

SHEEP MOUNTAIN URANIUM PROJECT CROOKS GAP, WYOMING



TITAN
URANIUM USA INC

GL Adams – Titan Uranium USA Inc.

DL Beahm, PE, PG – BRS Inc.

U 2011 SME Conference

TSX.V - TUE

FRANKFURT - T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

FORWARD-LOOKING STATEMENT

Statements in this presentation that are forward-looking statements are subject to various risks and uncertainties concerning the specific factors identified in Titan's periodic filings with Canadian Securities Regulators. Such forward-looking information represents management's best judgment based on information currently available. No forward-looking statement can be guaranteed and actual future results may vary materially. Titan does not assume the obligation to update any forward-looking statement. This presentation is not a solicitation by Titan as an offer to sell its securities.

PROJECT OVERVIEW

- Site Location

- Fremont County, Wyoming
- 8-10 Miles South of Jeffrey City
- Approximately 3,600 Acres Federal, State and Fee Lands

- Existing Uranium Mine Permit WDEQ/LQD 381C

- Mined 1956 – 1988
- Milling at Split Rock Mill

- Planned Operation

- Open Pit and Underground Mining
- Heap Leach Processing



TITAN
URANIUM USA INC

Sheep Mountain Project Location



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

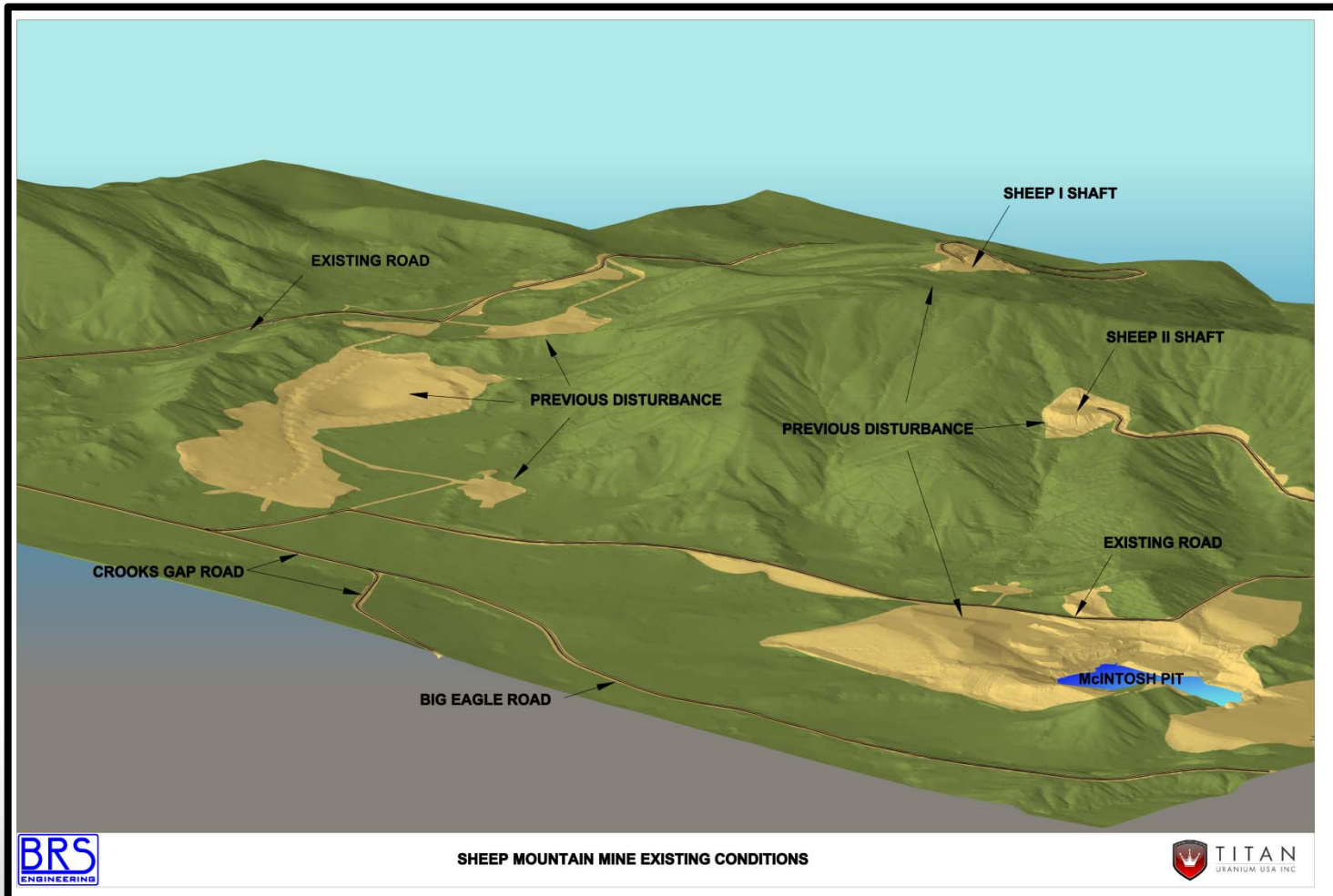
Sheep Mountain Project





TITAN
URANIUM USA INC

Existing Conditions



TSX-V : TUE

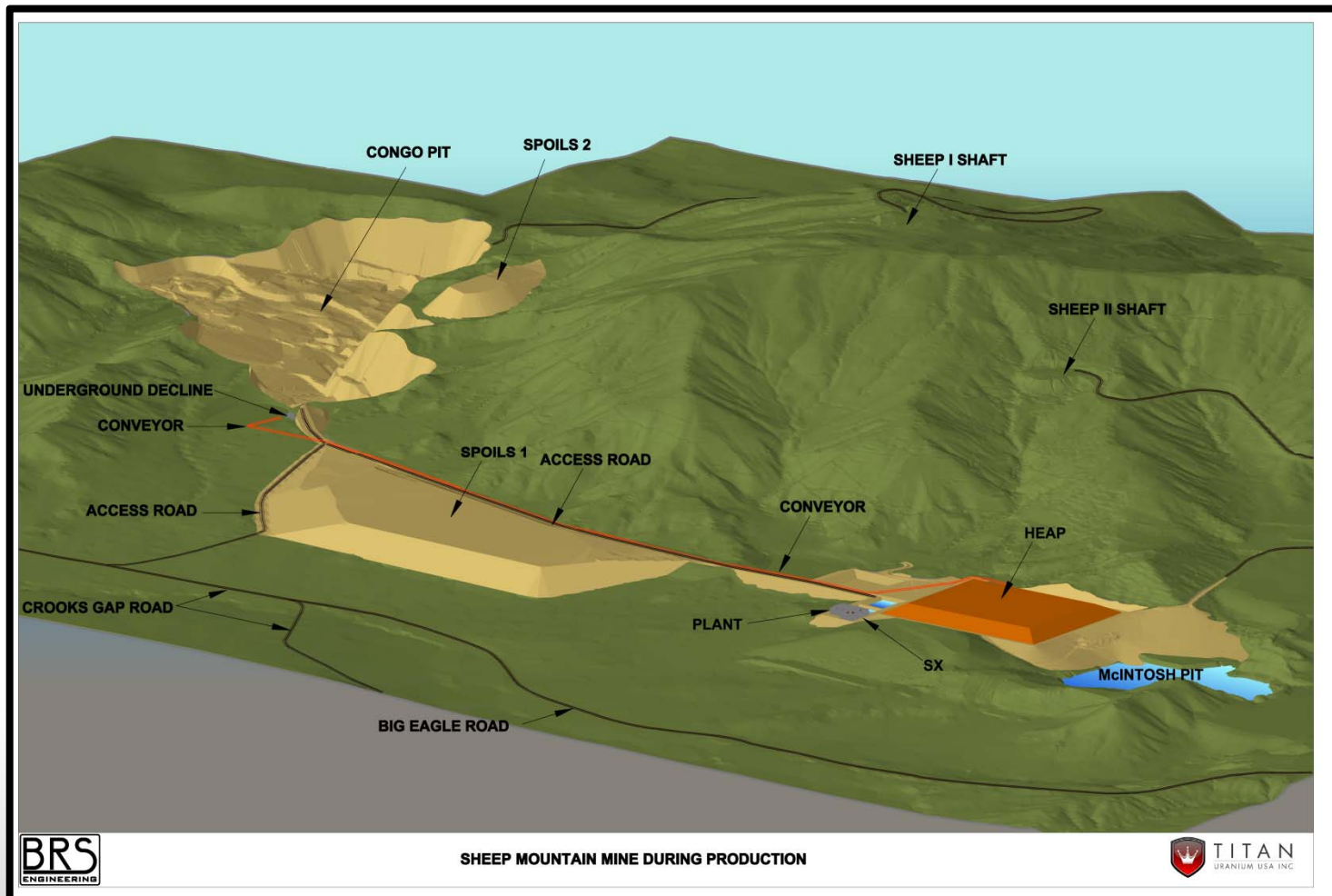
FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

