# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **017AA-011278-RT-139** 

Reporting Period: January 3 through January 9, 2022

Report Date: January 10, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from January 3 through January 9, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on December 15, 2021 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

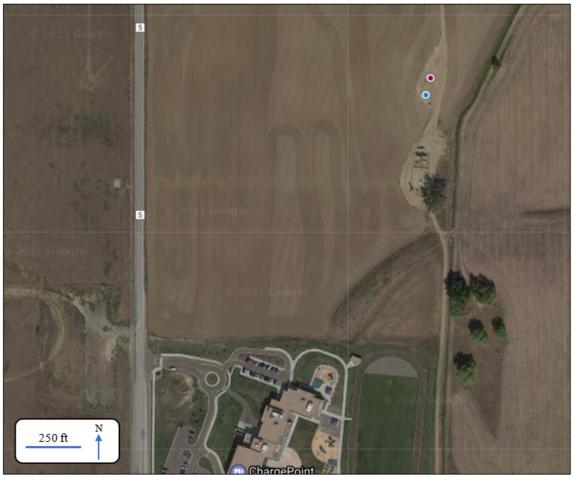
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	100%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted on January 4, 2022 at the State Well 30-16 and no emissions were detected during the inspection.

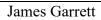
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



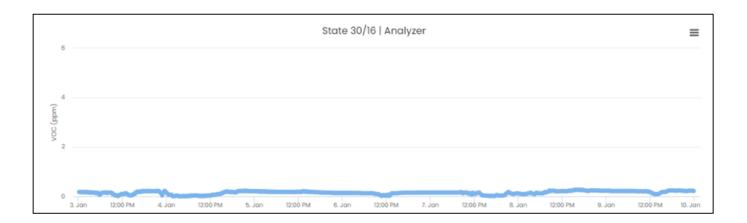
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

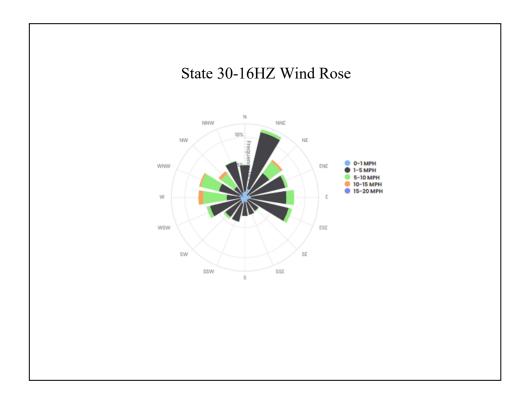
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: 017AA-011278-RT-147

Reporting Period: January 10 through January 16, 2022

Report Date: January 17, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from January 10 through January 16, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on January 12, 2021 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

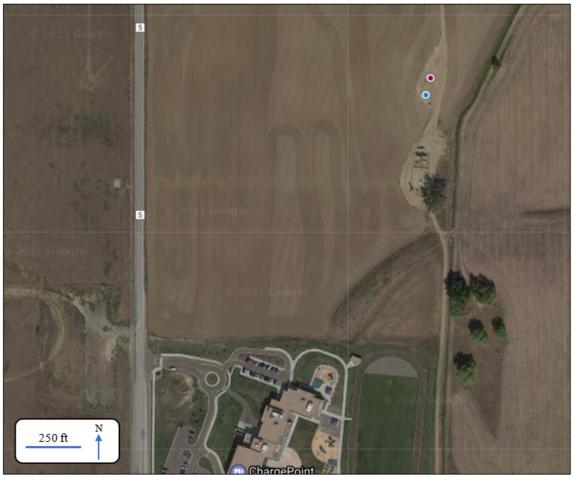
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	98.36%
Data Recovery	96.30%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted on January 11, 2022 at the State Well 30-16 and no emissions were detected during the inspection.

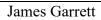
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



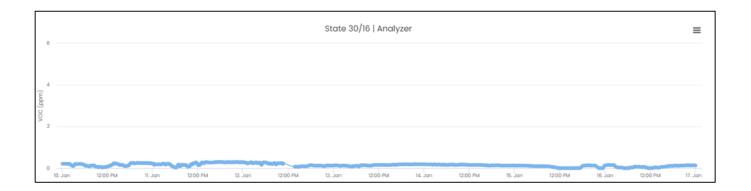
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

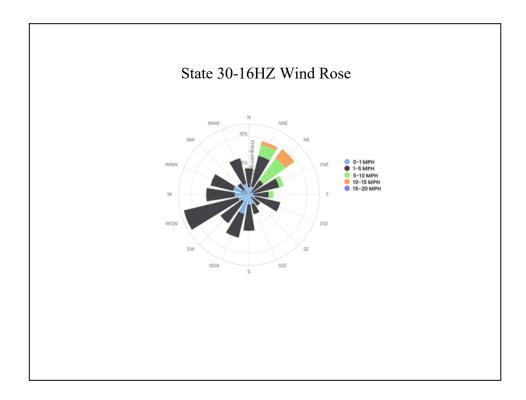
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: 085AA-011278-RT-1

Reporting Period: January 17 through January 23, 2022

Report Date: January 24, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from January 17 through January 23, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on January 12, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

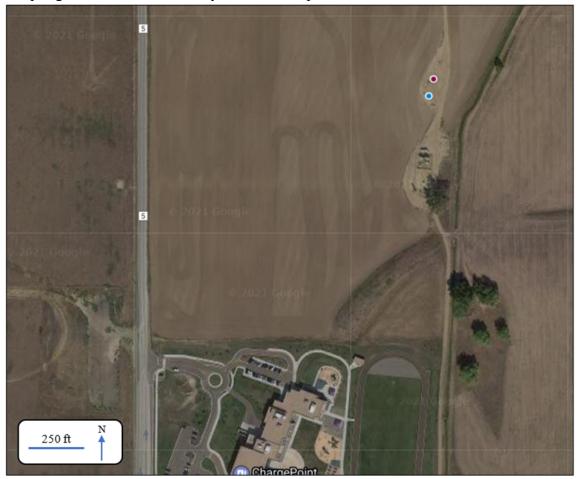
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	100%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted on January 18, 2022 at the State Well 30-16 and no emissions were detected during the inspection.

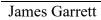
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



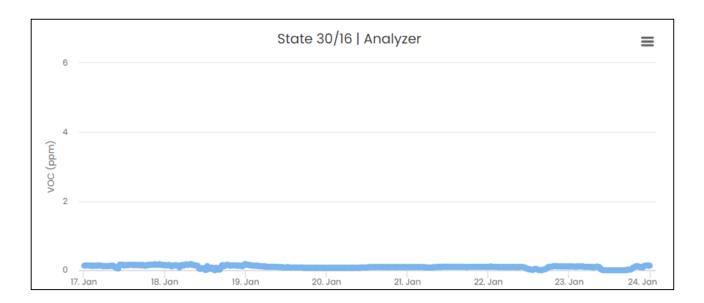
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

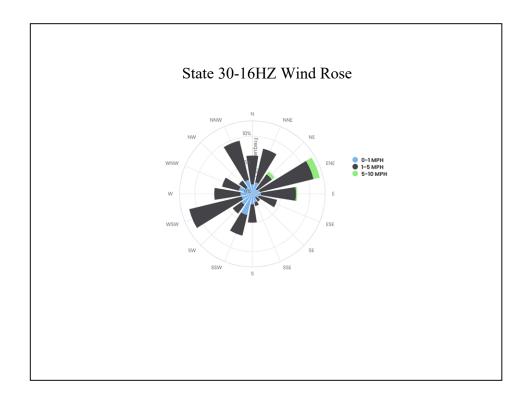
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-2** 

Reporting Period: January 24 through January 30, 2022

Report Date: January 31, 2022

# **Table of Contents**

PROJECT OVERVIEW	
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from January 24 through January 30, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on January 12, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	100%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted on January 25, 2022 at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



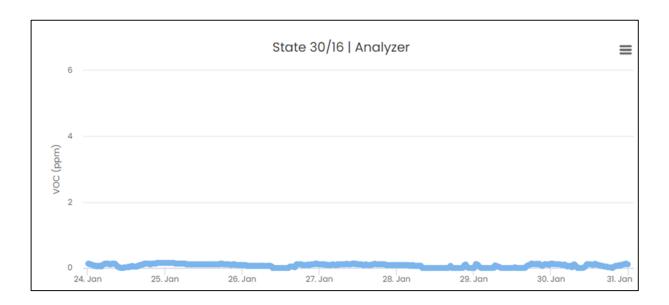
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

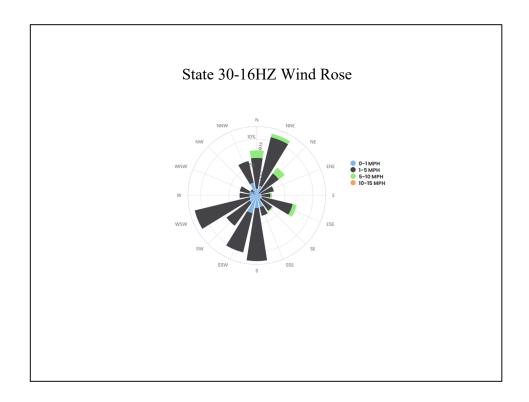
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-23** 

Reporting Period: January 31 through February 28, 2022

Report Date: March 15, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### Summary

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from January 31 through February 28, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on February 9, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

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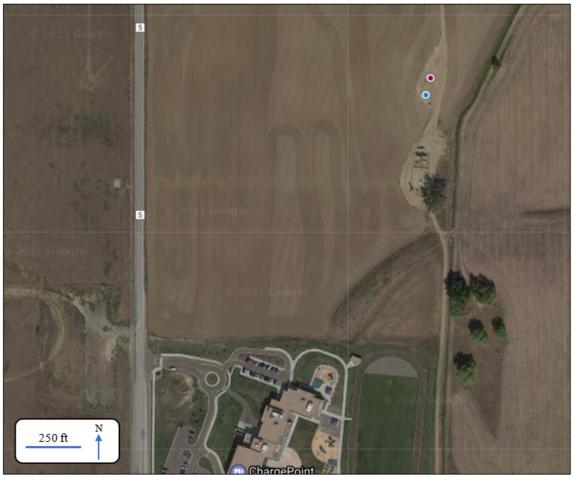
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# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	99.5%
Data Recovery	99.5%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Weekly Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

No emissions were detected during the weekly inspections conducted during this reporting period.

