FORM 4
Rev 12/05

01630642

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109

DE	ET	OE	ES

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry Information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 66571
2. Name of Operator: OXY USA WTP LP
3. Address: P.O. Box 27757
City: Houston State: TX Zip: 77227-7757
4. Contact Name: Daniel Padilla
Phone: (970) 263-3637
Fax: 970-263-3694

Complete the Attachment Checklist

	OP	OGCC
Survey Plat		
Directional Survey		
Surface Eqpmt Diagram		
Technical Info Page	X	
Other	X	

5. API Number 05- 045-16228
OGCC Facility ID Number 335889
6. Well/Facility Name: Cascade Creek
7. Well/Facility Number 697-16-02A
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE, Sec 9, T6S,R97W, 6th PM
9. County: Garfield County
10. Field Name: Grand Valley
11. Federal, Indian or State Lease Number:

General Notice

☐ CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

	FNL/FSL		FEL/FWL	
Change of **Surface** Footage **from** Exterior Section Lines:				
Change of **Surface** Footage **to** Exterior Section Lines:				
Change of **Bottomhole** Footage **from** Exterior Section Lines:				
Change of **Bottomhole** Footage **to** Exterior Section Lines:				attach directional survey

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer

Latitude | Distance to nearest property line | Distance to nearest bldg, public rd, utility or RR

Longitude | Distance to nearest lease line | Is location in a High Density Area (rule 603b)? Yes/No

Ground Elevation | Distance to nearest well same formation | Surface owner consultation date:

GPS DATA:
Date of Measurement PDOP Reading Instrument Operator's Name

☐ CHANGE SPACING UNIT

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

☐ Remove from surface bond
Signed surface use agreement attached

☐ CHANGE OF OPERATOR (prior to drilling):
Effective Date:
Plugging Bond: ☐ Blanket ☐ Individual

☐ CHANGE WELL NAME NUMBER
From:
To:
Effective Date:

☐ ABANDONED LOCATION:
Was location ever built? ☐ Yes ☐ No
Is site ready for Inspection? ☐ Yes ☐ No
Date Ready for Inspection:

☐ NOTICE OF CONTINUED SHUT IN STATUS
Date well shut in or temporarily abandoned:
Has Production Equipment been removed from site? ☐ Yes ☐ No
MIT required if shut in longer than two years. Date of last MIT

☐ SPUD DATE:

☐ REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)

☐ SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK *submit cbl and cement job summaries

Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date

☐ RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.
Final reclamation will commence on approximately
☐ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

☐ Notice of Intent
Approximate Start Date:

☐ Report of Work Done
Date Work Completed:

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

☐ Intent to Recomplete (submit form 2)	☐ Request to Vent or Flare	☐ E&P Waste Disposal
☐ Change Drilling Plans	☐ Repair Well	☐ Beneficial Reuse of E&P Waste
☐ Gross Interval Changed?	☐ Rule 502 variance requested	☐ Status Update/Change of Remediation Plans for Spills and Releases
☐ Casing/Cementing Program Change	☒ Other: Exception 06-12-08 NTO	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Date: 10/01/2009 Email: daniel_padilla@oxy.com

Print Name: Daniel Padilla Title: Regulatory Advisor

COGCC Approved: Chris Canfield Title: EPS - NW Area Date: 11/13/09

CONDITIONS OF APPROVAL, IF ANY:

VAK

FORM 4 Rev 12/05

TECHNICAL INFORMATION PAGE

FOR OGCC USE ONLY

1. OGCC Operator Number: 66571 API Number: 05-045-16228
2. Name of Operator: OXY USA WTP LP OGCC Facility ID # 335889
3. Well/Facility Name: Cascade Creek Well/Facility Number: 697-16-02A
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE, Sec 9, T6S,R97W, 6th PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

Pursuant to Colorado Oil and Gas Conservation Commission Notice to Operators Drilling wells within 3/4 Mile of the Rim of the Roan Plateau in Garfield County, Colorado dated June 6, 2008 (NTO), OXY USA WTP LP (OXY) is submitting an exception request for the design and construction of a multi-purpose pit used during drilling and completion activities.

In support of OXY's drilling activities at the 609-14 well pad located in the SWSE, Sec 9, T6S, R97W, 6th PM, OXY proposes to install a multi-purpose pit (reserve and cuttings pit) with the following modifications:

• Sidewall slope exception: Due to topographic conditions and space constraints at this site, the pit sidewall slopes are steeper than the 1V:2H minimum required by the NTO. OXY employed a professional engineer to design the pit and verify conformance with the NTO stipulations (see attached construction design report). It is believed that the pit is designed and constructed in accordance with the intent of the NTO, given the site constraints.

• Reduced bedding material thickness: The NTO required 12-inch underlayment which is not feasible in this area but OXY's use of a 36-mil liner underlain with a geosynthetic clay liner, a 30-mil pvc liner and an 8-oz geotextile layer provides adequate protection. This system is the equivalent of or better than the required 12-inch underlayment.

OXY has attached its pit tracking form and associated attachments. Note the engineering design report contains detailed information on the design and construction of the pit. This pit has been hydrotested and no indications of leaks were detected. OXY proposes to begin using the pit in spring of 2009.

OXY is requesting approval for use of the pit as proposed. Please let me know if you have any questions or comments or if you require additional information. I can be reached at 970.236.3637 or by email at Daniel_Padilla@oxy.com. Thank you for your assistance in this matter.

