

LAND USE CHANGE PERMIT

for

A Parcel of Land Located approximately 20 miles north of the Town of DeBeque, including sites in Sections 4 & 5, T6S, R97W and Sections 15 & 16, T6S, R97W, owned by OXY USA WTP LP with the sites further described in Exhibit A.

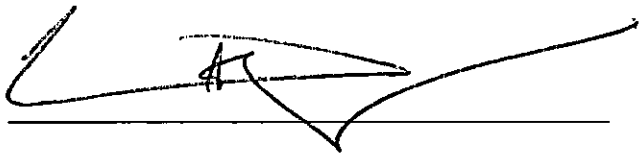
(Assessor's Parcel No. 2169-214-00-026)

In accordance with and pursuant to provisions of the Garfield County Land Use and Development Code, as amended, and the Director's Decision Letter dated April 24, 2015, the Director of the Community Development Department hereby authorizes the following activity:

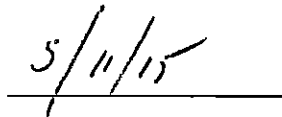
Two Storage Facilities know as the 697-16-16 and 604-12-13 OXY USA WTP LP Storage Sites as shown on the site plans attached as Exhibit "B"
(GAPA-8215)

This Administrative Land Use Change Permit is issued subject to the conditions set forth in Exhibit "C" and shall be valid only during compliance with such conditions and other applicable provisions of the Garfield County Land Use and Development Code, as amended, Building Code, and other regulations of the Board of County Commissioners of Garfield County, Colorado.

COMMUNITY DEVELOPMENT DEPARTMENT
GARFIELD COUNTY, COLORADO



Fred A. Jarman, AICP
Director of Community Development



Date

Exhibit A

Legal Description 697-16-16 Storage Site

LEGAL DESCRIPTION OF A PARCEL OF LAND

FOR OXY USA WTP LP ON OXY USA INC. PROPERTY

A PARCEL OF LAND LYING WITHIN NE 1/4 OF SECTION 16 AND NW 1/4 OF SECTION 15, TOWNSHIP 6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN THE COUNTY OF GARFIELD, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE 1/4 CORNER COMMON TO SECTIONS 15 AND 16;
THENCE NORTH 07°57'39" EAST, 1938.49 FEET
TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 17°50'54" WEST, 107.84 FEET;
THENCE SOUTH 58°46'21" WEST, 249.28 FEET;
THENCE SOUTH 37°25'16" WEST, 121.33 FEET;
THENCE NORTH 65°48'58" WEST, 103.32 FEET;
THENCE NORTH 01°44'14" WEST, 54.02 FEET;
THENCE NORTH 83°18'09" WEST, 111.70 FEET;
THENCE NORTH 39°39'25" WEST, 110.86 FEET;
THENCE NORTH 41°41'47" EAST, 546.29 FEET;
THENCE NORTH 48°47'17" EAST, 142.51 FEET;
THENCE SOUTH 19°20'28" EAST, 391.56 FEET
TO THE TRUE POINT OF BEGINNING;
SAID POINT BEING SOUTH 14°36'56" EAST, 749.02 FEET
FROM THE NORTHWEST CORNER OF SECTION 15.

CONTAINING 4.82 ACRES, MORE OR LESS.

Legal Description 604-12-13 Storage Site

LEGAL DESCRIPTION OF A PARCEL OF LAND

FOR OXY USA WTP LP ON OXY USA INC. PROPERTY

A PARCEL OF LAND LYING WITHIN LOT 13 (SE 1/4 of the NE 1/4) OF SECTION 5 AND LOT 16 (SW 1/4 of the NW 1/4) OF SECTION 4, TOWNSHIP 6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN THE COUNTY OF GARFIELD, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST SECTION CORNER OF SAID SECTION 4; THENCE NORTH 13°53'56" EAST, 3323.32 FEET TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 13°53'56" WEST, 314.61 FEET;
THENCE SOUTH 50°25'01" WEST, 498.62 FEET;
THENCE NORTH 40°33'53" WEST, 585.87 FEET;
THENCE NORTH 40°59'07" EAST, 644.57 FEET;
THENCE SOUTH 70°13'57" EAST, 409.10 FEET;
THENCE SOUTH 10°26'00" EAST, 174.32 FEET TO THE TRUE POINT OF BEGINNING; SAID POINT BEING SOUTH 10°26'00" EAST, 3378.20 FEET FROM THE NORTHWEST CORNER OF SECTION 4.

CONTAINING 10.66 ACRES, MORE OR LESS.

Exhibit B

Site Plan for 604-12-13 Storage Site

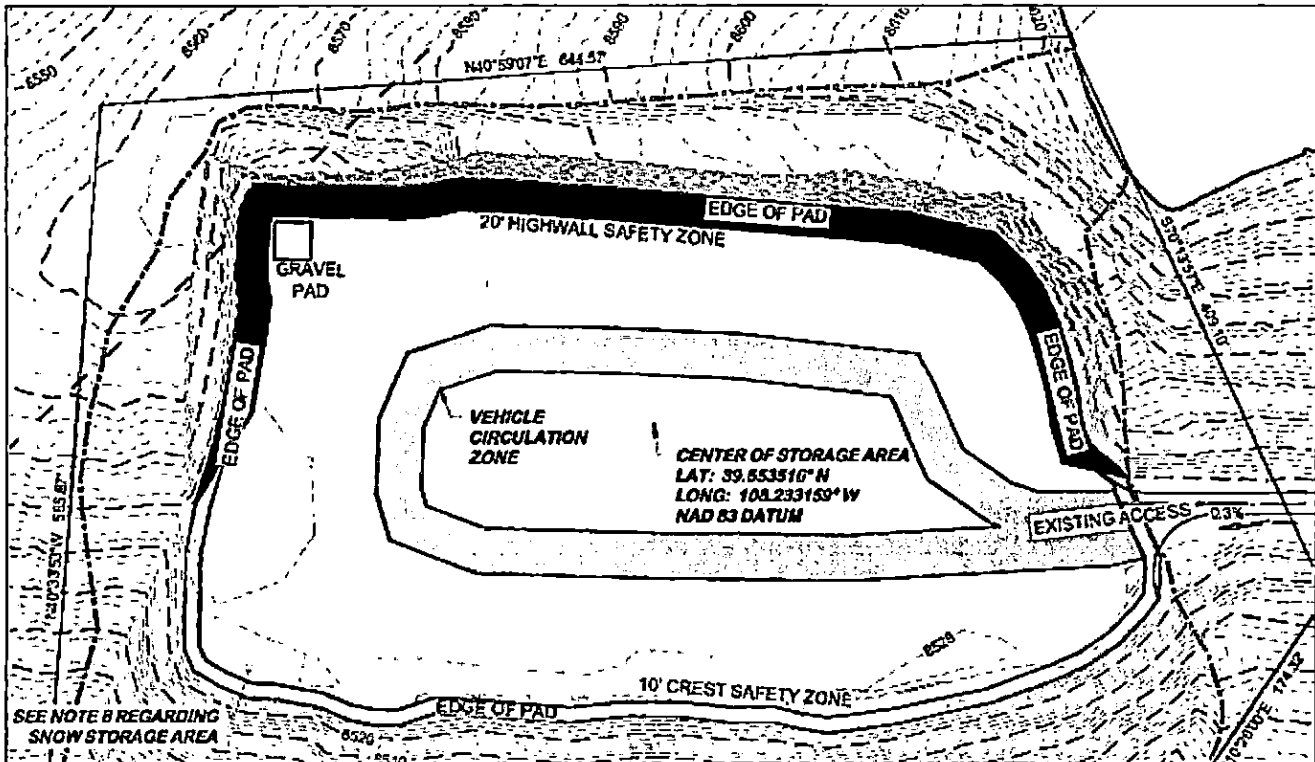


Exhibit B – Continued

Site Plan for 697-16-16 Storage Site

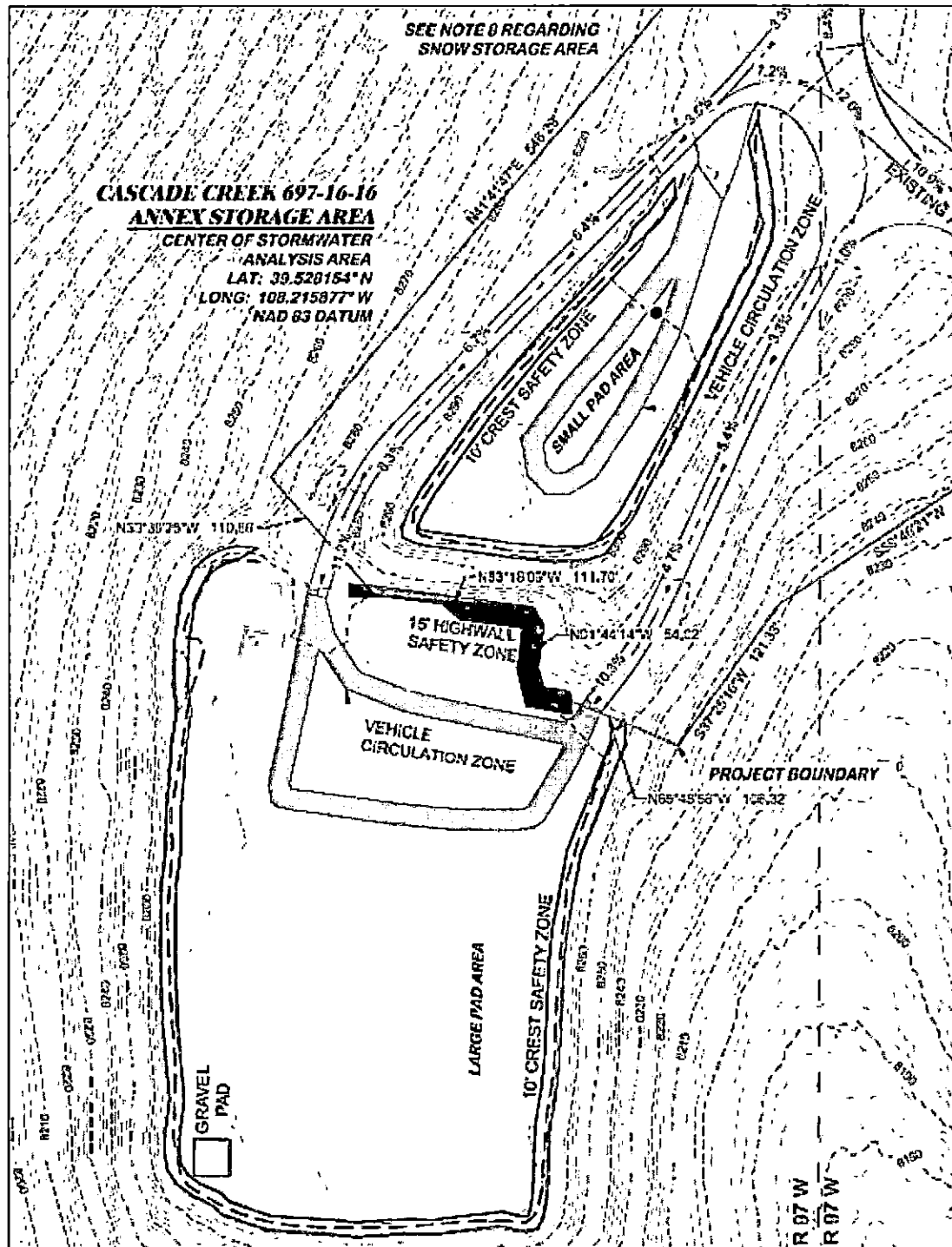


Exhibit C

(Conditions of Approval)

1. That all representations made by the Applicant in the application shall be conditions of approval unless specifically altered by the conditions of approval.
2. That the OXY USA WTP LP 697-16-16 and 604-12-13 Storage Facilities shall be operated in accordance with all applicable Federal, State, and local regulations governing the operation of this type of facility.
3. Prior to issuance of the Land Use Change Permit, the Applicant shall provide an updated site plan that shall include the following:
 - a. Delineation of rock fall hazard mitigation setbacks and off-sets from steep slopes and cut slopes consistent with the recommendations of the Rock Solid Solutions Rockslide and Landslide Assessment Memorandum (dated 1/29/15)
 - b. Delineation on the site plan or inclusion of site plan notes setting forth general circulation patterns for vehicle access and storage areas on the site.
 - c. Indication of the approximate locations for potential 25 ft. by 25 ft. fuel storage pads, in locations away from the perimeter of the site or notes addressing location criteria.
4. The Applicant shall comply with all recommendations contained in the Drainage Reports including the proposed BMP Maps including the re-grading of sediment traps to design contours on a regular basis as needed and installation of a culvert as needed below the sediment trap.
5. The Applicant shall maintain all elements of the roadway access system to the current standards reflected in the Olsson Roadway Standards Assessment (dated January 2015) and the Rock Solid Solutions Roadway assessment memorandum (dated 2/4/15) to ensure that the roadway continues to be operated adequately to serve the proposed uses. The Applicant shall implement the Best Management Practices for each roadway segment as set forth in the Olsson Roadway Standards Assessment.
6. The Applicant shall coordinate with the Garfield County Road and Bridge Department any maintenance issues associated with culvert erosion, ditch cleaning, and wheel tracking/turning impacts along County Road 213 as noted in the Applicant's Traffic Report.
7. The facilities shall maintain compliance with CDPHE Storm Water Management Permits, Grading and Drainage Plans, SPCC Plans and Reclamation Plans, Fugitive Dust Management Plans, and Weed Management Plans for the site.
8. The Applicant shall maintain in place reclamation plans/requirements and reclamation bonds with the COGCC for the sites. The Applicant shall provide the County with copies of any extensions granted by COGCC for reclamation.
9. The Applicant shall comply with the referral comments from Colorado Parks and Wildlife (CPW) dated 4/5/15 and the recommendations contained in the Applicant's Environmental Impact Analysis and Wildlife Health Standards Analysis prepared by ERO Resources Corp., dated October 23, 2014.

Application Materials

Table of Contents

1. Limited Impact Review Application
2. Payment Agreement Form
3. Signature of Authority
4. Agent Authorization
5. Pre-application Summary
6. Application Narrative



Garfield County

Community Development Department
108 8th Street, Suite 401
Glenwood Springs, CO 81601
(970) 945-8212
www.garfield-county.com

LAND USE CHANGE PERMIT APPLICATION FORM

TYPE OF APPLICATION	
<input checked="" type="checkbox"/> Administrative Review	<input type="checkbox"/> Development in 100-Year Floodplain
<input type="checkbox"/> Limited Impact Review	<input type="checkbox"/> Development in 100-Year Floodplain Variance
<input type="checkbox"/> Major Impact Review	<input type="checkbox"/> Code Text Amendment
<input type="checkbox"/> Amendments to an Approved LUCP <input type="checkbox"/> LIR <input type="checkbox"/> MIR <input type="checkbox"/> SUP	<input type="checkbox"/> Rezoning <input type="checkbox"/> Zone District <input type="checkbox"/> PUD <input type="checkbox"/> PUD Amendment
<input type="checkbox"/> Minor Temporary Housing Facility	<input type="checkbox"/> Administrative Interpretation
<input type="checkbox"/> Vacation of a County Road/Public ROW	<input type="checkbox"/> Appeal of Administrative Interpretation
<input type="checkbox"/> Location and Extent Review	<input type="checkbox"/> Areas and Activities of State Interest
<input type="checkbox"/> Comprehensive Plan Amendment <input type="checkbox"/> Major <input type="checkbox"/> Minor	<input type="checkbox"/> Accommodation Pursuant to Fair Housing Act
<input type="checkbox"/> Pipeline Development	<input type="checkbox"/> Variance
<input type="checkbox"/> Time Extension (also check type of original application)	

INVOLVED PARTIES	
Owner/Applicant	
Name: <u>OXY USA WTP LP</u>	Phone: <u>(970) 263-3600</u>
Mailing Address: <u>760 Horizon Dr., Ste 101</u>	
City: <u>Grand Junction</u>	State: <u>CO</u> Zip Code: <u>81506</u>
E-mail: <u>blair_rollins@oxy.com</u>	
Representative (Authorization Required)	
Name: <u>Kathleen Middleton</u>	Phone: <u>(970) 985-8240</u>
Mailing Address: <u>760 Horizon Dr., Ste 101</u>	
City: <u>Grand Junction</u>	State: <u>CO</u> Zip Code: <u>81506</u>
E-mail: <u>middleton_kathleen@yahoo.com</u>	

PROJECT NAME AND LOCATION	
Project Name: <u>604-12-13 and 697-16-16 Storage Areas</u>	
Assessor's Parcel Number: <u>2 1 6 9 - 2 1 4 - 0 0 - 0 2 6</u>	
Physical/Street Address: <u>604-12-13 Lat=39.553516 Long=-108.233159, 697-16-16 Lat=39.528154 Long=-108.215877</u>	
Legal Description: <u>604-12-13 = NW 1/4, Section 4, T6S, R97W, 6th PM</u>	
<u>697-16-16 = NE 1/4, Section 16, T6S, R97W, 6th PM</u>	
Zone District: <u>Resource Lands - Plateau</u>	Property Size (acres): <u>7,732</u>

PROJECT DESCRIPTION

Existing Use: Resource lands and mineral extraction, both sites were previously developed and graded as well pads.

Proposed Use (From Use Table 3-403): 604-12-13 and 697-16-16 Storage Areas

Description of Project: Two storage sites are proposed to support OXY Cascade Creek operating area. Both site locations were previously developed. The proposed 697-16-16 storage site will be 4.82 acre size and the proposed 604-12-13 storage site will be 10.66 acre size. The sites are located on a 7,732 acre parcel owned by the Applicant.

REQUEST FOR WAIVERS

Submission Requirements

☒ The Applicant requesting a Waiver of Submission Requirements per Section 4-202. List:

Section: Section 4-203 J. Development Agreement Section:

Section: Section 4-203 K. Improvement Agreement Section:

Waiver of Standards

☒ The Applicant is requesting a Waiver of Standards per Section 4-118. List:

Section: Access and Roadway Standards 7-107 F. Design Standards Section:

Section: Section:

I have read the statements above and have provided the required attached information which is correct and accurate to the best of my knowledge.



Signature of Property Owner

02/05/2015

Date

OFFICIAL USE ONLY

File Number: - Fee Paid: \$



PAYMENT AGREEMENT FORM

GARFIELD COUNTY ("COUNTY") and Property Owner ("APPLICANT") OXY USA WTP LP
_____ agree as follows:

1. The Applicant has submitted to the County an application for the following Project: 697-16-16 and 604-12-13 Storage Areas.
2. The Applicant understands and agrees that Garfield County Resolution No. 98-09, as amended, establishes a fee schedule for each type application, and the guidelines for the administration of the fee structure.
3. The Applicant and the County agree that because of the size, nature or scope of the proposed project, it is not possible at this time to ascertain the full extent of the costs involved in processing the application. The Applicant agrees to make payment of the Base Fee, established for the Project, and to thereafter permit additional costs to be billed to the Applicant. The Applicant agrees to make additional payments upon notification by the County, when they are necessary, as costs are incurred.
4. The Base Fee shall be in addition to and exclusive of any cost for publication or cost of consulting service determined necessary by the Board of County Commissioners for the consideration of an application or additional County staff time or expense not covered by the Base Fee. If actual recorded costs exceed the initial Base Fee, the Applicant shall pay additional billings to the County to reimburse the County for the processing of the Project. The Applicant acknowledges that all billing shall be paid prior to the final consideration by the County of any Land Use Change or Division of Land.

I hereby agree to pay all fees related to this application:

Billing Contact Person: Chris Clark Phone: (970) 462-8375
Billing Contact Address: 760 Horizon Dr., Ste 101
City: Grand Junction State: CO Zip Code: 81506
Billing Contact Email: chris_clark@oxy.com

Printed Name of Person Authorized to Sign: Kathleen Middleton

(Signature)

02/05/2015

(Date)

STATEMENT OF AUTHORITY

Chris G. Clark, Regulatory Coordinator/Lead for OXY USA WTP LP, a Delaware limited partnership, and for OXY USA Inc., a Delaware corporation (jointly "Oxy"), 760 Horizon Drive, Grand Junction, Colorado 81506, is authorized to act on behalf of, and represent Oxy in all matters related to applications for special use permits, conditional use permits, administrative permits, limited impact review, major impact reviews, and land use change permits (and may execute such applications) submitted to Garfield County, Colorado until such time as Oxy files of record a statement that Mr. Clark no longer has such authority. Oxy acknowledges that when any such permits are issued by Garfield County, Colorado, the County may choose to file them of record and such permits may contain certain covenants that run with the particular lands identified in such permits.

OXY USA WTP LP
By: OXY USA Inc., its general partner

By: W.B. Roby
Name: William B. Roby
Title: Vice President, Mid-Continent

OXY USA Inc.

By: W.B. Roby
Name: William B. Roby
Title: Vice President, Mid-Continent

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on this 5 day of March, 2010, by William B. Roby, Vice President of OXY USA Inc. a Delaware corporation on behalf of OXY USA Inc., a Delaware corporation and on behalf of OXY USA WTP LP, a Delaware limited partnership.

Christine M Sanchez
Notary Public, State of Texas

My Commission Expires





OXY USA WTP LP

760 Horizon Dr., Suite 101
Grand Junction, CO 81506
Phone 970.263.3600



Reception#: 855321
10/28/2014 04:36:00 PM Jean Alberico
1 of 1 Rec Fee:\$11.00 Doc Fee:0.00 GARFIELD COUNTY CO

June 4, 2014

Ms. Tamra Allen
Community Development Department
Garfield County
108 8th Street, Suite 401
Glenwood Springs, CO 81601

RE: Agent Authorization for OXY USA WTP and OXY USA Inc. permitting projects
Garfield County, Colorado

Dear Ms. Allen,

OXY USA WTP LP and OXY USA Inc. (Oxy) authorizes Blair Rollins with Olsson Associates and Katy Middleton with Blue Sky Permitting and Planning, LLC to act on behalf of and represent Oxy in matters related to land use permitting projects located in Garfield County, Colorado.

Please contact me if you have any questions, comments, concerns, or if you require additional information. I can be reached at 970.263.3607 or at chris_clark@oxy.com.

Sincerely,


Chris Clark
Operations Manager

Cc: file
Olsson



Community Development Department
108 8th Street, Suite 401
Glenwood Springs, CO 81601
(970) 945-8212
www.garfield-county.com

PRE-APPLICATION CONFERENCE SUMMARY

DATE: 8/29/2014

TAX PARCEL NUMBERS: 216910100020, 241124400020, 216921400026

PROJECT: 4 Storage Facilities

PROPERTY OWNER: Oxy USA Inc. and Oxy USA WTP LP

REPRESENTATIVE: Katy Middleton and Joan Proulx

PRACTICAL LOCATION: North of Debeque off CR 213

ZONING: Resource Lands - Plateau

TYPE OF APPLICATION: Administrative Review for "Storage"

I. GENERAL PROJECT DESCRIPTION

The Applicant wishes to obtain 3 Land Use Change Permits for 4 storage facilities on 3 different parcels of land. Each property with a facility will need to be submitted as a separate application. All of the pads are understood to be previously permitted through the COGCC and have been graded. As a result, no additional grading or disturbance is anticipated with any of these facilities. This facilities will store various equipment and materials for gas production within the adjacent Oxy gas fields. All of the sites are to be unmanned, so water and wastewater facilities are not proposed. The sites will be accessed from private roads maintained by Oxy that tie into County Road 213. None of the sites are proposed to store any kind of hazardous waste. The sites range in size from approximately 1 – 4 acres. (see attached descriptions, maps and aerial images)

Under the Garfield County Land Use Code of 2013, as amended, Storage located within the Resource Lands - Plateau zone district is processed by the County through an Administrative Review.

II. REGULATORY PROVISIONS APPLICANT IS REQUIRED TO ADDRESS

Garfield County Land Use and Development Code, specifically sections:

- Garfield County Comprehensive Plan 2030
- Garfield County Land Use and Development Code, effective July 15, 2013
- Administrative Review, Section 4-103
- Common Review Procedures, Table 4-102
- Submittal Requirements, Table 4-201
- Article 7, Division 1, 2, and 3
- Section 7-1001, Industrial Uses Standards

III. SUBMITTAL REQUIREMENTS (See specific section for details)

- 4-203.B. General Application Material
- 4-203.C. Vicinity Map
- 4-203.D. Site Plan
- 4-203.E. Grading and Drainage Plan
- 4-203.G. Impact Analysis
- 4-203. J. Development Agreement (A waiver may be requested – please respond to Section 4-202, if applicable)
- 4-203. K. Improvements Agreement (A waiver may be requested – please respond to Section 4-202, if applicable)
- 4-203.L. Traffic Study
- 4-203. M. Water Supply/Distribution Plan
- 4-203.N. Wastewater Treatment Plan
- Any additional materials to demonstrate compliance with Sections 7, Divisions 1, 2, and 3 and Section 7-1001.

In addition, the applicant shall comply with Policy 01-14 should a waiver be requested for any private roadways providing access to the site.

Submit **three** paper copies and **one** CD for applications. Additional copies will be requested upon determination of completeness. See the land use code for additional information on submittal requirements.

IV. APPLICATION REVIEW

a. Review by: Staff for completeness recommendation and referral agencies for additional technical review

b. Public Hearing: X None (Director's Decision)
 Planning Commission
 Board of County Commissioners
 Board of Adjustment

- c. **Referral Agencies:** May include, but is not limited to, Garfield County Attorney, Garfield County Road and Bridge Department, Fire Protection District, Garfield County Designated Engineer, and State of Colorado.

V. APPLICATION REVIEW FEES

This application will be subject to the following fees and deposit requirements:

- a. **Planning Review Fees:** \$ 250.00 (Per Application)
- b. **Referral Agency Fees:** \$ TBD – consulting engineer/civil engineer fees
- c. **Total Deposit:** \$ 250.00 (additional hours are billed at \$40.50 /hour)

General Application Processing

Planner reviews case for completeness and sends to referral agencies for comments. The case planner contacts applicant and sets up a site visit. Staff reviews application to determine if it meets standards of review and makes a recommendation of approval, approval with conditions, or denial to the Director of the Community Development Department. The Director's decision is subject to a 10-day call-up period. The pre-application meeting summary is only valid for six (6) months from the date of the written summary.

Disclaimer

The foregoing summary is advisory in nature only and is not binding on the County. The summary is based on current zoning, which is subject to change in the future, and upon factual representations that may or may not be accurate. This summary does not create a legal or vested right.

Pre-application Summary Prepared by:


David Pesnichak, AICP
Senior Planner

August 29, 2014
Date

OXY USA WTP LP

Proposed Storage Sites – Garfield County

610-21-41

NENW Section 10 Township 6 South Range 97 West Zone: Resource Lands – Plateau

Parcel #: ~~2169-214-00-026~~ ²¹⁶⁹¹⁰¹⁰⁰²⁰

Acres: 7732

Owner: OXY USA INC

Site Size: 3.203 acres

Previously developed with a pad built and a water impoundment located within the site perimeter. Grading is not anticipated for the site. Stormwater features currently exist on-site. The proposed storage area will not require lighting, utilities, water, or wastewater. The site will not be manned and will be only occupied for un/loading of equipment and supplies. The site will not store waste, hazardous materials, or any materials that may cause odors or nuisances to adjacent parcels.

797-24-47D

E Section 24 Township 7 South Range 97 West Zone: Resource Lands – Plateau

Parcel #: 2411-244-00-020

Acres: 160

Owner: OXY USA WTP LP

Site Size: 2.218 acres

The sites main function will be to provide a storage site for oil & gas equipment and supplies. Previously developed with a pad built and a plugged well located within the site perimeter. Grading is not anticipated for the site. Stormwater features currently exist on-site. The proposed storage area will not require lighting, utilities, water, or wastewater. The site will not be manned and will be only occupied for un/loading of equipment and supplies. The site will not store waste, hazardous materials, or any materials that may cause odors or nuisances to adjacent parcels.

604-12-13 Annex

NW Section 4 Township 6 South Range 97 West Zone: Resource Lands – Plateau

Parcel #: 2169-214-00-026

Acres: 7732

Owner: OXY USA INC

Site Size: 4.155

The sites main function will be to provide a storage site for oil & gas equipment and supplies. Previously developed with a pad built within the site perimeter. Grading is not anticipated for the site. Stormwater features currently exist on-site. The proposed storage area will not require lighting, utilities, water, or wastewater. The site will not be manned and will be only occupied for un/loading of equipment and supplies. The site will not store waste, hazardous materials, or any materials that may cause odors or nuisances to adjacent parcels.

697-16-16

NW Section 16 Township 6 South Range 97 West Zone: Resource Lands – Plateau

Parcel #: 2169-214-00-026

Acres: 7732

Owner: OXY USA INC

Site Size: 1.11 acres

The sites main function will be to provide a storage site for oil & gas equipment and supplies. The sites main function will be to provide a storage site for oil & gas equipment and supplies. Previously developed for a pad built and currently 10 producing wells are located within the pad site. The storage site will be located on the upper tier of the pad. Grading is not anticipated for the site. Stormwater features currently exist on-site. The proposed storage area will not require lighting, utilities, water, or wastewater. The site will not be manned and will be only occupied for un/loading of equipment and supplies. The site will not store waste, hazardous materials, or any materials that may cause odors or nuisances to adjacent parcels.



OXY USA WTP LP

760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Cascade Creek Operational Area

Updated: August 26, 2014

Garfield County, Colorado

0 0.95 1.9 2.85 Miles

- Existing Storage Facility
- Proposed Storage Facility
- Existing Well Pad
- Facilities
- Oxy et al property
- Oxy Responsible Road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road

T6S-R98W

T6S-R97W

T6S-R96W

T7S-R98W

T7S-R97W

T7S-R96W

T8S-R98W

T8S-R97W

604-12-13 Annex
Storage Facility

610-21-41 Storage Facility

697-16-16 Storage Facility

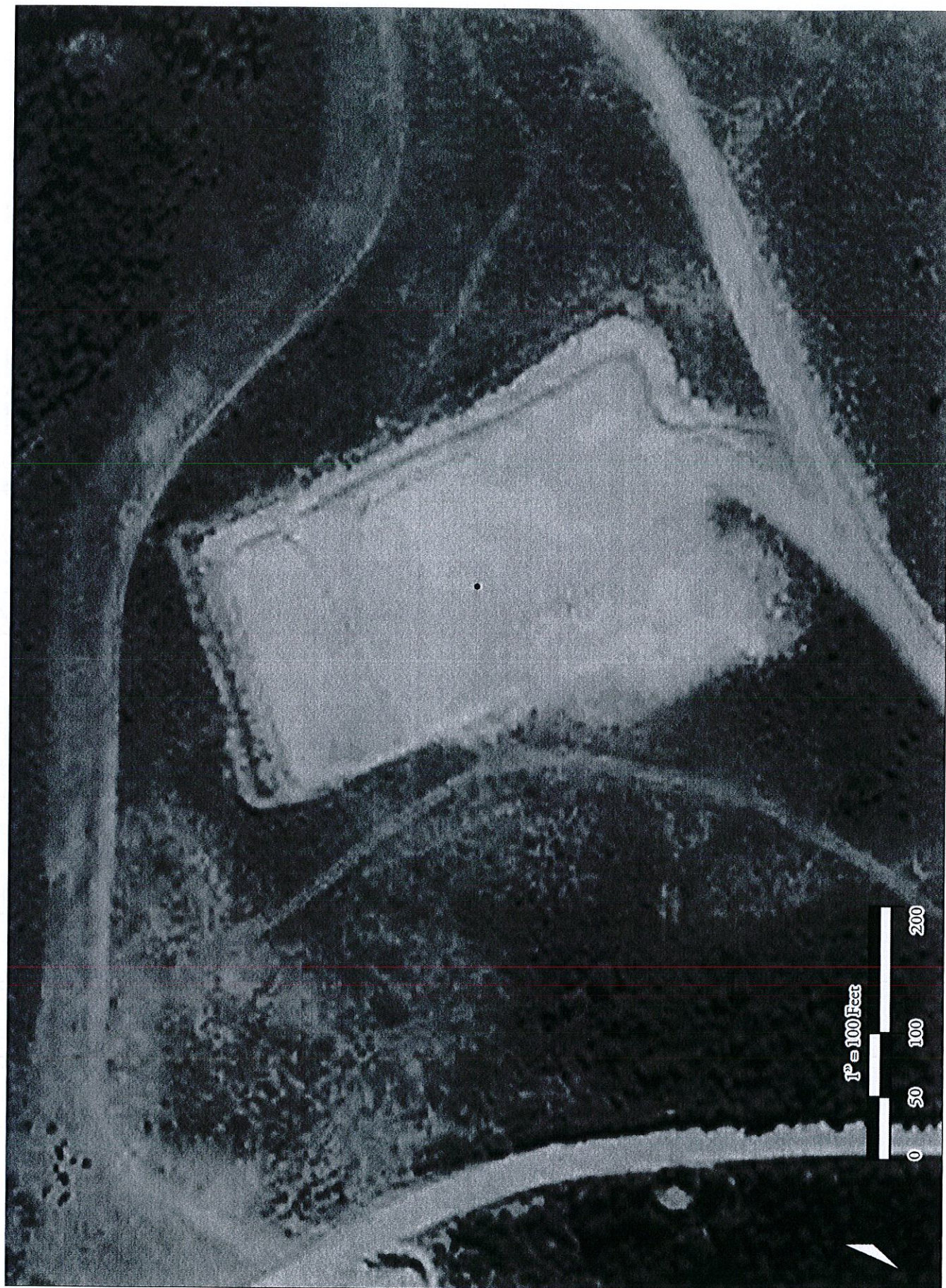
Mesa Storage Yard

CWHF Storage Facility

797-24-47D Storage Facility



LW 797-24-47D Pad







**697-16-16 and 604-12-13 Storage Sites
OXY USA WTP LP
Administrative Review Application Narrative**

OXY USA WTP LP (OXY) is pursuing an Administrative Review (AR) in Garfield County for the development of two storage sites, the 604-12-13 and the 697-16-16 (storage sites). The proposed sites will be located on private property, owned by OXY USA WTP LP, approximately 15 miles north of DeBeque, Colorado. The sites will be defined as Storage under the Industrial Uses. The facility's main function will be to store various equipment and supplies in locations centralized to OXY's production field.

