

# ***Oil Spill Contingency Plan***

## ***40 CFR Part 109***

***Prepared for:***

***WPX Energy Rocky Mountain, LLC  
1058 County Road 215  
Parachute, Colorado 81635***



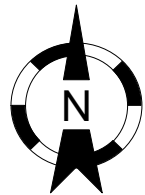
***Date: March 2012***

***Prepared By:***

***Fox Engineering Solutions, Inc.***

***670 Canyon Creek Drive,  
Grand Junction, CO 81507  
Ph: (970) 250-5505 / Fax: (626) 784-0667  
Email: coloradofox@bresnan.net***





**Well Pad Valve Legend**

OS= oil tank sales valve  
OF= oil tank fill valve  
WF= water tank fill valve  
WL= water tank truck load out valve  
D= oil tank drain valve  
WD= water tank drain valve  
X= oil tank overflow isolation valve  
Y= oil tank maintenance valve  
Z= oil tank vapor isolation valve

**Production Phase**

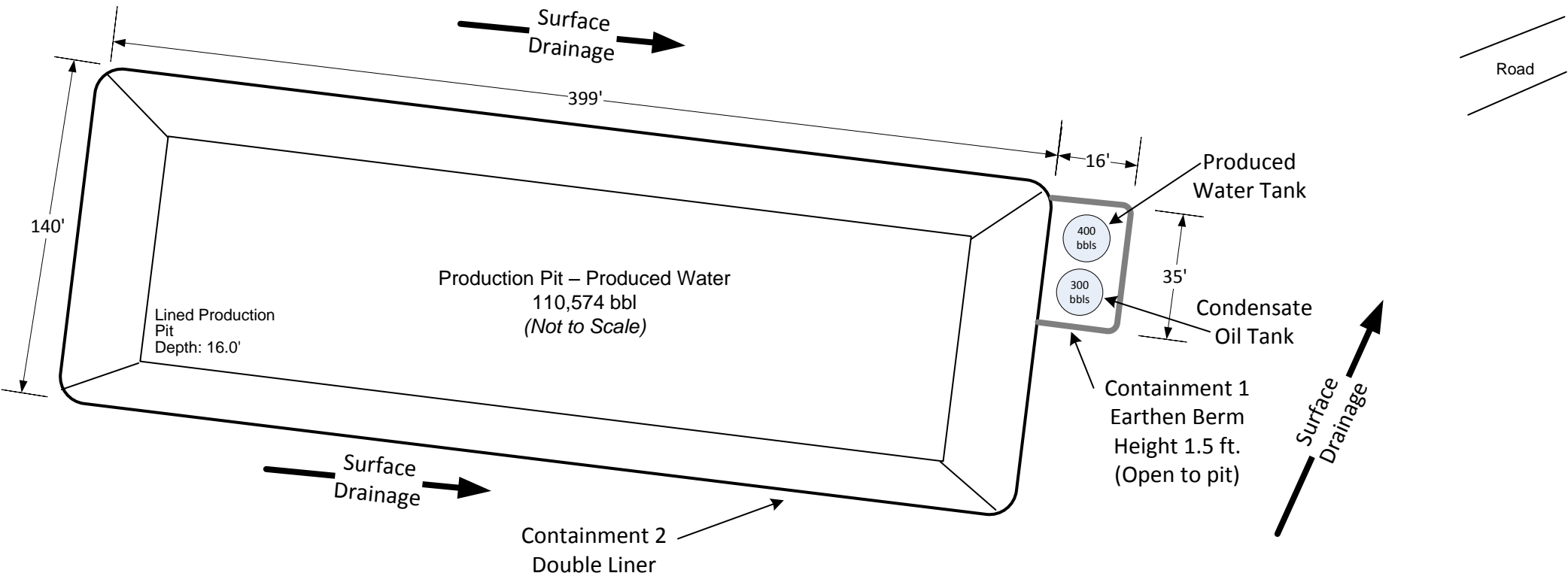
OS- closed and sealed  
OF- open and sealed  
WF- open and not sealed  
WL- closed and not sealed  
D- closed and sealed  
WD- closed and not sealed  
X- open and sealed  
Y- closed and sealed  
Z- open and not sealed