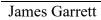
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



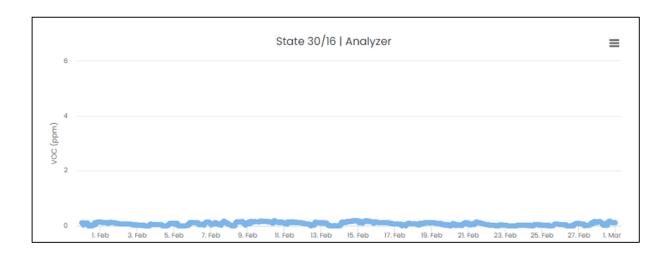
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

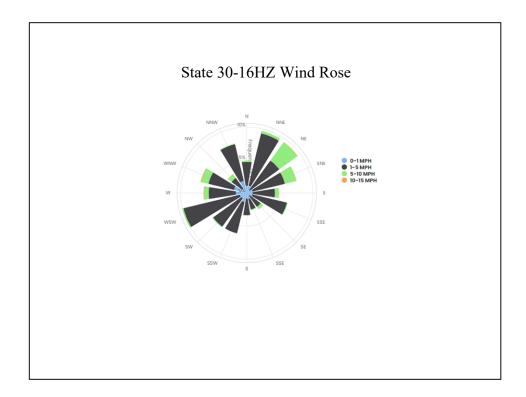
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-45** 

Reporting Period: March 1 through March 31, 2022

Report Date: April 15, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from March 1 through March 31, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on March 9, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

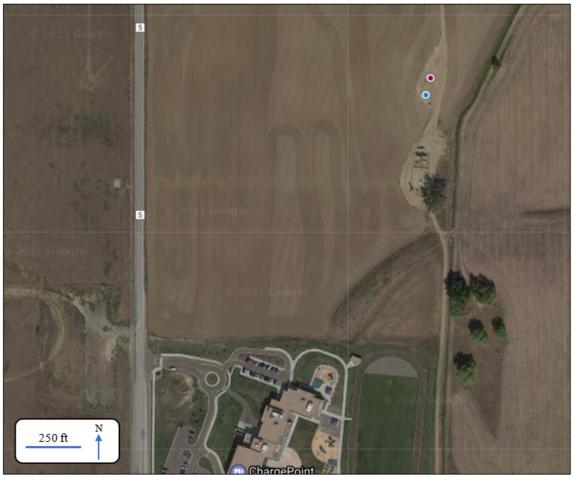
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	99.3%
Data Recovery	99.5%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

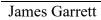
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



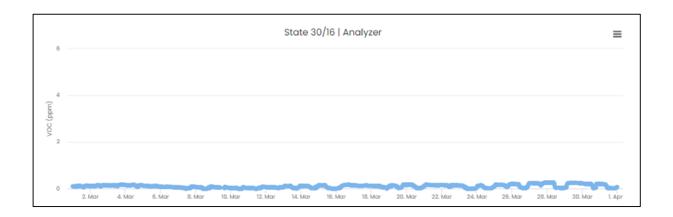
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

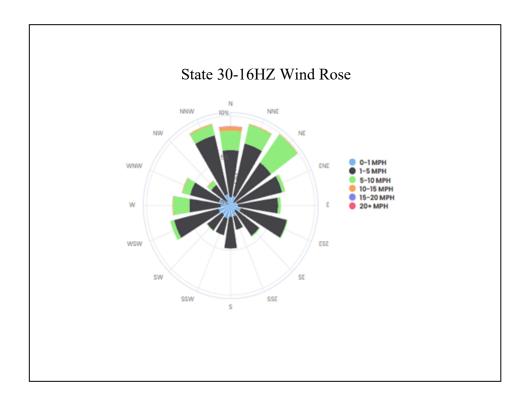
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-45** 

Reporting Period: March 1 through March 31, 2022

Report Date: April 15, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from March 1 through March 31, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on March 9, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

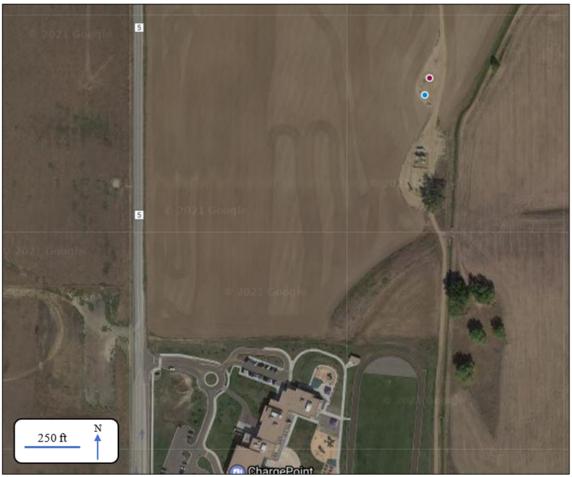
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	99.3%
Data Recovery	99.5%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

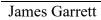
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



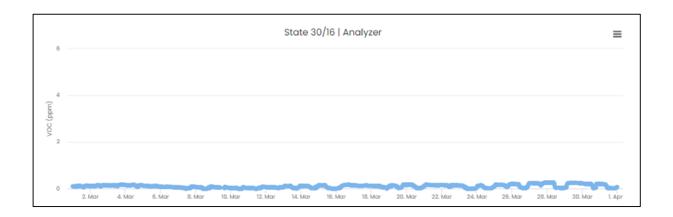
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

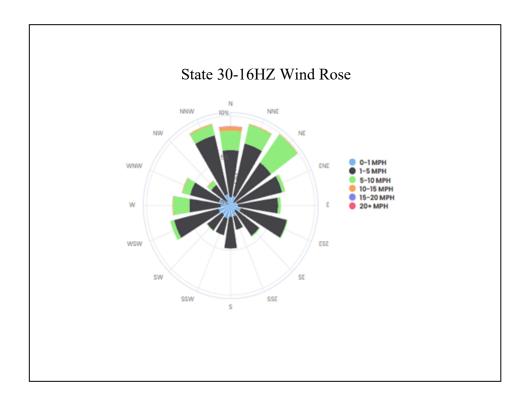
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-64** 

Reporting Period: April 1 through April 30, 2022

Report Date: May 15, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	
Discussion of Results	
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from April 1 through April 30, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on April 6, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	99.6%
Data Recovery	

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

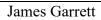
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.

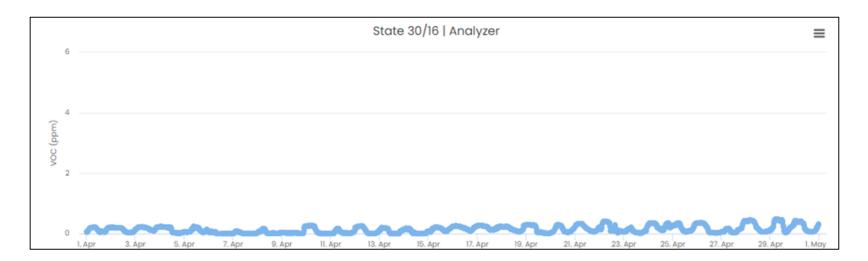
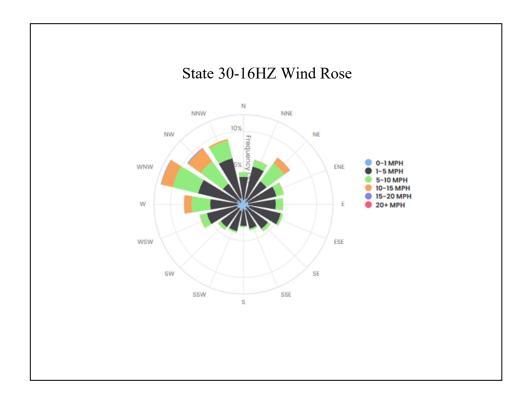




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-83** 

Reporting Period: May 1 through May 31, 2022

Report Date: June 15, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from May 1 through May 31, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on April 6, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

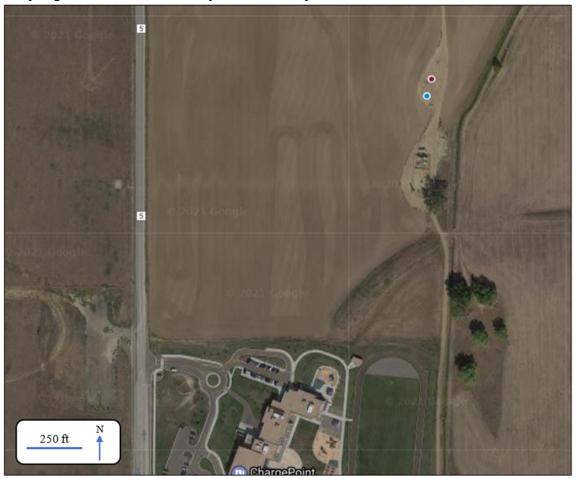
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	99.7%
Data Recovery	99.7%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

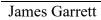
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.

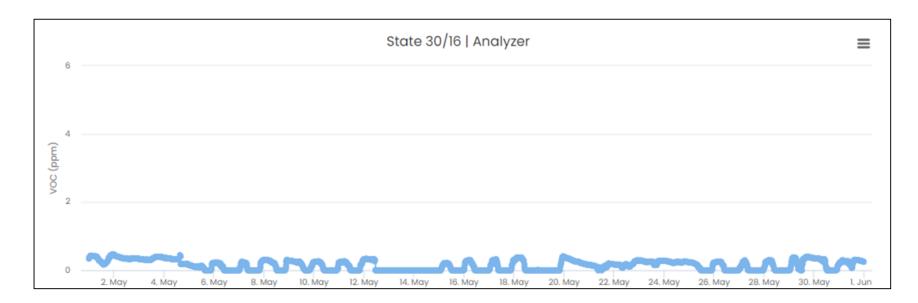
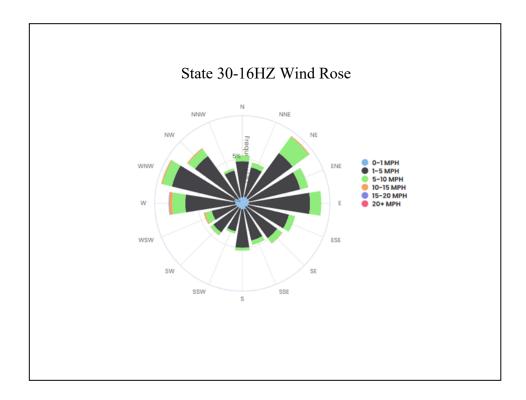




