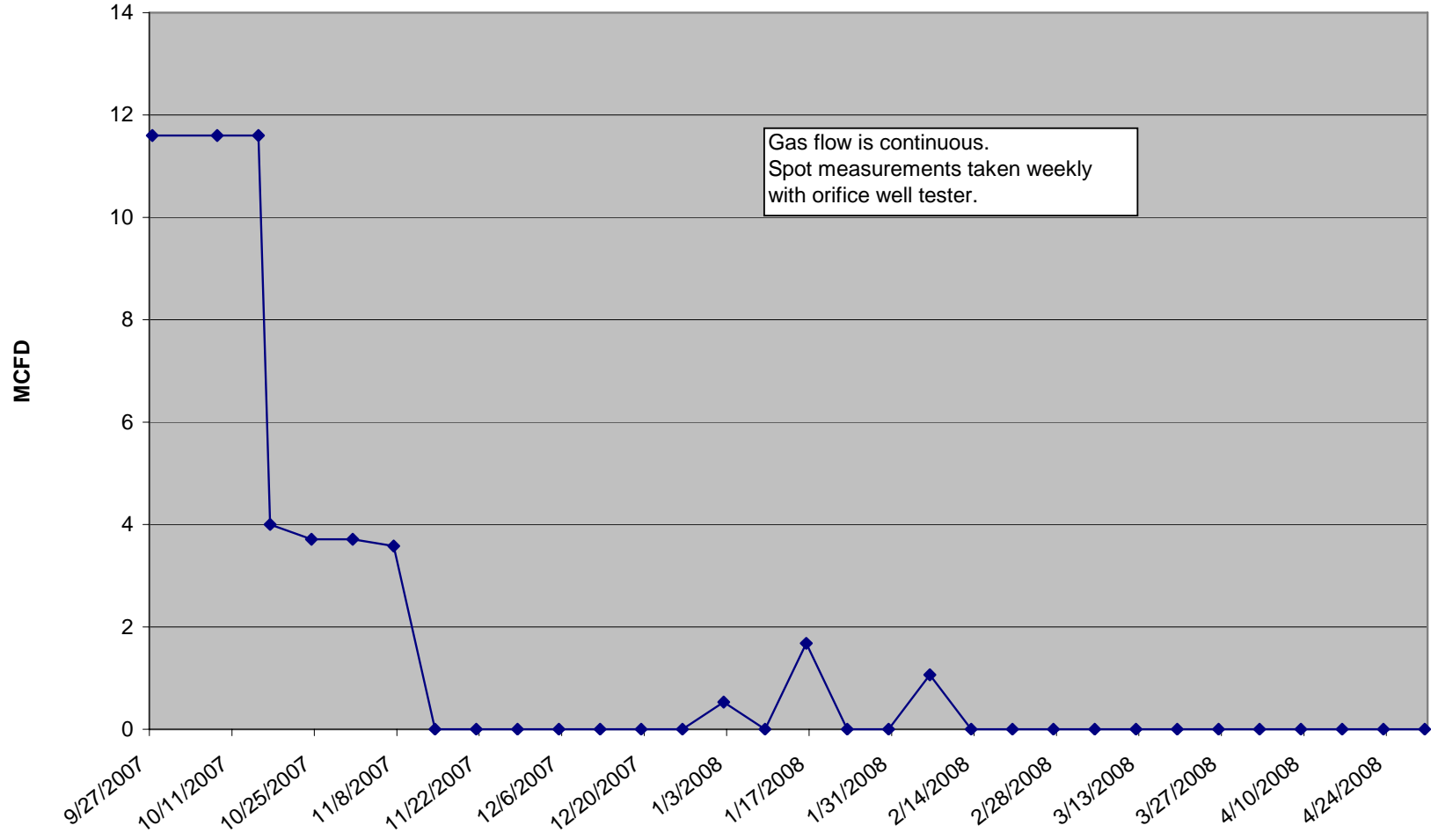
**Bruington WW # 210526 Measured Gas Flow  
from 8/22/07 to 6/13/08**



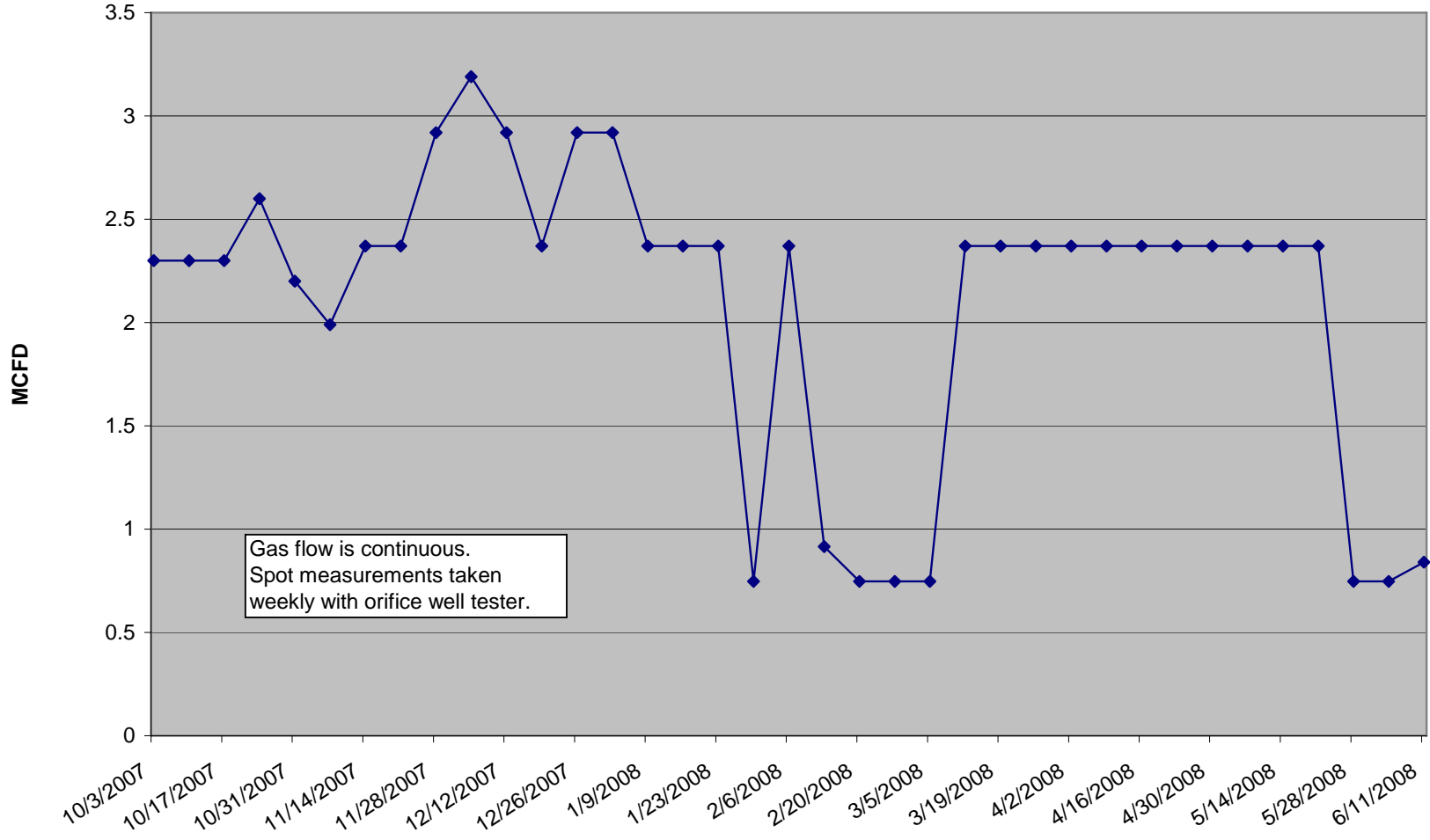
**Coleman WW #267294 Measured Gas Flow  
from 9/1/07 to 6/14/08**



