

Saratoga Springs, Utah
Natural Gas Explosion
February 06, 2007

Appendix # 8

**Combustible Gas Indicator: Calibration Records
TIF 8800: Maintenance and QGC statement**

GA & RGA Calibration History by Unit ID Number

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Unit ID Number : 76

Unit Serial Number : 0512-055540

Unit Model Number : RGA-411

Date	Hr	Min	Unit OK	LE P101	LE A101	O ₂ P102	O ₂ A102	CO P100	CO A100	CO ₂ P101	CO ₂ A101	CO ₂ P102	CO ₂ A102
3/30/2007	9	1	Y	46	50	21.3	20.9	97	100	101	100		
1/10/2007	14	34	Y	46	50	24.2	20.9	114	100	98	100		
1/2/2007	13	47	Y	49	50	20.4	20.9	84	100	102	100		
12/7/2006	15	13	Y	48	50	23.5	20.9	121	100	99	100		
1/30/2006	11	16	Y	40	50	20.9	20.9	91	100	99	100		
11/30/2006	9	47				21.5	20.9						
11/30/2006	8	49				23.4	20.9						
1/30/2006	7	35				21.3	20.9						
1/30/2006	7	28				21.1	20.9						

Last Calibration Data by Unit ID

Friday, March 30, 2007

Detector Serial Number : 0512-055540

Date Calibrated : 3/30/2007

Detector Model Number : RGA-411

Time Calibrated : 9 : 1

Detector Calibration Data Block Check OK (Y/N): Y

Sensor	Calibration Gas	Before	After Cal. Reading	Sensitivity	OK (Y/N)
LEL	50% LEL	46	50	2627	Y
CO	100 ppm	97	100	2343	Y
GAS	Air	4881	4843	7946	Y
GAS	System Gas	101	100	2134	Y
OXYGEN	Air	21.30	20.90	9774	Y
H2S	25 ppm				



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Instruments**

[Redacted]

Friday, February 09, 2007

Detector Serial Number : 0512-055540

Date Calibrated : 1/10/2007

Detector Model Number : RGA-411

Time Calibrated : 14 : 34

[Redacted] Block Check OK (Y/N): Y

LEL	50% LEL	46	50	2819	Y
CO	100 ppm	114	100	2392	Y
GAS	Air	4823	4838	7784	Y
GAS	System Gas	98	100	2122	Y
OXYGEN	Air	24.20	20.90	9901	Y
H2S	25 ppm				

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**Bascom-Turner
Instruments**

Sensor Sensitivity History by Unit ID Number

Unit ID Number : 73

Friday, March 30, 2007

Unit Serial Number : 0512-055540

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Unit Model Number : RGA-411

Date	Hour	Min.	LEL Sens.	OK	GAS Sens.	OK	CO Sens.	OK	O2 Sens.	OK	H2S Sens.	OK
3/30/2007	9	1	2627	Y	2134	Y	2343	Y	9774	Y		
1/10/2007	14	34	2819	Y	2122	Y	2392	Y	9901	Y		
1/2/2007	13	47	2901	Y	2159	Y	2099	Y	9634	Y		
12/7/2006	15	13	2591	Y	2112	Y	2476	Y	10009	Y		
11/30/2006	11	16	2644	Y	2128	Y	2068	Y	10180	Y		
11/30/2006	9	47							10037	Y		
11/30/2006	8	49							9793	Y		
11/30/2006	7	35							8516	Y		
11/30/2006	7	28							8377	Y		
11/30/2006	7	23							8310	Y		
11/30/2006	7	20							8542	Y		
10/17/2006	14	47	3306	Y	2139	Y	2229	Y	10029	Y		
9/13/2006	6	56	3293	Y	2125	Y	2276	Y	10426	Y		
8/9/2006	6	58	3519	Y	2120	Y	2371	Y	10523	Y		
7/25/2006	15	28	3666	Y	2077	Y	2550	Y	10709	Y		
7/5/2006	7	18	3934	Y	2104	Y	2364	Y	10523	Y		
5/31/2006	14	57	4048	Y	2098	Y	2129	Y	10415	Y		
5/31/2006	14	55							10373	Y		
4/28/2006	7	7	4253	Y	2127	Y	2396	Y	9952	Y		
3/27/2006	15	3	4253	Y	2131	Y	2447	Y	9847	Y		
3/14/2006	7	31	4271	Y	2184	Y	2006	Y	9328	Y		
2/28/2006	17	17	4323	Y	2123	Y	2461	Y	9794	Y		
2/23/2006	7	42							9048	Y		
2/23/2006	7	29							8900	Y		
2/23/2006	7	20							9009	Y		
2/23/2006	7	16							9170	Y		
2/23/2006	7	2	4289	Y			2034	Y	9557	Y		
1/23/2006	7	53	4289	Y	2191	Y	2097	Y	8493	Y		
1/23/2006	7	37							9066	Y		
12/22/2005	7	24	4324	Y	2158	Y	2334	Y	9748	Y		
11/18/2005	7	56	4377	Y	2170	Y	1895	Y	9741	Y		
11/18/2005	7	50		N				N	9873	Y		
10/27/2005	9	2	4413	Y	2141	Y	2066	Y	10635	Y		
10/26/2005	7	55	4378	Y	2139	Y	2046	Y	10476	Y		
9/22/2005	7	46	4396	Y	2121	Y	2110	Y	11008	Y		
8/25/2005	7	48	4379	Y	2101	Y	2371	Y	11576	Y		
7/21/2005	7	56	4379	Y	2088	Y	2550	Y	11739	Y		
6/13/2005	11	7	4379	Y	2237	Y	2454	Y	10919	Y		