1. Description

The purpose of the proposed storage sites is to increase efficiency of storage and transportation of equipment and supplies. Storage sites are located to support well pads within the OXY Cascade Creek field. The proposed storage sites will reduce overall heavy traffic on county roads by allowing vehicles to transport equipment and supplies within OXY's property. The parcel is currently owned by OXY USA WTP LP.

Equipment and supplies stored at the proposed sites will consist of, but not limited to, separators, natural gas production equipment, fuel storage, piping, piping connections, well head equipment, ladders, secondary containment parts, and stormwater control supplies. Any liquids or semi-solid materials will be stored in a secondary containment. Any fuels, combustible, and flammable materials will be stored within a 25 foot gravel pad. Weed control will be maintained to prevent wildfire from entering the site.

The proposed sites have been designed to mitigate potential risks to wildlife. The 697-16-16 and the 604-12-13 site locations are previously developed and no additional impacts are anticipated. The Environmental Impact Assessments are located in the Impact Analysis tab. The Wildlife Habitat Reports for storage use are located in the Standards tab.

The 604-12-13 site location was previously developed as a COGCC permitted-well pad site. The well pad was constructed; however, the wells were never drilled. At this time the Applicant does not anticipate drilling on the site location. The site is located on COGCC location #424970. The 604-12-13 Site Plan is located in the Maps and Plans tab.

The 697-16-16 site location was previously developed as a COGCC permitted-well pad site and currently has 10 producing wells located on the lower tier of the well pad. The storage area will be located at the upper tier of the pad. The lower tier is not included in the proposed Storage Site perimeter. The 697-16-16 Site Plan is located in the Maps and Plans tab.

The proposed storage sites will not require personnel to be staffed at the site and personnel will only access the proposed site for loading/unloading activities. A copy of the Emergency Response Plan is provided in the Maps and Plans Tab. Certifications of training can be provided upon request.

A COGCC permit is not required for the proposed storage sites. A Sundry will be submitted to the COGCC after a Garfield County Land Use Change permit is obtained.

The sites are located within the 7732 acre parcel. An access road to the site locations is maintained and owned by OXY. Access road details are located in the Standards tab. A Site Plan is located in the Maps and Plans tab.

The proposed sites were previously developed and no grading activities will be required. The only construction activities for the proposed storage sites will be the delivery of gravel. Gravel delivery will result in an estimate of two dump trucks vehicles accessing each site.

Vehicle activities during the operations phase are not expected to be daily, but rather intermittent with three (3) vehicles (six trips) for stormwater inspections and vegetation management every month per site. Upgrades to drainage features and erosion BMPs will occur during monthly trips, using equipment located within OXY property. The equipment and materials that will be brought to the facilities are from near-by well pads and will be reused in the general area. The proposed storage use is expected to generate few additional trips to the public roads by providing a place for extra materials and equipment that would otherwise be hauled in or out of the larger field.

The traffic report determined that the increase in traffic is negligible. However, the report stated that two locations along CR 213 were identified where maintenance-type improvements should be considered. Details on suggested improvements are provided in the Traffic Report, located in the Impact Analysis tab.

2. Purpose and Need

The proposed storage sites will result in improved efficiency in transportation. The proposed sites are located on OXY's property and within the Cascade Creek field. The 604-12-13 and 697-16-16 storage sites will support existing and future facilities and wells in the Cascade Creek field. The proposed storage sites are critical to OXY's ability to produce natural gas in Garfield County.

3. Facilities and Equipment Summary

The following section summarizes the equipment that is currently existing and proposed for the 697-16-16 site.

Existing:

- Frac Tanks (8)
- Completion Tanks (2)
- 400 barrel Upright Tanks (34)

Proposed:

- Gravel Pad (25 ft. x 25 ft.)
- Various equipment and supplies

The 697-16-16 Site Plan is provided in the Maps and Plans Tab.

The following section summarizes the equipment that is currently existing and proposed for the 604-12-13 site.

Existing:

- Storage Tanks
- Separators

- Miscellaneous Equipment and Supplies

Proposed:

- Gravel Pad (25 ft. x 25 ft.)
- Various equipment and supplies

The 604-12-13 Site plans are provided in the Maps and Plans Tab.

4. Location

The proposed 604-12-13 Storage Site is designed to be approximately 4.59 acres for the storage pad and 10.66 acres for the Site Perimeter. The 604-12-13 site is centrally located on parcel 2169-214-00-026, in the Northwest ¼ of Section 4, Township 6 South, Range 97 West of the 6th Principal Meridian, Garfield County. The coordinates of the proposed storage site location is Latitude: 39.553516° N and Longitude: 108.233159° W.

The proposed the 697-16-16 Storage Site is designed to be approximately 0.71 acres for the storage pad and 4.82 for the Site Perimeter. The 697-16-16 site is centrally located on parcel 2169-214-00-026, in the Northeast ¼ of Section 16 and Northwest ¼ of Section 15, Township 6 South, Range 97 West of the 6th Principal Meridian, Garfield County. The coordinates of the proposed storage site location is Latitude: 39.528154° N and Longitude: 108.215877° W.

The subject parcel is approximately 7732 acres. OXY USA WTP LP, the applicant, is the owner of the property. OXY is the sole owner of mineral rights for the subject parcel. A complete of list of mineral owners, adjacent land owners, and the deed for the property are provided in the Impact Analysis Tab. The subject sites are zoned resource lands-plateau. All adjacent parcels are zoned resource lands or public lands. Subject and adjacent parcels zoning are detailed in the Zoning Map, located in the Maps and Plans tab.

5. Section 4-202 Waiver of Submission Requirements

Section 4-203 J. Development Agreement

OXY requests a waiver for the Development Plan, Section 4-203(J) of the Garfield County Land Use and Development Code. The proposed sites are an industrial use and will solely be owned by the applicant. The Development Agreement is not applicable to the proposed sites because the applicant does not seek to enter into a development agreement.

Section 4-203 K. Improvement Agreement

OXY requests a waiver for the Improvement Agreement, Section 4-203(K) of the Garfield County Land Use and Development Code. The proposed sites will not require the installation of public utilities nor will increase demands on public facilities. The proposed site locations are remote and are currently used for oil and gas activities. The Improvement Agreement is not applicable to the proposed sites because the remote locations will not require the installation or improvements of public facilities.

6. Section 4-118 Waiver of Standards

Section 7-107 F. Roadway and Design Standards

OXY requests a waiver for the Roadway and Design Standards, Section 7-107 of the Garfield County Land Use and Development Code. Garfield County' Policy 01-14, "Waivers for Roads and

Demonstration of Compliance”, states roads must be deemed “safe and adequate” by a Professional Engineer (PE). The proposed 604-12-13 storage site is located approximately 6 miles from a public road and the proposed 697-16-16 storage site is located approximately 4.5 miles from a public road. Two separate assessments, Site Accesses and OXY Roadway Assessment (ORA), were conducted.

Roads within the site perimeters do meet all the 7-107 Roadway Standards set forth in the LUDC. ORA analyzes approximately 14.2 miles of road located with the subject parcel owned and maintained by the Applicant. The private access roads serve several facilities within the Cascade Creek Field. Olsson Associates prepared the Roadway Assessment and concluded OXY’s private roads did not meet the following 7-107 F. Design Standards:

- Lane Width
- Shoulder Width
- Ditch Width
- Minimum Radius
- Max Grade

The private access roads were construction prior to Garfield County adopting 7-107 Roadway Standards. A PE analysis was conducted by Rock Solid Solutions and deemed the subject roads “safe and adequate”. Roadway documents, including narratives and maps, are located within the Standards tab.

Maps and Plans

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4. Vicinity Map – 604-12-13
5. Zoning Map – 697-16-16
6. Zoning Map – 604-12-13
7. Aerial Map – 697-16-16
8. Aerial Map – 604-12-13
9. 697-16-16 Site Plan (Provided on 24X36 inch Sheet and within binder)
10. 604-12-13 Site Plan (Provided on 24X36 inch Sheet and within binder)
11. 697-16-16 Legal Description
12. 604-12-13 Legal Description
13. Spill Prevention Control and Countermeasure Plan
14. Emergency Response Plan
15. Water Supply and Management Plan
16. Wastewater Management and System Plan



OXY USA WTP LP

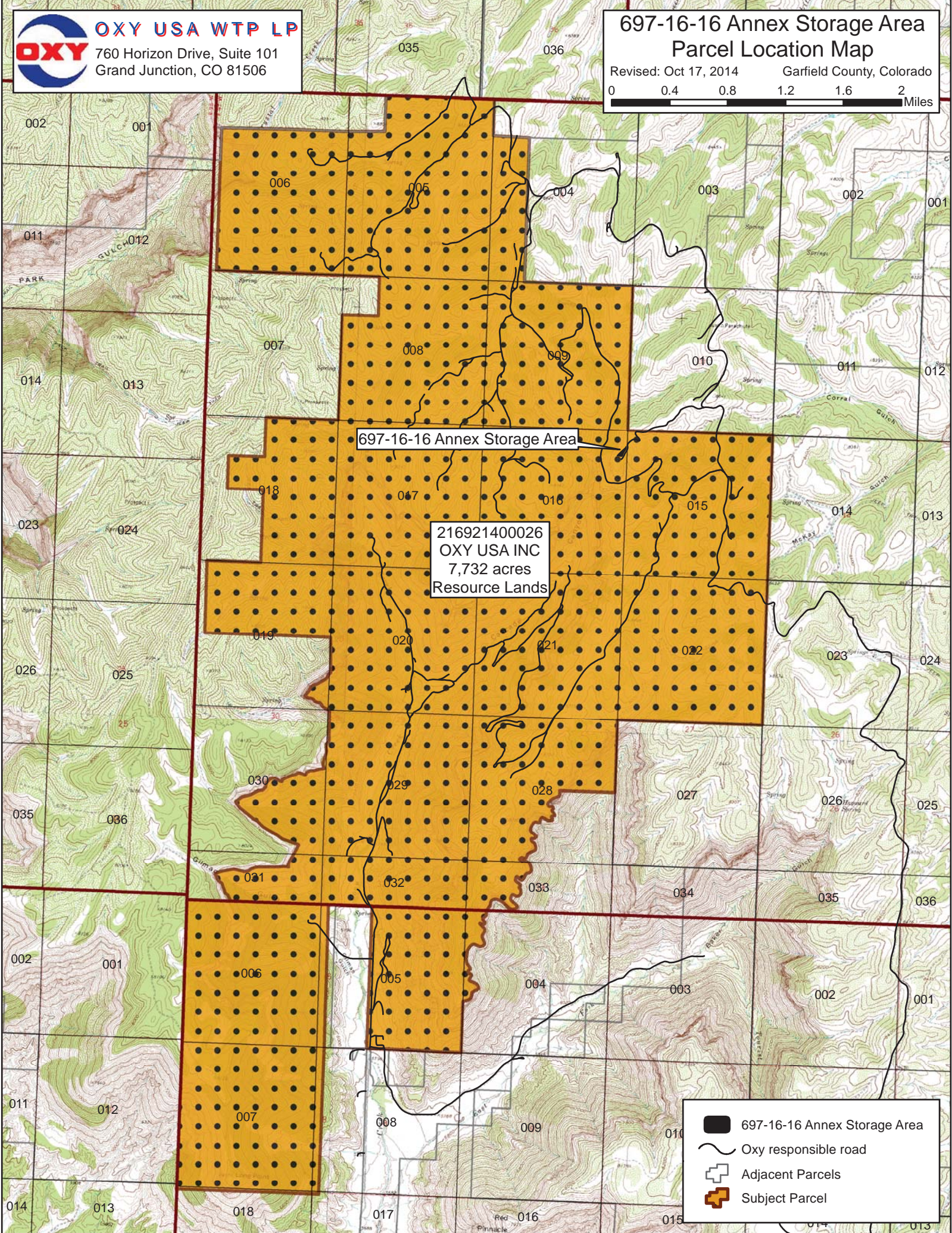
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

697-16-16 Annex Storage Area Parcel Location Map

Revised: Oct 17, 2014

Garfield County, Colorado

0 0.4 0.8 1.2 1.6 2 Miles



- 697-16-16 Annex Storage Area
- Oxy responsible road
- Adjacent Parcels
- Subject Parcel

604-12-13 Annex Storage Location Map

Revised: Oct 13, 2014 Garfield County, Colorado

0 0.85 1.7 2.55 3.4 4.25 Miles

604-12-13 Annex Storage Area

216921400026
OXY USA INC
7,732 acres
Resource Lands

211 CLEAR CREEK RD

202 - KIMBALL CREEK RD

191 - 491

GARFIELD COUNTY 204 - ROAN CREEK DR

213 COMB CREEK RD

GaCo 204 - ROAN CREEK DR

200 -

492 -

299 -

X.50 - MESA COUNTY 45 - ROAN CREEK RD

T7S R97W

- Subject Parcel
- 604-12-13 Annex Storage Facility
- Oxy responsible road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road
- Interstate 70



OXY USA WTP LP

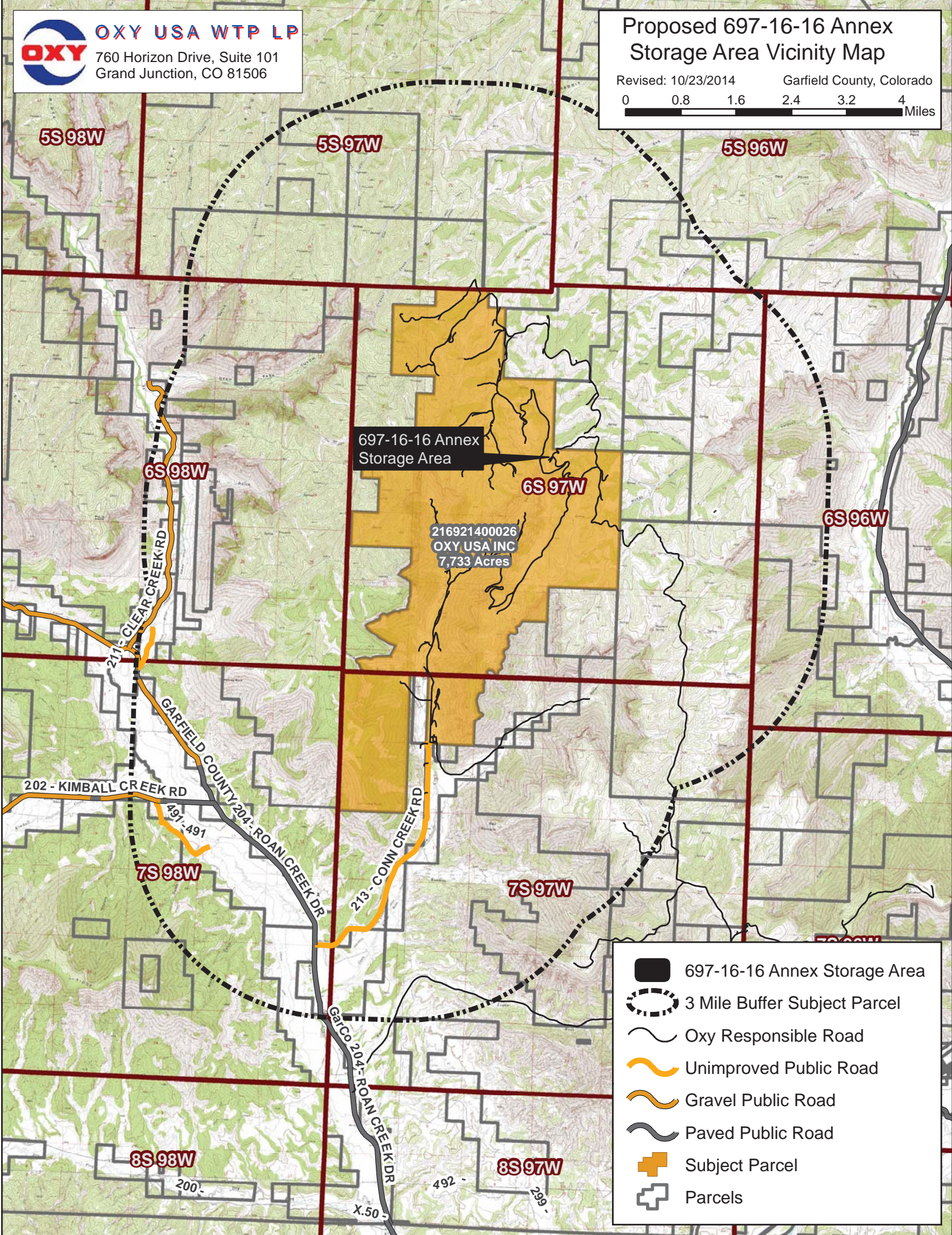
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Proposed 697-16-16 Annex Storage Area Vicinity Map

Revised: 10/23/2014

Garfield County, Colorado

0 0.8 1.6 2.4 3.2 4 Miles





OXY USA WTP LP

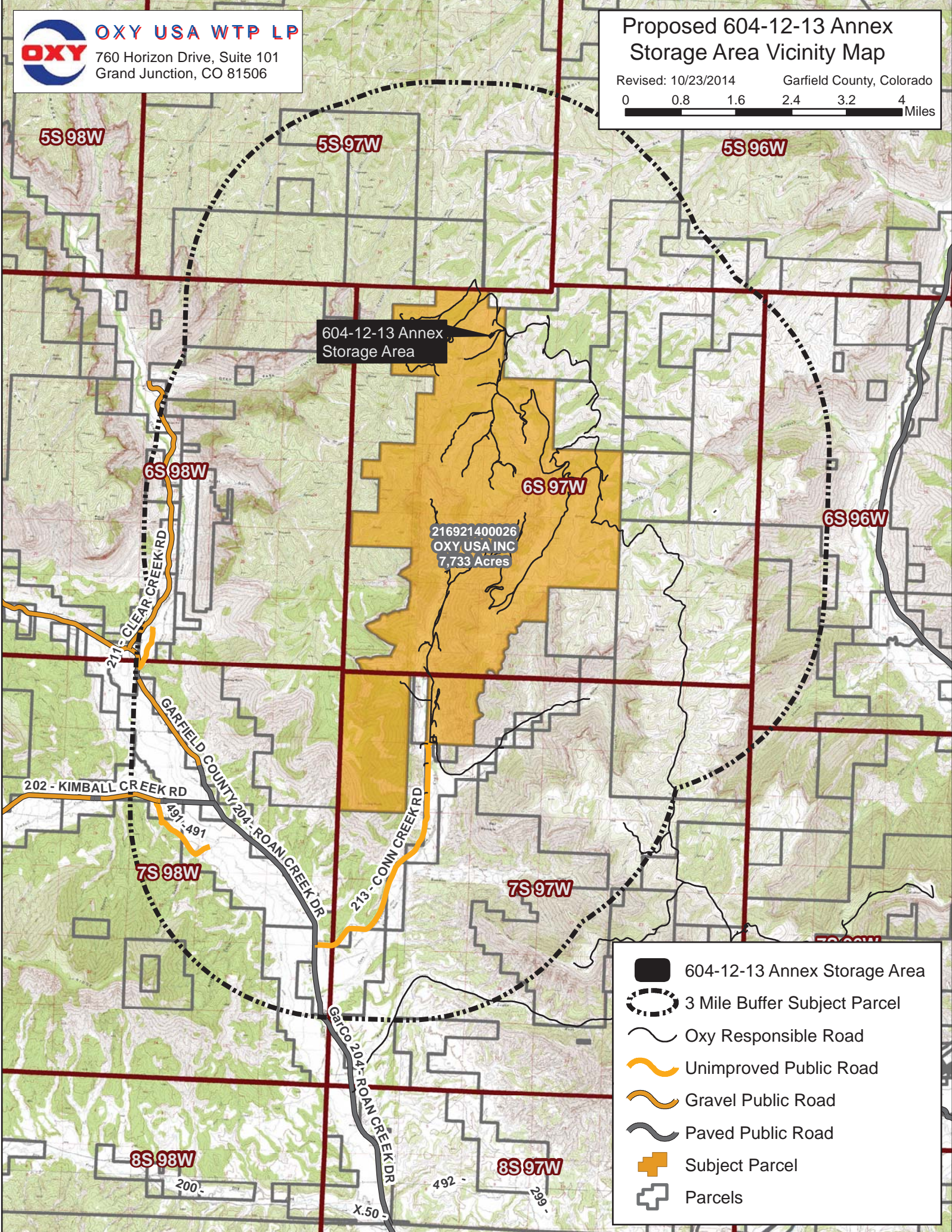
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Proposed 604-12-13 Annex Storage Area Vicinity Map

Revised: 10/23/2014

Garfield County, Colorado

0 0.8 1.6 2.4 3.2 4 Miles



- 604-12-13 Annex Storage Area
- 3 Mile Buffer Subject Parcel
- Oxy Responsible Road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road
- Subject Parcel
- Parcels



OXY USA WTP LP

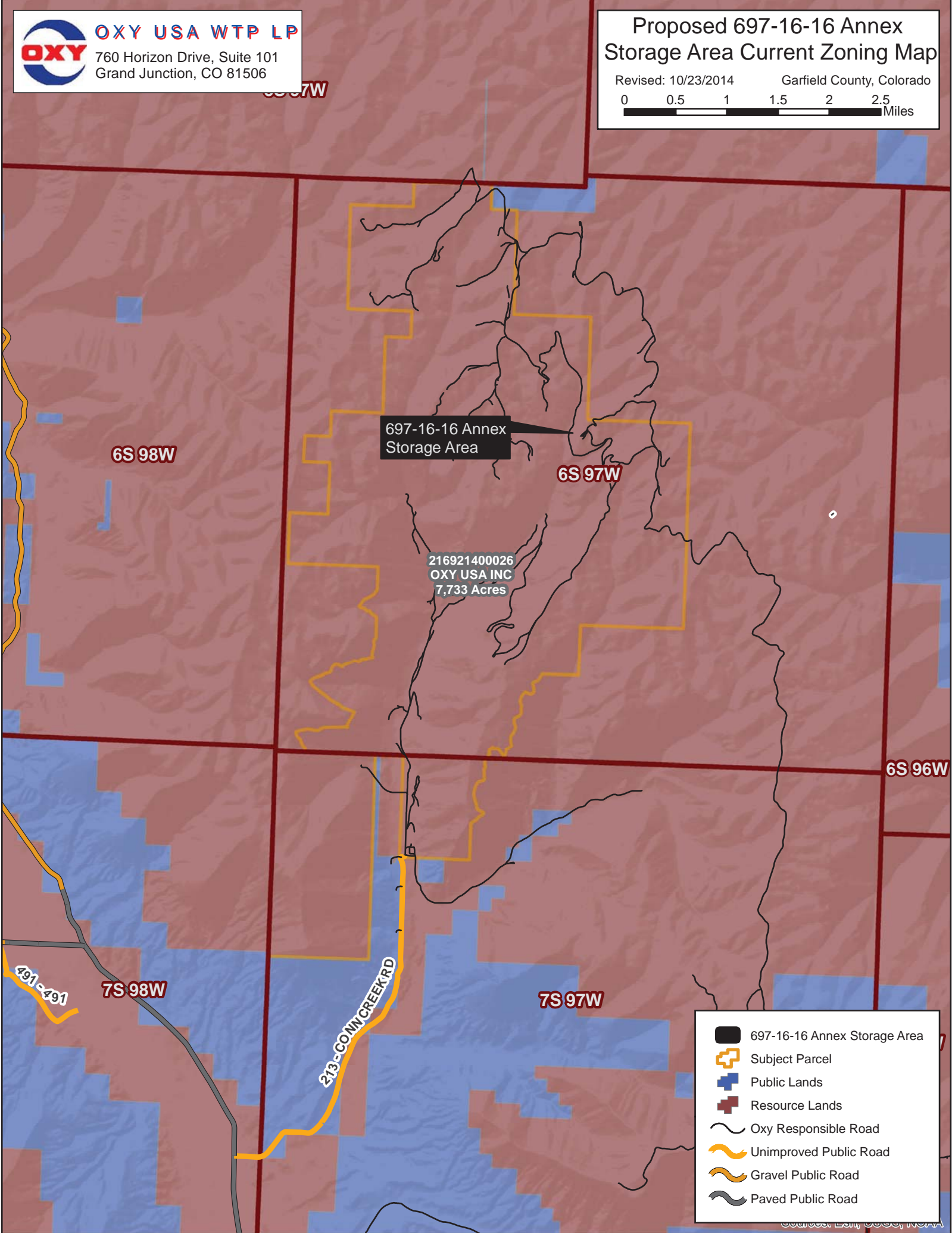
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Proposed 697-16-16 Annex Storage Area Current Zoning Map

Revised: 10/23/2014

Garfield County, Colorado

0 0.5 1 1.5 2 2.5 Miles



- 697-16-16 Annex Storage Area
- Subject Parcel
- Public Lands
- Resource Lands
- Oxy Responsible Road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road

697-16-16 Annex Storage Area Future Land Use Map

Revised: Oct 20, 2014

Garfield County, Colorado

0 0.1 0.2 0.3 0.4 0.5
Miles

697-16-16 Annex Storage Area

Comprehensive Future Development Plan 2030

697-16-16 Annex Storage Area is located within
the Resource Production/Natural Area

- 697-16-16 Annex Storage Area
- Oxy responsible road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road

604-12-13 Annex Storage Area Future Land Use Map

Revised: Oct 20, 2014

Garfield County, Colorado

0 0.15 0.3 0.45 0.6
Miles

604-12-13 Annex Storage Area

Comprehensive Future Development Plan 2030

604-12-13 Annex Storage Area is located within
the Resource Production/Natural Area

- 604-12-13 Annex Storage Area
- Oxy responsible road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road

12/23/2014 J:\140001\14623\Drainage_Report\14623-AS-BLT DRAINAGE STUDY.dwg

STAMP BY SURVEYOR

I, RICHARD A. BULLEN JR., AN EMPLOYEE AND AGENT FOR D.R. GRIFFIN & ASSOCIATES, INC.
STATE THE PLAT HEREON IS A CORRECT REPRESENTATION OF A SURVEY MADE UNDER MY AUTHORITY
COMMENCING ON OCTOBER 15, 2014 OF THE SHOWN CASCADE CREEK 697-16-16 ANNEX STORAGE AREA.



COLORADO PLS No. 28647

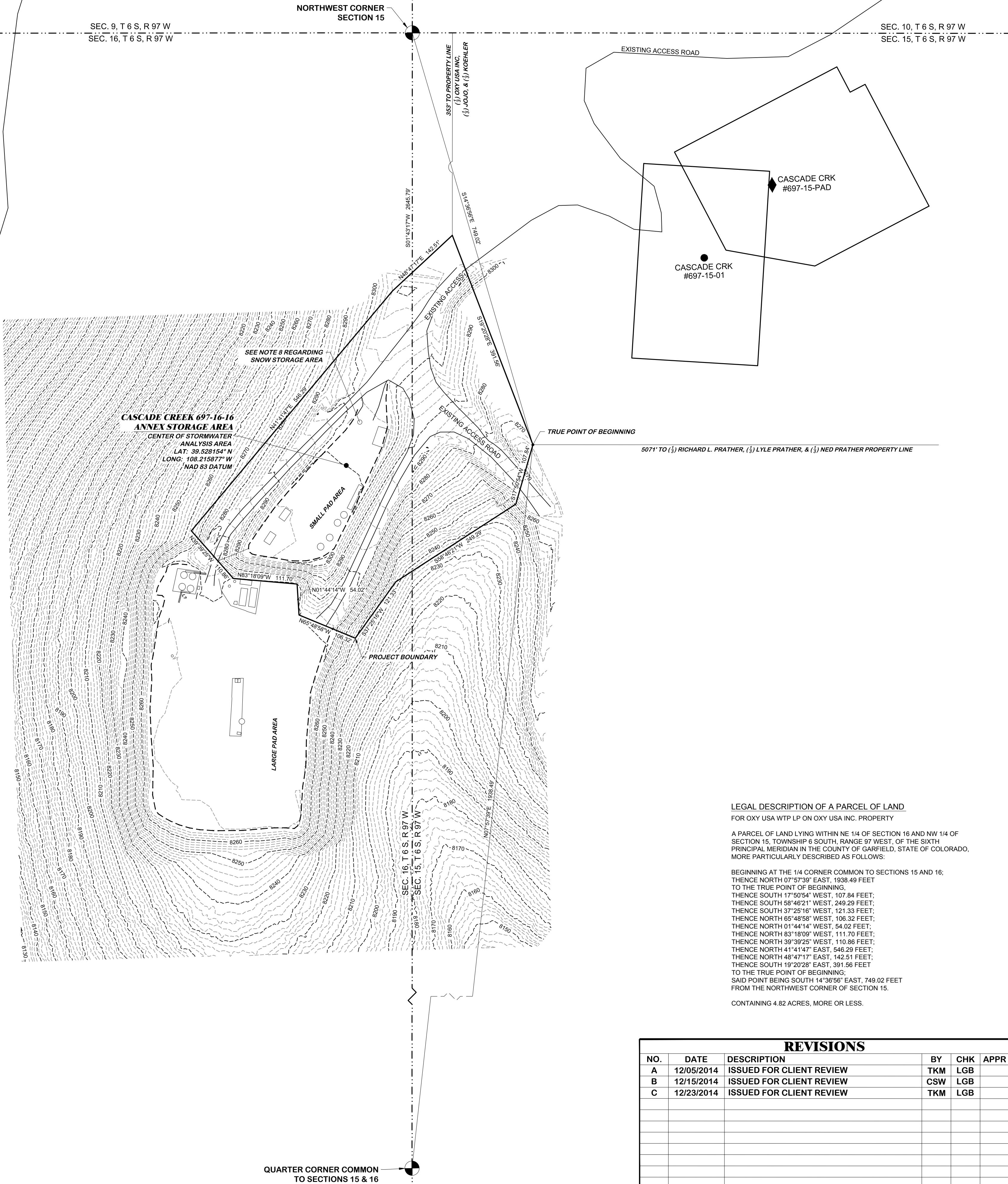
BASIS OF BEARINGS/ELEVATION

THE BASIS OF BEARINGS FOR THIS SURVEY IS REFERENCED TO THE WEST LINE OF SECTION 15, T. 6 S., R. 97 W. OF THE 6TH P.M. AS BEARING S 01°43'17" W, THE TERMINUS OF THE SAID LINE BEING MONUMENTED WITH GLO BRASS CAPS AS SHOWN.

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS REFERENCED FROM USGS SPOT ELEVATION LOCATED IN THE SOUTHEAST QUARTER OF SECTION 15, T. 6 S., R. 97 W. WITH AN ELEVATION OF 8,432 FEET.