OXY USA WTP LP –
OPERATOR NO. 66571

PIT INFORMATION SUBMITTED PURSUANT TO NOTICE TO OPERATORS (DATED JUNE 12, 2008) DRILLING WELLS WITHIN ¾ MILE OF THE RIM OF THE ROAN PLATEAU IN GARFIELD COUNTY

Supporting Information Attached

Detailed Site Plan	☒
Topo Map w/ Pit Location	☒
Pit Design/Plan & Cross Sect	☒
Design Calculations	☒
PE Design & Certification	☒
Hydrotest Results	☒
Form 2A	☒

Type of Pit:

Flare Pit	☐	Surface interval/well control	☐
Blooey Pit	☐	Reserve Pit	☒
Flowback Pit	☐	Cement returns Pit	☐

Pit Information

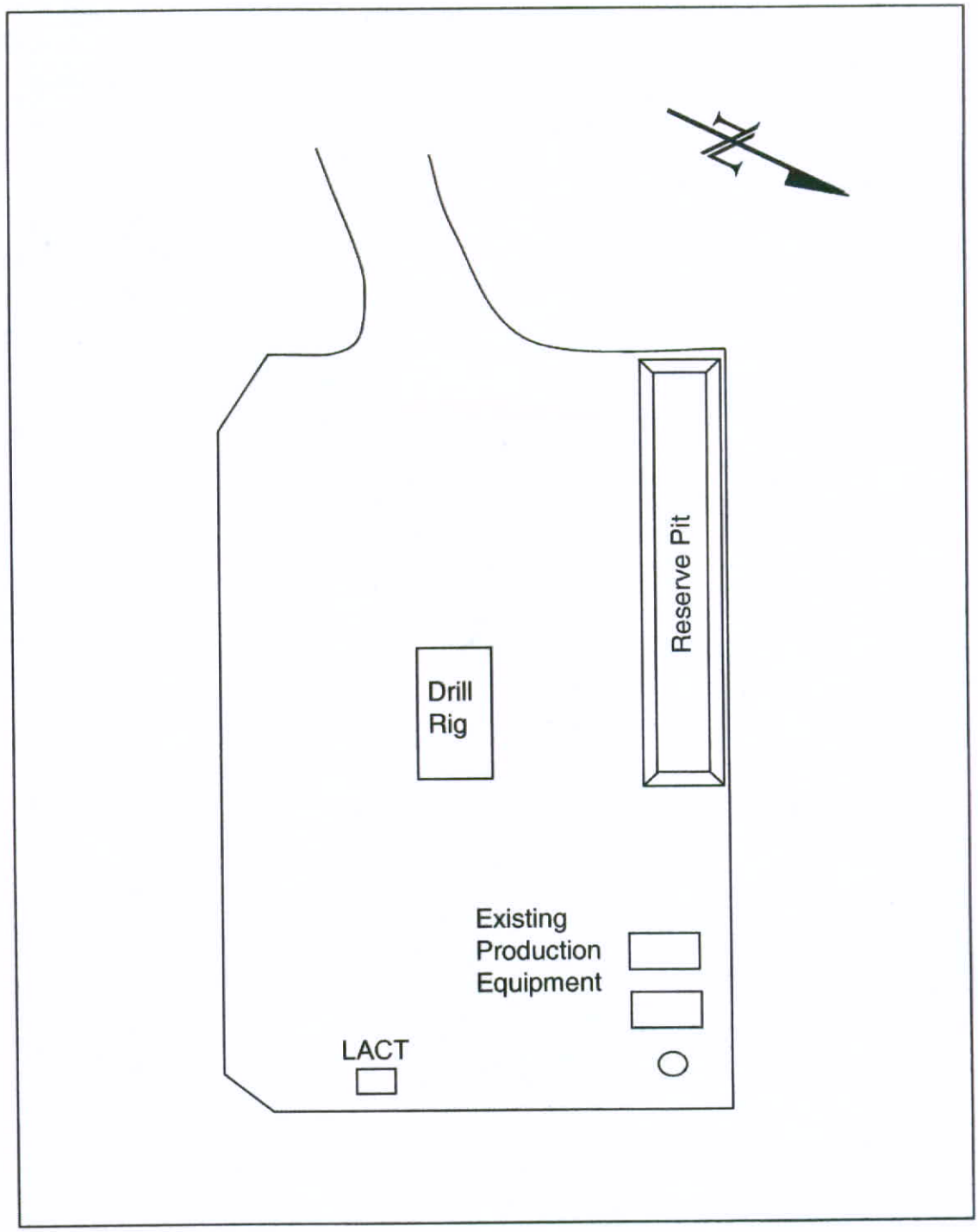
Pit Name:	**OXY Mesa RP(2) 609-14**	Pit Location:	**609-14 Pad**		
API Number (of Associated Well):	**05-045-16228**				
Location (Qtr/Qtr, Section, Township, Range, Meridian):	**SWSE, Sec 9, T6S, R97W, 6th PM**				
Latitude:	**39.531047**	Longitude:	**-108.223526**	County:	**Garfield**

Existing Site Conditions

Distance (in feet) to: Surface water	**500'**	Ground water	**>50'**	Water wells	**1.8 mi.**
Land use and Soils: Describe or attach Form 2A: **Form 2A attached**					
Description:					

