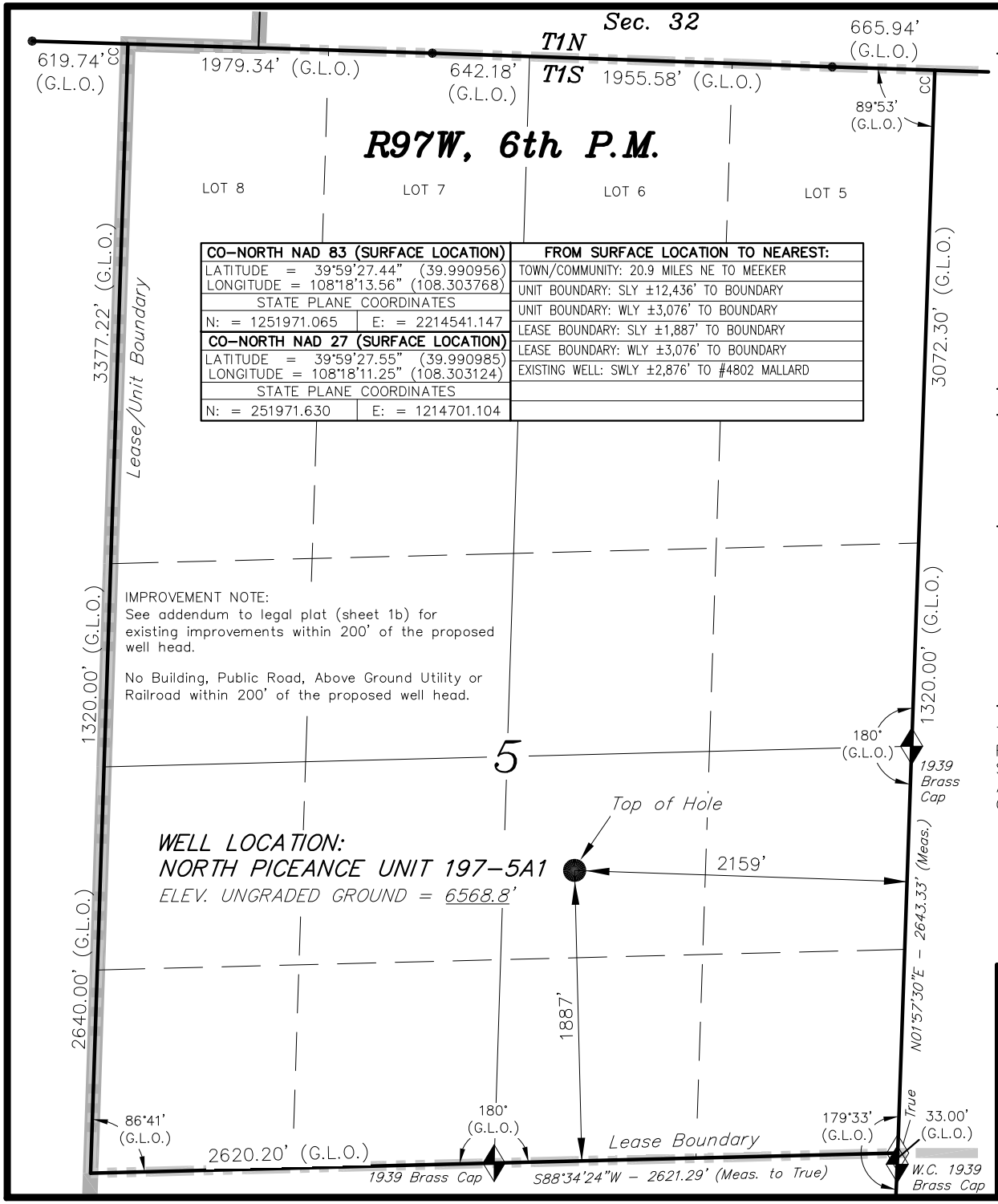



| CO-NORTH NAD 83 (SURFACE LOCATION) | | FROM SURFACE LOCATION TO NEAREST: |
|---|---|---|
| LATITUDE = 39°59'27.44" (39.990956) | | TOWN/COMMUNITY: 20.9 MILES NE TO MEEKER |
| LONGITUDE = 108°18'13.56" (108.303768) | | UNIT BOUNDARY: SLY ±12,436' TO BOUNDARY |
| STATE PLANE COORDINATES | | UNIT BOUNDARY: WLY ±3,076' TO BOUNDARY |
| N: = 1251971.065 | E: = 2214541.147 | LEASE BOUNDARY: SLY ±1,887' TO BOUNDARY |
| **CO-NORTH NAD 27 (SURFACE LOCATION)** | | LEASE BOUNDARY: WLY ±3,076' TO BOUNDARY |
| LATITUDE = 39°59'27.55" (39.990985) | | EXISTING WELL: SWLY ±2,876' TO #4802 MALLARD |
| LONGITUDE = 108°18'11.25" (108.303124) | | |
| STATE PLANE COORDINATES | | |
| N: = 251971.630 | E: = 1214701.104 | |

# EXXON MOBIL CORPORATION

WELL LOCATION, NORTH PICEANCE UNIT 197-5A1, LOCATED AS SHOWN IN THE NW 1/4 SE 1/4 OF SECTION 5, T1S, R97W, 6th P.M., RIO BLANCO COUNTY, COLORADO.

1000' 500' 0' 1000'

BAR SCALE

N

= SECTION CORNERS LOCATED

## BASIS OF BEARINGS & BASIS OF ELEVATION

BASIS OF BEARINGS IS A LINE BETWEEN MAGNOLIA & MEYERS TRIANGULATION STATION GRID COORDINATES WHICH IS ASSUMED TO BEAR S82°36'07"E.

BASIS OF ELEVATIONS IS MAGNOLIA TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 9, T2S, R96W, 6th P.M. REPORTED FROM THE NATIONAL GEODETIC SURVEY AS BEING 7529 FEET (NAVD 88).
WE MEASURED IT TO BE 7526.2'

*NOTES:*

1. *Well footages are measured at right angles to the Section Lines.*
2. *Bearings are based on Global Positioning Satellite observations.*
3. *G.P.S. Operator: K. STEWART, (PDOP) = 2.6*

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, THE LOCATION HAS BEEN STAKED ON THE GROUND AS SHOWN ON THE PLAT, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