**Bascom-Turner
Instruments**

Sensor Sensitivity History by Unit ID Number

Unit ID Number : 73

Friday, March 30, 2007

Unit Serial Number : 0512-055540

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Unit Model Number : RGA-411

Date	Hour	Min.	LEL	OK	GAS	OK	CO	OK	O2	OK	H2S	OK
6/1/2005				Y		Y		Y		Y		





Questar Corporation
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May 11, 2007

RECEIVED
DIVISION OF
PUBLIC UTILITIES
MAY 14 A 7:32

Al Zadeh
Lead Engineer
Division of Public Utilities
P.O. Box 146751
Salt Lake City, Utah 84114-6451

Re: *February 6, 2007 Saratoga Springs Incident*

Dear Al:

Please accept this letter in response to your e-mail dated earlier today. I have not yet received the report and the x-rays from the April 18, 2007 testing of the TIF. In fact, we have been unable to even ascertain when the report and x-rays might be available. However, with respect to your specific questions regarding the preliminary findings, please accept this as my understanding of the findings, keeping in mind that I did not perform the tests themselves.

Question 1: The TIF was in the on position;

Question 2: There was no testing done or determination made about the position of the sensitivity knob on the TIF. I believe it is the intention of the TIF manufacturer to complete destructive testing at some point, but no specifics have been discussed or dates set. Quite frankly, I question whether any determination of the position of the sensitivity knob could be trusted due to the fact that the knob could have been easily bumped at some point since February 6, 2007. However, should there be testing of the knob and/or a determination made, we will pass on any findings to you;

Question 3: As I understand it, the preliminary results of the x-rays show that the TIF is in the on position. In addition, the TIF appears to be in very good condition on the inside;

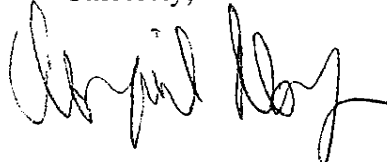
Question 4: I have enclosed the testing sheets from the last three times Larry Radford checked the sensor and the batteries on his TIF. Although we do not keep records about replacement of the sensing tip, the records show the maintenance of the TIF.

QGC00412

Al Zadeh
May 11, 2007
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Please let me know if you have any other questions or need any further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Abigail Magrane', written in a cursive style.

Abigail E. Magrane

AME/pr

Z:\04793\Saratoga Springs\LTR Al Zadeh 5-11-07.doc

QUESTAR**DRIVER'S MONTHLY VEHICLE SAFETY CHECKLIST****MVS**

Vehicle No. 7847	Odometer Reading 27410	Fire Extinguisher No. VK652350	Today's Date 1-25-07
Mark as: <input checked="" type="checkbox"/> = okay <input type="checkbox"/> = unsatisfactory <input type="checkbox"/> N/A = not applicable			
<input checked="" type="checkbox"/> Emergency Triangles, Cones and/or Flares	<input type="checkbox"/> Wipers / Heater / Defroster	<input checked="" type="checkbox"/> Bonding Cable	
<input checked="" type="checkbox"/> Mirrors, Windshield	<input type="checkbox"/> Spare Tire / Jack / Lugwrench	<input checked="" type="checkbox"/> Monitors (CGI, TIFF, CO) (charged and calibrated)	
<input checked="" type="checkbox"/> Wheel Chocks	<input checked="" type="checkbox"/> Hoist	<input type="checkbox"/> Flashlight	
<input checked="" type="checkbox"/> Horn	<input checked="" type="checkbox"/> Safety Vests / Hard Hats	<input type="checkbox"/> Ladders (Secure and good condition)	
<input checked="" type="checkbox"/> Brakes (Emergency, Foot)	<input type="checkbox"/> First Aid Kit	<input checked="" type="checkbox"/> Cylinders (Secure, Labeled, Valves off)	
<input checked="" type="checkbox"/> Steering Play	<input type="checkbox"/> Fire Extinguisher	<input checked="" type="checkbox"/> Hazardous materials (Labeled, Secured, Shipping Paper)	
<input checked="" type="checkbox"/> Seat Belts	<input checked="" type="checkbox"/> Eye/Ear/Respiratory Protection		
<input type="checkbox"/> Lights/Reflectors (Head - Tail - Signal - Brake - Clearance - Emergency Flashers)	<input checked="" type="checkbox"/> Accident Checklist (In glovebox)		
	<input checked="" type="checkbox"/> Fluids/Belts/Hoses		
Explain Unsatisfactory Items (Above):			
Driver's Signature X <i>L. Reed</i>		Driver's License Expiration Date 8-17-2010	Supervisor's Signature X <i>[Signature]</i>
DISTRIBUTION: TURN INTO SUPERVISOR MONTHLY			