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-105** 

Reporting Period: June 1 through June 30, 2022

Report Date: July 15, 2022

### **Table of Contents**

PROJECT OVERVIEWProject of the state o	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	5
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	6
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
8	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from June 1 through June 30, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on April 6, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

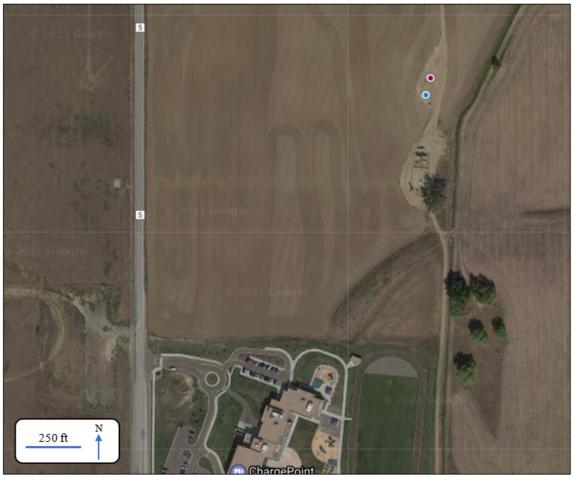
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



### **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	98.9%
Data Recovery	96.9%

It should be noted that during the month of June from June 24<sup>th</sup> through June 28<sup>th</sup> the analyzer on site experienced large diurnal swings. These diurnal swings caused the sensor to fail QA/QC in the approved Kerr-McGee Air monitoring program as such Montrose removed the unit from site and installed a new sensor on June 28<sup>th</sup>, 2022.

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.



### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.

Prepared by:

James Garrett



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.

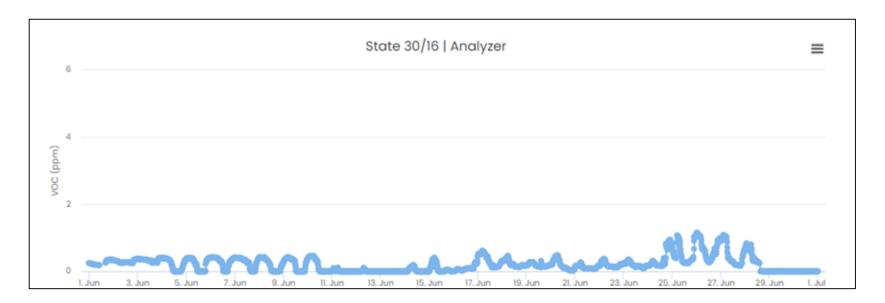
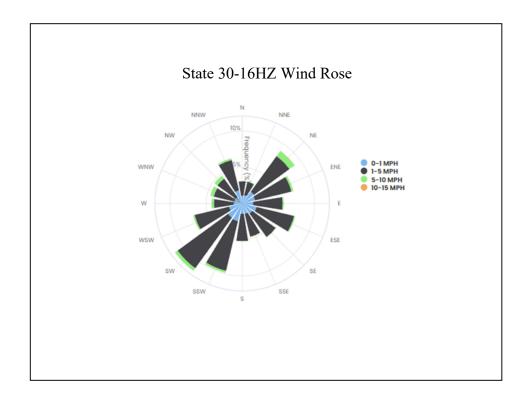




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-130** 

Reporting Period: July 1 through July 31, 2022

Report Date: August 2, 2022

### **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	5
Discussion of Results	6
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16H7 Meteorological Data	



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from July 1 through July 31, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on July 25, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



### **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	93.7%
Data Recovery	95.7%

It should be noted that during the month of July from July 23 through July 25<sup>th</sup> the analyzer on site was knocked over during a thunderstorm. Damage to the instrument caused the sensor to fail QA/QC as described in the approved Kerr-McGee Air monitoring program. Montrose removed the unit from site and installed a new sensor on July 25<sup>th</sup>, 2022.

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection. An additional IR inspection was conducted during the period of July 23 - 25 when the analyzer was offline due to weather. No emissions were noted during the inspection.



### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.

Prepared by:

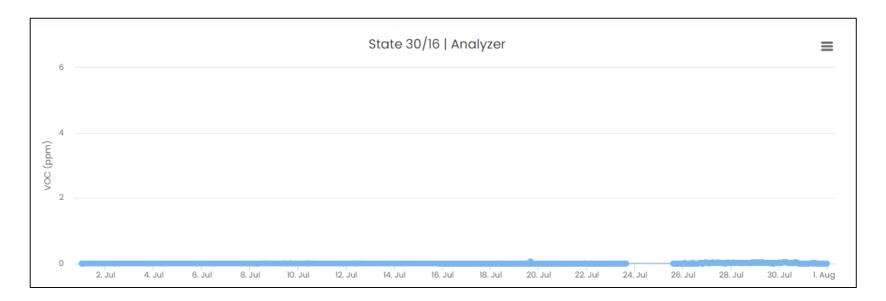
James Garrett



## **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

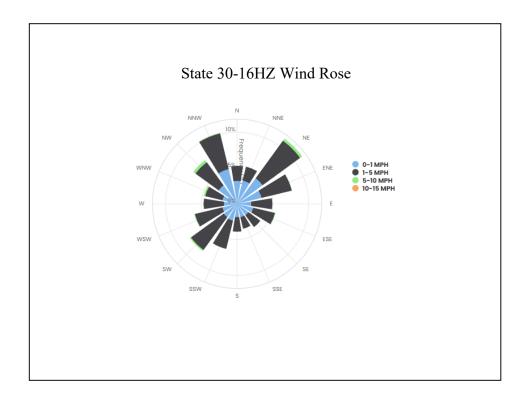
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during and is plotted with 15-minute averages.





### Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-137** 

Reporting Period: August 1 through August 7, 2022

Report Date: August 10, 2022

### **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from August 1 through August 7, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on July 25, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

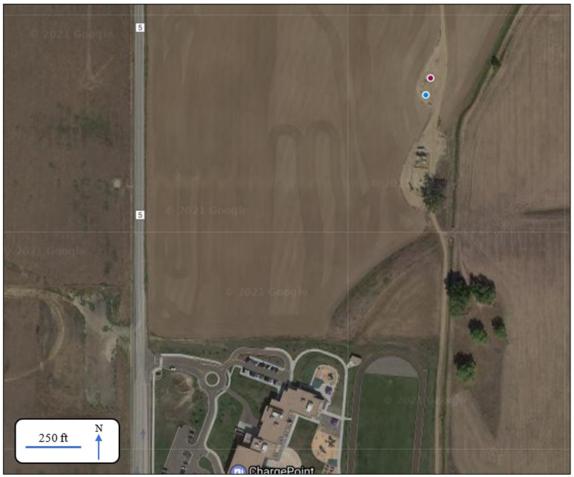
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



### **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	100%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



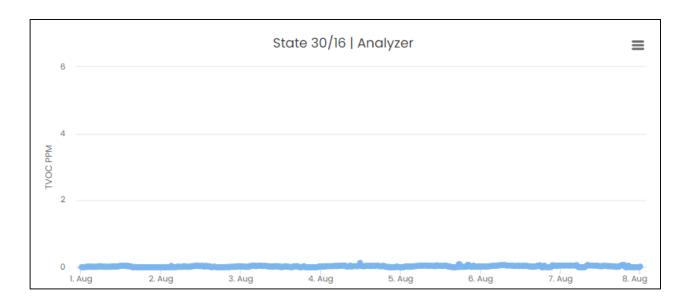
Prepared by:



## **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

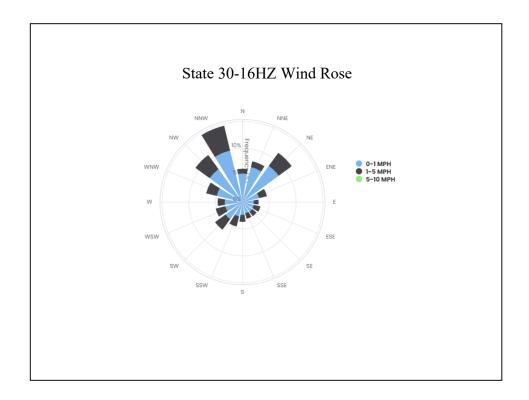
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting peeriod and is plotted with 15-minute averages.





### Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-142** 

Reporting Period: August 8 through August 15, 2022

Report Date: August 16, 2022

### **Table of Contents**

PROJECT OVERVIEW	
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### Summary

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from August 8 through August 15, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on July 25, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

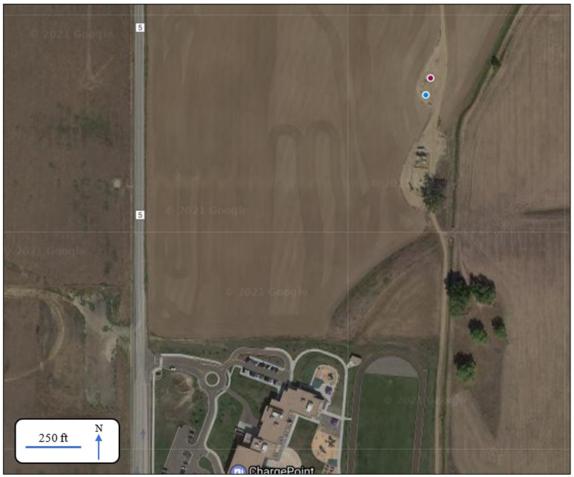
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



### **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted during this reporting period at the State Well 30-16 and no emissions were detected during the inspection.

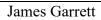
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



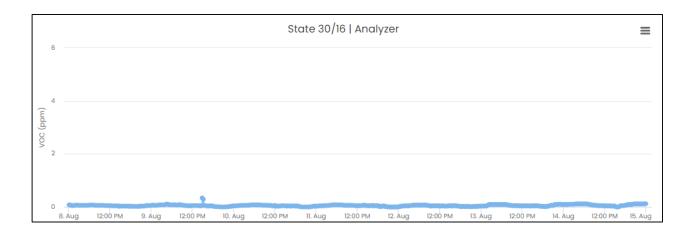
Prepared by:



## **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

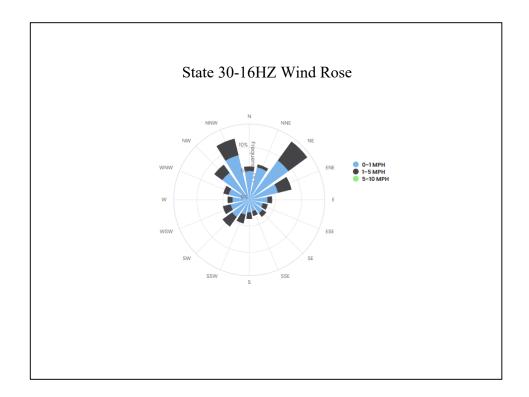
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting peeriod and is plotted with 15-minute averages.





### Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-154** 

Reporting Period: August 16 through August 22, 2022

Report Date: August 23, 2022

### **Table of Contents**

PROJECT OVERVIEW	
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from August 16 through August 22, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on July 25, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929 6867

Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

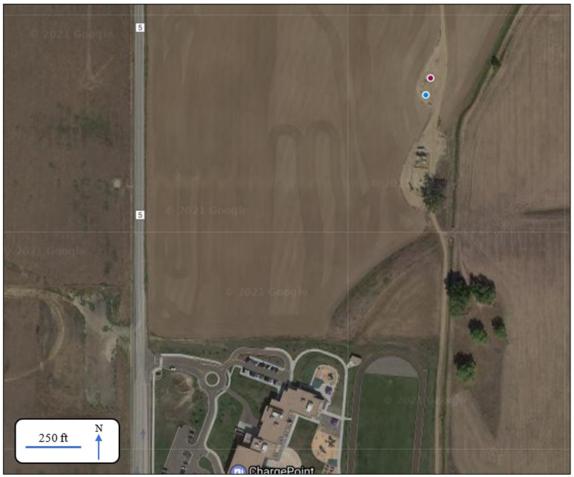
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



### **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100%
Data Recovery	100%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

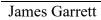
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



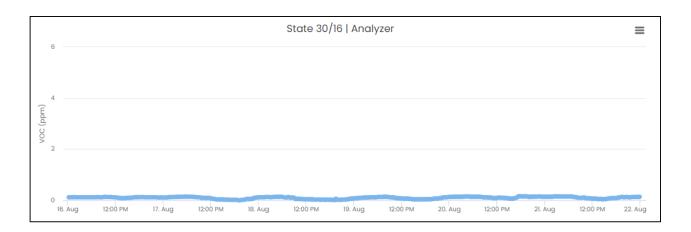
Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

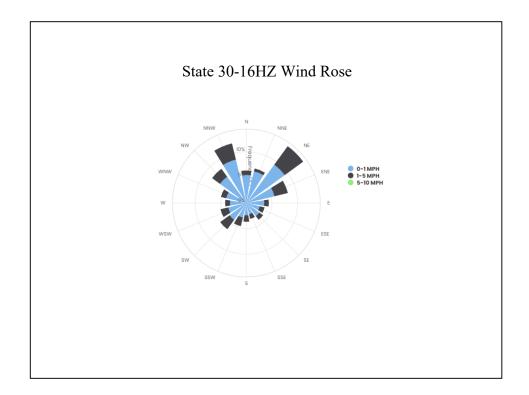
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting peeriod and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-158** 

Reporting Period: August 22 through August 30, 2022

Report Date: August 30, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	5
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
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## **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from August 22 through August 30, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on August 24, 2022 in accordance with the QAPP.

## **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

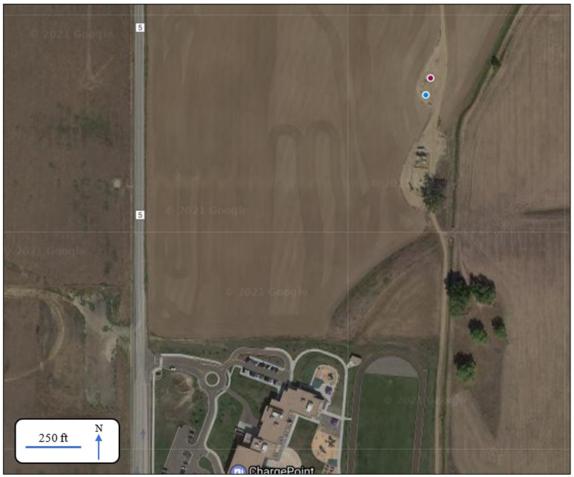
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description	
	State Pad Monitoring Wells	
	PID Analyzer	



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer Data Recovery

98.95%

## **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

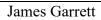
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



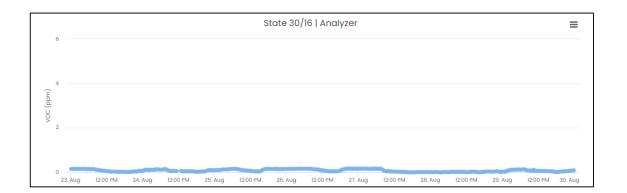
Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

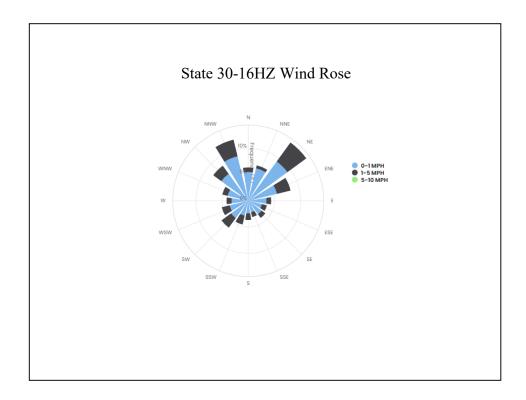
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-161** 

Reporting Period: August 30 through September 6, 2022

Report Date: August 7, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



## **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from August 30 through September 6, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on August 24, 2022 in accordance with the QAPP.

## **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

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#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description	
	State Pad Monitoring Wells	
	PID Analyzer	



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer
Data Recovery
98.00%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

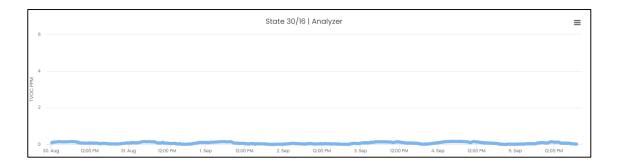
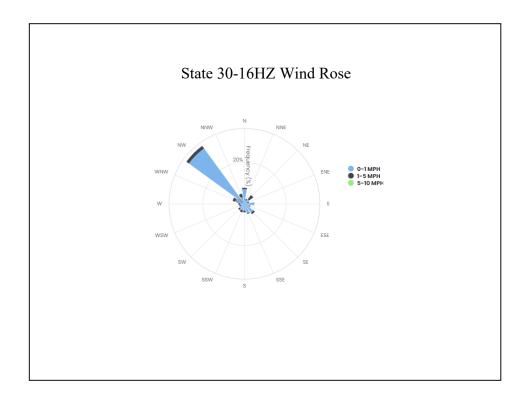




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-167** 

Reporting Period: September 6 through 12, 2022

Report Date: September 13, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	
Discussion of Results	
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	



## **Project Overview**

### Summary

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from September 6 through September 12, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on August 24, 2022 in accordance with the QAPP.

## **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description	
	State Pad Monitoring Wells	
	PID Analyzer	



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer Data	85.00%
Recovery	85.00%

From September 8 at 14:40 through September 9 at 13:30, the unit experienced downtime due to being knocked over causing the loss of solar input to the unit. On September 9, the unit was returned to service.

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

## **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.



Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.

Prepared by:

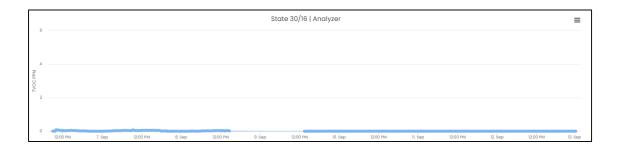
James Garrett



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

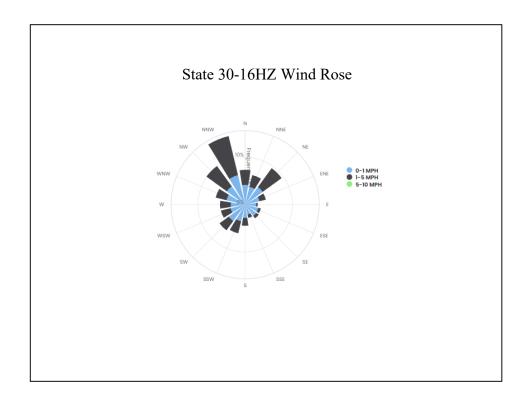
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.





## Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-183** 

Reporting Period: September 13 through September 19, 2022

Report Date: September 20, 2022

## **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16H7 Meteorological Data	



## **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from September 13 through September 19, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on August 24, 2022 in accordance with the QAPP.

## **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

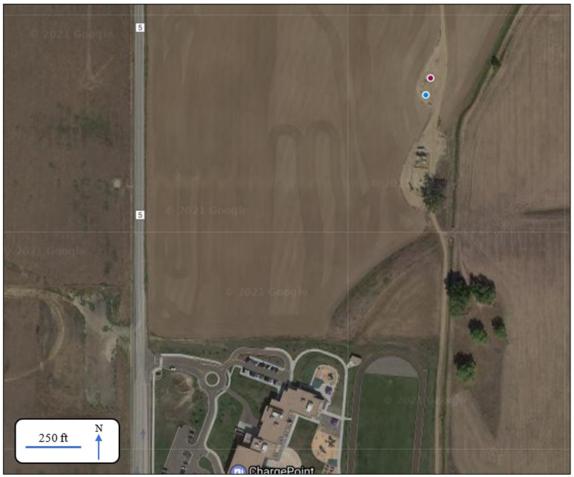
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	100.00%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

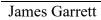
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

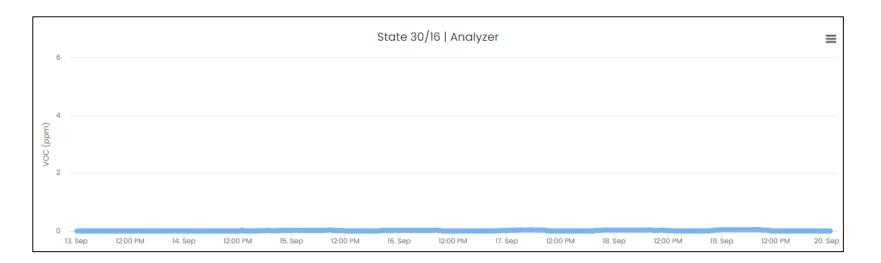
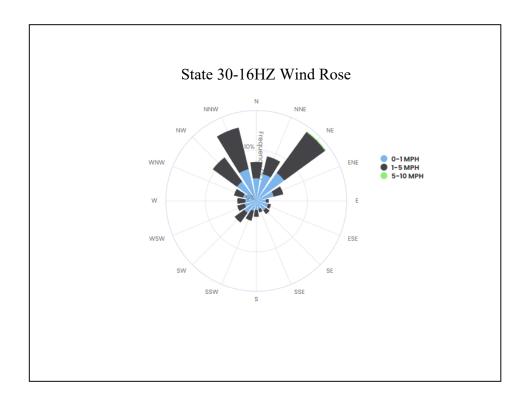




