

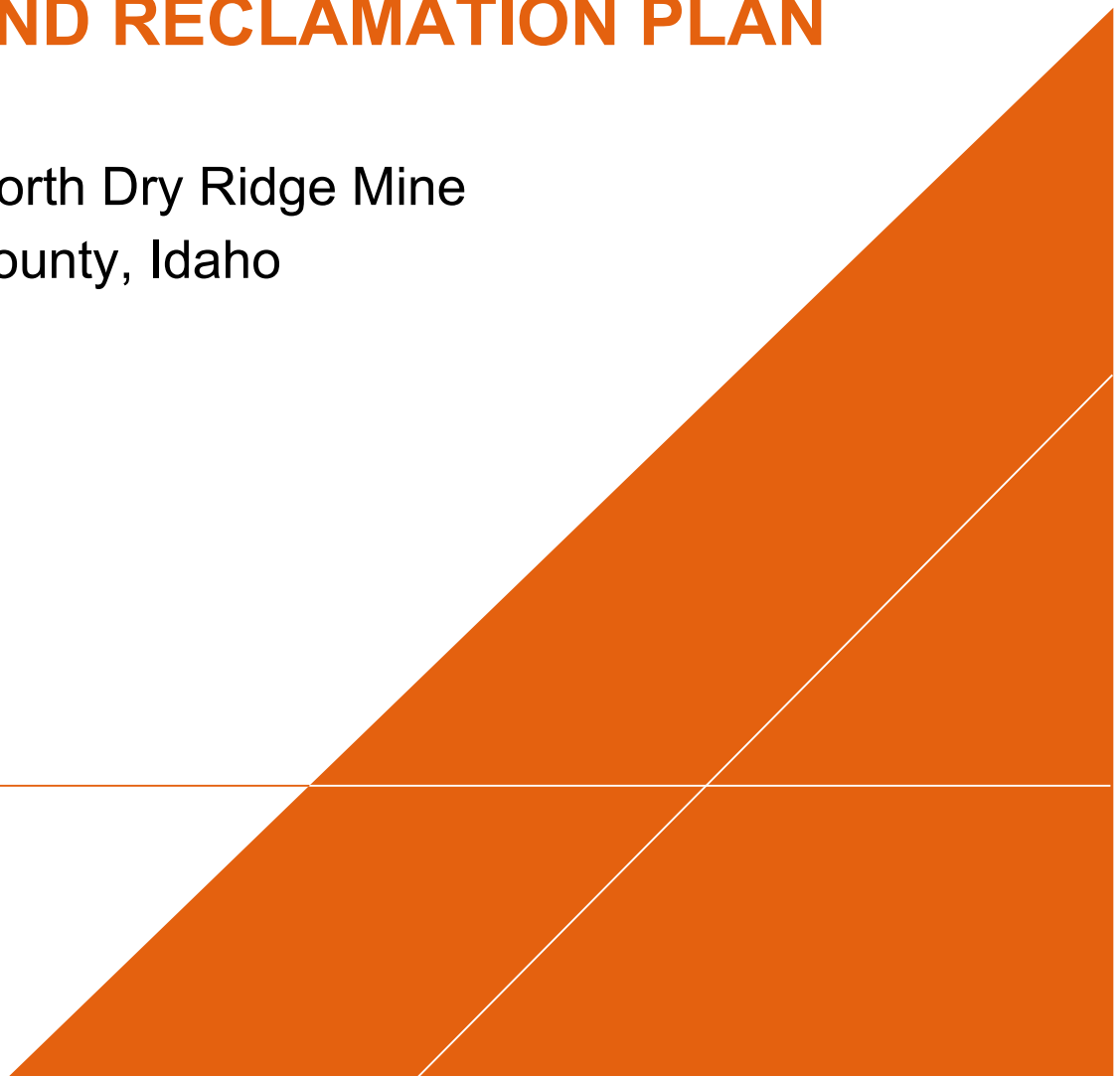


Itafos Conda LLC

MINE AND RECLAMATION PLAN

Husky 1 North Dry Ridge Mine
Caribou County, Idaho

June 19, 2020



MINE AND RECLAMATION PLAN

This Mine and Reclamation Plan was prepared in support of the proposed Husky 1 North Dry Ridge Mine Project. The Federal Phosphate Leases, all located in Caribou County, Idaho, subject to discussion herein are:

Husky 1

Federal Phosphate Lease IDI-05549

North Dry Ridge

Federal Phosphate Lease IDI-8289

Maybe Canyon Mine

Federal Phosphate Lease IDI-04

Dry Valley Mine Pit D

Federal Phosphate Lease IDI-0678

Submitted by:

Itafos Conda LLC
3010 Conda Road
Soda Springs, Idaho 83276

Submitted to:

Bureau of Land Management
Pocatello Field Office
4350 Cliffs Drive
Pocatello, Idaho 93204