THOMAS K. STEWART # 30125 REGISTERED PROFESSIONAL LAND SURVEYOR STATE OF COLORADO

REGISTERED LAND SURVEYOR
REGISTRATION NO. 30125
STATE OF COLORADO

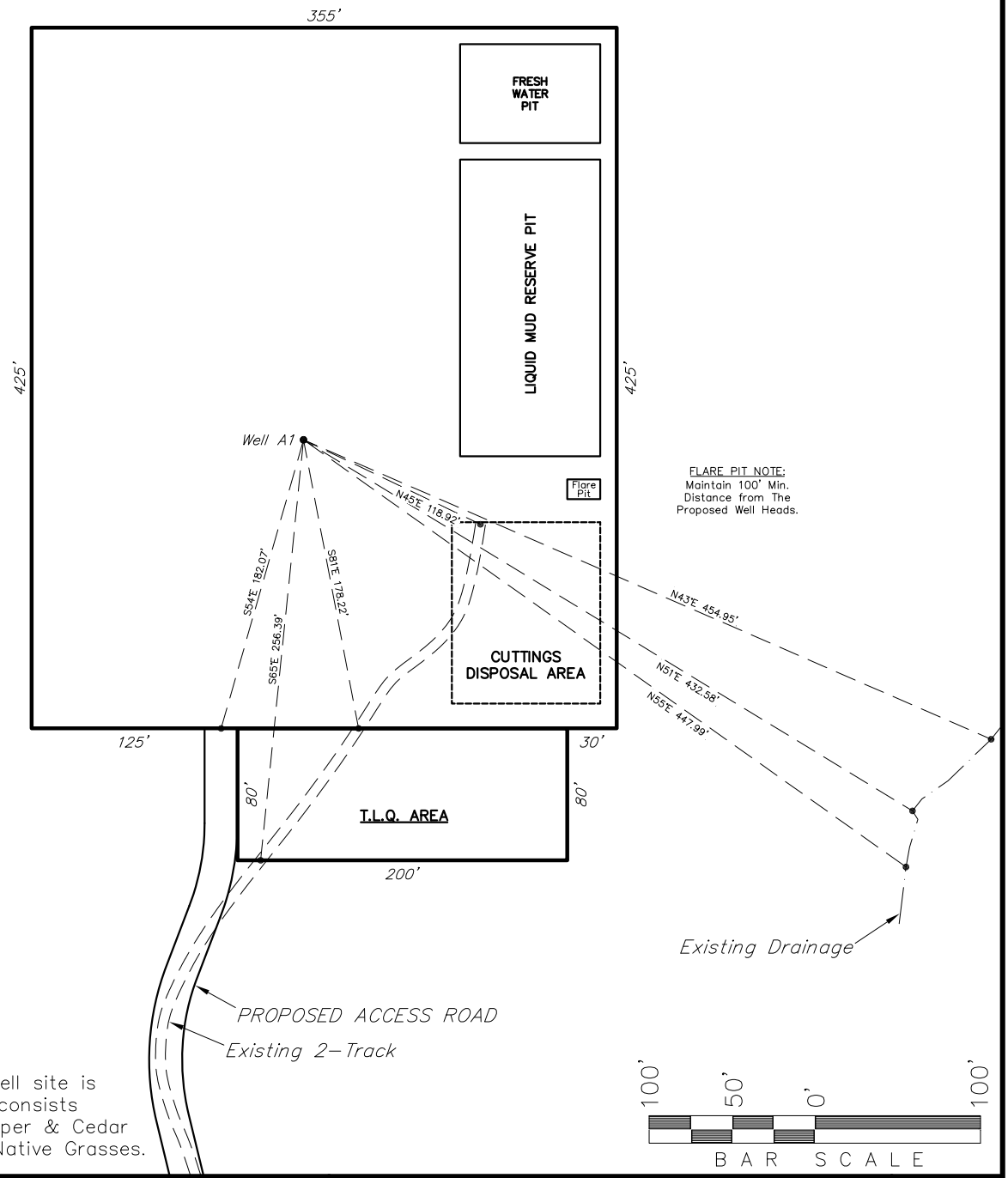

**TRI STATE LAND SURVEYING & CONSULTING**
180 NORTH VERNAL AVE. - VERNAL, UTAH 84078
(435) 781-2501


| | | |
|---|---|---|
| DATE SURVEYED: 05-08-09 | SURVEYED BY: K.S. | SHEET 1a |
| DATE DRAWN: 05-09-09 | DRAWN BY: D.COX | |
| REVISED: 01-26-10 F.T.M. | SCALE: 1" = 1000' | |

# EXXON MOBIL CORPORATION

## *ADDENDUM TO LEGAL PLATS FOR*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




FLARE PIT NOTE:
Maintain 100' Min. Distance from The Proposed Well Heads.

SURFACE USE NOTE:
Surface use of the well site is grazing. Vegetation consists mainly of Pinion, Juniper & Cedar Trees, Sagebrush & Native Grasses.

| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | DATE SURVEYED: | 05-08-09 | |
| DRAWN BY: D.COX | DATE DRAWN: | 05-09-09 | |
| SCALE: 1" = 100' | REVISED: | F.T.M. 01-26-10 | |

