February 15, 2017 Reference No. 086120

Mr. David Rozeboom
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
Eau Claire, Wisconsin 54701

Dear Mr. Rozeboom:

Re: Annual Operation, Maintenance, and Monitoring Report
November 2014 through December 2015
Former Holtz Krause Closed Landfill
Wausau, Wisconsin

GHD Services Inc. (GHD) is submitting the Annual Operation, Maintenance, and Monitoring (OM&M) Report on behalf of the City of Wausau for the former Holtz Krause Landfill in Wausau, Wisconsin. The report covers the period of January 2016 through December 2016.

One hard copy of the report is being sent to your attention for review.

Please review the report at your earliest convenience and contact me if you have any questions or require additional information.

Sincerely,

GHD

Thomas F. Hobday

TH/sb/2

Encl.

cc: Kevin Fabel, City of Wausau (via email)
Ron Frehner, GHD (via email)

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Final

Annual Operation, Maintenance, and Monitoring Report
January 2016 through December 2016

Former Holtz Krause Landfill
Wausau, Wisconsin

City of Wausau

GHD | 1801 Old Highway 8 Northwest Suite 114 St. Paul Minnesota 55112
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1. Introduction

GHD Services, Inc. (GHD) has prepared this Operation, Maintenance, and Monitoring (OM&M) Report (Report) for the former Holtz Krause Landfill (Site) in Wausau, Wisconsin, on behalf of the City of Wausau. This Report presents the results of OM&M activities at the Site from January 2016 through December 2016 as required by the Operation and Maintenance (O&M) Plan.

Since 1995, the City of Wausau has operated the landfill gas system, maintained the cap, measured settlement, and monitored groundwater at and near the landfill. Under the September 25, 2012 Purchase Agreement, Marathon County purchased the landfill property and the Holtz Krause Steering Committee developed the landfill into a soccer complex. Figure 1.1 shows the landfill, soccer complex, and gas extraction system components.

The September 25, 2012 Purchase Agreement states that the City of Wausau will continue to operate and maintain the landfill gas collection system and landfill cap outside the soccer field area. The Parks department, serving the County and City, is responsible for Operation and Maintenance of the soccer complex, which includes the irrigation system, under-drains, field turf, concession building, maintenance building, parking lots, and Championship Field lights. As part of the 2012 Agreement, the Holtz Krause Steering Committee is to provide $54,000 in funds to the County for the purpose of funding the future replacement of the flare which would likely occur after the flare is 15 to 20 years old (i.e. 2028 to 2033).

This report provides the results of the OM&M performed that is the responsibility of the City of Wausau (landfill gas collection system OM&M, site inspections, and landfill cover areas outside of the soccer complex).

1.1 Site Description

The Holtz Krause Landfill and vicinity is a 64 acre site that operated between 1957 and 1980. The Site is located at the end of East Kent Street, east of Grand Avenue. This landfill received approximately 2.0 million cubic yards (CY) of waste including municipal solid waste, non-combustible waste, demolition material, and wood waste.

The landfill is surrounded by a wetland (south), single residence, Curling Club (west), cemetery (northwest), cell tower (north), and railroad operations (north and east).

In 2013, construction of the soccer complex and modifications and repairs of the gas extraction system were conducted. The landfill gas collection system now consists of the following:

- 32 landfill gas extraction wells housed in flush-mounted vaults
- Header pipe, control valves, and condensate drainage system
- Landfill gas flare consisting of blower skid, flare, controls, and other associated equipment
- 13 landfill gas monitoring probes

The landfill cover system consists of the following (from ground surface)

- A vegetative layer consisting of 6 to 8 inches of topsoil and 3 feet of rooting zone soil
- Primary barrier layer consisting of a 40-mil very low density polyethylene (VLDPE) geomembrane liner
- Secondary barrier layer consisting of 2 feet of compacted clay
- The 1982 soil cover (0 to 2 feet thick)

The soccer field utilities are entirely installed above the liner within the rooting zone. These include the irrigation system, under drains, storm drains, water, sanitary and electrical. The landfill gas header piping is installed below the liner.

1.2 Objectives and Requirements

As required in the O&M Plan for the Site, the City is responsible for the following OM&M items:

- Weekly monitoring and inspections of the flare station from April through September
- Every other week monitoring and inspections of the flare station from October through March
- Twice monthly monitoring of landfill gas composition at the flare station
- Semi-annual preventative maintenance of the flare station
- Monthly monitoring and inspection of landfill gas extraction wells (gas composition, flow rate, header vacuum, and well condition) from April through September
- Quarterly monitoring and inspection of landfill gas extraction wells (gas composition, flow rate, header vacuum, and well condition) from October through March
- Quarterly gas probe monitoring
- Monthly general Site inspections

Results of the OM&M items noted above are presented in the following sections.

2. Gas Extraction System and Flare Station

2.1 Overview and System Components

The landfill gas extraction system consists of the following components:

- 32 gas extraction wells housed in flush-mounted vaults
- Header pipe, control valves, and condensate drainage system
- Landfill gas flare consisting of blower skid, flare, controls, and other associated equipment
- 13 gas monitoring probes

Through the use of a blower at the flare station, vacuum is applied to the landfill gas extraction wells, via the header pipe network, to extract landfill gas from the landfill and transfer it to the flare station. At the flare station, extracted landfill gas is supplied to a candlestick flare for combustion

and destruction. Landfill gas condensate that accumulates in the header piping or at the flare station drains to the City of Wausau sanitary sewer via a condensate sump and drip leg.

Gas monitoring probes are installed around the perimeter of the landfill to allow monitoring of any landfill gas migration beyond the landfill limits.

The components of the gas extraction system are shown on Figure 1.1.

2.2 Flare Station OM&M

The required flare station OM&M consists of the following:

- Weekly monitoring and inspection of the flare station operation from April through September
- Every other week monitoring and inspections of the flare station operation from October through March
- Twice weekly remote flare station monitoring
- Twice monthly monitoring of flare station landfill gas composition
- Semi-annual preventative maintenance of flare station

Weekly flare station inspections consist of recording all current operating conditions (flow rate, oxygen content, gas/flare temperatures, gas pressures, header vacuum, system hours, etc.) listed on the "Weekly Flare Station Inspection Form" (included in the O&M Plan). A summary of weekly inspection results are presented in Table 2.1. Weekly flare inspection forms are included in Appendix A.

In addition to on-Site inspections, the flare station was monitored at least twice per week via the remote (internet) connection to verify operation. Any issues or shutdowns discovered during remote monitoring were logged, and are detailed in Section 2.2.1.

Monitoring of landfill gas composition (percent each: methane, carbon dioxide, and oxygen) was completed a minimum of one time per month from April to September, and a minimum of two times per month from October to March. The results of landfill gas monitoring at the flare station are presented in Tables 2.1 and 2.2.

Semi-annual flare station maintenance consists of performing all flare manufacturer specified inspections and preventative maintenance. The semi-annual inspection and maintenance events were performed by GHD on behalf of the City of Wausau in April 2016 and October 2016. The semi-annual maintenance reports are included in Appendix B.

2.2.1 Unscheduled Flare Station Shutdowns

During the reporting period (January 2016 through December 2016), the flare station experienced 6 unscheduled shutdowns. Details of the shutdowns are as follows:

- March 12, 2016: The flare station experienced a low flow rate shutdown. The flare was restarted on March 14, 2016.

- March 15, 2016: The flare station shut down due to utility outage caused by a lightning storm. The flare station was restarted once power was restored.
- May 24, 2016: The flare station experienced a low flow rate shutdown. The flare was restarted on May 25, 2016.
- June 5, 2016: The flare station shut down due to utility outage caused by a lightning storm. The flare station was restarted once power was restored.
- June 26, 2016: The flare station shut down due to utility outage caused by a lightning storm. The flare station was restarted once power was restored.
- July 12, 2016: The flare station experienced a low flow rate shutdown. The flare was restarted on July 13, 2016.

The flare station operated for 8,659 of the 8,784 available hours (99-percent) during the reporting period.

2.3 Gas Extraction Well Monitoring

Gas extraction well monitoring is performed on a monthly basis April through September, and on a quarterly basis October through March, in accordance with the O&M Plan and consists of monitoring the landfill gas concentration, flow rate, and vacuum at each gas extraction well. Additionally, at the time of monitoring, the condition of each well is inspected and evaluated. Any maintenance needs found are then completed as necessary.

During gas well monitoring, extraction well flow rates were adjusted based upon the composition of landfill gas within the individual wells. Wells were adjusted to supply landfill gas to the flare station with a nominal methane concentration of 30-percent. Landfill gas was extracted from the wellfield at approximately 80 cubic feet per minute (cfm) during the reporting period.

Results of the gas extraction well monitoring are presented in Table 2.2.

2.4 Gas Probe Monitoring

Landfill gas probe monitoring is conducted on a quarterly basis at the thirteen gas probes installed around the perimeter of the Site. Locations of the gas probes are presented on Figure 1.1. Monitoring at each probe consisted of the gas composition (methane, carbon dioxide, oxygen, and balance). Probes were purged for a minimum of 210 seconds before a final measurement was recorded.

Results of the gas probe monitoring are presented in Table 2.3. Methane was non-detect at all probes during the reporting period monitoring events, indicating that the gas extraction system has been effective at controlling landfill gas migration from the Site.

2.5 Landfill Gas Condensate

Landfill gas condensate, collected in the landfill gas header and at the flare station gravity, drains to a drip leg near the flare station before draining to the City of Wausau sanitary sewer. Landfill gas

condensate is sampled at the direction/discretion of the City of Wausau Wastewater Treatment Facility.

3. Landfill Cover

In accordance with the O&M Plan, the City was responsible for completing general Site inspections on a monthly basis. Any issues identified in monthly inspections were then reported to the responsible party (i.e. county for soccer complex/field issues, city for landfill areas outside of the soccer complex, etc.).

The Site inspections focused on the following main components:

- Landfill cover area
- Landfill gas extraction wells
- Landfill gas monitoring probes
- Flare station area
- Access roads/paths associated with the Site

Inspections are completed on the “Landfill Site Inspection” form previously provided in the Site O&M Plan. Copies of the monthly inspection forms are provide in Appendix C.

No major issues were noted during the monthly Site inspections requiring further maintenance work. Vegetation trimming was requested and completed inside the flare station area in August 2016. Additionally, the vault cover for gas extraction well EW-19 was damaged in August 2016. A replacement cover was obtained and installed in September 2016.