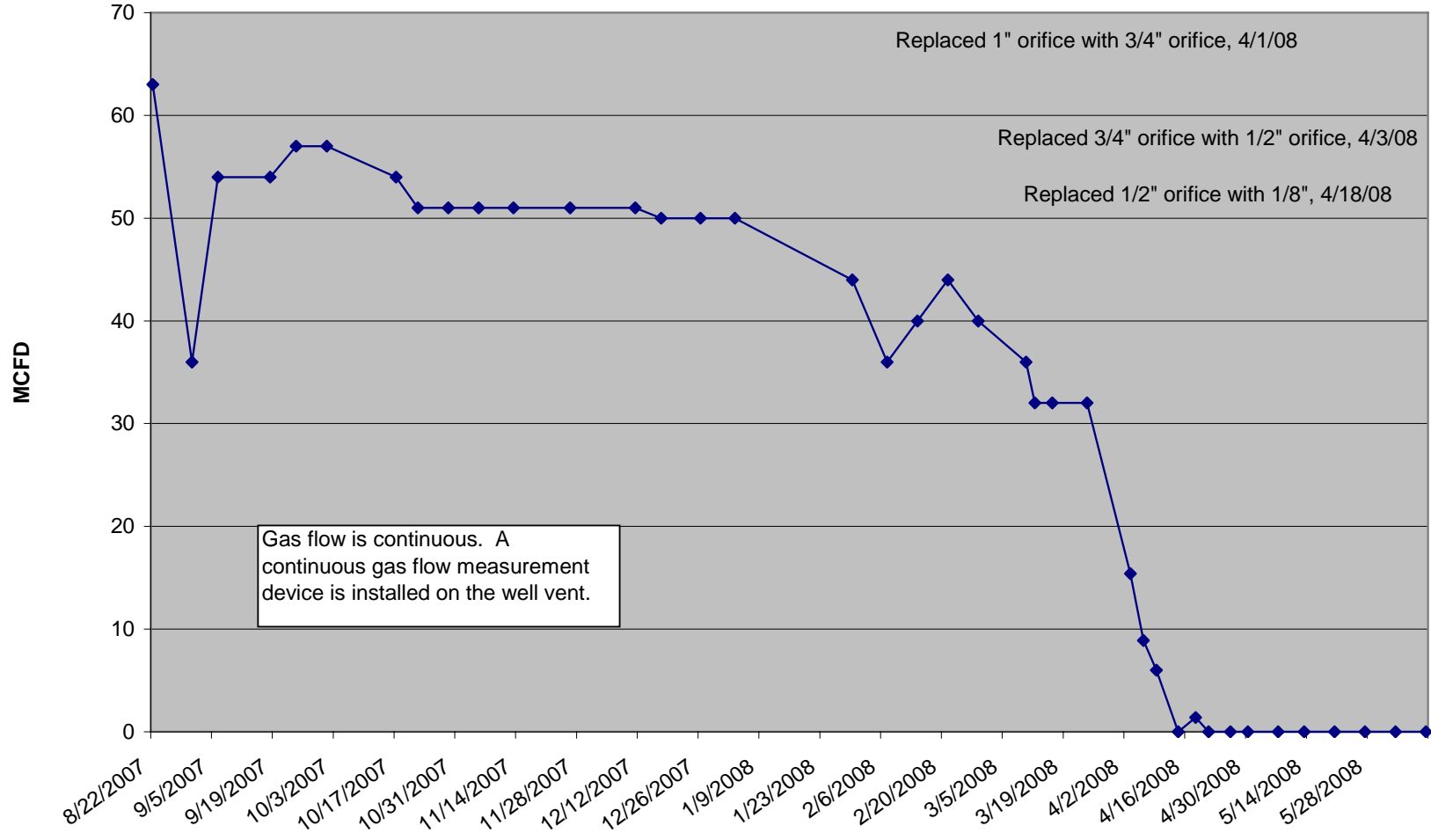
**Angely WW # 238689 Measured Gas Flow  
from 9/27/07 to 4/30/08**



