

Texas Commission on Environmental Quality Investigation Report

**WILLIAMS BARNETT GATHERING SYSTEM LP
CN602903742**

WILSON COMPRESSOR STATION

RN105118483

Investigation # 795994

Incident #

Investigator: XIN RAO

Site Classification

MIN 26-75 FINS

Conducted: 01/21/2010 -- 01/21/2010

SIC Code: 1311

NAIC Code: 211111

Program(s): AIR NEW SOURCE
PERMITS

Investigation Type : Compliance Investigation

Location : APPROX 1000 FT SOUTHEAST
OF THE INTERSECTION OF CROSS
TIMBERS RD AND SCENIC DR IN FLOWER
MOUND

Additional ID(s) : 80497

Address : , ,

Activity Type :

REGION 04 - DFW METROPLEX
FIAIRMON - FI AIR MON - Air Focused Investigation for
General Monitoring
GFIR - Air - Gas Find IR

Principal(s) :

Role	Name
RESPONDENT	WILLIAMS BARNETT GATHERING SYSTEM LP

Contact(s) :

Role	Title	Name	Phone
Regulated Entity Contact	ENVIRONMENTAL SPECIALIST	MR JEFF STOVALL	Cell (817) 657-3729 Fax (817) 244-7323 Work (817) 560-5061

Other Staff Member(s) :

Role	Name
Supervisor	EJAZ BAIG
Investigator	KARA ALLEN

Associated Check List

<u>Checklist Name</u>	<u>Unit Name</u>
AIR FOCUSED INVESTIGATION - EQUIPMENT MONITORING	Sam Wilson Compressor
AIR FOCUSED INVESTIGATION - GENERAL MONITORING	Sam Wilson Compressor

Investigation Comments :

INTRODUCTION

In response to ambient monitoring reports showing elevated levels of various compounds around natural gas sites in the Barnett Shale area and due to increased interest from the public, media,

WILSON COMPRESSOR STATION - FLOWER MOUND

1/21/2010 Inv. # - 795994

Page 2 of 4

and elected officials, a Focused Investigation - General Monitoring investigation using GasFindIR camera and MiniRae 2000 Photoionization Detector (MiniRae) (FI AIR MON/GFIR/MiniRae) was conducted to evaluate equipment and to identify any significant sources of volatile organic compound (VOC) emissions at Williams Barnett Gathering System's Sam Wilson 1H, 2H, 3H, 4H, and 7H site (Williams - Sam Wilson), located at 4170 Scenic Drive, approximately 1500 feet southeast of the intersection of Farm to Market Road (FM) 1171 and Scenic Drive in Flower Mound, Denton County, Texas. The investigation was conducted by Ms. Xin Rao (the writer) and Ms. Kara Allen, both of the TCEQ DFW Region Air Section. During the investigation, the following portions of the facility were evaluated: 18 produced water tanks, two separators, two contactors, two glycol dehydration units, three wellheads, two compressors in enclosed buildings. The area surrounding the facility is relatively flat and is primarily pastureland to the north, northeast, east, southeast, and west. The nearest residence was located approximately 1000 feet to the northwest of the facility.

Daily Narrative

On January 21, 2010, the investigators arrived at Williams - Sam Wilson at 8:15 AM. The investigators proceeded to Location 1 approximately 700 feet west of the facility on Scenic Drive (Attachment 1 for a Survey Map). Off-site observation at Location 1 with the GasFindIR camera did not reveal any emissions from the facility. The MiniRae readings averaged 0.0 parts per million (ppm) with a peak value of 0.0 ppm.

The investigators proceeded to Location 2 at the entrance of Williams - Sam Wilson approximately 240 feet northwest of the facility. The MiniRae readings averaged 0.0 parts per million (ppm) with a peak value of 0.0 ppm. Heat waves from the glycol re-boil stack and one of the compressor stack were noted by the GasFindIR camera. The GasFindIR camera did not detect any VOC emissions from the produced water tanks, separators, contactors, glycol dehydration unit, and compressors.