During Production



TSX-V : TUE

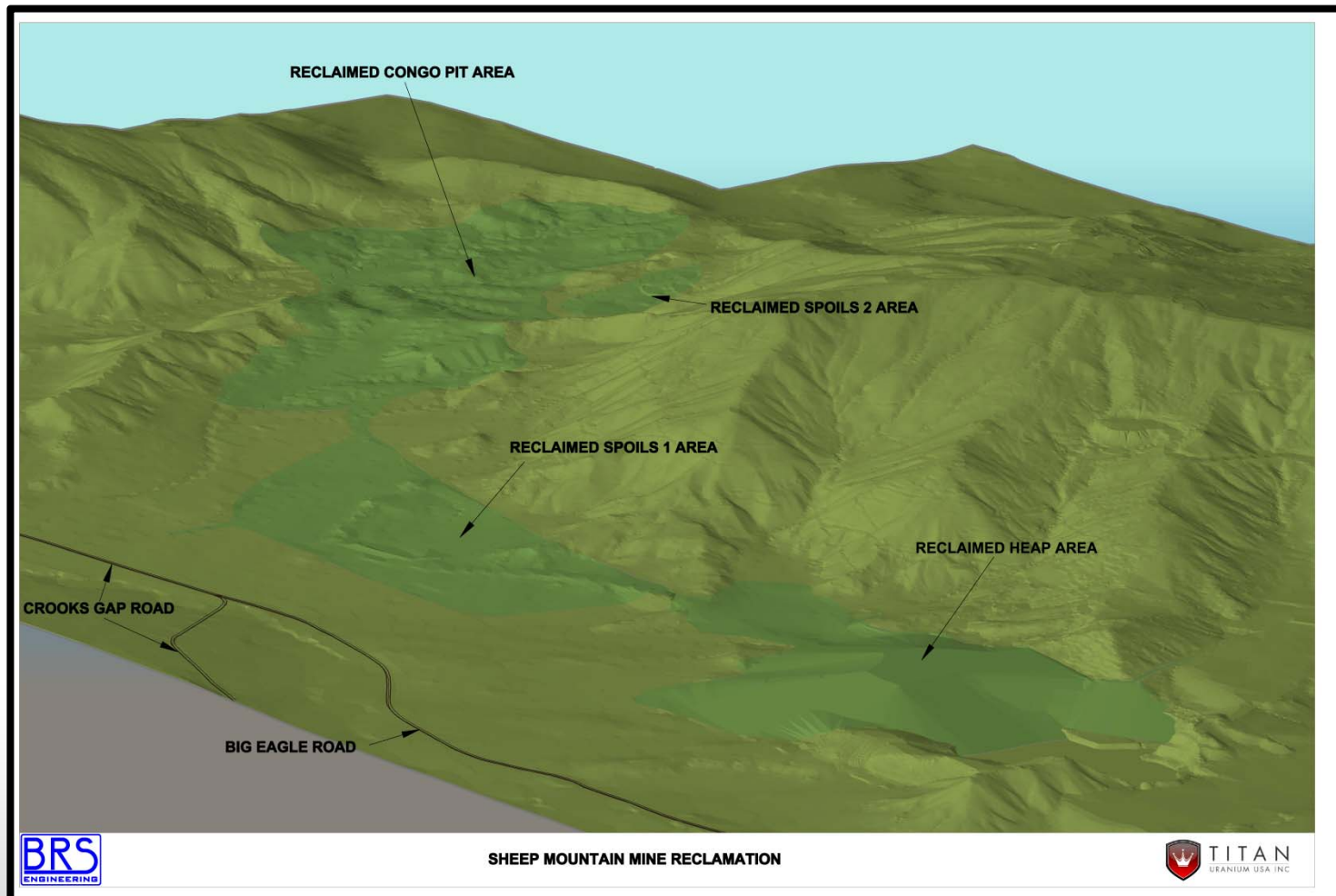
FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Final Reclamation



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



History

- Uranium Discovery Early 1950's
- Development Western Nuclear, Phelps Dodge, and Continental Uranium
- Jeffrey City Mill Commissioned 1957
- Now Decommissioned & Transferred to DOE
- Historic Production (Mill) 27.5 Million Pounds U_3O_8
- Transfer of Title
 - 1988; to US Energy from WNC
 - 2004; 50% to UPC from US Energy
 - 2007; 50% to Uranium One from US Energy
 - 2009; UPC Merges with Titan and Acquires 100% Interest

Sheep Mountain: Current Status

- 43-101 Indicated Mineral Resource Estimate
 - January 2011
 - 30.4M lbs (13.8M tons @ 0.110)
- Preliminary Feasibility Study
 - April 2010
 - OPEX \$28.67/lb
 - CAPEX \$118M