**Bounds WW #181278 Measured Gas Flow  
from 10/3/07 to 6/11/08**

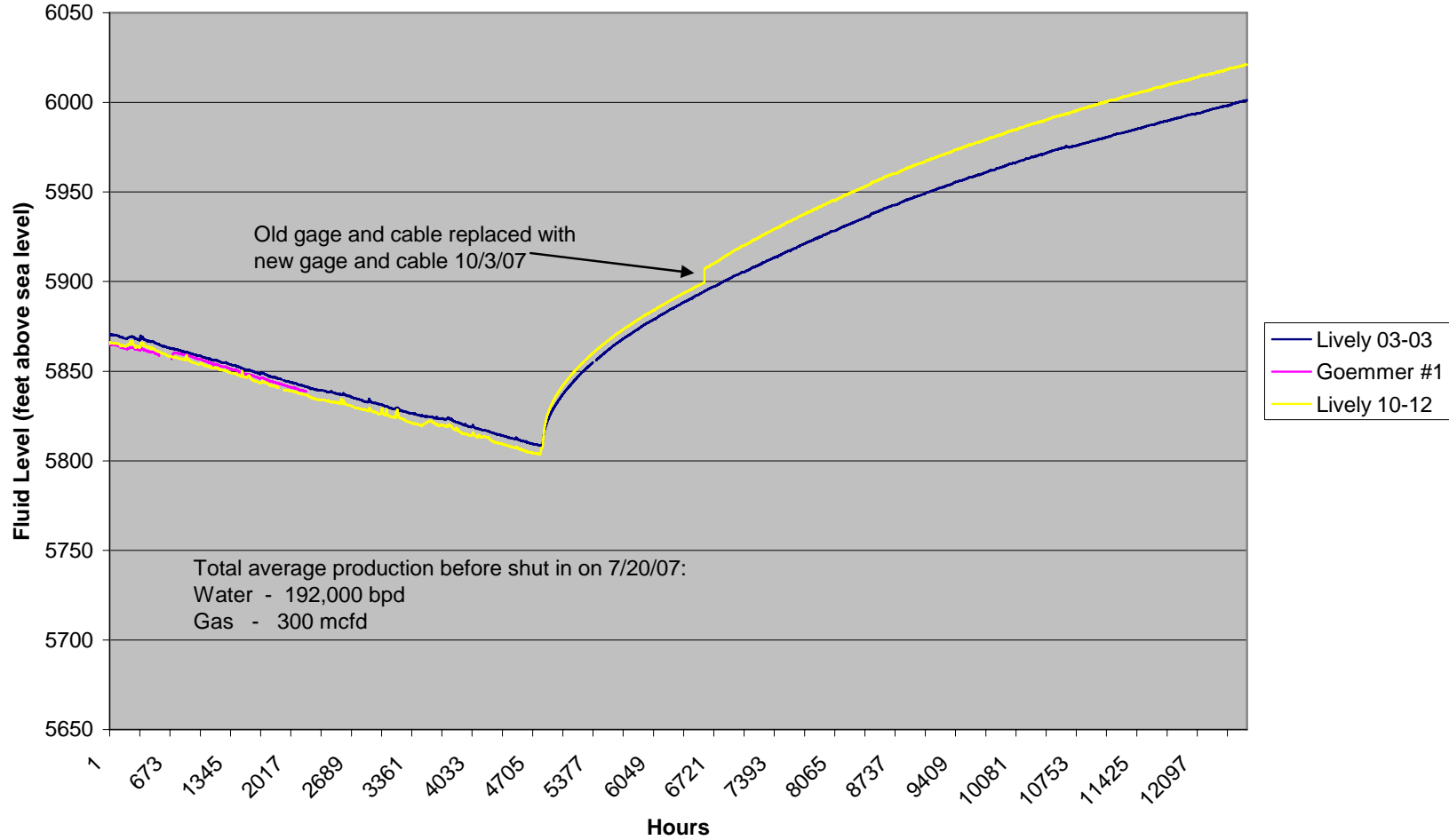


Smith WW # 239657 Measured Gas Flow  
from 8/22/07 to 6/13/08



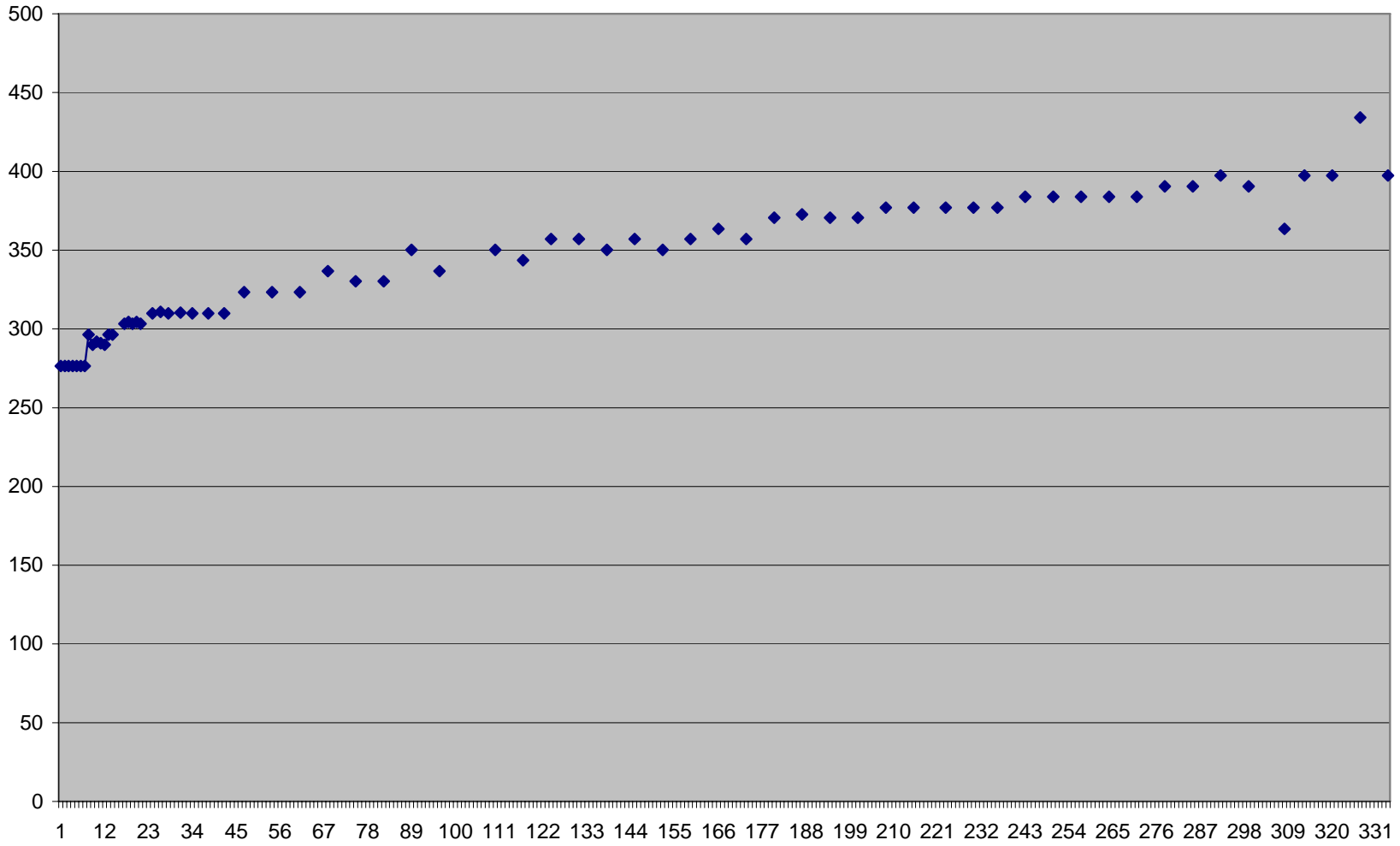
**Attachment 4**  
**Fluid Levels in Petroglyph Production Wells**