At the time of the investigation, the meteorological conditions were: clear sky with the wind out of the west at 3.5 miles per hour (mph), the temperature was 52 degrees Fahrenheit (F), and the relative humidity was 50.8%.

The investigators then proceeded to Location 3 approximately 2300 feet southeast (downwind) of the facility at 9:56 AM. The wind was out of northwest at 4.5 mph, the temperature was 54 degrees F, and the relative humidity was 62.8%. The MiniRae reading averaged 0.0 ppm with a peak value of 0.7 ppm. A Summa canister air sample was taken at this location.

During the survey both upwind and downwind of the facility, no odors were noted on the survey route (Attachment 1 for a Survey Map).

The Summa sample was sent to the TCEQ Austin Laboratory for analysis of VOCs using Gas Chromatograph/Mass Spectrum (GC/MS). The laboratory analysis results showed no compounds exceeding their respective short-term or long-term Effects Screening Levels (ESLs) (Attachment 2, Summa Sample Laboratory Analysis Results).

Exit Interview

At the time of the investigation, Mr. Jeff Stovall, Environmental Specialist, Williams met with the investigators, and was advised of the monitoring event, and the preliminary findings.

GENERAL FACILITY AND PROCESS INFORMATION

Process Description

Williams - Sam Wilson is registered with the TCEQ under Permit by Rule (PBR) 30 Texas Administrative Code (TAC) 106.512 - Stationary Engines and Turbines (Registration No. 80497). The facility is a natural gas gathering and processing facility. The equipment on-site includes 18 produced water tanks, two separators, two contactors, two glycol dehydration units, three completed wellheads, and two compressors. Natural gas is collected at well heads. Liquids are removed from the gas using separators and two glycol dehydrators. Each dehydrator has a natural gas fired reboiler. Produced water is stored in the produced water tanks. No condensate was

WILSON COMPRESSOR STATION - FLOWER MOUND

1/21/2010 Inv. # - 795994

Page 3 of 4

produced. The produced water is removed periodically by tank truck for off-site disposal. The compressors compress the gas for transmission down the pipeline.

BACKGROUND

Monitoring Results

During the investigation, no emissions were observed using the GasFindIR camera. The MiniRae readings averaged 0.0 ppm with a peak value of 0.0 ppm at a location approximately 240 feet upwind of the facility. The MiniRae readings averaged 0.0 ppm with a peak value of 0.7 ppm at a location approximately 2300 feet downwind of the facility. Analysis of the Summa canister air sample did not show any VOCs exceeding their respective short-term or long-term ESLs.

Current Enforcement Actions

There were no violations noted during this investigation.

Agreed Orders, Court Orders, and other Compliance Agreements

There have been no orders or other compliance agreements for this facility regarding air quality within the past five years.

Prior Enforcement Issues

There have been no prior enforcement issues for this facility regarding air quality within the past five years.

Complaints

During the past five years, there has been one odor complaint against Williams - Sam Wilson. The complaint investigation was still open at this time.

ADDITIONAL INFORMATION

Conclusions and Recommendations

No emissions were observed using the GasFindIR camera. The MiniRae readings averaged 0.0 ppm with a peak value of 0.0 ppm at a location approximately 240 feet upwind of the facility. The MiniRae readings averaged 0.0 ppm with a peak value of 0.7 ppm at a location approximately 2300 feet downwind of the facility. Analysis of the Summa canister air sample did not show any VOCs exceeding their respective short-term or long-term ESLs.

Additional Issues

A more in-depth investigation is not warranted at this time.