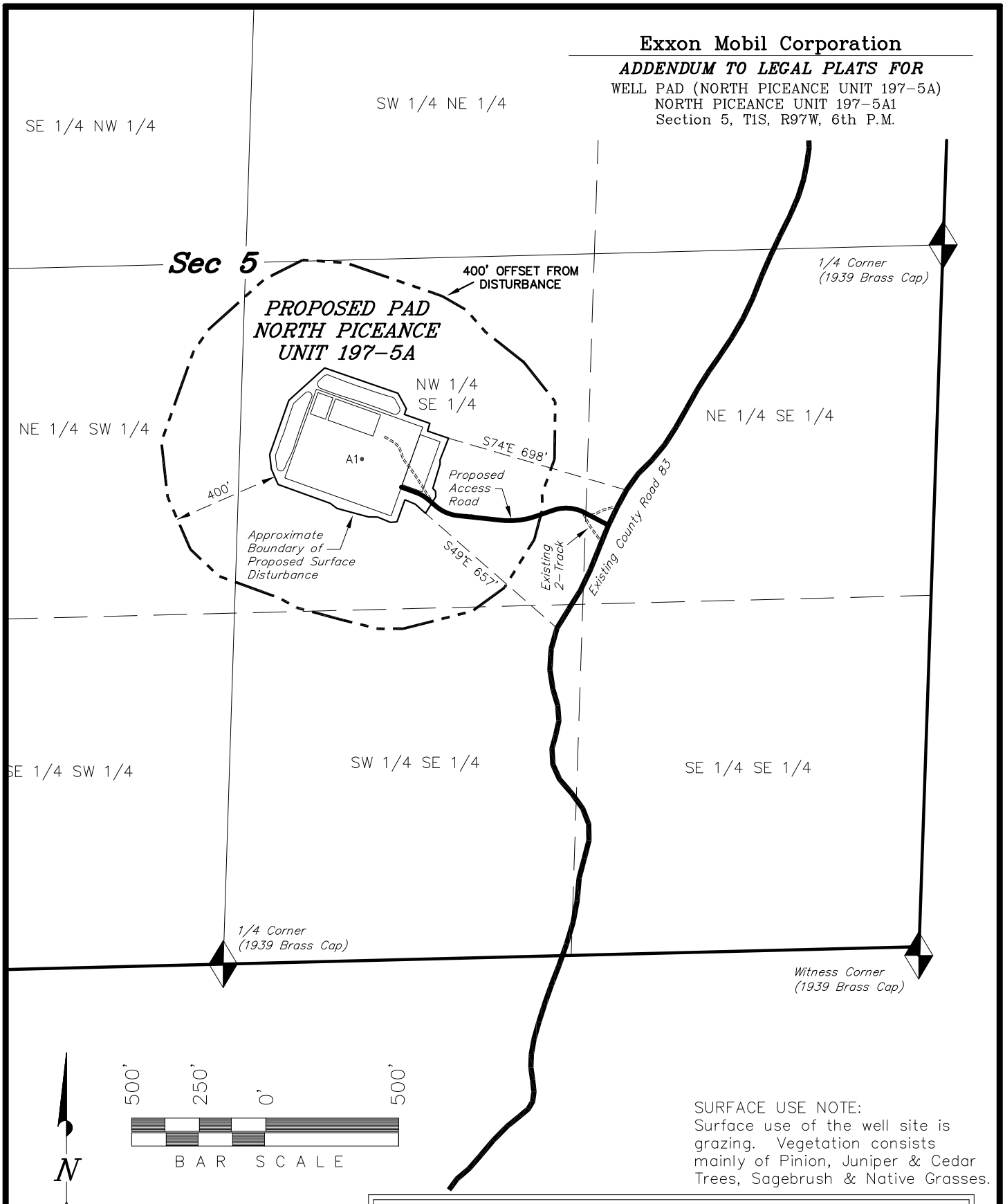

Tri State Land Surveying, Inc. (435) 781-2501
180 NORTH VERNAL AVE. VERNAL, UTAH 84078


SHEET 1b

# Exxon Mobil Corporation

## *ADDENDUM TO LEGAL PLATS FOR*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




SURFACE USE NOTE:
Surface use of the well site is grazing. Vegetation consists mainly of Pinion, Juniper & Cedar Trees, Sagebrush & Native Grasses.

*Distances from Well Heads*

| WELL | BUILDING | ABOVE GROUND UTILITY | PUBLIC ROAD | RAILROAD | PROPERTY LINE |
|---|---|---|---|---|---|
| 5A1 | S21°W 12,575' | S39°W 4,204' | S70°E 954' | S23°E 23 Miles | S89°E 13,872' |

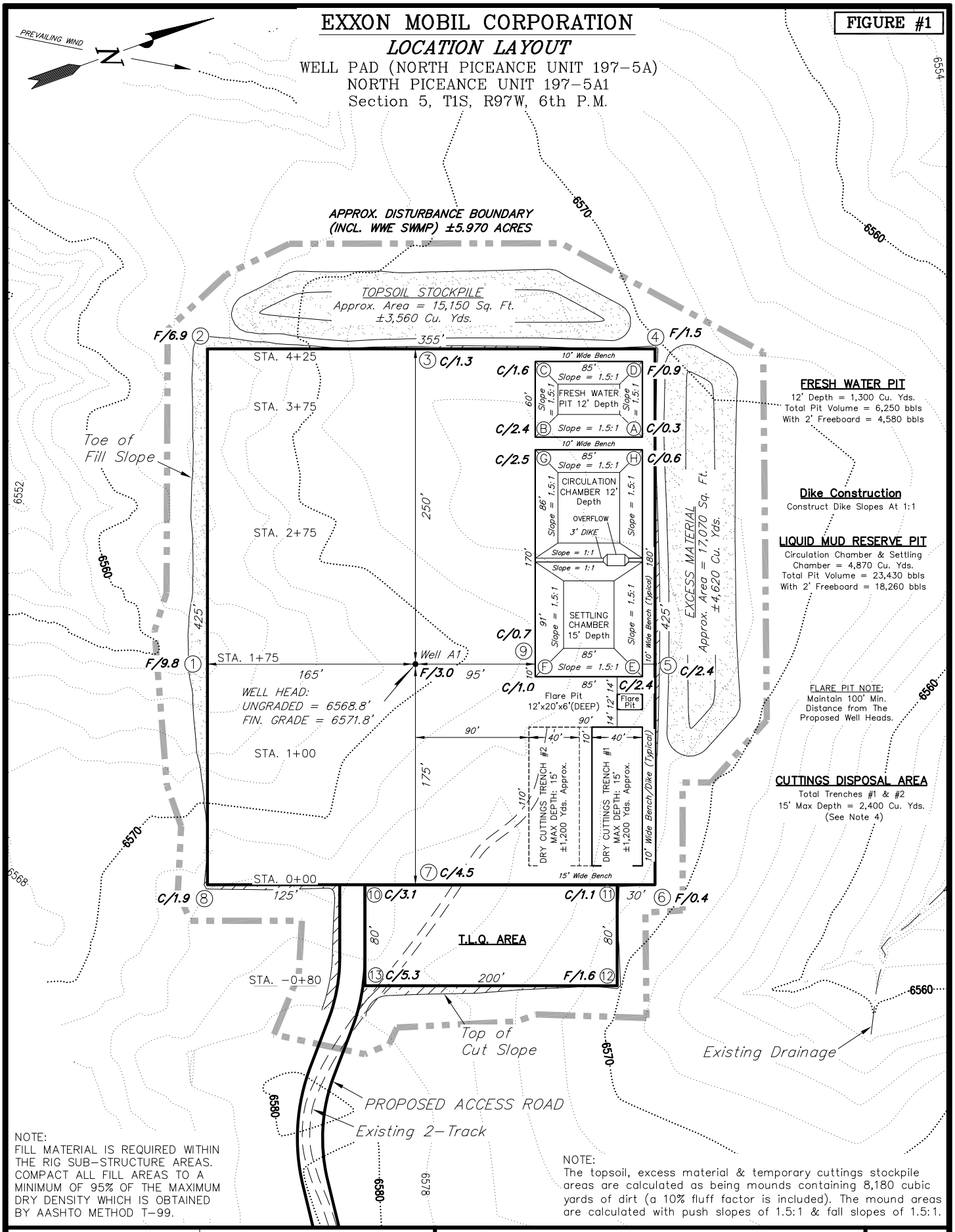
| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | SURVEY DATE: 05-08-09 | *Tri State Land Surveying, Inc.* (435) 781-2501 | SHEET 1bb |
| DRAWN BY: F.T.M. | DATE DRAWN: 01-26-10 | 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | |
| SCALE: 1" = 500' | REVISED: F.T.M. 08-03-10 | | |

# EXXON MOBIL CORPORATION

**FIGURE #1**

## *LOCATION LAYOUT*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




**FRESH WATER PIT**
12' Depth = 1,300 Cu. Yds.
Total Pit Volume = 6,250 bbls
With 2' Freeboard = 4,580 bbls

**Dike Construction**
Construct Dike Slopes At 1:1

**LIQUID MUD RESERVE PIT**
Circulation Chamber & Settling Chamber = 4,870 Cu. Yds.
Total Pit Volume = 23,430 bbls
With 2' Freeboard = 18,260 bbls

**FLARE PIT NOTE:**
Maintain 100' Min. Distance from The Proposed Well Heads.

**CUTTINGS DISPOSAL AREA**
Total Trenches #1 & #2
15' Max Depth = 2,400 Cu. Yds.
(See Note 4)

NOTE:
FILL MATERIAL IS REQUIRED WITHIN THE RIG SUB-STRUCTURE AREAS. COMPACT ALL FILL AREAS TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY WHICH IS OBTAINED BY AASHTO METHOD T-99.