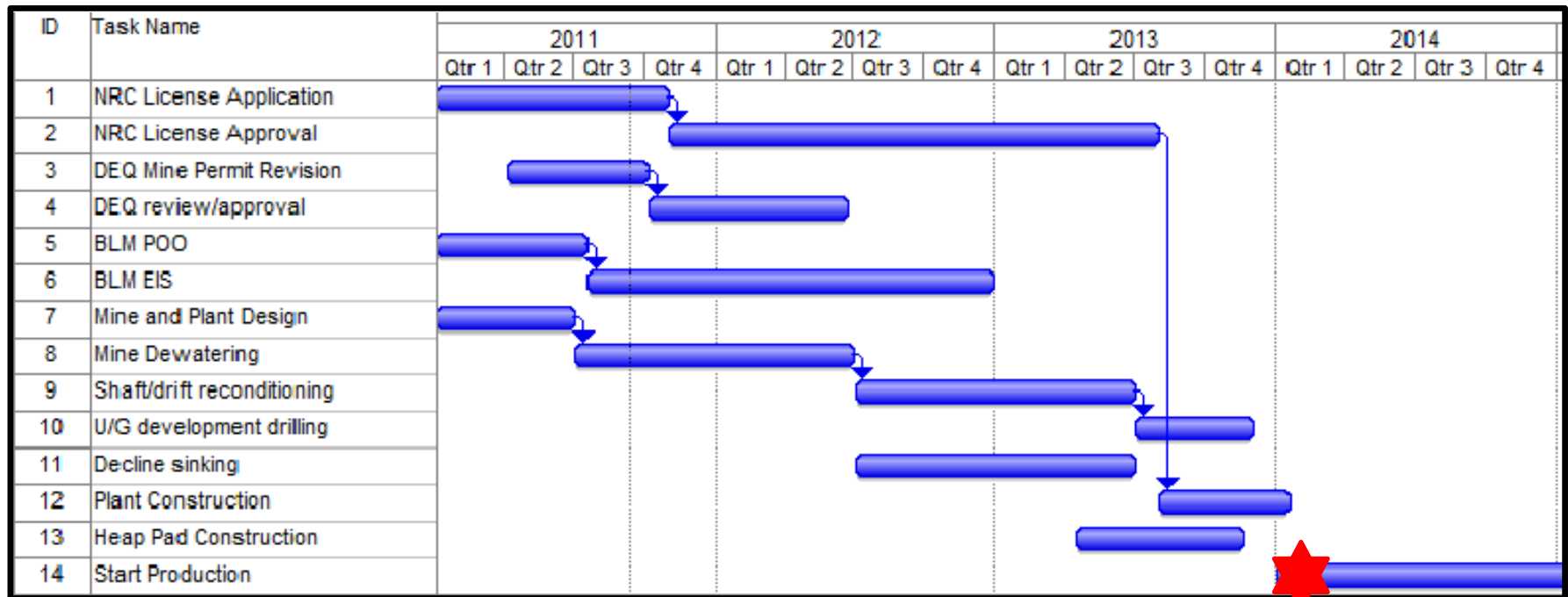
Why Heap Leach

- High Percentage Resource Recovery
- Low Operating Costs
- Environmental considerations
 - Low water demand
 - Closed Hydraulic System
 - Built on a liner with a positive drain
 - No Concentration of Slimes
 - Reclamation can proceed efficiently



TITAN
URANIUM USA INC

Sheep Mountain Schedule



Permitting Activities

- Mine – WDEQ/LQD and BLM
 - Underground and Open Pit Mining
 - Current Mine Permit (381C)
 - WDEQ Permit Revision Reclamation Plan Under Review
 - BLM Plan of Operations Submitted and Accepted as Complete
 - EIS Process Underway
- Uranium Recovery - USNRC
 - Heap Leach with Central Processing Plant
 - Site visit this week
 - Application submittal November 2011
- Regulators, State and Federal, have been Responsive and Cooperative

Project Timeline – Construction Long Lead Time Items

- Dewatering Sheep Underground to start in October 2011 ± 12 months to complete;
 - Water will be treated with BaCl and temporarily stored in the existing McIntosh Pit then used for processing;
- Decline to start as early as 2012;
- Then install temporary hoist and commence reconditioning shafts and underground workings;
- When reconditioning complete, commence underground drilling for detailed mine design;
- Open pit activities initiated 6 months prior to production