**Sales Phase**

OS- open and not sealed  
OF- closed and sealed  
WF- open and not sealed  
WL- closed and not sealed  
D- closed and sealed  
WD- closed and not sealed  
X- closed and sealed  
Y- closed and sealed  
Z- open and not sealed

**Drain Phase**

OS- closed and sealed  
OF- open and sealed  
WF- open and not sealed  
WL- closed and not sealed  
D- open and not sealed  
WD- opened and not sealed  
X- open and sealed  
Y- closed and sealed  
Z- open and not sealed



Note: This unit is subject to the site security plan for the Piceance Basin. Plan is located at:  
WPX Energy Rocky Mountain, LLC  
1058 County Road 215  
Parachute, CO 81635

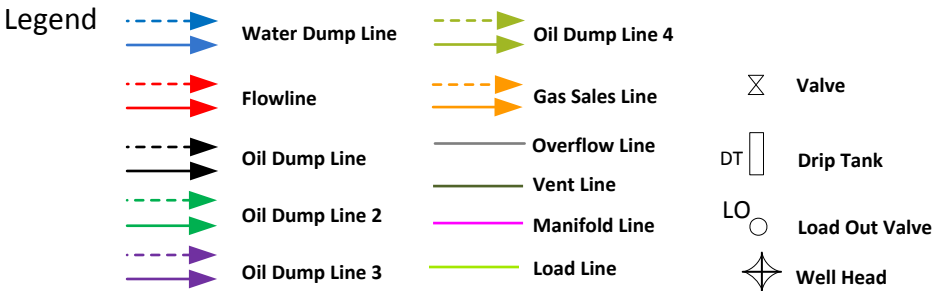
Note: Some measurements on drawing are estimates and not field verified.