NOTE:
The topsoil, excess material & temporary cuttings stockpile areas are calculated as being mounds containing 8,180 cubic yards of dirt (a 10% fluff factor is included). The mound areas are calculated with push slopes of 1.5:1 & fall slopes of 1.5:1.

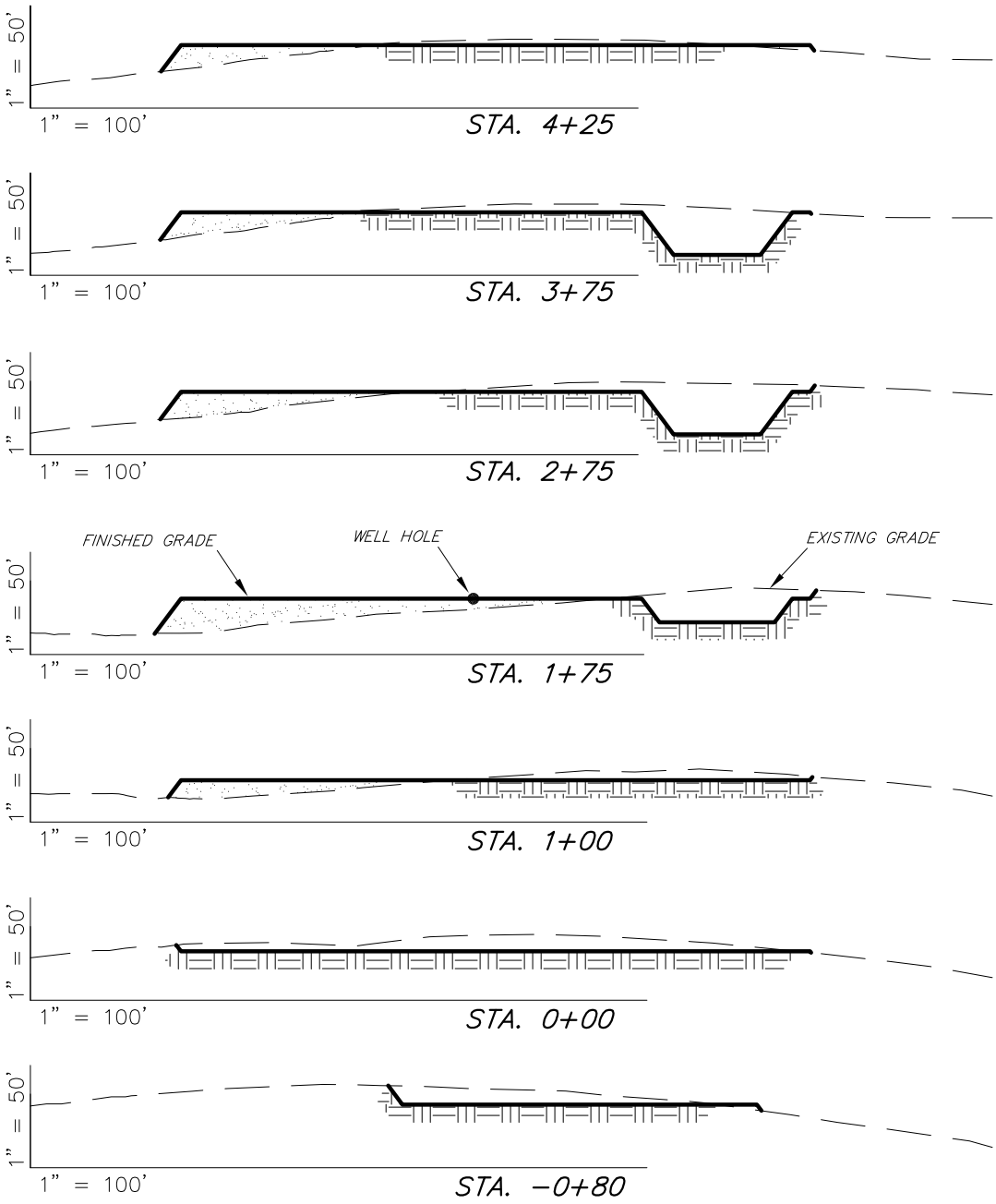
| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | DATE SURVEYED: 05-08-09 | Tri State Land Surveying, Inc. (435) 781-2501 | SHEET 2 |
| DRAWN BY: D.COX | DATE DRAWN: 05-09-09 | 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | |
| SCALE: 1" = 100' | REVISED: F.T.M. 01-26-10 | | |

# EXXON MOBIL CORPORATION

**FIGURE #2**

## *CROSS SECTIONS*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




* 1,110 CU. YDS. OF MATERIAL IS REQUIRED TO BE EXCAVATED & STOCKPILED TO COMPLETE THE FINISH GRADING PLAN AS SHOWN ON SHEET 5.

**ESTIMATED EARTHWORK QUANTITIES**
**(No Shrink or swell adjustments have been used)**
(Expressed in Cubic Yards)

| ITEM | CUT | FILL | 6" TOPSOIL | EXCESS |
|---|---|---|---|---|
| FINISH GRADING | *1,460 | *350 | Topsoil is not included in Pad Cut | *1,110 |
| PITS | 6,170 | 0 | | 6,170 |
| PAD | 6,835 | 9,920 | 3,240 | - 3,085 |
| TOTALS | 14,465 | 10,270 | 3,240 | 4,195 |