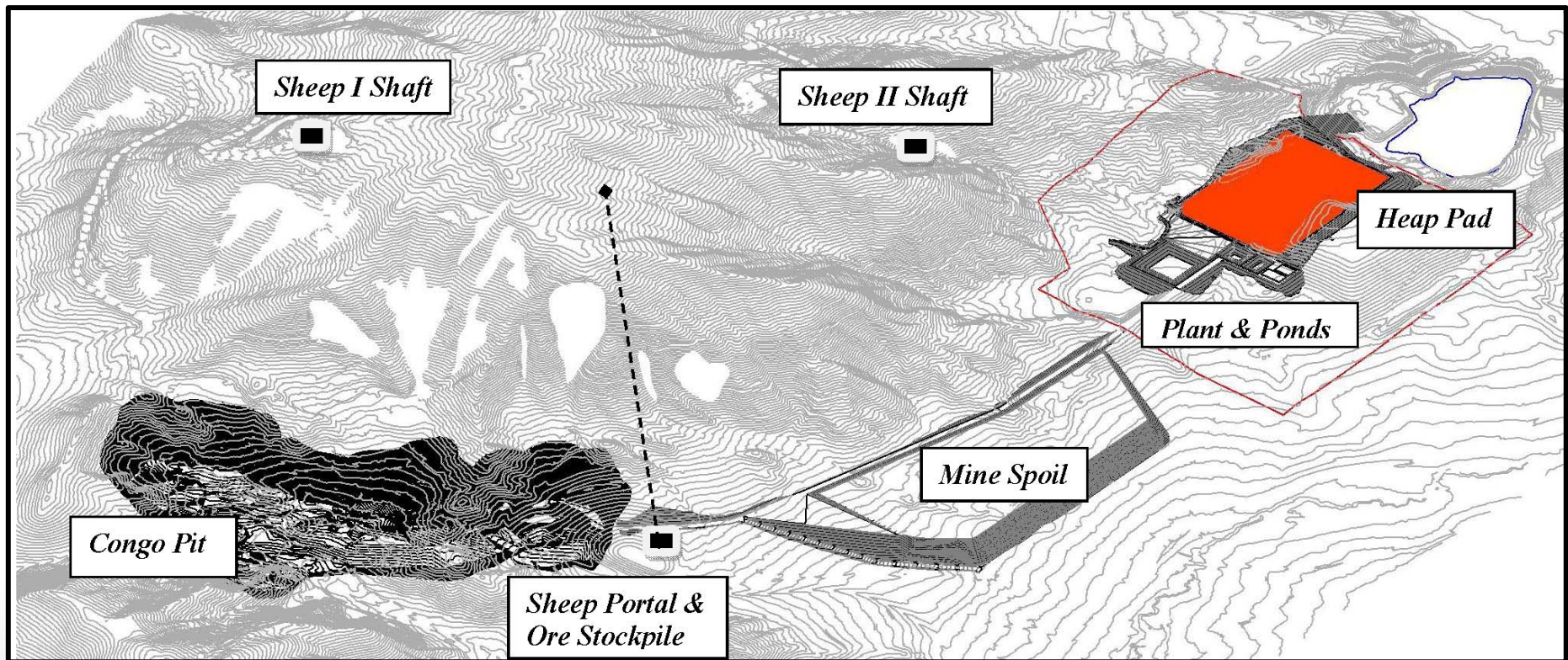
TITAN
URANIUM USA INC

Mine and Reclamation Planning



TITAN
URANIUM USA INC

Sheep Mountain Facilities



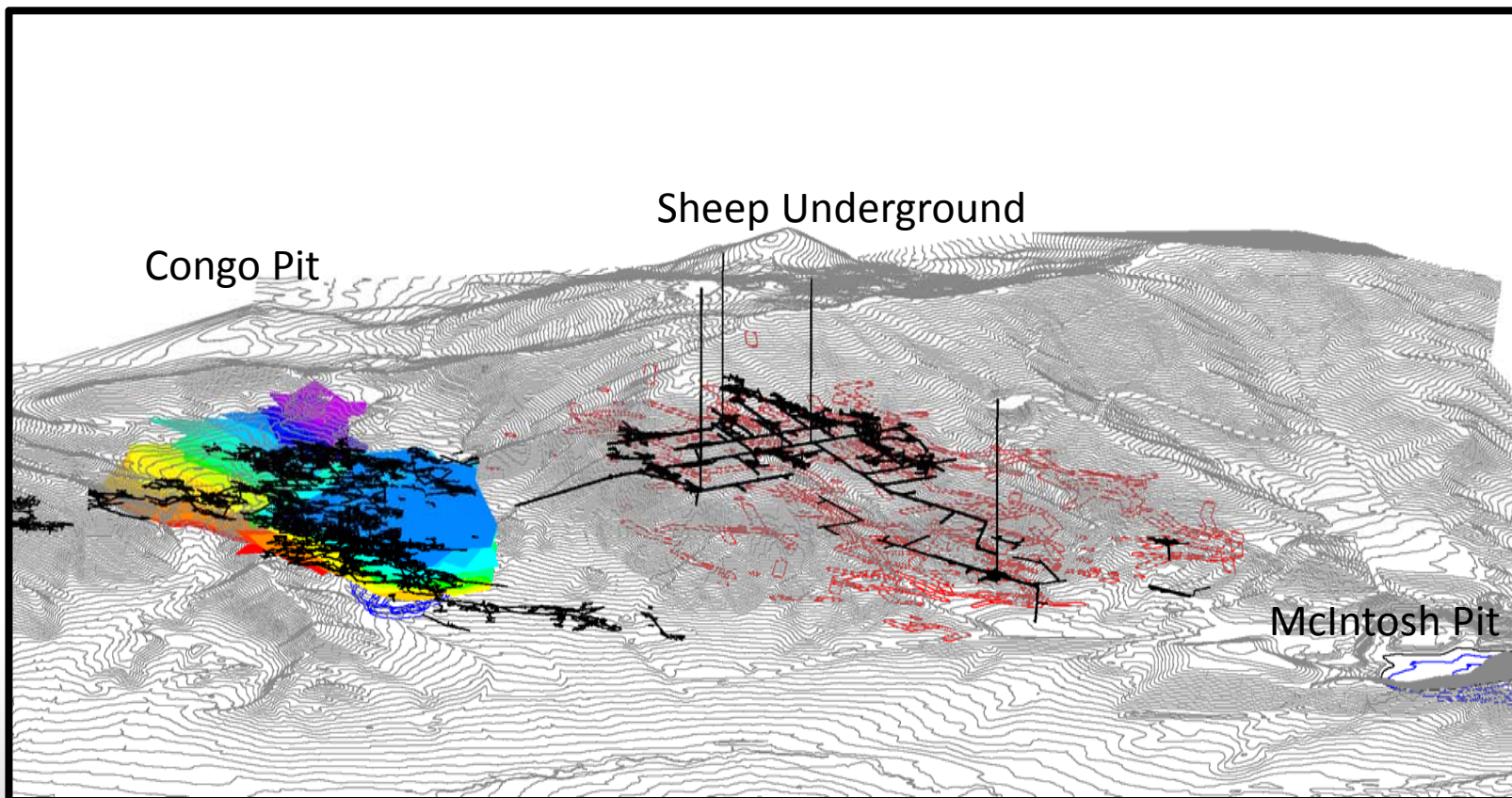
Sheep Underground

- Sheep Underground
 - Re-opening of previously operated conventional mine
 - Allowed under Permit to Mine No. 381C.
- Mining method is a conventional method using a modified room and pillar.
 - A new double entry haulage decline
 - Conveyor haulage
 - The existing shafts will be used for ventilation and emergency access



TITAN
URANIUM USA INC

Existing Mine Workings





TITAN
URANIUM USA INC

COLUMN LEACH TESTING

TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC



Loaded Columns

- 15 ft Columns
- 12 ft Ore
- Six Inch Diameter



TITAN
URANIUM USA INC



Leach Solution From Column

TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM

Summary of Results

Column #	1	2	3
Specific Gravity (tested)	1.50 g/cm ³	1.36 g/cm ³	1.46 g/cm ³
Ore % Moisture	8.5 %	8.5 %	4.3 %
Sulfuric Acid Required from Column Tests	1.68 lb/st	1.62 lb/st	3.90 lb/st
Lixiviate [H ₂ SO ₄]	10 g/L	10 g/L	10 g/L
Sodium Chlorate Addition Rate	3 lb/st	3 lb/st	3 lb/st
Ore Grade Assayed % U ₃ O ₈	0.077%	0.077%	0.1039%
Tails Grade Assayed mg/kg U ₃ O ₈	0.0001%	0.0001%	0.0029%
Tails % Moisture	13.7 %	14.7 %	17.0 %
Ore Grade % U ₃ O ₈	0.0763%	0.0729%	0.1128%
% Uranium Recovery	99.87%	99.86%	97.47%