LEGEND

- BASIN BOUNDARY
- CONTOURS (2 FOOT INTERVAL)
- DRAINAGE FLOW
- 1 DESIGN POINT
- S1 DRAINAGE SWALE
- EXISTING/PROPOSED DRAINAGE SWALE



LEGAL DESCRIPTION OF A PARCEL OF LAND

FOR OXY USA WTP LP ON OXY USA INC. PROPERTY

A PARCEL OF LAND LYING WITHIN NE 1/4 OF SECTION 16 AND NW 1/4 OF SECTION 15, TOWNSHIP 6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN THE COUNTY OF GARFIELD, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE 1/4 CORNER COMMON TO SECTIONS 15 AND 16;

THENCE NORTH 07°57'39" EAST, 1938.49 FEET

TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 17°50'54" WEST, 107.84 FEET;

THENCE SOUTH 58°46'21" WEST, 249.29 FEET;

THENCE SOUTH 37°25'18" WEST, 121.33 FEET;

THENCE NORTH 65°48'59" WEST, 106.32 FEET;

THENCE NORTH 01°44'14" WEST, 54.02 FEET;

THENCE NORTH 83°18'09" WEST, 111.70 FEET;

THENCE NORTH 39°39'25" WEST, 110.86 FEET;

THENCE NORTH 44°14'47" EAST, 546.29 FEET;

THENCE NORTH 48°47'17" EAST, 142.51 FEET;

THENCE SOUTH 19°20'28" EAST, 391.56 FEET

TO THE TRUE POINT OF BEGINNING;

SAID POINT BEING SOUTH 14°36'56" EAST, 749.02 FEET

FROM THE NORTHWEST CORNER OF SECTION 15.

CONTAINING 4.82 ACRES, MORE OR LESS.

NOTES:

- NORTHING AND EASTINGS REFERENCED TO STATE PLANE COORDINATES, COLORADO CENTRAL ZONE, U.S. SURVEY FEET, NAD 27.
- PROJECT BOUNDARY AS SHOWN IS 209,963 SQ. FT. OR 4.82 ACRES.
- CASCADE CREEK STORAGE AREA 697-16-16 STORAGE PAD AREA ENCOMPASSES APPROXIMATELY 30,746 SQ. FT. OR 0.71 ACRES.
- PROJECT SITE IS ZONED AS RESOURCE LANDS-PLATEAU, AS INDICATED BY THE GARFIELD COUNTY ZONE DISTRICT MAP.
- THERE ARE NO FLOOD HAZARD ZONES DESIGNATED BY FEMA FOR THE PROJECT SITE. THE SITE IS CLASSIFIED AS ZONE D.
- THE APPROXIMATE FINAL ELEVATION OF THE SMALL PAD AREA IS 8,300'.
- TOTAL ESTIMATED GROUND DISTURBANCE IS 149,246 SQ. FT. OR 3.43 ACRES.
- STOCKPILED SNOW WILL BE DIRECTED TOWARD BMPs WHEN PRACTICAL TO ALLOW TREATMENT. PLOWED SNOW WILL LIKELY BE PLACED NEAR THE OUTER BOUNDARY OF THE PAD SO PAD SWALES WILL COLLECT THE SNOW MELT AND ROUTE IT TO THE SEDIMENT TRAPS.

REVISIONS						<div><div><div>DRG</div><div>R</div><div>G</div><div>R</div><div>I</div><div>F</div><div>F</div><div>I</div><div>N</div><div>&</div><div>A</div><div>S</div><div>S</div><div>O</div><div>C</div><div>I</div><div>A</div><div>T</div><div>E</div><div>S</div><div>,</div><div>I</div><div>N</div><div>C.</div></div><div><div><div>OXY</div></div></div></div> <div>1414 ELK ST., SUITE 202 ROCK SPRINGS, WY 82901 (307) 362-5028</div>	
NO.	DATE	DESCRIPTION	BY	CHK	APPR		
A	12/05/2014	ISSUED FOR CLIENT REVIEW	TKM	LGB		<div><div><div>CASCADE CREEK 697-16-16</div><div>ANNEX STORAGE AREA</div><div>STORMWATER ANALYSIS</div></div><div>SITE PLAN</div></div> <div>SCALE: 1" = 100'</div> <div>JOB No.: 14623</div> <div>GARFIELD COUNTY, COLORADO</div>	
B	12/15/2014	ISSUED FOR CLIENT REVIEW	CSW	LGB			
C	12/23/2014	ISSUED FOR CLIENT REVIEW	TKM	LGB			
						<div>14623-SW-ANALYSIS</div> <div>REV C</div>	
						SHEET 3 OF 4	

12/22/2014, J:\1100011697\DWG\ANEXE REPORT\11697-ENG.dwg



SECTION 4 & 5,
TOWNSHIP 6 SOUTH, RANGE 97 WEST,
6TH PRINCIPAL MERIDIAN
GARFIELD COUNTY, COLORADO

STAMP BY SURVEYOR

I, RICHARD A. BULLEN JR., AN EMPLOYEE AND AGENT FOR D. R. GRIFFIN & ASSOCIATES, INC.,
STATE THE PLAT HEREON IS A CORRECT REPRESENTATION OF A SURVEY MADE UNDER MY AUTHORITY
COMMENCING ON OCTOBER 15, 2014 OF THE SHOWN CASCADE CREEK 604-12-13 ANNEX STORAGE AREA.



COLORADO PLS No. 28647

LEGEND

- BASIN BOUNDARY
- CONTOURS (2 FOOT INTERVAL)
- DRAINAGE FLOW
- 1 DESIGN POINT
- S1 DRAINAGE SWALE
- EXISTING/PROPOSED DRAINAGE SWALE

BASIS OF BEARINGS/ELEVATION

THE BASIS OF BEARINGS FOR THIS SURVEY IS REFERENCED TO THE WEST LINE OF
SECTION 4, T. 6 S., R. 97 W. OF THE 6TH P.M. AS BEARING N 01°42'32" E. THE TERMINUS
OF THE SAID LINE BEING MONUMENTED WITH GLO BRASS CAPS AS SHOWN.

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS REFERENCED FROM USGS STATION
SHALE LOCATED IN THE SOUTHWEST QUARTER OF SECTION 13, T. 7 S., R. 97 W. WITH
AN ELEVATION OF 8949 FEET.

LEGAL DESCRIPTION OF A PARCEL OF LAND

FOR OXY USA WTP LP ON OXY USA INC. PROPERTY

A PARCEL OF LAND LYING WITHIN LOT 13 (SE $\frac{1}{4}$ of the NE $\frac{1}{4}$) OF
SECTION 5 AND LOT 16 (SW $\frac{1}{4}$ of the NW $\frac{1}{4}$) OF SECTION 4, TOWNSHIP
6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN
THE COUNTY OF GARFIELD, STATE OF COLORADO, MORE
PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST SECTION CORNER OF SAID
SECTION 4, THENCE NORTH 13°53'56" EAST, 3323.32 FEET TO THE
TRUE POINT OF BEGINNING;
THENCE SOUTH 13°53'56" WEST, 314.61 FEET;
THENCE SOUTH 50°25'01" WEST, 496.62 FEET;
THENCE NORTH 40°33'53" WEST, 585.87 FEET;
THENCE NORTH 40°59'07" EAST, 644.57 FEET;
THENCE SOUTH 70°13'57" EAST, 409.10 FEET;
THENCE SOUTH 10°26'00" EAST, 174.32 FEET TO THE **TRUE POINT
OF BEGINNING**, SAID POINT BEING SOUTH 10°26'00" EAST, 3378.20
FEET FROM THE NORTHWEST CORNER OF SECTION 4.

CONTAINING 10.66 ACRES, MORE OR LESS.

NOTES:

- NORTHING AND EASTINGS REFERENCED TO STATE PLANE COORDINATES, COLORADO
CENTRAL ZONE, U.S. SURVEY FEET, NAD 27.
- PROJECT BOUNDARY AS SHOWN IS 454,578 SQ. FT. OR 10.66 ACRES.
- STORAGE AREA 1 IS APPROXIMATELY 350' x 610' AND ENCOMPASSES 199,980 SQ. FT.
OR 4.59 ACRES.
- PROJECT SITE IS ZONED AS RESOURCE LANDS-PLATEAU, AS INDICATED BY THE
GARFIELD COUNTY ZONE DISTRICT MAP.
- THERE ARE NO FLOOD HAZARD ZONES DESIGNATED BY FEMA FOR THE PROJECT SITE.
THE SITE IS CLASSIFIED AS ZONE D.
- THE APPROXIMATE FINAL ELEVATION OF THE PAD AREA IS 8528'.
- TOTAL ESTIMATED GROUND DISTURBANCE IS 395,351 SQ. FT. OR 9.08 ACRES.
- STOCKPILED SNOW WILL BE DIRECTED TOWARD BMPs WHEN PRACTICAL TO ALLOW
TREATMENT. PLOWED SNOW WILL LIKELY BE PLACED NEAR THE OUTER BOUNDARY
OF THE PAD SO PAD SWALES WILL COLLECT THE SNOW MELT AND ROUTE IT TO THE
RETENTION POND.

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK	APPR
A	10/29/2014	ISSUED FOR CLIENT REVIEW	TKM	LGB	
B	12/09/2014	FILLED IN RESERVE PITS TO PAD GRADE	TKM	LGB	
C	12/16/2014	REVISED PER CLIENT COMMENTS	TKM	LGB	
D	12/18/2014	REVISED PER CLIENT COMMENTS	CSW	LGB	

DRG RIFFIN & ASSOCIATES, INC.



**CASCADE CREEK 604-12-13
ANNEX STORAGE AREA
STORMWATER ANALYSIS**

SITE PLAN

SCALE: 1" = 100'

JOB No.: 11697

GARFIELD COUNTY, COLORADO

11697-SW-ANALYSIS

REV

A

SHEET 3 OF 4

LEGAL DESCRIPTION
OF
A PARCEL OF LAND
FOR OXY USA WTP LP
ON OXY USA INC. PROPERTY
DECEMBER 23, 2014

A PARCEL OF LAND LYING WITHIN NE 1/4 OF SECTION 16 AND NW 1/4 OF SECTION 15,
TOWNSHIP 6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN THE
COUNTY OF GARFIELD, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS
FOLLOWS:

BEGINNING AT THE 1/4 CORNER COMMON TO SECTIONS 15 AND 16;
THENCE NORTH 07°57'39" EAST, 1938.49 FEET
TO THE TRUE POINT OF BEGINNING,
THENCE SOUTH 17°50'54" WEST, 107.84 FEET;
THENCE SOUTH 58°46'21" WEST, 249.29 FEET;
THENCE SOUTH 37°25'16" WEST, 121.33 FEET;
THENCE NORTH 65°48'58" WEST, 106.32 FEET;
THENCE NORTH 01°44'14" WEST, 54.02 FEET;
THENCE NORTH 83°18'09" WEST, 111.70 FEET;
THENCE NORTH 39°39'25" WEST, 110.86 FEET;
THENCE NORTH 41°41'47" EAST, 546.29 FEET;
THENCE NORTH 48°47'17" EAST, 142.51 FEET;
THENCE SOUTH 19°20'28" EAST, 391.56 FEET
TO THE TRUE POINT OF BEGINNING;
SAID POINT BEING SOUTH 14°36'56" EAST, 749.02 FEET
FROM THE NORTHWEST CORNER OF SECTION 15.

CONTAINING 4.82 ACRES, MORE OR LESS.

SEE REFERENCE DRAWING "14623-SW-ANALYSIS SHEET 3 OF 4".

LEGAL DESCRIPTION
OF
A PARCEL OF LAND
FOR OXY USA WTP LP
ON OXY USA INC. PROPERTY
DECEMBER 18, 2014

A PARCEL OF LAND LYING WITHIN LOT 13 (SE 1/4 of the NE 1/4) OF SECTION 5 AND LOT 16 (SW 1/4 of the NW 1/4) OF SECTION 4, TOWNSHIP 6 SOUTH, RANGE 97 WEST, OF THE SIXTH PRINCIPAL MERIDIAN IN THE COUNTY OF GARFIELD, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST SECTION CORNER OF SAID SECTION 4; THENCE NORTH 13°53'56" EAST, 3323.32 FEET TO THE **TRUE POINT OF BEGINNING**,
THENCE SOUTH 13°53'56" WEST, 314.61 FEET;
THENCE SOUTH 50°25'01" WEST, 496.62 FEET;
THENCE NORTH 40°33'53" WEST, 585.87 FEET;
THENCE NORTH 40°59'07" EAST, 644.57 FEET;
THENCE SOUTH 70°13'57" EAST, 409.10 FEET;
THENCE SOUTH 10°26'00" EAST, 174.32 FEET TO THE **TRUE POINT OF BEGINNING**; SAID POINT BEING SOUTH 10°26'00" EAST, 3378.20 FEET FROM THE NORTHWEST CORNER OF SECTION 4.

CONTAINING 10.66 ACRES, MORE OR LESS.

SEE REFERENCE DRAWING "11697-SW-ANALYSIS SHEET 3 OF 3".



Spill Prevention Control and Countermeasure Plan

Cascade Creek and Collbran Operational Areas

Mesa and Garfield Counties, Colorado

Prepared for:

**OXY USA WTP LP and OXY USA Inc.
Mid-Continent Business Unit – Piceance Asset**

**760 Horizon Drive Suite 101
Grand Junction, CO 81506**

**Prepared November 2011
Format Updated February 2013**

**Spill Prevention, Control and
Countermeasure Plan**

**Cascade Creek and Collbran
Operational Areas**

Mesa and Garfield Counties, Colorado

Date of Plan: November 11, 2011

Designated person(s) accountable for spill prevention:

Chris Clark, Operations Manager, (970) 263-3607

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN REVIEW AND AMENDMENT

In accordance with 40 CFR, Part 112.5, this SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge. The amendment will occur within six months of the change. To aid in ensuring that amendments are made within the required timeframe, the SPCC Plan will be reviewed semi-annually for changes by Oxy's Regulatory Department. The Regulatory Department will use the Facility Change Guidance Document (Appendix I) to aid in determining which field changes require a technical amendment of the Plan. Any and all modifications to the SPCC Plan text, tables, figures, attachments, and appendices shall be documented on the Document Revision/Amendment Log in Attachment 1. Each revised sheet shall be noted with the revision number and revision date. All technical (non-administrative) modifications shall be reviewed and approved by a Colorado registered Professional Engineer.

In accordance with 40 CFR, Part 112.4, this SPCC Plan must also be amended following a discharge (per 40 CFR Part 112.1(b) and Part 110), of more than 1000 gallons of oil in a single discharge event, or more than 42 gallons of oil in each of two (2) discharges occurring within a 12-month period. Oxy's Health, Environmental, and Safety (HES) Department handles spill response and reporting associated with Oxy's Cascade Creek and Collbran operating areas. When an unauthorized discharge of greater than 1,000 gallons (23.8 barrels) of oil in a single discharge event occurs, or more than 42 gallons (1 barrel) in each of two (2) discharges occurs within a 12-month period, the HES Department shall notify the Regulatory Department to initiate a review of the release to determine if the release or releases meet the description of a "discharge" as provided in 40 CFR Part 112.1(b) and Part 110 and amend the SPCC Plan as necessary. Resulting amendments will address potential design flaws, engineering controls, or implementation of new best management practices to reduce the potential for similar discharges. Any amendments that are performed in accordance with these requirements will be documented on the Document Revision/Amendment Log (Attachment 1).

Additionally, an amendment to the Plan may also be required by the EPA Regional Administrator following such a discharge(s). Any amendments that are performed in accordance with these requirements will be documented on the Document Revision/Amendment Log (Attachment 1). Any technical amendment of this Plan shall be certified by a Professional Engineer registered in the state of Colorado.

Five-Year SPCC Plan Review

A complete review and evaluation of this SPCC Plan will occur at least once every five years from the initial certification date. As a result of this review and evaluation, Oxy will amend the SPCC Plan within six months of the review date to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from a facility; and (2) if such technology has been field-proven at the time of review. Any amendment will be implemented as soon as possible but in no case later than six months after preparation of the amendment. Any technical amendment of this Plan shall be certified by a Professional Engineer registered in the

state of Colorado. The Oxy Operations Manager shall review the proposed amendments and sign the Five-Year SPCC Plan Review Amendment Log below.

I have completed a review and evaluation of the SPCC Plan for the Cascade Creek and Collbran Operational Areas on the date indicated below and will or will not amend the Plan as a result of that review:

Five-Year SPCC Plan Review Amendment Log			
Review Date	Name & Signature	Will Plan be Amended?	Amendment Summary

MANAGEMENT APPROVAL

OXY USA WTP LP and OXY USA Inc. agrees to provide the manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharge that may be harmful. I approve this SPCC Plan and expect all employees and contractors to abide by the provisions in the Plan. I certify that the provisions in this SPCC Plan are being fully implemented.

Management Representative: _____

Title: _____

Signature: _____

Date: _____

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List of Acronyms

API	American Petroleum Institute
ASC	Aboveground Storage Container
Bbl/bbls	Barrel/barrels
BMPs	Best Management Practices
ERP	Emergency Response Plan
FD	Facility Diagram
FOS	Facility Overview Sheet
MI	Mechanical Integrity
NFPA	National Fire Protection Association
OSCP	Oil Spill Contingency Plan
OSHA	Occupational Safety and Health Administration
Oxy	OXY USA WTP LP and OXY USA Inc.
PPE	Personal Protection Equipment
SWD	Saltwater Disposal Facilities
SPCC	Spill Prevention, Control, and Countermeasure
UL	Underwriter's Laboratory
UST	Underground Storage Tank

Cross Reference

40 Code of Federal Regulations (CFR) Part	Requirement	SPCC Plan Section
112.3 (a)(1)	Amend Plan as necessary per updated regulations	Review Pg 2
112.3 (b)	Amend Plan if a new oil production facility becomes operational	Review Pg 2
112.3 (d)	Professional Engineer certification	ATT 3
112.3 (e)	Maintain a copy of Plan at required facilities	2.0
112.4	Report certain discharges to EPA	Review Pg. 2, 9.2
112.5 (a)	Amend Plan following significant changes to the facility	Review Pg 2
112.5 (b)	Review Plan at least every five years and amend if appropriate	Review Pg 2
112.5 (c)	Professional Engineer review of technical amendments	Review Pg 2
112.7	Management approval of Plan	Approval Pg 1
112.7	Provide a cross reference matrix to regulations	Cross Reference
112.7	Discuss needed facilities, equipment, or procedures not yet operational in separate paragraphs	5.1
112.7 (a)(1)	Discussion of facility conformance with the regulations	11.0
112.7 (a)(2)	Equivalent environmental protection is allowed for deviations from portions of regulations. Reasons for non conformance must be stated	11.0
112.7 (a)(3)	Describe the physical layout of the facility. Provide a facility diagram including tanks, underground tanks, storage areas for mobile containers, produced water containers, associated piping, transfer stations, connecting pipes and intra-facility gathering lines	3.1, FOSs, FDs (ATT 3)
112.7 (a)(3)(i)	Plan must include type of oil in each container and capacity of each container	3.1, 3.2, FOSs, FDs (ATT 3)
112.7 (a)(3)(ii)	Discharge prevention measures including procedures for oil handling at loading/unloading areas	8.1
112.7 (a)(3)(iii)	Drainage control around containers and other equipment	5.0
112.7 (a)(3)(iv)	Countermeasures for discharge discovery, response and cleanup	9.0, APP F
112.7 (a)(3)(v)	Methods of disposal of recovered materials	9.0, APP F
112.7 (a)(3)(vi)	Contact list including phone numbers	9.1, APP A
112.7 (a)(4)	Discharge reporting procedures, information to be included	9.2
112.7 (a)(5)	Organize Plan to make it useful in an emergency	9.1
112.7 (b)	Provide an equipment failure analysis including sources, quantity, direction, and rate of flow	4.0
112.7 (c)	General secondary containment requirement (typical failure mode and most likely quantity) for areas from which a discharge could occur by at least one of eight specified measures	5.0
112.7 (d)	If necessary provide an explanation of impracticability of secondary containment, conduct periodic integrity testing of containers and periodic integrity and leak testing of valves and piping	11.0
112.7 (d)(1)	For impracticability, provide an oil spill contingency Plan per part 109	11.0, APP F
112.7 (d)(2)	For impracticability, provide written commitment of manpower, equipment, and materials	Approval Pg 1

40 Code of Federal Regulations (CFR) Part	Requirement	SPCC Plan Section
112.7 (e)	Written procedures for inspections and tests	7.0, APP B
112.7 (e)	Records of inspections must be signed and kept with Plan for three years	7.9
112.7 (f)(1)	Train oil handling personnel	10.1
112.7 (f)(2)	Designate an individual accountable for discharge prevention	8.2
112.7 (f)(3)	Conduct an annual discharge prevention briefing	10.2
112.7 (g)	Security (oil production facilities excluded)	N/A
112.7 (h)(1)	Provide sized secondary containment (largest compartment on tanker) for loading/unloading racks	8.4
112.7 (h) (2)	Provide systems to prevent truck departure before disconnection	8.4, APP E
112.7 (h)(3)	Inspect truck prior to filling and departure	8.4, APP E
112.7 (i)	Evaluate field constructed containers for brittle fracture failure when containers are altered or repaired	7.1.2
112.7 (j)	Compliance with State requirements	11.0
112.7 (k)	Qualified oil-filled operational equipment – alternative to general secondary containment requirements	7.4
112.7 (k)(2)(i)	If no secondary containment, prepare inspection procedures or monitoring program	7.4
112.7 (k)(2)(ii)	If no secondary containment, provide an oil spill contingency Plan per part 109	7.4, APP F
112.7 (k)(2)(ii)	If no secondary containment, provide written commitment of resources	7.4, Approval Pg 1
112.9 (b)(1)	Oil production facility drains of dikes must be kept closed. Inspect diked areas before draining water and remove accumulated oil	8.5
112.9 (b)(2)	Inspect field drainage systems, oil traps, sumps or skimmers for oil and remove accumulated oil	7.8
112.9 (c)(1)	Material and construction of containers must be compatible with stored material and conditions of storage	6.0
112.9 (c)(2)	Provide sized secondary containment (capacity of largest container plus precipitation) for tank battery, separation, and treating facility installations	5.1
112.9 (c)(2)	Confine drainage from undiked areas to catchment basin or holding pond	5.0
112.9 (c)(3)	Visually inspect containers, foundations, and supports periodically and on a regular schedule	7.0, APP B
112.9 (c)(4)	Engineer tank batteries to prevent discharges with one of the following features:	8.3
112.9 (c)(4)(i)	Provide adequate tank capacity to prevent overfilling, or	8.3
112.9 (c)(4)(ii)	Provide overflow equalizing lines between containers, or	8.3
112.9 (c)(4)(iii)	Provide vacuum protection to prevent collapse, or	8.3
112.9 (c)(4)(iv)	Provide high level sensors	8.3
112.9 (c)(5)	Alternative to sized secondary containment for some flow through process vessels	7.3
112.9(c)(5)(i)	Periodically and regularly inspect and/or test flow through process vessels and associated components	7.3
112.9(c)(5)(ii)	Take corrective action as indicated by inspections or tests or evidence of oil	7.0

40 Code of Federal Regulations (CFR) Part	Requirement	SPCC Plan Section
112.9(c)(5)(iii)	Remove or stabilize and remediate any accumulation of oil	7.0
112.9 (c)(6)	Alternative to sized secondary containment for some produced water containers	5.1, 7.1.1
112.9 (c)(6)(i)	Implement a procedure to remove free-phase surface oil. Include written procedures, frequency, amount of oil expected inside container, and a PE certification. Maintain records of these activities.	7.1.1
112.9 (c)(6)(ii)	On a regular schedule visually inspect and/or test produced water containers and associated piping	7.1.1
112.9 (c)(6)(iii)	Take corrective action as indicated by inspections or tests or accumulation of oil	7.0
112.9 (c)(6)(iv)	Promptly remove or stabilize and remediate accumulation of oil	7.0
112.9 (d)(1)	Periodically and regularly inspect aboveground valves, piping, drip pans, supports, and pumps associated with transfer operations	7.0
112.9 (d)(2)	Inspect salt water disposal facilities	7.7
112.9 (d)(3)	For flowlines and intra-facility gathering lines without secondary containment provide:	5.2
112.9 (d)(3)(i)	Oil spill contingency per Part 109 and	5.2, APP F
112.9 (d)(3)(ii)	Written commitment of resources	5.2, Approval Pg 1
112.9(d)(4)	Prepare and implement a flowline maintenance program including:	7.5.1, 7.5.2
112.9(d)(4)(i)	Ensure materials are compatible with fluids	7.5.1, 7.5.2
112.9(d)(4)(ii)	Visually inspect or test flowlines and intra-facility gathering lines on a regular and periodic schedule. For lines not having secondary containment the frequency and type of testing must allow for prompt implementation of the contingency Plan.	7.5.1, 7.5.2
112.9(d)(4)(iii)	Take corrective action as a result of inspections, tests, or evidence of a discharge	7.0
112.9(d)(4)(iv)	Promptly remove or stabilize and remediate oil discharges	7.0
112.10	Requirements for onshore oil drilling and workover facilities which are responsible for providing a site-specific SPCC Plan	8.6
112.20 (e) 112.20(f)(1)	Certification of the applicability of substantial harm criteria	ATT 3

Spill Prevention, Control and Countermeasure Plan

Cascade Creek and Collbran Operational Areas Mesa and Garfield Counties, Colorado

1.0 Overview and Organization of Plan

This Spill Prevention, Control and Countermeasure (SPCC) Plan has been prepared for the OXY USA WTP LP and OXY USA Inc. (Oxy) natural gas production facilities identified in Attachment 2 of this Plan and located in Oxy's Cascade Creek and Collbran Operational Areas (in the Mid-Continent Business Unit – Piceance Asset). The Plan has been prepared in accordance with the requirements established in 40 CFR Part 112 – Oil Pollution Prevention regulations, Parts 112.1 through 112.7, 112.9, 112.10 and 112.20. Where applicable, the regulatory citation has been provided at the beginning of each section containing information regarding compliance with the regulation. Excerpts from the cited regulations have been provided in Appendix H of this Plan. In some cases the regulatory language was paraphrased for clarity. Oxy's SPCC Plan is living document, and as such, the Plan should be reviewed by Oxy's Regulatory, Operations, Facilities, and HES Departments regularly.

The following presents an overview of the remaining sections of this SPCC Plan:

Section 2 identifies the owner and operator of the regulated facilities, including company contact information; discusses distribution of the Plan and provides an overview of Oxy's operations in the areas.

Section 3 provides an overview of area operations and equipment.

Section 4 describes the physical location of the operating areas, and references the individual facility diagrams that describe the physical layout of each facility managed under the scope of this Plan.

Section 5 explains the containment and diversionary structures or equipment used at the facilities to prevent discharged oil from reaching navigable waters.

Section 6 discusses requirements for the construction of containers and equipment.

Section 7 describes the inspections, tests, maintenance and records conducted at the facility to ensure compliance with applicable SPCC requirements.

Section 8 discusses discharge prevention measures.

Section 9 provides information regarding oil spill control and countermeasures.

Section 10 describes spill prevention training, including personnel training and spill prevention briefings.

Section 11 discusses the facility's overall conformance with state and federal SPCC requirements, any planned corrective actions, and environmental protection measures being implemented in the interim.

Figures 1 – 7 are maps identifying the areas of operation included in this Plan.

Attachment 1 contains the Document Revision/Amendment Log. This log is used to track revisions and amendments that are made to the SPCC Plan. Any and all modifications to the SPCC Plan text, tables, figures, attachments, and appendices shall be documented in this section.

Attachment 2 contains the worksheet used to calculate the secondary containment capacity at each individual facility. The worksheet may be used to aid in evaluating changes in site conditions and in determining whether or not the capacity of an individual containment unit is sufficient during inspections.

Attachment 3 contains a listing of facilities managed under the scope of this Plan and an information sheet for each facility that depicts the layout of the facility and provides required facility-specific information. Also included in this attachment are the Substantial harm Criteria Checklist and PE Certification for each facility.

Appendix A outlines contact information for Oxy emergency response personnel and other emergency contacts identified within the operational areas.

Appendix B contains inspection, testing and maintenance documents and information.

Appendix C contains Oxy's Exhibit A form to be utilized for documentation purposes in the event of a release.

Appendix D contains the list of facilities utilizing 3-phase separators.

Appendix E contains loading/unloading procedures and an example of the types of warning signs found at each facility.

Appendix F contains a copy of the Oil Spill Contingency Plan that has been developed for the facilities managed under the scope of this Plan.

Appendix G contains a copy of the Oxy Emergency Response Plan for the Piceance Asset.

Appendix H provides excerpts from the regulations cited in the Plan.

Appendix I contains the Facility Change Guidance Document. This document provides guidelines for managing SPCC facility changes.

2.0 Owner/Operator Contact Information

40 CFR 112.3(e)

Oxy owns and operates the facilities being managed under the scope of this Plan. The Oxy field office located in Grand Junction, Colorado serves as the support office for the Piceance, Mid-Continent Business Unit. General contact information for the Grand Junction office is provided below. Contact information for key Oxy operations personnel working in the Cascade Creek and Collbran Operational Areas is included in Appendix A.

OXY USA WTP LP and OXY USA Inc.
760 Horizon Drive, Suite 101
Grand Junction, CO 81506
970-263-3600

A copy of this SPCC Plan is maintained at each of the offices identified below. Each of the offices is normally attended at least four hours per day and serves as the nearest field office for nearby facilities that are not so attended. The Plan is available for onsite review during normal business hours. Hard copies of the Plan have been numbered for document control purposes to ensure that revisions are made to each copy in circulation. Copies that are not numbered will not be considered complete or current and should not be referenced.

The master copy (original) of this Plan is maintained at the Grand Junction field office and is the version with which records of inspections and tests are maintained, in accordance with Section 7.8 of this Plan.

1. Grand Junction Office (master & e-copy)
2. Cascade Creek Field Office (copy)
3. Brush Creek Field Office (copy)
4. Conn Creek Compression Facility (copy)
5. East Plateau Compressor Station (copy)
6. Alkali Creek Compressor Station (copy)

3.0 Operational Overview

Oxy owns and operates natural gas exploration and production operations in the Cascade Creek and Collbran Operational Areas located in the Piceance Basin in western Colorado. The two areas cover approximately 129,000 net acres and include more than 500 production wells and associated production facilities. The Collbran Operational Area is divided into the Brush Creek, East Plateau, and Hell's Gulch Production Areas, while the Cascade Creek Operational Area is comprised of the Mesa, Valley, and Logan Wash Production Areas. Figure 1 depicts the two operational areas.

In each area, natural gas extraction pads contain wells that operate continuously, producing a stream containing gaseous and liquid phases. The gaseous and liquid phases

are processed through a two- or three-phase heated separator located at the extraction pad where they are physically separated. The gaseous phase is transferred via underground piping to a central compression facility for distribution and sales. The extracted liquid fraction contains a mixture of water and petroleum products (i.e., oil). The mixture is further separated into a condensate fraction containing more oil and a smaller fraction of water and a produced water fraction, composed of primarily water with a minor amount of oil. Tri-ethylene glycol dehydration units may be utilized to reduce and/or eliminate excess fluids in the stream (well pad facilities). Tri-ethylene glycol dehydration units are utilized at the compression facilities. The condensate and produced water fractions are piped to storage tanks located at the extraction pad. The condensate is then transferred off-site for immediate sales or is transferred via piping or truck off-site to the Central Water Handling Facility for treatment (i.e., additional water removal) and storage before being transported off-site for sales.

From the extraction pad storage tanks, produced water is transferred via piping or truck to the Cascade Creek Central Water Handling Facility, where the produced water is treated by gravity separation for the removal of solids, allowing sufficient time for solids to settle out before being transferred to an area storage pit for beneficial reuse or being shipped to an injection well for disposal by Oxy. Products of the production water treatment process may also be transferred to an off-site location for beneficial reuse or proper disposal. Separated produced water may also be transferred from either the Collbran or Cascade Creek Operational Areas via truck or pipeline to an injection facility where it is further separated and filtered before being sent to an injection well for disposal via pipeline.

The individual natural gas production facilities managed under the scope of this Plan, as identified in Attachment 3, are defined per 40 CFR 112 as oil production facilities. The facilities are located in Mesa and Garfield Counties in western Colorado. The Brush Creek, East Plateau, and the majority of the Hell's Gulch Production Areas are located in Mesa County, while the Mesa, Valley, Logan Wash and a small portion of the Hell's Gulch Production Area resides in Garfield County.

3.1 Facility Descriptions and Diagrams

40 CFR 112.7(a)(3), (a)(3)(i)

Figure 1 depicts the physical locations of the Cascade Creek and Collbran Operational Areas, while Figures 2 – 7 identify the locations of individual oil production facilities within each Production Area. All Oxy oil production facilities located within the Cascade Creek and Collbran Operational Areas are subject to the requirements of this SPCC Plan. For each of the subject facilities, a facility overview sheet (FOS) and facility diagram (FD) has been developed. The FOS identifies the location of the facility and provides a written description of the physical layout of the individual facility, as well as a list of containers, container contents, potential spill sources, and an assessment of existing secondary containment structures. The FDs mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers may be located. In addition, the diagrams identify the location of all underground storage tanks, transfer stations, connecting pipes, and intra-facility gathering lines. Current FOSs and FDs are maintained in Attachment 3 of this Plan.