4. Conclusions

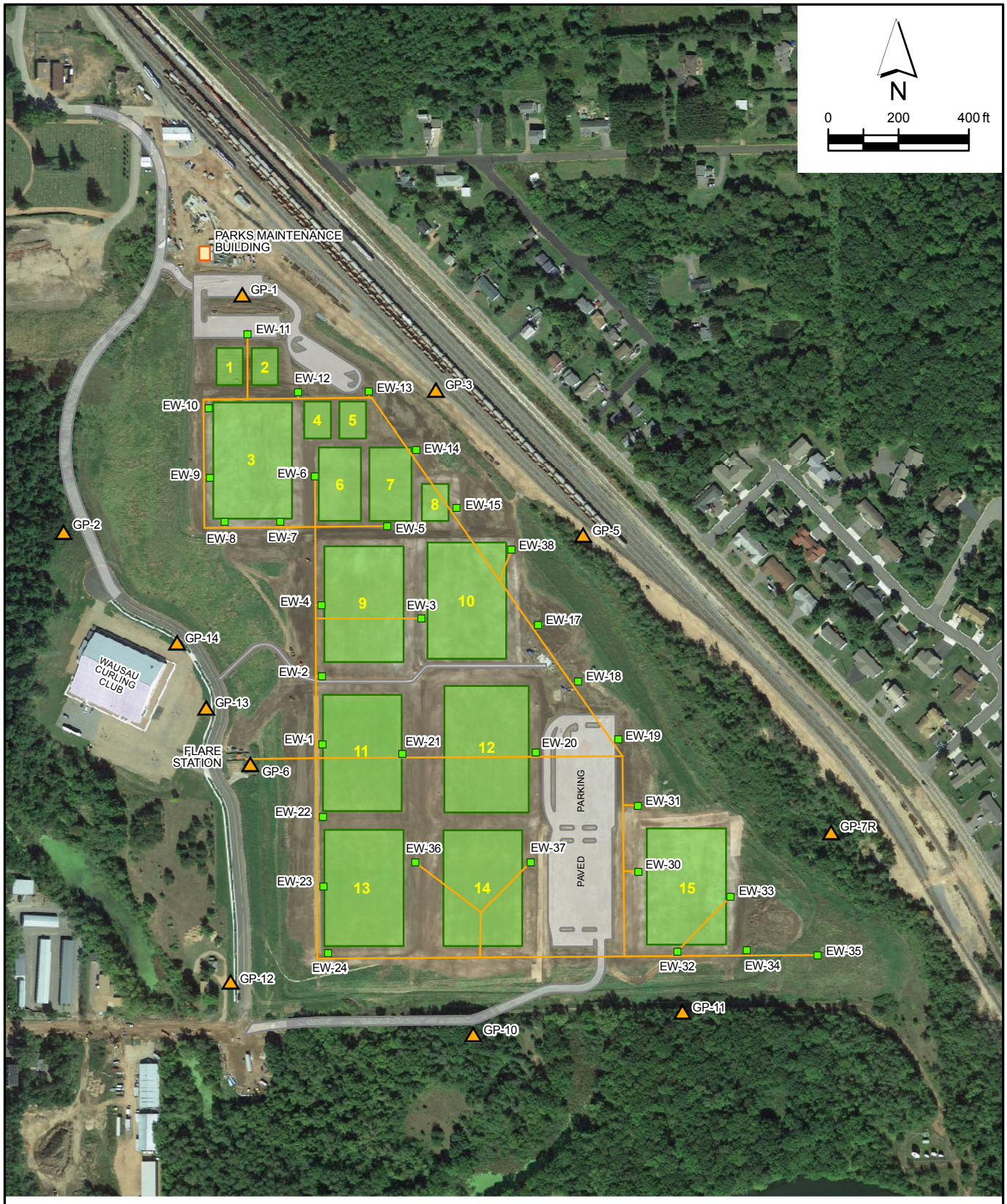
Based upon the OM&M activities performed in the reporting period, the following conclusions are made:

- The new flare station provided consistent, reliable operation throughout the reporting period with 99-percent up-time from January 1, 2016 through December 31, 2016.
- The flare station controls allowed extraction amounts to closely match landfill production (approximately 80 cfm at 33 to 41 percent methane). Additionally, this resulted in minimal amounts of oxygen within the landfill waste, ensuring the landfill remains in anaerobic gas production and limits the potential for subsurface fires.
- Landfill gas monitoring probes were all non-detect for methane during the reporting period, indicating that landfill gas extraction rates are sufficient to prevent off-Site gas migration.
- The general Site was noted to be in good condition throughout the reporting period, with no significant concerns.

- Gas composition at gas extraction wells was noted to be very consistent throughout the reporting period. This consistency supports that the current frequency of gas extraction well monitoring is sufficient (monthly April through September, quarterly October through March).

5. Recommendations

- Reduce the flare station gas monitoring frequency from twice monthly, to monthly for the months of March through October. Flare station gas monitoring will remain on a twice-monthly frequency for the months of November through February.



LEGEND

- GAS EXTRACTION WELL
- GAS PROBE LOCATION
- GAS EXTRACTION HEADER
- SOCCER FIELD
- PAVED ROAD/PARKING

figure 1.1

SITE PLAN
FORMER HOLTZ KRAUSE LANDFILL
Wausau, Wisconsin

086120-17(003)GIS-SP001 JAN 05/2017

Table 2.1

Flare Station Operational Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

Date	Header Pressure (in H_2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (^oF)	Flare Temp (^oF)	Status (on/off)	System Hours (hours)
1/5/2016	-4.6	N/R	N/R	N/R	84	52	1,441	on	19,244
1/12/2016	-5.5	39.2	35.5	0.3	75	51	1,375	on	19,412
1/19/2016	-5.3	N/R	N/R	N/R	76	50	1,345	on	19,860
1/26/2016	-5.8	37.1	31.8	0.3	76	51	1,440	on	19,749
2/2/2016	-4.2	38.2	32.1	0.1	84	51	1,365	on	19,918
2/9/2016	-5.1	N/R	N/R	N/R	80	50	1,351	on	20,086
2/16/2016	-4.6	37.4	31.9	0.2	76	49	1,332	on	20,253
2/23/2016	-4.6	N/R	N/R	N/R	80	49	1,375	on	20,422
3/1/2016	-5.2	36.3	31.5	0.2	84	49	1,420	on	20,589
3/8/2016	-4.3	N/R	N/R	N/R	80	49	1,410	on	20,757
3/15/2016	-4.3	N/R	N/R	N/R	78	49	1,435	on	20,883
3/22/2016	-3.2	38.8	31.8	0.0	80	49	1,412	on	21,037
3/29/2016	-5.2	N/R	N/R	N/R	80	49	1,377	on	21,206
4/5/2016	-5.2	N/R	N/R	N/R	85	49	1,391	on	21,373
4/12/2016	-6.4	N/R	N/R	N/R	78	49	1,428	on	21,538
4/19/2016	-4.3	36.5	31.5	0.1	76	50	1,501	on	21,705
4/26/2016	-6.2	N/R	N/R	N/R	76	50	1,391	on	21,873
5/3/2016	-4.7	37	30.9	0.1	82	51	1,366	on	22,042
5/10/2016	-5.2	N/R	N/R	N/R	78	51	1,391	on	22,209
5/17/2016	-6.2	33.1	29.8	0.2	76	51	1,365	on	22,377
5/24/2016	-6.9	N/R	N/R	N/R	76	53	1,310	on	22,548
5/31/2016	-7.4	N/R	N/R	N/R	79	54	1,433	on	22,692
6/7/2016	-7.9	35.4	30.3	0.1	77	55	1,351	on	22,843
6/13/2016	-6.7	N/R	N/R	N/R	84	55	1,403	on	22,992
6/21/2016	-7.4	N/R	N/R	N/R	84	57	1,380	on	23,178
6/28/2016	-7.5	N/R	N/R	N/R	79	58	1,352	on	23,321
7/5/2016	-7.1	36.4	30.8	0.1	76	59	1,386	on	23,488
7/12/2016	-5.9	N/R	N/R	N/R	77	59	1,412	on	23,656
7/19/2016	-7.0	N/R	N/R	N/R	82	60	1,350	on	23,817
7/26/2016	-6.8	N/R	N/R	N/R	82	61	1,407	on	23,984
8/2/2016	-6.4	N/R	N/R	N/R	81	61	1,405	on	24,152
8/9/2016	-6.1	N/R	N/R	N/R	83	62	1,423	on	24,323

Table 2.1

Flare Station Operational Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

Date	Header Pressure (in H_2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (^oF)	Flare Temp (^oF)	Status (on/off)	System Hours (hours)
8/15/2016	-6.8	N/R	N/R	N/R	85	62	1,484	on	24,465
8/23/2016	-6.3	34.2	32.0	0.4	79	63	1,406	on	24,655
8/30/2016	-8.4	N/R	N/R	N/R	80	63	1,313	on	24,824
9/7/2016	-8.6	N/R	N/R	N/R	81	64	1,389	on	25,017
9/13/2016	-8.6	35.6	32.4	0.2	77	64	1,457	on	25,160
9/20/2016	-7.7	N/R	N/R	N/R	79	63	1,372	on	25,328
9/28/2016	-8.0	N/R	N/R	N/R	76	63	1,344	on	25,520
10/4/2016	-7.2	35.5	32.6	0.1	79	63	1,409	on	25,664
10/11/2016	-4.6	N/R	N/R	N/R	81	63	1,379	on	25,826
10/19/2016	-6.3	N/R	N/R	N/R	80	62	1,304	on	26,014
10/25/2016	-5.8	N/R	N/R	N/R	81	61	1,450	on	26,158
11/1/2016	-5.1	37.9	33.5	0	75	61	1,400	on	26,327
11/8/2016	-5.5	N/R	N/R	N/R	75	60	1,240	on	26,496
11/15/2016	-5.5	38.5	33.6	0.0	78	60	1,474	on	26,663
11/22/2016	-5.9	N/R	N/R	N/R	78	58	1,390	on	26,832
11/29/2016	-6.5	N/R	N/R	N/R	76	58	1,355	on	27,000
12/6/2016	-5.6	40.0	34.3	0.0	84	57	1,387	on	27,168
12/13/2016	-6.7	N/R	N/R	N/R	76	55	1,296	on	27,336
12/20/2016	-4.6	40.6	34.0	0.0	76	54	1,381	on	27,503
12/27/2016	-7.0	N/R	N/R	N/R	79	54	1,260	on	27,672