- Recover 98% U
- Mobilize Only 2% Ra226



TITAN
URANIUM USA INC

HEAP LEACH SUMMARY

TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM

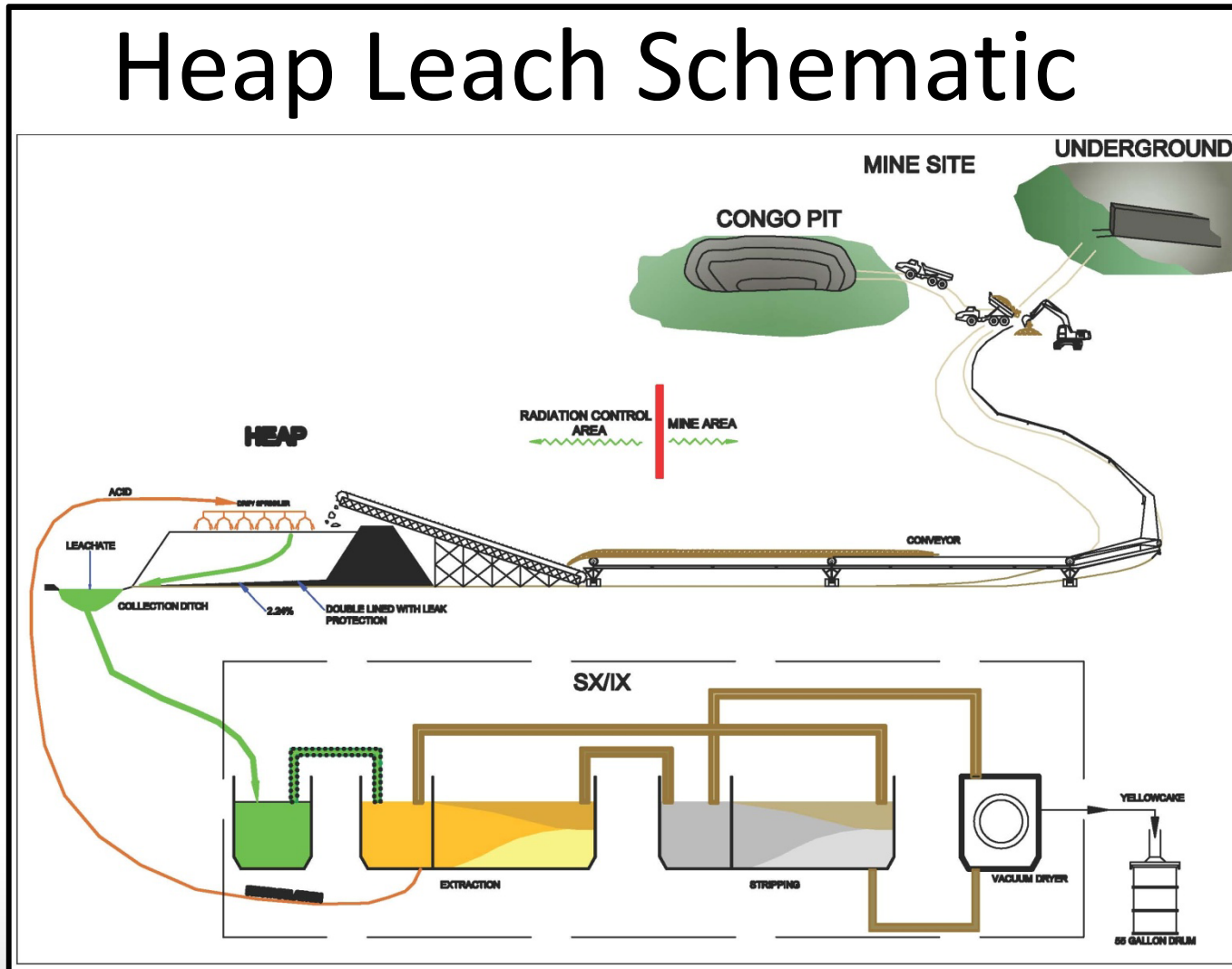


- **Early Heap Leach Operations for Uranium (US)**
 - Common beginning in 1950's
 - Small operations
 - Low grade (<0.05 %U₃O₈)
- **Larger Commercial Heap Leach Operations (US)**
 - Western Nuclear Corporation
 - Day Loma Heap Leach, Gas Hills, WY
 - Spook Vat Leach, Powder River Basin, WY
 - Ranchers Uranium
 - Naturita Tailings Uranium and Vanadium Heap Leach (500,000 tons)
 - Union Carbide Mining and Metals
 - East Gas Hills Heap, WY (650,000 tons initial)
 - Maybell Heap, CO (Tributary to Gas Hills Mill)
 - Planned: Black Hills, SD; Great Divide Basin, WY; and Others
- **Current and Planned Commercial Operations**
 - Operating: Brazil, China, Niger, and Spain
 - Planned: US, Australia, Botswana, and Namibia



TITAN
URANIUM USA INC

Heap Leach Schematic





TITAN
URANIUM USA INC

Heap Leaching 1978



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM

Sheep Mountain Heap Design Pre-Feasibility Parameters

- Average Grade 0.111 %U₃O₈
- Final Tails < 0.01 %U₃O₈ (includes soluble loss)
 - After column tests 0.004 %U₃O₈
- Overall Recovery 91%
 - 96% +
- Average liquor grade > 500 ppm column testing
 - 1,000 ppm
- Acid consumption 50 lbs/ton
 - 15 lbs/ton or less
- Conveyor loading
- Drip application



TITAN
URANIUM USA INC

CONSTRUCTION DETAILS

Double Lined Leak Detection

Subgrade Preparation/Underliner

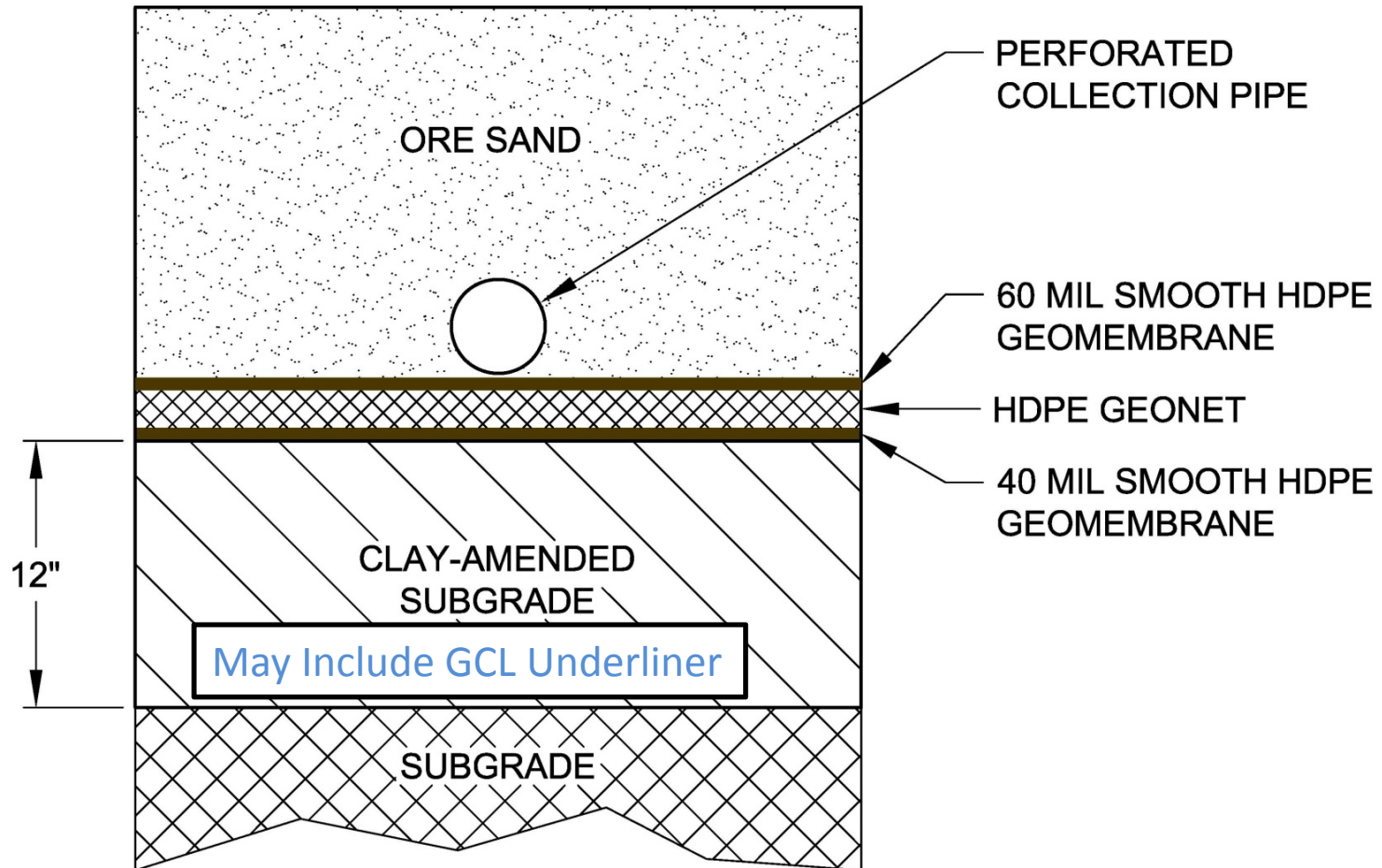
Operational Cover (Dust Control)