NOTE:
UNLESS OTHERWISE
NOTED ALL CUT/FILL
SLOPES ARE AT 1.5:1

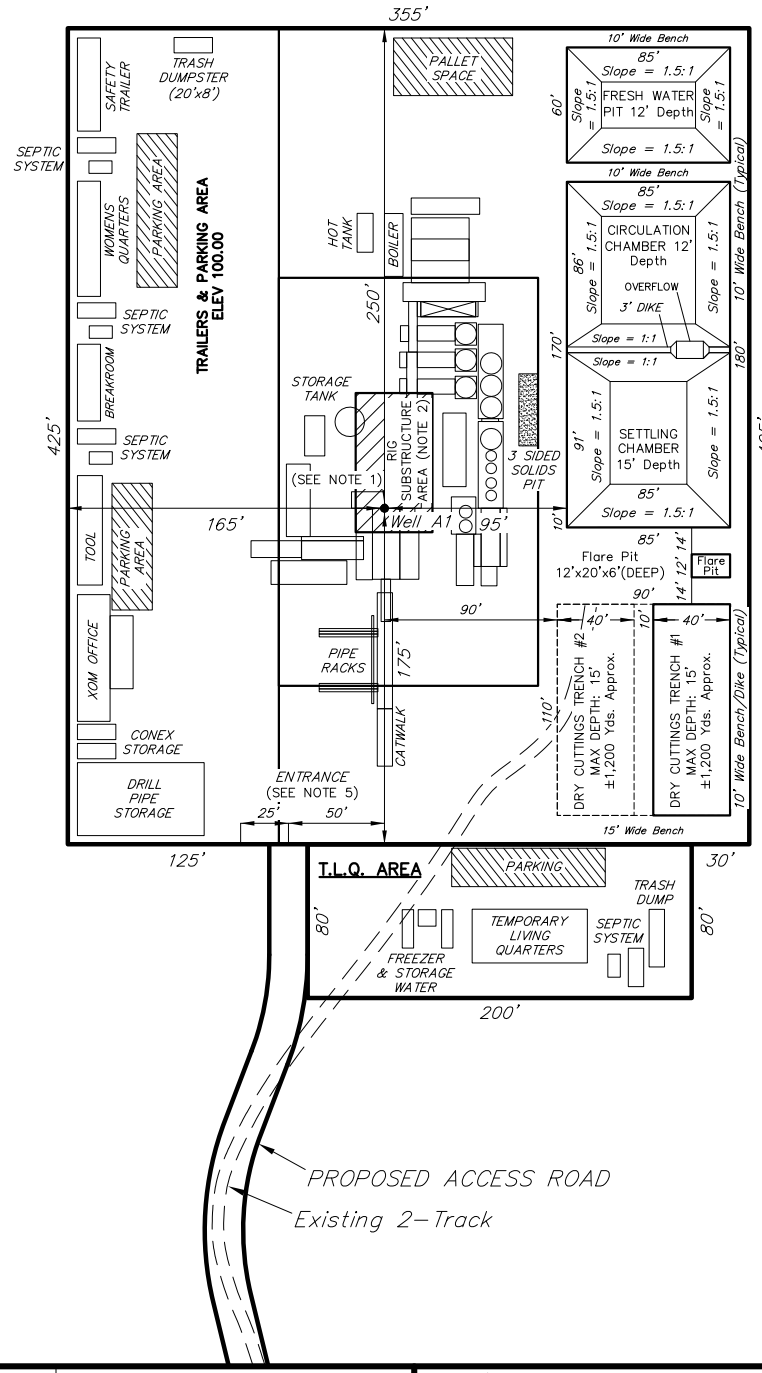
| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | DATE SURVEYED: 05-08-09 | Tri State Land Surveying, Inc. (435) 781-2501<br>180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | SHEET 3 |
| DRAWN BY: D.COX | DATE DRAWN: 05-09-09 | | |
| SCALE: 1" = 100' | REVISED: F.T.M. 01-26-10 | | |

# EXXON MOBIL CORPORATION

**FIGURE #3**

## *TYPICAL RIG LAYOUT*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




**FRESH WATER PIT**
12' Depth = 1,300 Cu. Yds.
Total Pit Volume = 6,250 bbls
With 2' Freeboard = 4,580 bbls

**Dike Construction**
Construct Dike Slopes At 1:1

**LIQUID MUD RESERVE PIT**
Circulation Chamber & Settling Chamber = 4,870 Cu. Yds.
Total Pit Volume = 23,430 bbls
With 2' Freeboard = 18,260 bbls

FLARE PIT NOTE:
Maintain 100' Min. Distance from The Proposed Well Heads.

**CUTTINGS DISPOSAL AREA**
Total Trenches #1 & #2
15' Max Depth = 2,400 Cu. Yds.
(See Note 4)

| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | DATE SURVEYED: 05-08-09 | Tri State Land Surveying, Inc. (435) 781-2501<br>180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | SHEET 4 |
| DRAWN BY: D.COX | DATE DRAWN: 05-09-09 | | |
| SCALE: 1" = 100' | REVISED: F.T.M. 01-26-10 | | |

# EXXON MOBIL CORPORATION

## *FRESH WATER PIT DETAILS*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.

## *GENERAL NOTES:*

*All work shall be done in strict accordance with the COGCC Rules, Manufacturer's recommendations, and these drawings and specifications. Tri-State and the Operator shall be notified as soon as possible to any and all conflicts with the COGCC Rules, manufacturer's recommendations and these drawings and specifications.*

*It is the intent of these specifications that a quality safe finished product as described on the plans and specifications will be installed. It is the responsibility of the Contractor to take whatever measures that shall be deemed necessary and to coordinate with the Inspector and Operator to insure that this requirement is met. Site conditions may arise during construction that may require the use of a double geofabric and pit liner. The Contractor shall be flexible and open to such changes. If double liner or other major changes due to site conditions are needed, change orders will be given and the Contractor, Tri-State, and Operator will come to an agreement in writing.*

*A Tri-State representative will inspect the construction and materials of the pit. The following inspections will be done during the pit construction: 1) Finish Grade Surface Preparation, Anchor Trench, and Pit Materials, 2) In-Place Geofabric, 3) In-Place Pit Liner and Final Pit Inspection. Absolutely no material shall be placed in the pit above what is approved for until inspection approval in writing is given for that material as outlined in each of the (3) inspections. If approval in writing is not given, and pit materials above to that which is not approved is installed, the Contractor will be responsible to remove the materials. The following is a brief description of each of the pit inspections:*

1) *Finish Grade Surface Preparation, Anchor Trench, and Pit Materials – This inspection will check to see if the finish grade and anchor trench of the proposed pit is adequate for the installment of the geofabric and pit liner. This inspection will also check the initial pit design and make changes to the design, if needed, depending on site specific obstacles. The Inspector will watch for smooth uniform side slopes, compaction, and for any unwanted or potentially harmful materials that could damage the geofabric and pit liner. Before inspection, the Contractor is to have the pit constructed to the correct size and in the correct location and elevation. The pit is to be compacted solid, clean, and thoroughly trackwalked (several times and in several directions). After approval of the Finish Grade Surface Preparation and Pit Materials Inspection in writing, the Contractor may install the Geofabric.*
2) *In-Place Geofabric – This inspection will check to see if the Geofabric material is properly installed according to specifications. The Inspector will watch for pit coverage, material over lap, and any unwanted or potentially harmful materials that could damage the geofabric and pit liner . Before inspection the Contractor is to have the Geofabric installed, clean and free of debris. After approval of the In-Place Geofabric Inspection in writing, the Contractor may install the Pit Liner.*
3) *In-Place Pit Liner and Final Pit Inspection – This inspection will check to see if the pit liner and anchor trench is properly installed according to specifications. The Inspector will look in pit corners and gaps and other places where the liner might be stretched and could create potential tear problems. The Inspector will also verify that adequate excess material remains in corners and around edges so that the liner may expand and contract. The Inspector will also watch for bumps, imperfections, tears, holes, and any other defects in the liner. The Contractor shall notify and show any and all repairs to the liner to the Inspector. The pit liner is to be clean and contain no debris or any unwanted or potentially harmful materials that could damage the geofabric and pit liner on it. Before inspection the Contractor shall have the pit liner installed and the anchor trench backfilled and compacted.*

