STATE OF COLORADO

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

M-1999-006 - Kurtz Sand, Gravel and Reservoir Project (P115) Financial Warranty Update Estimate

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us> Thu, Jul 3, 2025 at 5:43 AM
To: Peter Christensen <Peter.Christensen@respec.com>
Cc: Garrett Varra <gvarra@raptormaterialsllc.com>, Jenna Lohmann <Jenna.Lohmann@respec.com>, Andy Geisler <ageisler@raptormaterialsllc.com>

Good Morning,

Please use this email as acknowledgement of receipt of the required documents for the Financial Warranty problem citation as well as notification of abatement of the problem.

I will get a copy of the materials into the permit file and follow up as needed.

If no additional follow up is needed the Division will issue a Surety Increase and Raptor will have 60 days from that date to post the additional warranty needed.

Please let me know if you have any questions.

Thank you,
Patrick
[Quoted text hidden]
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Patrick Lennberg
Environmental Protection Specialist

COLORADO
Division of Reclamation, Mining and Safety
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Kurtz Resource Recovery & Land Development

Raptor Materials 112C Permit M 1999-006

Reclamation Cost Estimate Update

July 02, 2025

This submission is in response to a corrective action from a permit inspection conducted May 09, 2025. The specific action concerns the inadequacy of the current Financial Warranty. A formal update to Exhibit L has not been completed but will be pending determination the enclosed information is satisfactory to bring the Financial Warranty to be more current with the current status of the permit. Raptor Materials (Raptor) believes all information necessary to calculate the costs of reclamation is included in this submission.

Overview

The Kurtz (P115) permit, #M-1999-006, is currently serving primarily as a central processing facility for sand and gravel extracted primarily from the adjacent Raptor Materials, Parcel 122 – Bearson Resource Development Project (DRMS Permit #M-2015-033) and intended in the future to process material from an adjacent property currently being permitted (Cogburn Sand, Gravel, and Reservoir Project, (DRMS Permit #M-2025-016). In addition, some material remains to be extracted and processed from the Kurtz permit area.

The permit has 4 separate areas identified as Tracts A, B, C, and D labelled on the enclosed map updated for this submission from the most recent Annual Report filing.

Tract A is an extraction area where a minor amount of material remains to be extracted. An amendment will be submitted prior to August 31, 2025 also satisfying a corrective action in the most recent inspection report. This amendment will propose permitting the Tract A excavation as a lined water storage reservoir. Much (~70%) of the Tract A excavation has been regraded and lined with this post mining land use in mind.

Tract B currently contains the dry processing plant with the wet processing plant currently situated in the northwest corner of Tract A. Material from the Bearson permit is delivered to this area via a conveyor belt. Product stockpiles, including a large sand pile (approximately 200,000 cubic yards (CY) as of the last survey on June 11, 2025 exist in various locations within Tract B. Minor excavation is ongoing in Tract B and these excavations are proposed to be backfilled to no longer expose ground water as part of final reclamation.

Tract C contains an excavation currently being backfilled to no longer expose groundwater and this activity is proposed to continue.

Tract D has minor excavations remaining to be backfilled to no longer expose groundwater. This area is currently in active use as part of the construction of a water pipeline by the City of Thorton.

As extraction activities are currently minimal and reclamation activities are ongoing in Tracts C and D, Raptor proposes the worst case scenario for reclamation in the event of default is the current state of the operation. A general approach to reclamation of the operation left in its current state assumes:

1. Tract A excavation will fill with water and require dewatering to complete grading and liner construction. A significant amount of fill material has been stored in the Tract A excavation and this will be used in backfilling excavations in Tracts B, C, and D to ensure groundwater is no longer exposed. Existing ponds in Tract A will be backfilled unless they can be shown to satisfy the State Engineer requirements for lined storage.
2. The large sand pile in Tract B will be pushed using tracked dozers into adjacent existing excavations. Additional fill material to ensure groundwater is no longer exposed will be sourced from Tract A.
3. The exposed groundwater in Tracts C and D will be eliminated through backfilling of those areas.
4. Topsoil is currently being stored on the adjacent Bearson property (DRMS Permit #M-2015-033) and will be conveyed using the existing conveyor to Tract B from where it will be distributed to all areas of the Kurtz permit to a depth of six inches.
5. The conveyor will be removed and while likely to have salvage value greater than the cost of recovery, a cost has been included in the estimate for removal.
6. The processing plant is all portable equipment and is conservatively assumed to be salvaged with no residual value.
7. Other items including truck scales, concrete pads and small structures will be removed.

Estimates of the work required to complete the above reclamation of the Kurtz operation include material properties, material quantities, material transport distances. Equipment productivity and fleet requirements are generally based on Cat Handbook and in some cases supported by previous DRMS methodology. The physical quantities and equipment requirements support cost estimates using rates either from recent DRMS reclamation cost estimates prepared in CIRCES, or other sources as noted.