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
Flare	1/15/2016	39.2	35.5	0.3	51	75	-5.5	On
Flare	1/26/2016	37.1	31.8	0.3	51	76	-5.8	On
Flare	2/2/2016	38.2	32.1	0.1	51	84	-4.2	On
Flare	2/16/2016	37.4	31.9	0.2	49	76	-4.6	On
Flare	3/1/2016	36.3	31.5	0.2	49	84	-5.2	On
Flare	3/22/2016	38.8	31.8	0.0	49	80	-3.2	On
Flare	4/19/2016	36.5	31.5	0.1	50	76	-4.3	On
Flare	5/3/2016	37.0	30.9	0.1	51	82	-4.7	On
Flare	5/17/2016	33.1	29.8	0.2	51	76	-6.2	On
Flare	6/8/2016	35.4	30.3	0.1	55	77	-7.9	On
Flare	7/6/2016	36.4	30.8	0.1	59	76	-7.1	On
Flare	8/23/2016	34.2	32.0	0.4	63	79	-6.3	On
Flare	9/13/2016	35.6	32.4	0.2	64	77	-8.6	On
Flare	10/4/2016	35.5	32.6	0.1	63	79	-7.2	On
Flare	11/1/2016	37.9	33.5	0.0	61	75	-5.1	On
Flare	11/15/2016	38.5	33.6	0.0	60	78	-5.5	On
Flare	12/6/2016	40.0	34.3	0.0	57	84	-5.6	On
Flare	12/20/2016	40.6	34.0	0.0	54	76	-4.6	On
EW-01	3/22/2016	12.0	20.7	1.4	36	0	-2.7	Off
EW-01	4/19/2016	8.0	20.7	1.0	48	0	-3.8	Off
EW-01	5/17/2016	7.5	20.7	1.1	50	0	-5.7	Off
EW-01	6/8/2016	10.1	21.7	0.3	56	0	-7.4	Off
EW-01	7/6/2016	9.2	19.3	2.3	67	0	-6.3	Off
EW-01	8/23/2016	10.9	22.1	0.4	65	0	-5.5	Off
EW-01	9/13/2016	13.3	22.5	0.0	66	0	-7.6	Off
EW-01	10/4/2016	15.7	22.9	0.0	58	0	-6.5	Off
EW-02	3/22/2016	20.5	25.8	0.0	40	0	-2.7	Off
EW-02	4/19/2016	13.6	22.6	1.0	46	0	-3.7	Off
EW-02	5/17/2016	12.2	22.3	1.5	47	0	-5.5	Off
EW-02	6/8/2016	16.2	24.3	0.1	57	0	-7.3	Off
EW-02	7/6/2016	19.0	24.6	0.1	70	0	-6.2	Off
EW-02	8/23/2016	19.3	25.3	0.4	67	0	-5.5	Off
EW-02	9/13/2016	21.3	25.8	0.1	66	0	-7.6	Off
EW-02	10/4/2016	24.5	26.9	0.0	61	0	-6.4	Off
EW-03	3/22/2016	48.4	33.6	0.0	47	12	-2.4	On
EW-03	4/19/2016	41.8	30.6	1.3	49	9	-3.6	On
EW-03	5/17/2016	33.3	25.9	3.8	50	6	-5.6	On

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-03	6/8/2016	40.9	30.8	0.0	54	8	-7.2	On
EW-03	7/6/2016	41.8	31.0	0.0	59	10	-6.1	On
EW-03	8/23/2016	39.8	31.7	0.3	59	10	-5.5	On
EW-03	9/13/2016	41.2	31.9	0.1	59	8	-7.5	On
EW-03	10/4/2016	43.0	32.5	0.1	57	11	-6.5	On
EW-04	3/22/2016	32.3	29.1	0.0	44	0	-2.5	On
EW-04	4/19/2016	28.8	28.0	0.1	46	6	-3.6	On
EW-04	5/17/2016	23.8	23.5	3.2	49	0	-5.9	Off
EW-04	6/8/2016	26.9	27.3	0.0	55	2	-7.1	On
EW-04	7/6/2016	28.4	27.4	0.0	63	6	-5.9	On
EW-04	8/23/2016	29.5	28.6	0.3	62	6	-5.4	On
EW-04	9/13/2016	30.5	28.9	0.0	62	0	-7.7	Off
EW-04	10/4/2016	31.7	29.6	0.0	61	4	-6.2	On
EW-05	3/22/2016	27.7	27.0	0.0	46	4	-2.4	On
EW-05	4/19/2016	17.7	23.9	1.2	48	0	-3.7	Off
EW-05	5/17/2016	13.9	20.5	3.1	50	0	-5.9	Off
EW-05	6/8/2016	19.0	22.4	1.3	55	0	-7.0	Off
EW-05	7/6/2016	24.2	24.1	0.0	60	6	-5.9	On
EW-05	8/23/2016	24.4	25.0	0.3	63	0	-5.5	Off
EW-05	9/13/2016	24.2	25.2	0.0	63	0	-8.0	Off
EW-05	10/4/2016	28.8	26.0	0.0	61	0	-6.1	Off
EW-06	3/22/2016	32.5	30.9	0.0	47	4	-2.0	On
EW-06	4/19/2016	27.2	29.7	0.0	49	6	-3.7	On
EW-06	5/17/2016	22.0	26.3	1.8	51	0	-5.1	Off
EW-06	6/8/2016	24.2	27.4	0.5	56	0	-7.1	Off
EW-06	7/6/2016	25.8	27.6	0.0	65	0	-5.9	Off
EW-06	8/23/2016	28.6	29.0	0.3	65	0	-5.5	Off
EW-06	9/13/2016	29.6	28.5	0.0	64	0	-7.9	Off
EW-06	10/4/2016	32.0	28.9	0.0	61	8	-5.8	On
EW-07	3/22/2016	36.7	30.4	0.0	46	5	-2.4	On
EW-07	4/19/2016	38.0	29.8	0.3	48	8	-3.9	On
EW-07	5/17/2016	35.3	27.9	1.4	51	9	-5.8	On
EW-07	6/8/2016	33.7	28.3	0.9	57	9	-7.1	On
EW-07	7/6/2016	32.0	28.0	0.8	63	8	-6.0	On
EW-07	8/23/2016	35.1	30.5	0.3	64	8	-5.5	On
EW-07	9/13/2016	36.0	30.6	0.0	62	7	-7.7	On

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-07	10/4/2016	34.7	30.6	0.0	59	10	-5.7	On
EW-08	3/22/2016	14.4	25.0	0.0	37	0	-2.5	Off
EW-08	4/19/2016	9.3	23.1	0.0	46	0	-3.9	Off
EW-08	5/17/2016	7.8	21.1	1.1	50	0	-5.9	Off
EW-08	6/8/2016	8.8	21.1	0.6	56	0	-7.0	Off
EW-08	7/6/2016	10.2	21.8	0.0	69	0	-6.1	Off
EW-08	8/23/2016	12.0	22.5	0.3	68	0	-5.5	Off
EW-08	9/13/2016	13.6	23.1	0.1	66	0	-7.7	Off
EW-08	10/4/2016	14.6	23.9	0.0	61	0	-5.8	Off
EW-09	3/22/2016	24.2	27.4	0.0	41	0	-2.4	Off
EW-09	4/19/2016	20.1	24.1	1.8	45	0	-4.0	Off
EW-09	5/17/2016	13.8	19.6	4.2	48	0	-5.9	Off
EW-09	6/8/2016	15.3	22.2	1.5	54	0	-7.0	Off
EW-09	7/6/2016	23.0	25.5	0.0	65	0	-6.2	Off
EW-09	8/23/2016	23.4	26.7	0.3	64	0	-5.5	Off
EW-09	9/13/2016	24.3	27.2	0.0	63	0	-7.7	Off
EW-09	10/4/2016	24.5	27.8	0.0	60	0	-5.8	Off
EW-10	3/22/2016	34.1	30.2	0.0	46	15	-2.7	On
EW-10	4/19/2016	34.2	29.1	0.3	47	5	-3.9	On
EW-10	5/17/2016	33.4	27.9	1.0	49	4	-5.8	On
EW-10	6/8/2016	34.4	28.4	0.0	55	5	-7.0	On
EW-10	7/6/2016	34.3	28.4	0.0	63	6	-6.1	On
EW-10	8/23/2016	33.6	29.3	0.3	62	7	-5.5	On
EW-10	9/13/2016	35.1	29.7	0.0	60	14	-8.0	On
EW-10	10/4/2016	35.0	29.9	0.2	58	6	-5.8	On
EW-11	3/22/2016	3.2	17.1	0.1	38	0	-2.7	Off
EW-11	4/19/2016	1.8	16.7	0.0	47	0	-3.9	Off
EW-11	5/17/2016	0.2	1.9	19.4	54	0	-5.9	Off
EW-11	6/8/2016	0.4	2.7	17.3	67	0	-7.1	Off
EW-11	7/6/2016	2.1	12.1	6.9	74	0	-6.1	Off
EW-11	8/23/2016	5.4	18.9	1.4	69	0	-5.5	Off
EW-11	9/13/2016	6.9	20.2	0.1	67	0	-7.9	Off
EW-11	10/4/2016	7.0	20.8	0.2	61	0	-5.8	Off
EW-12	3/22/2016	28.2	30.6	0.0	35	0	-2.7	Off
EW-12	4/19/2016	22.3	28.5	0.3	48	0	-4.1	Off

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-12	5/17/2016	19.1	26.2	1.2	52	0	-5.9	Off
EW-12	6/8/2016	21.0	26.8	0.3	65	0	-7.0	Off
EW-12	7/6/2016	26.1	27.5	0.3	74	0	-6.0	Off
EW-12	8/23/2016	28.1	28.5	0.4	69	0	-5.5	Off
EW-12	9/13/2016	30.7	29.3	0.0	65	8	-7.7	On
EW-12	10/4/2016	29.7	30.3	0.0	60	3	-5.7	On
EW-13	3/22/2016	4.5	21.0	0.9	42	0	-2.8	Off
EW-13	4/19/2016	2.6	18.9	1.8	47.4	0	-4.16	Off
EW-13	5/17/2016	2.0	18.3	2.0	52	0	-5.9	Off
EW-13	6/8/2016	2.5	18.1	1.3	62	0	-7.0	Off
EW-13	7/6/2016	3.4	19.4	0.4	69	0	-6.2	Off
EW-13	8/23/2016	10.8	22.5	0.3	69	0	-5.5	Off
EW-13	9/13/2016	13.6	23.7	0.0	66	0	-7.6	Off
EW-13	10/4/2016	9.9	23.1	0.0	61	0	-5.4	Off
EW-14	3/22/2016	7.0	22.9	0.0	37	0	-2.3	Off
EW-14	4/19/2016	6.1	21.9	0.9	46	0	-4.0	Off
EW-14	5/17/2016	8.9	21.3	0.9	49	0	-5.7	Off
EW-14	6/8/2016	9.4	19.9	0.6	61	0	-6.9	Off
EW-14	7/6/2016	9.7	20.7	0.0	70	0	-6.1	Off
EW-14	8/23/2016	9.2	20.8	0.9	67	0	-5.3	Off
EW-14	9/13/2016	10.1	20.4	1.4	66	0	-7.7	Off
EW-14	10/4/2016	9.9	20.5	1.6	62	0	-5.4	Off
EW-15	3/22/2016	6.2	20.0	0.0	43	0	-2.6	Off
EW-15	4/19/2016	0.5	15.7	3.6	48	0	-4.1	Off
EW-15	5/17/2016	0.5	14.0	5.9	51	0	-5.8	Off
EW-15	6/8/2016	0.7	15.4	2.7	59	0	-7.0	Off
EW-15	7/6/2016	3.0	17.0	0.0	69	0	-6.1	Off
EW-15	8/23/2016	1.1	17.1	1.0	67	0	-5.3	Off
EW-15	9/13/2016	1.5	17.5	0.0	66	0	-7.7	Off
EW-15	10/4/2016	3.2	18.5	0.0	61	0	-5.5	Off
EW-17	3/22/2016	44.0	33.4	0.0	46	18	-2.7	On
EW-17	4/19/2016	37.6	30.2	1.3	47	6	-4.3	On
EW-17	5/17/2016	31.1	26.1	3.2	50	1	-5.8	On
EW-17	6/8/2016	32.5	25.4	3.2	55	3	-7.2	On
EW-17	7/6/2016	37.4	29.3	0.1	68	6	-6.2	On
EW-17	8/23/2016	29.1	28.6	0.3	65	6	-5.3	On