## *PREPARATION:*

*The finish grade of the pit shall have smooth solid look on the bottom, slopes, and top edges of the area to be lined. The areas to be lined shall be dry and clean prior to installing the pit liner. The finish grade shall be free of all sharp, loose, and unstable material including large rocks, angular and sharp rocks, rubble, ice, trash, vegetation, holes, cracks, sharp and other penetrating or raised surfaces. All such potentially harmful surfaces shall be removed from the pit area. The pit shall meet the size, location, and elevations shown on the drawings and shall be smooth, dense, uniform, and have no sudden changes in grade. Inspection approval will not be given and pit materials cannot be placed if pit preparation is unacceptable. If approval from the inspection is not given, additional Finish Grade Surface Preparation and Pit Materials Inspections will be at the Contractor's expense.*

*The finish grade pit base material shall be native base materials. If the native base material is determined unsuitable and upon written approval from Tri-State and the Operator, the base materials may be obtained from an Operator specified borrow area. All base material shall be compacted to a minimum 95% compaction within 2% optimum moisture.*

*The finish grade pit base shall be trackwalked several times in several directions until the pit has a smooth solid look. It is the Inspector's prerogative to have the Contractor re-trackwalk the pit to insure pit preparation to the Inspector's satisfaction.*

*The finish grade of the pit shall be prepared immediately prior to the placing of the liner and shall not sit to be subject to weathering.*


| | | |
|---|---|---|
| DRAWN BY: P.H. | Tri State Land Surveying, Inc. (435) 781-2501 | SHEET 2a |
| DATE DRAWN: 06-29-09 | 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | OF 9 |
| REVISED: | | |

# EXXON MOBIL CORPORATION

## *FRESH WATER PIT DETAILS*

WELL PAD (NORTH PICEANCE UNIT 197–5A)
NORTH PICEANCE UNIT 197–5A1
Section 5, T1S, R97W, 6th P.M.

### *MATERIAL:*

*All material used for pit construction shall be visually inspected by the Contractor upon delivery to the site. The material shall be unloaded, handled, and stored in a safe manner to ensure no damage is done to the material from weather, construction or moving.*

*A geofabric of at least 100 mils thickness, weighing 8 ozs. per square yard with a minimum grab tensile strength of 275 lbs. per square inch and a minimum Mullen burst strength of 450 pounds per square inch, is required to be placed on the finished grade base under the pit liner.*

*The material used for the pit liner shall be a continuous sheet of 24 mils reinforced polyethylene (RPE) membrane and shall have been satisfactorily demonstrated by prior use and testing to be suitable, appropriate and durable for the purpose of this work. The liner shall be resistant to sunlight (UV), chemicals, extreme weather (Cold temperatures), puncturing, and tearing. The liner shall also be flexible, durable, liquid tight, free from pinholes, blisters, contaminates or other off specification defects. The liner shall be of sufficient size to include the excess needed for the anchor trench, edges, corners, and difficult areas. The Contractor shall never attempt to bridge gaps and corners by stretching the liner over gaps and corners.*

### *INSTALLATION:*

*The Contractor is to ensure that the Inspector has approved the preparation of the pit in writing. If approval is not obtained, the Contractor will remove the installed material at the Contractor's expense and the installed material may not be reused. The Contractor is to ensure the pit liner material is the correct material to the correct size and shape as specified on the project construction plans specifications. No field modifications of the liner are acceptable. The Contractor is also to ensure that the pit is property prepared as specified.*

*The geofabric sheets shall be placed in such a manner as to minimize overlapped edges. All seams are to be overlapped a minimum of 24". Only those pieces of fabric that can be installed and anchored during the workday shall be unpacked and placed in position. Do not place pit liner in extreme windy weather conditions. Do not try to repair damaged pieces of geofabric. Repaired pieces of geofabric may not be used.*

*The pit liner shall be preordered to fit the specific pit, and shall be <u>one</u> continuous factory built piece. The liner shall be placed over the approved prepared surface in such a manner as to assure a minimum of handling. Do not place pit liner in extreme windy or cold weather conditions. Any and all damage and defects to the liner that can be repaired will be shown to the Inspector. All repairs shall be done according to the recommendations of the manufacturer and shall be leak tested.*

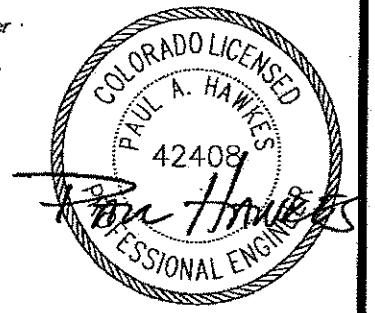
*Sandbags and or other suitable weights may be used as required to hold the liner in position during the installation. The weights shall not have any sharp edges, which may snag or otherwise penetrate the liner fabric. Care should be taken to keep the liner as clean as possible and prevent potential liner damages.*

*No materials or equipment shall be dragged across the liner nor shall the workmen walk on or abuse the liner while installing the liner.*

*Pit liner and geofabric shall be placed in a "relaxed" condition, free from stress or tension. The geofabric and liner should closely fit around all protrusions and penetrations. All irregular projections, if any, shall be sealed and flashed with the fabricated boots or other approved sealing methods.*

*The edges of the liner and geofabric shall be secured by an anchor trench. The anchor trench shall be either an 18"x 36" "V" trench or 24"x24" square trench. Slightly rounded corners will be provided in the trench where the liner adjoins the trench so as to avoid sharp bends in the liner. No loose soil or rocks will be allowed to underlie the liner or geofabric in the anchor trench. Leading edges of the anchor trench should be smooth and even. Care shall be taken when backfilling the trench so that no trench material falls into the pit.*

*The liner shall be installed according to manufacturer's recommendations. The Contractor is to ensure that the liner is laid out and installed in the correct direction and side. Liner shall be worked into corners and around bumps and into holes to prevent liner bridging situations. In addition, excess liner shall be given in corners, edges, and difficult areas to accommodate for liner expansion and contraction. Proper equipment and methods of pulling and installing the liner shall be used per the manufacturer's recommendations.*




| | | |
|---|---|---|
| DRAWN BY: P.H. | Tri State Land Surveying, Inc. (435) 781-2501 | SHEET 2b |
| DATE DRAWN: 06-29-09 | 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | OF 9 |
| REVISED: | | |

# EXXON MOBIL CORPORATION

## *FRESH WATER PIT DETAILS*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.

## SITE EXCAVATION, GRADING, AND COMPACTION:

*DEFINITIONS:*

*COMPACTION:*
*The effort of getting an amount of soil into the smallest amount of space. The degree of compaction is specified as percent of the maximum dry density (MDD). For best compaction results in the field, a soil must be within 2%-3% of its optimum moisture content (OMC).*

*MAXIMUM DRY DENSITY (MDD):*
*MDD is calculated by lab testing. It is the greatest amount of soil compacted into an amount of space. MDD can only be reached when a soil is within its optimum moisture content (OMC).*

*OPTIMUM MOISTURE CONTENT (OMC):*
*OMC is calculated by lab testing. It is the amount of water needed in a soil to compact it to its maximum dry density (MDD). At OMC a soil reaches MDD with the least amount of compactive effort.*