CONTENTS

Acronyms and Abbreviations.....	vi
1 Introduction.....	1-1
1.1 Project Location	1-3
1.2 Objectives	1-4
1.3 Document Structure	1-4
2 Historical Summary	2-1
2.1 Husky 1 Lease IDI-05549	2-1
2.2 North Dry Ridge Lease IDI-8289.....	2-2
2.3 Maybe Canyon Mine Lease IDI-04	2-2
2.4 Dry Valley Mine Pit D Lease IDI-0678	2-2
3 Geology.....	3-1
3.1 Stratigraphy.....	3-1
3.2 Structural Geology	3-5
3.3 Exploration	3-5
3.3.1 Husky 1 Exploration.....	3-5
3.3.2 North Dry Ridge Exploration.....	3-6
3.4 Digital Modeling	3-6
3.4.1 Husky 1.....	3-6
3.4.2 North Dry Ridge.....	3-7
3.5 Grade Classification.....	3-7
3.5.1 Husky 1.....	3-7
3.5.2 North Dry Ridge.....	3-7
3.6 Mineralized Inventory.....	3-7
4 Engineering Design.....	4-1
4.1 Surface Disturbance	4-1
4.1.1 Pit Design Parameters.....	4-3
4.1.1.1 Husky 1	4-3
4.1.1.2 North Dry Ridge	4-3
4.1.2 Slope Stability.....	4-4

MINE AND RECLAMATION PLAN

4.1.3	Ore Recovery.....	4-4
4.1.3.1	Husky 1	4-4
4.1.3.2	North Dry Ridge	4-5
4.1.4	Access and Haul Road Design.....	4-5
4.1.5	Culverts.....	4-7
4.1.6	Water Management	4-8
4.1.7	Backfill Design	4-9
4.1.8	Cap and Cover Design	4-9
4.1.9	Overburden Storage Area Design	4-10
4.1.9.1	Husky 1	4-10
4.1.9.2	North Dry Ridge	4-11
4.1.10	Growth Media Stockpile Design and Capacities	4-11
4.2	Additional Mine Facilities	4-11
4.2.1	Staging Area.....	4-11
4.2.1.1	Husky 1	4-12
4.2.1.2	North Dry Ridge	4-12
4.2.2	Fuel Storage Area and Containment Design.....	4-12
4.2.3	Dust Suppression Wells with Water Fill Stands	4-13
4.2.3.1	Husky 1	4-13
4.2.3.2	North Dry Ridge	4-13
4.2.4	Train Loading (Tipple)/Ore Stockpile Area	4-13
4.2.5	Existing Dry Valley Shop and Offices.....	4-14
5	Plan of Operations	5-1
5.1	Mining Sequence	5-1
5.1.1	Preliminary Design	5-2
5.1.2	Husky 1.....	5-4
5.1.3	North Dry Ridge.....	5-5
5.2	Mine Operations.....	5-5
5.2.1	Equipment.....	5-6
5.2.2	Material Management.....	5-6
5.2.3	Pit Water Management.....	5-7

MINE AND RECLAMATION PLAN

5.2.4	Employee Safety	5-7
5.2.5	Highwall and Footwall Slopes Stability	5-8
5.2.6	Blasting	5-8
5.2.7	Haul Roads	5-8
5.3	Public Safety Plan	5-8
5.3.1	Public and Mine Road Interactions	5-9
5.3.2	Blasting	5-9
5.3.3	Vendor Access	5-9
5.4	Wildfire Control	5-9
5.5	Natural Resources Protection	5-10
5.5.1	Surface Water	5-10
5.5.1.1	Stormwater Pollution Prevention Plan	5-11
5.5.1.2	Spill Prevention, Control, and Countermeasure Plan	5-11
5.5.2	Groundwater	5-11
5.5.3	H1 Permanent Overburden Storage Area	5-12
5.5.4	Livestock and Wildlife	5-12
5.5.5	Cultural Resources	5-13
5.5.6	Waters of the United States	5-13
5.5.7	Soils	5-13
5.5.8	Growth Media	5-13
5.5.9	Vegetation	5-14
5.5.10	Air	5-14
5.5.11	Fisheries and Aquatic Resources	5-14
5.6	Reclamation	5-16
5.6.1	Waterways	5-19
5.6.2	Permanent Pit Overfill Areas and External Overburden Storage Areas	5-19
5.6.3	Access and Haul Roads	5-19
5.6.4	Remaining Pit Wall Exposures	5-20
5.6.5	Facilities	5-21
5.6.6	Revegetation	5-21
5.6.7	Hydrocarbons	5-22