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-17	9/13/2016	33.5	29.1	0.0	65	4	-7.5	On
EW-17	10/4/2016	37.0	29.8	0.0	60	3	-5.4	On
EW-18	3/22/2016	60.9	37.8	0.0	41	9	-2.6	On
EW-18	4/19/2016	49.9	32.1	3.1	45	3	-4.4	On
EW-18	5/17/2016	48.9	31.8	3.4	50	0	-5.8	On
EW-18	6/8/2016	47.2	31.7	3.6	56	4	-7.1	On
EW-18	7/6/2016	52.6	37.1	0.0	64	9	-5.9	On
EW-18	8/23/2016	46.1	36.9	0.3	62	9	-5.2	On
EW-18	9/13/2016	45.0	36.8	0.0	59	9	-7.5	On
EW-18	10/4/2016	45.4	36.8	0.0	58	7	-5.3	On
EW-19	3/22/2016	52.6	38.6	0.0	45	28	-1.8	On
EW-19	4/19/2016	46.1	34.3	2.2	47	6	-4.4	On
EW-19	5/17/2016	43.3	32.1	2.6	52	4	-5.8	On
EW-19	6/8/2016	48.5	35.7	0.0	57	10	-6.9	On
EW-19	7/6/2016	44.1	34.7	0.4	66	8	-6.0	On
EW-19	8/23/2016	36.2	36.3	0.3	66	9	-5.4	On
EW-19	9/13/2016	36.7	36.7	0.0	63	8	-7.6	On
EW-19	10/4/2016	39.7	37.7	0.0	60	6	-5.4	On
EW-20	3/22/2016	50.8	36.6	0.0	46	9	-2.5	On
EW-20	4/19/2016	46.2	33.1	1.4	48	10	-4.5	On
EW-20	5/17/2016	34.4	25.9	5.9	52	5	-6.2	On
EW-20	6/8/2016	47.4	34.4	0.0	55	12	-6.9	On
EW-20	7/6/2016	49.0	35.0	0.0	57	19	-5.7	On
EW-20	8/23/2016	42.7	37.1	0.3	59	14	-5.8	On
EW-20	9/13/2016	42.3	37.0	0.0	58	15	-7.9	On
EW-20	10/4/2016	43.5	37.5	0.0	57	14	-5.6	On
EW-21	3/22/2016	43.0	30.8	0.0	44	0	-2.1	On
EW-21	4/19/2016	32.0	27.1	1.2	47	6	-4.6	On
EW-21	5/17/2016	27.4	26.2	1.5	52	6	-6.5	On
EW-21	6/8/2016	30.4	28.4	0.0	56	7	-6.9	On
EW-21	7/6/2016	30.4	28.8	0.0	64	7	-5.9	On
EW-21	8/23/2016	26.3	29.5	0.3	68	0	-5.8	Off
EW-21	9/13/2016	26.1	28.7	0.3	65	0	-7.8	Off
EW-21	10/4/2016	29.1	30.0	0.0	60	0	-5.4	Off
EW-22	3/22/2016	19.6	24.0	0.0	38	0	-2.7	Off

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-22	4/19/2016	11.8	21.1	1.2	46	0	-4.7	Off
EW-22	5/17/2016	7.7	18.0	3.0	53	0	-6.5	Off
EW-22	6/8/2016	11.1	21.2	0.1	60	0	-7.0	Off
EW-22	7/6/2016	12.0	21.3	0.0	70	0	-5.9	Off
EW-22	8/23/2016	14.4	24.0	0.3	70	0	-6.1	Off
EW-22	9/13/2016	17.5	24.8	0.1	66	0	-7.8	Off
EW-22	10/4/2016	20.9	26.1	0.0	60	0	-5.5	Off
EW-23	3/22/2016	18.6	22.3	0.1	41	0	-2.8	Off
EW-23	4/19/2016	0.1	2.4	20.3	49	0	-4.7	Off
EW-23	5/17/2016	0.0	0.2	20.7	57	0	-6.7	Off
EW-23	6/8/2016	0.0	1.5	19.9	63	0	-6.8	Off
EW-23	7/6/2016	0.0	0.1	20.5	78	0	-5.9	Off
EW-23	8/23/2016	0.0	0.0	20.2	78	0	-6.1	Off
EW-23	9/13/2016	0.0	0.1	20.8	68	0	-7.8	Off
EW-23	10/4/2016	0.0	0.1	20.8	61	0	-5.6	Off
EW-24	3/22/2016	39.1	26.8	0.0	39	19	-2.8	On
EW-24	4/19/2016	23.1	20.3	5.0	49	0	-4.7	Off
EW-24	5/17/2016	20.4	23.1	1.2	53	0	-6.6	Off
EW-24	6/8/2016	20.4	23.8	0.5	63	0	-6.8	Off
EW-24	7/6/2016	18.6	22.7	1.5	73	0	-5.9	Off
EW-24	8/23/2016	22.4	27.0	0.3	73	0	-6.1	Off
EW-24	9/13/2016	25.1	27.8	0.1	65	0	-7.9	Off
EW-24	10/4/2016	28.8	29.0	0.0	61	2	-5.6	On
EW-30	3/22/2016	33.7	34.7	0.0	47	0	-2.3	On
EW-30	4/19/2016	27.7	33.0	0.0	47	7	-4.2	On
EW-30	5/17/2016	23.8	30.6	0.7	50	6	-6.3	On
EW-30	6/8/2016	23.9	29.6	1.0	58	0	-6.5	Off
EW-30	7/6/2016	29.3	31.2	0.0	70	0	-5.6	Off
EW-30	8/23/2016	28.4	33.5	0.3	70	0	-10.2	Off
EW-30	9/13/2016	32.3	34.5	0.1	64	4	-7.2	On
EW-30	10/4/2016	36.1	36.0	0.0	58	18	-5.0	On
EW-31	3/22/2016	48.7	37.5	0.0	47	11	-2.2	On
EW-31	4/19/2016	42.1	36.3	0.3	47	8	-4.2	On
EW-31	5/17/2016	23.1	24.7	6.2	51	6	-6.7	On
EW-31	6/8/2016	33.7	34.0	0.0	61	8	-6.5	On
EW-31	7/6/2016	31.5	33.0	0.0	63	8	-5.7	On

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-31	8/23/2016	33.7	34.8	0.4	66	7	-10.4	On
EW-31	9/13/2016	35.2	35.6	0.1	61	6	-7.3	On
EW-31	10/4/2016	37.5	36.8	0.0	58	5	-4.9	On
EW-32	3/22/2016	24.3	31.9	0.0	52	0	***	Off
EW-32	4/19/2016	14.5	26.5	1.5	47	0	-4	Off
EW-32	5/17/2016	11.0	21.7	3.9	55	0	-7.0	Off
EW-32	6/8/2016	17.3	26.9	0.1	65	0	-6.3	Off
EW-32	7/6/2016	22.2	27.4	0.0	73	0	-5.6	Off
EW-32	8/23/2016	21.2	29.7	0.3	73	0	-10.3	Off
EW-32	9/13/2016	28.3	31.7	0.1	66	5	-7.3	On
EW-32	10/4/2016	33.8	35.7	0.0	61	13	-4.7	On
EW-33	3/22/2016	30.6	33.0	0.0	46	8	-2.4	On
EW-33	4/19/2016	29.4	33.3	0.1	45	5	-4.3	On
EW-33	5/17/2016	26.6	31.2	1.0	52	5	-7.1	On
EW-33	6/8/2016	25.6	30.1	1.3	58	0	-6.7	Off
EW-33	7/6/2016	33.4	33.1	0.1	69	10	-5.4	On
EW-33	8/23/2016	25.6	32.9	0.5	68	0	-11.9	Off
EW-33	9/13/2016	38.1	38.0	0.0	66	5	-7.2	On
EW-33	10/4/2016	35.8	36.7	0.0	60	6	-4.7	On
EW-34	3/22/2016	28.7	32.4	0.0	48	0	0.0	Off
EW-34	4/19/2016	10.0	12.3	13.9	49	0	-1.1	Off
EW-34	5/17/2016	7.8	10.0	14.3	58	0	-3.7	Off
EW-34	6/8/2016	22.5	27.5	2.4	64	0	-3.1	Off
EW-34	7/6/2016	29.6	33.0	0.0	76	0	-2.5	Off
EW-34	8/23/2016	26.9	34.1	0.3	73	0	-5.5	Off
EW-34	9/13/2016	28.8	34.6	0.0	64	0	-6.1	Off
EW-34	10/4/2016	38.2	36.8	0.0	61	1	-1.7	On
EW-35	3/22/2016	23.4	32.3	0.0	62	0	0.0	Off
EW-35	4/19/2016	12.1	21.5	6.9	52	0	-1.1	Off
EW-35	5/17/2016	9.7	16.8	9.3	67	0	-3.9	Off
EW-35	6/8/2016	19.5	27.4	1.8	71	0	-3.4	Off
EW-35	7/6/2016	0.6	1.0	19.6	91	0	-2.2	Off
EW-35	8/23/2016	0.1	0.4	20.1	85	0	-6.6	Off
EW-35	9/13/2016	27.4	32.4	0.1	64	0	-6.1	Off
EW-35	10/4/2016	33.1	34.7	0.0	58	2	-1.4	On

Table 2.2

Landfill Gas Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-36	3/22/2016	53.1	36.1	0.0	42	16	0.0	On
EW-36	4/19/2016	47.9	34.2	0.1	44	3	-1.7	On
EW-36	5/17/2016	36.6	27.4	3.9	50	2	-3.0	On
EW-36	6/8/2016	42.8	32.6	0.0	59	5	-2.6	On
EW-36	7/6/2016	37.2	32.2	0.1	67	6	-1.5	On
EW-36	8/23/2016	33.9	34.2	0.4	66	8	-2.9	On
EW-36	9/13/2016	33.9	34.1	0.1	63	5	-3.0	On
EW-36	10/4/2016	35.8	35.1	0.0	59	2	0.0	On
EW-37	3/22/2016	51.2	37.2	0.0	43	6	0.0	On
EW-37	4/19/2016	13.7	11.4	15.4	48	0	-1.5	Off
EW-37	5/17/2016	8.8	7.1	16.9	57	0	-1.7	Off
EW-37	6/8/2016	43.1	36.1	0.5	61	5	-2.1	On
EW-37	7/6/2016	33.5	35.3	0.0	66	7	-1.1	On
EW-37	8/23/2016	33.9	37.3	0.3	67	9	-4.1	On
EW-37	9/13/2016	35.8	37.6	0.1	65	4	-3.1	On
EW-37	10/4/2016	40.8	38.6	0.2	60	0	0.3	On
EW-38	3/22/2016	1.5	16.8	0.0	39	0	-0.6	Off
EW-38	4/19/2016	0.0	12.4	8.9	47	0	-4.1	Off
EW-38	5/17/2016	0.0	3.7	17.8	50	0	-5.8	Off
EW-38	6/8/2016	0.0	4.5	14.9	62	0	-6.8	Off
EW-38	7/6/2016	0.8	7.8	3.5	72	0	-6.1	Off
EW-38	8/23/2016	0.0	8.2	9.4	68	0	-5.3	Off
EW-38	9/13/2016	0.0	11.2	5.5	65	0	-7.3	Off
EW-38	10/4/2016	0.7	10.3	7.0	59	0	-5.5	Off