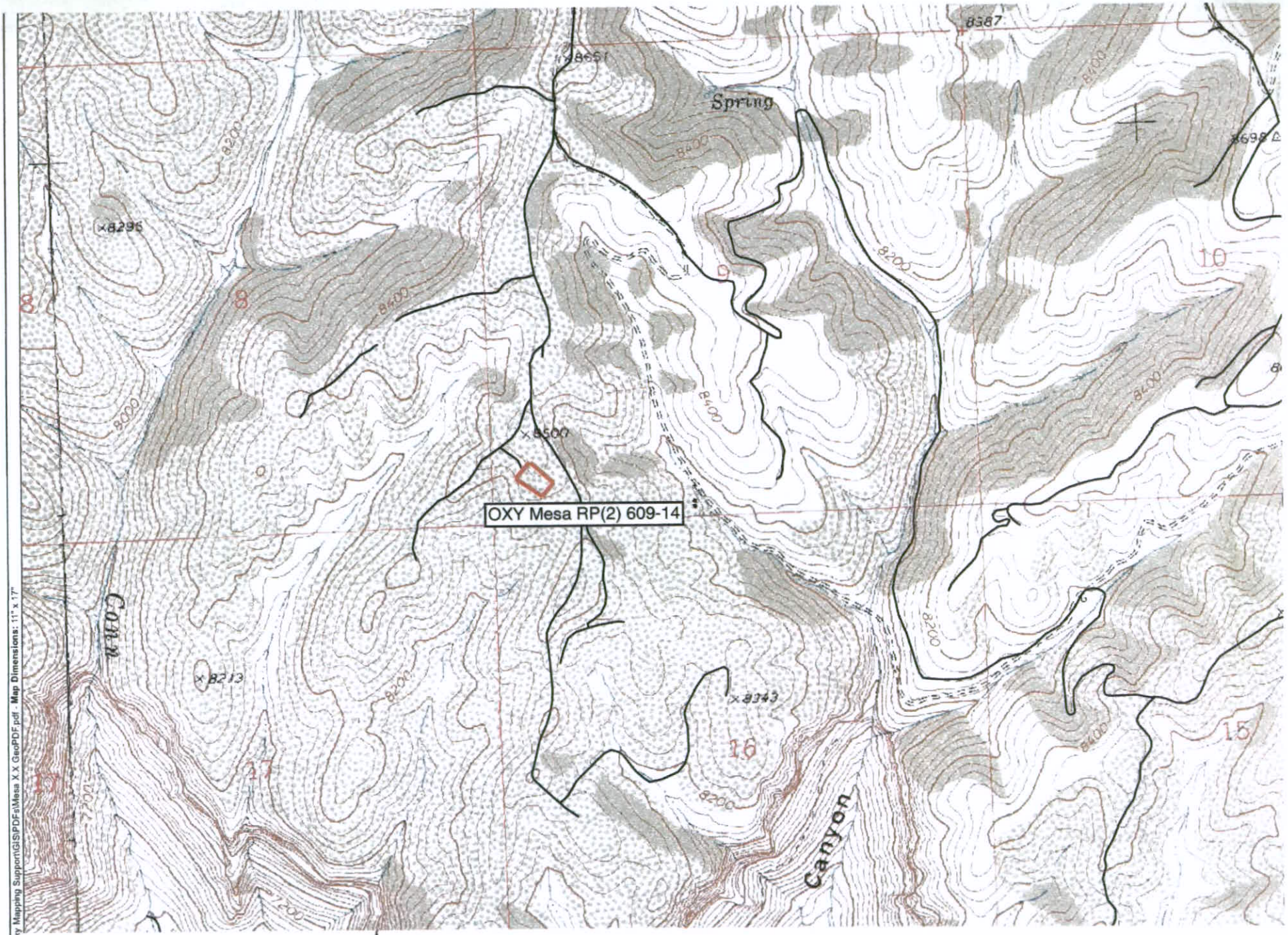
Pit Design and Construction

Size of pit (feet):	Length: **270**	Width: **50**	Depth: **12**
Calculated pit volume (bbls) **23,777**		Daily inflow rate (bbls/day):	
Liner material: **Reinforced Polyethylene**		Thickness: **36 mils**	
Calculated average evaporation rate (bbls/day): **22**			
Underlayment Material: **geocomposite**		Thickness: **equivalent to 12" unlayment**	
Does bedding material cover all sharp rocks present on side slopes? **YES**			
Is pit fenced? **YES**		Is pit netted? **NO**	
Safety ramp provided? **YES**			
Will pit be hydrotested before use? **YES**		Will pit have a monitored fluid level indicator? **YES**	
Is pit designed and certified by a Professional Engineer? **YES**			
Company of PE pit design: **Geotechnical Engineering Group**			
Name of PE certifying design: **John Withers**			



Approx. Scale: 1" = 100'

OXY USA WTP LP	As-Built of OXY's 609-14 Pad Garfield County, Colorado
Nov 17, 2008	Figure 1