Attachments

1. Survey Map
2. Summa Sample Laboratory Analysis Results

No Violations Associated to this Investigation


WILSON COMPRESSOR STATION - FLOWER MOUND

1/21/2010 Inv. # - 795994

Page 4 of 4

Signed 
Environmental Investigator

Date 3/18/10

Signed 
Supervisor

Date 03-18-10

Attachments: (in order of final report submittal)

- Enforcement Action Request (EAR)
- Letter to Facility (specify type) : _____
- Investigation Report
- Sample Analysis Results
- Manifests
- NOR

- Maps, Plans, Sketches
- Photographs
- Correspondence from the facility
- Other (specify) :

See above

TCEQ

Region 4 - DFW



Attachment 1

Survey Map

Williams Barnett Gathering System LP/Wilson

Compressor Station

RN105118483

CN602903742

January 21, 2010

Investigation #795994



Odor Survey Route

Location 1 – At 8:15 AM, no odor was noted. MiniRae readings averaged 0.0 ppm.

Location 2 – No odor was noted. MiniRae readings averaged 0.0 ppm.

Location 3 – At 10:25 AM, no odor was noted. MiniRae readings averaged 0.0 ppm. A Summa canister air sample was taken at this location. Wind out of northwest at 3.2 mph.

TCEQ

Region 4 - DFW



Attachment 2

Summa Sample Laboratory Analysis Results

Williams Barnett Gathering System LP/Wilson

Compressor Station

RN105118483

CN602903742

January 21, 2010

Investigation #795994

Texas Commission on Environmental Quality

Laboratory and Quality Assurance Section

P.O. Box 13087

Austin, Texas 78711

(512) 239-1716

*Wilson Compressor Station***Laboratory Analysis Results****ACL Number: 100129**

ACL Lead: Karen Bachtel

Region: T04

Date Received: 1/22/2010

Project(s): Barnett Shale

Facility(ies) Sampled	City	County	Facility Type
William Production Gulf Coast, LP	Flower Mound	Denton	

Laboratory Procedure(s) Performed:

Analysis: AMOR006

Determination of VOC Canisters by GC/MS Using Modified Method TO-15

Procedure:

Prior to analysis, subatmospheric samples are pressurized to twice the collected volume using a sample dilution system. For analysis, a known volume of a sample is directed from the canister into a multitrap cryogenic concentrator. Internal standards are added to the sample stream prior to the trap. The concentrated sample is thermally desorbed and carried onto a GC column for separation. The analytical strategy involves using a GC with dual columns that are coupled to a mass selective detector (MSD) and a flame ionization detector (FID). Mass spectra for individual peaks in the total ion chromatogram are then used for target compound identification and quantitation. The fragmentation pattern is compared with stored spectra taken under similar conditions in order to identify the compound. For any given compound, the intensity of the quantitation fragment is compared with the system response to the fragment for known amounts of the compound. This establishes the compound concentration in the sample. For non-target compound peaks which are at least one-half the height of the internal standard, a library search is performed in an attempt to identify the compound solely upon fracture patterns. These tentatively identified compounds (TIC's) are reported as a sample specific footnote. Accurate quantitation of TICs is not possible. The FID is used for the quantitation of ethane, ethylene, acetylene, propylene and propane and identification is based on matching retention times of standards containing known analytes.

Sample(s) Received

Field ID Number: N1629

Laboratory Sample Number: 100129-0001

Sampled by: Xin Rao

Sampling Site: Downwind of Site, on Skillern Rd.

Date & Time Sampled: 01/21/10 09:56:00 Valid Sample: Yes

Comments:

Canister #N1629 was used as a grab sample.

Sample(s) Screening

Texas Commission on Environmental Quality

Laboratory and Quality Assurance Section

P.O. Box 13087

Austin, Texas 78711

(512) 239-1716

Laboratory Analysis Results**ACL Number: 100129**Sample(s) Screening

As a routine procedure, the data from this (these) sample(s) have been screened. No target compounds were detected at or above the Appropriate Comparison Value. Therefore, the TCEQ's Toxicology Division expects no adverse health effects or odors and will not review the data further. Please note that this analytical technique is not capable of measuring all compounds which might have the potential to cause adverse health effects or odors. For questions on the analytical procedures please contact the laboratory manager at (512)-239-5853. If further health effects evaluation is desired please contact the Toxicology Division at (512)-239-1795.