Facility ID	1948
DRAWN BY:	DJF
DATE:	12/7/2014
SCALE:	1:360

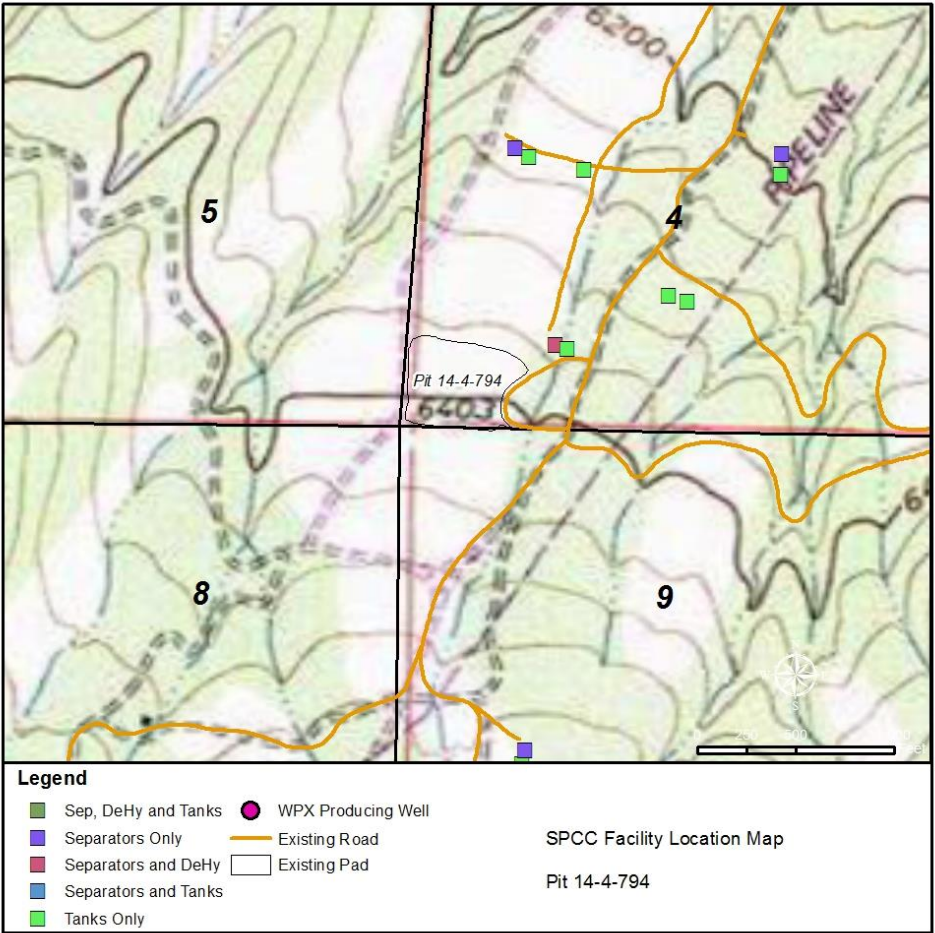
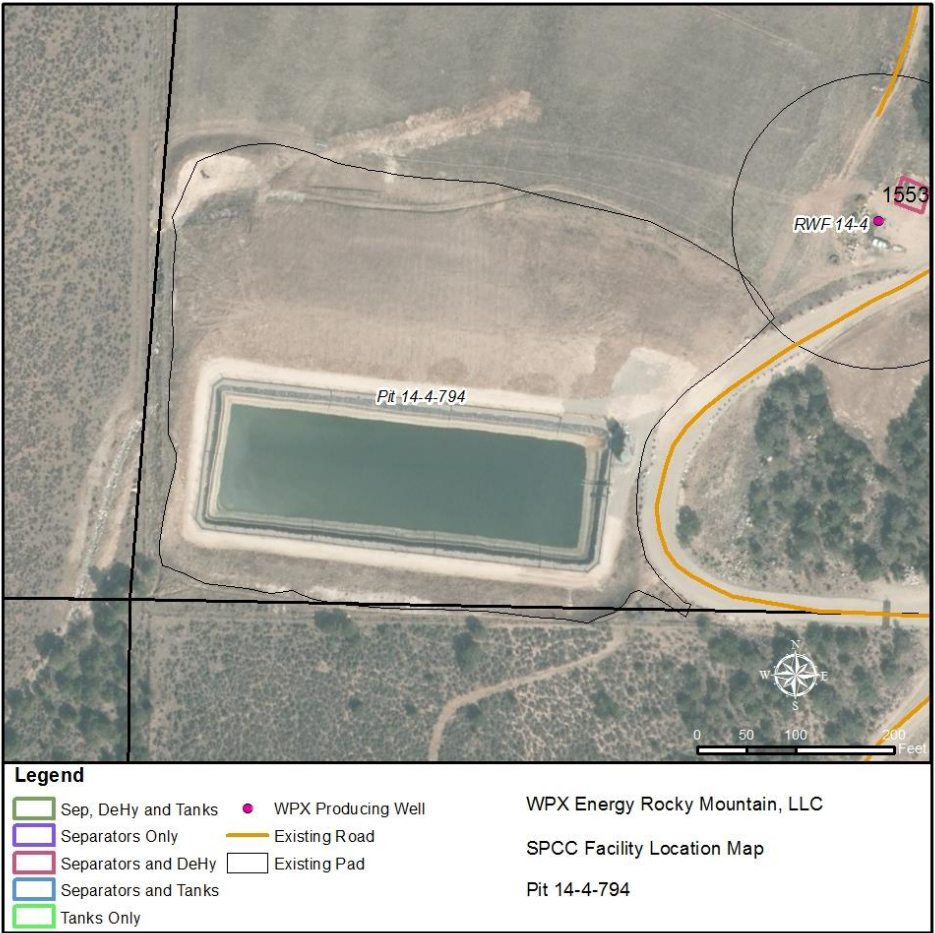
**Facility Diagram**

WPX Energy – South Rulison  
Pit 14-4-794

Latitude: 39.4603 Longitude: -107.9011  
SW¼SW ¼ Sec 4 Township 7S Range 94W  
COC# 427583 EU Number:  
Garfield County, CO



Dotted lines denote underground pipes. All lines denote 2" steel pipe, unless otherwise noted. Valves on separator not shown.