Notes:

* - Sample ports frozen or well underwater preventing readings
** - Well is fully open
*** - Data unavailable

Table 2.3

Landfill Gas Probe Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)
GP-1S	3/15/2016	0.0	8.4	9.2
GP-1S	5/24/2016	0.0	0.1	20.8
GP-1S	7/12/2016	0.0	0.1	20.6
GP-1S	10/19/2016	0.0	0.1	20.7
GP-1D	3/15/2016	0.0	9.6	7.7
GP-1D	5/24/2016	0.0	0.2	20.6
GP-1D	7/12/2016	0.0	0.1	20.6
GP-1D	10/19/2016	0.0	0.1	20.6
GP-2	3/15/2016	0.0	1.4	20.7
GP-2	5/24/2016	0.0	2.1	18.9
GP-2	7/12/2016	0.0	2.8	18.6
GP-2	10/19/2016	0.0	2.0	19.8
GP-3S	3/15/2016	0.0	0.1	21.5
GP-3S	5/24/2016	0.0	0.2	20.9
GP-3S	7/12/2016	0.0	0.5	20.1
GP-3S	10/19/2016	0.0	0.1	20.8
GP-3D	3/15/2016	0.0	1.3	21.2
GP-3D	5/24/2016	0.0	0.1	21.0
GP-3D	7/12/2016	0.0	0.2	20.4
GP-3D	10/19/2016	0.0	0.1	20.9
GP-5	3/15/2016	0.0	1.6	20.9
GP-5	5/24/2016	0.0	0.1	21.0
GP-5	7/12/2016	0.0	0.1	20.4
GP-5	10/19/2016	0.0	0.2	20.8
GP-6	3/15/2016	0.0	0.1	21.8
GP-6	5/24/2016	0.0	0.1	20.1
GP-6	7/12/2016	0.0	0.1	20.5
GP-6	10/19/2016	0.0	0.1	20.4
GP-7R	3/15/2016	0.0	0.6	21.6
GP-7R	5/24/2016	0.0	0.7	20.8
GP-7R	7/12/2016	0.0	2.0	19.4
GP-7R	10/19/2016	0.0	0.7	20.8

Table 2.3

Landfill Gas Probe Data
January through December 2016
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)
GP-10	3/15/2016	0.0	0.9	20.8
GP-10	5/24/2016	0.0	0.7	20.7
GP-10	7/12/2016	0.0	1.3	18.9
GP-10	10/19/2016	0.0	0.9	19.7
GP-11	3/15/2016	0.0	1.2	19.9
GP-11	5/24/2016	0.0	0.4	20.8
GP-11	7/12/2016	0.0	1.3	19.3
GP-11	10/19/2016	0.0	4.9	15.4
GP-12	3/15/2016	0.0	3.2	18.5
GP-12	5/24/2016	0.0	3.9	17.7
GP-12	7/12/2016	0.0	5.9	14.0
GP-12	10/19/2016	0.0	6.1	14.6
GP-13	3/15/2016	0.0	0.5	21.3
GP-13	5/24/2016	0.0	0.5	19.9
GP-13	7/12/2016	0.0	1.7	18.4
GP-13	10/19/2016	0.0	0.1	21.3
GP-14	3/15/2016	0.0	0.2	21.8
GP-14	5/24/2016	0.0	0.8	19.1
GP-14	7/12/2016	0.0	3.8	15.0
GP-14	10/19/2016	0.0	0.2	21.3

Appendix A
Weekly Flare Station Inspection Forms

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	1/5/2016	1/12/2016	1/19/2016	1/26/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Cldy
Ambient Temperature, deg F	20	5	0	25
Inlet Temperature, deg F (GHS-TI-301)	50	48	48	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4	4	4	5.5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.8	1.5	1.8	1.5
Discharge Temperature, deg F (GHS-TI-302)	56	48	48	58
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	9	11	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.8	2.0	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	18.3	19.6	19.7	19.7
Blower 301 Current, Amps (CP-YIC-2)	3.9	3.8	3.9	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.6	5.5	5.3	5.8
Inlet Temp, DegF	52	51	50	51
Oxygen, %	0	0	0	0
Blower Speed, %	22	23	23	23
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	60	48	49	67
FLR Flame Temp, DegF	1441	1375	1345	1440
FLR Flow Press, In WC	1.8	1.5	0	1.6
FLR Flow Temp, DegF	60	54	51	63
Flow Rate, SCFM	84	75	76	76
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	19244	19412	19860	19749
Speed, %	22	23	23	23
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	60	54	51	63
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	84	84	76	76
Flame Temp, DegF	1473	1335	1360	1430
BLR Speed, %	22	23	23	23
Flow Pressure, In WC	1.8	1.5	0	1.6
Hour Meter	19240	19408	19576	19744

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	75	75	76
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.46	1.27	2.08	2.92
Total Flow, MMSCF	107.32	108.12	108.93	109.77
Flow Press, In WC	1.8	1.5	1	1.6
Flow Temp, DegF	60	54	51	63
Flow Delta P, In WC	0.62	0.49	0.49	0.51
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
3 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.13
5 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
7 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	107.32	108.12	108.93	109.77
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	2/2/2016	2/9/2016	2/16/2016	2/23/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Cloudy	Cloudy
Ambient Temperature, deg F	25	15	30	25
Inlet Temperature, deg F (GHS-TI-301)	48	46	46	46
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4	4	4	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	1.5	1.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	54	50	56	56
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	9	9	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.2	1.2	1.2	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	0.3	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	17.9	18.9	17.9	18.1
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.8	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.2	5.1	4.6	4.6
Inlet Temp, DegF	51	50	49	49
Oxygen, %	0	0	0.2	0
Blower Speed, %	21	22	20	21
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	65	57	68	69
FLR Flame Temp, DegF	1365	1351	1332	1375
FLR Flow Press, In WC	1.9	1.7	1.4	1.7
FLR Flow Temp, DegF	59	56	59	59
Flow Rate, SCFM	84	80	76	80
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	19918	20086	20253	20422
Speed, %	21	22	20	21
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	59	56	59	59
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	84	80	76	80
Flame Temp, DegF	1367	1372	1336	1400
BLR Speed, %	21	22	20	21
Flow Pressure, In WC	1.9	1.7	1.4	1.7
Hour Meter	19914	20081	20249	20417

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	80	80	80
Today's Total, MMSCF	0.05	0.04	0.04	0.05
This Month's Total, MMSCF	0.11	0.93	1.74	2.56
Total Flow, MMSCF	110.59	111.39	112.2	113.03
Flow Press, In WC	1.9	1.7	1.4	1.7
Flow Temp, DegF	59	56	59	59
Flow Delta P, In WC	0.62	0.56	0.51	0.59
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.05	0.04	0.04	0.05
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
4 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
5 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
7 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	110.59	111.39	112.2	113.03
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	3/1/2016	3/8/2016	3/15/2016	3/22/2016
Time	10:00 AM	9:30 AM	10:00 AM	8:00 AM
Sky Conditions	Cldy	Cldy	Cldy	Clear
Ambient Temperature, deg F	25	50	50	40
Inlet Temperature, deg F (GHS-TI-301)	46	47	47	47
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4	4.5	4	4
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	1.5	1.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	50	62	60	56
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	9	9	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	2.0	1.8	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.2	1.5	1.3	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.5	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	19	17.8	17.8	16.4
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.8	3.8	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.2	4.3	4.3	3.2
Inlet Temp, DegF	49	49	49	49
Oxygen, %	0	0.2	0.1	0
Blower Speed, %	23	20	20	18
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	56	76	74	68
FLR Flame Temp, DegF	1420	1410	1435	1412
FLR Flow Press, In WC	1.8	1.7	1.7	1.7
FLR Flow Temp, DegF	56	64	63	58
Flow Rate, SCFM	84	79	78	80
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	20589	20757	20883	21037
Speed, %	23	20	20	18
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	56	64	63	58
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	80	80	80	78
Flame Temp, DegF	1406	1410	1430	1404
BLR Speed, %	23	20	20	18
Flow Pressure, In WC	1.8	1.7	1.7	1.7
Hour Meter	20585	20752	20879	21033

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	80	78	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.00	0.81	1.42	2.17
Total Flow, MMSCF	113.83	114.64	115.25	116
Flow Press, In WC	1.8	1.7	1.7	1.7
Flow Temp, DegF	56	64	63	58
Flow Delta P, In WC	0.61	0.56	0.54	0.56
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.12	0.00	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.08	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
5 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.07
7 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.09
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	113.83	114.64	115.25	116.01
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	3/29/2016	4/5/2016	4/12/2016	4/19/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	55	40	40	50
Inlet Temperature, deg F (GHS-TI-301)	47	46	46	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	5.5	6	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	1.5	1.5	1
Discharge Temperature, deg F (GHS-TI-302)	60	57	60	62
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	11	12	12	10
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	2.0	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.0	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	18.8	18.9	19.9	18.4
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.8	3.9	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.2	5.2	6.4	4.3
Inlet Temp, DegF	49	49	49	50
Oxygen, %	0.2	0	0.3	0
Blower Speed, %	22	23	24	19
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	71	71	69	71
FLR Flame Temp, DegF	1377	1391	1428	1501
FLR Flow Press, In WC	1.7	1.8	1.5	1.5
FLR Flow Temp, DegF	61	60	63	64
Flow Rate, SCFM	80	85	78	76
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	21206	21373	21538	21705
Speed, %	22	23	24	19
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	61	60	63	64
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	80	85	78	76
Flame Temp, DegF	1383	1355	1381	1526
BLR Speed, %	22	23	24	19
Flow Pressure, In WC	1.7	1.8	1.5	1.5
Hour Meter	21201	21370	21534	21700

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	80	85	78	76
Today's Total, MMSCF	0.04	0.04	0.04	0.03
This Month's Total, MMSCF	2.98	0.46	1.25	2.06
Total Flow, MMSCF	116.81	117.62	118.41	119.21
Flow Press, In WC	1.7	1.8	1.5	1.5
Flow Temp, DegF	61	60	63	64
Flow Delta P, In WC	0.56	0.63	0.53	0.52
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.03
2 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.10	0.12
7 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	116.81	117.62	118.41	119.21
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	4/26/2016	5/3/2016	5/10/2016	5/17/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cldy	Clear	Clear	Clear
Ambient Temperature, deg F	45	60	55	60
Inlet Temperature, deg F (GHS-TI-301)	48	50	48	49
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	5	5	8
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1.5	1	1
Discharge Temperature, deg F (GHS-TI-302)	60	66	54	60
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	15	8	11
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	2.0	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.5	1.0	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	19.9	18.2	18.7	21.5
Blower 301 Current, Amps (CP-YIC-2)	3.9	3.9	3.9	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.2	4.7	5.2	6.2
Inlet Temp, DegF	50	51	51	51
Oxygen, %	0	0.4	0	0
Blower Speed, %	24	21	22	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	68	79	69	69
FLR Flame Temp, DegF	1391	1366	1391	1365
FLR Flow Press, In WC	1.5	1.6	1.5	1.5
FLR Flow Temp, DegF	65	66	59	57
Flow Rate, SCFM	75	82	78	75
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	21873	22042	22209	22377
Speed, %	24	21	22	24
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	65	66	59	57
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	76	76	78	76
Flame Temp, DegF	1416	1438	1394	1318
BLR Speed, %	24	21	22	24
Flow Pressure, In WC	1.5	1.6	1.6	1.5
Hour Meter	21868	22037	22205	22372

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	76	82	78	78
Today's Total, MMSCF	0.03	0.04	0.04	0.04
This Month's Total, MMSCF	2.87	0.23	1.04	1.84
Total Flow, MMSCF	120.02	120.83	121.64	122.44
Flow Press, In WC	1.5	1.6	1.6	1.5
Flow Temp, DegF	65	66	59	58
Flow Delta P, In WC	0.51	0.60	0.54	0.50
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.03	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
7 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	120.02	120.83	121.64	122.44
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Turned off heat trace for year…Turned on A/C.