**Monitor Well Fluid Levels PBU**  
from 1/1/07 to 6/12/08

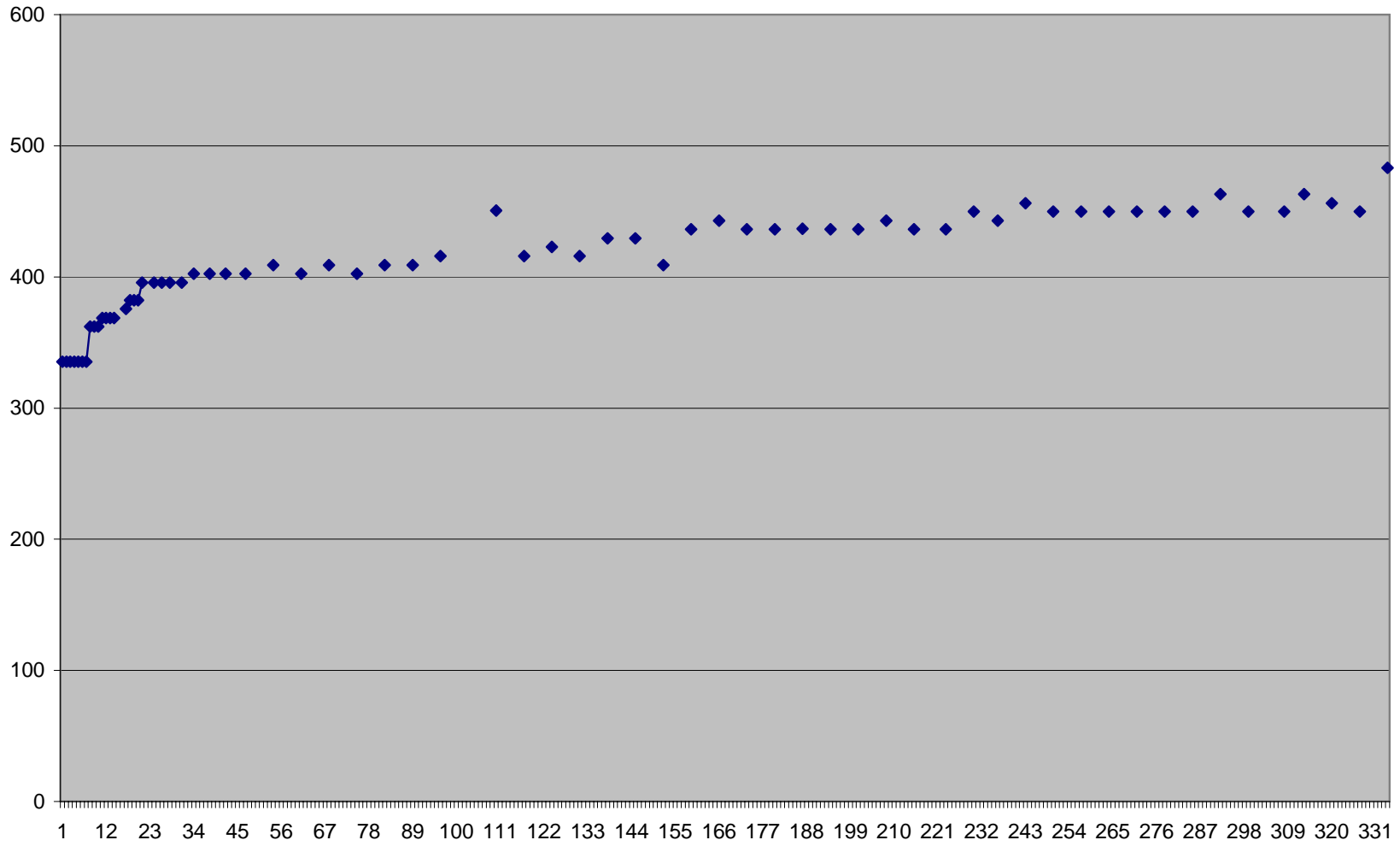




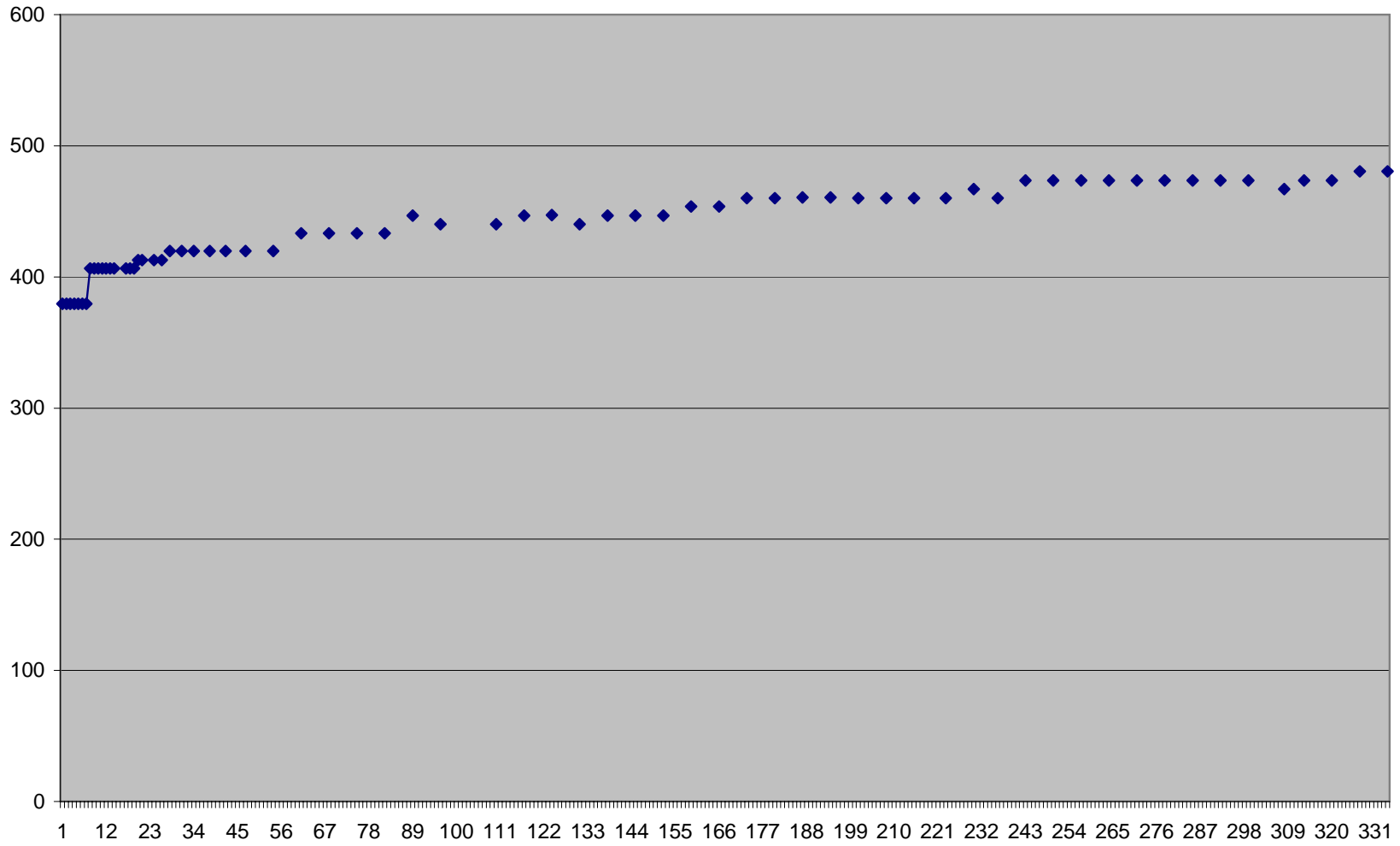
### Lively 02-02



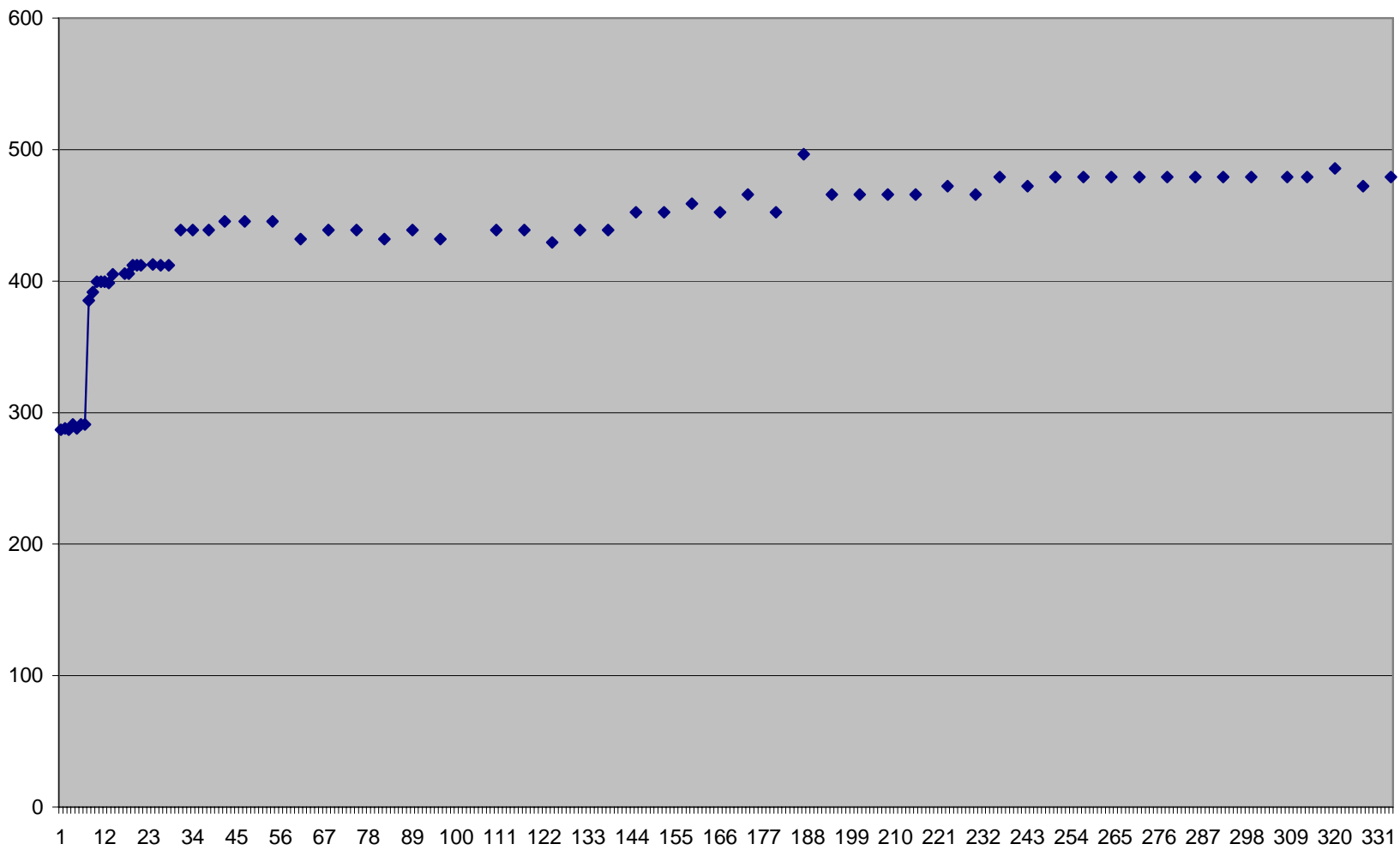