**SPCC Facility Specific Details**

<b>Field:</b>	South Rulison		<b>NDIC #:</b>		<b>PCA#:</b>																								
<b>Facility ID #:</b>	15976		<b>Location Name:</b>		Pit 14-4-794																								
<b>Facility Description:</b> On-shore production related facility natural gas well pad with associated oil and produced water assets.																													
<b>First Production Date:</b> <input type="text"/>																													
<b>Facility Location:</b>	<b>State:</b>	CO	<b>Qtr:</b>	SWSW	<b>Section:</b>	4																							
	<b>County:</b>	Garfield	<b>Township:</b>	7S	<b>Range:</b>	94W																							
	<b>Latitude:</b>	39.460272	degrees		<b>Longitude:</b>	-107.90113		degrees																					
<b>Potential Oil Volume Capacity:</b>	11274	barrels	473508	gallons																									
<b>Substantial Harm Determination:</b>	This Facility does not meet the substantial harm criteria specified in 40 CFR Part 112.20.																												
<b>Well Pad Assets:</b> <table border="1"> <thead> <tr> <th><u>Quantity</u></th> <th><u>Item</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>Well Heads</td></tr> <tr><td>0</td><td>Separators</td></tr> <tr><td>1</td><td>Produced Water Tanks</td></tr> <tr><td>1</td><td>Condensate / Oil Tanks</td></tr> <tr><td>1</td><td>Production Pits</td></tr> <tr><td>0</td><td>Flares</td></tr> <tr><td>0</td><td>Meters</td></tr> <tr><td>0</td><td>LACT Units</td></tr> <tr><td>0</td><td>Drip Pots</td></tr> <tr><td>0</td><td>Loadouts</td></tr> </tbody> </table>								<u>Quantity</u>	<u>Item</u>	0	Well Heads	0	Separators	1	Produced Water Tanks	1	Condensate / Oil Tanks	1	Production Pits	0	Flares	0	Meters	0	LACT Units	0	Drip Pots	0	Loadouts
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<b>Mobile Equipment &amp; Containers, if Present:</b> <table border="1"> <tr><td>Drill rigs</td></tr> <tr><td>Bulk Fuel Tanks for Oil</td></tr> <tr><td>Hydraulic Fracturing Tanks containing Produced Water</td></tr> <tr><td>Qualified Oil-filled Equipment</td></tr> </table>								Drill rigs	Bulk Fuel Tanks for Oil	Hydraulic Fracturing Tanks containing Produced Water	Qualified Oil-filled Equipment																		
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<b>Other Possible Non-SPCC Related Assets:</b> <table border="1"> <tr><td>Methanol Tanks, Piping and Pumps</td></tr> <tr><td>Biocide Tanks, Piping and Pumps</td></tr> <tr><td>Corrosion Inhibitor Tanks, Piping and Pumps</td></tr> </table>								Methanol Tanks, Piping and Pumps	Biocide Tanks, Piping and Pumps	Corrosion Inhibitor Tanks, Piping and Pumps																			
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<b>Distance to Nearest Surface Water:</b>	1500	Feet																											
<b>Direction to Nearest Surface Water:</b>	90	Azimuth Angle in Degrees																											
<b>Description of Area Topography</b>	Alluvial fan with downward gradient of 8 - 10% to the north																												
<b>Description of Off-Site Drainage</b>	Azimuth 45 <sup>0</sup>																												

<b>Facility ID:</b> 15976 <b>Field:</b> South Rulison <b>NDIC #:</b>	<b>Facility Name:</b>  <b>PCA #:</b>	<b>Pit 14-4-794</b>
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[illegible]

700

**Conversions:**

One barrel = 42 gallons = 5.6 ft.<sup>3</sup>

Facility ID: 15976  
Field: South Rulison

Facility Name: Pit 14-4-794  
NDIC #:

PCA #:

**Secondary Containment Calculations**

Secondary Containment Area ID	Containment Type	Irregular Containment?	Bottom Length ft.	Bottom Width ft.	Top Length (for earthen) ft.	Top Width (for earthen) ft.	Berm Height ft.	Radius (for oval) ft.	Diameter (for round) ft.	Circum. (for round) ft.	Total Gross Secondary Containment Volume <sup>(1)</sup> ft. <sup>3</sup>
1	Earthen Berm	Yes	30	13	35	16	1.5				90755.0
2	Pit double-liner	Yes									530115.0