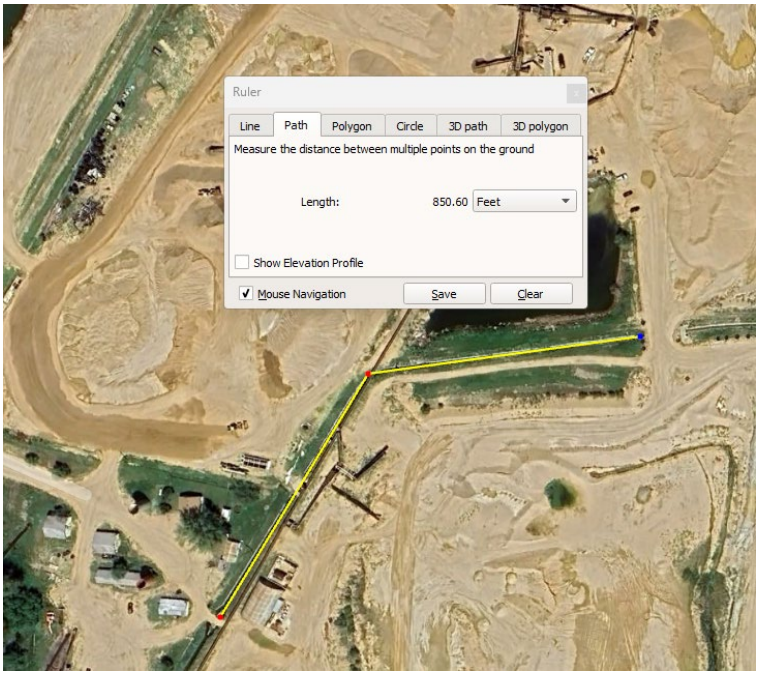
The enclosed map provides a site wide overview of key elements. The following sections provide more detail on specific elements of the estimate which are then documented in the attached costing sheets patterned on CIRCES output.

Tract A: Dewater

Pond Volume at static GW elevation (4793'): 5,018,171 CY (surface subtract in CAD)

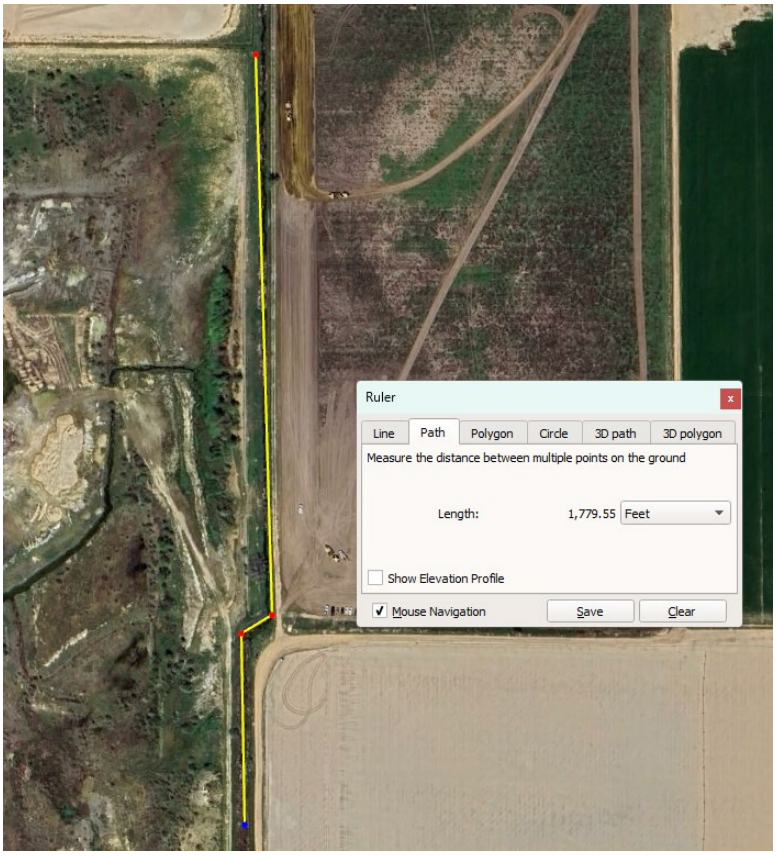
Tract A

Tract A: re-grade and re-line – west wall



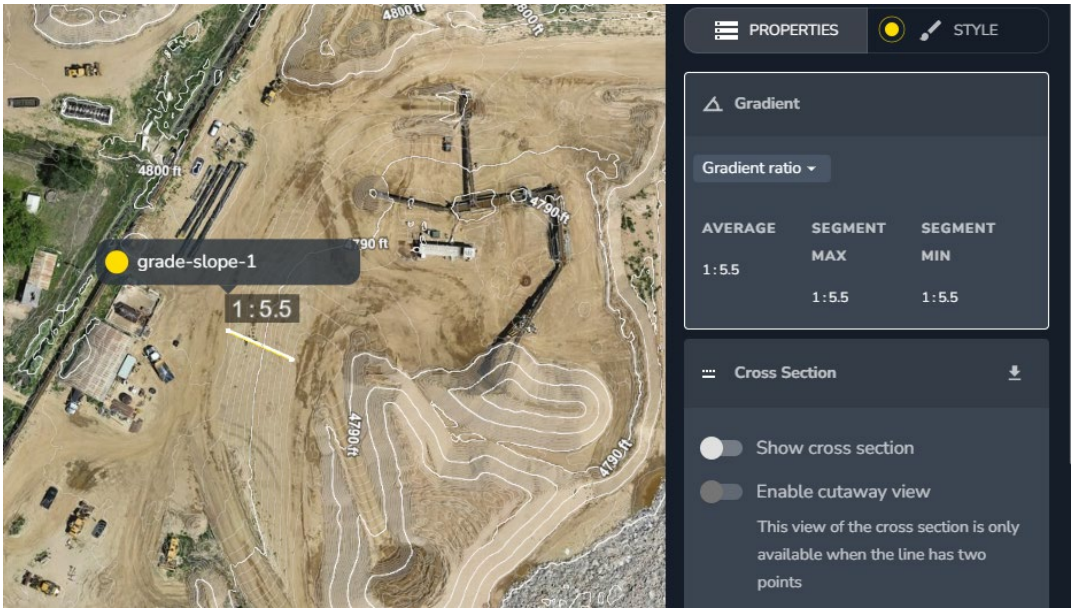
NOTE: Actual distance measured on CAD drawing as 715 feet