### Lively 02-12



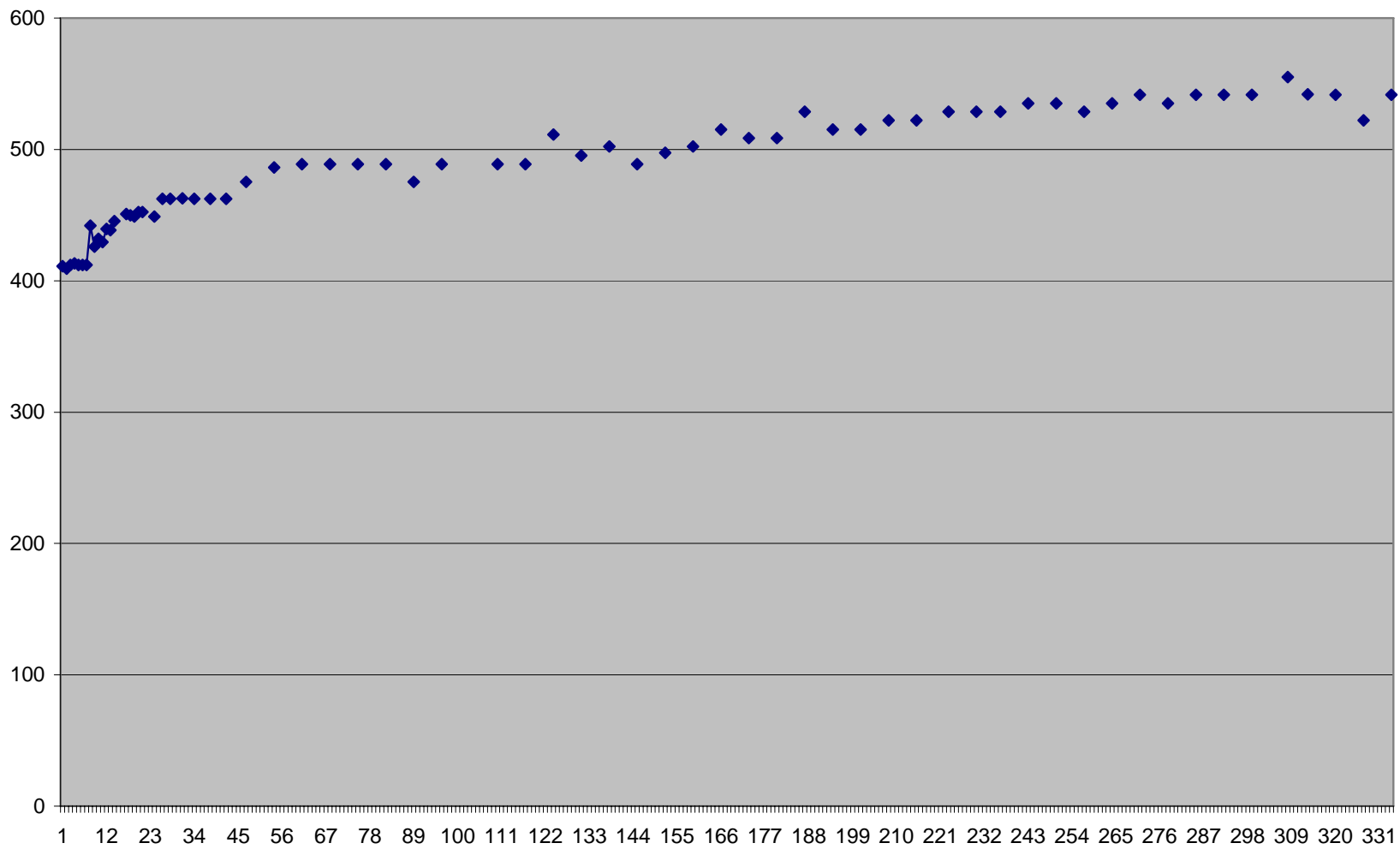
### Lively 03-01



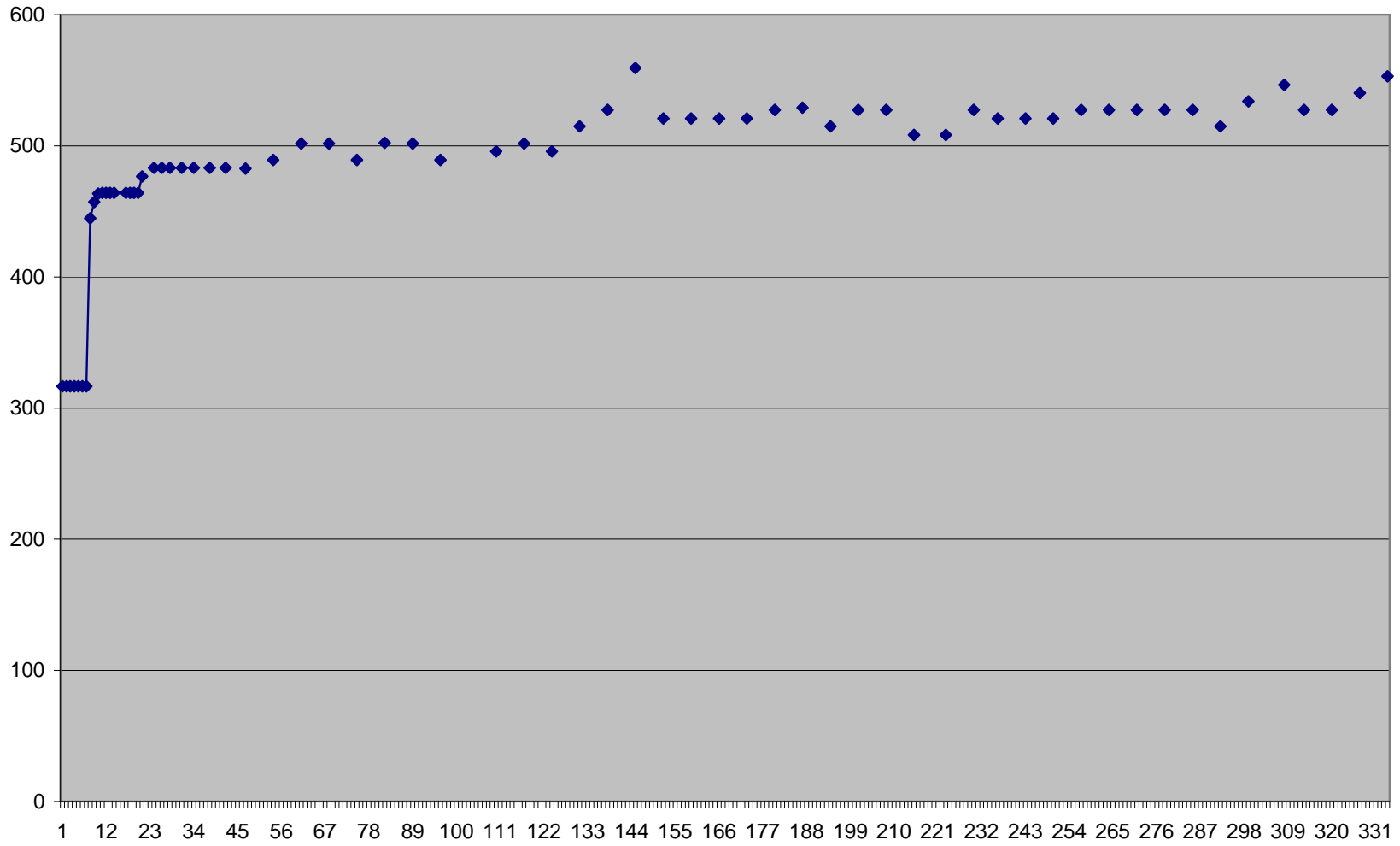
### Lively 03-10



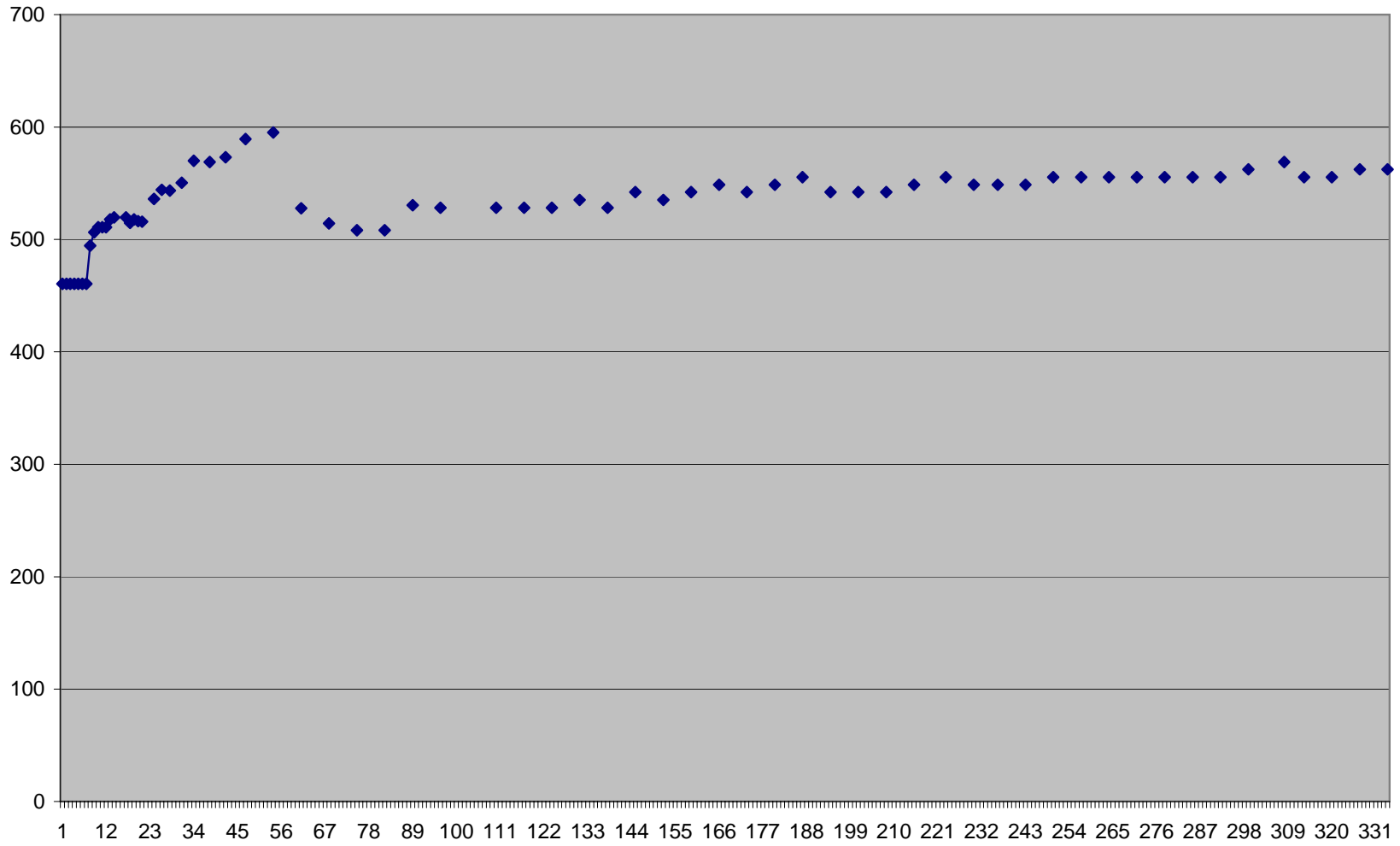