**Secondary Containment Displacement From Other Tanks and Precipitation**

Secondary Containment Area ID	Total Number of Tanks	Tank Contents	Number of Equalized Tanks	Tank Volume Displacement ft. <sup>3</sup>	Other Equip. Volume Displacement ft. <sup>3</sup>	Precipitation Volume Displacement <sup>(2)</sup> ft. <sup>3</sup>	Total Volume Displacement ft. <sup>3</sup>	Net Secondary Containment Volume bbls	Net Secondary Containment Volume ft. <sup>3</sup>	<b><u>Required Volumes</u></b>	
1						16267.0		13266.0	74488.0	400.0	
2						16267.0		91513.0	513848.0	91513.0	

<sup>(1)</sup>**Secondary Containment Notes:**

Secondary Containment volume calculations for earthen berms:  $V = (\text{Bottom Length} \times \text{Bottom Width} \times \text{Height}) + (\text{Top Width} - \text{Bottom Width})/2 \times \text{Height} \times 0.5 \times 2 \times (\text{Bottom Length} + \text{Top Width})$

Secondary Containment volume calculations for rectangular metal berms:  $V = \text{Length} \times \text{Width} \times \text{Height}$

Secondary Containment volume calculations for circular metal berms:  $V = (\text{Diameter}/2)^2 \times 3.1415 \times \text{Height}$  or  $V = (\text{Circumference}/2 \times 3.1415)^2 \times 3.1415 \times \text{Height}$

Secondary Containment volume calculations for oval metal berms where  $\text{Width} = 2 \times \text{Radius}$ :  $V = ((\text{Length} \times \text{Width}) + (\text{Radius}^2 \times 3.1415)) \times \text{Height}$

Secondary Containment volume calculations for oval metal berms where  $\text{Width} > 2 \times \text{Radius}$ :  $V = ((\text{Length} \times \text{Width}) + (\text{Radius} \times \text{Width})) \times \text{Height}$

Production Pit has integral secondary containment with secondary liner. Tank earthen berm is open on one side to production pit.

Production Pit operating pool plus 3" of precipitation allocated to the pit equaling 94411 bbls. Tank secondary containment assigned the volume of the total pit capacity 110574 bbls - 94411 bbls or 16163 bbls.

<sup>(2)</sup>**Precipitation Notes:**

Using NOAA Atlas II 25-yr 24-hr event (inches) (Williston Basin value includes 3.7" snowfall estimate)=

3

Precipitation volume calculations for earthen berms:  $PV = \text{Top Width} \times (\text{Top Width} - \text{Bottom Width} + \text{Bottom Length}) \times 2.1/12$

Precipitation volume calculations for rectangular metal berms:  $PV = \text{Length} \times \text{Width} \times 2.1/12$

Precipitation volume calculations for circular metal berms:  $PV = (\text{Diameter}/2)^2 \times 3.1415 \times 2.1/12$  or  $V = (\text{Circumference}/2 \times 3.1415)^2 \times 3.1415 \times 2.1/12$

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Precipitation volume calculations for oval metal berms where  $\text{Width} > 2 \times \text{Radius}$ :  $PV = ((\text{Length} \times \text{Width}) + (\text{Radius} \times \text{Width})) \times 2.1/12$

<sup>(3)</sup>**Other Displacement Areas:**

Pump House = 300.0 ft.<sup>3</sup>  
Meter House = 0.0 ft.<sup>3</sup>  
Separator Building = 2813.0 ft.<sup>3</sup>  
LACT Unit 480.0 ft.<sup>3</sup>

<sup>(4)</sup>**Largest Likely Discharge (for flowlines):** Based on maximum expected average daily oil and produced water through-put taken from WPX Energy 30-day Production Reports

**Conversions:** One barrel = 42 gallons = 5.615 ft.<sup>3</sup>

Withdrawal Station Diagram