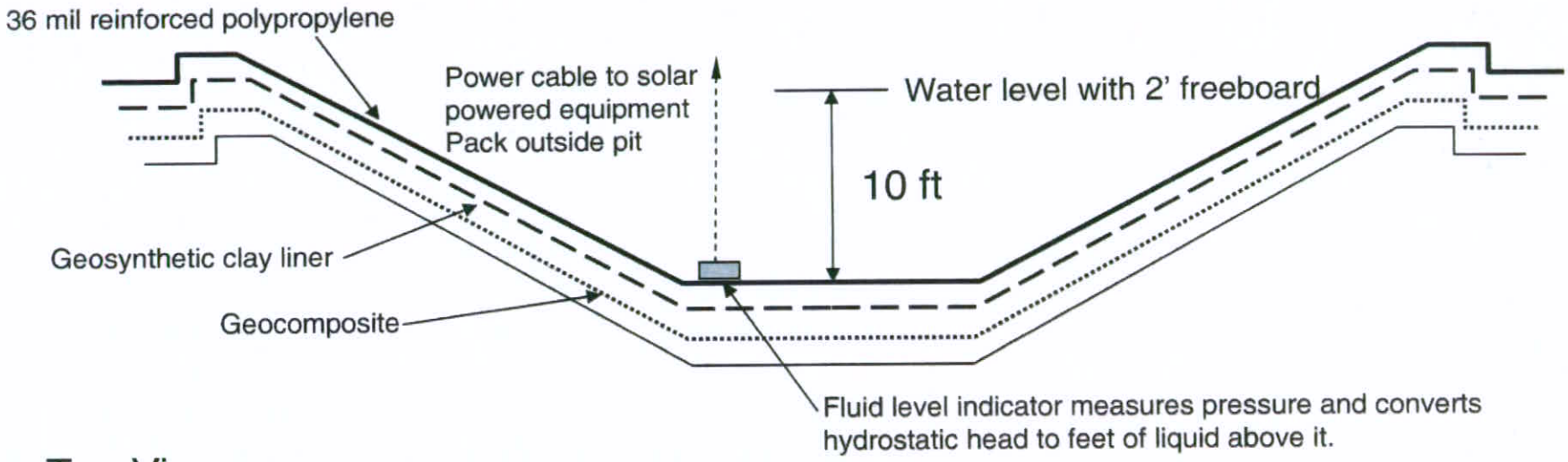


\OXY\7830-040 Oxy Mapping Support\GIS\PDFs\Mesa X X GeoPDF.pdf - **Map Dimensions:** 11" x 17"

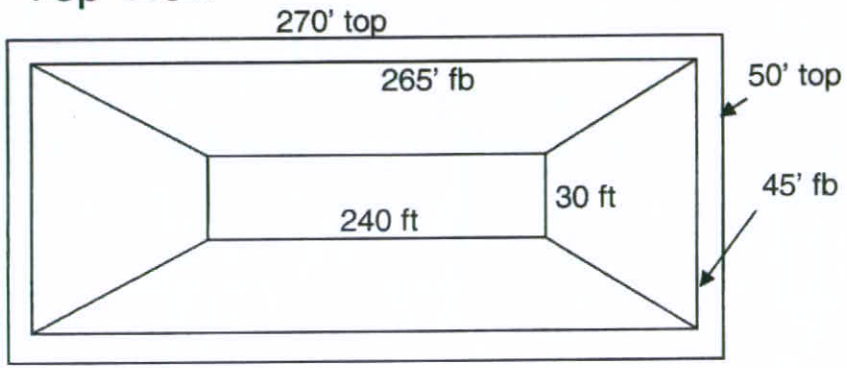
OXY Mesa 609-14 Pit, SWSE, Sec 9, T6S, R97W, 6th PM

RESERVE PIT

Side View



Top View



Volume of Pit = 23,777 bbls (with 2' freeboard)

Volume Calculation:

$$= \frac{10*[(265*45)+(155*135)+(240*30)]}{3}$$

= 133,500 cu ft =23,777 bbls

Volume of 1" = 177 bbls @ free board line

OXY USA WTP LP	Reserve Pit	
	OXY Mesa RP(2) 609-14 Pit/609-14 Pad (Garfield County)	
Nov 4, 2008	Not to scale	Page 1 of 1

Calculations for Earthen Pit Permit Applications

Calculation of Pit Capacities:

Pit capacities were estimated from length and width measured at ground level and at the bottom of the pit. Figure 1 shows the top view with the measured dimensions shown. For non-rectangular shapes, equivalent dimensions were used for volume calculations. For capacity calculations, the depth was reduced by two feet from the total pit depth to allow for a minimum of the required two feet of freeboard.

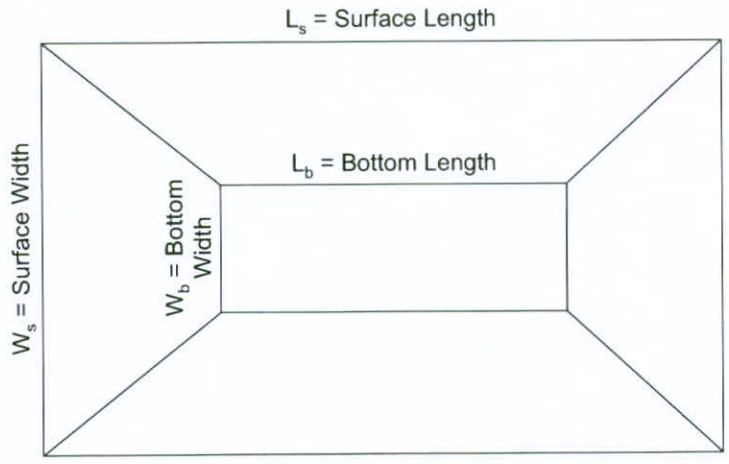


Figure 1. Top View of an earthen pit.

Figure 2 shows the dimensions and calculated terms in a cross-sectional view of a pit. The angle β is calculated from the length and width at the surface and the freeboard depth. Pits are designed to have a 2 (horizontal) to 1 (vertical) slope on the sides. With a 2 to 1 slope the angle β is 63.435° from vertical as shown by the yellow shaded area.

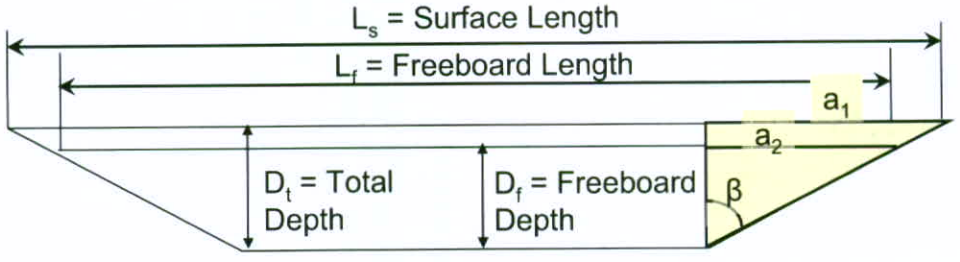


Figure 2. Cross-section of an earthen pit.

A sample calculation is shown based on the construction design for a 2500 barrel pit with a 10-ft depth. The following terms are defined:

L_s = surface length = 80'
W_s = surface width = 50'
L_b = length along bottom = 40'
W_b = width along bottom = 10'
D_t = total depth = 10'
D_f = depth with 2' freeboard (D_t – 2')

The distance a_1 can be calculated from the measured surface lengths:

$a_1 = (L_s - L_b)/2 = (80' - 40')/2 = 20'$

The angle β can be calculated using the two sides of the yellow-shaded triangle.