Cap and Cover (Reclamation)



TITAN
URANIUM USA INC

Heap Liner Detail

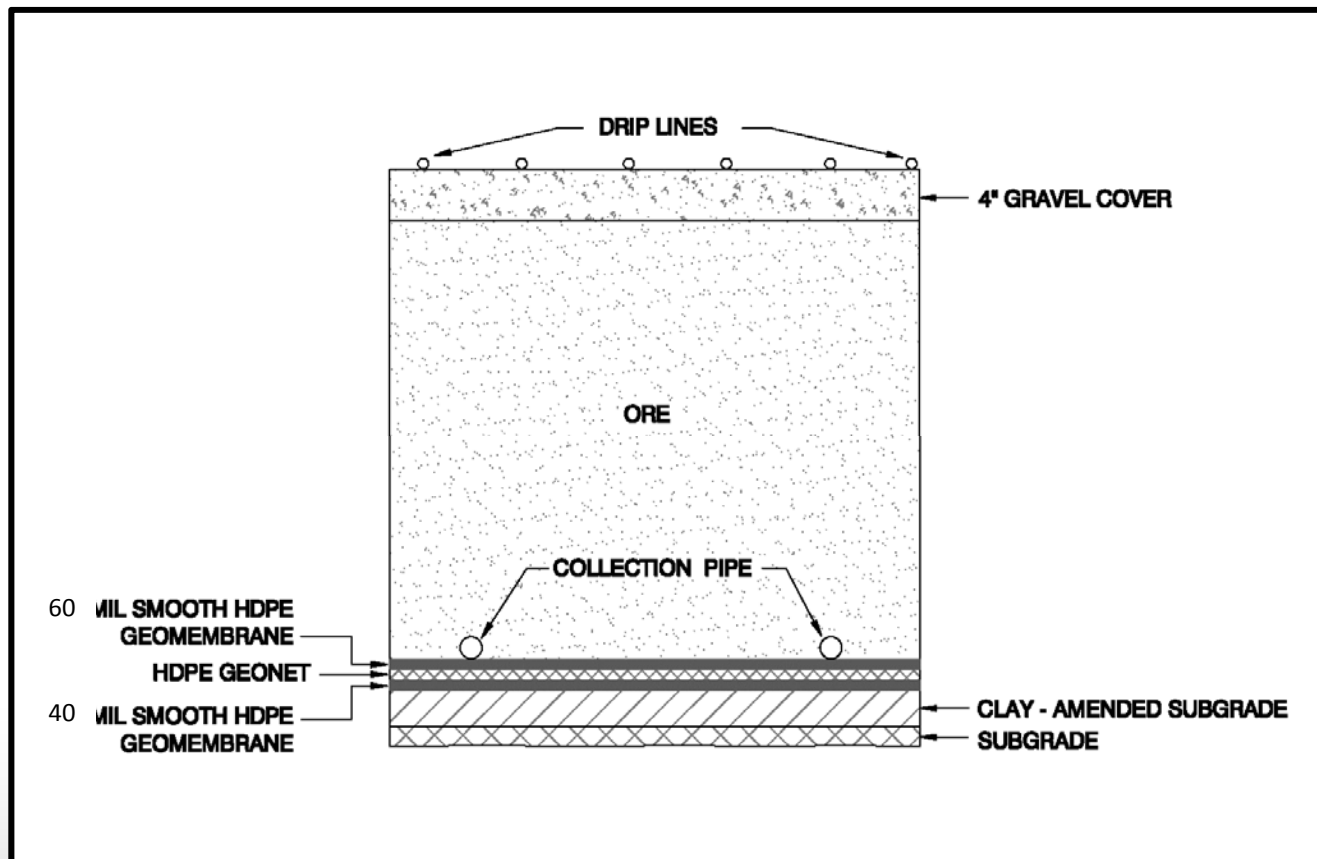




TITAN
URANIUM USA INC

D2

Heap Operational Cover



Slide 30

D2

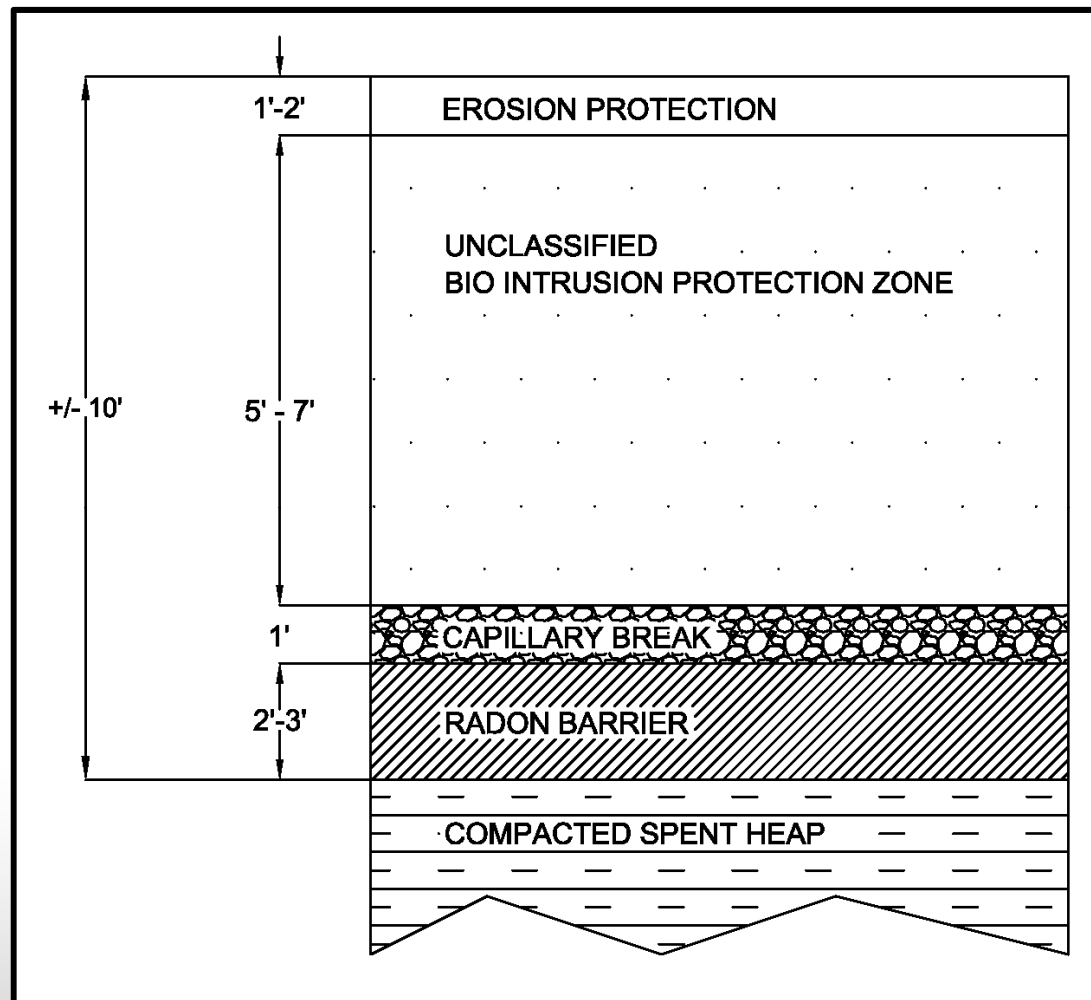
Here we show the liner 15 feet of ore, 4 inch gravel cove with drip lines