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-184** 

Reporting Period: September 20 through September 26, 2022

Report Date: September 27, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from September 20 through September 26, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on September 24, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

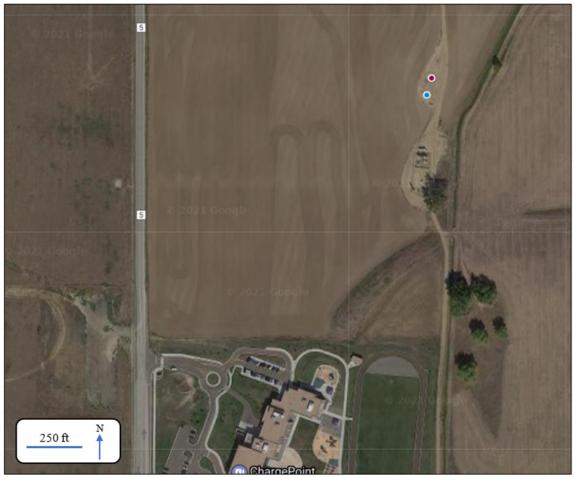
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	93.00%
Data Recovery	95.00%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

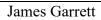
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

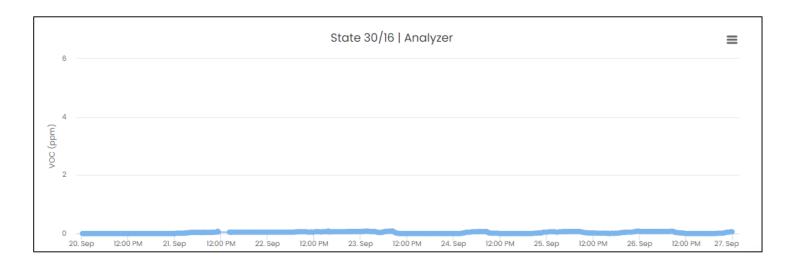
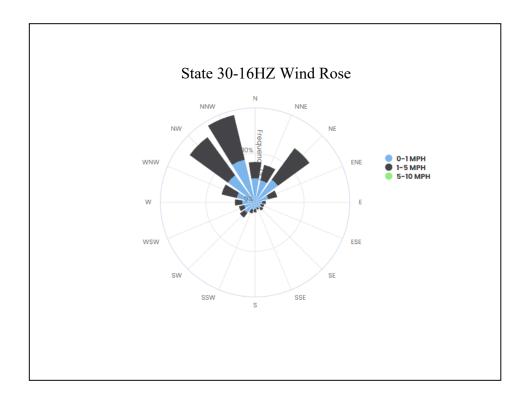




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-187** 

Reporting Period: September 27 through October 3, 2022

Report Date: October 4, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	3
Contact Information	3
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	/



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from September 27 through October 3, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on September 24, 2022 in accordance with the QAPP.

#### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 020 6867

Phone: (720) 929-6867

E-mail: Chad\_Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

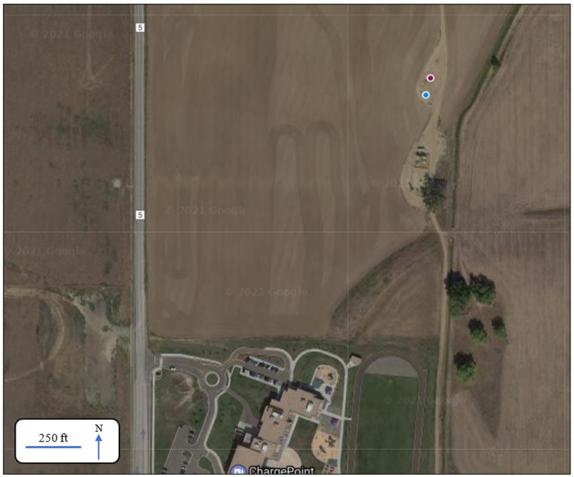
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



## **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	<b>GPS Coordinates</b>	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer
Data Recovery 100.00%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



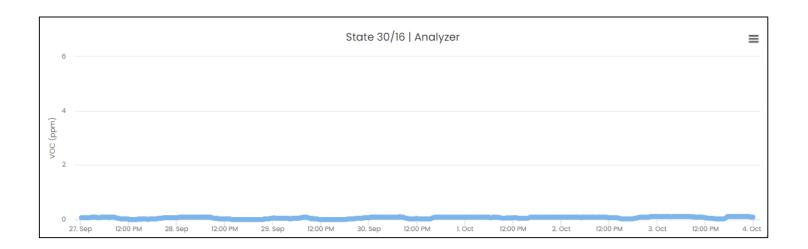
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

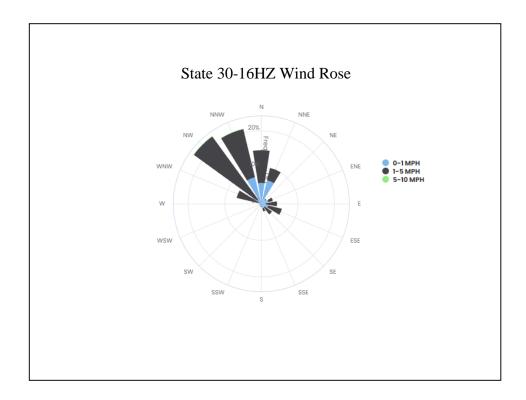
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-198** 

Reporting Period: October 4 through October 11, 2022

Report Date: October 12, 2022

# **Table of Contents**

PROJECT OVERVIEWProject of the state o	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	5
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
Figure 2 – State 30-16HZ Meteorological Data	



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from October 4 through October 11, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on September 24, 2022 in accordance with the QAPP.

#### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

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E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

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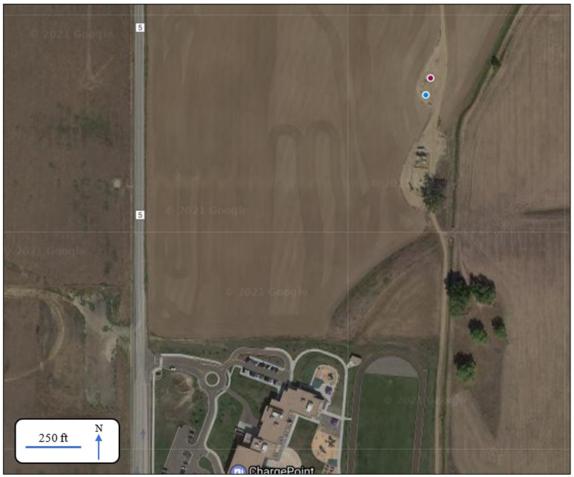
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	100.00%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

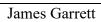
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



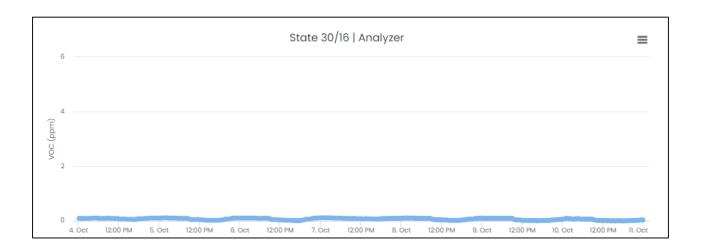
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

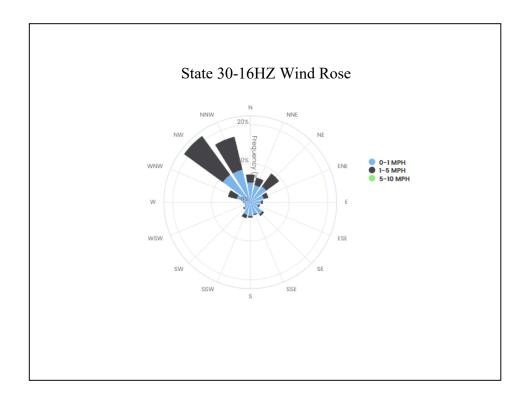
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-199** 

Reporting Period: October 11 through October 17, 2022

Report Date: October 18, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from October 11 through October 17, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on September 24, 2022 in accordance with the QAPP.

#### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

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#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

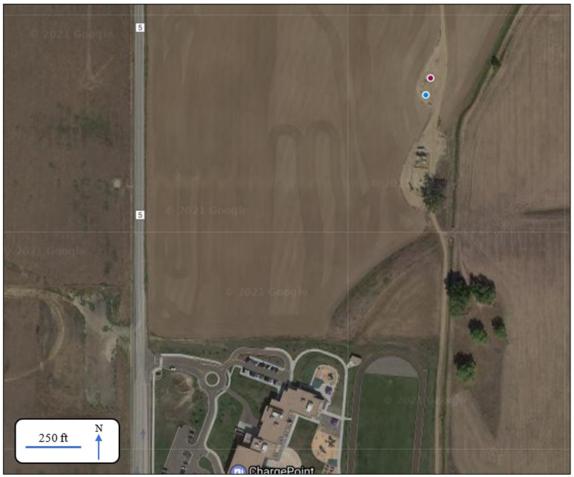
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	100.00%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

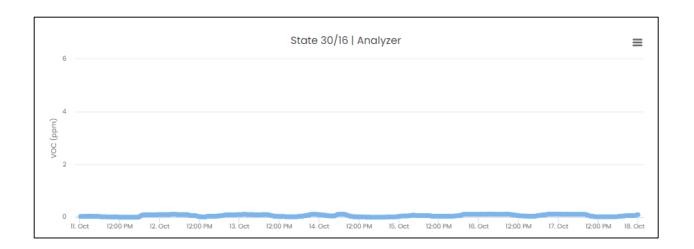
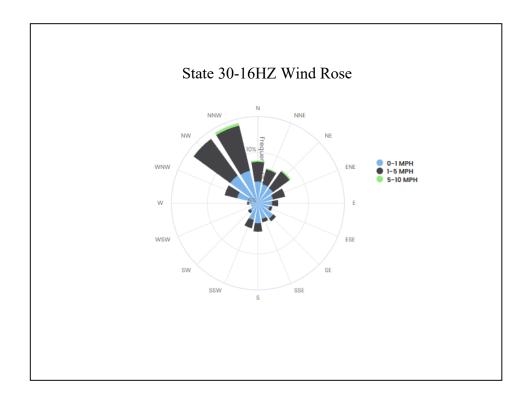