Tanβ = opposite side/adjacent side = 20'/10' = 2.0 and taking the arctangent, $\beta = 63.435^{\circ}$.

Side a_2 on the smaller yellow triangle can then be calculated using the angle β with the freeboard depth as:

$a_2 = D_f$ * Tangent β = 8'*2.0 = 16'

$L_f = Ls - 2 * (a_1 - a_2) = 80' - 2*(20' - 16') = 72'$

The widths were calculated in the same manner using the same angle β:

$a_1 = (W_s - W_b)/2 = (50' - 10')/2 = 20'$

$a_2 = D_f$ * Tangent β = 8'*2.0 = 16

$W_f = Ws - 2 * (a_1 - a_2) = 50' - 2*(20' - 16') = 42'$

Capacities were calculated using the standard formula for a truncated rectangular pyramid as follows where V is the pit capacity in cubic feet:

$$V = \frac{D_f * \left[L_f * W_f + \left(L_f + W_f/2 \right)\left(L_b + W_b/2 \right) + L_b * W_b \right]}{3}$$

Substituting example values (all dimensions are in feet) into the volume equation:

$$V = \frac{8 * \left[72 * 42 + (72 + 42/2)(40 + 10/2) + 40 * 10\right]}{3}$$

The resulting volume is 12,930.7 ft^3.

Converting to barrels the capacity is:

Capacity = 12930.7 ft^3/5.61458 ft^3/bbl = 2303 bbls

Freeboard Surface Calculations

Surface Volume at Freeboard Line

The volume at the freeboard line is calculated for a depth of 1 inch using the freeboard length and width and converting to barrels as:

$$\text{SurfaceVolume} = \frac{L_f\,(\text{ft}) * W_f\,(\text{ft}) * (1\text{"depth})}{5.61458\ \text{cu ft/bbl}}$$

For the example calculation:

Surface volume of 1" @ freeboard line = (72')*(42')*(1/12')/5.61458 ft^3/bbl = 45 bbls

Evaporation Rate

The evaporation rate is calculated from the surface area at the freeboard based on the average evaporation rate for Garfield County of 45 in/yr/sq ft surface area. The evaporation rate in barrels per day is calculated by the equation:

$$\text{Evaporation Rate} = \frac{L_f\,(\text{ft}) * W_f\,(\text{ft}) * (\text{evap rate (in)}\ /12)}{(365\ \text{days/yr}) * (5.61458\ \text{cu ft/bbl})}$$

Using the sample calculation numbers the evaporation in bbl/day is:

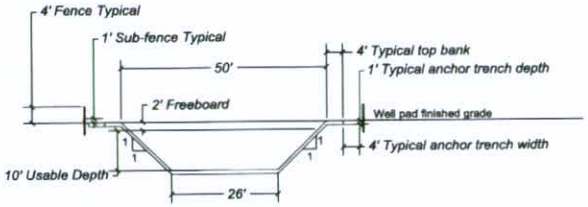
Evaporation rate = (72')*(42')*(45 "/12) / (365 days/yr)*(5.61458 ft^3/bbl) = 5.5 bbl/day

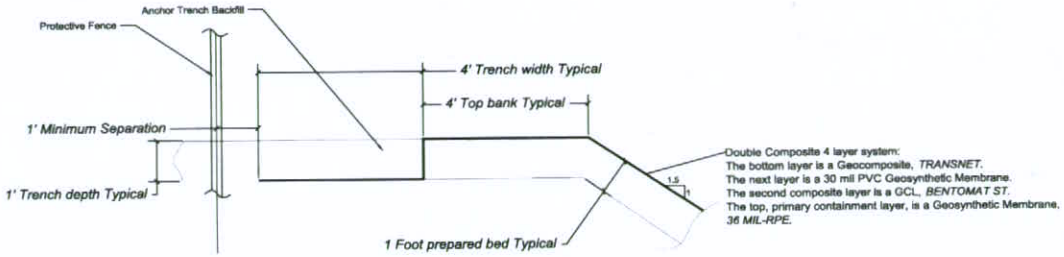
Index Sheet:
Reserve Pit Design
Well Pad 609-14
Garfield County, Colorado

COLORADO REGISTERED 30324 11/13/08 PROFESSIONAL ENGINEER

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: None	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08 Geotechnical Engineering Group, Inc. 2308 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS	REVISION	DATE	DESCRIPTION	SHEET: 1 OF 7
CHECKED BY: SEG	DATE: 10/21/2008	Index Sheet Reserve Pit Design Well Pad 609-14							
APPROVED BY: JW	DATE: 10/29/08								

Reserve Pit
Well Pad 609-14
Section View



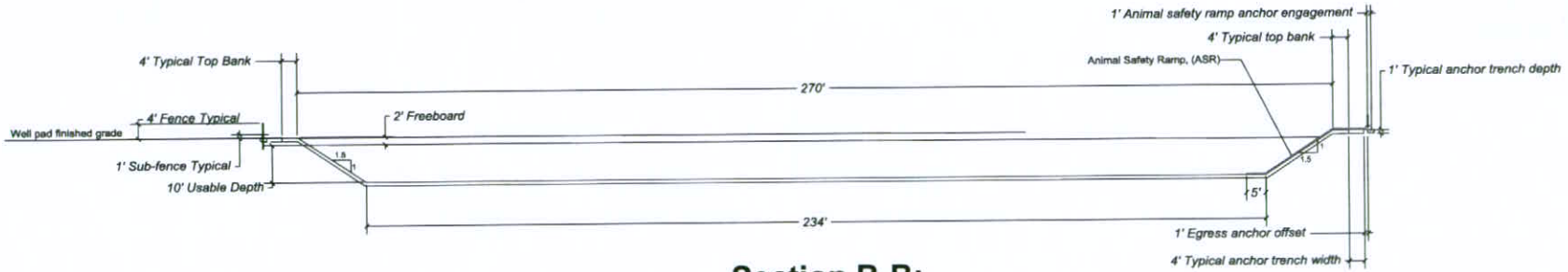


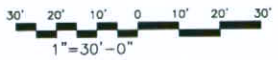
Detail of Anchor Trench Configuration:

Scale 1"=3'

Section A-A:

Looking South





Section B-B:

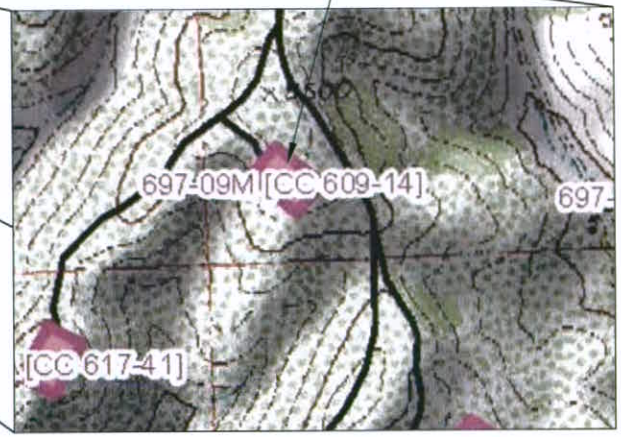
Looking West

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: 1 Inch = 30 Feet	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08 Geotechnical Engineering Group, Inc. 2308 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS
CHECKED BY: SEG	DATE: 10/21/2008	Section View Reserve Pit Design Well Pad 609-14			
APPROVED BY: jw	DATE: 10/29/08				

REVISION	DATE	DESCRIPTION	SHEET:
			7
			OF
			7

Reserve Pit Design
Well Pad 609-14
Garfield County, Colorado

Directional Map



Location Map

COLORADO REGISTERED
30324
11/13/08
PROFESSIONAL ENGINEER

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: None	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08
CHECKED BY: SEG	DATE: 10/21/2008	Vicinity Map Reserve Pit Design Well Pad 609-14			Geotechnical Engineering Group, Inc. 2306 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS
APPROVED BY: JW	DATE: 10/29/08				

REVISION	DATE	DESCRIPTION

SHEET: 2 OF 7

Reserve Pit Design, Well Pad 609-14
General Construction Sequence

1) *Stake pit boundaries and edge of disturbed area including bank above freeboard and anchor trench for liner. All pit extents must be at least ten feet from pad boundary, and referenced from finished pad grade and elevation.*

2) *Excavate the pit bottom and pit slopes to specification scarify soil in bottom and sides as specified.*

3) *Excavate pit top bank and anchor trench areas as specified.*

4) *Compact pit bottom and slopes as specified.*

5) *Compact top bank and anchor trenches as specified.*

6) *Install geosynthetic pit liners as specified.*

7) *Backfill and compact anchor trenches as specified.*

8) *Install animal safety ramp as specified.*

9) *Install protective fence and sub-fence as specified.*

COLORADO REGISTERED
JAMES P. WITHERSPOON
30324
11/13/08
PROFESSIONAL ENGINEER

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: None	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08
CHECKED BY: SEG	DATE: 10/21/2008	General Construction Sequence Reserve Pit Design Well Pad 609-14			Geotechnical Engineering Group, Inc. 2308 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS
APPROVED BY: JW	DATE: 10/29/08				

REVISION	DATE	DESCRIPTION

SHEET: 3 OF 7

Reserve Pit Design, Well Pad 609-14
General Construction Guidelines

1) Reserve pit overall dimensions shown here in are based on existing pit excavation on well pad 697-09M. If actual site conditions prevent any of the following guidelines from being achieved, Geotechnical Engineering Group, Inc. is to be advised.

2) Pit Bottom Soils: Pit bottom is to be entirely in cut slopes from native and undisturbed material. Pit bottom shall be scarified to a depth of 12 inches below nominal bottom elevation, and shall be disked or bladed until it is free from large clasts, brought to the proper moisture content (within 1 percent below to 3 percent above optimum) and compacted to not less than 95 percent of maximum dry density as determined in accordance with ASTM D698 standard proctor. If soft/yielding subgrade conditions are encountered, stabilization may be required as determined by the Geotechnical Engineer.

3) Pit Slopes and Bank Soils: Pit slopes and bank areas may be constructed from approved fill materials. These materials include but are not limited to reworked cuttings, native cut there are in compliance with COGCC specifications. Soil conditions and constructions techniques outlined here allow slopes in excess of the 2.0H:1.0V specified in the COGCC NTO-6/12/2008. The slopes of any pit wall shall not exceed 1.0H:1.0V. Pit slopes and areas on the top bank shall be disked or rolled with a sheep's foot or similar attachment until they are free from any protruding sharp clasts larger than 6 inches in total size and with no clast protruding more than 3 inches above the plane of the slope or bank. If soft/yielding subgrade conditions are encountered, stabilization may be required as determined by the Geotechnical Engineer.

4) Anchor Trench Soils: An anchor trench shall be excavated as shown and the slopes of the trench shall be disked or bladed until it is free from large clods and sharp clasts. Anchor trench backfill material shall be disked or bladed until it is free from clods or clasts over 6-inches diameter, and stockpiled until needed.