3.2 Portable and Temporary Equipment

40 CFR 112.7(a)(3)(i)

Facilities may utilize portable/mobile and temporary containers to store 55 gallons or more of an oil product or material. Such portable containers may be used to store fuels, lubricating oils, condensate, produced water, etc. Estimated capacities for these containers range from 55 gallons (e.g., hydraulic oil drum) to 500 bbls (e.g., frac tank). Depending on the activity, there may be anywhere from 0 to 100 portable containers at a facility at any given time.

4.0 Facility Layouts and Predictions for Spill Flow

40 CFR 112.7(b)

Where experience indicates a reasonable potential for equipment failure to occur (such as a tank overflow, pipeline valve leak or rupture, tank leak, etc.), Oxy has performed an analysis of the typical modes of each type of major failure as part of Oxy's Critical Process Equipment annual review. This Critical Process Equipment review is performed for each new facility or when an existing facility is modified. Included in the review are predictions for the direction of flow, estimated rates of flow, and total quantity of oil that could be discharged from the facility as a result of each major type of failure.

Oil spills are expected to be confined to a containment structure unless the failure occurs outside of containment. If the discharged oil is outside of or moves beyond a containment structure, the predicted direction of flow will follow the drainage patterns described on the FOSs and depicted on the individual FDs located in Attachment 3. Under a worst-case scenario, the total quantity of oil that may be discharged from each container is anticipated to be the capacity of that container. Where containers are hard-piped together at or near the bottoms of the tanks for equalization or other purposes, and valves between the tanks are operated in an open position when unattended, the total quantity of oil that may be discharged is estimated to be the total capacity of each interconnected container. The FOS provides the volume of each container and notes any interconnected containers. A discussion of the types of major equipment failures and estimates for the anticipated rates of flow for each failure type is provided in the sections below for Aboveground Storage Containers (ASCs), portable and temporary containers, flow-through process vessels, pits/ponds, pipelines, and loading/unloading operations. For pipelines and loading/unloading failures, an estimate of the total volume of oil that could be released is also provided below.

4.1 Aboveground Storage Containers (ASCs) and Flow-through Process Vessels

The major failure modes for ASCs and their associated equipment include valve leaks, tank overflow, and tank rupture. The rate of material flow from a storage tank due to a leak or rupture will depend on the cause, size and location of the leak or rupture. Experience indicates that ASC components are prone to fail at loading/unloading connections, welds, flanged valve points, near the tank base when exposed to standing water or when wet gravel/soil maintains contact with side walls, and when damaged (i.e., struck by lightning, heavy equipment, etc.). The rate of overflow from an ASC can also vary depending on the rate of material flow into the tank at the time the tank capacity is exceeded.

Flow-through process vessels utilized in the Cascade Creek and Collbran Operational Areas include separators, pig launchers/receivers, knockout pots, pumps, filter pods, etc. The major failure modes and estimated flow rates for flow-through process vessels mirror those of ASCs for leaks or ruptures. Because flow-through process vessels are typically fully enclosed, overflow is not considered a major failure mode for these units.

The following table provides estimated rates of flow in the event of an equipment failure.

Table 4.1 ASC and Flow-through Process Vessel Failure Modes

Failure Mode	Estimated Rate of Flow
Valve Leak – Minor	Less than 1 bbl/day
Valve Leak – Major	1 to 20 bbl/day
Rupture – Minor	Up to 1 bbl/day
Rupture – Catastrophic	1500 bbl/day
Overflow*	1 to 2,600 bbl/day

* Failure mode analysis and rate of flow estimated for ASCs only

4.2 Portable and Temporary Containers

Portable and temporary containers are subject to same major failure modes as ASCs. Because these containers are generally present in areas of high activity and operators are expected to closely monitor transfer operations, it is anticipated that the failure of a portable or temporary container would be discovered and remedied in a timely manner. As with ASCs, the rate of material flow from a portable or temporary container due to a leak or rupture will vary according to the cause, size and location of the leak or rupture. The estimated flow rates provided in Table 4.2 below are based on past experience.

Table 4.2 Portable and Temporary Container Failure Modes

Failure Mode	Estimated Rate of Flow
Valve Leak – Minor	Less than 1 bbl/day
Valve Leak – Major	40 to 250 bbl/day
Rupture – Minor	Up to 1 bbl/day
Rupture – Catastrophic	37,500 bbl/day
Overflow	1 to 250 bbl/day

4.3 Pits and Ponds

Produced water may be stored within permitted pits or ponds located at facilities within the Cascade Creek and Collbran Operational Areas. Pits are generally utilized during drilling and initial completions activities as reserve pits which may receive *de minimus* amounts of hydrocarbons. Any oil encountered during initial drilling and completions are managed in accordance with Colorado Oil and Gas Conservation Commission (COGCC) regulations. Storage ponds are typically used to store filtered produced water containing a limited amount of oil and are therefore managed under the scope of this Plan. Pits and ponds currently managed under this SPCC Plan are identified on the FOS and FD provided in Attachment 3.

The major failure mode associated with pits and ponds involves the failure of a primary liner resulting in a release to the secondary liner or, where double liners are not used, resulting in a release to the ground. Pits and ponds are typically provided with two high-density polyethylene liners (a primary and secondary liner) or a high-density polyethylene liner with a geocomposite underlayment layer. Oxy's largest storage pond is also equipped with a leak detection system. The potential discharge rate of material flow from a leaking liner may range from 1 to 10 bbl/day. Pits are typically monitored through visual inspection. Ponds are monitored by a number of methods, including the use of high level indicators networked to Oxy's SCADA system which provides real-time fluid level data and periodic checks of the interstitial space between liners. These best management practices (BMPs) should ensure that the volume of material likely to be released from a pit before a leak or overflow is identified and corrected is minimal.

4.4 Pipelines

Major failure modes for pipelines include leaks and ruptures. The rate of material flow from a pipeline due to a leak or rupture will depend on the size of the line, rate of flow of material through the line, and the size, location and cause of the leak or rupture. Experience indicates that pipelines are prone to fail at connections, welds, flanged valve points, risers, and any sections of line with turbulent flow and/or differing pressures, such as elbows, reductions, intersections, etc. The estimated rate of flow for a small-sized leak is less than one bbl/min, while the rate of flow associated with the complete rupture of a major transfer pipeline could be in excess of 100 bbl/min. The total amount that could be

discharged in the event of a pipeline rupture will depend on the location and magnitude of the failure and could exceed the maximum capacity of the largest container being transferred (ranging from the smallest container volume to the largest, as identified in Attachment 3).

4.5 Loading/Unloading Operations

At many of the facilities managed under the scope of this Plan, condensate and produced water are transported to and from the site via tank truck. While loading, the potential exists for the truck compartment to overflow, or the transfer hose to malfunction, break or prematurely disconnect during the loading process. In addition, any volume of oil remaining in the transfer hose may inadvertently be drained to the ground while disconnecting from the truck. Although drip pans or loading buckets are provided for truck and tank connections at each production facility, a spill may occur if the release is not immediately controlled or the volume released exceeds the capacity of the drip pad or bucket. The estimated rate of material flow resulting from an overflow or broken hose component is based on the average pump loading rate and is anticipated to be 1 to 10 bbl/min. Should the leak, rupture, disconnection, etc. occur on a line open to the tank or tank truck, the flow rate may be higher.

The total oil quantity that could be discharged will depend on the location and magnitude of the failure. The total volume of oil that could be discharged from a failure at a tank truck connection under a worst-case scenario is 110 bbl, the volume of the largest pump truck utilized at facilities in the Cascade Creek and Collbran Operational Areas. Should a failure occur at or near a tank loading/unloading arm, the spilled oil would likely be contained within the unit's secondary containment structure. However, some loading/unloading connections reside outside the containment structure. In such cases the total volume of oil that could be discharged is estimated to be the volume of the tank being loaded or unloaded.

Because loading and unloading operations are continuously monitored by trucking personnel, the total volume of oil released before the problem is identified and corrected should be limited.

5.0 Containment and/or Diversionary Structures

40 CFR 112.7(a)(3)(iii), 112.7(c), 112.9(c)(2)

Containers and equipment used to store, process and/or transfer oil-containing materials are considered to be primary containment for the oil. Examples of primary containers used in the Cascade Creek and Collbran Operational Areas include storage containers, process vessels, transfer piping, pits/ponds, and portable/temporary containers and equipment. SPCC regulations require that a secondary means of containment be provided for primary containers to prevent a discharge of oil from reaching a waterway. The secondary containment systems used at Oxy facilities include both active and passive methods. Passive measures are permanent installations that don't require deployment, such as berms, dikes, and permanent prefabricated units. Active measures such as the placement of drip pans or sorbent materials may also be used.

General secondary containment is typically achieved through utilization of berms and walls sufficiently impervious to contain oil. The types of containment structures utilized include earthen berms, concrete, metal and HESCO (steel wire mesh containers typically filled with crushed rock/soil) containment structures constructed on-site, prefabricated units such as bladder pods, and prefabricated polyethylene and metal containers (e.g., troughs, stock tanks). Oxy does not maintain bulk oil storage containers in undiked/bermed areas.

The facility-specific information located in Attachments 2 and 3 of this Plan provide details regarding the types and capacities of secondary containment structures in place at each facility. The FDs depict the locations of secondary containment structures and the general flow of surface drainage. The Secondary Containment Calculations Spreadsheet included as Attachment 2 of this Plan provides detailed information regarding the volume, dimensions, and adequacy of containments for individual containers.

5.1 Secondary Containment Specifications

40 CFR 112.9(c)(2) and (c)(6), COGCC 906.e(1), 604a.(4)

Secondary containment structures provided for containers and vessels holding condensate, produced water, fuels, lubricating oils and other oil-containing materials are required to hold, at a minimum, the contents of the largest container present inside the containment area, plus (if exposed to the weather) enough freeboard to hold precipitation from a significant storm event. The amount of freeboard for containment structures located in the Cascade Creek and Collbran Operational Areas was conservatively calculated based on the 25-year 24-hour storm event, which is 0.21 feet (Western US Precipitation Frequency Maps <http://www.wrcc.dri.edu/pcpnfreq.html>).

Most of the facilities containing 3-phase separators contain multiple produced water tanks that are hard-piped together for equalization purposes and to help prevent freezing during the winter. Additionally some of the sites operate with 2-phase separators that also contain above ground equalization lines. While these facilities with equalization lines are all located within secondary containment, the containment is generally not large enough to hold the volume of all the tanks that are manifolded together. In these instances, Oxy's oil management procedures will consist of removing recoverable oil from produced water tanks not less than semi-annually. Oxy will draw down the produced water tanks and remove recoverable oil prior to the onset of winter and then again in the Spring. Based on operational history, the maximum amount of free-phase oil expected to accumulate inside the container is 60 bbls (2,520 gallons) between semi-annual removal operations. Actual accumulations will vary based on the number of wells on location, tank capacity, and production rates, but in general should not exceed 60 bbls. Oxy will utilize the SCADA system to monitor water and oil volumes and schedule additional oil removal operations as necessary. The maximum amount of oil that will be allowed to accumulate in a produced water tank before removal is 120 barrels, except when poor road conditions and safety considerations preclude truck passage. In that case,

oil will be removed when it is practical and safe to do so. The facilities utilizing 3-phase separators are listed in Appendix D.

In lieu of sized secondary containment for flow-through process vessels such as separators, free water knockouts, gun barrels, heaters and heater treaters, Oxy has provided appropriate containment and/or diversionary structures or equipment to prevent a discharge. Flow-through process units are located on each pad at a such distance from the perimeter that a release from the equipment would be contained on the pad surface until clean up could occur. All pad surfaces are designed flat or sloped to the cut side as to deter runoff of small releases and impacted rainwater. This general containment is assessed annually during the annual regulatory pad inspection process. The maximum volume assumed for a likely release scenario is 10 barrels. Each pad surface has been determined to be capable of containing this volume, in the event of a release, until further response actions can occur. In the event of a release, additional countermeasures in the form of spill response and containment actions will include the construction or deployment of one or more of the following:

- Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- Curbing;
- Culverting, gutters, or other drainage systems;
- Weirs, booms, or other barriers;
- Spill diversion ponds;
- Retention ponds; or
- Sorbent materials.

In addition, flow-through process vessels and associated components (such as dump valves) will be periodically, and on a regular schedule, visually inspected and/or tested for leaks, corrosion, or other conditions that could lead to a discharge. When indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge, corrective actions will be taken and repairs made to flow-through process vessels and any associated components. Accumulations of oil discharges associated with flow-through process vessels will be promptly removed or actions will be initiated to stabilize and remediate the released materials.

If any facility discharges greater than 1,000 gallons of oil/produced water in a single discharge to navigable waters of the U.S., or greater than 42 gallons of oil/produced water in each of two discharges to navigable waters of the U.S. within any twelve month period from flow-through process vessels, sized secondary containment, capable of containing the entire capacity of the largest single container and sufficient freeboard to contain precipitation, must be installed within six months of the release.

Oxy maintains oil removal records using haul tickets and pumper records, customary with Oxy's regular business practices including the purchasers ticket.

In accordance with 40CFR112.9(c)(6)(v) Oxy will take corrective action within six months from the time that a facility becomes subject to this section.

All newly constructed facilities, or when existing secondary containments are modified, will be provided with sized secondary containment sufficient to contain the multiple volumes of any tanks that are equalized (the largest tank) plus freeboard for precipitation.

Because the majority of containment structures utilized have been constructed in accordance with existing requirements, any tank or piping failures occurring inside of containment are expected to be confined and not discharged to the environment. Double-walled tanks, drip pans, sorbent material and other measures may also be utilized to comply with containment requirements. The containment systems utilized are designed to be capable of containing oil and have been constructed so that material inadvertently released from a container will not escape the containment system before cleanup occurs.

5.2 Flowlines and Intra-facility Gathering Lines

40 CFR 112.9(d)(3)

Active natural gas extraction wells are typically set inside of conductor holes and/or vaults to provide containment for wellhead. The wells operate continuously and produce a stream containing gaseous and liquid phases that flow through gathering and flowlines. The gaseous phase and liquid phase, containing water and oil, is transported a short distance to a three-phase heated separator located at the extraction pad. The gaseous phase is separated by the separation unit and is conveyed via underground piping to a central compression station for distribution and sales. The liquid phase (condensate and produced water) is piped to storage containers located at the pad. An Oil Spill Contingency Plan (OSCP) has been developed for intra-facility gathering and flowlines under the scope of this Plan. The OSCP is provided as Appendix F.

Tank-related piping or process equipment is operated in a manner to minimize the potential for leaks or spills and may be located inside secondary containment. Standard discharge prevention practices include the utilization of drip pans for equipment, such as pumps, and loading hose connections that have the potential for drips and leaks during operation. Valve covers are also installed as a best management practice to help minimize the amount of area likely to be impacted by a sudden release. For example, a cover over a valve could help control a spray of oil from a failed gasket that may have otherwise resulted in the oil spray being deposited over a much wider area. Oxy is committed to expeditiously controlling and removing any amount of oil released from facility pipelines or any other source.

5.3 Containment Requirements for High Density Areas

COGCC 603.e

Oxy does not currently operate facilities within high density areas or designated outside activity areas as defined by COGCC Rule 603.b and the definition of designated outside activity areas. If future facility locations are constructed within high density areas or designated outside activity areas, Oxy will comply with all applicable COGCC requirements, including those established for the construction of secondary containment berms.

6.0 Container and Equipment Installation and Construction

40 CFR 112.9 (c)(1), 40 CFR 112.9 (d)(4)(i)

Protocols implemented by the Oxy Facilities Department help ensure that when bulk storage containers are installed or repaired, the materials used for construction/repair of the containers are compatible with the type of stored oil. Maintenance protocols have also been developed for the installation and repair of pipelines, flowlines, intra-facility gathering lines, and their associated valves and equipment. Such protocols ensure that the materials used for line construction are compatible with the types of fluids transferred, their potential corrosivity, volume, pressure, and other conditions expected in the operational environment. For example, gas gathering lines are installed in accordance with ANSI 600 rating requirements to help ensure integrity under varying conditions of field operating pressure. Additional maintenance procedures ensure that containers and piping are constructed such that they will remain structurally sound under varying storage and transfer conditions (i.e., extreme hot and cold temperatures).

6.1 Fire Prevention Measures

COGCC 604.a, COGCC 604a.(4)

When constructing new atmospheric tanks to be utilized for crude oil storage or when redesigning existing crude oil storage areas, the following fire prevention measures are observed, as applicable:

- Tanks shall be a minimum of seventy-five (75) feet from a fired vessel or heater-treater.
- Tanks shall be a minimum of fifty (50) feet from a separator, well test unit, or other non-fired equipment.
- Tanks shall be a minimum of seventy-five (75) feet from a compressor with a rating of 200 horsepower, or more.
- Tanks shall be a minimum of seventy-five (75) feet from a wellhead.
- Gauge hatches on atmospheric tanks used for crude oil storage shall remain closed at all times when not in use.
- Vent lines from individual tanks shall be joined and ultimate discharge shall be directed away from loading racks and fired vessels.
- No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel.

7.0 Inspections, Testing and Maintenance

40 CFR 112.7(e), 112.9(c)(3), (c)(5), (c)(6), (d)(1), (d)(4)

The following sections discuss the inspection, testing and maintenance activities required by the federal Oil Pollution Act (40 CFR 112), the COGCC, and Oxy policy. In accordance with the Mid-Continent Business Unit Mechanical Integrity (MI) Program, production equipment will be visually inspected and maintained in accordance with the

procedures outlined in Appendix B. The intent of the MI Program is to ensure that process equipment is designed, constructed, installed, and maintained utilizing recognized and generally accepted good engineering practices, to ensure that it remains fit for service over its lifecycle, and to minimize risk of uncontrolled releases. The MI Program includes the following types of process equipment:

- Fired Pressure Vessels
- Unfired Pressure Vessels
- Bulk Storage Containers
- Piping Systems conveying produced water and condensate
- Flare Systems, including piping, vessels, vaporizers, knockout pots, ignition systems, and other process equipment used to collect the discharge of relief vents in emergency events to safely combust flammable gases or liquids with minimal risk to the environment and processes
- Relief Devices, including pressure relief valves, rupture discs, and emergency vents
- Steel Structures (primary structural steelwork, e.g., stairwells, vessel, and column primary supports)

All inspections are performed by qualified inspectors who are knowledgeable of facility operations, the equipment type and its associated components, and the characteristics of the material being stored, transferred, or processed. The inspections and tests performed in accordance with the requirements of this Plan are documented and managed in accordance with Section 7.9 of this Plan. In the event that an inspection or test identifies either the need for repair, evidence of a discharge or is found to be otherwise unsuitable for service, corrective action shall be implemented accordingly. As soon as practicable following the detection of a leak, the affected portion of the line will be isolated and repaired or replaced. In addition, any oil discharges associated with storage containers or associated equipment shall be promptly removed.

It is also Oxy policy that all inspection, testing and maintenance activities be performed in accordance with applicable requirements of the Occupational Safety and Health Administration (OSHA) and company health and safety programs (e.g., control of hazardous energy-LOTO, confined space entry, respiratory protection, hot work, etc.) and any equipment-specific operating procedures.

7.1 Bulk Storage Container Inspection, Testing and Maintenance

40 CFR 112.9 (c)(3) and (c)(6), COGCC 604.a(9)

All aboveground bulk storage containers are maintained in accordance with the Oxy MI Program. Bulk storage containers, containment systems, tank foundations, supports, and associated equipment are inspected and tested in accordance with an established schedule. The inspection and testing schedule for bulk storage containers located in the Cascade Creek and Collbran Operational Areas is maintained at the Grand Junction field office. The type and frequency of inspection and/or testing for individual containers is determined by the container type and size, type of installation, corrosion rate and

previous inspection history. During the visual inspections, the aboveground storage containers, containment systems, surrounding surface areas, piping, valves, and all other applicable equipment are inspected for signs of deterioration and leaks. Tanks are also inspected to ensure that gauge hatches are being maintained in a closed position when not in use as required. Results of the inspections are recorded on the appropriate inspection checklist, provided in Appendix B.

Oxy performs a minimum of three types of inspections for all SPCC-regulated facilities; Annual Inspections, COGCC Inspections and Periodic Observations. Annual Inspections are conducted according to the procedures outlined in Appendix B.2, Oxy Piceance Pad Inspection Procedure. During the Annual Inspections, a thorough visual inspection is conducted, containment dimensions and condition are checked, and the facility-specific information provided on the FOS and FD is updated with any changes. Results of the Annual Inspections are recorded on the Oxy Piceance Pad Inspection Checklist, provided in Appendix B.1. Oxy also performs an inspection of its COGCC facilities on an annual basis as required by COGCC regulations. The results of COGCC Inspections are recorded on COGCC Form 36 reports (Appendix B.5). COGCC Inspections include an assessment of secondary containment structures and other BMPs, including pit liners.

In addition to the annual inspections described above, Oxy also performs observations at SPCC-regulated facilities on a periodic basis, with the frequency of observations not to exceed 30-days. These visual inspections are conducted by qualified field personnel who are familiar with the operation of facility equipment and in accordance with the Oxy Periodic Monitoring Procedure (Appendix B.4).

The requirement for bulk storage container testing is largely dependent upon the adequacy of the container's secondary containment. If a secondary containment structure is determined to have inadequate capacity, the containment shall either be repaired or a program of integrity testing of the containers within the containment shall be implemented. Testing intervals for bulk storage containers and associated valves and piping will be established by the MI Lead using one of three methods shown below:

- A. Time-Based Criteria (usually required by jurisdictional rules)
- B. Time/Condition-Based Criteria (as detailed in API 653)
- C. Risk-Based Criteria (as allowed by API 653)

Note: Fiberglass tanks are inspected in intervals utilizing FTPI 2007-1 for guidance.

Testing intervals established for affected bulk storage containers shall not exceed five years. The inspection and testing schedules for individual containers will be maintained at the Oxy Grand Junction field office.

7.1.1 Produced Water Container Maintenance

40 CFR 112.9 (c)(6)

Produced water containers are constructed with materials compatible with their contents, have been provided with secondary containment, are visually inspected on a periodic

basis, and have been provided with appropriate discharge prevention measures as required by 40 CFR 112.9. The remaining sections of this Plan discuss these requirements and specific methods of conformance in greater detail.

Where produced water containers do not meet the sized secondary containment requirements of 40 CFR 112.9 (c)(6), Oxy has elected to implement the procedure described above in Section 5.1.

7.1.2 Field-constructed Aboveground Container Maintenance

40 CFR 112.7(a)(2), 40 CFR 112.7(i)

Inspection, testing and maintenance procedures specific to field-constructed aboveground containers are provided in Appendix B. Field-constructed aboveground containers are inspected for integrity on a regular schedule and whenever material repairs are made. If a field-constructed ASC undergoes a repair, alteration, reconstruction, or change in service, it will be evaluated for the risk of discharge or failure due to brittle fracture or other catastrophe. Such an evaluation will also be conducted if an ASC has discharged oil or failed due to brittle fracture or other catastrophe. Corrective action will be taken as determined necessary by the evaluation. Qualified contractors and personnel are employed to perform all ASC repair, alteration, and/or reconstruction activities in accordance with accepted industry practices and regulations.

7.2 Portable and Temporary Container Inspection, Testing and Maintenance

40 CFR 112.7(e)

Portable and temporary containers with an oil-containing capacity of 55 gallons or greater are periodically inspected and maintained. When in active use, portable and temporary containers are observed for condition daily by facility operations personnel. Utilizing the same inspection process as described for bulk storage containers, visual inspections of portable and temporary containers are performed on a periodic basis in accordance with the procedures outlined in Appendix B. Testing requirements for portable and temporary containers are determined by the Oxy Facilities Department. The inspection and testing schedule for portable and temporary containers operated in the Cascade Creek and Collbran Operational Areas is maintained at the Grand Junction field office.

7.3 Flow-through Process Vessel Inspection, Testing and Maintenance

40 CFR 112.9(c)(5)

Flow-through process vessels are factory-inspected prior to being placed into service and are provided with secondary containment when feasible. All vessels are visually inspected for deterioration and maintenance needs on a periodic basis as outlined in the Oxy Facility Periodic Monitoring Procedure in Appendix B.4. These vessels are also inspected annually according to the Oxy Piceance Facility Inspection Procedure in Appendix B.2.

Oxy uses MAXIMO, an equipment management database system, to schedule and manage periodic testing of a representative sample of units for corrosion monitoring and testing. These inspections monitor corrosion rates and are used to develop field wide replacement and repair maintenance programs. All flow-through process vessels are maintained in accordance with the Oxy MI Program.

If an individual facility discharges more than 1,000 U.S. gallons (23.8 barrels) of oil in a single spill event, or discharges more than 42 U.S. gallons (1 barrel) of oil in each of two spill events within any twelve month period, from flow-through process vessels within six months from the date of the discharge, sized secondary containment will be provided for all flow-through process vessels at the facility. 40 CFR Part 112.1(b) and Part 110 describe the types of spills that would be reportable under this requirement. Oxy will also comply with other applicable federal and state regulations.

7.4 Oil-filled Operational Equipment Inspection, Testing and Maintenance

40 CFR 112.7(k)

Facility processes may utilize oil-filled operational equipment. Such equipment may include transformers, lubricating systems for compressors, pump jacks, etc. This type of equipment is typically provided with general secondary containment. At facilities where secondary containment is not provided for all oil-filled operational equipment, a procedure has been implemented for inspecting the equipment on a regular basis to detect equipment failure and/or an oil discharge. An outline of the general procedure is as follows.

Prior to use, Oxy personnel or designated contractor will inspect all oil-filled operational equipment, associated facilities, and devices for corrosion and leaks. Also, on a periodic basis, qualified facility operations or contract personnel will visually inspect all oil-filled operational equipment, connecting lines, and associated structures and devices for:

- leaks or other oil discharges;
- signs of corrosion;
- loose bolts or missing plugs;
- accumulation in drip pans; and
- general physical condition of the equipment.

Deficiencies are documented and corrective actions will be taken to repair or replace the damaged equipment as outlined in the Oxy Facility Periodic Monitoring Procedures (Appendix B.4). Testing of oil-filled operational equipment is performed as needed based on operational knowledge and visual inspection.

7.5 Transfer Piping Inspection, Testing and Maintenance

Transfer piping is visually inspected during installation activities in accordance with the Oxy MI Program. All pipeline inspections are performed by qualified inspectors who are knowledgeable of the transfer operation, the type of piping and its associated components, and characteristics of the material being transferred. The inspections, testing and maintenance protocols established for transfer piping are detailed in the following sections.

7.5.1 Pipeline Inspection and Monitoring

40 CFR 112.9 (d), (d)(4)(ii)-(iv)

To reduce the potential for discharges from pipelines, Oxy operates a program of pipeline inspection and monitoring. Examples of the pipelines operated within the Cascade Creek and Collbran Operation Areas include gathering lines from wellheads and central delivery points to compressor stations, condensate and produced water delivery lines to/from separators, tanks and the Central Water Handling Facility. The terms flowline and intra-facility gathering line are used often. For the purposes of this Plan, a flowline refers to a pipeline that connects pads to mainlines and other facilities, such as the Central Water Handling Facility in Cascade Creek. Intra-facility gathering lines refer to those lines located on a particular well pad or facility used to transport material within the facility. For example, intra-facility gathering lines may be utilized to collect gas and liquids from a well head and distribute to a separator located on the well pad. Above ground flow and gathering lines are inspected frequently by qualified production technicians or contract personnel performing routine operations at the facility.

During the periodic inspections conducted for aboveground bulk storage containers, process vessels, portable and temporary tanks, and oil-filled equipment, as described in the sections above, the associated transfer piping is also inspected. Specifically, piping, valves, flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items are inspected for signs of deterioration and leaks and recorded on the appropriate periodic inspection checklist.

In accordance with the protocols established by the Oxy Facilities Department, newly installed piping undergoes a thorough quality assurance process that involves x-rays of welds and hydro-testing prior to being placed into service. Pipelines are monitored by facility personnel during periods of operation for general condition, signs of leaks or other potential problems. Pipelines, valves and associated equipment are inspected regularly during the equipment inspections described in earlier sections of this Plan. In addition, wells are provided with constant surveillance via an automated system designed to trigger an alarm in the event of a catastrophic release.

7.5.2 Pipeline Testing and Maintenance

40 CFR 112.9 (d)(4)(i)

Existing pipelines and newly installed pipelines are tested and maintained in accordance with established Oxy protocols including the Oxy MI Program. The management

practices implemented include the utilization of established standards for the selection and installation of pipelines within the Cascade Creek and Collbran Operational Areas. Management practices also include procedures for the routine monitoring, testing and maintenance of pipelines as well as their valves, flanges, and associated devices. To aid in ensuring employee safety and environmental protection, all maintenance and testing activities are performed by personnel who are knowledgeable in facility operations and the specific operation of the equipment being maintained.

General procedures for the maintenance and testing of pipelines with the Cascade Creek and Collbran Operational Areas include the following:

- Prior to installing, replacing, or repairing pipelines, valves, or associated devices, facilities maintenance personnel must ensure that the materials to be transferred are compatible with the construction materials to be employed. Potential concerns involving corrosive production fluids, transfer volumes, line pressure, and other such conditions expected in the operational environment are addressed prior to installation.
- All pipelines are to be identified on facility diagrams and are clearly marked in the field to facilitate access and inspection by Oxy and/or contract personnel.
- Pipelines associated with wells with known or suspected corrosion mechanisms are protected through the utilization of continuous or batch treatment with corrosion inhibitor.
- Cathodic protection is provided on key trunk pipelines.
- Corrosion drip points are present on critical mainlines.
- Where practicable, electric water pumps are enabled with automatic devices that shut down the pump when pressures reach a level that indicate a problem.
- When repairing or reconstructing flowlines, intra-facility gathering lines, and/or associated valves and equipment, the materials used for construction are compatible with the types of production fluids transferred, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment. The transfer piping and other equipment are constructed such that the lines will contain the materials under varying storage conditions (i.e., extreme hot and cold temperatures).

The general maintenance and testing procedures referenced above are performed on individual sections of lines and associated equipment at a frequency determined by Oxy's Facilities Department. The frequency for maintaining and testing lines located within secondary containment is based on several factors, including the age of the pipeline, known or suspected corrosion issues, materials used in construction, number of elbows, expansions, contractions, etc. The maintenance and testing performed for pipelines that have not been afforded secondary containment is scheduled on a more frequent basis to aid in ensuring that the OSCP developed for Cascade Creek and Collbran Operational Area facilities can be effectively implemented.

7.6 Pit and Pond Inspection and Maintenance

COGCC 902.b and 902.c

Pits and ponds utilized in the Cascade Creek and Collbran Operational Areas are constructed, monitored, and operated to provide for a minimum of two (2) feet of freeboard at all times between the top of the pit wall at its point of lowest elevation and the fluid level of the pit. The methods employed to monitor and maintain freeboard in pits and ponds include the routine visual checks, electronic and traditional level indicators. Corrective action (i.e., pumping of pit or pond) is undertaken as necessary to ensure the required level of freeboard is maintained. In accordance with COGCC Rule 906, any unauthorized release of fluids from a pit will be reported to the appropriate authorities.

Pits and ponds are lined using high-density polyethylene and range from 24 to 60 millimeters thick. During the operation of pits and ponds, if the monitoring equipment or visual check identifies a drop in fluid level, Oxy will drain the fluid to adequately inspect the liner integrity. If holes or tears are identified in the pit liner Oxy will repair the holes following manufacturer specifications. Following the repair of the liner, Oxy will conduct a seam test and hydro-test to ensure adequate integrity of the liner prior to refilling the pit or pond.

Any accumulations of oil or condensate in a pit are removed within twenty-four (24) hours of discovery as required. Operators use skimming, steam cleaning of exposed liners, or other safe and legal methods as necessary to maintain pits in clean condition and to control hydrocarbon odors. *De minimis* amounts of hydrocarbons are allowed to be present in a pit only if the pit has been specifically permitted for oil or condensate recovery or disposal use.

7.7 Saltwater Disposal Facilities Inspections

40 CFR 112.9(d)(2)

Saltwater disposal facilities (SWDs) typically consist of a tank battery, offloading area, filtration pods, and a pump building. At the SWD, produced water is sent to an injection tank battery where it is processed through an additional filter pod assembly and then sent to a tank battery for settling and storage before being processed further.

Visual SPCC inspections are conducted at SWD facilities on a periodic basis. Annual inspections and periodic observations are conducted at SWD facilities in accordance with the procedures outlined in Appendix B. When in active use, SWD facilities are visually inspected daily. Because a sudden change in atmospheric temperature may lead to upset conditions within SWDs, Oxy personnel also conduct a visual inspection of SWDs during routine operational activities. As an additional discharge prevention measure, Oxy has installed high level alarms on tanks at SWD facilities located in the Cascade Creek and Collbran Operational Areas.