Analyst:

J.P. Loh

Jian-ping Loh

Date:

1/27/10

Reviewed By:

Karen Bachtel

[Signature]

Date:

1/27/10

Section Manager:

Steve Stubbs

[Signature] for SS

Date:

1/28/10

Laboratory Analysis Results

ACL Number: 100129

Analysis Code: AMOR006

Note: Results are reported in units of parts per billion by volume (ppbv)

Lab ID			100129-0001					
Field ID			N1629					
Canister ID			N1629					
Analysis Date			01/25/10					
Compound	ESL	LOD	Concentration	SDL	Flags**	Concentration	SDL	Flags**
ethane	10000	0.50	16	1.0				
ethylene	1200	0.50	ND	1.0				
acetylene	25000	0.50	0.37	1.0	J			
propane	10000	0.50	11	1.0				
propylene	5000	0.50	ND	1.0				
dichlorodifluoromethane	10000	0.20	0.56	0.40	L			
methyl chloride	500	0.20	0.50	0.40	L			
isobutane	2000	0.23	2.3	0.46	L			
vinyl chloride	26000	0.17	ND	0.34				
1-butene	360	0.20	0.10	0.40	J			
1,3-butadiene	230	0.27	ND	0.54				
n-butane	8000	0.20	4.5	0.40				
t-2-butene	2100	0.18	ND	0.36				
bromomethane	30	0.27	ND	0.54				
c-2-butene	2100	0.27	ND	0.54				
3-methyl-1-butene	250	0.23	ND	0.46				
isopentane	1200	0.27	1.1	0.54	L			
trichlorofluoromethane	5000	0.29	0.24	0.58	J			
1-pentene	100	0.27	ND	0.54				
n-pentane	1200	0.27	1.1	0.54	L			
isoprene	5.0	0.27	ND	0.54				
t-2-pentene	2600	0.27	ND	0.54				
1,1-dichloroethylene	180	0.18	ND	0.36				
c-2-pentene	2600	0.25	ND	0.50				
methylene chloride	75	0.14	0.06	0.28	J			
2-methyl-2-butene	250	0.23	ND	0.46				
2,2-dimethylbutane	1000	0.21	0.04	0.42	J			
cyclopentene	2900	0.20	ND	0.40				
4-methyl-1-pentene	20	0.22	ND	0.44				
1,1-dichloroethane	1000	0.19	ND	0.38				
cyclopentane	1200	0.27	0.07	0.54	J			
2,3-dimethylbutane	990	0.28	ND	0.56				
2-methylpentane	83	0.27	0.23	0.54	J			
3-methylpentane	1000	0.23	0.15	0.46	J			
2-methyl-1-pentene + 1-hexene	20	0.20	ND	0.40				
n-hexane	1500	0.20	0.34	0.40	J			
chloroform	20	0.21	0.02	0.42	J			
t-2-hexene	500	0.27	ND	0.54				
c-2-hexene	500	0.27	ND	0.54				
1,2-dichloroethane	40	0.27	ND	0.54				
methylcyclopentane	750	0.27	0.18	0.54	J			
2,4-dimethylpentane	850	0.27	ND	0.54				
1,1,1-trichloroethane	2000	0.26	ND	0.52				
benzene	180	0.27	0.16	0.54	J			
carbon tetrachloride	20	0.27	0.10	0.54	J			
cyclohexane	420	0.24	0.19	0.48	J			
2-methylhexane	750	0.27	ND	0.54				
2,3-dimethylpentane	850	0.26	0.02	0.52	J			

Laboratory Analysis Results

ACL Number: 100129

Analysis Code: AMOR006

Note: Results are reported in units of parts per billion by volume (ppbv)