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	5/24/2016	5/31/2016	6/7/2016	6/13/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Cloudy	Cldy
Ambient Temperature, deg F	75	70	55	60
Inlet Temperature, deg F (GHS-TI-301)	50	52	52	52
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	7	7.5	7.5	7.5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	64	64	61	62
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	11	9	9	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.2	1.0	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.4
Blower 301 Frequency, Hz (CP-YIC-2)	20.6	21.3	21.8	20.8
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.8	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.9	7.4	7.9	6.7
Inlet Temp, DegF	53	54	55	55
Oxygen, %	0.7	0.1	0	0.3
Blower Speed, %	25	27	27	26
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	86	77	73	80
FLR Flame Temp, DegF	1310	1433	1351	1403
FLR Flow Press, In WC	1.5	1.6	1.5	1.7
FLR Flow Temp, DegF	67	65	64	66
Flow Rate, SCFM	76	79	77	84
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	22548	22692	22843	22992
Speed, %	25	27	27	26
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	67	65	64	66
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	76	76	79	77
Flame Temp, DegF	1322	1412	1343	1389
BLR Speed, %	25	27	27	26
Flow Pressure, In WC	1.5	1.6	1.5	1.7
Hour Meter	22543	22687	22839	22987

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	76	79	77	84
Today's Total, MMSCF	0.04	0.04	0.04	0.07
This Month's Total, MMSCF	2.65	3.34	0.61	1.29
Total Flow, MMSCF	123.26	123.94	124.67	125.38
Flow Press, In WC	1.5	1.6	1.5	1.8
Flow Temp, DegF	67	65	64	66
Flow Delta P, In WC	0.52	0.56	0.52	0.62
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.07
2 Day's Ago Flow, MMSCF	0.12	0.11	0.08	0.11
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.06	0.12	0.11
7 Day's Ago Flow, MMSCF	0.11	0.07	0.12	0.06
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	123.26	123.94	124.67	125.38
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	6/21/2016	6/28/2016	7/5/2016	7/12/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	70	65	80	80
Inlet Temperature, deg F (GHS-TI-301)	56	56	57	56
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	8	8.5	8	7
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1.5	1	1
Discharge Temperature, deg F (GHS-TI-302)	67	68	70	66
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	12	9	10	1
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.8	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.3	1.2	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.3	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	21.2	21.9	20.8	19.8
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.9	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	7.4	7.5	7.1	5.9
Inlet Temp, DegF	57	58	59	59
Oxygen, %	0.5	0.3	0.6	0.3
Blower Speed, %	27	27	26	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	84	81	86	81
FLR Flame Temp, DegF	1380	1352	1386	1412
FLR Flow Press, In WC	1.8	1.6	1.5	1.5
FLR Flow Temp, DegF	68	369	71	69
Flow Rate, SCFM	84	79	76	77
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	23178	23321	23488	23656
Speed, %	27	27	26	24
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	68	69	71	69
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	84	84	78	77
Flame Temp, DegF	1333	1363	1329	1372
BLR Speed, %	27	27	26	24
Flow Pressure, In WC	1.8	1.6	1.5	1.5
Hour Meter	23174	23316	23484	23652

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	79	76	77
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	2.22	2.9	0.46	1.27
Total Flow, MMSCF	126.27	126.95	127.76	128.57
Flow Press, In WC	1.8	1.5	1.5	1.6
Flow Temp, DegF	68	69	71	69
Flow Delta P, In WC	0.63	0.56	0.51	0.53
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.04	0.11	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
4 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	126.27	126.95	127.76	128.57
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	7/19/2016	7/26/2016	8/2/2016	8/9/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	80	80	80	80
Inlet Temperature, deg F (GHS-TI-301)	57	58	59	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	8	8	8	8
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	68	72	68	72
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	10	14	11	12
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	2.0	1.7	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.5	1.2	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	21	20.6	20.2	20.1
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.8	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	7.0	6.8	6.4	6.1
Inlet Temp, DegF	60	61	61	62
Oxygen, %	0.5	0.8	0.5	0.9
Blower Speed, %	26	26	25	25
Blower Vibration, In/Sec	0	0	0	0.01
CP Temp, DegF	83	87	84	94
FLR Flame Temp, DegF	1350	1407	1405	1423
FLR Flow Press, In WC	1.7	1.8	1.7	1.7
FLR Flow Temp, DegF	71	72	71	74
Flow Rate, SCFM	82	84	81	83
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	23817	23984	24152	24323
Speed, %	26	26	25	25
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	71	72	71	74
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	82	82	80	83
Flame Temp, DegF	1345	1442	1400	1435
BLR Speed, %	26	26	25	25
Flow Pressure, In WC	1.7	1.8	1.7	1.7
Hour Meter	23812	23980	24147	24318

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	82	82	81	83
Today's Total, MMSCF	0.04	0.04	0.04	0.05
This Month's Total, MMSCF	2.05	2.87	0.12	0.94
Total Flow, MMSCF	129.35	130.17	131	131.83
Flow Press, In WC	1.7	1.8	1.7	1.8
Flow Temp, DegF	71	72	71	74
Flow Delta P, In WC	0.60	0.63	0.59	0.62
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.05
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.08	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	129.35	130.17	131	131.83
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	8/15/2016	8/23/2016	8/30/2016	9/7/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Cloudy
Ambient Temperature, deg F	70	75	75	75
Inlet Temperature, deg F (GHS-TI-301)	60	61	61	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	8.5	9.5	10	10
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	70	72	73	72
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	16	14	11	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.5	1.8	1.7
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.0	1.4	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.4	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	20.8	21.9	22.6	22.9
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.7	3.9	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.8	6.3	8.4	8.6
Inlet Temp, DegF	62	63	63	64
Oxygen, %	0.8	0	0.4	0.3
Blower Speed, %	26	24	29	29
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	85	79	83	83
FLR Flame Temp, DegF	1484	1406	1313	1389
FLR Flow Press, In WC	1.7	1.6	1.6	1.7
FLR Flow Temp, DegF	72	71	75	76
Flow Rate, SCFM	84	79	80	81
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	24465	24655	24824	25017
Speed, %	26	24	29	29
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	72	71	75	76
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	85	84	78	81
Flame Temp, DegF	1482	1406	1371	1385
BLR Speed, %	26	24	29	29
Flow Pressure, In WC	1.7	1.6	1.7	1.7
Hour Meter	24460	24651	24820	25012

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	85	78	80	80
Today's Total, MMSCF	0.04	0.03	0.04	0.04
This Month's Total, MMSCF	1.64	2.58	3.38	0.7
Total Flow, MMSCF	132.52	133.45	134.26	135.2
Flow Press, In WC	1.7	1.6	1.6	1.7
Flow Temp, DegF	72	71	75	76
Flow Delta P, In WC	0.64	0.55	0.58	0.60
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.05	0.03	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
7 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	132.52	133.45	134.26	135.20
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	9/13/2016	9/20/2016	9/28/2016	10/4/2016
Time	10:00 AM	8:30 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Cloudy
Ambient Temperature, deg F	65	60	60	65
Inlet Temperature, deg F (GHS-TI-301)	62	60	60	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	10	9	8	7
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	70	66	67	66
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	12	9	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.5	1.5	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.2	1.0	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	22.6	21.6	22.1	19.5
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.9	3.9	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	8.6	7.7	8.0	7.2
Inlet Temp, DegF	64	63	63	63
Oxygen, %	0.2	0.2	0.1	0
Blower Speed, %	29	27	28	26
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	80	77	75	77
FLR Flame Temp, DegF	1457	1372	1344	1409
FLR Flow Press, In WC	1.5	1.6	1.5	1.6
FLR Flow Temp, DegF	74	70	71	70
Flow Rate, SCFM	77	79	77	79
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	25160	25328	25520	25664
Speed, %	29	27	28	26
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	74	71	71	70
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	76	79	76	79
Flame Temp, DegF	1458	1365	1331	1389
BLR Speed, %	29	27	28	26
Flow Pressure, In WC	1.6	1.6	1.5	1.6
Hour Meter	25155	25323	25515	25659

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	82	79	76	79
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.4	2.21	3.13	0.35
Total Flow, MMSCF	135.89	136.71	137.63	138.33
Flow Press, In WC	1.5	1.6	1.5	1.6
Flow Temp, DegF	74	70	71	71
Flow Delta P, In WC	0.53	0.56	0.56	0.55
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
3 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	135.89	136.71	137.63	138.33
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	10/11/2016	10/19/2016	10/25/2016	11/1/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clr	Clear	Clear
Ambient Temperature, deg F	60	55	45	55
Inlet Temperature, deg F (GHS-TI-301)	60	60	58	58
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	6	5.5	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1.3
Discharge Temperature, deg F (GHS-TI-302)	64	61	66	70
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	10	11	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	2.0	1.7	1.6
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.5	1.3	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.4	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	18.1	20.3	19.8	19.2
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.6	6.3	5.8	5.1
Inlet Temp, DegF	63	62	61	61
Oxygen, %	0	0.6	0.5	0.8
Blower Speed, %	21	25	24	22
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	77	76	72	80
FLR Flame Temp, DegF	1379	1304	1450	1400
FLR Flow Press, In WC	1.6	1.8	1.8	1.6
FLR Flow Temp, DegF	68	72	69	74
Flow Rate, SCFM	81	80	81	75
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	25826	26014	26158	26327
Speed, %	21	25	24	22
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	68	72	69	74
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	81	80	81	75
Flame Temp, DegF	1385	1280	1459	1414
BLR Speed, %	21	25	24	22
Flow Pressure, In WC	1.6	1.8	1.8	1.6
Hour Meter	25820	26009	26153	26321