Tract A: re-grade and re-line – east wall

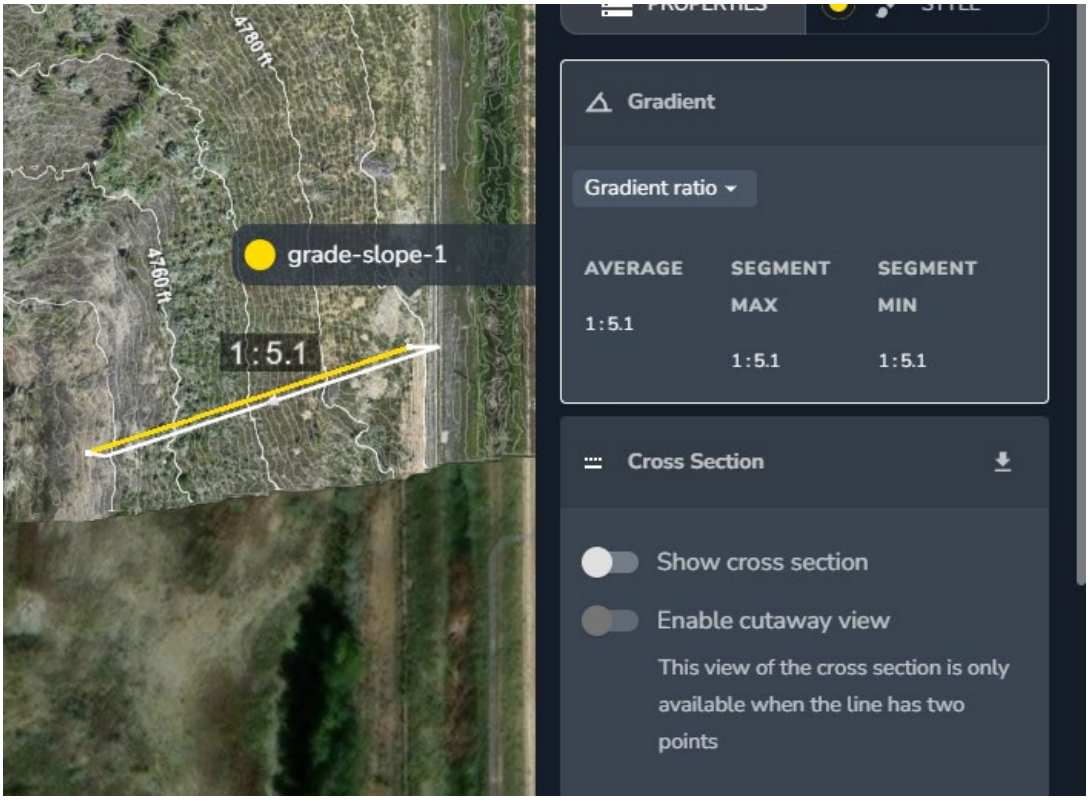


NOTE: Actual distance measured on CAD drawing as 1,820 feet

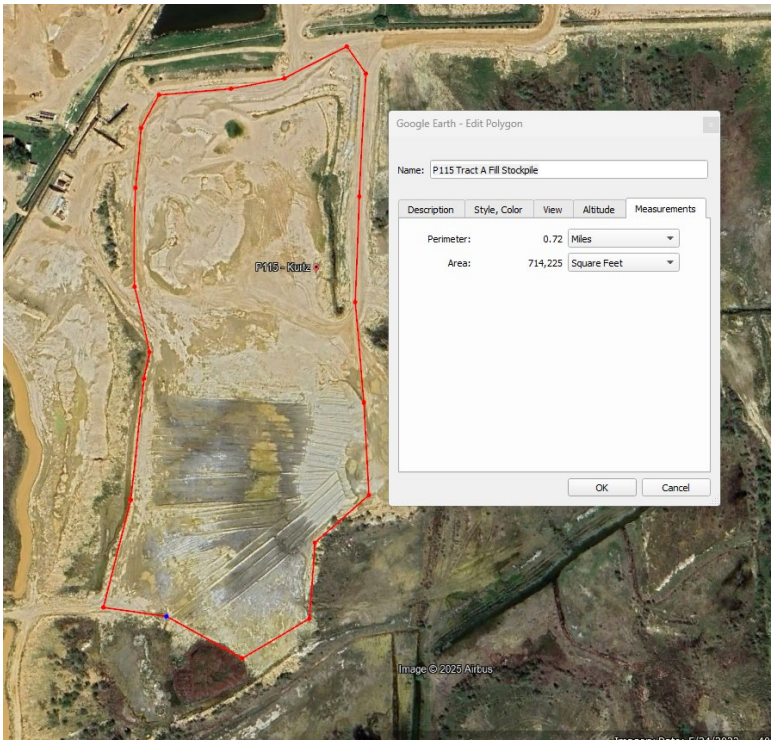
Tract A: slope – west wall existing slope