*GRADING MATERIALS:*
*Grading materials will be native and can vary from site to site. The material shall be free from topsoil, vegetation, wood, roots, ice, garbage, or other unstable and extraneous material. Material can even vary within a site, and the Contractor shall use the best structural material available on site for the pit areas.*

*EXCAVATION & COMPACTION:*
*Careful planning and measurements shall be done so that the excavation does not exceed the specified lines and grades. If the Contractor excavates below grade, then the over excavated areas shall be replaced using good structurally sound material and placed as outlined in these specifications. If the over excavated sub-grade is unsuitable after excavation, the Contractor shall remove and replace all unsuitable material up to 36 inches.*

*Fill material shall consist of good clean structurally sound native material. Fill shall be brought up in uniform 12 inch maximum lifts and shall be compacted to a density of 95 percent of the MDD through every layer. The entire surface shall be maintained free from ruts and protrusions so that construction equipment can readily travel over any section.*

*It is strongly recommended that the Contractor conduct compaction trials at the start of the backfilling to establish a suitable compaction procedure. These trials will help to determine the fill layer thickness and moisture content to suit the soil and available compaction equipment. These trials will also help determine a suitable number of passes of the compaction equipment to achieve the minimum compaction requirements.*

*All excavation and fill work shall be done in a legal safe manner.*

*COMPACTION TESTING:*
*The Contractor is solely responsible for the compaction throughout the site. It may be in the Contractor's best interest to have soil testing and compaction testing for the compaction process. This could give the Contractor a better idea of the soil's OMC and amount of compaction effort to reach the desired % MDD. No testing will be provided by the Operator or the Inspector.*

## CONTRACTOR'S RESPONSIBILITY:

*Neither the Operator nor the Inspector will test or inspect the placement of fill material or its compaction. Inspectors will visually inspect and make observations of the finish grade surface only. Fill material and compaction is the Contractor's sole responsibility. The Contractor will be held responsible for any damages resulting from use of unstable material and poorly compacted sites. The use of unstable material and poorly compacted sites can and will be tested for in the event of any site failure through undisturbed core sample drilling. It is in the Contractor's best interest to test material and compaction, log construction activities, and practice up-to-date sound construction techniques.*

COLORADO LICENSED
PAUL A. HAWKES
42408
PROFESSIONAL ENGINEER

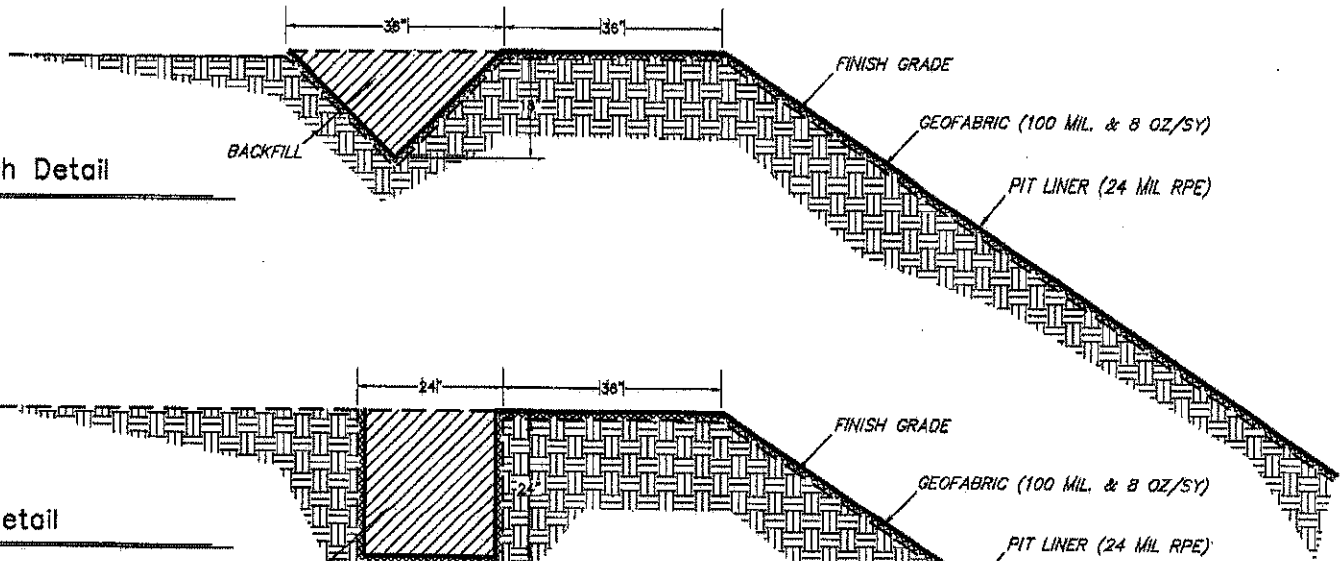
| | | |
|---|---|---|
| DRAWN BY: P.H. | Tri State Land Surveying, Inc. (435) 781-2501 | SHEET 2c |
| DATE DRAWN: 06-29-09 | 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | OF 9 |
| REVISED: | | |

**NOTES**
– See Location Layout Drawing for Finish Grade Elevations and Slopes

# EXXON MOBIL CORPORATION

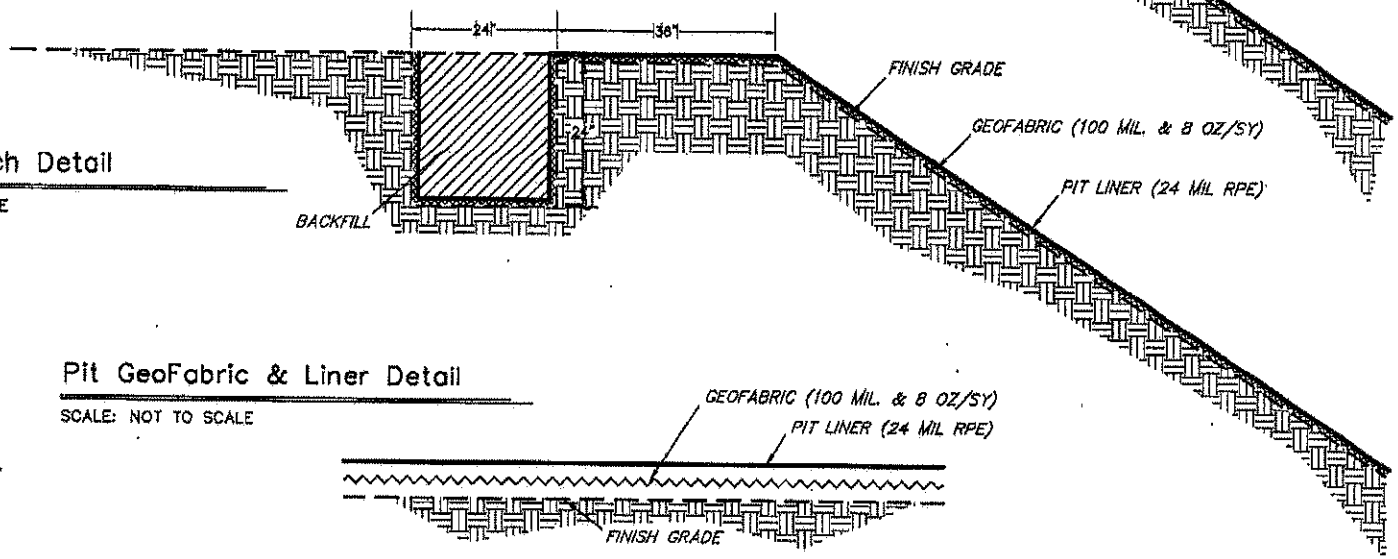
## *FRESH WATER PIT DETAILS*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.