7.8 Field Drainage System Inspections

40 CFR 112.9(b)(2)

Inspections of facility drainage systems and road ditches are conducted by an Oxy Stormwater Inspector on a periodic basis utilizing the CDPHE Stormwater Inspection Form. Stormwater inspections are conducted semi-annually as part of Oxy's COGCC stormwater inspection program and annually as part of Oxy's COGCC Form 36 inspections, but may be performed more frequently to aid in compliance with permit-specific requirements. Any observed accumulations of oil are investigated and addressed as needed.

7.9 Recordkeeping

40 CFR 112.7(e)

All inspections and tests conducted to comply with SPCC requirements must be performed in accordance with written procedures that have been developed specifically for facilities within the Oxy Cascade Creek and Collbran Operational Areas. The procedures are outlined in appropriate sections of the Plan and the checklists and procedures listed in Appendix B. Inspection and testing records must be signed by the appropriate supervisor or inspector and must be maintained in the Grand Junction office with the master copy of this Plan for a minimum period of three years. ASC records and certified inspection reports are maintained for the life of the ASC.

8.0 Discharge Prevention

Discharge prevention measures, including procedures for routine handling of products (loading, unloading, facility transfers, etc.), are described in the following sections and in the loading/unloading procedure provided in Appendix E. In summary, condensate and produced water tanks may be loaded/unloaded manually using tank trucks or are loaded/unloaded via Oxy's water pipeline gathering system. Oil transfers are conducted during normal business hours and truck drivers are present during loading/unloading activities to watch for and correct leaks or other issues. If any leaks are detected, the driver will manually close the appropriate valves to control flow and address any spilled material. Tank trucks in service in the Oxy Cascade Creek and Collbran Operational Areas are equipped with a spill response kit. Because of the physical controls and procedures implemented, any spills resulting from loading/unloading operations are expected to be limited in volume and readily cleaned. All releases of oil to the environment are expected to be reported and are subsequently inspected to evaluate the root cause and potential preventative actions.

8.1 Facility Oil Transfer Procedures

40 CFR 112.7(a)(3)(ii)

Individual facilities have implemented operation and equipment-specific procedures for the routine transfer of oil products (fuel, lubricating oils, etc.) and oil-containing materials (produced water, condensate, etc.) between containers. Appendix E details specific procedures that Oxy personnel and contractors follow when transferring oil and oil containing materials between containers. General procedures for the transfer of oil at any location within the Cascade Creek and Collbran Operational Areas are as follows:

1. Before initiating the transfer of oil from one container to another, check level readings to ensure there is adequate free space available in the receiving container
2. Operators must stay in the area (outside of the vehicle) during transfers and monitor equipment and operations closely (checking lines, pumps, hoses, etc. for proper operation and signs of leakage)
3. Operators must inspect transfer equipment and produced water delivery lines prior to, during, and following use, for leaks, oil discharges, corrosion, and other conditions that could lead to a discharge
4. Operators must provide absorbent pads, pans, buckets, etc., as needed to prevent drips from contacting the ground

8.2 Spill Prevention Accountability

40 CFR 112.7(f)(2)

The Operations Manager stationed in the Grand Junction field office, is the individual who has been designated by Oxy as accountable for oil spill prevention at the facilities managed under the scope of this Plan. The Oxy Operations Manager may be contacted by telephone at (970) 263-3600.

8.3 Tank Battery Design

40 CFR 112.9(c)(4)

Standard engineering practices are utilized at both new and existing tank batteries to prevent discharges. Oil storage tanks in the Cascade Creek and Collbran Operational Area, are provided with one or more of the following discharge prevention measures.

- One or more top overflow equalization lines.
- High level sensors that, once the storage tank becomes full, generate and transmit an alarm signal to the electronically controlled automation equipment, which then shuts down the active processes of the well.
- A container capacity adequate to assure that the container will not overfill if an operator or pumper is delayed in making their scheduled rounds.

The facility-specific information provided in Attachment 3 identifies the discharge prevention measures implemented at individual locations.

Prior to the filling or departure of an oil transport vehicle, the lowermost drain and all outlets are closely inspected for discharges. If necessary, caps are tightened, adjusted, or replaced to prevent a discharge of oil while in transit. During loading/unloading operations at each facility, drip pans are placed under connections at the back of the tank trucks where the potential for spills outside secondary containment exists. Truck drivers are required to perform constant monitoring of loading/unloading operations. Each tank truck is required to carry a spill kit in the event that a spill is encountered and any oil that is released to the ground is cleaned up immediately.

8.4 Facility Loading/Unloading Operations

40 CFR 112.7(h)(1), (h)(2), (h)(3)

The facilities managed under the scope of this Plan do not currently utilize loading/unloading rack systems. Tank truck loading and unloading activities occur at transfer facilities and at loading/unloading areas throughout the Cascade Creek and Collbran Operational Areas. Environmental protection is provided in these areas through the use of both passive (i.e., containment structures) and active (i.e., spill kits) secondary containment practices. Facility Drainage

40 CFR 112.9(b)(1)

As a standard practice, the secondary containment structures constructed at the facilities managed under the scope of this Plan are not equipped with drains. Pre-fabricated containment structures (e.g., troughs, stock tanks) may have small drain holes present; however, these drains are not used to empty the containment structure and are maintained closed. As a standard practice, drainage of materials that accumulate in secondary containment to the ground outside of containment is not performed. Secondary containment structures are drained manually using a hand bailer, portable pump or via tank truck. Accumulated rainwater or material resulting from a release within secondary containment structures is transported to the Oxy Central Water Handling Facility for storage, treatment and disposal, in accordance with applicable rules and regulations. Procedures for transferring oil from a storage tank into a tank truck are included in Appendix E of this Plan.

8.5 Oil Drilling and Workover Facilities

40 CFR 112.10(a)-(d)

The following discharge prevention measures are implemented at oil drilling and workover facilities operated within the Cascade Creek and Collbran Operational Areas.

- The site is evaluated to determine the most suitable location for mobile drilling or workover equipment to aid in preventing a discharge to the environment and is positioned accordingly.

- Diversion structures such as absorbent booms and socks are provided at drilling and workover operations to help intercept and contain a discharge of oil.
- A blowout preventer (BOP) assembly and well control system is installed before drilling below any casing string and during workover operations. The BOP assembly and well control system installed are capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

Oxy personnel responsible for oversight of drilling and workover operations are trained in the requirements of this Plan and ensure that the requirements noted above have been complied with prior to beginning operations. Drilling and workover facilities typically operate in accordance with the controls specified in facility-specific SPCC Plan provided by the drilling and completions operators.

9.0 Oil Spill Control and Countermeasures

40 CFR 112.7(a)(3)(iv), 40 CFR 112.7(a)(3)(v)

Specific procedures for discharge discovery, response, and cleanup are provided in the OSCP that has been developed for the facilities managed under the scope of this Plan. The OSCP is maintained in Appendix F of this Plan and provides information and procedures for reporting a discharge, for taking initial actions to mitigate the effects of the discharge, for determining whether or not an evacuation is needed, and for ensuring that recovered materials are disposed of in accordance with applicable legal requirements.

The OSCP follows the provisions of Oxy's Emergency Response Plan (ERP). The ERP provides guidance for action in a number of emergency scenarios, including a chemical/oil release or spill emergency. The OSCP and ERP are updated annually. Oxy oil-handling personnel are trained on the content of the ERP on a yearly basis. A copy of the current Oxy ERP has been provided for reference in Appendix G.

9.1 Contact & Reporting Information For Discharges

40 CFR 112.7(a)(3)(vi)

Discharges of oil to the environment that occur in the Cascade Creek and Collbran Operational Areas must be reported. Individuals who discover an oil spill have been instructed to immediately report the incident to their Supervisor. The Supervisor then follows the reporting procedure outlined in the ERP and the OSCP. Appendix A provides a quick reference of emergency contact numbers and emergency response procedures. Internal reporting is required for any discharge of oil to the environment, while the need to report discharges to local, state and federal agencies will depend on the magnitude and location of the release. Appendix A of this Plan provides a contact list and phone numbers for Oxy personnel, cleanup contractors, the National Response Center and other regulatory agencies. Also provided in Appendix A is a quick reference procedure for reporting oil discharges. The OSCP located in Appendix F includes detailed information regarding the circumstances requiring reporting, an explanation of

which agencies need to be notified under the different circumstances, the types of reporting required (phone, mail, etc.), time frames for reporting, etc.

Guidance For Identifying Discharges That Need To Be Reported

For the purposes of this Plan, a reportable discharge is defined by **40 CFR 110.3** as “Discharge of oil in such quantities as ‘may be harmful’.

- a. Discharges of oil in such quantities that the Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:
 - (i) Violate applicable water quality standards; or
 - (ii) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.
- b. In addition, **40 CFR 112.2** - Definitions provides useful definitions for common terms. Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit...
- c. Navigable waters of the United States means “navigable waters” as defined in section 502(7) of the Federal Water Pollution Control Act, and includes:
 - (i) All navigable waters of the United States and **tributaries** of such waters;
 - (ii) Interstate waters;
 - (iii) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes;
 - (iv) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.
 - (v)

9.2 Discharge Reporting Requirements

40 CFR 112.7(a)(4), C.R.S. 25-8-601(2), 40 CFR 112.4 (a)-(c)

Under the Oxy reporting procedure, personnel from the Oxy HES and Regulatory Department or Operations Manager is responsible for contacting the appropriate agencies and reporting the release. In the event that a harmful quantity of oil is released or is suspected of having been released to the navigable waters of the U.S.; 40 CFR Part 112.1(b) and Part 110 describe the types of spills that would be reportable under this requirement (see section 9.1.a).

For clarification purposes, the following definitions are provided:

Oil - *Per 40 CFR 112, the term “oil” refers to oil of any kind or in any form, including, but not limited to: oils, greases, condensate, fuel oil, synthetic oils, or the resulting mixture of oil with other non-oil liquid (i.e., produced water).*

Discharge - A “**discharge**” as described in 40 CFR Part 112.1(b) and Part 110, refers to a discharge of oil in quantities that “may be harmful” into or upon navigable waters. The term *discharge*, in general, includes any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil. *Navigable waters* include tributaries, streams, rivers and lakes. Per 40 CFR Part 110.3, a discharge of oil in such quantities as “*may be harmful*” include discharges of oil that (a) violate applicable water quality standards; or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Such an event must be immediately reported to the following regulatory agencies:

- 1) National Response Center
Washington, D.C.
800-424-8802 (24 hour phone)
- 2) Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Dr. South
Denver, CO
1-877-518-5608 (24 hour hotline)
- 3) US Environmental Protection Agency
Region VIII Response Center
1595 Wynkoop Street
Denver, Colorado 80202-1129
303-293-1788 (24 hour phone)
- 4) Colorado State Inspector of Oils
1515 Arapahoe Street
Denver CO 80202-2117
303-620-4029

When contacting these agencies, the following information is provided:

- responsible company/person, including exact address and telephone number;
- name of person reporting the release;
- date and time of release;
- designation and location of the facility (coordinates are provided on the FOS);

- telephone number for the facility (provide the contact number on the FOS (970-263-3600) and contact information for the individual reporting the call);
- type of material discharged;
- estimate of the quantity released;
- waterway affected, including amount reaching water;
- source of the discharge;
- a description of all affected media;
- cause of release;
- damages or injuries caused by the discharge;
- action taken to stop, remove, and mitigate the effects of the release;
- whether an evacuation is needed; and
- names and/or organizations who have also been or will be contacted.

Additional agency notifications may include the Colorado State Inspector of Oils, COGCC, U.S. Army Corps of Engineers, and other agencies are listed in Appendix A. Oil spill reporting requirements and procedures are detailed in the OSCP. A copy of the OSCP is provided in Appendix F.

Following a discharge totaling more than 1,000 gallons of oil in a single discharge event, or more than 42 gallons of oil in each of two (2) discharges occurring within a 12-month period, the facility must submit the following information to the U.S. EPA Regional Administrator and the CDPHE within 60 days of the event(s).

- name of facility;
- name of person reporting the release;
- designation and location of the facility (coordinates are provided on the FOS);
- maximum storage or handling capacity of the facility and normal daily throughput
- corrective action and countermeasures you have taken, including a description of equipment repairs and replacements
- an adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary
- the cause of such discharge, including a failure analysis of the system or subsystem in which the failure occurred
- additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
- other information as the Regional Administrator may reasonable require pertinent to the Plan or discharge.

Spill events that may require the Regional Administrator notification described above will exhibit one or more of the following characteristics:

- a. Violate applicable water quality standards; or
- b. Cause a film or sheen upon or dis-coloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; or
- c. May affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States.

The SPCC Plan must also be amended, as required, following such a discharge(s). The SPCC Plan may also be amended if required by the Regional Administrator. If necessary, an appeal may be made regarding the Regional Administrator's decision to require an amendment to the Plan.

10.0 SPCC Training Program

10.1 Oil-handling Personnel Training

40 CFR 112.7(f)(1)

Oxy provides the following training to oil-handling personnel prior to assuming new job responsibilities and annually thereafter:

- Operation and maintenance of equipment to prevent oil discharges:
 1. Practices to minimize oil discharge, including best management practices to minimize potential for discharge during truck loading;
 2. Applicable oil spill prevention (state and federal) laws, rules, and regulations;
 3. General facility operations;
 4. Discharge procedure protocols; and
 5. The contents of this SPCC Plan.

In addition to the oil-handling personnel training described above, the Oxy SPCC Training Program includes the components outlined below:

- Qualified and experienced personnel conduct the on-the-job training of new and/or inexperienced employees prior to independent assignment.
- Formal training on the operation and maintenance of oil field equipment is provided through company-sponsored training on an "as needed" basis.
- Pollution prevention and applicable regulatory requirements are brought to the attention of employees on a continuing basis in safety meetings, personal consultations, posters, literature distribution, etc.
- To help ensure that facility inspections are performed in accordance with established procedures, any contract or Oxy personnel performing inspections must first receive training in the applicable procedure provided in Appendix B.

Oxy Piceance Pad Inspection Checklist Training

The Oxy Regulatory Department schedules and conducts training for personnel conducting the annual Oxy Rockies Pad Inspections. The training provides all the necessary information for inspection personnel to conduct a thorough inspection, identify existing and potential issues, recommend corrective or preventive actions, and accurately record and report the inspection.

OXY Periodic Monitoring Training

The Oxy Regulatory Department schedules and conducts training for field personnel responsible for implementing the Oxy Periodic Monitoring Program.

The training provides all the necessary information for field personnel to monitor the status and condition of oil storage and processing equipment, identify existing and potential issues, take proper preventive or corrective action, and effectively implement the Oxy Corrective Action Tracking Program.

10.2 Spill Prevention Briefings

40 CFR 112.7(f)(3)

Oxy schedules and conducts prevention briefings for oil-handling personnel who perform work in the Cascade Creek and Collbran Operational Areas at least monthly to assure adequate understanding of this SPCC Plan. These briefings include discussion of known discharges, potential discharges, component malfunctions or failures, and recently developed precautionary measures.

10.3 Training Documentation and Records

Curriculums for the SPCC training and briefing sessions described in the sections above and associated attendance records for oil-handling employees are maintained for a minimum period of three (3) years in the Grand Junction Oxy office.

11.0 Conformance with State and Federal Oil Pollution Prevention Regulations

40 CFR 112.7(d)

The contents of this SPCC Plan conform to state and federal oil pollution prevention regulations applicable to natural gas production facilities. As of the revision date of this Plan, required oil pollution controls are in place or equivalent environmental protection and corrective action plans are in place in the Cascade Creek and Collbran Operational Areas.

Because of the large area traversed by pipelines throughout the Cascade Creek and Collbran Operational Areas, and the fact that much of the piping is underground, Oxy has determined that the installation of secondary containment for all piping is not practicable. Where active and passive containment had not been provided for pipelines, a robust pipeline inspection and maintenance program has been implemented by Oxy to prevent oil discharges (e.g., physical barriers, corrosion inhibitors, etc.), to allow for the prompt detection of problems that may lead to a release (e.g., pigging, testing corrosion coupons, etc.), and to identify leaks (e.g., inspections, remote monitoring, etc.) in a timely manner. An OSCP has been also developed for the facilities managed under the scope of this Plan. The OSCP details procedures for the expeditious control and cleanup of spills. These measures provide a level of environmental protection for piping equivalent to secondary containment.

In the event than an existing oil container is identified without the required discharge prevention measures (i.e. insufficient secondary containment), corrective actions such as

the addition of secondary containment, the repair of damaged containment structures, and/or the expansion of secondary containment structure dimensions will be implemented to provide the necessary capacity. In the interim, environmental protection, including the utilization of active secondary containment measures (e.g., spill kits staged in operational areas), may be provided. Additional protection measures include the implementation of a periodic integrity and leak testing program for the identified containers and their associated equipment (as described in Section 7.0). In addition to regular integrity testing, a rigorous inspection and maintenance program has also been implemented.

Figures

Figure 1 – Vicinity Map of OXY's Operational Areas

Figure 2 – Sites within the Mesa Production Area

Figure 3 – Sites within the Valley Production Area

Figure 4 – Sites within the Logan Wash Production Area

Figure 5 – Sites within Brush Creek Production Area

Figure 6 – Sites within East Plateau Production Area

Figure 7 – Sites within Hell's Gulch Production Area

Attachment 1

Document Revision/Amendment Log

Attachment 2

Secondary Containment Calculations Spreadsheet

Attachment 3

List of Facilities
Facility Overview Sheets
Facility Diagrams
Substantial Harm Criteria
Checklist and
PE Certification

Appendix A

Contact Lists and Emergency Response Procedures

Appendix B

Inspection, Maintenance and Testing Protocols

- B.1 Oxy Piceance Pad Inspection Checklist
- B.2 Oxy Piceance Pad Inspection Procedure
- B.3 Oxy Facility Periodic Observation Procedure
- B.4 COGCC Form 36
- B.5 Oxy Mechanical Integrity Standard

B.1 Oxy Piceance Pad Inspection Checklist

B.2 Oxy Piceance Pad Inspection Procedure

B.3 Oxy Periodic Monitoring Procedure

B.4 COGCC Form 36

B.5 Oxy Mechanical Integrity Standard

Appendix C

Oxy Exhibit A

Appendix D

List of Facilities Utilizing 3-Phase Separators

Appendix E

Loading/Unloading Procedures

Appendix F

Oil Spill Contingency Plan

Appendix G

Oxy Emergency Response Plan

Appendix H

Regulation Citations

Appendix I

Facility Change Guidance Document

Emergency Response Plan

OXY USA WTP LP

**Pond 13 E/W
Centralized E&P Waste Management Facility**

OA Project No. 013-0655



Planning~Preparedness~Prevention

Emergency Response Plan (ERP)

Mesa County Dispatch	(970) 242-1234
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Garfield County Dispatch	(970) 625-8095
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St. Mary's CareFlight Helicopter	(970) 332-4923
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Poison Control Hotline	(800) 222-1222
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CHEMTREC	(800) 424-9300
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**Piceance, Mid-Continent Business Unit
760 Horizon Drive, Suite 101
Grand Junction, CO 81506
(970) 263-3600**

**24 Hour Oxy Emergency Reporting (970) 248 - 0497
rev8. 08/01/12**

NOTE: The hard copy ERP Manual is an uncontrolled document. Updates to the notification list will be distributed as needed to all employees. Any questions or concerns should be directed to the HES Dept.



This plan is intended to provide general information about natural gas facilities owned and operated by Oxy and guidance for conducting emergency response operations, which cannot be handled in a routine manner. The information provided will help to increase an understanding of Oxy operations and help in providing assistance to the general public and to Oxy should unexpected conditions arise which create a concern for public safety. This document is designed to provide guidance for conducting emergency response operations and for meeting the obligations of OSHA in 29 CFR Part 1910.38-39, "Employee Emergency Plans and Fire Prevention Plans", 1910.119(n) "Process Safety Management."

Emergency - A sudden and urgent occasion for action; pressing necessity
-New American Webster Dictionary

Agency Emergency Contact List

<u>NAME</u>	<u>PHONE</u>
Government: Federal & State	
Bureau Land Management (BLM)	(970) 257-4800
CHEMTREC	(800) 424-9300
Poison Control Hotline	(800) 222-1222
National Response Center (NRC)	(800) 424-8802
US Army Core of Engineers	(202) 761-1001
US Forest Service (USFS) – White River	(970) 945-2521
US Forest Service (USFS) – GMUG	(970) 874-6600
Colorado Division of Wildlife (DOW)	(970) 255-6100
Colorado Oil & Gas Conservation Commission (COGCC)	(888) 235-1101
Colorado Department of Public Health & Environment (CDPHE)	(877) 518-5608
SEPC (State Emergency Planning Committee): Chuck Vale, Field Manager-Northwest Region	(970) 846-3912
Government: Local	
DeBeque Fire Department (Non-Emergency)	(970) 283-8632
Plateau Valley Fire Department (Non-Emergency)	(970) 268-5283
Garfield County Dispatch	(970) 625-8095
Mesa County Dispatch (Cascade Creek & Collbran)	(970) 242-1234
Rio Blanco County Dispatch	(970) 878-9620
LEPC <u>Cascade Creek</u> (Local Emergency Planning Committee): Chris Bornholdt, Garfield County Emergency Manager	(970) 945-0453
LEPC <u>Collbran</u> (Local Emergency Planning Committee): Andrew Martsolf, Mesa County Emergency Manager	(970) 244-1763
St. Mary's CareFlight Helicopter	(970) 332-4923
Operations	
Oxy 24 Hour Emergency Hotline	(970) 248-0497
DCP Plant Gas Control	(970) 487-3607 (303) 478-4256
Enterprise Gas Control 24 Hr.	(800) 331-3032 (800) 546-3482
Kinder Morgan Compressor Station Gas Control	(877) 335-3680
Questar Pipeline (Emergency / Gas Leak)	(800) 300-2025
HRL Compliance- Emergency Response /Clean-up	(970) 260-1576 (970) 261-2015
Critical Contractors	
OUSTABOUT/DIA Chris Marx	(970) 283-5706 (970) 261-2911
KNOWLES Mike Knowles	(970) 216-5664
ROAD MAINTENANCE- DIA Chris Marx	<u>(970)283-5706</u>

Table 1: Agency Emergency Contact List

NOTE: **DO NOT USE "911" from a satellite phone. You will not be able to reach a local dispatcher.**

In many of our work areas, cell phones will not connect with a local dispatch. The above numbers can be used from any phone and will reach our immediate response teams. It is very crucial that each individual follows this procedure to ensure an appropriate response time of the emergency personnel.

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Introduction To The Piceance, Mid-Continent Business Unit (MCBU)

Oxy owns and operates natural gas exploration and production fields, covering approximately 129,000 net acres. The two fields operated by Oxy, the Cascade Creek Field and the Collbran Field, are both located within Garfield and Mesa Counties, Colorado, respectively. This operation includes +500 producing wells with associated production equipment and structures, several miles of natural gas and water gathering lines, satellite compressor stations and large compression facility. The office located in Grand Junction, Mesa County, Colorado serves as the support office for Piceance development. The business unit headquarters and additional support to Piceance operations is located in Houston, Texas.

Most of the Oxy Piceance area operations in Garfield and/or Mesa County are located in rugged terrain, away from public access or direct influence. The enclosed maps show the general route of the field roads, well-site locations and major above-ground facilities.

Natural gas is a safe, clean, dependable fuel used in millions of homes for cooking, heating, cooling and drying. It is also used by many commercial and industrial customers. Although typically safe to us, natural gas is an energy source and must be properly handled and does require a certain amount of caution when being produced and used. Natural gas is not poisonous; however, it does displace oxygen in enclosed spaces and may cause suffocation.

In its pure state, natural gas is odorless. Odorants, in low concentrations, are added when the gas enters local distribution systems for safety purposes to serve as a warning of natural gas presence. DO NOT trust your sense of smell to identify a gas leak. The most effective method used by natural gas companies to locate leaks is with an instrument designed to “sniff” or locate leaks. A pipeline leak can be indicated by the following signs: (1) blowing sound; (2) dirt being blown into the air; (3) bubbles or water being blown into the air when the pipeline is located in a water source; (4) fire emanating from the ground or burning above the ground; (5) vegetation turning brown on or near the right-of-way; (6) persistent odor associated with natural gas. Natural gas is lighter than air and will not travel or accumulate close to the ground, as will liquefied petroleum gas (LPG) or gasoline fumes. It will rise quickly and be diluted in the atmosphere unless it is trapped within an enclosure. In order for natural gas to burn, it must be combined with air to a perfect mixture. When the gas is between 4 – 14% combined with air, it will readily ignite.

Natural gas is compressible. It is compressed before entering transmission pipelines. Oxy Piceance area compressor and pipeline systems fully comply with state and federal standards for construction and operation. For production purposes, natural gas may also require the reduction and/or elimination of excess fluids and hydrocarbons. Separators and tri-ethylene glycol dehydration units are located at well locations and at the Conn Creek Compression Facility. The gas compression facility is not staffed 24 hours per day; however, emergency contacts are posted at the entry to the facility. Internal operations are monitored through electronic output with alerting capabilities 24 hours per day, 7 days per week. This facility is located on Oxy property. There are no residents within 1 mile of the facility.

Public Safety

Oxy Piceance area has operating procedures in place that are intended to protect the public and its employees from undue harm. In addition, the Company follows strict codes of compliance for the protection of public and Company property and the natural environment. When a concern for public safety is encountered within the Oxy Piceance area of operations, Oxy should be notified immediately! Oxy Piceance area employees and consultants are trained and equipped to handle unexpected conditions associated with the Company's natural gas production, gathering and processing systems. Emergency response organizations will be utilized where necessary and to assist with the public and neighboring properties during emergencies.

Emergency Response Plan (ERP) Components

I. Pre-emergency Planning & Coordination With Outside Parties

The following procedures cover emergency response guidelines that address anticipated emergency scenarios and define training required for employees engaged in oil or gas exploration and production (E&P) operations. The degree to which this ERP will be activated will depend entirely on the nature of the occurrence. There are (3) main options Oxy will decide when implementing the ERP, from most engaged to least engaged: offensive tactics, defensive tactics, and non-intervention. Remember, if offensive and defensive tactics are not feasible, there is always the option to non-intervene. The incident commander's option must account for life safety first, the environment second, and lastly, property (Oxy or non-Oxy).

The ***Piceance ERP Manual*** will be reviewed and updated at least annually to reflect current activity and to increase effectiveness of the plan through discussions among all people involved. Each year Oxy employees are required to receive training on the ERP accompanied with real-life emergency drills, followed by a formal critique. These drills help improve the ER process, by addressing opportunities for improvement within the ERP system.

This ERP has been shared with both Mesa and Garfield County officials, including the Local Emergency Response Commission (LEPC). The plan has also been distributed to the DeBeque Fire Department and the Plateau Valley Fire Department.

II. Personnel Roles, Lines of Authority, Training, & Communication

When feasible (dependent upon emergency severity) the Incident Command System (ICS) should be established consisting of a designated and trained incident commander, with assignments given to the four main categories for proper incident management: operations, logistics, planning, and finance. The incident commander will have the overall responsibility of determining what personnel best fits each needed function.

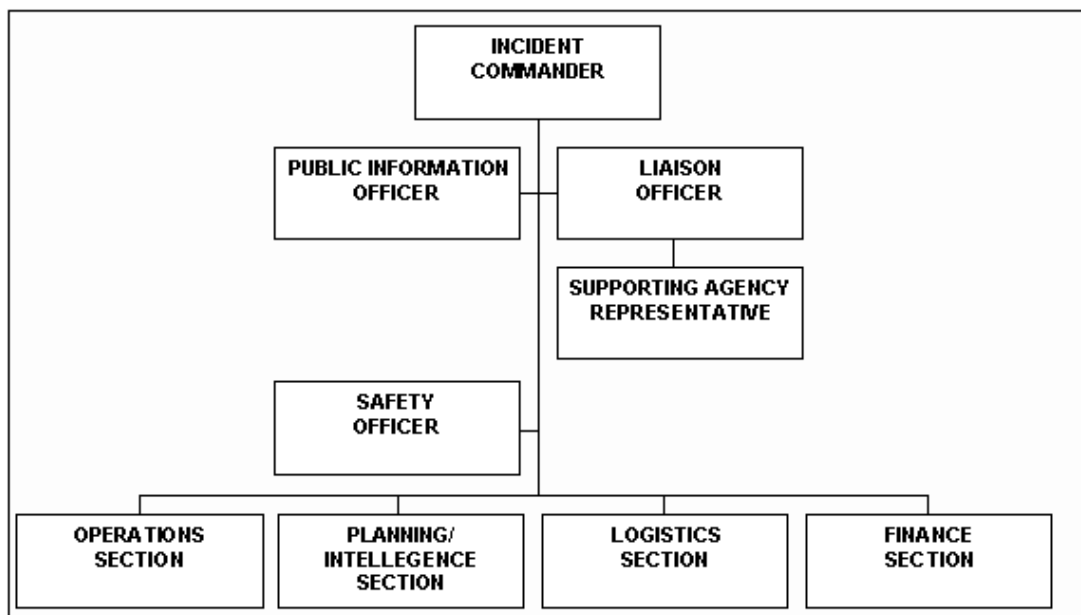


Figure 1: ICS (Incident Command System) Tree

Below is the roles & responsibilities with required training, of the main components of a proper ICS, based on *Figure 1: ICS Tree*. These established positions will vary, depending on incident severity, employee availability, and readily emergency identification.