Tract A: slope – east wall existing slope



Tract A: Stored fill material

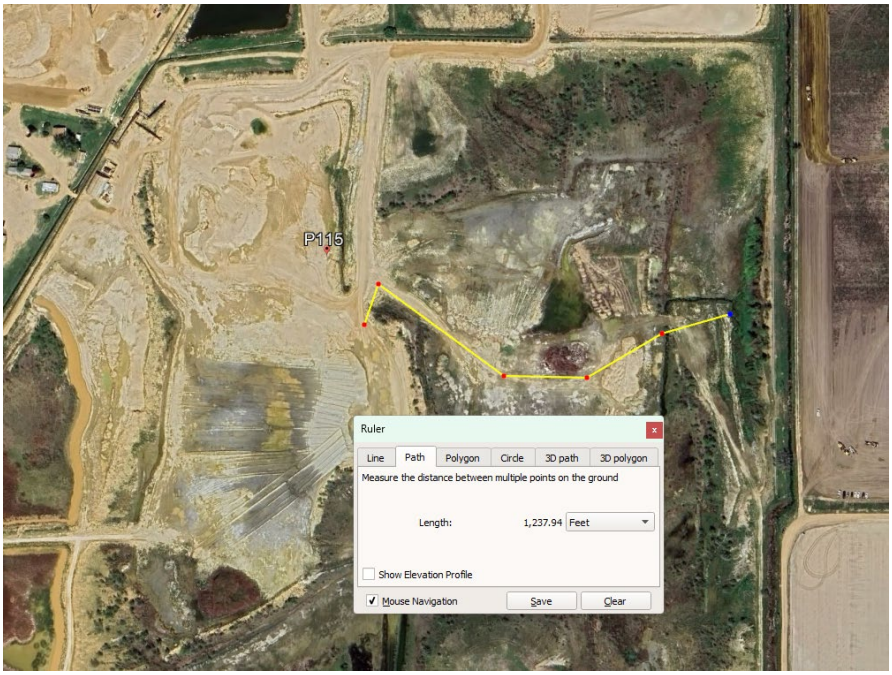


Updated topographic survey of this area of the pit has been ordered. The area stored fill material is approximately 714,000 sq. feet, with the west side estimated to be 30 feet deep grading down to zero feet on the pit floor on the east side. A conservative volume estimate from this geometry is 395,000 LCY of material.

Tract A: Liner and fill source material

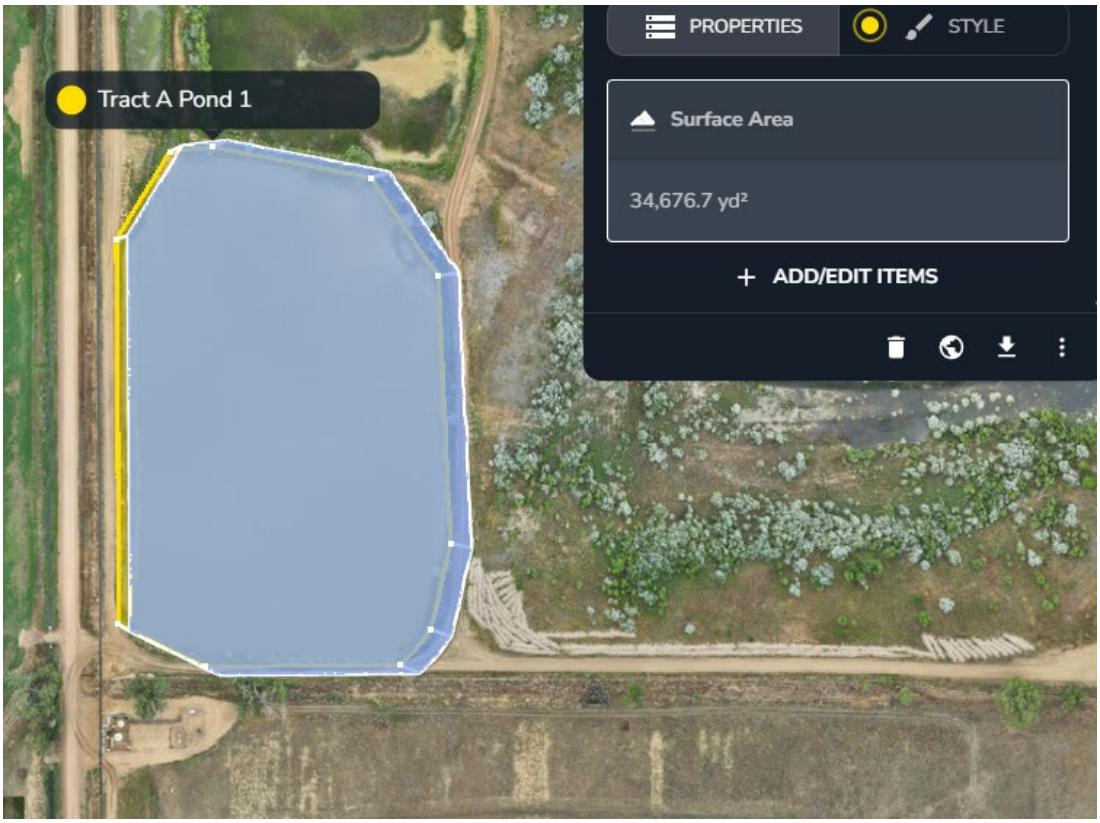
Shale, claystone and clay material are found as bedrock below the extracted sand and gravel. This material has proven to be suitable in several previously constructed reservoirs by Raptor and predecessor Varra. More than adequate material exists that can be ripped and transported for constructing compacted liner surfaces, or as borrow material to fill other excavations.