MINE AND RECLAMATION PLAN

5.6.8 Return to Landowner Use..... 5-22

5.6.9 Growth Media Material Balance 5-22

6 Potential Permits and Regulatory Requirements..... 6-1

6.1 Requested Lease Modifications..... 6-1

6.1.1 Husky 1..... 6-1

6.1.2 North Dry Ridge..... 6-1

6.2 Surface Landowner Agreements 6-2

6.2.1 Special Use Permit: USFS 6-2

6.2.2 Private Surface 6-2

6.3 Environmental Permits..... 6-2

6.3.1 Air Permit to Construct 6-2

6.3.2 Stormwater Pollution Prevention Plan..... 6-3

6.3.3 Spill Prevention Control and Countermeasure Plan..... 6-3

6.3.4 Drinking Water System..... 6-3

6.3.5 Stream Alteration..... 6-3

6.3.6 Wetland Delineation 6-3

6.3.7 Monitoring..... 6-3

7 Conclusive Summary 7-1

8 References..... 8-1

TABLES

Table 1-1. Project Components..... 1-1

Table 1-2. MRP Cross-Reference with Code of Federal Regulations..... 1-4

Table 2-1. Lease Management Profile 2-1

Table 4-1. Husky 1 Surface Disturbance (acres) 4-2

Table 4-2. North Dry Ridge Surface Disturbance (acres)..... 4-2

Table 4-3. Husky 1 Open Pit Material Quantities (by Phase)..... 4-4

Table 4-4. North Dry Ridge Open Pit Material Quantities (by Phase)..... 4-5

Table 4-5. Design Storm Criteria for Peak Flow Conveyance..... 4-8

Table 5-1. Husky 1 Open Pit Mine Sequence 5-1

MINE AND RECLAMATION PLAN

Table 5-2. North Dry Ridge Open Pit Mine Sequence	5-2
Table 5-3. Husky 1 Backfill Capacity	5-3
Table 5-4. Husky 1 Backfill Schedule by Phase	5-3
Table 5-5. North Dry Ridge Backfill Capacity	5-4
Table 5-6. North Dry Ridge Backfill Schedule by Phase	5-4
Table 5-7. Revegetation Seed Mixes	5-15
Table 5-8. Husky 1 Reclamation Schedule	5-17
Table 5-9. North Dry Ridge Reclamation Schedule	5-18
Table 5-10. Husky 1 Growth Media Salvage and Reclamation	5-22
Table 5-11. North Dry Ridge Growth Media Salvage and Reclamation	5-23
Table 6-1: Lease Modification Summary	6-1
Table 6-2: Special Use Permit Summary	6-2

FIGURES

Figure 1-1. Proposed Action	1-2
Figure 3-1. Typical Regional Stratigraphic Column	3-4
Figure 4-1. Example Double-Lane Design for 100-Ton Class Haul Truck	4-6
Figure 4-2. Example Single-Lane Design for 100-Ton Class Haul Truck	4-7
Figure 4-3. Typical Cap and Cover Cross-Section	4-10
Figure 4-4: Typical Tipple Liner	4-14

APPENDICES

Appendix A. Maps

Appendix B. Surface and Mineral Ownership Information

Appendix C. Cross-Sections

Appendix C1. Open Pit Modeled Cross-Sections – Husky 1

Appendix C2. Open Pit Modeled Cross-Sections – North Dry Ridge

Appendix C3. Permanent OSA and North Maybe Mine and South Maybe Canyon Mine Cross-Sections

Appendix D. Surface Water Management Plan

Appendix E. Mining and Verification Procedures

Appendix F. Cap and Cover Design Calculations

ACRONYMS AND ABBREVIATIONS

bcy	bank cubic yards
BLM	Bureau of Land Management
BMP	best management practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COPC	constituent of potential concern
CTNF	Caribou-Targhee National Forest
DV Shop Area	Dry Valley Shop Area
DVM	Dry Valley Mine
DVM Pit D Lease	Dry Valley Mine Pit D Federal Phosphate Lease IDI-0678
EMP	Environmental Monitoring Plan
GM	growth media
GMSA	growth media stockpile area
H1	Husky 1 Mine
H1-E	Husky 1 Mine east pit
H1 Lease	Husky 1 Federal Phosphate Lease IDI-05549
H1-L	Husky 1 Mine long pit
H1-N	Husky 1 Mine north pit
H1NDR	Husky 1 North Dry Ridge Mine
H1-S	Husky 1 Mine south pit
H1-X	Husky 1 Mine ex-pit
HDPE	high-density polyethylene
ID	identification
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
Itafos	Itafos Conda LLC
KPLA	Known Phosphate Lease Area
Icy	loose cubic yard

MINE AND RECLAMATION PLAN

MAP	mono-ammonium phosphate
Mbcy	million bank cubic yards
MCM	Maybe Canyon Mine
MCM Lease	Maybe Canyon Mine Federal Phosphate Lease IDI-04
MRP	Mine and Reclamation Plan
N/A	not applicable
NDR	North Dry Ridge Mine
NDR Lease	North Dry Ridge Federal Phosphate Lease IDI-8289
NEPA	National Environmental Policy Act
NMM	North Maybe Mine
Nu-West	Nu-West Industries, Inc.
OSA	Overburden Storage Area
OU	Operable Unit
OZ	Operational Zone
ROM	run-of-mine
SeW	seleniferous waste
SMCM	South Maybe Canyon Mine
SMCM-N	South Maybe Canyon Mine North
SMCM-S	South Maybe Canyon Mine South
SPCC	Spill Prevention, Control, and Countermeasure
SUP	Special Use Permit
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFS	U.S. Forest Service
WNT	wet net ton