5) Geosynthetic Liner: he pit will be lined with a double geocomposite four layer system installed after the completion of earthwork. (This system is specific to pit designs covered by the COGCC NTO-6/12/2008 and as such has been engineered to exceed all stated containment specifications in that document.) Refer to Sheet 5 of 7, Geosynthetic Guidelines, for applicable material specifications. No vehicle traffic is allowed on the liner system other than as may be required and approved by manufacturer during installation.

6) Anchor Trench Backfill: After installation of geosynthetic pit liners per the guidelines included here and the pit liner manufacturer's specifications, the edge of the liner is to be anchored in the trench as shown and covered with anchor trench backfill material as noted. Backfill to be brought to the proper moisture content (within 2 percent above or below optimum), and compacted to not less than 95 percent of maximum dry density as determined in accordance with ASTM D698, standard proctor

7) Animal Safety Ramp, (ASR): Ramp shall be constructed of an eleven foot six inch wide by thirty two foot long mat of 60 mil textured HDPE that overlays the pit liner along the section of pit slope farthest from active rig operations, and is nearest to the native edge of the well pad. Refer to sheet 5 of 7, Geosynthetics Guidelines, for installation guidelines.

8) Protective Fence: Pits shall be surrounded on all sides by an four foot tall, six inch opening galvanized wire cloth fence with a sub-fence liner of one inch opening galvanized wire cloth attached to the bottom one foot of the six inch opening fabric. Fence to have a six foot wide opening centered about the animal safety ramp. Fence posts to be located a minimum of one foot outside of the outer limit of the pit liner anchor trench and to have a nominal spacing not larger than twenty feet.

COLORADO REGISTERED PROFESSIONAL ENGINEER
30324
11/13/08

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: None	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08 Geotechnical Engineering Group, Inc. 2308 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS	REVISION	DATE	DESCRIPTION	SHEET: 4 OF 7
CHECKED BY: SEG	DATE: 10/21/2008	General Construction Guidelines Reserve Pit Design Well Pad 609-14							
APPROVED BY: JW	DATE: 10/29/08								

Reserve Pit Design, Well Pad 609-14
Geosynthetics Guidelines

1) Reserve pit liner: The liner system for the reserve pit is a three layer system comprised of a Geocomposite, a Geosynthetic Clay Liner, (GCL), and a Geosynthetic membrane. The manufactures and product names used in this system are as follows:
Geocomposite- *SKAPS INDUSTRIES- SKAPS TRANSNET* with 8 oz outer layers.
Geosynthetic Clay Liner- *CETCO LINING TECHNOLOGIES*- BENTOMAT ST-1
Geosynthetic membrane- *RAVEN INDUSTRIES 36 MIL-RPE (Reinforced Polyethylene)*.
Geosynthetic membrane-*CLI- 30 mil PVC (PVC membrane)*
Depending on material availability, equivalent materials my be substituted.

2) Geocomposite: The bottom layer of the liner system is a permeable non-woven geotextile material on each side of a bi-directional Geonet, *SKAPS TRANSNET*. Prior to installing the geocomposite, the contractor shall remove any loose or sharp material protruding from the pit slopes, floor and top bank. The geocomposite is to be laid perpendicular to the slope of the pit with no parallel seams in the anchor trench, on the top bank, or along the pit slope higher than 4 feet above the pit floor. Seams are to be 6 inch overlaps with the bottom layer of non-woven material overlapped over the entire engagement. The Geonet is to be overlapped and attached with 50# zip ties every 24 inches. The top non-woven layers are to be overlapped and heat bonded. The geocomposite is to be laid in total contact with the anchor trench resulting in flat horizontal and vertical surfaces for the GCL installation. Refer to the manufacture's complete specifications for additional installation details.

3) Geosynthetic membrane: The second layer of the system is a Geosynthetic membrane comprised of a 30 mil PVC, (PolyVinyl Chloride), material. The Geosynthetic is to be laid perpendicular to the slope of the pit in contact with the Geocomposite. If liner is not pre-manufactured, seams are to be staggered 1 foot off of the seams for the Geocomposite, and are to be field heat bonded per manufacture's specifications. Care is to be taken to ensure that no tears or burn through occurs in the Geocomposite during installation of the Geosynthetic membrane. Refer to the manufacture's complete specifications for additional installation details. Field welding procedures shall be observed and sampled by a representative of the Geotechnical Engineer for peel and shear testing.

4) Geosynthetic Clay Liner, (GCL): The middle layer of the system is a layer of sodium bentonite between a permeable woven and non-woven geotextile. The GCL is to be laid perpendicular to the slope of the pit with the non-woven layer in contact with the Geocomposite and with no parallel seams in the anchor trench, on the top bank, or along the pit slope. Seams are to be staggered a minimum 1 foot off of the seams for the Geocomposite and be 6 inch overlaps. End of roll seams shall be overlapped 2 feet and located on the floor of the pit. The GCL is not to be stapled. Refer to the manufacture's complete specifications for additional installation details. In this application, additional sodium bentonite is not required at GCL seams due to confinement by other layers.

5) Geosynthetic membrane: The top layer of the system is a Geosynthetic membrane comprised of a 36 mil RPE, (Reinforced Polyethylene), material. The Geosynthetic is to be laid perpendicular to the slope of the pit in contact with the GCL. If liner is not pre-manufactured, seams are to be staggered 1 foot off of the seams for the GCL, and are to be field heat bonded per manufacture's specifications. Care is to be taken to ensure that no tears or burn through occurs in the GCL during installation of the Geosynthetic membrane. Refer to the manufacture's complete specifications for additional installation details. Field welding procedures shall be observed and sampled by a representative of the Geotechnical Engineer for peel and shear testing.