Tract A: Liner Material Haul Distance

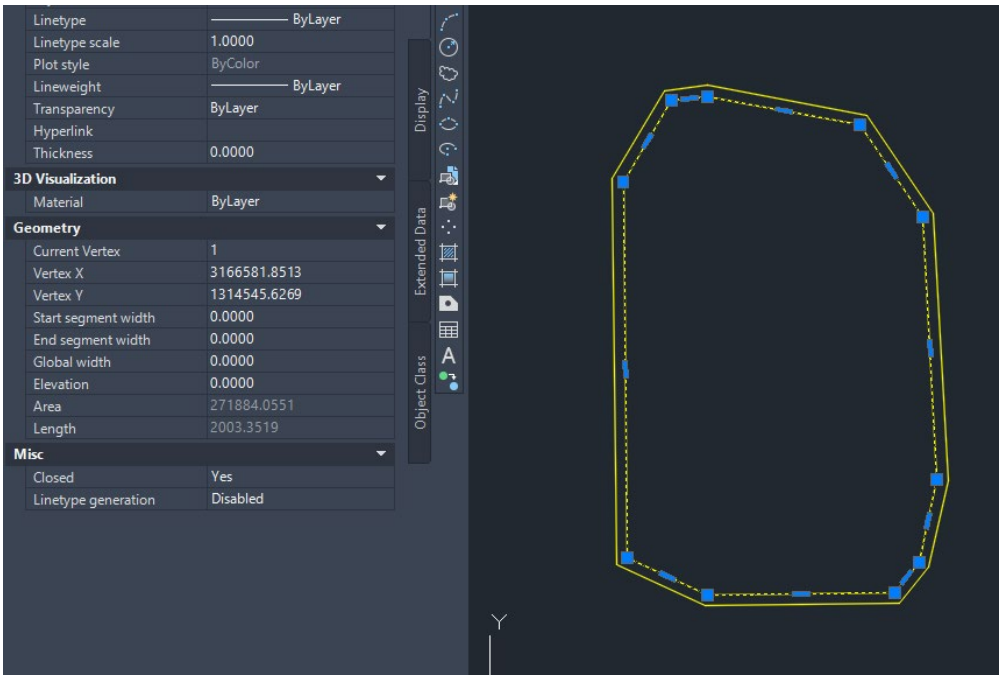


Tract A: Ponds Backfill Haul Distances

Tract A: Ponds to Backfill

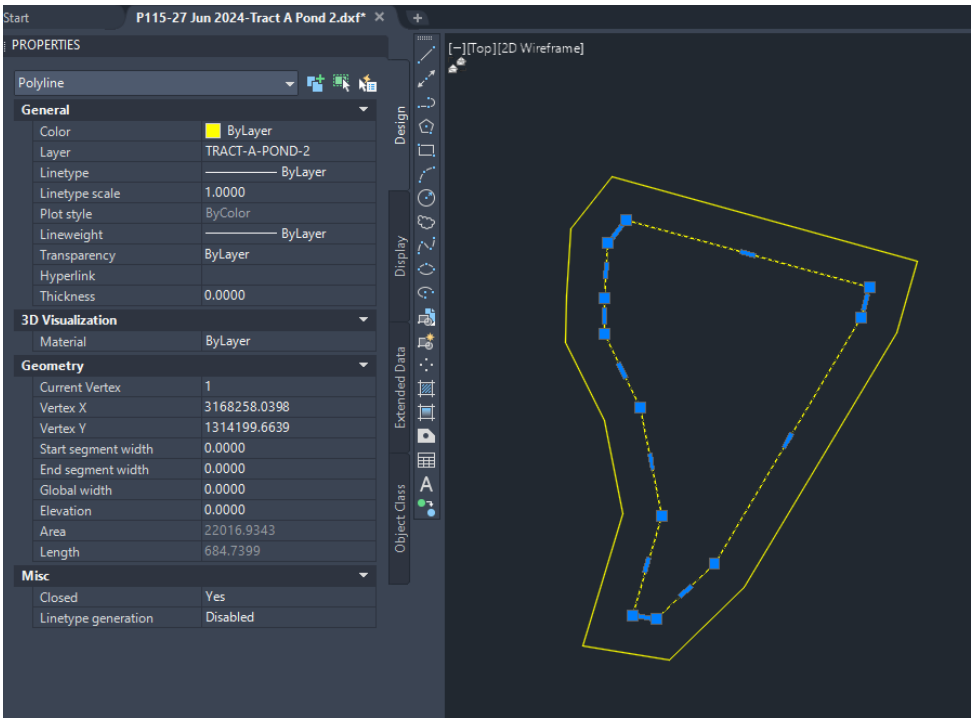


Offset Pond surface at 3:1 slope:



Pond depth is approximately 5'. Assume 3:1 slopes. Backfill to 2' Above WSEL.
B1 = 34676.7SY; B2 = (271884 SF / 9) = 30209.3 SY; H = (5+2) = 7' = 2.33 yd
Backfill Vol [CY] = ½ x [B1(34676.7 SY)+B2(30209.3 SY)]*H(2.33yd) = 75,700.3 CY

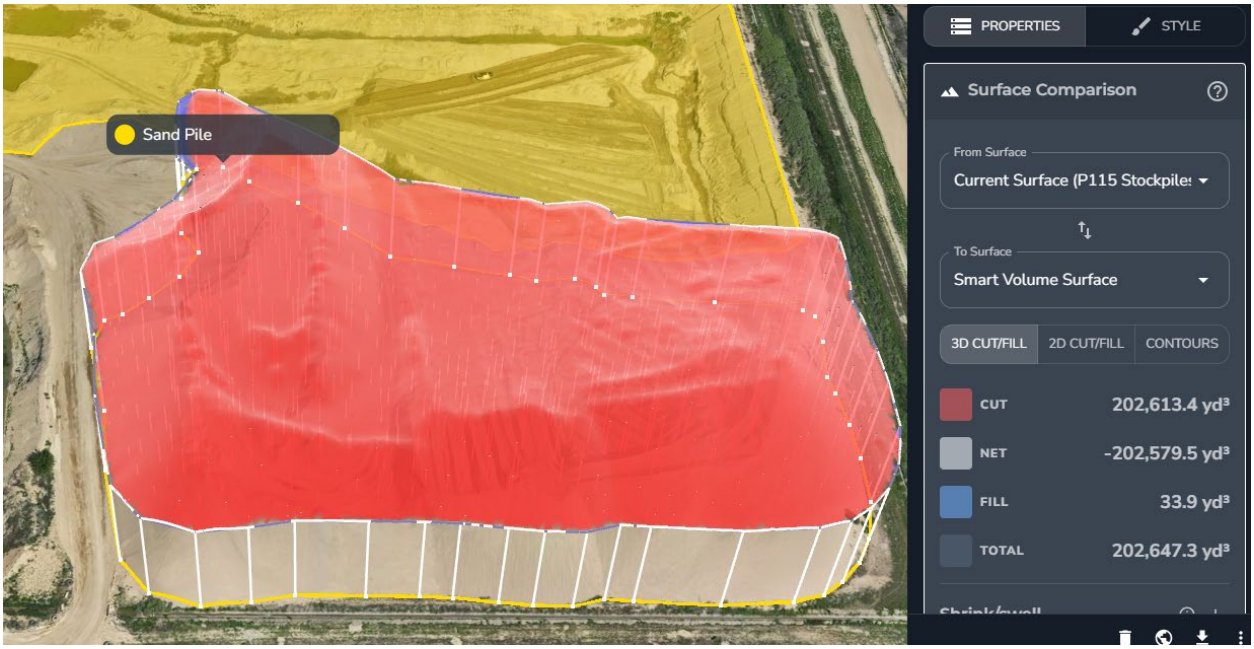
Offset Pond surface at 3:1 slope:



Pond depth is approximately 8’. Assume 3:1 slopes. Backfill to 2’ Above WSEL.
B1 = 4738.9SY; B2 = (22016 SF / 9) = 2446.3 SY; H = (8+2) = 10’ = 3.33 yd
Backfill Vol [CY] = ½ x [B1(4738.9 SY)+B2(2446.3 SY)]*H(3.33yd) = 11,963.4 CY