Incident Commander (IC)

- Only an Oxy employee trained in HAZWOPER IC (24hr), Technician Level (24hr), and preferably Cleanup Ops (40hr) can assume this role
- Responsible for the command function at all times
- Overall management of the incident
- Assessment of the incident priorities
- Assess resource needs and orders
- Coordinate with outside agencies as needed
- In charge of setting up the ICP (incident command post)
- Will assign specific roles during the initial phase of the emergency

Public Information Officer (PIO)

- This individual shall have HAZWOPER or ERP awareness training
- This individual will coordinate with the *Oxy Public Affairs* (See Table 3 in the *Media Relations Guide* Section) prior to releasing any incident information to or associated members of the media
- Coordinate and get approval from the IC before the release of all incident-related information
- Should obtain advice/key messages from *Oxy Public Affairs* before talking to the media
- Determine staffing needs and order assistants as appropriate
- Monitor the public's reaction to information and report back to the IC

Liaison Officer (LNO)

- This individual shall have HAZWOPER or ERP awareness training
- Communicate with the IC the representing agencies (governmental, non-governmental, and private entities/stakeholders) concerns and issues
- Maintain contact of and with all involved agencies
- Prepare and include necessary information about agencies in the IAP
- Only one LNO will be assigned for each incident

Safety Officer (SO)

- This individual shall have HAZWOPER IC (24hr) & Technician Level (24hr) Training
 - This is usually an Oxy HES Specialist or designee
- Assess and communicate hazardous and unsafe situations
- Ensure a site safety and health plan is developed
- Develop safety measures or communication to assure personnel safety
- Immediately correct unsafe acts or conditions
- Maintain awareness of active and developing situations
- Prepare and include safety messages in the IAP (incident action plan)
- Assign assistants as needed

Operations Section

- This individual shall have HAZWOPER IC (24hr) & Technician Level (24hr) Training
- Directing the execution of the IAP
- Activating and executing the Site Safety and Health Plan
- Directing the preparation of unit operational plans
- Requesting or releasing sources
- Making expedient changes to the IAPs as necessary
- Reporting to the Incident Commander

Planning/Intelligence Section

- This individual shall have HAZWOPER IC Awareness Training at a minimum
- Work closely with the Operations Section and the IC in determining the best possible picture of the current situation
- Work closely with the Operations Section and the IC in determining the incident strategy and tactical objectives
- Staffing, organizing, and supervising the planning section

- Planning for relief and replacement of staff as appropriate
- Preparing for and participating in planning meetings
- Completing necessary ICS forms for the IAP
- Ensuring the IAP is constructed, copied, and disseminated to all incident personnel
- Communicating and implement the IAP
- Providing periodic status reports to the IC

Logistics Section

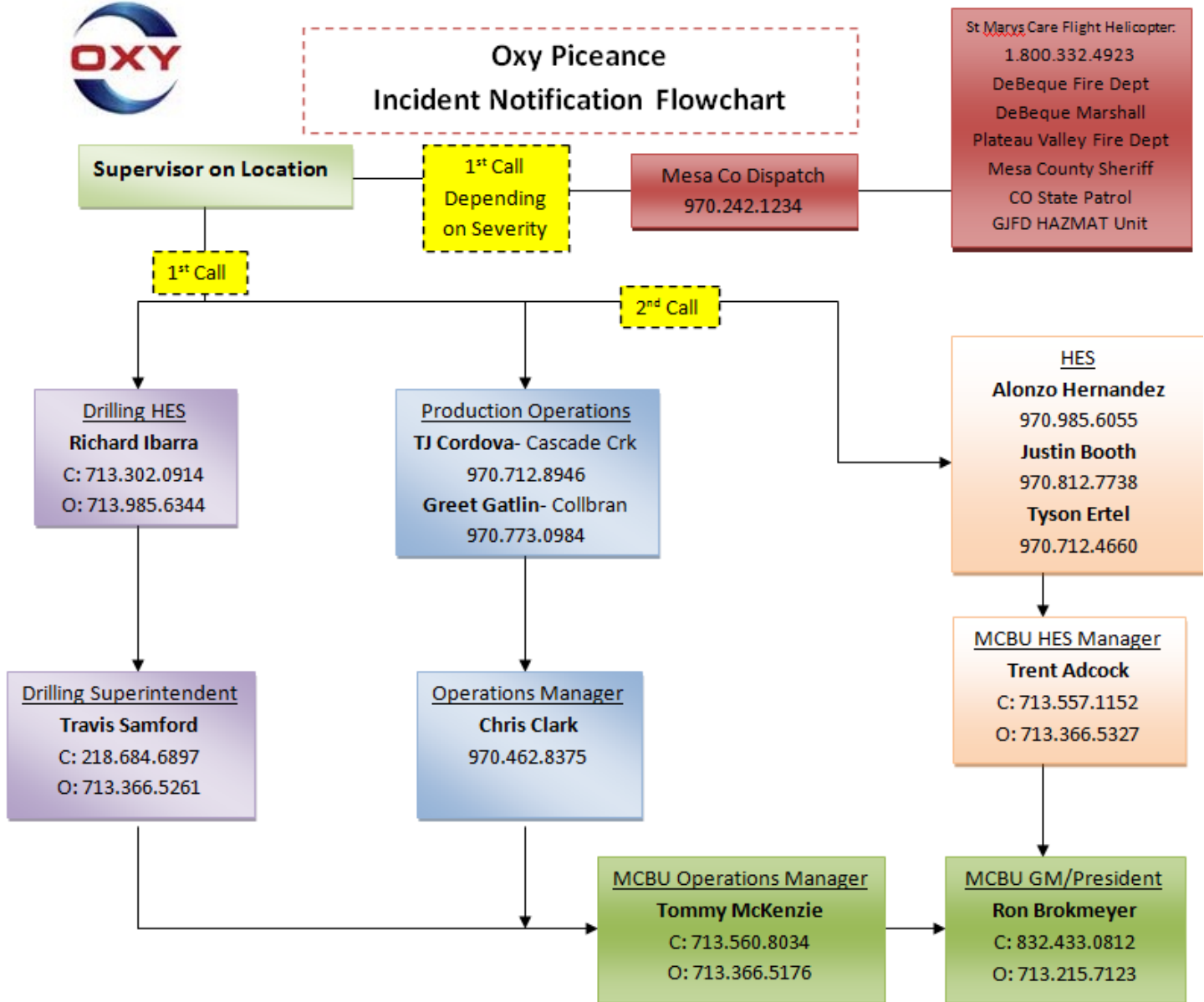
- This individual shall have HAZWOPER IC Awareness Training at a minimum
- Work closely with the IC in anticipating and providing all incident support requirements
- Order all resources through appropriate procurement methods
- Providing and establish all incident facilities, transportation, supplies, equipment, food, communications, and any medical assistance during the incident
- Staffing, organizing, and supervising the logistics section
- Planning for relief and replacement of staff as appropriate
- Preparing for and participating in planning meetings
- Completing necessary ICS forms for the IAP
- Providing periodic status reports to the IC

Finance Section

- This individual shall have HAZWOPER IC Awareness Training at a minimum
- Work closely with the IC in estimating, tracking, and approving all incident expenses
- Monitoring and coordinating funding from multiple sources
- Ensuring that all company, local, state, and federal rules and laws are complied with in regard to spending
- Staffing, organizing, and supervising the Finance Section
- Planning for relief and replacement of staff as appropriate
- Preparing for and participating in planning meetings
- Completing necessary ICS forms for the IAP
- Providing periodic status reports to the IC



Oxy Piceance Incident Notification Flowchart



III. Emergency Recognition & Prevention

In the event of an emergency resulting from an industrial accident, forces of nature, or enemy action, there are certain problems that can be anticipated. The purpose of this plan is to outline the responsibility for meeting such problems and to establish methods for handling the emergency with the least exposure to personnel, environment, and property.

For the purpose of this plan, an emergency is considered to be *any condition which requires assistance over and above that which can be supplied by the normal personnel present at the time or which cannot be handled in a routine manner.*

A first aid incident or minor fire which is limited to a small area, and which can be handled by the personnel present, does not fall under this plan. An emergency may include a medical emergency, fire, severe weather, explosion, uncontrolled release of natural gas or enemy action.

Upon recognition of an emergency it is critical that the supervisor on location follow the appropriate incident notification outlined in *Figure 1: Piceance Incident Notification Flowchart*. Any lapse within the chain of

command locally, may severely damage the level of response needed, immediate crisis communication required to Oxy-Houston personnel, and Oxy's self-image and operating reputation within the community.

Figure 2: Piceance Incident Notification Flowchart

It is essential that all personnel are familiar with the location, operation and properly trained on fire extinguishers. Select personnel (i.e., plant operator) should be thoroughly familiar with all valves necessary to isolate the source of any natural gas leak, pipeline rupture, processing facility failure or other production related emergency. The location of all utility control points should be known by plant and field personnel, i.e., electric switch boxes, water and gas control valves.

IV. Safe Distances & Places of Refuge

Depending on the emergency, personnel shall evacuate to a location upwind and uphill, if possible. Personnel will meet at the designated safe area and a head count will be taken by the supervisor or the designee to ensure that everyone is accounted for. Each field area has specific pre-determined areas of refuge with a primary mustering point and a secondary mustering point (where applicable). It is important to note that each mustering point is identified with a mustering sign and a windsock (where applicable). Personnel should look for the mustering sign when evacuation is necessary. Below is a summary of the pre-determined mustering points for each field: *(See the maps herein for aerial representation).*

Grand Junction Office:

- Primary Mustering Point → Southeast corner of the parking lot
- Secondary Mustering Point → Northeast corner of the parking lot

Cascade Creek Field

- Primary Mustering Point → Quadplex field office(s)
- Secondary Mustering Point → Corral at Conn Creek Rd (GC Rd 213) & GC Rd 204

Collbran Field

- East Plateau Area
 - Primary Mustering Point → East Plateau Field Office
- Brush Creek Area
 - Primary Mustering Point → Brush Creek Field Office
- Hell's Gulch Area
 - Primary Mustering Point → East of Compressor Station

Site-specific evacuation routes, emergency procedures, and pre-selected muster points should be identified and confirmed at each pre-job and regularly scheduled safety meeting for daily work tasks.

V. Site Security and Control

The Operations Section, in conjunction with the incident commander shall be responsible for assigning company employees or contracted security forces to provide traffic control and establish a secure outside perimeter prior to being assisted by local emergency response personnel. Additionally, the hot, warm, and cold zones must be established for effective incident control. *Figure 2* shows a generic incident layout.

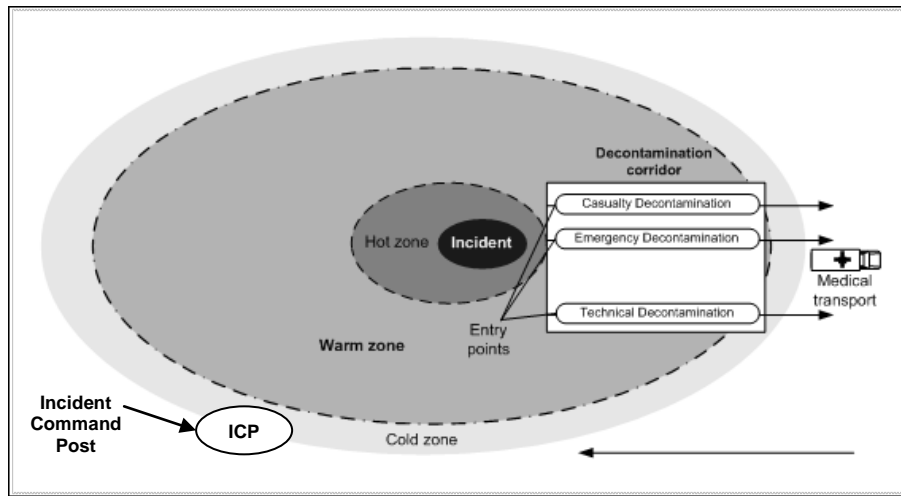


Figure 3: Typical Incident Site Layout

VI. Evacuation Routes and Procedures

The following are eight different potential emergencies that have been identified as having potential occurrence for Oxy's operations in the Piceance. It is imperative that employees familiarize themselves with each emergency procedure and varying evacuation route for each. The **RED BOX** is a quick tool to identify proper notifications, emergency tools, and forms that may need completion depending on emergency severity.

Emergency Procedure:
Fire in the Grand Junction Office
760 Horizon Drive, Suite 101



Notifications

- 911 (GJ Fire Department)
- Oxy Floor Warden
- Other Oxy Employees

Emergency Tools

- Nearest Fire Extinguisher(s)
- Nearest Manual Fire Alarm Pull Station
- Floor Fire & Life Safety Map

Required Forms To Complete (post-incident)

- Fire Report Form

1. If safe to do so, determine the location of the fire in the building.
2. Warn others in building; activate the nearest fire alarm pull station.
3. Notify your floor warden immediately. Make sure others are aware of the danger and are evacuating the building.
4. If fire is in the incipient stage and it can be done safely, extinguish the fire. If not, proceed to step #5.
5. Leave the building quickly through the safest exit utilizing your specific floor Fire & Safety Map. ***(Do not use the elevator as an exit; the elevator is not a means of egress).***
6. Meet in designated muster point/area of refuge. **The Grand Junction personnel shall meet at the SOUTHEAST corner of the parking lot from the 760 Horizon building. You can identify the mustering area by the Oxy mustering sign .** If wind or other conditions prevent using this location as the muster area, **the alternative muster area will be in the NORTHEAST corner of the parking lot from the 760 Horizon building. You can identify the mustering area by the Oxy mustering sign.**
7. Make sure all Oxy Piceance area employees are accounted for. ***(Floor wardens should utilize the specific floor plan Fire & Safety maps to account for each floor)***
8. Call emergency personnel – **DIAL 911**
9. Contact Oxy Piceance area Operations Manager.
10. If warranted and safe to do so, notify adjoining businesses and/or residents.
11. Notify other company personnel to perform previously discussed & planned roles to setup the Incident Command System (ICS) which could include, secure the area, assist in first aid, assist in evacuation, guide EMS, etc.

Emergency Procedure:
Fire in the Field Office(s)
Cascade Creek



Notifications

- Mesa Co. Dispatch (970.242.1234)
- Other Oxy Employees
- Any Contract Employees

Emergency Tools

- Nearest Fire Extinguisher(s)
- Listen for whistle/air horn (audible alarm)
- Trailer Fire & Life Safety Map

Required Forms To Complete (post-incident)

- Initial Incident Report Form
- Accident/Incident Statement Form
- Fire Report Form

1. If safe to do so, determine the location of the fire in the building.
2. Warn others in building; activate the fire alarm .
3. Notify the office warden immediately. Make sure others are aware of the danger and are evacuating all offices.
4. If fire is in the incipient stage and it can be done safely, extinguish the fire. If not, proceed to step #5.
5. Leave the building quickly through the safest, nearest exit utilizing your specific Fire & Safety Map. Make sure you leave your office door open, to aid the floor warden in evacuation efficiency.
6. Meet in designated muster point/area of refuge. **The Cascade Creek mustering point/area of refuge is located by the field office(s). You can identify the mustering area by the Oxy mustering sign.** In the event that wind or other conditions prevent using this location as the muster area, **the alternative mustering area is outside the Oxy gate at the Corral at Conn Creek Rd GC 213 & GC Rd 204 (look for the mustering sign).**
7. Make sure all Oxy Piceance area employees/critical contractors are accounted for.
8. Call emergency personnel – **DIAL 970.242.1234**
9. Contact Oxy Piceance Operations Manager.
10. If warranted and safe to do so, notify adjoining businesses and/or residents.
11. Notify other company personnel to perform previously discussed & planned roles to setup the Incident Command System (ICS) which could include, secure the area, assist in first aid, assist in evacuation, guide EMS, etc.

Emergency Procedure:
Medical, Fire and/or Explosion, or Wildland Fire
Cascade Creek & Collbran Fields



Notifications

- Mesa Co. Dispatch: 970.242.1234
- Other Oxy Employees
- Other Contractors

Emergency Tools

- Nearest Fire Extinguisher(s)
- Tune to 106.7 FM OR Weather Channel on CB Radio
- CB Radio/Oxy Radio
- Vehicle (evacuation purposes)
- MSDS
- St. Mary's CareFlight Helicopter # (970) 332-4923

Required Forms To Complete (post-incident)

- Initial Incident Report Form
- Accident/Incident Statement Form
- Fire Report Form

1. Survey the scene. If safe to do so, determine the nature and extent of the emergency. Determine proximity of any hazardous substances that may change the course of the emergency if exposed.
2. If fire is in the incipient stage and it can be done safely, extinguish the fire with a fire extinguisher or other extinguishing agent, fire blanket, water, etc. If not proceed to step #3.
3. If it is safe to do so, stop any unwanted release of flammables and de-energize unwanted power/energy sources, to include closing natural gas pipeline or facility valves. If not, proceed to step #4.
4. If the area is unsafe, move to a safe area. Isolate yourself and others from the area immediately and sound alarm with direct voice communication or other system as needed. Go to the applicable mustering points.
 - Conn Creek Compression Facility Alarm System
 - Utilizes combination strobe/audible combination to provide notification of egress both within the plant perimeter and inside buildings.
 - Alarm system activated on either facility ESD activation during emergency event or operator alarm system activation for notification of facility evacuation
 - Alarm system provides audible for 15 seconds, and strobes function until reset.

5. Notify Emergency Response Personnel

DIAL → Mesa County Dispatch (970) 242-1234.

Note: DO NOT USE "911" from a satellite phone. You will not reach a local dispatcher.

It is critical that the following information is provided when emergency services are needed in the Oxy field:

- Name and Phone Number of Caller.
- If Lat/Long is not known, provide driving directions and plan to meet responding agencies at a suitable rendezvous point and inform personnel where that will be and that someone will be at the appointed place to meet them. Give landmarks, mileage and any other information to help responders find your location.

- Be aware that it may require more than one person to guide emergency personnel. (*ambulance and fire may show up at different times*)
 - Determine any hazardous substances located in or near the incident location
 - Provide number of victims.
 - Provide Mechanism of Injury (i.e. motor vehicle rollover, slip/trip/fall from elevated level, struck by heavy object, head-on collision, etc.)
 - Describe, to the best of your ability, the Type of Injury(ies) (i.e. Amputation, burn, sprain/strain/fracture, crushing, poisoning, loss of consciousness, etc.)
 - **STAY ON LINE WITH THE DISPATCHER UNTIL TOLD TO HANG UP. DO NOT GET AGGRAVATED WITH THE TIME TAKEN TO GATHER INFORMATION. THE DISPATCHER WILL SEND ASSISTANCE WHEN THEY HAVE ALL PERTINENT INFORMATION GATHERED. THEY WILL NOT SEND RESPONDERS INTO A HAZARDOUS ENVIRONMENT. DISPATCHERS ARE TRAINED TO GATHER INFORMATION FOR THE RESPONDERS AND THEY ARE YOUR LINK TO GETTING HELP AS SOON AS PRACTICAL.**
6. If the accident is severe enough, then it is feasible to call in flight support from St. Mary's CareFlight Helicopter. Refer to the *Appendix B: "How To Prepare A Landing Zone"* and to area maps (*Appendices D & F*) with designated Landing Zone locations.
7. Notify Supervisor or their designee
Supervisor or their designee should:
- Make sure EMS has been activated (*See Item 5*)
 - **Notify other company personnel to perform previously discussed & planned roles to secure the area, assist in first aid, assist in evacuation, guide EMS etc.**
8. Make sure all Oxy employees and contractors are accounted for by plant operations. Additional verification as needed using facility sign in log.
9. Report any incident to the Oxy Piceance Area Management Team IMMEDIATELY following *Figure 2: Incident Notification Flowchart*.
- ** In some instances it may be more practical and efficient to notify the supervisor first and have them call EMS.*

Key Tips On How To Recognize Injury(ies) and Provide Initial Care:

- Activate Emergency Medical Services' Assistance **BEFORE** it is too late - Call for help early. If it looks bad, feels bad, smells bad; it is probably bad.
- **ALWAYS** activate the local ground emergency service, even if you have notified CareFlight. Many times, the helicopter cannot reach an area because of bad weather conditions or a higher priority call out. Ground ambulance will verify landing zones and can provide guidance into an area for the helicopter.
- **DO NOT CAUSE MORE HARM AND DO NOT BECOME ANOTHER VICTIM BY RUSHING INTO A HAZARDOUS ENVIRONMENT.**
- Only provide care to the level of your training.

- **DO NOT** move a victim unless there is imminent danger that could cause more harm.
- If available, communicate with CareFlight through the Emergency Services' radio channel for all landings. The frequency should be on all Oxy Piceance area radios.



Emergency Procedure:
Medical, Fire and/or Explosion, or Wildland Fire
Cascade Creek & Collbran Fields
Conn Creek Compression Facility/Cascade Creek Central Water Handling
Facility/Compressor Stations

Notifications

- Mesa Co. Dispatch: 970.242.1234
- Other Oxy Employees
- Other Contractors

Emergency Tools

- Nearest Fire Extinguisher(s)
- Tune to 106.7 FM *OR* Weather Channel on CB Radio
- CB Radio/Oxy Radio
- Vehicle (evacuation purposes)
- MSDS CD
- St. Mary's CareFlight Helicopter #

Required Forms To Complete (post-incident)

- Initial Incident Report Form
- Accident/Incident Statement Form
- Fire Report Form

1. Survey the scene. If safe to do so, determine the nature and extent of the emergency. Determine proximity of any hazardous substances that may change the course of the emergency if exposed.
2. If fire is in the incipient stage and it can be done safely, extinguish the fire with a fire extinguisher or other extinguishing agent, fire blanket, water, etc. If not proceed to step #3.
3. If it is safe to do so, stop any unwanted release of flammables and de-energize unwanted power/energy sources, to include closing natural gas pipeline or facility valves. If not, proceed to step #4.
4. If the area is unsafe, move to a safe area. Isolate yourself and others from the area immediately and sound alarm with direct voice communication or other system as needed. Go to the applicable mustering points.
 - Conn Creek Compression Facility Alarm System
 - Utilizes combination strobe/audible combination to provide notification of egress both within the plant perimeter and inside buildings.
 - Alarm system activated on either facility ESD activation during emergency event or operator alarm system activation for notification of facility evacuation
 - Alarm system provides audible for 15 seconds, and strobes function until reset.
5. Notify Emergency Response Personnel
DIAL → Mesa County Dispatch (970) 242-1234.
Note: DO NOT USE "911" from a satellite phone. You will not reach a local dispatcher.

It is critical that the following information is provided when emergency services are needed in the OXY field:

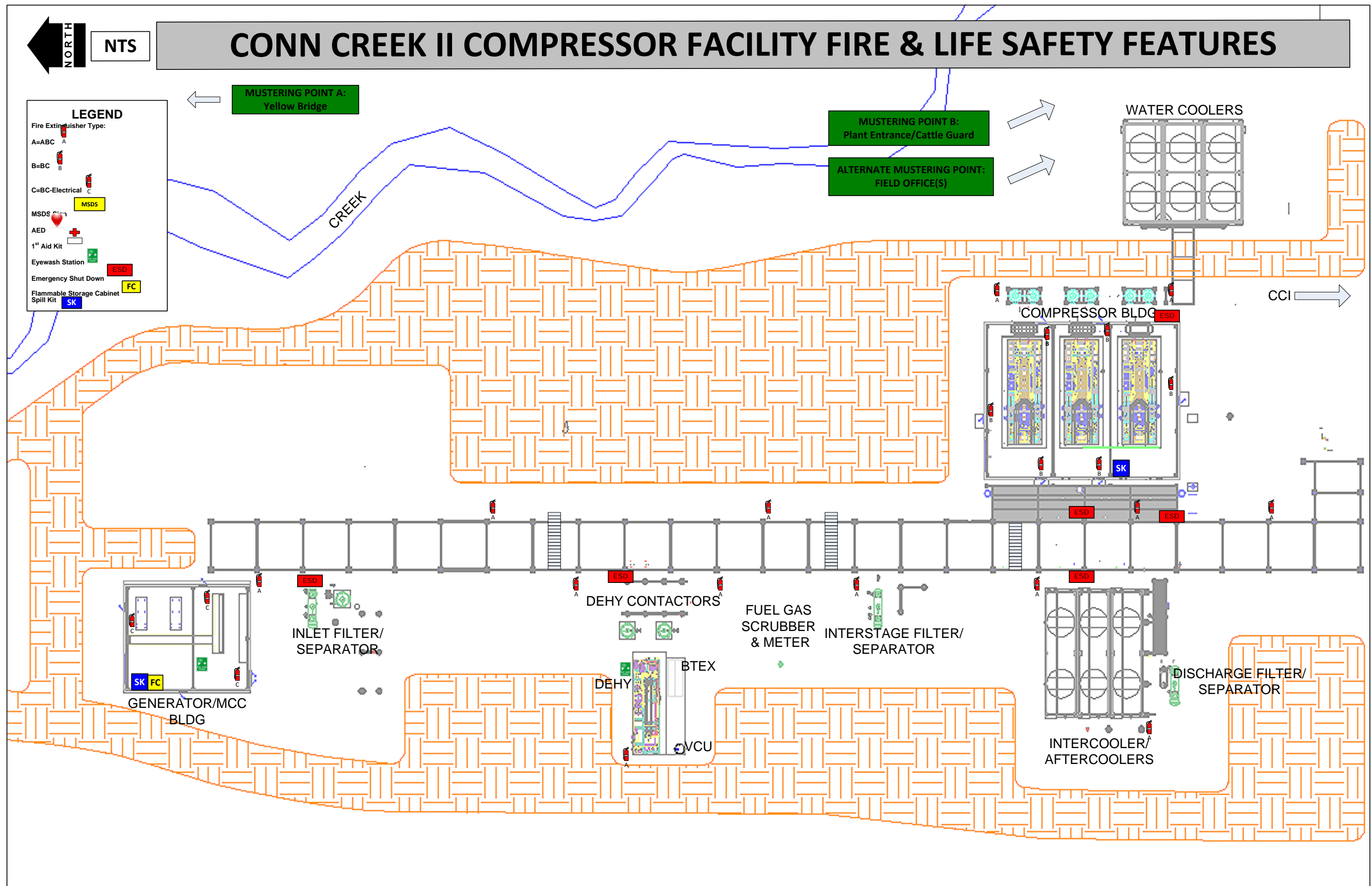
- Name and Phone Number of Caller.

- If Lat/Long is not known, provide driving directions and plan to meet responding agencies at a suitable rendezvous point and inform personnel where that will be and that someone will be at the appointed place to meet them. Give landmarks, mileage and any other information to help responders find your location.
 - Be aware that it may require more than one person to guide emergency personnel. (*ambulance and fire may show up at different times*)
 - Determine any hazardous substances located in or near the incident location
 - Provide number of victims.
 - Provide Mechanism of Injury (i.e. motor vehicle rollover, slip/trip/fall from elevated level, struck by heavy object, head-on collision, etc.)
 - Describe, to the best of your ability, the Type of Injury(ies) (i.e. Amputation, burn, sprain/strain/fracture, crushing, poisoning, loss of consciousness, etc.)
 - **STAY ON LINE WITH THE DISPATCHER UNTIL TOLD TO HANG UP. DO NOT GET AGGRAVATED WITH THE TIME TAKEN TO GATHER INFORMATION. THE DISPATCHER WILL SEND ASSISTANCE WHEN THEY HAVE ALL PERTINENT INFORMATION GATHERED. THEY WILL NOT SEND RESPONDERS INTO A HAZARDOUS ENVIRONMENT. DISPATCHERS ARE TRAINED TO GATHER INFORMATION FOR THE RESPONDERS AND THEY ARE YOUR LINK TO GETTING HELP AS SOON AS PRACTICAL.**
6. If the accident is severe enough, then it is feasible to call in flight support from St. Mary's CareFlight Helicopter. Refer to the *Appendix B: "How To Prepare A Landing Zone"* and to area maps (*Appendices D & F*) with designated helipad locations.
 7. Notify Supervisor or their designee
Supervisor or their designee should:
 - Make sure EMS has been activated (*See Item 5*)
 - **Notify other company personnel to perform previously discussed & planned roles to secure the area, assist in first aid, assist in evacuation, guide EMS etc.**
 8. Make sure all Oxy employees and contractors are accounted for by plant operations. Additional verification as needed using facility sign in log.
 9. Report any incident to the Oxy Piceance Area Management Team IMMEDIATELY following *Figure 2: Incident Notification Flowchart*.
 ** *In some instances it may be more practical and efficient to notify the supervisor first and have them call EMS.*

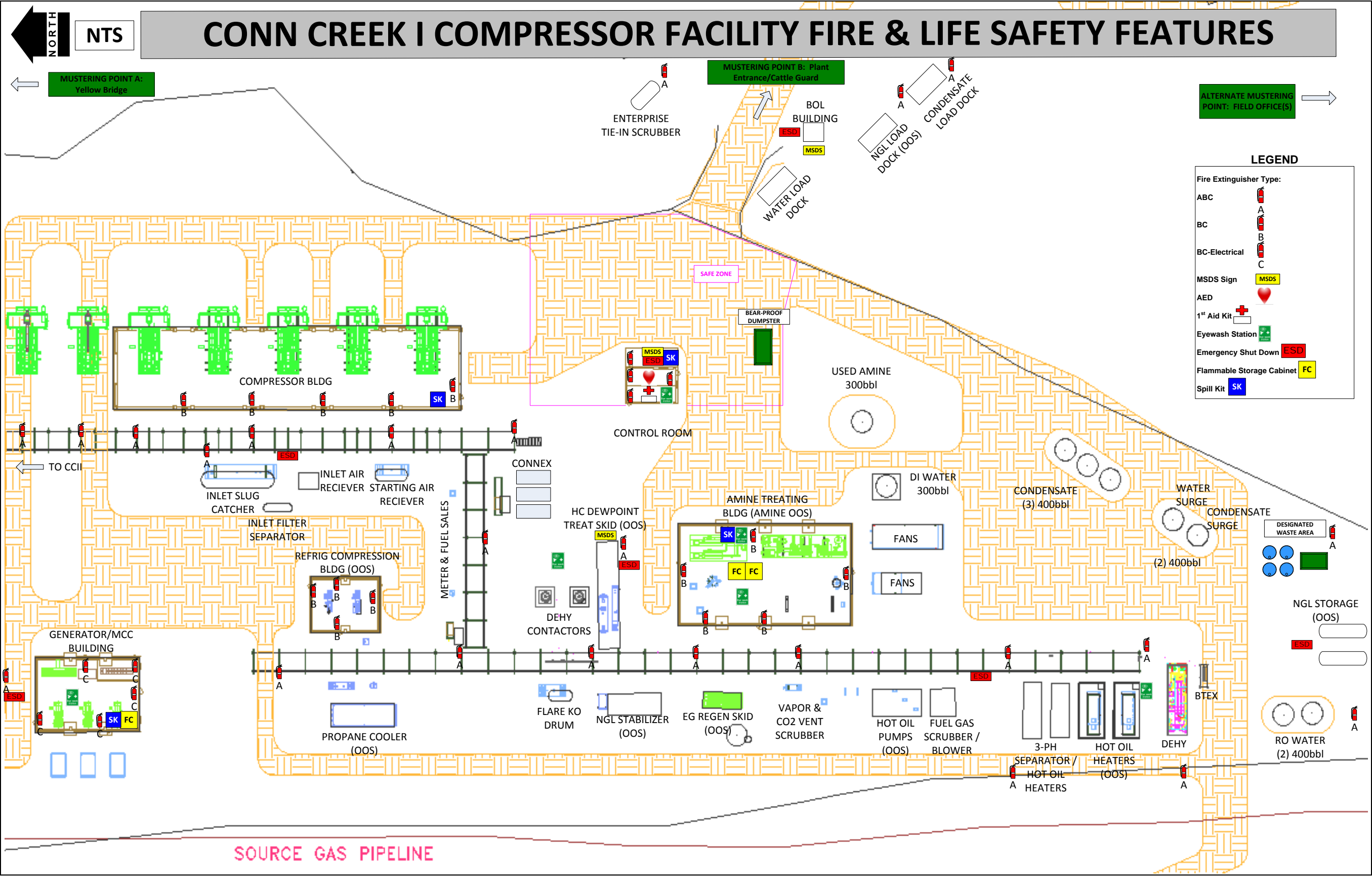
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- Only provide care to the level of your training.
- **DO NOT** move a victim unless there is imminent danger that could cause more harm.
- If available, communicate with CareFlight through the Emergency Services' radio channel for all landings. The frequency should be on all Oxy Piceance area radios.



Conn Creek II Plot Plan



Conn Creek II Plot Plan

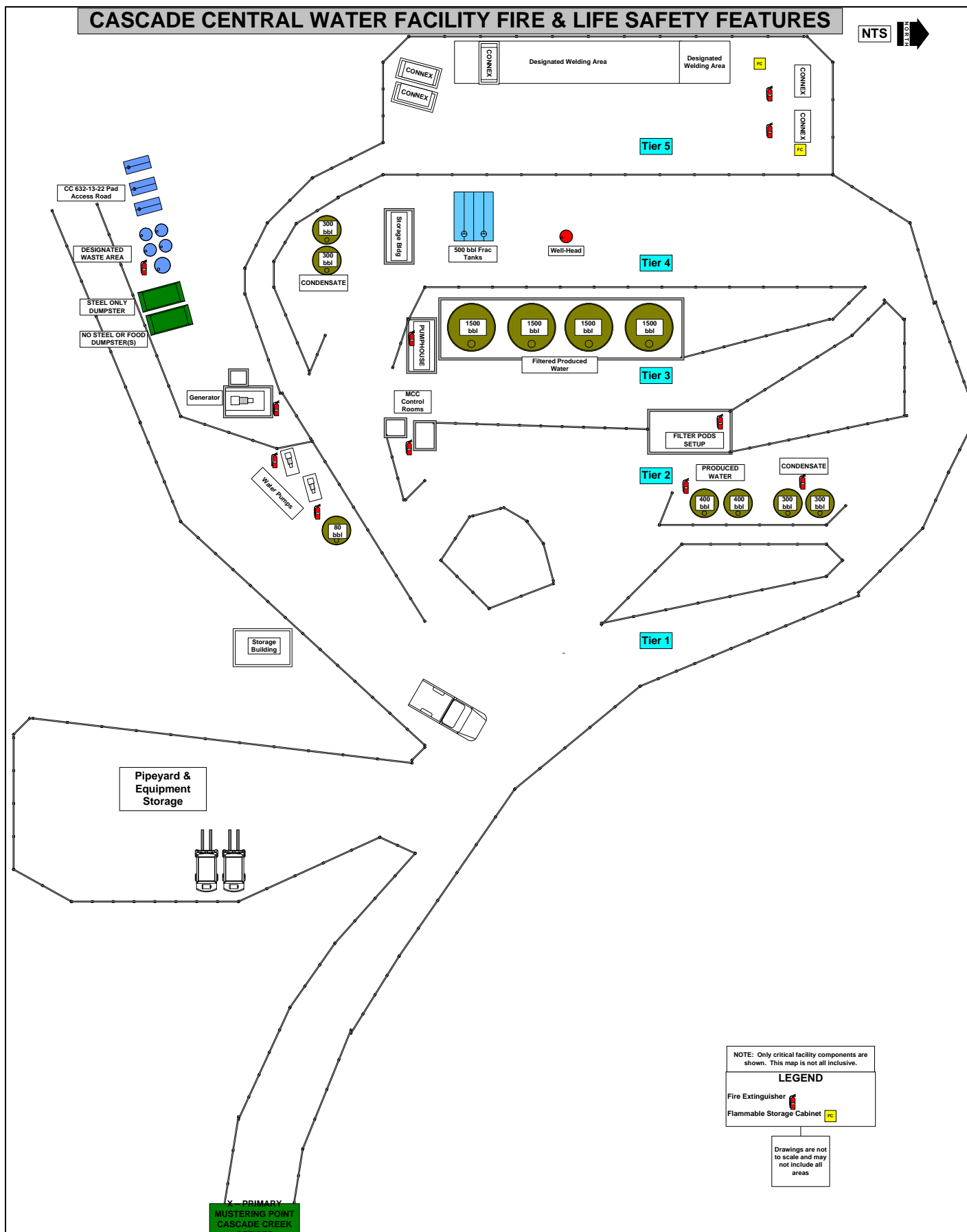


Figure 5: CC CWHF Map

Emergency Procedure: Vehicle Collision/Incident

Notifications

- Police (*Mesa Co. Dispatch: 970.242.1234 or 911*)
- Supervisor
- HES Group

Emergency Tools

- CB Radio/Oxy Radio
- Vehicle Registration
- Insurance Card
- 3-Day Emergency Preparedness Kit (*Oxy Employees*)

Required Forms To Complete (post-incident)

- Injury Report Form (If Applicable)
- Driver's Accident Report Packet (*glove-box*)

OCCIDENTAL OIL AND GAS CORPORATION

Injury/Vehicle Accident Reporting

All vehicle accidents, including those that do not involve personal injury or damage to a vehicle, require the completion of a Driver's Report of Vehicle Accident immediately following the accident. Vehicle accidents occurring in leased vehicles and personal vehicles being used for company business must be reported.