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	81	80	81	75
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.14	2.04	2.74	0
Total Flow, MMSCF	139.12	140.02	140.72	141.54
Flow Press, In WC	1.6	1.8	1.8	1.6
Flow Temp, DegF	68	72	69	74
Flow Delta P, In WC	0.57	0.57	0.58	0.51
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
4 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.09	0.12	0.12	0.11
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.10	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	139.12	140.02	140.72	141.54
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	11/8/2016	11/15/2016	11/22/2016	11/29/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Cloudy	Cloudy
Ambient Temperature, deg F	45	45	30	40
Inlet Temperature, deg F (GHS-TI-301)	58	57	55	55
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5.5	6	7	6
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.2
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1.5
Discharge Temperature, deg F (GHS-TI-302)	67	68	60	64
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6	1.8	1.7	1.6
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.5	1.4	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	0.3	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	19.1	19.2	19.5	20.7
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.5	5.5	5.9	6.5
Inlet Temp, DegF	60	60	58	58
Oxygen, %	0.6	0.7	0.4	0.3
Blower Speed, %	23	23	24	25
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	76	78	69	72
FLR Flame Temp, DegF	1240	1474	1390	1355
FLR Flow Press, In WC	1.6	1.7	1.6	1.6
FLR Flow Temp, DegF	70	71	66	68
Flow Rate, SCFM	76	77	78	75
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	26496	26663	26832	27000
Speed, %	23	23	24	25
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	70	71	66	68
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	75	78	78	76
Flame Temp, DegF	1298	1494	1375	1376
BLR Speed, %	23	23	24	25
Flow Pressure, In WC	1.6	1.7	1.6	1.6
Hour Meter	26490	26657	26826	26994

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	75	78	78.0	77
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.81	1.62	2.43	3.24
Total Flow, MMSCF	142.35	143.16	143.97	144.78
Flow Press, In WC	1.6	1.7	1.6	1.6
Flow Temp, DegF	70	71	66	68
Flow Delta P, In WC	0.51	0.54	0.53	0.51
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
6 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
7 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	142.35	143.16	143.97	144.78
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	12/6/2016	12/13/2016	12/20/2016	12/27/2016
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Cloudy
Ambient Temperature, deg F	30	0	30	20
Inlet Temperature, deg F (GHS-TI-301)	54	52	51	50
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	6	5	6
Demister Filter Delta P (GHS-PDI-301)	0.3	0.2	0.2	0.2
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	1	2.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	60	50	52	54
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.8	2.3	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.4	1.8	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.4	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	19.8	21	19.7	21
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.8	3.8	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.6	6.7	4.6	7.0
Inlet Temp, DegF	57	55	54	54
Oxygen, %	0.1	0	0	0
Blower Speed, %	24	26	24	26
Blower Vibration, In/Sec	0	0.01	0	0
CP Temp, DegF	70	53	64	60
FLR Flame Temp, DegF	1387	1296	1381	1260
FLR Flow Press, In WC	1.9	1.8	2.6	1.7
FLR Flow Temp, DegF	65	55	55	60
Flow Rate, SCFM	84	75	82	79
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	27168	27336	27503	27672
Speed, %	24	26	24	26
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	65	55	55	60
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	84	76	75	79
Flame Temp, DegF	1388	1294	1381	1230
BLR Speed, %	24	26	24	26
Flow Pressure, In WC	1.9	1.8	2.5	1.7
Hour Meter	27162	27331	27498	27667

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	76	76	78
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.58	1.39	2.2	3.01
Total Flow, MMSCF	145.6	146.41	147.22	148.03
Flow Press, In WC	1.9	1.8	2.5	1.7
Flow Temp, DegF	65	54	55	60
Flow Delta P, In WC	0.63	0.50	0.58	0.54
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
5 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
7 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	145.6	146.41	147.22	148.03
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

Appendix B
Semi Annual Flare Station Maintenance Reports

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
BLOWER/FLARE SYSTEM		
- Check igniter gap (should be 0.1" - regap if necessary).	4/5/2016	Gap checked/correct. In good shape, with some minor carbon build-up
- Verify that the spark is at the tip of the igniter.	4/5/2016	Good, strong spark
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	4/5/2016	Igniter wiring in good shape
- Test pilot switch to verify pilot lights and it doesn't blow out.	4/5/2016	Pilot lights and burns well, even in high wind
- Check thermocouple voltage to verity the temperature reading.	4/6/2016	32.1 mV @ 1430^{o} - ok
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	4/6/2016	Blower VFD fault lights with breaker off.
- Zero out all pressure, differential pressure, and vacuum gauges	4/5/2016	All zeroed
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	4/5/2016	All setpoints good.
- Verify flow transmitter calibration (via differential pressure).	4/6/2016	0.0" at 0 cfm, and 0.6" @ 80 cfm . Within specifications.
- Calibrate oxygen sensor.	4/6/2016	Calibrated zero and span. 11.0 mV at 20.8% O2.
- Remove demister sump clean-out cover and remove any accumulated debris	4/5/2016	Sump nice and clean, no debris present.
- If pressure drop across the demister reaches two times (2X) the original value, remove demister element for inspection. (pressure wash element as necessary).	4/5/2016	Pulled element, in good shape. Clean and no signs of grease or dirt
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	4/6/2016	Added water to sensor tee, shutdown works.
- Test the pilot fail shutdown (turn off propane supply)	4/5/2016	Works how it should
- Test the high temperature shutdown while the flare is operating. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a high enough temp to test.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	4/5/2016	Works - opened oxygen sensor to atmosphere
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	4/6/2016	Works
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	4/6/2016	Works - via setpoint adjustment
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	4/5/2016	Works as it's supposed to
- Test the high inlet temperature failure (adjust PLC setpoint)	4/6/2016	Works - via setpoint change
- Test the high vacuum shutdown (adjust PLC setpoint)	4/6/2016	Works
- Test the low temperature shutdown. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a low enough temp to test.
- Inspect transmitter housings and piping. Replace O-rings, if necessary.	4/5/2016	All in good shape, greased all o-rings
- Inspect and clean the solenoid valve.	4/6/2016	Looks good, functions well
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	4/6/2016	Nothing arcing
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	4/6/2016	Good
- Check for loose bolts on structure and flanges. Tighten, as necessary.	4/6/2016	None loose
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	4/6/2016	Filter clean
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	4/5/2016	Inspected - some discoloration, but element is clean
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	4/6/2016	Bearings in good shape. Spin easy and smooth.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
BLOWER/FLARE SYSTEM		
- Check igniter gap (should be 0.1" - regap if necessary).	10/12/2016	Plug in good shape, closed up gap a small amount
- Verify that the spark is at the tip of the igniter.	10/11/2016	Good
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	10/12/2016	Wiring in good shape
- Test pilot switch to verify pilot lights and it doesn't blow out.	10/11/2016	Works well
- Check thermocouple voltage to verity the temperature reading.	10/12/2016	0.4 mV @ ambient (48^{o}) ok 25.98 mV @ 1170^{o} - ok
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	10/11/2016	All working
- Zero out all pressure, differential pressure, and vacuum gauges	10/11/2016	All zeroed at ambient
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	10/11/2016	Good - setpoints logged on setpoint data sheet. No changes made or necessary
- Verify flow transmitter calibration (via differential pressure).	10/12/2016	0.0" at 0 cfm, and 0.48" @ 75 cfm . All within specifications.
- Calibrate oxygen sensor.	10/12/2016	Calibrated zero and span. 10.2 mV at 20.8% O2.
- Remove demister sump clean-out cover and remove any accumulated debris	10/12/2016	No debris, dry.
- If pressure drop across the demister reaches two times (2X) the original value, remove demister element for inspection. (pressure wash element as necessary).	10/12/2016	Differential pressure is still within range, but still inspected element. Element was clean and dry.
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	10/12/2016	Filled tee with water, functions correctly
- Test the pilot fail shutdown (turn off propane supply)	10/11/2016	Works
- Test the high temperature shutdown while the flare is operating. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a high enough temp to test.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	10/11/2016	Opened oxygen sensor line to atmosphere, shutdown worked.
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	10/12/2016	Works - throttled blower/lowered timer to test.
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	10/11/2016	Works - changed set-pointand timer to test and tapped on sensor.
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	10/11/2016	Works - turned off nitrogen supply
- Test the high inlet temperature failure (adjust PLC setpoint)	10/12/2016	Works - changed set point to test
- Test the high vacuum shutdown (adjust PLC setpoint)	10/12/2016	Works - changed set point to test
- Test the low temperature shutdown. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a low enough temp to test.
- Inspect transmitter housings and piping. Replace O-rings, if necessary.	10/12/2016	o-rings in good shape
- Inspect and clean the solenoid valve.	10/12/2016	Valve in good condition
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	10/12/2016	Good
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	10/12/2016	All connections tight.
- Check for loose bolts on structure and flanges. Tighten, as necessary.	10/12/2016	All bolts were tight
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	10/12/2016	Good
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	10/12/2016	Some staining/rust present, but arrestor element is clean and dry.
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	10/12/2016	Bearings in good shape, regreased. Additional grease will be required for next visit

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester	T. Hobday		T. Hobday	
Date	4/5/16		10/11/16	
Time	13:45		16:45	
Sky Conditions	m. cloudy		clear	
Ambient Temperature, deg F	40°F		65°F	
Inlet Temperature, deg F (GHS-TI-301)	47°F		60°F	
Demister Inlet Valve Position, % Open (GHS-HV-301)	100%		100%	
LFG Vacuum, In WC (GHS-PI-301)	4"		5"	
Demister Filter Delta P (GHS-PDI-301)	0.3"		0.3"	
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100%		100%	
Discharge Pressure, In WC (GHS-PI-302)	1"		1"	
Discharge Temperature, deg F (GHS-TI-302)	58°F		70°F	
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9"		8.5"	
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.9"		1.5"	
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.6"		1.3"	
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3"		0.2"	
Blower 301 Frequency, Hz (CP-YIC-2)	17.5 Hz		17.8 Hz	
Blower 301 Current, Amps (CP-YIC-2)	3.8 A		3.8 A.	