Tract B

Tract B: Sand Pile Volume

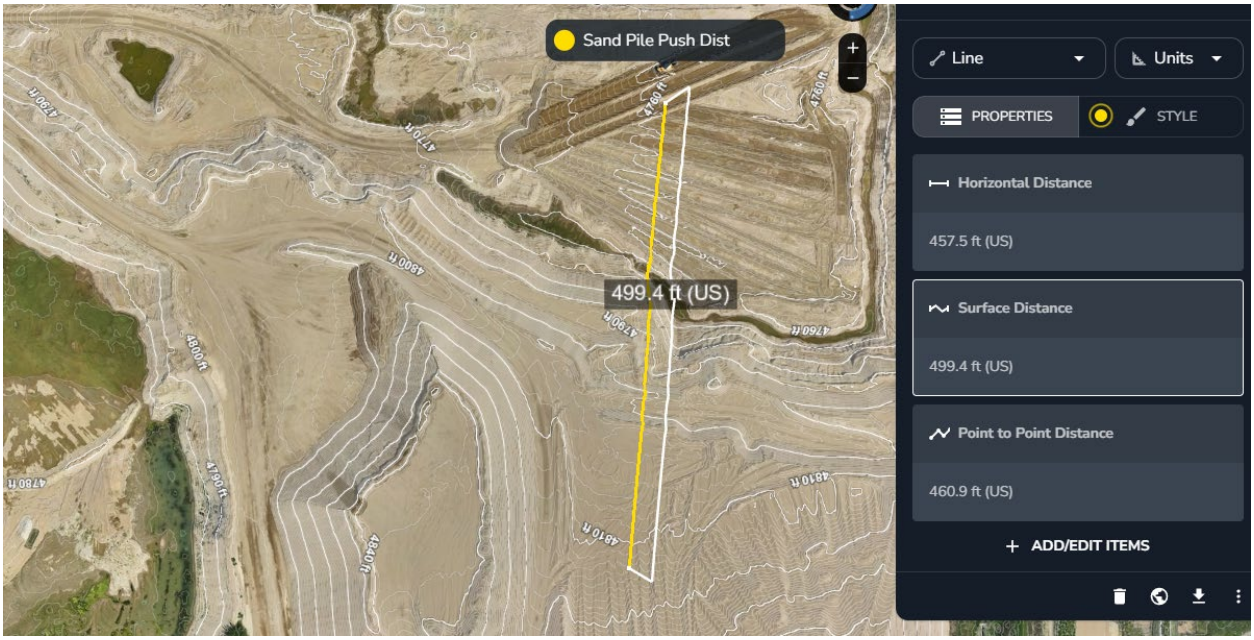


This volume was the current volume of sand stored above grade as of a topographic survey of the stockpile areas on June 11, 2025. This material would be pushed into the adjacent excavation immediately to the north.

Tract B: Receiving Pit Capacity for Sand Pile

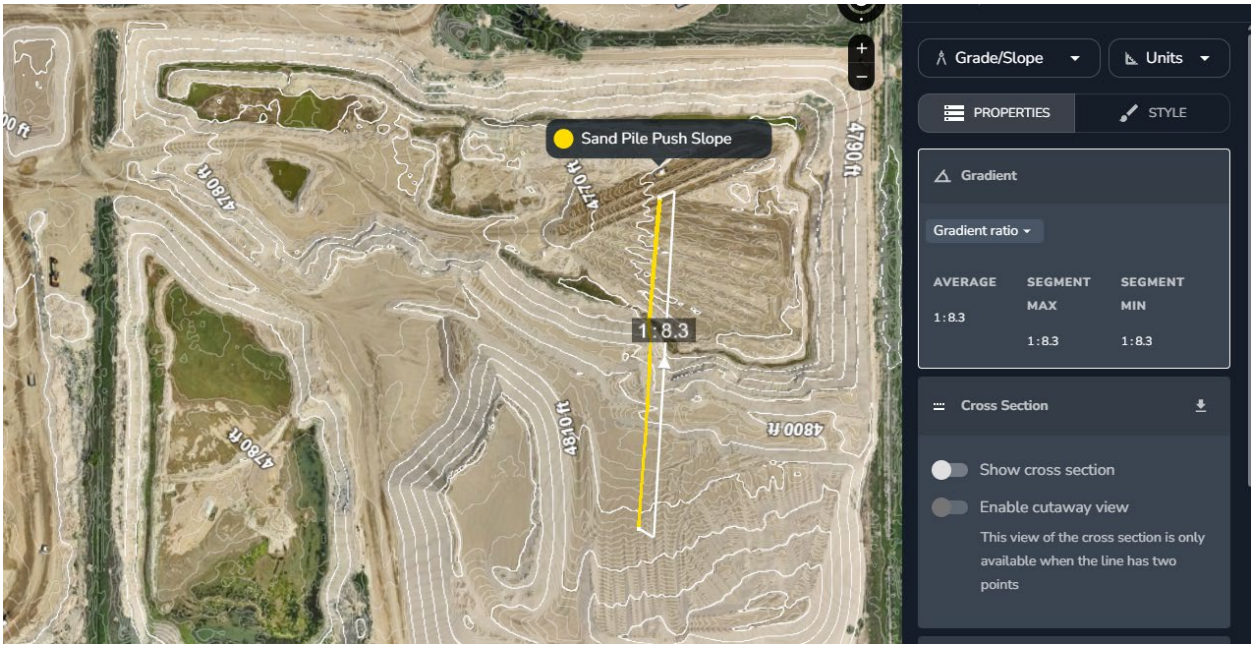
The required backfill volume for the Tract B excavation will be partially filled by pushed material from the sand stockpile. The sand will partially fill the excavation and an additional 129,611 LCY of fill material will be hauled from available fill or borrowed fill in Tract A.

Tract B: Sand Pile Push Distance



Average push distance from approximate centroid of stockpiled sand to excavation.