If injury results from a vehicle accident, it will also be necessary to complete an injury report.

A. Employee Injury

1. You must immediately report to your supervisor any injury sustained at work, no matter how slight the injury may be. Failure to report an injury promptly could result in the Company questioning a claim at a later date.
2. Your immediate supervisor will investigate the injury and prepare the appropriate reports.

B. Vehicle Collision

1. A vehicle collision is defined as any vehicle contact or damage requiring repairs to a Company vehicle, another vehicle, injury to a pedestrian, animal, or third party or damage to Company property.
2. If you are involved in a vehicle collision:
 - a. **STOP. NEVER LEAVE THE SCENE OF AN ACCIDENT.**
 - b. Obtain help for injured persons. Render "GOOD SAMARITAN" first aid if you are qualified to do so.
 - c. Notify police and a Company Supervisor.
 - d. Obtain necessary information at the scene. Exchange only driver's license number and insurance information with the other driver, but **DO NOT** make commitments. Simply state that you will report the collision to your company. Any liability will be determined by the Company and our insurance carrier. **DO NOT** express opinions or become involved in arguments.
 - e. Have witnesses provide you with their address and telephone numbers so they can be reached for follow-up statements regarding the collision.

OCCIDENTAL OIL AND GAS CORPORATION DRIVER'S REPORT OF VEHICLE ACCIDENT

Report all vehicle accidents immediately on this form regardless of amount of damage or loss. Do not discuss accident with anyone except company representative or police. In case of injury to others, or serious property damage, notify your supervisor at once. Be certain to secure the names and addresses of witnesses, bystanders, or people in the immediate vicinity who may have seen the accident or heard any statement made by persons involved.

GIVE DETAILS AS FULLY AS POSSIBLE

COMPANY DRIVER	1. a) <input type="checkbox"/> OPERATIONS b) <input type="checkbox"/> GAS PROCESSING c) <input type="checkbox"/> OTHER _____ 2. REGION/OFFICE _____ 3. FACILITY _____ 4. DRIVER _____ 5. DRIVER'S HOME ADDRESS _____ 6. CITY _____ 7. STATE _____ 8. JOB CLASSIFICATION _____ 9. DATE EMPLOYED _____ 10. AGE _____ 11. DRIVER'S SOC. SEC. NUMBER _____ 12. DRIVER'S LICENSE NUMBER _____ 13. DRIVER'S LICENSE: a) <input type="checkbox"/> OPERATOR b) <input type="checkbox"/> COMMERCIAL 14. LICENSE RESTRICTIONS: a) <input type="checkbox"/> Yes b) <input type="checkbox"/> No IN COMPLIANCE WITH THESE RESTRICTIONS? a) <input type="checkbox"/> Yes b) <input type="checkbox"/> No OTHER OCCUPANT'S NAMES: _____
ACCIDENT SUMMARY	15. ACCIDENT LOCATION: _____ 16. CITY _____ 17. STATE _____ DATE OF ACCIDENT: 18. MONTH _____ 19. DAY _____ 20. YEAR _____ 21. TIME: HOUR _____ a) <input type="checkbox"/> AM b) <input type="checkbox"/> PM 22. PURPOSE OF TRIP: _____ _____ _____ _____
COMPANY VEHICLE	23. OWNER: a) <input type="checkbox"/> OCCIDENTAL b) <input type="checkbox"/> OTHER 24. COMPANY VEHICLE NUMBER _____ 25. VEHICLE TYPE: a) <input type="checkbox"/> AUTO b) <input type="checkbox"/> PICKUP c) <input type="checkbox"/> TRUCK _____ TON CAPACITY 26. YEAR: _____ 27. MAKE: _____ 28. DESCRIBE DAMAGE TO VEHICLE: _____ _____ 29. ESTIMATED COST TO REPAIR COMPANY VEHICLE: _____
OTHER VEHICLE(S)	DRIVER: _____ YEAR _____ MAKE _____ OWNER'S ADDRESS: _____ CITY: _____ STATE: _____ OTHER OCCUPANT'S NAMES: _____ DESCRIBE DAMAGE TO VEHICLE: _____ _____ 30. ESTIMATED COST TO REPAIR VEHICLE(S): \$ _____ (ATTACH EXPLANATION IF MORE THAN ONE VEHICLE IS INVOLVED)
PERSONAL INJURIES	INJURED PERSONS' NAMES: _____ _____ NATURE AND EXTENT OF INJURIES: _____ _____ _____
OTHER PROPERTY DAMAGE	DESCRIBE PROPERTY DAMAGED OTHER THAN VEHICLES: _____ _____ _____ 31. ESTIMATED COST TO REPAIR DAMAGE: \$ _____

(OVER)

32. LIGHTING
(Check One)
a) ☐ Daylight
b) ☐ Dawn
c) ☐ Dusk
d) ☐ Night-lighted
e) ☐ Night-unlighted

33. ROAD CONDITIONS
(Check One)
a) ☐ Dry
b) ☐ Wet
c) ☐ Icy
d) ☐ Snow

34. ROAD CHARACTERISTICS
(Check All That Apply)
a) ☐ Paved
b) ☐ Unpaved
c) ☐ Straight
d) ☐ Curved
e) ☐ Flat
f) ☐ Hillcrest
g) ☐ Sloped

35. ROAD DESIGN
(Check One)
a) ☐ Interstate
b) ☐ Highway
c) ☐ Expressway
d) ☐ City Street
e) ☐ Other
Number lanes _____

WHAT DRIVERS WERE DOING (Check One for Each)

36. COMPANY DRIVER
a) ☐
b) ☐
c) ☐
d) ☐
e) ☐
f) ☐
37. OTHER DRIVER
a) ☐ Going Straight
b) ☐ Overtaking, Passing
c) ☐ Making Right Turn
d) ☐ Making Left Turn
e) ☐ Making U Turn
f) ☐ Slowing

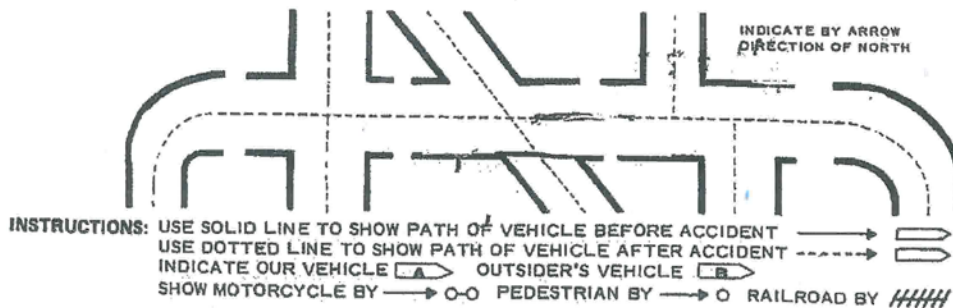
36. COMPANY DRIVER
g) ☐
h) ☐
i) ☐
j) ☐
k) ☐
l) ☐
37. OTHER DRIVER
g) ☐ Stopped in traffic
h) ☐ Stopped sign/light
i) ☐ Entering traffic
j) ☐ Parked
k) ☐ Backing
l) ☐ Other

CONTRIBUTING FACTORY BY EACH DRIVER (Check All That Apply)

38. COMPANY DRIVER
a) ☐
b) ☐
c) ☐
d) ☐
e) ☐
f) ☐
g) ☐
h) ☐
i) ☐
j) ☐
38. OTHER DRIVER
a) ☐ Speeding
b) ☐ Traveling too fast for conditions
c) ☐ Failed to yield right of way
d) ☐ Passed stop sign
e) ☐ Disregarded traffic signal
f) ☐ Drove left of center
g) ☐ Swerved to miss object
h) ☐ Following too closely
i) ☐ Made improper turn
j) ☐ Driver inattention

36. COMPANY DRIVER
k) ☐
l) ☐
m) ☐
n) ☐
o) ☐
p) ☐
q) ☐
r) ☐
37. OTHER DRIVER
k) ☐ Under influence of alcohol, drugs
l) ☐ Inadequate brakes
m) ☐ Driver fatigue
n) ☐ Improper lane change
o) ☐ Improper backing
p) ☐ Road defect
q) ☐ Mechanical defect
r) ☐ Tire defect

40. TYPE OF COLLISION: a) HEAD ON ☐ b) SIDESWIPE ☐ c) RIGHT ANGLE ☐ d) REAR END ☐
41. DAY OF WEEK: a) MON ☐ b) TUE ☐ c) WED ☐ d) THU ☐ e) FRI ☐ f) SAT ☐ g) SUN ☐
42. CITATION GIVEN TO: a) COMPANY DRIVER ☐ b) OTHER PARTY ☐ VIOLATION TYPE: _____
43. VEHICLE CARGO: _____; DATE OF LAST STATE VEHICLE INSPECTION: _____
44. ANY KNOWN DEFECTS ON VEHICLE PRIOR TO ACCIDENT? a) YES ☐ b) NO ☐ List: _____
45. WERE OCCUPANTS OF COMPANY VEHICLE WEARING SEAT BELTS? a) YES ☐ b) NO ☐
46. WERE OCCUPANTS OF OTHER VEHICLE(S) WEARING SEAT BELTS? a) YES ☐ b) NO ☐
47. HAD COMPANY DRIVER ATTENDED DEFENSIVE DRIVING COURSE? a) YES ☐ b) NO ☐



PLEASE COMPLETE THE SKETCH ABOVE SHOWING THE MOVEMENT OF THE VEHICLE(S).

PLEASE EXPLAIN HOW THE ACCIDENT HAPPENED: _____

HAVE YOU SUBMITTED REQUIRED REPORTS TO STATE AND LOCAL AUTHORITIES? a) YES ☐ b) NO ☐

WHAT WOULD YOU DO TO PREVENT A SIMILAR ACCIDENT? _____

Date of Report

Signature of Driver

Signature of Driver's Supervisor

Emergency Procedure: Severe Thunderstorm/Flash Flood

Notifications

- **Other Oxy Employees**
- **Other Contractors**
- **Other Operators**

Emergency Tools

- **Tune to 106.7 FM OR Weather Channel on CB Radio**
- **3-Day Emergency Preparedness Kit (*Oxy Employees*)**
- **Oxy Radio/CB Radio**

1. During threatening weather or if severe weather has been predicted, tune to and monitor local weather radio or news broadcasts. When a severe weather warning has been issued for any location in the area, immediately notify office and field personnel that may be affected.
2. If possible, inform others to tune into local weather newscasts to stay abreast of possible conditions and/or weather changes in their area.
3. In the office:
 - Inform personnel.
 - If damage is sustained refer to emergency procedures for “Medical and/or Fire and Explosion”

In the field:

- If time allows, notify others of your location and situation.
 - Do not attempt to out run severe weather or flash floods.
 - Seek shelter if available, otherwise stay in vehicle.
 - Do not drive into flowing water.
 - Do not park and take shelter beneath trees.
 - Avoid exposed areas, ridgelines, natural washes
 - If caught out of your vehicle in the open then proceed downhill to a less exposed side slope location. Avoid trees, fences, large rocks. Squat in the open on the balls of your feet with your head down. Cover ears with hands, elbows in, and wait the situation out.
 - After Severe Weather or Flash Flood is clear notify others that you are okay, if possible.
 - Provide assistance to others if you are capable.
4. Make appropriate company notifications of injuries or damage to company property.

Emergency Procedure: Severe Weather – Blizzard

Notifications

- Other Oxy Employees
- Other Contractors
- Other Operators

Emergency Tools

- Tune to 106.7 FM *OR* Weather Channel on CB Radio
- 3-Day Emergency Preparedness Kit (*Oxy Employees*)
- Oxy Radio/CB Radio

1. During threatening weather or if severe weather has been predicted, tune to and monitor local weather radio or news broadcasts. When a blizzard warning has been issued in the area, immediately notify office and field personnel that may be affected. Inform others to tune into local weather newscasts to stay abreast of possible conditions and/or weather changes in their area.

2. If a blizzard is underway:

- Inform personnel.

If stranded in blizzard conditions:

- If possible, notify others of deteriorating conditions along with your location and situation before communications are lost.
- **DO NOT** leave your vehicle unless absolutely necessary. Assure exhaust pipe is clear of obstructions and run engine only when needed to conserve fuel.
- If stranded away from your vehicle or if it is necessary to abandon the vehicle, seek shelter in a stable structure and wait for help to arrive. If shelter is not available build a snow cave and wait for help. If caught outside of shelter, build a fire if possible.
- Try to stay dry. Change to dry and weather resistant gear.
- If you are caught with more than one person in a blizzard **DO NOT SEPARATE**. Provide assistance to others, if you are capable.
- Do not attempt to walk off the Mesa during blizzard conditions.

3. Make appropriate company notifications of injuries or damage to company property.

Emergency Procedure: Spill and/or Uncontrolled Gas Release

Notifications

- Other Oxy Employees
- Other Contractors
- Other Operators

Emergency Tools

- Tune to 106.7 FM *OR* Weather Channel on CB Radio
- MSDS
- Emergency Response Guidebook (ERG)
- Wind direction

Required Forms To Complete (post-incident)

- Accident/Incident Statement Form
- Spill Report Form

1. If safe to do so, determine the nature and extent of the release and isolate the release. Be aware of hazardous substances or equipment in the area that may potentially create a change to the immediate emergency, i.e., hydrocarbon vapors.
2. If the release can not be safely isolated, evacuate the premise and establish roadblocks to prevent others from entering.
3. Notify Supervisor or their designee
 - **Supervisor or their designee should:
 - If necessary, notify other company personnel to perform previously discussed & planned roles to secure the area or assist as operationally needed.
 - Begin cleanup and remediation procedures as soon as possible.
 - **Contact Oxy Piceance area IMMEDIATELY!!!**
 - Fill out and submit spill report form, in accordance with Oxy policies and procedures.

The (4) most common releases that could occur under this potential emergency are:

- Condensate
- Produced Water
- Wet Natural Gas
- Dry Natural Gas

****Note: Report all spills/releases to Oxy Piceance area no matter the quantity. Oxy Piceance area will make the proper notifications to government agencies.**

- A spill is less than five barrels is not reportable to the COGCC, but reportable to Oxy.
- A spill is greater than five barrels, shall be reported to COGCC.
- If the spill is greater than 20 barrels, then verbal notification shall be provided to COGCC within 24 hours.
- A spill of a refined petroleum product (hydraulic fluid, fuel, etc) from a regulated storage tank and greater than 25 gallons is reportable to CDPHE.
- All spills on federal lands are reportable.
- Consult Oxy's SPCC plan for additional reporting requirements.

Emergency Procedure: Chemical Release/Spill

Notify Affected Personnel

- Other Oxy Employees
- Other Contractors
- Other Operators
- Mesa Co. Dispatch: 970.242.1234 (if needed)

Emergency Tools

- Tune to 106.7 FM OR Weather Channel on CB Radio
- MSDS
- Emergency Response Guidebook (ERG)
- Wind direction

Required Forms To Complete (post-incident)

- Accident/Incident Statement Form
- Spill Report Form

1. If safe to do so, determine the nature and extent of the release.
 - Stay up wind and uphill
 - Locate Material Safety Data Sheets (MSDS), placards or labels that would help identify the chemical
 - Refer to Hazardous Communication (HAZCOM) program, Oxy Piceance Chemical Inventory, the ERG guidebook, placards, and labels for help in identifying the chemical and response procedures if necessary.
2. If there is no danger, isolate the release.
3. If the release can not be safely isolated, evacuate the premises and establish roadblocks to prevent others from entering the affected area.
4. Notify Supervisor or their designee
5. Supervisor or their designee should:
 - If necessary, notify other company personnel to perform previously discussed & planned roles to secure the area or assist as operationally needed. **
 - Contact local HAZMAT Response Team (**Mesa County Dispatch 970-242-1324**), if needed for immediate response and control of a hazardous chemical release.
 - **Notify Oxy Piceance area IMMEDIATELY!!!**
 - Begin cleanup and remediation procedures as soon as possible.
 - Consult Oxy's SPCC plan for additional reporting requirements.

The most common chemical spills having potential to release are:

- Methanol
- Corrosion/Scale Inhibitor
- Diesel Fuel

**** If the spill is on public ground or the public might be in any danger, notify local emergency services.**

Emergency Procedure: Earthquake

Notify Affected Personnel

- Mesa Co. Dispatch: 970.242.1234
- Other Oxy Employees
- Other Contractors
- Other Operators

Emergency Tools

- Tune to 106.7 FM *OR* Weather Channel on CB Radio
- CB Radio/Oxy Radio
- Emergency Response Guidebook (*ERG*)
- MSDS

Required Forms To Complete (post-incident)

- Injury Report Form (If Applicable)

If you are inside during an earthquake:

1. Immediately take cover under a table or desk, or stand in a doorway. In areas where cover is not available, kneel at the base of an interior wall, facing the wall and with head down and covered by arms.
2. Turn your body away from windows and mirrors.
3. Be alert for falling objects and stay away from overhead fixtures, filing cabinets, bookcases, and electrical equipment.

If you are outside during an earthquake:

1. Move to an open area away from buildings, trees, and power lines.
2. If unable to move to an open area, watch for falling objects.

If you are in an automobile during an earthquake:

1. Stop your vehicle in the nearest open area.
2. Stay in the vehicle until the shaking stops.

After an earthquake:

1. Be aware of the possibility of aftershocks.
2. If possible and it is safe to do so, evacuate the building as soon as the shaking has ceased. (Meet at the applicable Primary Mustering Area)
3. Do not move injured persons unless they are in obvious immediate danger (from fire, building collapse, etc.)
4. Open doors carefully. Watch for falling objects.
5. Do not use elevators.
6. Do not use matches or lighters.
7. Limit use of telephone to calls for emergency services.

Emergency Procedure: Terrorism Attack/Threat/Enemy Action

Notifications

- Mesa Co. Dispatch: 970.242.1234
- Other Oxy Employees
- Other Contractors
- Other Operators (See *Emer. Contact List*)

Emergency Tools

- Tune to 106.7 FM OR Weather Channel on CB Radio
- CB Radio/Oxy Radio
- MSDS
- Emergency Response Guidebook (*ERG*)
- Wind direction

Required Forms To Complete (post-incident)

- Injury Report Form (If Applicable)

1. There are (4) main types of terrorist activity to be aware of:

- ☐ Chemical
- ☐ Biological
- ☐ Radiological/Nuclear
- ☐ Explosives

2. Pay attention to the following **indicators**: (Any suspicious activity should be reported immediately.)

- ☐ Is the emergency response to a target hazard or target threat?
- ☐ Has there been a threat?
- ☐ Are there multiple (non-trauma related) victims?
- ☐ Are responders victims?
- ☐ Are hazardous substances involved?
- ☐ Has there been an explosion?
- ☐ Has there been a secondary attack/explosion?

If There Is **One Indicator**...

- ☐ Respond with a heightened level of awareness

If There Are **Multiple Indicators**...

- ☐ You may be on the scene of a terrorist attack
- ☐ Initiate response operations with extreme caution
- ☐ Be alert for actions against responders
- ☐ Evaluate and implement personal protective measures
- ☐ Consider the need for maximum respiratory protection or a full evacuation
- ☐ Make immediate contact with law enforcement for coordination

3. Evacuate the area immediately to the applicable primary muster point,, make notifications to immediate supervisor, HES Group, applicable Fire Department.

VII. Decontamination

Decontamination or DECON will be very limited to Oxy employees, due to the fact that offensive operations will be infrequent without the implementation of a respiratory protection program. However, it is the IC's responsibility to ensure that contract personnel involved with cleanup of hazardous materials follow proper DECON procedures. DECON shall always be established in the warm zone of an incident.

VIII. Personal Protective Equipment (PPE) & Emergency Equipment

PPE and emergency equipment is critical to an effective and safe emergency response for entry personnel. The Operations Section is responsible to ensure all entry team members are wearing the appropriate level of PPE. Currently, Oxy Piceance area have not implemented a respiratory protection program (RPP), since a program has not been deemed necessary for Oxy employees at this time. For this reason, PPE will strictly consist of an ANSI-approved hard hat and safety glasses w/ sideshields, ASTM-approved steel-toe boots or chemical resistant steel-toe boots, and 100% cotton/wool or FRC (flame resistant clothing). Additional PPE may include a Tyvek chemical splash suit, neoprene gloves, face-shield, goggles, etc., depending on the scenario. Of course, all emergencies shall require an appropriate PPE site analysis prior to entry. Emergency equipment is also critical to effective emergency response. Below is a general list of Oxy-provided equipment: *(Note: this list may not be all inclusive)*

Emergency Equipment	
1st Aid Kits	4-Gas Monitor (CO, H2S, LEL, O2)
Fire Extinguishers	AED (automatic external defibrillator) (GJ office, CC Field office, CCCF Control room_)
Backboard (located in CC Field Office)	Explosion-Proof Flashlights
Eyewash Stations & Bottles	Spill Confinement Supplies (booms, diapers, pillows) (CCWHF, EPCS, Brush Creek office)
Landing Zone LZ Turbo Lights (CC Field office, CCCF Control Room)	

Table 2: Emergency Equipment

IX. Emergency Medical Treatment & First Aid

In the event of an emergency involving injury to Oxy employees and/or contract personnel, immediate care shall be provided to the injured to abate any life-threatening injuries (e.g.; cardiac arrest, breathing stopped, and profuse bleeding, etc.), if deemed safe to do so. At least 50% of all Oxy employees are required to be trained in First Aid (FA), Cardiopulmonary Resuscitation (CPR), and the use of an Automatic External Defibrillator (AED).

All other medical treatment beyond the first aid level, will require the evaluation of trained medical professionals from ambulance service to medical physicians at the clinic/hospital. The DeBeque Fire Department, the Plateau Valley Fire Department, and the St. Mary's Care Flight Helicopter can all provide advanced first aid at the Emergency Medical Technician (EMT) level. Hospital attention should be considered with respect to the below table, outlining medical facility protocol by priority. However, each emergency or incident should be managed case by case depending on injury severity.

Priority	Medical Facility	Contact Number
<i>Non-Emergency</i>	Work Partners Occupational Clinic	970.241.5585
<i>Non-Emergency</i>	Grand River Health & Safety Center	970.285.5731
<i>Emergency</i>	St. Mary's Hospital	970.244.2990

Table 3: Medical Facility Protocol

X. Emergency Alerting and Response Procedure

Once an employee recognizes the occurrence of an emergency, he/she will notify their immediate supervisor, following *Figure 2: Incident Notification Flowchart*.

The on-scene Incident Command Staff shall notify the appropriate lines of authority and emergency response agencies as follows:

- A. Notify Mesa County Dispatch at 970.242.1234.
- B. Call law enforcement officers to help control traffic and the public, if necessary. If roadblocks are required and established during an emergency, advise the control points what outside help may be expected so that they can be admitted to the project area.
- C. Consider the necessity of evacuating any residents in the area. Currently, there are ranching interests and residential areas in the field(s) that may need notification.
- D. Establish contact with Civil Defense, Electric Companies, Gas Companies or other service organizations as needed.
- E. Contact Doctors, Hospitals, HAZMAT and ambulances as necessary.
- F. Contact any outside help necessary, such as construction contractors, tank trucks and other producers in the area which may be affected.
- G. Maintain communications and information flow with Oxy Piceance area and all potentially affected personnel.

Notification to Oxy-MCBU management of any Health, Environment and Safety (HES) incident shall be made as soon as possible after the incident, so that additional steps can be taken as needed. Emergency response agencies as listed on page 3 of this plan shall be notified as needed. Below is the typical notification via the OXY chain of command, in accordance with OOG HES&S Procedure 60.400.0500 *Incident Reporting and Investigation Standard*.

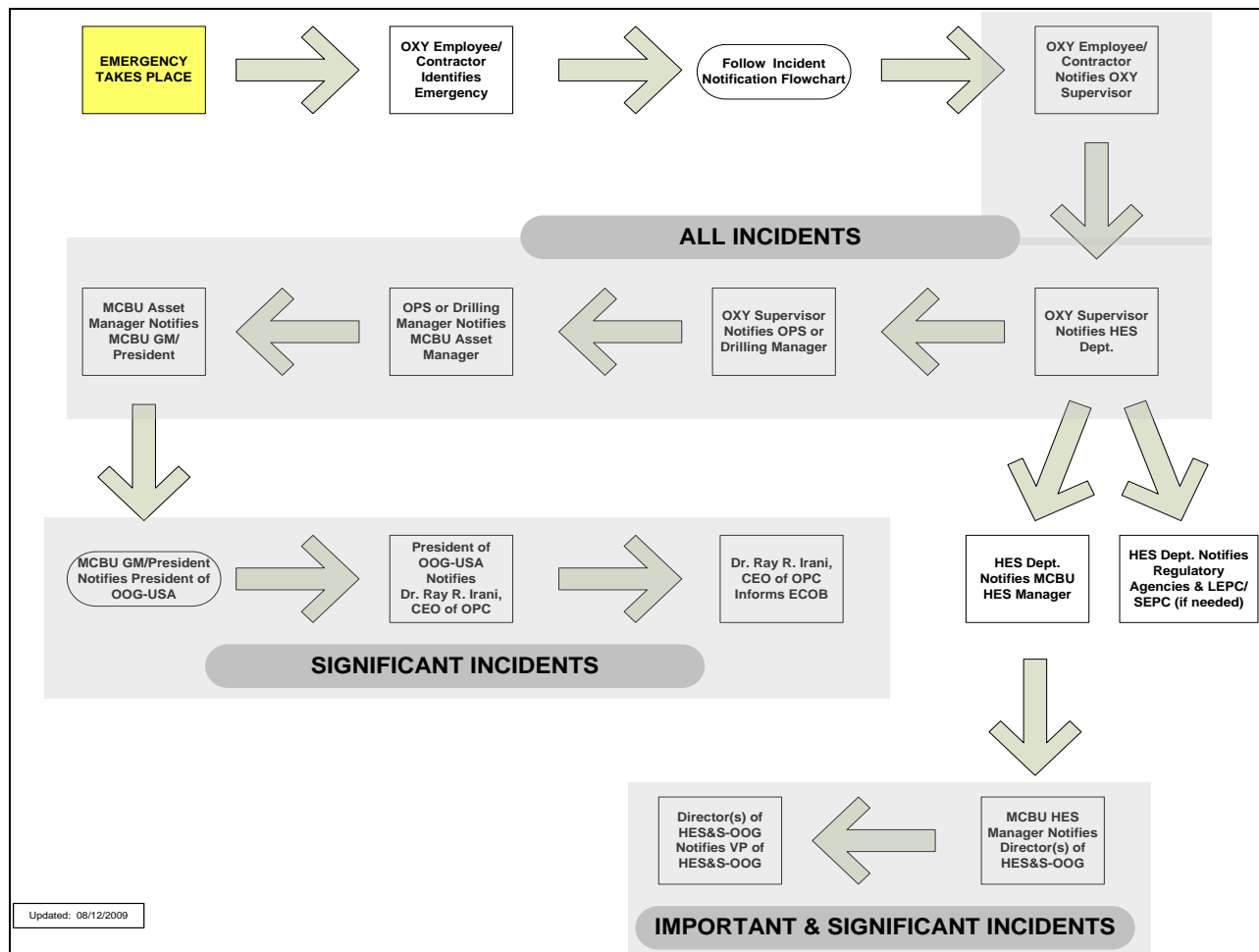


Figure 6: Oxy Crisis Notification Flowchart

XI. Media Relations Guide

All inquiries/requests for information from the media and the public should be referred to the Oxy Piceance area Operations Manager or MCBU-Asset Manager. Media relations are prohibited from entering the incident scene and must stay outside the perimeter. Below is the list of *Oxy Public Affairs* that the PIO must liaison with:

Preference	Name	Office	Home	Cell
Primary	Nancy Turner	713-215-7759	NA	832-798-4947
Secondary	Heather Margain	956-429-0606	NA	956-270-1280
Tertiary	Eric Moses	310.433.6377	310.458.3458	310.710.0743

Table 4: Oxy Public Affairs

XII. Critique of Response & Follow-up

Following all emergency response operations, a critique of the response efforts should be conducted to allow critical feedback that could improve the next potential emergency response management. This can be accomplished either verbally or in a structured, classroom setting outlining “what went right, what went wrong, and what can be improved on”. The critique should always be documented for legality reasons. It is important to remember that a critique should be constructive, which means a positive effort is being conducted. An incident critique is not a “blame game”.

Additionally, all forms from each functional ICS group should be reviewed, for assistance with the critique. Any corrective actions developed from the critique should be documented and followed with action plans/target dates to ensure consistency with emergency response efforts throughout all operational phases.

Appendix A: Field Fire Prevention Plan

Introduction

The *Fire Prevention Plan* is a guide to help you know what to do and who to contact during a fire breakout in the mesa/valley where Oxy has operations.

Having the available resources and knowing how to access them is crucial for someone who is involved in a fire incident and is injured or in critical condition. The information provided will help to increase an understanding of Oxy's policy and help in providing assistance to the general public and to Oxy should unexpected conditions arise which create a concern for public safety.

All Oxy employees, contractors, sub-contractors, or anyone on Oxy-owned property should have the *Emergency Response Plan (ERP) Manual* available if needed for a resource in case of an emergency situation. The *Fire Prevention Plan* is in addition in the ERP Manual and specifically lays out a plan of action for workers to follow when an unexpected fire does happen.

This section cannot cover all potential situations that may require emergency procedures. Check with the local Oxy representative for site specific procedures in effect for a particular work location.

Types of Fires

There are five general types of fires that have the possibility to occur on Oxy operations. They are lightning, smoking, flaring, hot work, and vehicle fires all which can result in a serious wild-land fire. Better understanding these types of hazards will only help you realize how to respond more efficiently if a wildfire occurs.

Lightning

Lightning is one of the most beautiful displays in nature. It is also one of the most deadly natural phenomena known to man. With bolts that are hotter than the sun, lightning can do some serious damage. One of the most common natural fires is caused by lightning. According to the Colorado Department of Local Affairs, "about half of all the wildfires in Colorado are lightning caused fires". Storms can move in very quickly on top of the mountain and lightning can become a severe hazard. In the United States alone, lightning sets 10,000 forest fires and causes \$100 million in property damage every year. Always stay inside during a lightning storm; never go outside. If you are caught outside during a lightning storm avoid trees, fences, poles, or anything metal.

Smoking

The second type of fire is smoking. The best way to prevent a fire from smoking is to smoke only in designated smoking areas or in your vehicle. Never throw a cigarette butt outside. This is one of the most common ways fires are started. Pay attention to posted "NO SMOKING" signs and never smoke near flammable liquids or gases.

Flaring

Another potential fire hazard is flaring. Flaring or venting is a controlled burning process of natural gas that cannot be processed for sale or use because of technical reasons. Oxy has long used flaring and venting to

safely dispose of gases that occur in the production and processing of natural gas. In emergency situations, flaring provides a safe way to stabilize equipment.

Hot Work

A fourth fire danger is hot work which includes welding, grinding, and cutting. Each one of these is extremely dangerous because of the high fire danger they present. Dry, hot temperatures provide the perfect environment for sparks to ignite and start a wild-land fire. Every contractor who intends to perform one of these operations for Oxy must have a permit to do so before they start their job. Each contractor must have an established person that is the “fire watch” while the hot work is being performed. This person stands ready with an approved fire extinguisher to put out any fires that may start. The fire watch is required to remain at the hot work area for a period of 30 minutes after the job is complete. This lessens the chance of a fire occurring.