'V' Anchor Trench Detail

SCALE: NOT TO SCALE




Anchor Trench Detail

SCALE: NOT TO SCALE

COLORADO LICENSED
PAUL A. HAWKES
42408
PROFESSIONAL ENGINEER

Pit GeoFabric & Liner Detail

SCALE: NOT TO SCALE




| | |
|---|---|
| DRAWN BY: | P.H. |
| DATE DRAWN: | 06-29-09 |
| REVISED: | |

Tri State Land Surveying, Inc.
(435) 781-2501
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# EXXON MOBIL CORPORATION

**FIGURE #4**

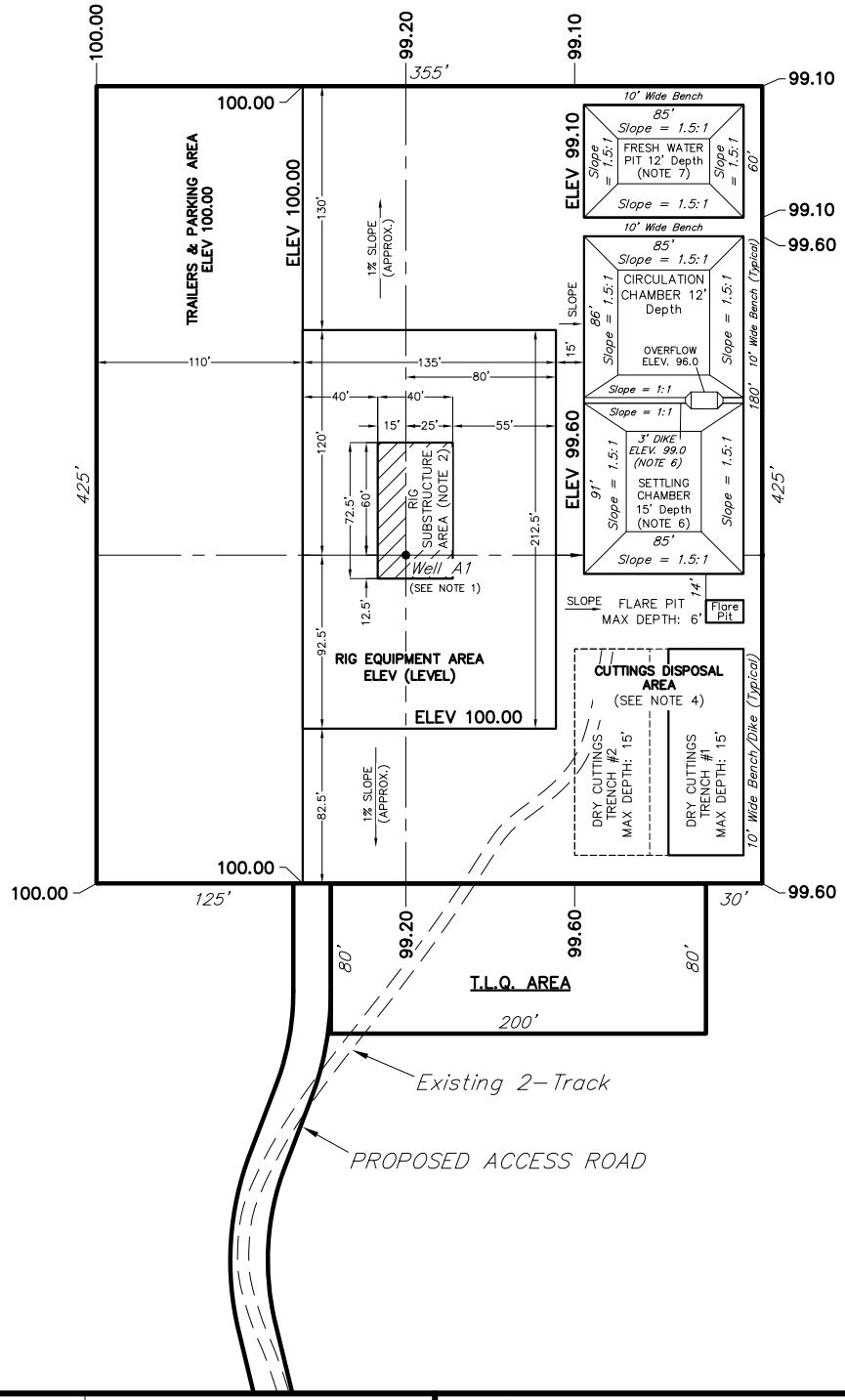
## *TYPICAL FINISH GRADING PLAN*

WELL PAD (NORTH PICEANCE UNIT 197-5A)
NORTH PICEANCE UNIT 197-5A1
Section 5, T1S, R97W, 6th P.M.

**CONTOUR AND ELEVATION NOTE:**
THE REFERENCE ELEVATION OF 100.00 IS EQUAL TO THE ACTUAL FINISHED GRADE ELEVATION ON THE LOCATION LAYOUT (SHEET 2). ALL OTHER ELEVATIONS ARE RELATIVE TO THIS REFERENCE ELEVATION.

* 1,110 CU. YDS. OF MATERIAL IS REQUIRED TO BE EXCAVATED & STOCKPILED TO COMPLETE THE FINISH GRADING PLAN.

## Finish Grading Plan
**(Note 3)**




**FRESH WATER PIT**
12' Depth = 1,300 Cu. Yds.
Total Pit Volume = 6,250 bbls
With 2' Freeboard = 4,580 bbls

**Dike Construction**
Construct Dike Slopes At 1:1

**LIQUID MUD RESERVE PIT**
Circulation Chamber & Settling Chamber = 4,870 Cu. Yds.
Total Pit Volume = 23,430 bbls
With 2' Freeboard = 18,260 bbls

FLARE PIT NOTE:
Maintain 100' Min. Distance from The Proposed Well Heads.

**CUTTINGS DISPOSAL AREA**
Total Trenches #1 & #2
15' Max Depth = 2,400 Cu. Yds.
(See Note 4)

| | | | |
|---|---|---|---|
| SURVEYED BY: K.S. | DATE SURVEYED: 05-08-09 | Tri State Land Surveying, Inc. (435) 781-2501<br>180 NORTH VERNAL AVE. VERNAL, UTAH 84078 | SHEET 5 |
| DRAWN BY: D.COX | DATE DRAWN: 05-09-09 | | |
| SCALE: 1" = 100' | REVISED: F.T.M. 01-26-10 | | |