6) Animal Safety Ramp, (ASR): Ramp shall be constructed of an eleven foot six inch wide by thirty two foot long mat of 60 mil textured HDPE. ASR overlays the pit liner along the section of pit slope farthest from active rig operations, and is nearest to the native edge of the well pad. ASR to be supplied in prefabricated rolls from COLORADO LINING INTERNATIONAL. ASR to be anchored at the top of the pit bank with appropriate backfill material in a secondary anchor trench that is outside the extents of the liner system anchor trench. This trench shall be a minimum of one foot deep and one foot wide. The ASR shall extent at least 5 feet onto the floor of the pit. The ASR may not be staked to the pit liner top bank, slope or floor in any fashion that might result in puncturing the liner system. The ASR may be spot welded to the Geosynthetic membrane as required to anchor edges from wind lift.

DRAWN BY: SEG	DATE: 10/21/2008	GEG JOB NO. 3,080	SCALE: None	OXY USA WTP LP 2754 Compass Drive, Suite 170 Grand Junction, CO 81506	Approved for construction DATE: Ben Grienke 10/29/08
CHECKED BY: SEG	DATE: 10/21/2008	Geosynthetics Guidelines Reserve Pit Design Well Pad 609-14			Geotechnical Engineering Group, Inc. 2308 INTERSTATE AVENUE, GRAND JUNCTION, COLORADO 81503 (970) 245-4078 • FAX (970) 245-7115 GEOTECHNICAL, CIVIL & STRUCTURAL CONSULTANTS
APPROVED BY: JW	DATE: 10/29/08				

REVISION	DATE	DESCRIPTION	SHEET:
			5 OF 7

OXY USA WTP LP
Op. No.: 66571

HYDROTEST NOTIFICATION FORM

Reserve Pit (RP)	X	Special Purpose (SP)	
Production Pit (PP)		Storage Pit (S)	

Pit Information

Pit Name: OXY 609-14 Associated API Number: 05-045-
Pit Location (Common Name):
Location (Qtr. Qtr, Section, Township, Range, Meridian):
Latitude: N. 39° 31.827' Longitude: W. 108° 13.970'
Is pit located within ¾ mile of Rim of the Roan Plateau: X YES ____ NO

Hydrotest Parameters

Inspector name (Print): Linda Gordon (Sign) Linda Gordon
Beginning hydrotest time/date: 8:40 Am / 11-17-08
Beginning hydrotest fluid level: 4 feet
Completed hydrotest time/date: 9:00 Am / 11-20-08
Completed hydrotest fluid level: 4 feet

Weather conditions:	Day 1	Day 2	Day 3
Average temperature:	25° Fam / 60° Fam	28° Fam / 65° Fam	22° Fam / 65° Fam
Sunny/Cloudy:	Sunny	Sunny	Sunny
Precipitation:	None	None	None
Humidity:	Low	Low	Low

Did fluid level change after 72 hour hydrotest? X NO ____ YES

If yes: ***RECONSTRUCT PIT AND RECOMPLETE HYDROTEST***

If no:
Date of pit operation:

Were pictures taken during hydrotest? ____ NO X YES ***(If Yes include with form)***

Additional notes of hydrotest:


11.17.2008 09:48


11.19.2008 09:36


11.20.2008 10:16


11.18.2008 10:20

02045050

FORM 2A Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax (303) 894 2109

FOR OGCC USE ONLY
RECEIVED
MAY 02 2008
COGCC

DRILL SITE/ACCESS ROAD RECLAMATION FORM

This form shall be submitted in duplicate with the application for permit-to-drill (OGCC Form 2) unless a Federal 13-point surface plan is included Also required are a minimum of two photographs (site and access road) Soil and plant community information is from United States Natural Resources Conservation Services (USNRCS)

1. OGCC Operator Number 66571
2. Name of Operator OXY USA WTP LP
3. Address P.O. BOX 27757
City Houston State TX Zip 77227
4. Contact Name and Telephone Daniel I. Padilla
No (970) 263-3637
Fax (970) 243-2525
5. Well Name and No Cascade Creek 697-16-02A
6. County Garfield
7. Location (QtrQtr, Sec, Twp, Rng, Meridian) SWSE - Sec 9 - T6S R97W 6th

Complete the Attachment Checklist

	Oper	OGCC
Drillsite and access photographs	✓	
COE Section 404 documentation		

Pre-Drilling Information

Current Land Use

8 Crop Land: ☐ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
9 Non-Crop Land: ☑ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe) _____
10 Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

Attach color photographs of drill site and access road, identify each photo by date, well name and location

Soils

11 Soil map units from USNRCS survey Sheet No 16 Soil Complex/Series No 56
Soils Series Name Parachute Horizon thickness (in inches) A 0-10 B 10-25 C 25-40
Soils Series Name Irigul Horizon thickness (in inches) A 0-6 B 6-13 C 13-20

Plant Community

Complete this section only if operations are to be conducted upon non-crop land

12 Plant species from ☑ USNRCS or ☐ Field Observation Date of observation _____
List individual species Saskatoon serviceberry, elk sedge, mountain brome, western wheatgrass, Columbia needlegrass, Letterman's needlegrass, Mountain big sedgebrush, mountain snowberry

13 Check one predominant plant community for the drill site
- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye, Thistle)
- ☐ Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☑ Shrub and Brush Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Deciduous Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Conifer Riparian (Spruce, Fir, Ponderosa Pine)
- ☐ Evergreen Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon)
- ☐ Aquatic (Bullrush, Sedges, Cattail, Arrowhead)
- ☐ Tundra (Alpine, Willow, Currant, Raspberry)
- ☐ Other (describe) _____

14 Was an Army Corps of Engineers Section 404 Permit filed? ☐ Yes ☑ No If yes, attach appropriate documentation

Comments

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road, that I am familiar with the conditions which presently exist, that the statements made in this form are, to the best of my knowledge, true, correct, and complete

Print Name Daniel I. Padilla
Signed Daniel I. Padilla Title Regulatory Coordinator Date 4/25/08