Vehicle Hazards

Another fire concern is vehicles that are equipped with catalytic converters. Catalysts reduce emissions by accelerating the combustion of pollutants leaving the engine. In doing this job, they get hot. The outside metal temperatures of some types of converters may approach 800 to 1000 F under conditions of extremely high engine loading. In other words, catalytic converters on vehicles get extremely hot after a long drive up the mountain. So parking should be only in a designated parking area at the location. Never park a catalyst-equipped vehicle, or any vehicle, on a pile of dry grass/brush or other dry vegetation. Always park where you can easily access the nearest exit by driving forward. Survey the scene so you know your exits for means of a quick escape.

When a Fire Breaks Out:

If a potential wildfire breaks out on the mesa, the most important thing is accountability. First of all notify someone of the fire, whether it be your supervisor, coworker, etc. Second, call the **Mesa County Dispatch** immediately at **(970) 242-1234**; the sooner the fire department is dispatched, the quicker the response time will be. All fires on federal lands should require immediate notification to the applicable Oxy personnel. Then analyze the situation and determine what the potential hazards are.

Ask yourself these questions:

Are there any hazardous or toxic chemicals at risk?
Is the fire life threatening?
Is there damage to public property?
If possible and not a risk to life, isolate the fuel sources.

Next, determine if the fire can be extinguished, if so, alert someone else of your plans, locate the nearest fire extinguisher and proceed to put the fire out. Every employee of Oxy should be trained on how to properly extinguish a fire.

Note: Oxy recommends fighting a fire ONLY in the incipient stage. What is the incipient stage? A fire in its beginning stage. Incipient stage fires can be controlled with portable fire extinguishers.

There are (4) steps to extinguish a fire called the **PASS system**:

Pull - *Pull* the safety pin
Aim - Remove the hose and *aim* the nozzle toward the fire
Squeeze - Holding the handle, *squeeze* the trigger
Sweep – Extinguish the fire in a *sweeping* motion, from left to right



When to Leave

If the fire cannot be put out by the fire extinguisher in the *incipient stage*, it is time to evacuate the area immediately. Communication is key, inform everyone to evacuate the location and make sure everyone is accounted for. There should be designated meeting or muster points on location, where the entire crew/employees would meet in the event of an emergency. During the brief meeting, decide which route is the safest to use and evacuate as soon as possible.

Cascade Creek

There are (4) alternative routes of escape from Oxy Cascade Creek operations. The first three possible exits are drivable escape routes and the latter is a cow trail. The primary escape route is off the Oxy road leading to Conn Creek Road. The second is off Logan Wash Road if possible. The third alternative is to drive north on Trail Ridge Road, which is the road that lays directly north of the mesa well locations. If you stay on Trail Ridge Road it will eventually take you north to Rio Blanco County on County Road 5 and then to Colorado Highway 13. The other possible route would be to hike down the cow path that is connected to Oxy's valley operations. This allows (4) different evacuation routes where if one exit is blocked there is always an alternative. Please note the (3) secondary routes are ONLY for emergency access and are intended for the safe escape of *Oxy contractors/sub-contractors*.

Collbran

There are (3) alternative routes from the Oxy Collbran operations. All three are drivable escape routes on public highways. From the East Plateau area, one can take 60 Road, 59 ½ Road, and Grove Creek Road North to Highway 330 and then head eastbound to Highway 65 to I-70. A secondary escape route can be followed by heading South on 59 Road, to AA 50 Drive, to Lakeshore Drive, to Highway 65 southbound to Delta, then to the City of Cedaredge, to the City of Delta at Highway 92.

The Brush Creek area primary escape route is Highway 330 eastbound to the City of Collbran and then eastbound to Highway 65, to I-70. A secondary route can be followed westbound on Highway 330 to Northeast County Road 342, to North Divide Creek Road to the City of Silt and then I-70.

The Hell's Gulch area primary escape route is south on Canyon Road 342, to Highway 330 eastbound to the City of Collbran, and then eastbound to Highway 65, to I-70. A secondary route can be followed westbound on Highway 330 to Northeast County Road 342, to North Divide Creek Road to the City of Silt and then I-70.

Where To Go

Once you have evacuated the area, the primary muster point for each individual on the Cascade Creek lease would be the Oxy field offices. (Secondary is the cattle pens at Conn Creek Rd GC 213 & GC Rd 204.) Everyone should meet there and be accounted for by the supervisor in charge. If your path of escape is Trail Ridge Road, continue until you reach Piceance Creek, Rio Blanco county roads. Travel east on Rio Blanco County Road 5 to Colorado Highway 13 and then south on Highway 13 to Rifle, CO and Interstate 70.

Once you are in the safe zone contact your supervisor immediately for accountability. Drive careful and when emergency vehicles are met on the road, pull over and always give them the right away. **Report all fires, regardless of the size to an Oxy representative as soon as possible.**

If a situation occurs where all exits are blocked, find a location with a bare, dirt pad and wait out the fire. Park your vehicle the farthest point away from all production units and methanol/condensate tanks and turn the engine off. Stay in your vehicle with the windows rolled up and the air conditioner/heater off, with all vents closed. This will keep smoke from entering the vehicle.

Who/What is in Danger?

There are several major operations that are in the danger zone if a fire breaks out. Drilling rigs, multiple production sites, various contractors on location, hunter/rancher cabins, and particularly temporary housing units are a major concern for Oxy. Also, other oil/gas companies in the area travel daily on Logan Wash Road and could also be affected.

Temporary Housing Units

One of the most susceptible places for a wild-land fire to catch employees off-guard is the temporary housing units. Remote locations provide an opportunity for a fire to easily arrive and trap employees with no access/egress to escape. The temporary housing units are being assessed per Colorado state and county regulations to ensure the health and safety of each employee.

Fire Dangers/Hazards

The following is a list of things that should be considered for fire prevention:

- Temporary housing units must be a minimum of 75 feet from the well-head and condensate/methanol tanks.
- Smoking is allowed only in designated smoking areas. Smoking is **NOT ALLOWED** inside any temporary housing units owned or leased by Oxy on Oxy property. Matches and all smoking equipment may not be carried into "No Smoking" areas. Butt disposal containers should be placed in the designated smoking areas.
- Absolutely no drugs, alcohol, or firearms. Methamphetamine laboratories are **EXTREMELY DANGEROUS** and will not be tolerated on Oxy property.
- All exits must be maintained free and clear of any obstructions. Exits must have free clearance of 10 feet. EXIT signs must be posted at each exit in the facility. Center to center between trailers must be maintained at a minimum of 20 feet. Exit stairs must be sturdy and level.
- Areas around all temporary housing units shall be kept free of clutter.
- All combustible waste materials must be disposed of daily. Bear-proof trash containers must be provided on the location.
- No gas heaters are allowed on location. Only electric heaters or unit heaters are acceptable means of heating.
- Absolutely no open-flame fires or charcoal grilling is allowed. Only gas cooking grills are allowable per Oxy approval, but must be 50 feet away from the well-head.
- Vegetation must be cleared within a 10 foot distance around the facility.

- Fully charged and mounted fire extinguishers shall be available and accessible to all residents. They must be monthly and annually inspected and be located 75 feet (maximum) from any point in the facility. Access should be unobstructed and personnel trained to use the extinguisher. Extinguishers must be clearly marked.
- Only non-flammable cleaning materials are allowed.
- Flammable liquids shall not be stored within 50 feet of the well-head, unless otherwise approved.
- All small gas/diesel containers must be stored at least 50 feet away from the temporary facility and the container must be an OSHA/NFPA approved safety can.
- All electrical wiring and appliances shall be UL rated and shall meet all applicable federal, state and local building codes, OSHA standards and NFPA regulations. All units must be grounded.
- Smoke alarms are required by NFPA Life Safety Code and will be inspected on a monthly basis.
- Each site shall have a pre-determined muster point and all occupants of the temporary housing site shall be briefed on emergency action plans.

How To Prepare for a Fire?

Evacuation Drills/Training

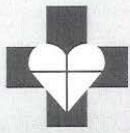
Every drilling rig crew, temporary housing occupants, and contractor that is staying on the mesa for a set time frame is required to have routine evacuation drills and training. Supervisors should provide information concerning the (4) evacuation routes, existing fire hazards, and important safety concerns on a weekly basis. Employees need to know the Fire Prevention Plan, so when the unexpected does happen, they will be ready.

The *Emergency Response Plan (ERP) Manual* and Fire Prevention Plan is available upon request to each critical contractor/employee before employment, with the expectation that the critical contractors/employees will brief individuals and visitors they oversee. The fire hazards will be discussed and any questions or concerns should be brought to attention immediately. It is important to know the potential hazards that exist during a job and the resources that your safety depends on.

Fire Prevention Checklist

To ensure that you know this fire plan, ask yourself these questions:

- ✓ What fire hazards exist around me?
- ✓ What are the (4) evacuation routes that are available?
- ✓ What is the best exit for a means of escape?
- ✓ Who do I call in case of a fire?
- ✓ Where do I access emergency contact information?
- ✓ Is the fire life threatening?
- ✓ Where is the closest fire extinguisher?
- ✓ Where is the muster points in case of an emergency?
- ✓ What is the weather like, windy, thunderstorms, etc.?



St. Mary's
CareFlight

2635 N. 7th Street • P.O. Box 1628 • Grand Junction, CO 81502-1628



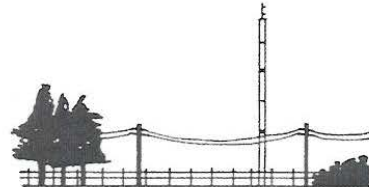
HOW TO PREPARE A LANDING ZONE 1-800-332-4923

Selecting an On-Scene LZ (Landing Zone)

First, determine if the area is large enough to land the CareFlight helicopter safely. The landing surface should be flat, firm, and free of debris that would blow up into the rotor system or be a hazard to persons at the scene.

Touchdown Area: The touchdown area should be square with a minimum of 100 feet on each side.

The landing site should be clear of people, vehicles, and obstructions such as trees, poles, and wires. **Keep in mind that wires cannot be seen from the air at night.** The landing site must be free of stumps, brush, posts, and large rocks.



Select a landing site clear of trees, poles and wires.

Wind Direction & Touchdown Area

Consider the wind direction. Helicopters land and take off into the wind. Inform the pilot of the direction from which the wind is blowing. *i.e. "Wind from the north."*

Is the approach and departure path free of obstructions (wires, poles, antennas, trees, etc.)? If there are obstructions, please tell the CareFlight team during the initial radio call.



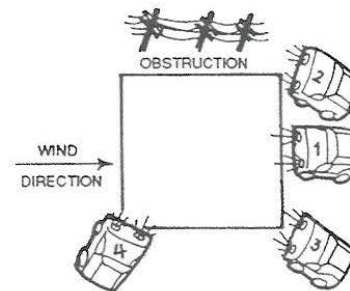
Keep approach/departure path free of obstructions.

Illumination of the LZ at Night

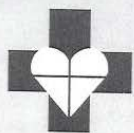
Mark the touchdown area with five lights/road flares (one in each corner and one indicating wind direction).

When using automobile(s), place the vehicle(s) in position based upon the number of vehicles available. For instance, if only one vehicle is available, place it in vehicle #1 position (pointing into the wind). If two vehicles are available, place them in vehicle #1 and #2 positions, etc. Use any additional vehicles (if more than 3 available) to illuminate flight and landing surface obstacles.

At night, assure that spotlights, floodlights, vehicle lights, and handlights used to define the LZ and obstacles are not pointed toward the helicopter. Turn off non-essential lights. White lights, such as spotlights, flash bulbs, and headlights ruin the pilot's night vision and temporarily blind him. Red lights or blue lights, however, are very helpful in finding accident locations and do not have a detrimental effect on the pilot's night vision.



When using automobiles to illuminate the nighttime landing zone, place in the positions as shown above.



St. Mary's CareFlight



HOW TO PREPARE A LANDING ZONE (cont.)

Personnel Safety

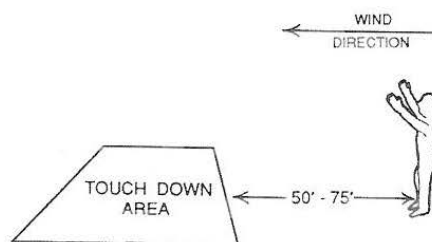
Keep spectators at least 200 feet from the touchdown area. Keep emergency service personnel at least 100 feet away, if possible. Encourage everyone working near the helicopter to wear eye protection.

Remove hats or helmets or fasten chin straps (no loose hats blowing up through the rotors)!

Rules of Thumb for Safe Distances:

- 100 feet from helicopter to waiting ambulance
- 200 feet from helicopter to crowds & pedestrians
- 300 feet from the helicopter to stopped traffic
- 200-400 feet from accident victims to traffic

Ground Guide: When CareFlight arrives at the scene, **only one** person should give LZ, wind, and obstacle instructions. That person should wear eye protection and they should stand with their **back to the wind** and arms raised over head to indicate the direction of the wind, which will usually be the opposite of the landing direction. As the helicopter turns into the wind, and begins the final descent, the ground guide should leave to a safer area.



Ground guide should stand with their back to the wind, and with arms raised over their head to indicate direction of the wind.

Communications

One person, the LZ coordinator, will be responsible for all communication with the pilot. The LZ coordinator should monitor the radio at all times when the helicopter is running. It is CareFlight's policy to monitor the LZ frequency for at least two minutes after departure.

Every attempt will be made to contact the LZ coordinator on the frequency specified in the dispatch call. In the event that communication cannot be established on that frequency, the helicopter will monitor NLEC (National Law Enforcement Channel).

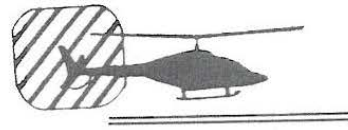
Please immediately report to the pilot any observed hazards and wait for his acknowledgement.

Safety Summary

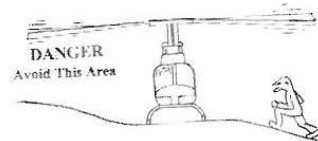
The St. Mary's CareFlight team can serve YOU only if we arrive safely. Our safety and the safety of the people on the ground depends on your professionals and CareFlight working together as a team.

General Helicopter Safety Rules

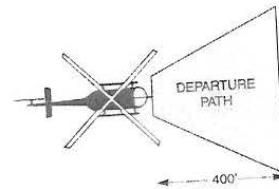
- The pilot will perform as many high reconnaissance orbits as they feel necessary to insure a safe landing.
- When working around any helicopter, never approach from the rear. Always approach and depart the aircraft towards the front so you can see the pilot and so he can see you.
- The LZ coordinator will designate as many persons as necessary for crowd control.
- If the helicopter is landed on a slope, approach and depart from the down-slope side, unless that is the rear of the helicopter. In that circumstance, approach from the left or right from the most level ground and **in plain sight of the pilot**.
- When the helicopter is loaded and ready for take-off, **keep the departure path free of vehicles and spectators or rescue personnel**. If an emergency were to occur during take-off, we would need this area to execute our landing.



Approach and depart helicopter from the front, so the pilot can see you.



Approach and depart helicopter from the down-slope side.



Keep departure path free of vehicles, spectators and rescue personnel.

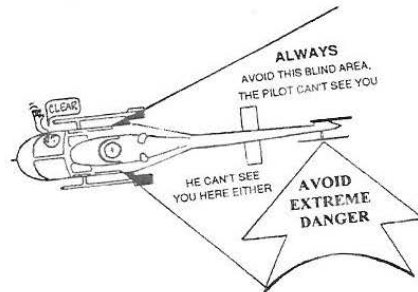
Assisting the CareFlight team

Once CareFlight has landed, only briefed emergency personnel should approach the helicopter. Be sure to receive a "go-ahead" sign from the pilot before stepping under the rotor tip path and then approach from the front of the helicopter.

A landing zone coordinator should be prepared to assist the crew by providing security for the helicopter. The tail rotor is the most dangerous area. If asked to provide security, do not allow anyone but the crew to approach the helicopter.

Note: The Bell 412 loads from the left or right side, feet first.

Designate two or three personnel to assist the CareFlight team in loading the patient. When approaching or departing the helicopter, always be aware of the tail rotor and always follow the CareFlight team's directions or the pilot's directions for your own safety.



Be sure to receive a "go-ahead" sign from the pilot before approaching the helicopter. Always be aware of the tail rotor, the most dangerous area.

Hazardous Chemicals/Gases

Accidents involving hazardous materials require special handling by Fire/Rescue units on the ground. The preparations for helicopters responding to these accidents also require special considerations.

Helicopter medical crews normally do not carry protective suits or breathing apparatuses to protect them from hazardous materials. Upon initial radio contact, the CareFlight team must be made aware of any hazardous materials or gases in the area. If the aircraft were to fly through the hazardous gases, the crew could be poisoned and the engines could develop mechanical problems, or cause an explosion or fire. Never assume that the crew has already been informed of the Hazmat situation.

Hazardous materials of concern are toxic, poisonous, flammable, explosive, irritating, or radioactive in nature. Patients exposed to hazardous materials will require decontamination prior to air transport to avoid contamination of the crew and aircraft.

Some radioactive materials are more dangerous than others, depending upon the type and amounts of those materials. In general, radioactive materials are difficult to ignite, but will burn, and the smoke is toxic.

The CareFlight team should be advised if victims may be contaminated by radioactivity.



CareFlight must be notified of hazardous materials on the scene in order to avoid contamination of the flight team and aircraft.

Hazardous Materials LZ Preparation and Considerations

Helicopter landing zones must be selected to avoid possibility of compromising the safety of the CareFlight team and adjacent people and property.

When explosives, poisonous gases/vapors, or chemicals in danger of exploding and burning are on site, **helicopter landing zones must be prepared upwind**, a safe distance (may be as much as one mile) from the hazardous material accident site, and never in low-lying areas. The toxic gases or vapors may be heavier than air and gather in these low-lying areas.

For hazardous material accidents involving radioactive materials, the **CareFlight LZ must be prepared upwind, a safe distance (may be 1/4 mile) from accident**, unless there are radioactive gases (steam or smoke), and in this case, the LZ must be at least one mile upwind of the accident site.

APPENDIX C: Designated Landing Zones/Muster Points

CASCADE CREEK LANDING ZONES	COLLBRAN LANDING ZONES
LANDING ZONE #1 (Mesa 609-14)	Plateau Creek (North of East Plateau Field Office)
LATITUDE 39.531120	Landing Zone
LONGITUDE -108.232089	LATITUDE 39.204450
	LONGITUDE -107.911156
LANDING ZONE #2 (Top of Mountain Road)	Plateau Creek (East Plateau Field Office)
LATITUDE 39.500164	Primary Muster Point
LONGITUDE -108.225004	LATITUDE 39.202764
	LONGITUDE -107.910612
LANDING ZONE #3 (VALLEY Chain-up Area)	Brush Creek (Brush Creek Field Office)
LATITUDE	Landing Zone
LONGITUDE	LATITUDE 39.272010
	LONGITUDE -107.872564
PRIMARY MUSTER POINT (CC Field Office)	Brush Creek (Brush Creek Field Office)
LATITUDE 39.468563	Primary Muster Point
LONGITUDE -108.245451	LATITUDE 39.272010
	LONGITUDE -107.872564
SECONDARY MUSTER POINT (Corral at intersection of GC Rd 213 & GC Rd 204)	Hell's Gulch - Alkali Creek (East of Compressor Station)
LATITUDE 39.424501	Landing Zone
LONGITUDE -108.273873	LATITUDE 39.357574
	LONGITUDE -107.645825
	Hell's Gulch - Alkali Creek (East of Compressor Station)
	Primary Muster Point
	LATITUDE 39.357574
	LONGITUDE -107.645825



OXY USA WTP LP

760 Horizon Drive, Suite 101
Grand Junction, CO 81506

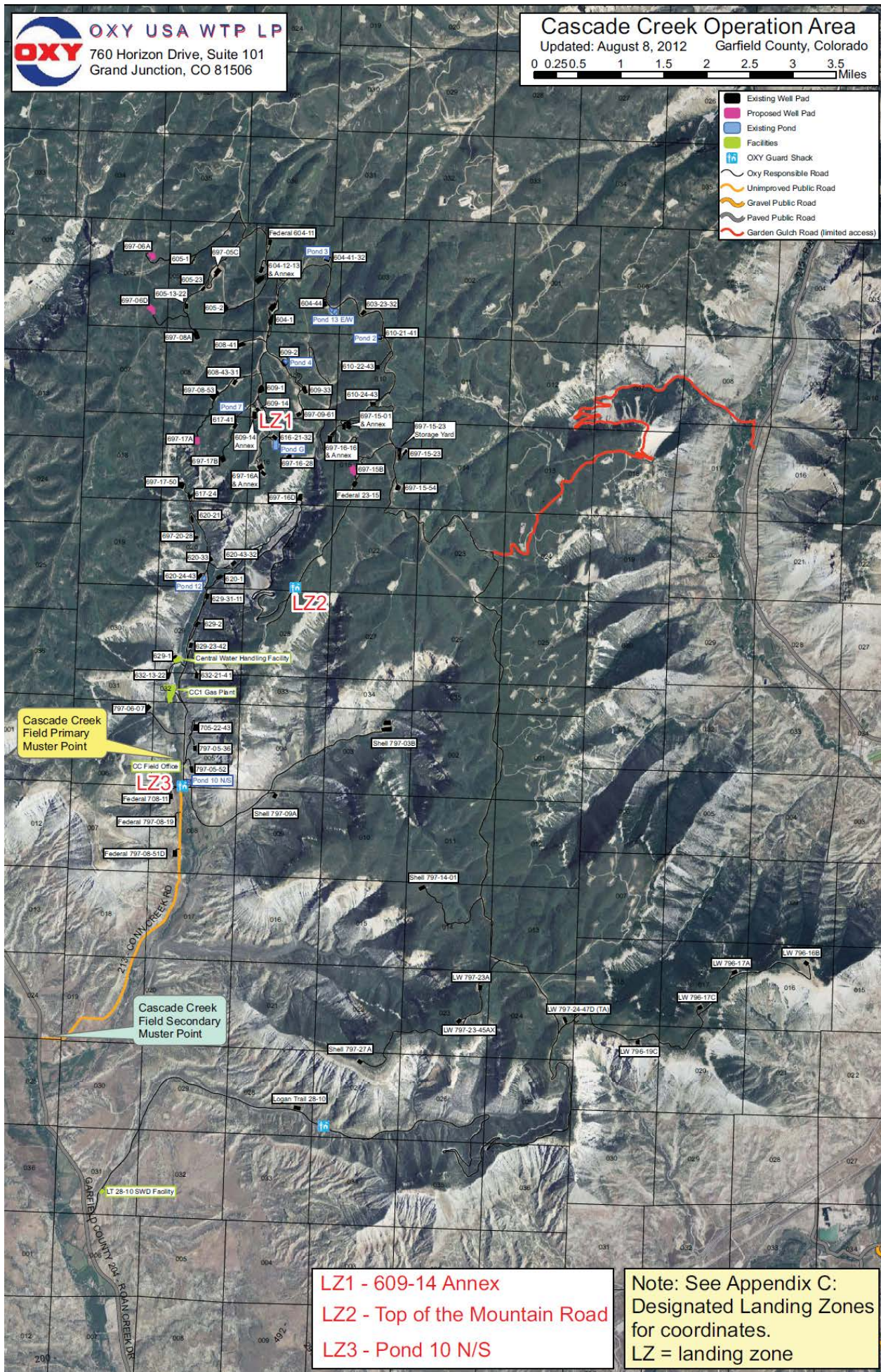
Cascade Creek Operation Area

Updated: August 8, 2012

Garfield County, Colorado

0 0.25 0.5 1 1.5 2 2.5 3 3.5 Miles

- Existing Well Pad
- Proposed Well Pad
- Existing Pond
- Facilities
- OXY Guard Shack
- Oxy Responsible Road
- Unimproved Public Road
- Gravel Public Road
- Paved Public Road
- Garden Gulch Road (limited access)



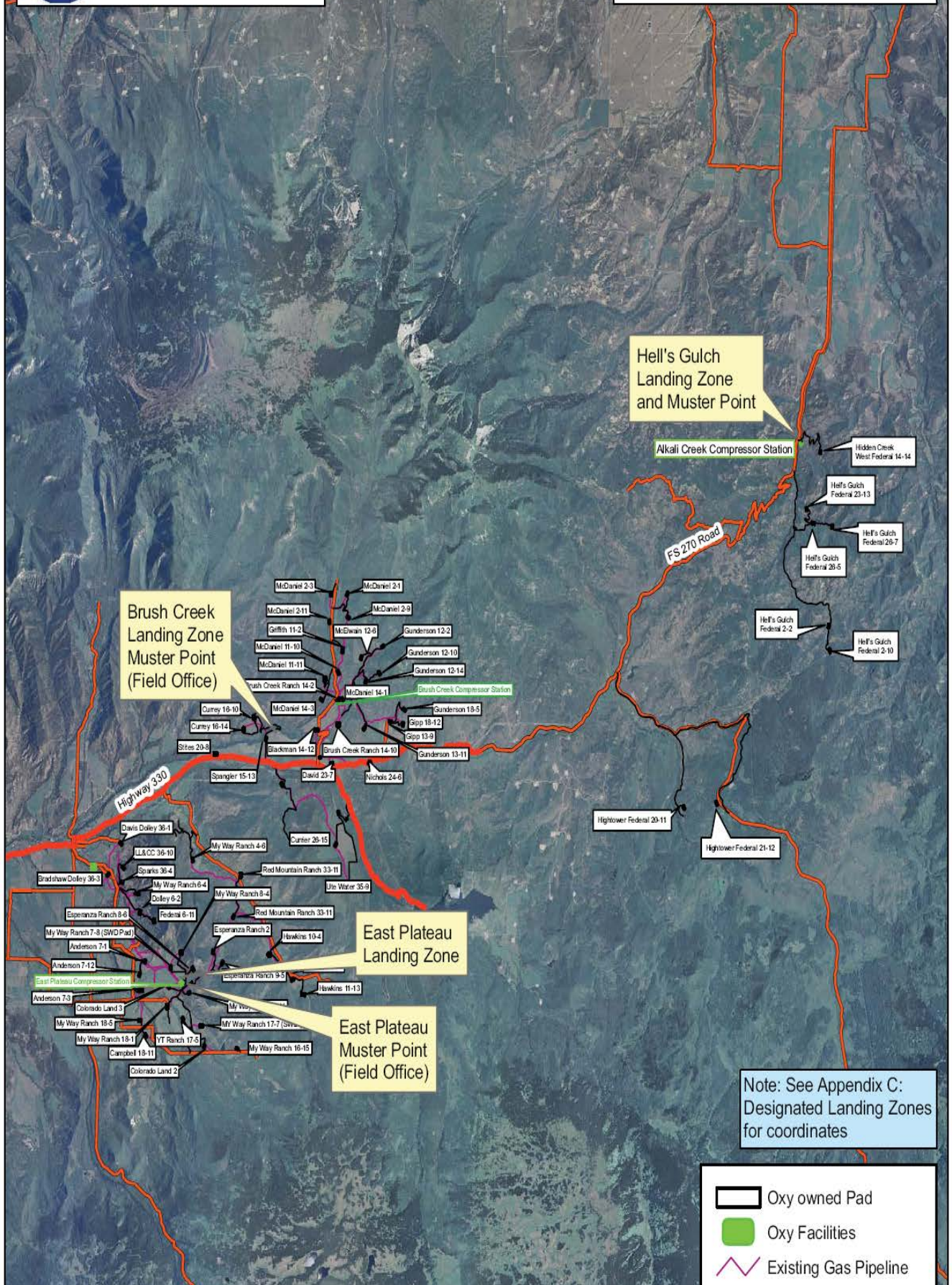
LZ1 - 609-14 Annex
LZ2 - Top of the Mountain Road
LZ3 - Pond 10 N/S

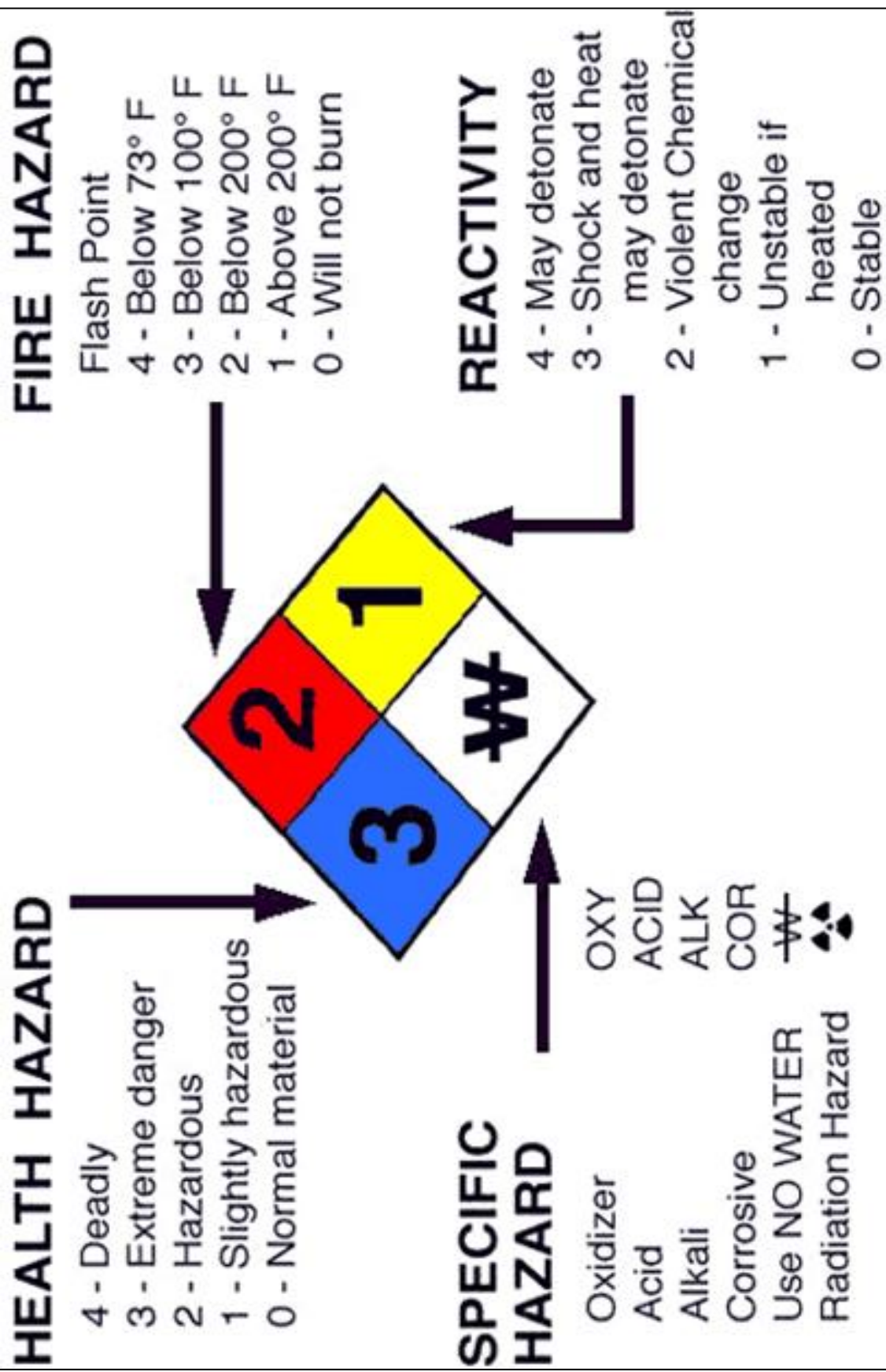
Note: See Appendix C:
Designated Landing Zones
for coordinates.
LZ = landing zone

Collbran Operations Map

Updated: July 14, 2011 Mesa County, Colorado

0 0.9 1.8 2.7 3.6 4.5 Miles





Water Supply and Management Plan

Section 4-203 M. Water Supply and Management Plan

The Water Management Plan, Section 4-203(M) of the Garfield County Land Use and Development Code is not applicable to the proposed sites. The proposed facilities will not require water for personnel or water to be supplied to the site for daily operations. During operations, personnel will not be required to be manned at the sites. Drinking water will be provided in the form of bottled water. Due to the minimal presence of personnel onsite, water use will not be required onsite. The proposed storage sites will primarily be accessed during loading/unloading activities. The proposed sites will not require a well or irrigation water.

Wastewater Management and System Plan

Section 4-203 N. Wastewater Management and System Plan

The Wastewater Management and System Plan, Section 4-203(N) of the Garfield County Land Use and Development Code is not applicable to the proposed site. The subject use is not served by an existing public collection system or treatment facility nor is an on-site wastewater treatment systems proposed. During operations, personnel will not be required to be manned at the site. Personnel will access the site during loading and unloading activities. Due to the minimal presence of personnel onsite, a wastewater use will not be required onsite. Portable toilets are located in various locations on the subject parcel within OXY's property.