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-212** 

Reporting Period: October 18 through October 24, 2022

Report Date: October 25, 2022

# **Table of Contents**

PROJECT OVERVIEW	
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from October 18 through October 24, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on October 21, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

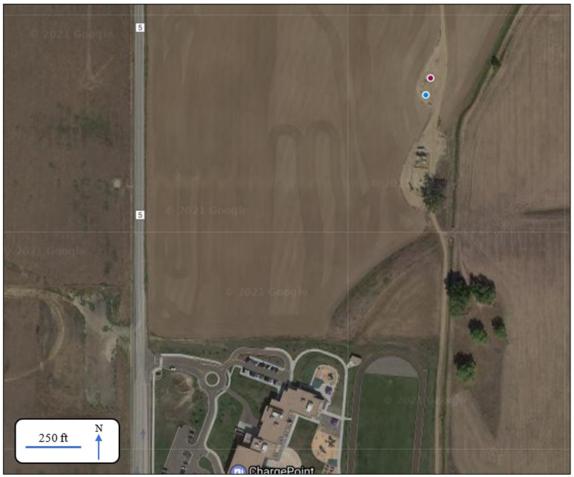
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	93.00%
Data Recovery	95.00%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



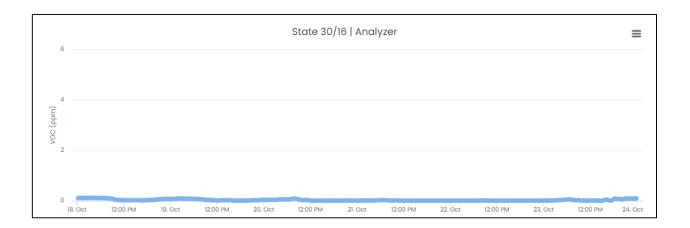
Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

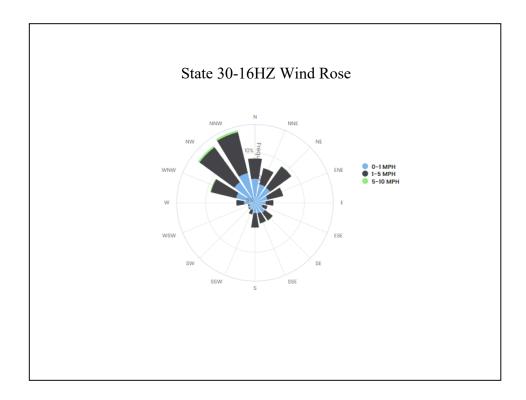
The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.





# Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-212** 

Reporting Period: October 25 through October 31, 2022

Report Date: November 1, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### Summary

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from October 25 through November 1, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on October 21, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	100.00%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

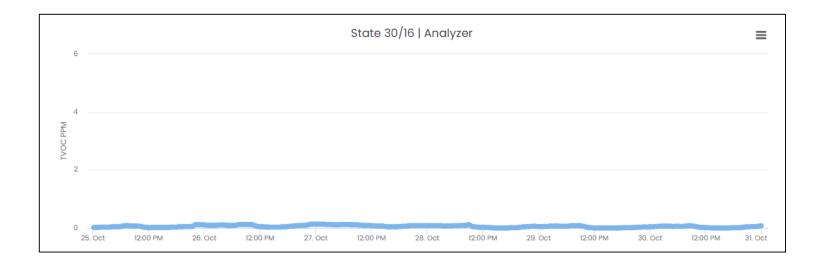
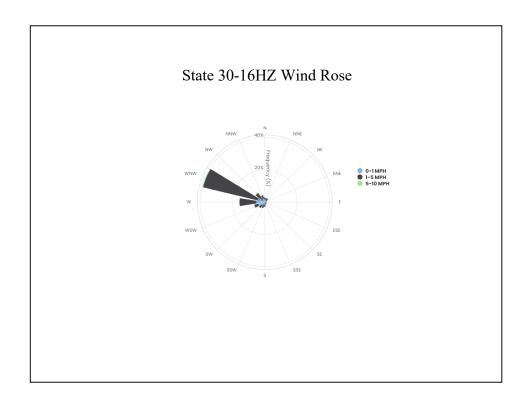




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-225** 

Reporting Period: November 1 through November 7, 2022

Report Date: November 8, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from November 1 through November 7, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on October 21, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	100.00%

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

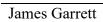
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

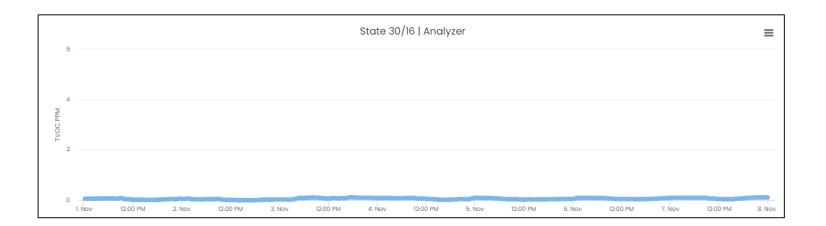
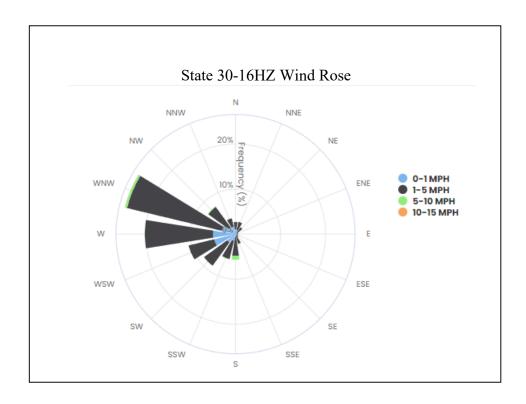




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-226** 

Reporting Period: November 8 through November 14, 2022

Report Date: November 15, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### Summary

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from November 8 through November 14, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on October 21, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

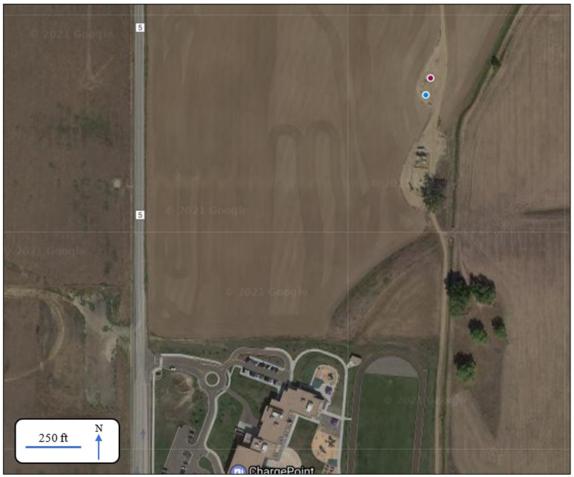
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.00%
Data Recovery	

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

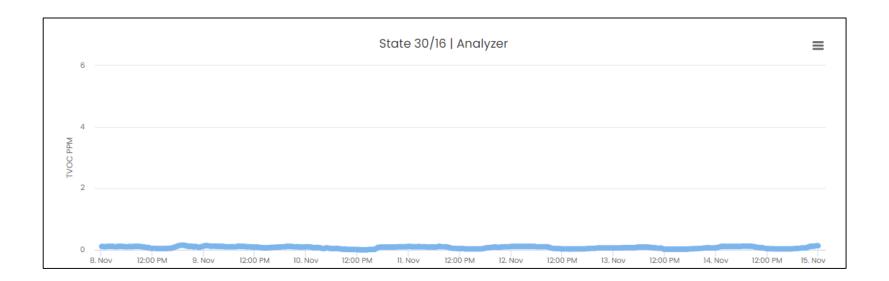
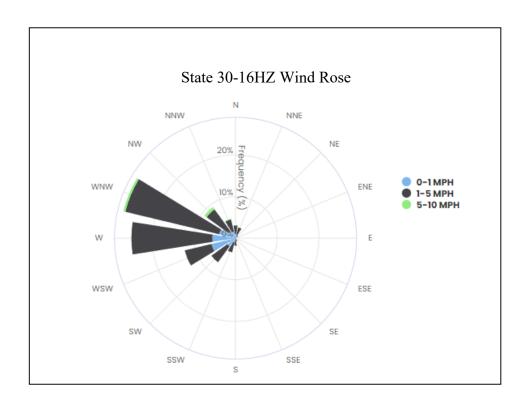




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-241** 

Reporting Period: November 15 through November 21, 2022

Report Date: November 22, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	
Discussion of Results	
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	8



### **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from November 15 through November 21, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on November 16, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

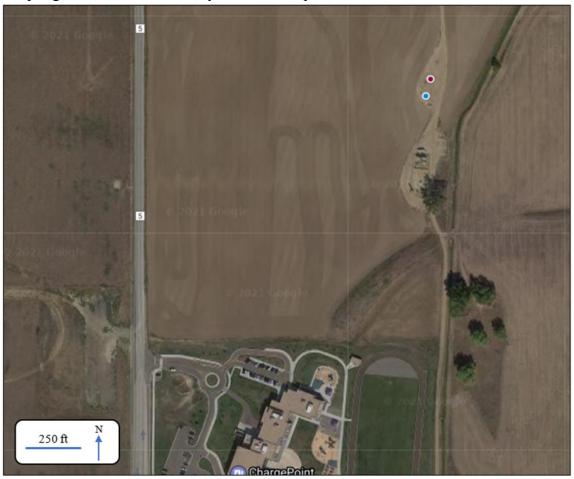
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	98.3%
Data Recovery	

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

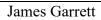
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

### Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

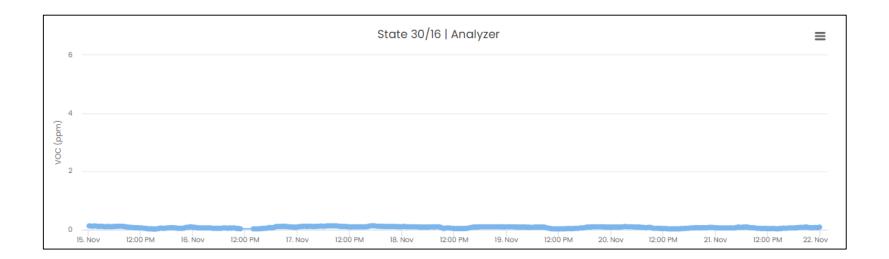
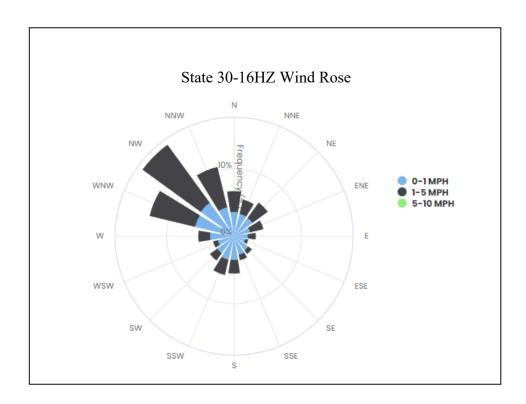




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-244** 

Reporting Period: November 22 through November 28, 2022

Report Date: November 29, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	
Discussion of Results	
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from November 22 through November 28, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on November 16, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

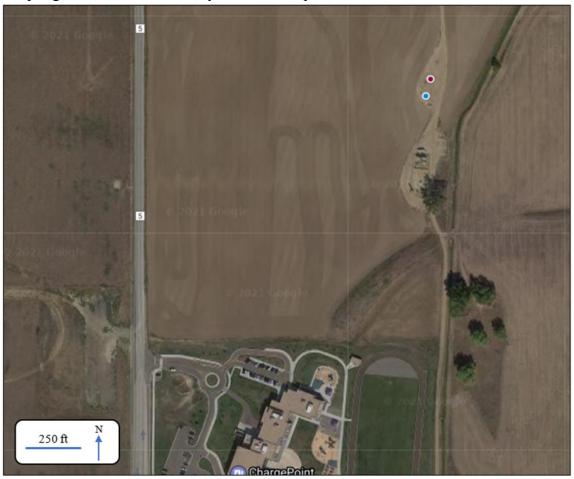
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.0%
Data Recovery	100.0%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

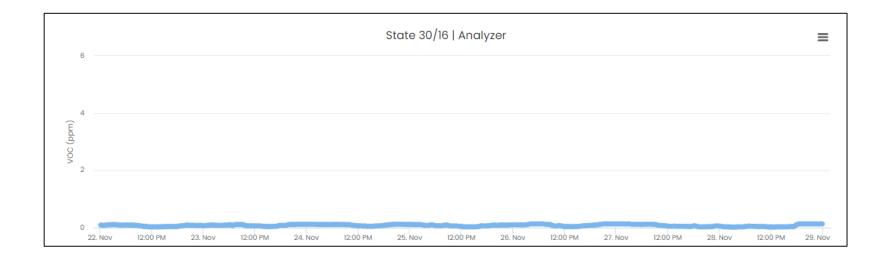
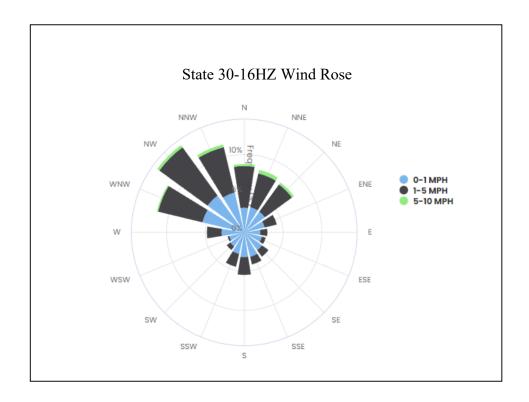




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-263** 

Reporting Period: November 29 through December 5, 2022

Report Date: December 6, 2022

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	3
Contact Information	3
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16H7 Meteorological Data	8

## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from November 29 through December 5, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on November 16, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202

Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

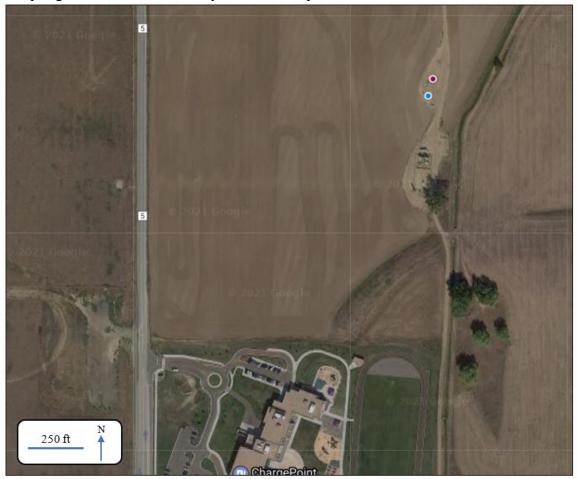
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.0%
Data Recovery	100.0%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

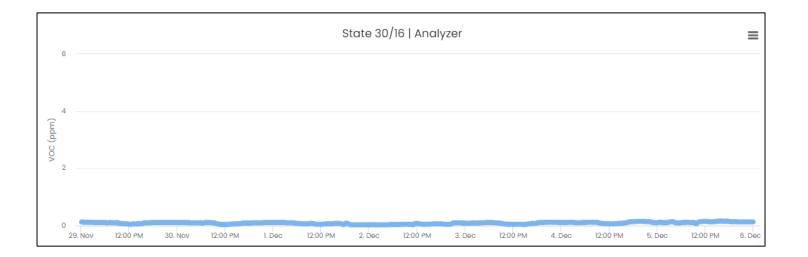
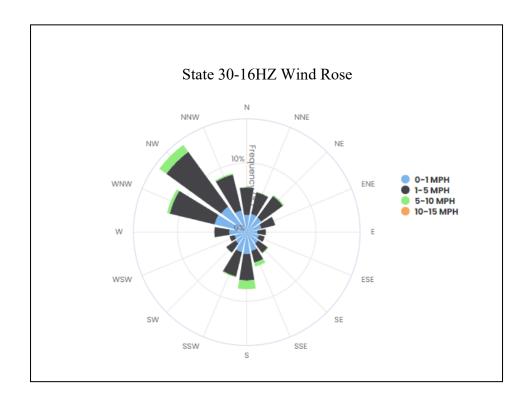




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-264** 

Reporting Period: Devember 6 through December 12, 2022

Report Date: **December 13, 2022** 

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	3
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	
On-Site IR Inspections	
Discussion of Results	
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16HZ Meteorological Data	



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from December 6 through December 12, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on November 16, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

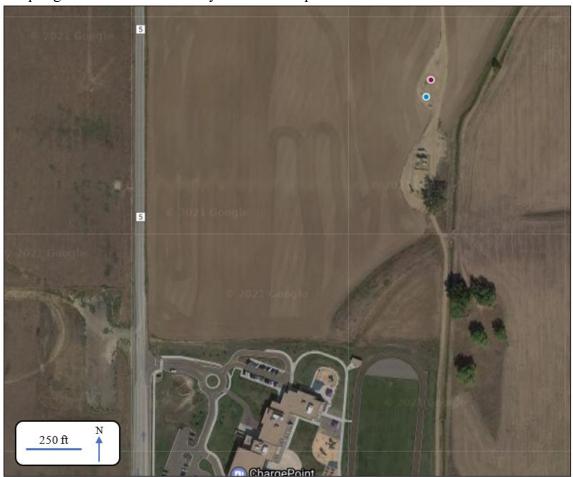
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.09/
Data Recovery	100.0%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

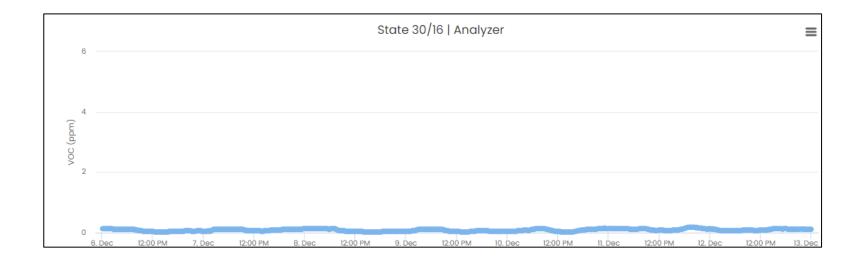
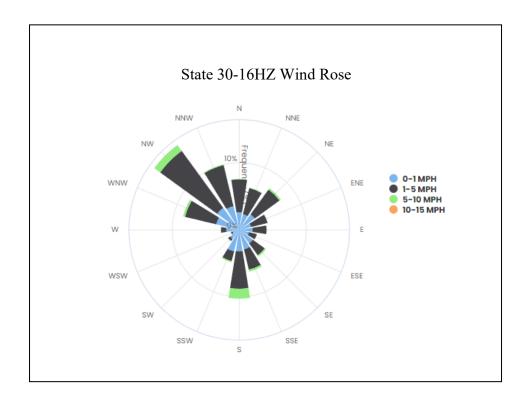




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

Montrose Air Quality Services, LLC 990 W. 43<sup>rd</sup> Avenue

Denver, Colorado 80211

Document Number: **085AA-011278-RT-271** 

Reporting Period: **Devember 13 through December 19, 2022** 

Report Date: December 20, 2022

# **Table of Contents**

PROJECT OVERVIEWProject of the state o	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	5
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
Figure 2 – State 30-16HZ Meteorological Data	



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from December 13 through December 19, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on December 14, 2022 in accordance with the QAPP.

#### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202 Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

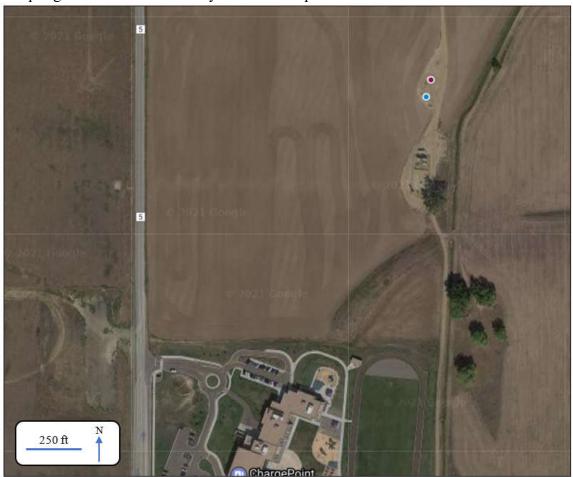
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

#### **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	97.0%
Data Recovery	97.0%

#### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

#### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

## Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

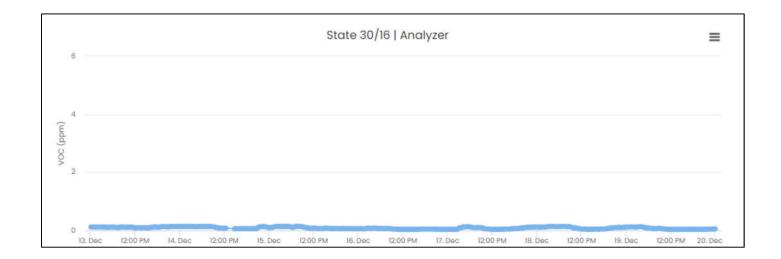
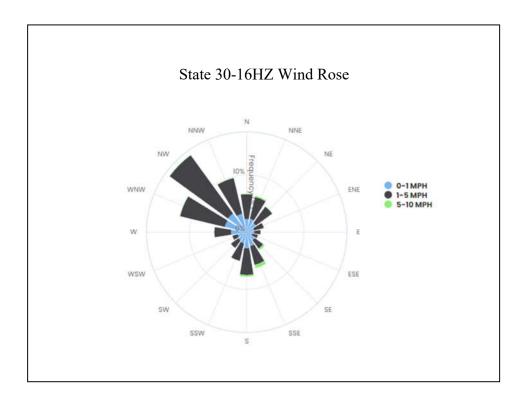




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 

990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-272** 

Reporting Period: **Devember 20 through December 26, 2022** 

Report Date: **December 27, 2022** 

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	3
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	7
Figure 1 – State 30-16HZ VOC Data	7
Figure 2 State 30 16H7 Metaorological Data	



## **Project Overview**

#### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from December 20 through December 26, 2022. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on December 14, 2022 in accordance with the QAPP.

### **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

#### **Chad Schlichtemeier**

Oxy USA Inc. 1099 18<sup>th</sup> Street Denver, CO 80202

Phone: (720) 929-6867

E-mail: Chad Schlichtemeier@Oxy.com

#### **James Garrett**

Montrose Air Quality Services, LLC 990 West 43<sup>rd</sup> Ave

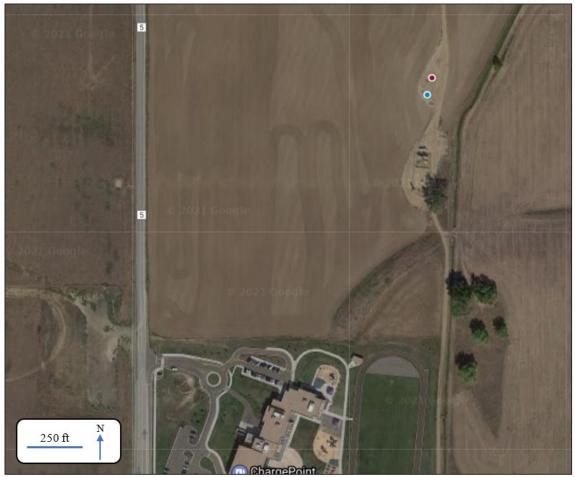
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description
	State Pad Monitoring Wells
	PID Analyzer



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

## **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.0%
Data Recovery	

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

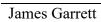
#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

# Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

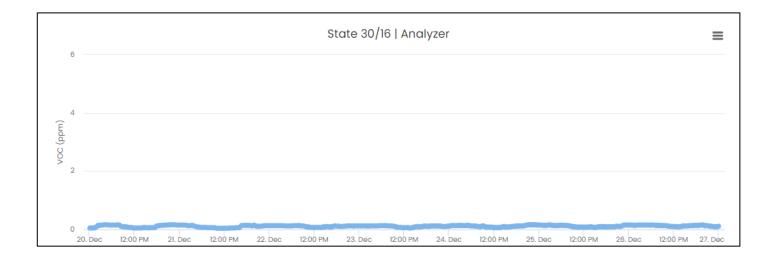
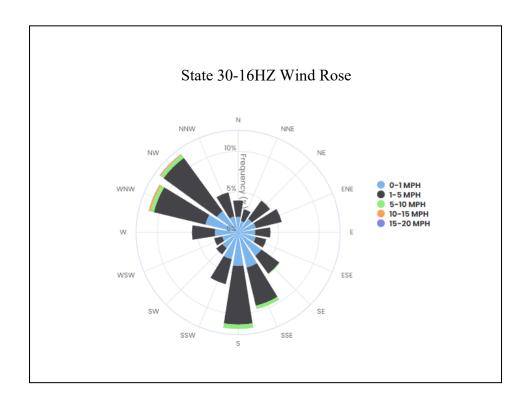




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.





# AMBIENT MONITORING REPORT STATE 30-16 PAD KERR-MCGEE OIL & GAS ONSHORE LP

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP** 1099 18<sup>th</sup> St #1800 Denver, Colorado 80202

Prepared By:

**Montrose Air Quality Services, LLC** 990 W. 43<sup>rd</sup> Avenue Denver, Colorado 80211

Document Number: **085AA-011278-RT-293** 

Reporting Period: December 27 2022 through January 2, 2023

Report Date: January 4, 2023

# **Table of Contents**

PROJECT OVERVIEW	3
Summary	
Project Scope	
Contact Information	
Sampling Locations for Monitoring	
Summary of Down Time or Equipment Malfunction	
Summary of Investigations and Response	5
On-Site IR Inspections	5
Discussion of Results	5
SUMMARY OF RESULTS	
Figure 1 – State 30-16HZ VOC Data	
Figure 2 – State 30-16H7 Meteorological Data	χ



# **Project Overview**

### **Summary**

Montrose Air Quality Services, LLC (Montrose) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to conduct air monitoring at the State 30-16HZ Pad. This report covers the reporting period from December 27, 2022 through January 2, 2023. Facility monitoring commenced on September 10, 2021. Air Monitoring was conducted in accordance with applicable portions of the Kerr-McGee Air Monitoring Program that has been approved by Colorado Department Public Health and Environment (CDPHE). There were no readings from the continuous PID analyzers above the Investigation Levels.

Operation and maintenance of the PID analyzer followed procedures in the Quality Assurance Project Plan (QAPP) provided in the Kerr-McGee Air Monitoring Program. The analyzer used in this monitoring program was last calibrated on December 14, 2022 in accordance with the QAPP.

# **Project Scope**

The PID analyzer used at the State 30-16HZ Pad (named "SPOD") was manufactured by SENSIT. The sensor is solar powered and transmits data to the data platform via LTE cell technology. The data is 128-bit encrypted during transmission. One (1) sensor monitored for VOCs and meteorological parameters during the reporting period. All sampling was performed by Montrose.

#### **Contact Information**

The contact information for each of the principal parties is summarized in the tables below:

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#### **James Garrett**

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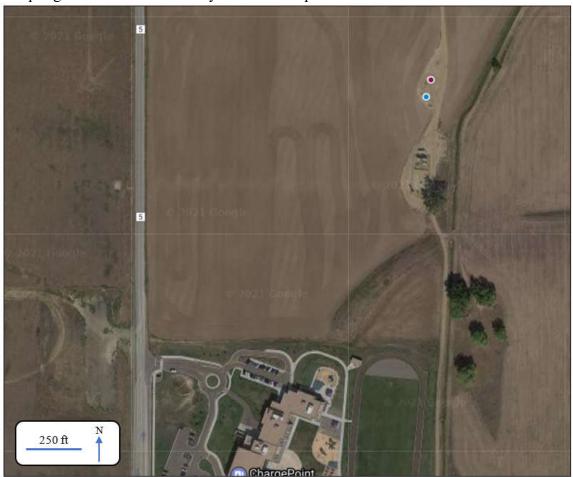
Denver, CO 80216 Phone: (303) 670-0530

E-mail: Jagarrett@Montrose-Env.com



# **Sampling Locations for Monitoring**

Sampling locations are labeled by ID on the map below.



<b>Location Tag</b>	Description	
	State Pad Monitoring Wells	
	PID Analyzer	



GPS coordinates of the locations are listed in the following table.

Location	GPS Coordinates	Monitoring Technology
State Pad Monitoring Wells	40.05433, -105.01451	NA
PID Analyzer	40.05417, -105.01459	PID Analyzer

## **Summary of Down Time or Equipment Malfunction**

The PID Analyzer data recovery, which includes equipment malfunctions, during the reporting period are shown in the table below.

PID Analyzer	100.0%
Data Recovery	

### **Summary of Investigations and Response**

The Kerr-McGee Air Monitoring Program establishes Investigation Levels for the continuous monitors. If an Investigation Level is triggered, the monitoring program outlines an Investigation Level Response for each level.

During this reporting period, there were no continuous monitor readings that exceeded an Investigation Level.

Investigation Level 3: No notifications to Town of Erie within forty-eight (48) hours of responsive action(s) taken as a result of recorded values in excess of the Investigation Level 3 were required.

### **On-Site IR Inspections**

Inspections are being conducted by the Oxy IR Team at the State Well 30-16 Pad using an optical gas imaging camera or more commonly referred to as an IR camera. The IR camera detects hydrocarbons, which includes methane, and volatile organic compound (VOC) emissions.

An IR inspection was conducted recently at the State Well 30-16 and no emissions were detected during the inspection.

#### **Discussion of Results**

The 15-minute block averages for the PID VOC results for the air sampling can be found in Figure 1.

Meteorological data, collected on the PID analyzer onsite, for the reporting period can be found in the Figure 2.



Prepared by:



# **Summary of Results**

# Figure 1 – State 30-16HZ VOC Data

The graph below is shown for the PID Analyzer installed at the State 30-16HZ facility during the reporting period and is plotted with 15-minute averages.

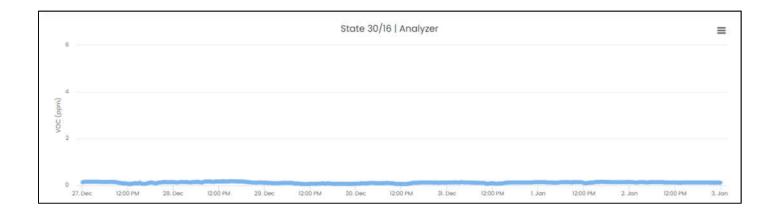




Figure 2 – State 30-16HZ Meteorological Data

The wind rose below is shown for State 30-16HZ facility and is plotted with 15-minute averages.