Doug, 9/12/2011



TITAN
URANIUM USA INC

Heap Cap and Cover Detail





TITAN
URANIUM USA INC

TYPICAL CONSTRUCTION METHODS

TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Installing Heap Liner System



Compañía Minera Lomas Bayas

TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Ore Conveyed to Heap



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Radial Stacker



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Solution Drip Lines



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Drip System – Winter Operations



TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



TITAN
URANIUM USA INC

Lined Solution Conveyance



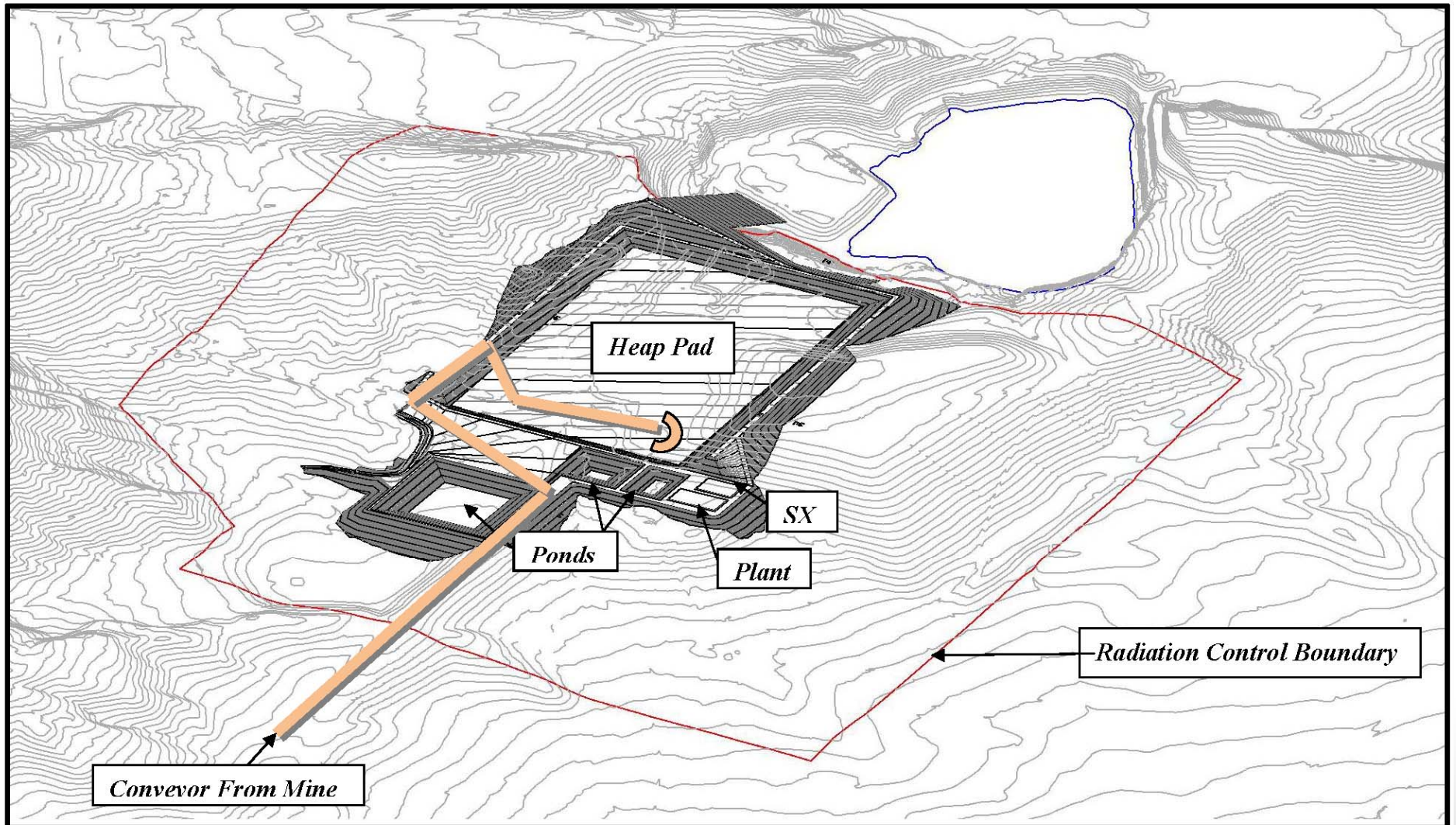
TSX-V : TUE

FRANKFURT : T4X

WWW.TITANURANIUM.COM



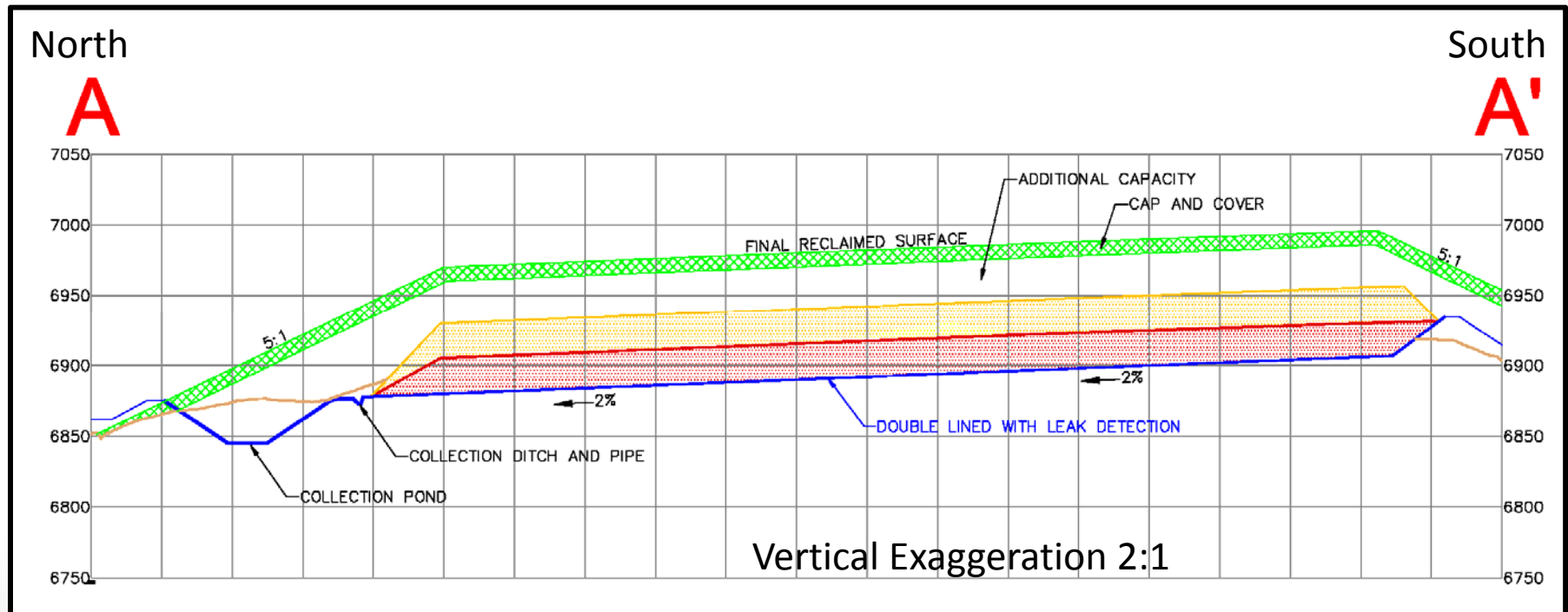
TITAN
URANIUM USA INC





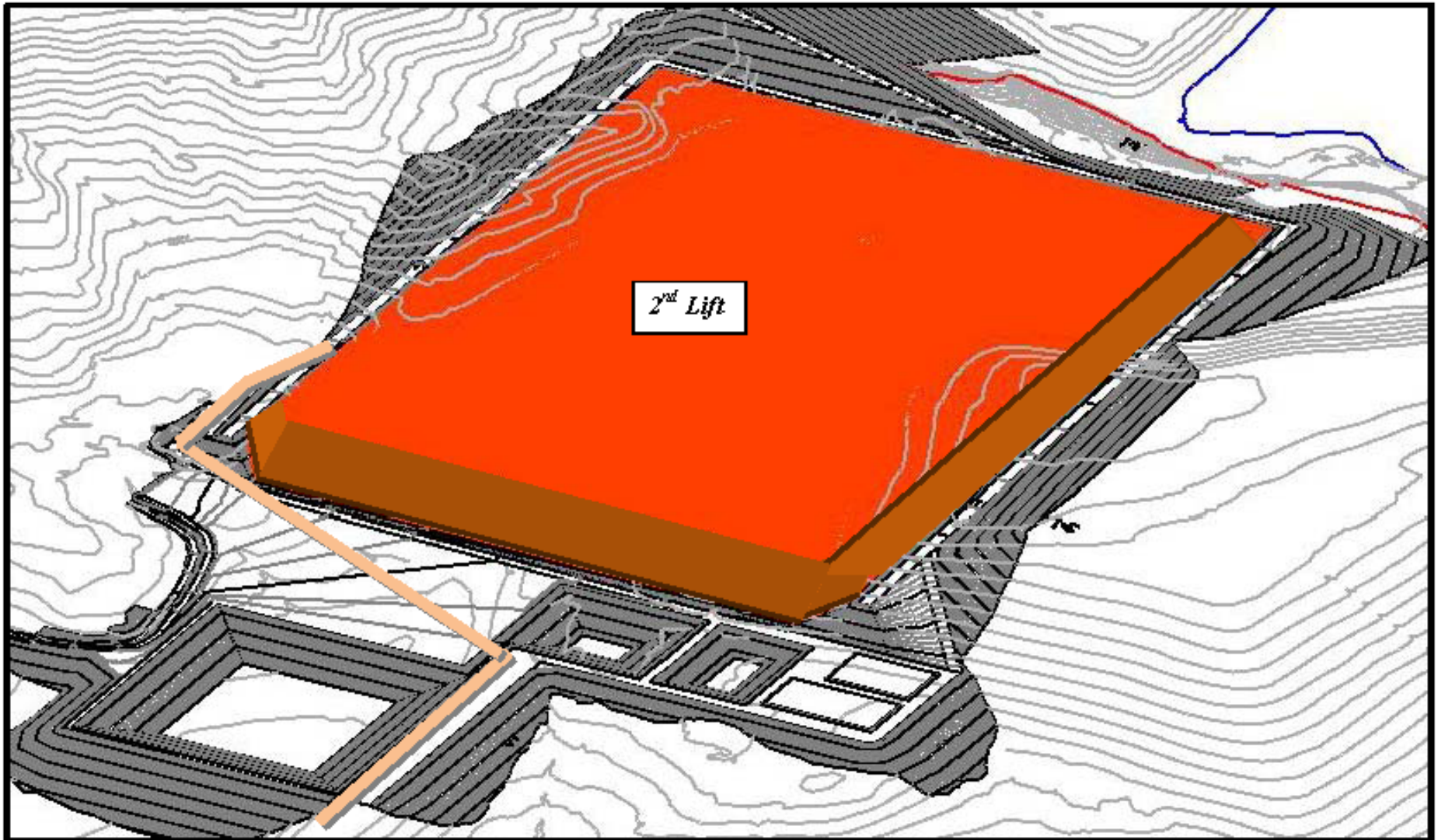
TITAN
URANIUM USA INC

N/S Sectional View





TITAN
URANIUM USA INC



Heap Pad Loading

- up to 2,600 tons/day,
- ~1,800 cy/day
- 25 ft per lift
- Cells 400 ft wide by 1,150 ft
- Rows 200 ft wide
- Loaded with continuous conveyor/stacker
- **Stacking**, leaching is phased to minimize
 - Exposed ore and spent material