### Lively 03-12



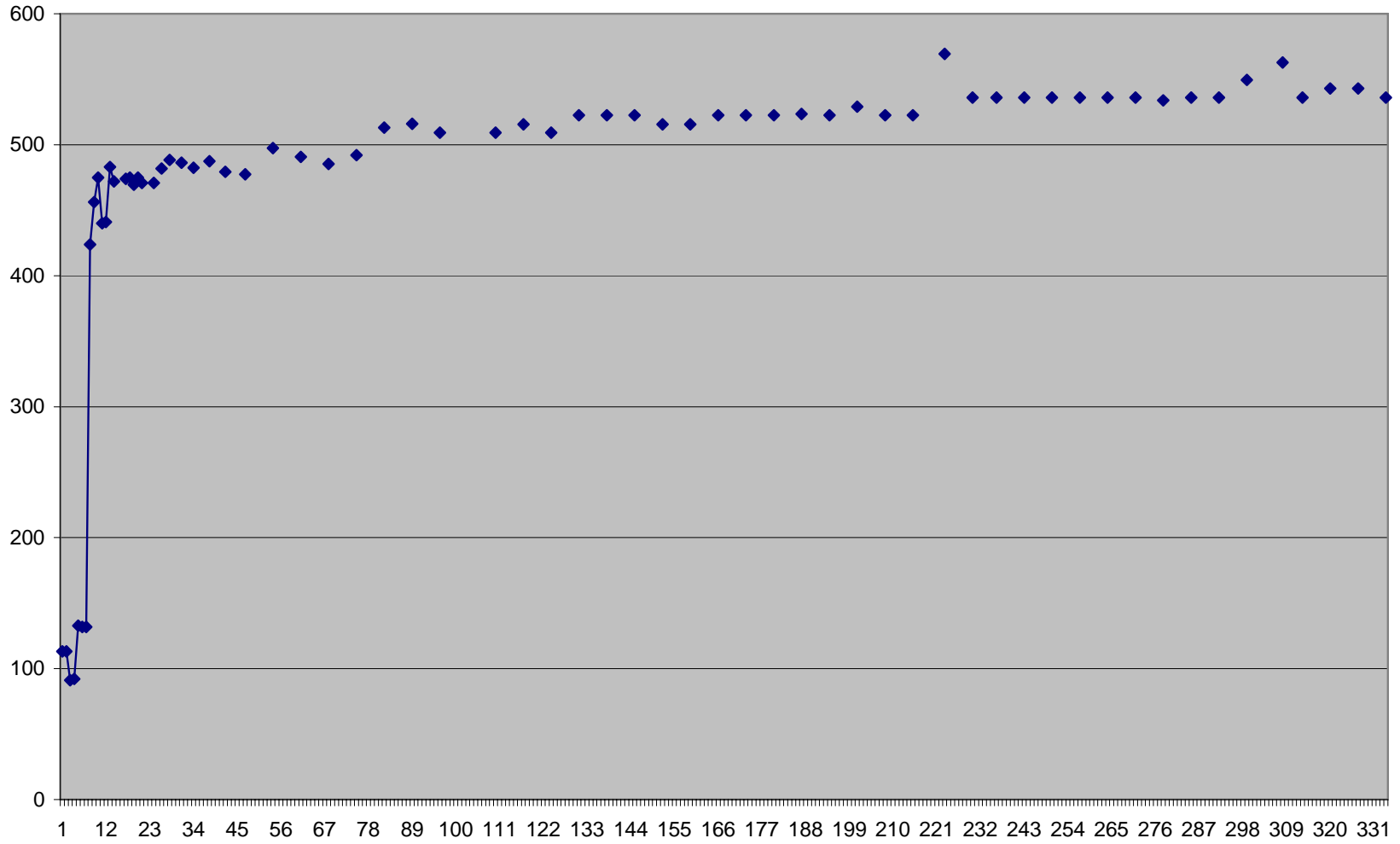
### Lively 10-04



### Rohr 04-10

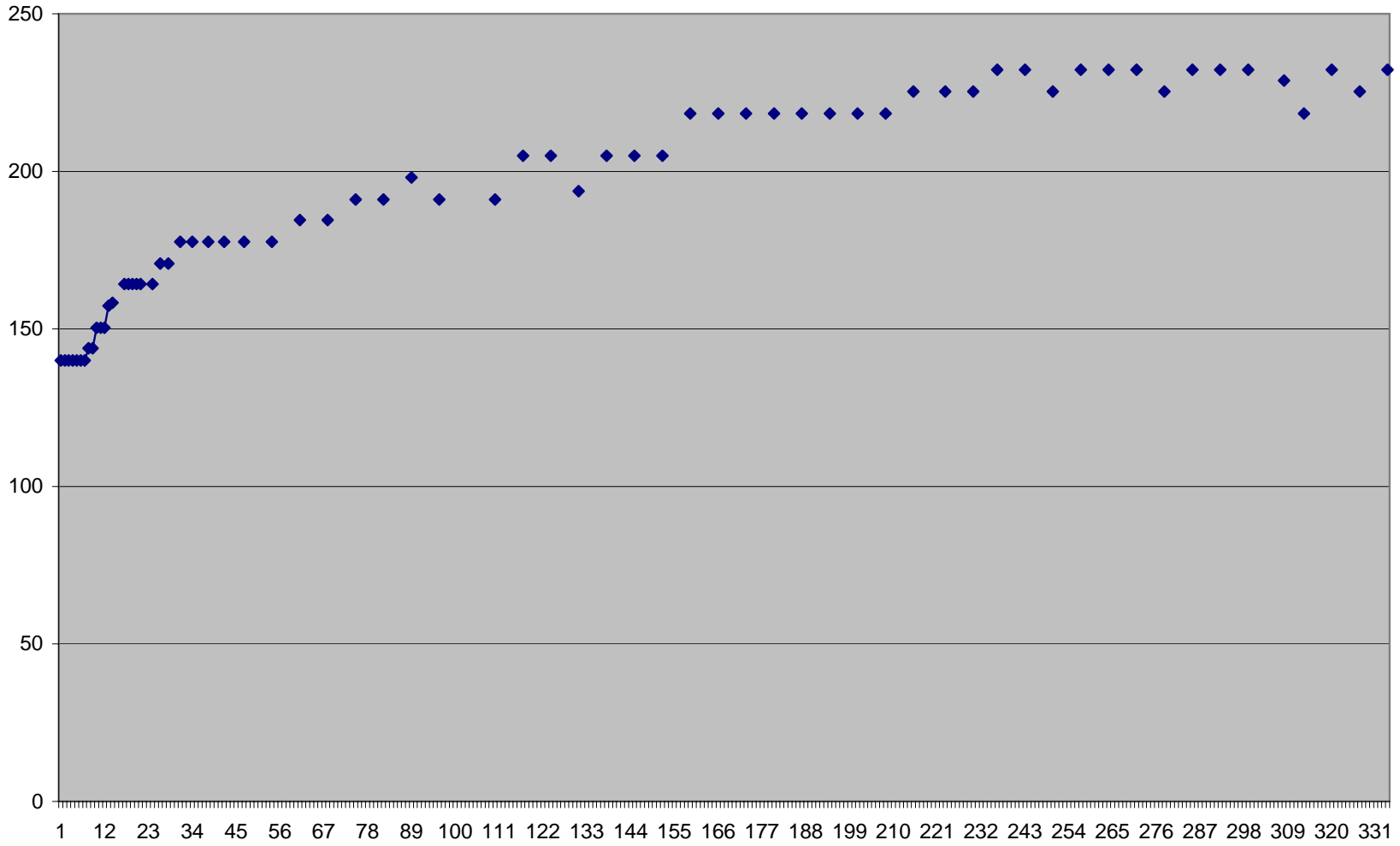


### Rohr 09-10

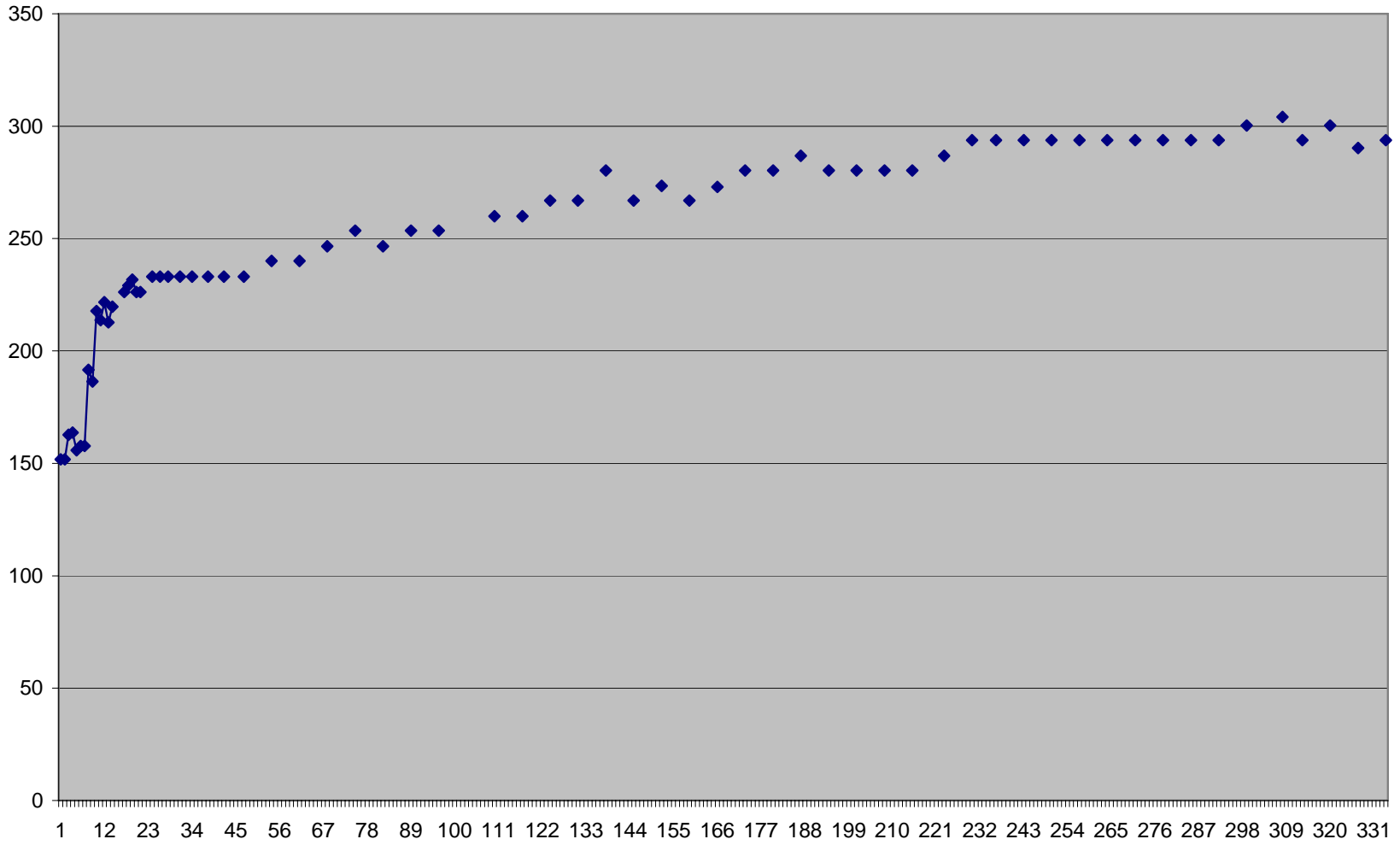