* ***PUSH BUTTON***

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

YIC-1 From Main Menu Screen	4/5/16		10/11/16	
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	3.9"		4.2"	
Inlet Temp, DegF	49°F		63°F	
Oxygen, %	0.0%		0.3%	
Blower Speed, %	20%		21%	
Blower Vibration, In/Sec	0.00"/sec		0.00"/sec	
CP Temp, DegF	72°F		85°F	
FLR Flame Temp, DegF	1427°F		1420°F	
FLR Flow Press, In WC	1.9"		1.8"	
FLR Flow Temp, DegF	61°F		74°F	
Flow Rate, SCFM	85 cfm		83 cfm	
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run		Run	
Run Time, Hr	21379 hrs		25836 hrs	
Speed, %	20%		21%	
Vibration, In/Sec	0.00"/sec		0.00"/sec	
Outlet Temp, DegF	61°F		74°F	
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	85 cfm		83 cfm	
Flame Temp, DegF	1443°F		1452°F	
BLR Speed, %	20%		21%	
Flow Pressure, In WC	1.9"		1.8"	
Hour Meter	21375 hrs		25830 hrs	
Run Clock	On		On	
Pilot	Off		Off	

* ***PUSH BUTTON***

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

	4/5/16		10/11/16	
SD Valve	Open		Open	
Flame	On		On	
Relight	Off		Off	
Pilot	Ready		Ready	
Vac Ramp	Off		Off	
Forced Flow	Off		Off	
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	85 cfm		83 cfm	
Today's Total, MMSCF	0.0696036		0.0821068	
This Month's Total, MMSCF	0.463219		1.142985	
Total Flow, MMSCF	117.644		139.167	
Flow Press, In WC	1.9"		1.8"	
Flow Temp, DegF	62°F		74°F	
Flow Delta P, In WC	0.63"		0.62"	
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.0696036		0.0821068	
2 Day's Ago Flow, MMSCF	0.1160962		0.1176676	
3 Day's Ago Flow, MMSCF	0.1148250		0.1187070	
4 Day's Ago Flow, MMSCF	0.1167741		0.1148272	
5 Day's Ago Flow, MMSCF	0.1115437		0.0885776	
6 Day's Ago Flow, MMSCF	0.1147424		0.1152944	
7 Day's Ago Flow, MMSCF	0.1168051		0.1186733	
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	1.17644		1.39167	
Reset Time	0:0:0		0:0:0	
Reset Date	0/00/00		0/00/00	
* **BACK**				

* ***PUSH BUTTON***

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Description	Setpoint	DATE	Setpoint	DATE
SETPOINT MENU				
* **VACUUM/FLOW**				
Vacuum/Flow	Flow	4/5/16	Flow	10/11/16
* **MANUAL/AUTO**				
Min % Speed	10%	4/5/16	10%	10/11/16
Auto/Manual	Auto	↓	Auto	↓
Manual % Speed	20%	↓	20%	↓
* **BACK**				
* **VACUUM CONTROL**				
* **SETPOINTS**				
Setpoint, In WC	3.0"	4/5/16	2.0"	10/11/16
Ramp Incriment, In WC	4.0"	↓	4.0"	↓
* **BACK**				
* **PID SPs**				
Gain	2.50	4/5/16	2.50	10/11/16
Sample Rate, Sec	0.50sec	↓	0.50sec	↓
Derative, Sec	0.01sec	↓	0.01sec	↓
Reset, Sec/Min	0.50sec	↓	0.50sec	↓
Deadband, In WC	0.5"	↓	0.5"	↓
* **BACK**				
* **BACK**				
* **FLOW CONTROL**				
* **SETPOINTS**				
Flow Control Setpoint, SCFM	80 cfm	4/5/16	80 cfm	10/11/16
* **BACK**				
* **PID SETPOINTS**				
Gain	0.80	4/5/16	0.80	10/11/16
Sample Rate, Sec	0.70sec	↓	0.70sec	↓
Derative, Sec	0.01sec	↓	0.01sec	↓
Reset, Sec/Min	1.10sec	↓	1.10sec	↓
Deadband, SCFM	5 cfm	↓	5 cfm	↓
* **BACK**				
* **BACK**				
* **BACK**				
* **FLARE MENU**				

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

* **START SPs**				
Pilot Enable, Secs	75 secs	4/5/16	75 secs	10/11/16
Pilot On Squence, Secs	10 secs		10 secs	
Pilot Off Squence, Secs	3 secs		3 secs	
Delay Blower Start, Secs	3 secs		3 secs	
Delay Shutdown Valve Open, Secs	3 secs	↓	3 secs	↓
* **BACK**				
* **PILOT**				
FLR Pilot Assumed on Above This Temp, DegF	250°F	4/5/16	250°F	10/11/16
* **BACK**				
* **FLR RUN CLOCK**				
Start Time of Day, Hr.Min	0.00	4/5/16	0.00	10/11/16
On Cycle Duration, Mins	1440 min		1440 min	
Off Cycle Duration, Mins	1 min		1 min	
Cycles per Day	1	↓	1	↓
* **BACK**				
* **BACK**				
* **FLOW CALC**				
CH4%	31.0%	4/5/16	31.0%	10/11/16
O2%	0.1%		0.1%	
CO2%	32.5%		32.5%	
Elevation, Ft	1225 ft.		1225 ft	
Manual Input	0.975	↓	0.975	↓
* **BACK**				
* **OXYGEN CALIBRATION**				
* **BACK**				
* **ALARMS & SHUTDOWNS**				
* **INLET MENU**				
* **HIGH VACUUM**				
Alarm SP, In WC	52.0"	4/5/16	52.0"	10/11/16
Alarm Delay, Sec	45 secs		45 secs	
Shutdown SP, In WC	55.0"		55.0"	
Shutdown Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **INLET TEMPERATURE**				
Alarm SP, DegF	98°F	4/5/16	98°F	10/11/16

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Alarm Delay, Sec	45 secs	4/5/16	45 secs	10/11/16
Shutdown SP, DegF	100°F	↓	100°F	↓
Shutdown Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **BACK**				
* **FLT-301 COND LEVEL**				
Shutdown Delay, Sec	35 secs	4/5/16	35 secs	10/11/16
* **BACK**				
* **BLOWER MENU**				
* **VIBRATION**				
Alarm SP, In/S	0.18"/sec	4/5/16	0.18"/sec	10/11/16
Alarm Delay, Sec	45 secs	↓	45 secs	↓
Shutdown SP, In/S	0.20"/sec	↓	0.20"/sec	↓
Shutdown Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **HIGH OUTLET GAS TEMP**				
Alarm SP, DegF	170°F	4/5/16	170°F	10/11/16
Alarm Delay, Sec	45 secs	↓	45 secs	↓
Shutdown SP, DegF	174°F	↓	174°F	↓
Shutdown Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **BACK**				
* **FLARE MENU**				
* **HIGH FLAME TEMP**				
Alarm SP, DegF	NA		NA	
Alarm Delay, Sec	↘		↘	
Shutdown SP, DegF				
Shutdown Delay, Sec	↘		↘	
* **BACK**				
* **LOW FLAME TEMP**				
Alarm SP, DegF	150°F	4/5/16	150°F	10/11/16
Alarm Delay, Sec	45 secs	↓	45 secs	↓
Restart ~~Shutdown~~ SP, DegF	200°F	↓	200°F	↓
Restart ~~Shutdown~~ Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **HIGH FLOW RATE**				

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Alarm SP, SCFM	220 cfm	4/5/16	220 cfm	10/11/16
Alarm Delay, Sec	45 secs	↓	45 secs	↓
* **BACK**				
* **LOW FLOW RATE**				
Alarm SP, SCFM	35 cfm	4/5/16	35 cfm	10/11/16
Alarm Delay, Sec	35 secs	|	35 secs	|
Shutdown SP, SCFM	30 cfm	|	30 cfm	|
Shutdown Delay, Sec	35 secs	↓	35 secs	↓
* **BACK**				
* **FLARE RELIGHT**				
Relight Delay, Secs	600 secs	4/5/16	600 secs	10/11/16
Number of Relight Attempts	3	↓	3	↓
* **BACK**				
* **BACK**				
* **OXYGEN SENSOR**				
* **HIGH OXYGEN OE-301**				
Alarm SP, %	3.5 %	4/5/16	3.5 %	10/11/16
Alarm Delay, Sec	120 secs	|	120 secs	|
Shutdown SP, %	5.0 %	|	5.0 %	|
Shutdown Delay, Sec	120 secs	↓	120 secs	↓
* **BACK**				
* **BACK**				
* **UTILITY OUTAGE RESTART DELAY**				
System Restart Delay, Secs	60 secs	4/5/16	60 secs	10/11/16
* **BACK**				
* **PANEL TEMP**				
Low Temp Alarm SP, degF	35 °F	4/5/16	35 °F	10/11/16
Low Temp Alarm Delay, Sec	120 secs	|	120 secs	|
High Temp Alarm SP, degF	120 °F	|	120 °F	|
High Temp Alarm Delay, Sec	120 secs	↓	120 secs	↓
* **BACK**				
* **BACK**				
* **BACK**				

Appendix C
Monthly Site Inspection Forms

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 1/15/16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	Area fenced off for winter
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 2.16.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber
Date: 3/22/16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	y	n	
Vegetation cover intact?	y	n	
Is cover free of surface water ponding?	y	n	
Is cover free of exposed refuse?	y	n	
Is cover free of leachate seeps?	y	n	
Is cover free of animal burrows?	y	n	
Is cover free of noxious weeds?	y	n	
Is cover in need of mowing?	y	n	
Evidence of settlement of fill?	y	n	
Nuisance odors present?	y	n	
On-site access road drivable?	y	n	
Fence around flare secured?	y	n	
Evidence of trespassers or encroachment?	y	n	
Illegal disposal/dumping present?	y	n	
Gas wells free of damage?	y	n	
Water mon wells secured/free of damage?	y	n	
Gas probes secured/free of damage?	y	n	
Flare station modem operational?	y	n	

Comments:

All Extraction Wells & Site in good shape after winter.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabez

Date: 4-19-16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Hillside of landfill will be mowed more often this summer as 2x/year as in the past.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 5.17.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel
Date: 6.8.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:
Looks good over whole site

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 7.6.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kelvin Fabel

Date: 8.23.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)*	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)**	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

* Requested weed whacking inside Flare Station done 8.22.16

** EW #19 needs new cover - on order

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel
Date: 9.13.16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)*	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

* EW #19 cover still on order. Scheduled to arrive 9.15.16.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 10-12-16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	y	n	
Vegetation cover intact?	y	n	
Is cover free of surface water ponding?	y	n	
Is cover free of exposed refuse?	y	n	
Is cover free of leachate seeps?	y	n	
Is cover free of animal burrows?	y	n	
Is cover free of noxious weeds?	y	n	
Is cover in need of mowing?	y	n	
Evidence of settlement of fill?	y	n	
Nuisance odors present?	y	n	
On-site access road drivable?	y	n	
Fence around flare secured?	y	n	
Evidence of trespassers or encroachment?	y	n	
Illegal disposal/dumping present?	y	n	
Gas wells free of damage?	y	n	
Water mon wells secured/free of damage?	y	n	
Gas probes secured/free of damage?	y	n	
Flare station modem operational?	y	n	

Comments:

Last Monitoring Event before winter. Looks Good.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 11·15·16

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	y	n	
Vegetation cover intact?	y	n	
Is cover free of surface water ponding?	y	n	
Is cover free of exposed refuse?	y	n	
Is cover free of leachate seeps?	y	n	
Is cover free of animal burrows?	y	n	
Is cover free of noxious weeds?	y	n	
Is cover in need of mowing?	y	n	
Evidence of settlement of fill?	y	n	
Nuisance odors present?	y	n	
On-site access road drivable?	y	n	
Fence around flare secured?	y	n	
Evidence of trespassers or encroachment?	y	n	
Illegal disposal/dumping present?	y	n	
Gas wells free of damage?	y	n	
Water mon wells secured/free of damage?	y	n	
Gas probes secured/free of damage?	y	n	
Flare station modem operational?	y	n	

Comments:

Site in good shape for winter

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 12.29.10

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Site is snow covered. Area by gate plowed.

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