54821 05/03

QUESTAR**DRIVER'S MONTHLY VEHICLE SAFETY CHECKLIST****MVS**

Vehicle No. 7847	Odometer Reading 26255	Fire Extinguisher No. VK652350	Today's Date 12-21-05
Mark as: <input checked="" type="checkbox"/> = okay <input type="checkbox"/> = unsatisfactory <input type="checkbox"/> N/A = not applicable			
<input checked="" type="checkbox"/> Emergency Triangles, Cones and/or Flares	<input checked="" type="checkbox"/> Wipers / Heater / Defroster	<input checked="" type="checkbox"/> Bonding Cable	
<input checked="" type="checkbox"/> Mirrors, Windshield	<input checked="" type="checkbox"/> Spare Tire / Jack / Lugwrench	<input checked="" type="checkbox"/> Monitors (CGI, TIFF, CO) (charged and calibrated)	
<input checked="" type="checkbox"/> Wheel Chocks	<input checked="" type="checkbox"/> Hoist	<input checked="" type="checkbox"/> Flashlight	
<input checked="" type="checkbox"/> Horn	<input checked="" type="checkbox"/> Safety Vests / Hard Hats	<input checked="" type="checkbox"/> Ladders (Secure and good condition)	
<input checked="" type="checkbox"/> Brakes (Emergency, Foot)	<input checked="" type="checkbox"/> First Aid Kit	<input checked="" type="checkbox"/> Cylinders (Secure, Labeled, Valves off)	
<input checked="" type="checkbox"/> Steering Play	<input checked="" type="checkbox"/> Fire Extinguisher	<input checked="" type="checkbox"/> Hazardous materials (Labeled, Secured, Shipping Paper)	
<input checked="" type="checkbox"/> Seat Belts	<input checked="" type="checkbox"/> Eye/Ear/Respiratory Protection		
<input checked="" type="checkbox"/> Lights/Reflectors (Head - Tail - Signal - Brake - Clearance - Emergency Flashers)	<input checked="" type="checkbox"/> Accident Checklist (In glovebox)		
	<input checked="" type="checkbox"/> Fluids/Belts/Hoses		
Explain Unsatisfactory Items (Above):			
Driver's Signature X <i>[Signature]</i>		Driver's License Expiration Date 8-17-2010	Supervisor's Signature X <i>[Signature]</i>
DISTRIBUTION: TURN INTO SUPERVISOR MONTHLY			

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QUESTAR**DRIVER'S MONTHLY VEHICLE SAFETY CHECKLIST****MVS**

Vehicle No. 7847	Odometer Reading 24904	Fire Extinguisher No. VK652350	Today's Date 11-27-06
Mark as: <input checked="" type="checkbox"/> = okay <input type="checkbox"/> = unsatisfactory <input type="checkbox"/> N/A = not applicable			
<input checked="" type="checkbox"/> Emergency Triangles, Cones and/or Flares	<input checked="" type="checkbox"/> Wipers / Heater / Defroster	<input checked="" type="checkbox"/> Bonding Cable	
<input checked="" type="checkbox"/> Mirrors, Windshield	<input checked="" type="checkbox"/> Spare Tire / Jack / Lugwrench	<input checked="" type="checkbox"/> Monitors (CGI, TIFF, CO) (charged and calibrated)	
<input checked="" type="checkbox"/> Wheel Chocks	<input checked="" type="checkbox"/> Hoist	<input checked="" type="checkbox"/> Flashlight	
<input checked="" type="checkbox"/> Horn	<input checked="" type="checkbox"/> Safety Vests / Hard Hats	<input checked="" type="checkbox"/> Ladders (Secure and good condition)	
<input checked="" type="checkbox"/> Brakes (Emergency, Foot)	<input checked="" type="checkbox"/> First Aid Kit	<input checked="" type="checkbox"/> Cylinders (Secure, Labeled, Valves off)	
<input checked="" type="checkbox"/> Steering Play	<input checked="" type="checkbox"/> Fire Extinguisher	<input checked="" type="checkbox"/> Hazardous materials (Labeled, Secured, Shipping Paper)	
<input checked="" type="checkbox"/> Seat Belts	<input checked="" type="checkbox"/> Eye/Ear/Respiratory Protection		
<input checked="" type="checkbox"/> Lights/Reflectors (Head - Tail - Signal - Brake - Clearance - Emergency Flashers)	<input checked="" type="checkbox"/> Accident Checklist (In glovebox)		
	<input checked="" type="checkbox"/> Fluids/Belts/Hoses		
Explain Unsatisfactory Items (Above):			
Driver's Signature X <i>[Signature]</i>		Driver's License Expiration Date 8-17-2010	Supervisor's Signature X <i>[Signature]</i>
DISTRIBUTION: TURN INTO SUPERVISOR MONTHLY			

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