Lab ID	100129-0001							
	ESL	LOD	Concentration	SDL	Flags**	Concentration	SDL	Flags**
3-methylhexane	750	0.20	0.09	0.40	J			
1,2-dichloropropane	100	0.17	ND	0.34				
trichloroethylene	100	0.29	ND	0.58				
2,2,4-trimethylpentane	750	0.24	0.01	0.48	J			
2-chloropentane	190	0.27	ND	0.54				
n-heptane	670	0.25	0.10	0.50	J			
c-1,3-dichloropropylene	10	0.20	ND	0.40				
methylcyclohexane	150	0.26	ND	0.52				
t-1,3-dichloropropylene	10	0.20	ND	0.40				
1,1,2-trichloroethane	100	0.21	ND	0.42				
2,3,4-trimethylpentane	750	0.24	ND	0.48				
toluene	170	0.27	0.30	0.54	J			
2-methylheptane	750	0.20	ND	0.40				
3-methylheptane	750	0.23	0.02	0.46	J			
1,2-dibromoethane	0.50	0.20	ND	0.40				
n-octane	750	0.19	0.05	0.38	J,AI			
tetrachloroethylene	770	0.24	ND	0.48				
chlorobenzene	100	0.27	ND	0.54				
ethylbenzene	460	0.27	0.06	0.54	J			
m & p-xylene	80	0.27	0.17	0.54	J			
styrene	25	0.27	ND	0.54				
1,1,2,2-tetrachloroethane	10	0.20	ND	0.40				
o-xylene	380	0.27	ND	0.54				
n-nonane	2000	0.22	ND	0.44				
isopropylbenzene	100	0.24	ND	0.48				
n-propylbenzene	3.8	0.27	ND	0.54				
m-ethyltoluene	18	0.11	ND	0.22				
p-ethyltoluene	8.3	0.16	ND	0.32				
1,3,5-trimethylbenzene	250	0.25	ND	0.50				
o-ethyltoluene	250	0.13	ND	0.26				
1,2,4-trimethylbenzene	250	0.27	ND	0.54				
n-decane	620	0.27	ND	0.54				
1,2,3-trimethylbenzene	250	0.27	ND	0.54				
m-diethylbenzene	70	0.27	ND	0.54				
p-diethylbenzene	0.39	0.27	ND	0.54				
n-undecane	550	0.27	ND	0.54				

Laboratory Analysis Results

ACL Number: 100129

Analysis Code: AMOR006

Note: Results are reported in units of parts per billion by volume (ppbv)

ESL - Effects Screening Level. (Short-term Health and Odor Based in units of ppbv)

LOD - Limit of Detection.

ND - not detected

NQ - concentration can not be quantified.

SDL - Sample Detection Limit (MDL adjusted for dilutions).

INV - Invalid.

J - Reported concentration is below SDL.

L - Reported concentration is at or above the SDL and is below the lower limit of quantitation.

E - Reported concentration exceeds the upper limit of instrument calibration.

M - Result modified from previous result.

* SDL is equal to LOD

** Quality control flags explanations are listed on the last page of this report.

Compound concentration is equal to or greater than the Effects Screening Level.

TCEQ laboratory customer support may be reached at kbachtel@tceq.state.tx.us

The TCEQ is an equal opportunity/affirmative action employer. The agency does not allow discrimination on the basis of race, color, religion, national origin, sex, disability, age, sexual orientation or veteran status. In compliance with the Americans With Disabilities Act, this document may be requested in alternate formats by contacting the TCEQ at (512) 239-0010, (Fax 512-239-0055), or 1-800-RELAY-TX (TDD), or by writing P.O. Box 13087, Austin, Texas 78711-3087.

Laboratory Analysis Results

ACL Number: 100129

Analysis Code: AMOR006

Quality Control Notes:

Quality control notes for samples 100129-0001,

A1-Not all associated QC data met accuracy specification. Data may be an average 21 percent low with a range of -31 to -1 percent.

TCEQ laboratory customer support may be reached at kbachtel@tceq.state.tx.us

The TCEQ is an equal opportunity/affirmative action employer. The agency does not allow discrimination on the basis of race, color, religion, national origin, sex, disability, age, sexual orientation or veteran status. In compliance with the Americans With Disabilities Act, this document may be requested in alternate formats by contacting the TCEQ at (512) 239-0010, (Fax 512-239-0055), or 1-800-RELAY-TX (TDD), or by writing P.O. Box 13087, Austin, Texas 78711-3087.