 - Continual wetting during leaching and rinsing
- **Lixiviant** is 1 normal H_2SO_4
 - applied at 0.005 gpm/sq ft
- Approx. 1.6 acres primary leach at any one time
- Average 360 gpm of solution to plant



TITAN
URANIUM USA INC

Economic Impact of Sheep Mountain Mine

Direct benefits

Permanent jobs: 200+ (mainly at project location)

Gross Products Tax (county): Average \$2.0 million per year

Severance Tax (State): Average \$1.0 million per year

Royalties (State): Average \$1.5 million per year

Add-on benefits

- 200 new well-paid, full time jobs creates substantial add-on effects;
- Although most workers will likely live in Fremont County, the spin-offs will extend around the State, especially to Casper;
- New application of old technology (updated) gives opportunities for other projects within Wyoming, that may not otherwise be developed = increased benefits to the State.



Contact Information

CORPORATE OFFICE

Suite 300, 235 – 15th Street
West Vancouver, BC, Canada
V7T 2X1

604.925.1810 (office)

604.921.1898 (fax)

www.titanuranium.com

CASPER OFFICE

2510 East 15th Street, Suite 7
Casper, WY 82609
307.265.6664 (office)

INVESTOR RELATIONS

604.925.1810 ext 237

ir@titanuranium.com