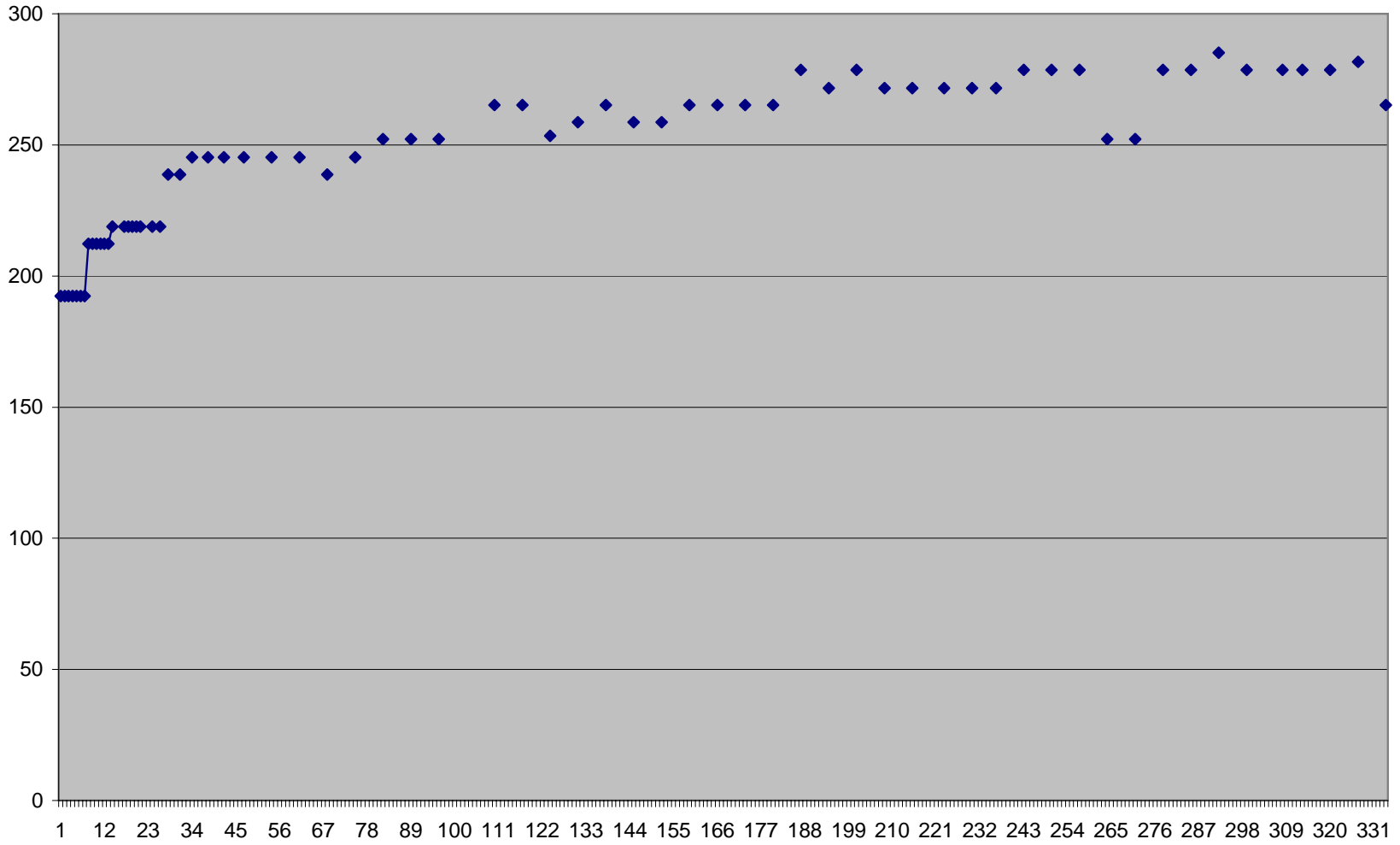
### State 36-02



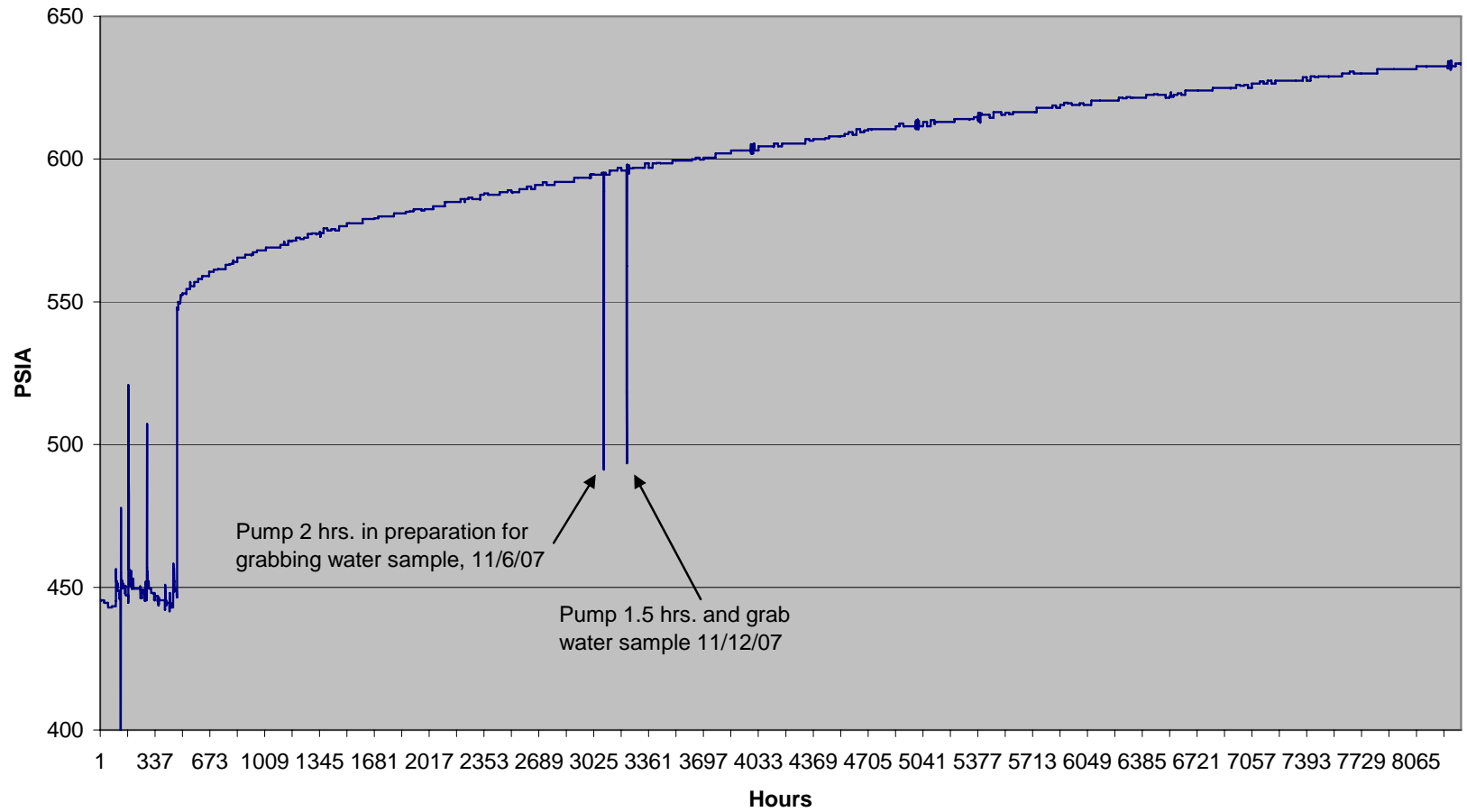
### State 36-05



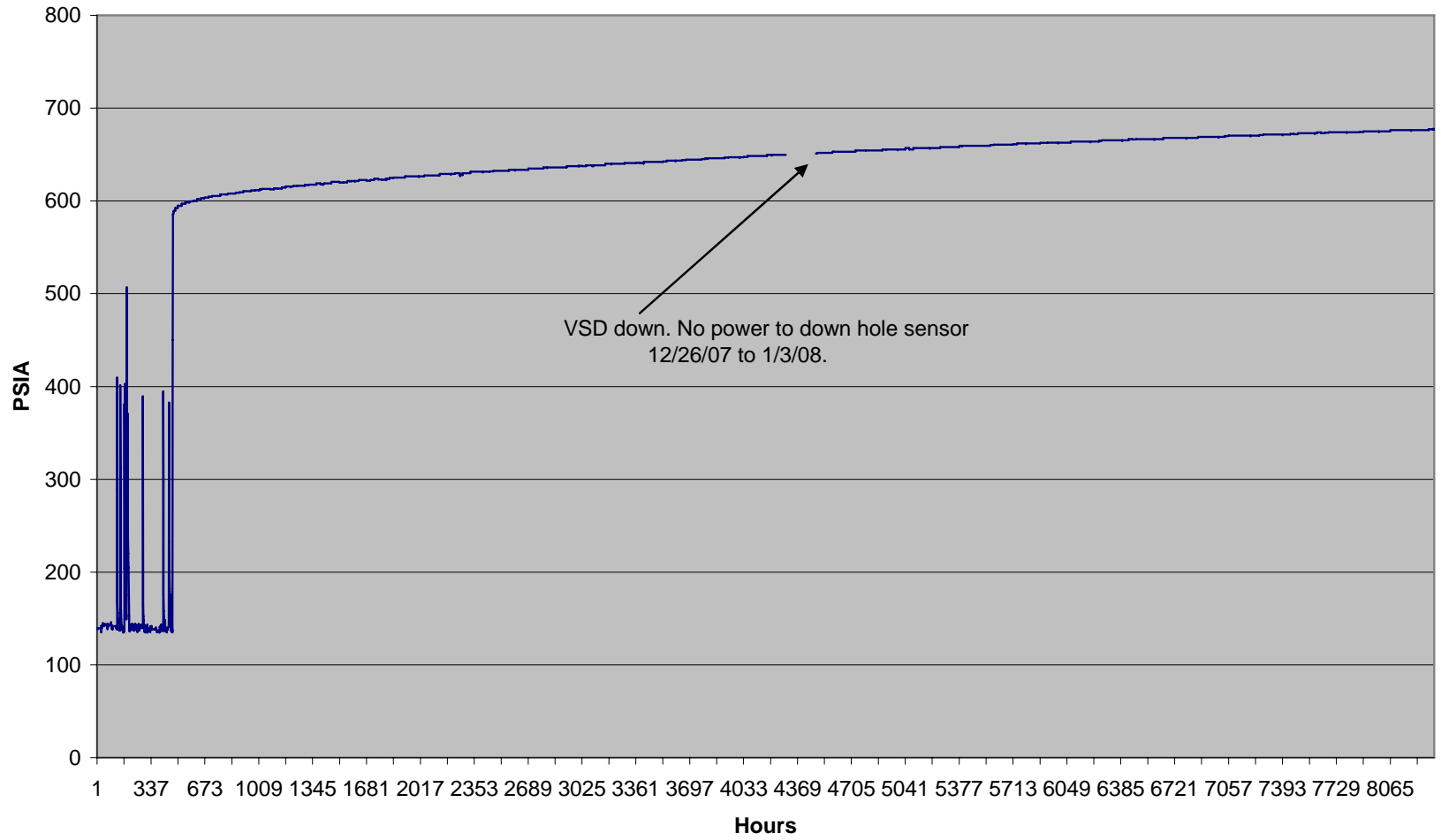
### State 36-11



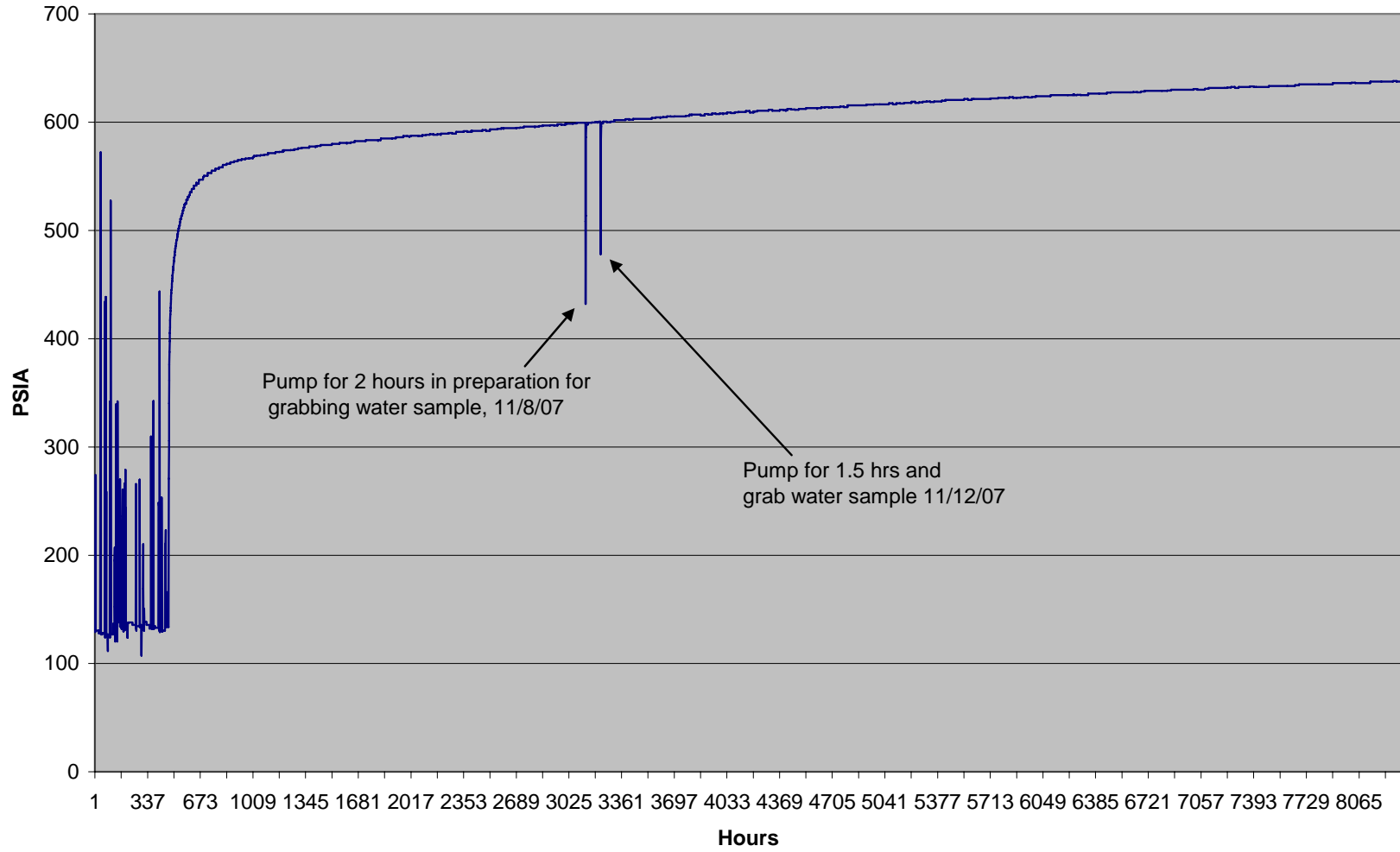
**Rohr 04-14 PBU**  
**from 7/1/07 to 6/12/08**



**Rohr 08-01 PBU**  
**from 7/1/07 to 6/12/08**



Rohr 09-04 PBU data (psia) 7/1/07 to 6/12/08



Rohr 09-05 PBU data (psia) 7/1/07 to 6/12/08