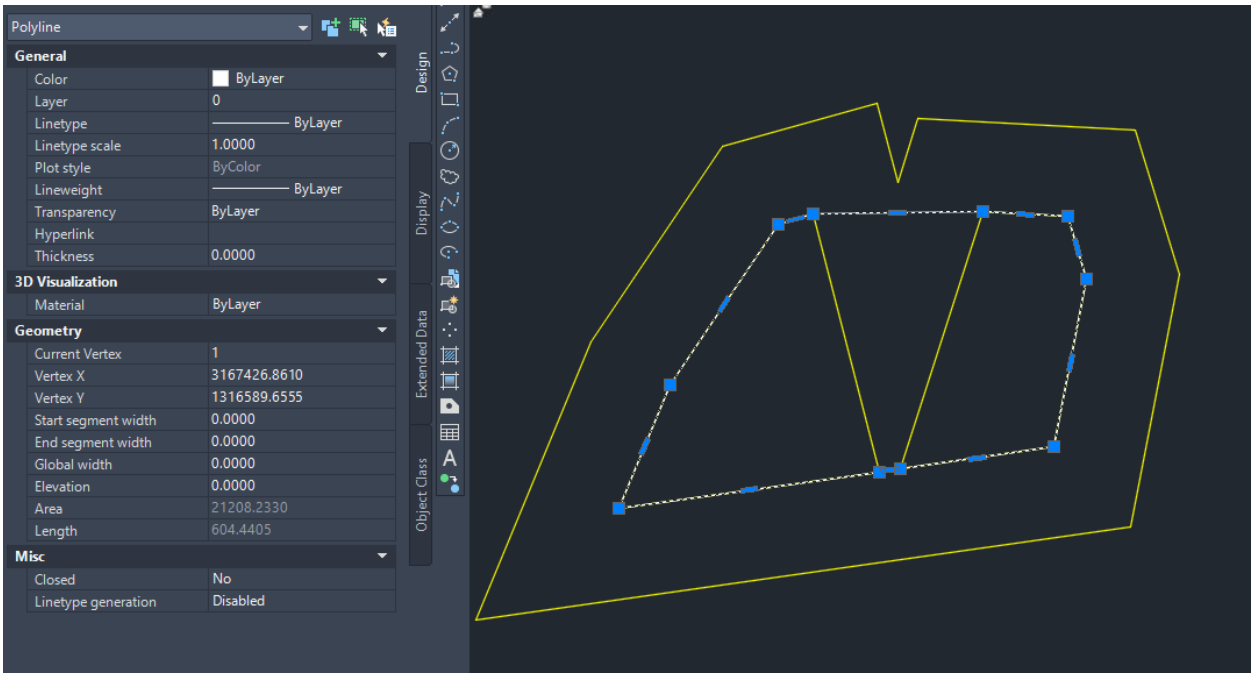
Tract B: Sand Pile Push Gradient



Average push gradient from approximate centroid of stockpiled sand to excavation measured at -1V:8.3H or -12%.

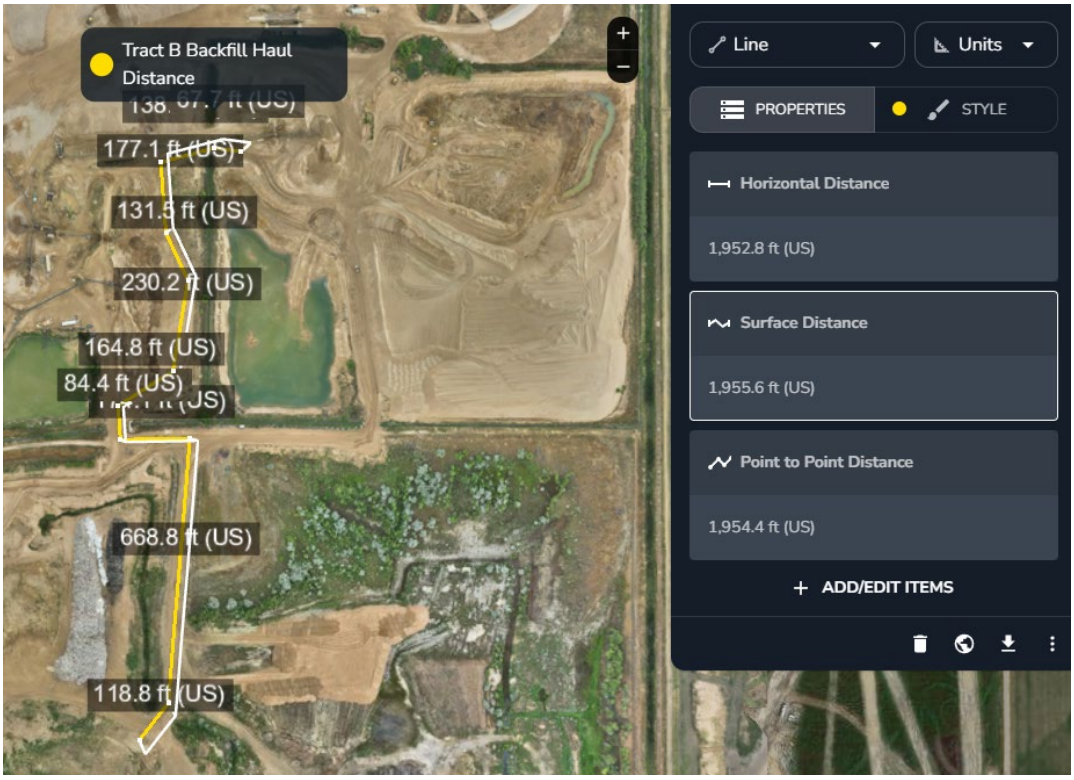
Tract B: Pond to Backfill

Offset Pond surface at 3:1 slope:



Pond depth is approximately 14'. Assume 3:1 slopes. Backfill to 2' Above WSEL.
B1 = 6232.6SY; B2 = (21208 SF / 9) = 2356.5 SY; H = (14+2) = 16' = 5.33 yd
Backfill Vol [CY] = ½ x [B1(6323.6 SY)+B2(2356.5 SY)]*H(5.33yd) = 23,132.5 CY

Tract B: Backfill Haul Distance



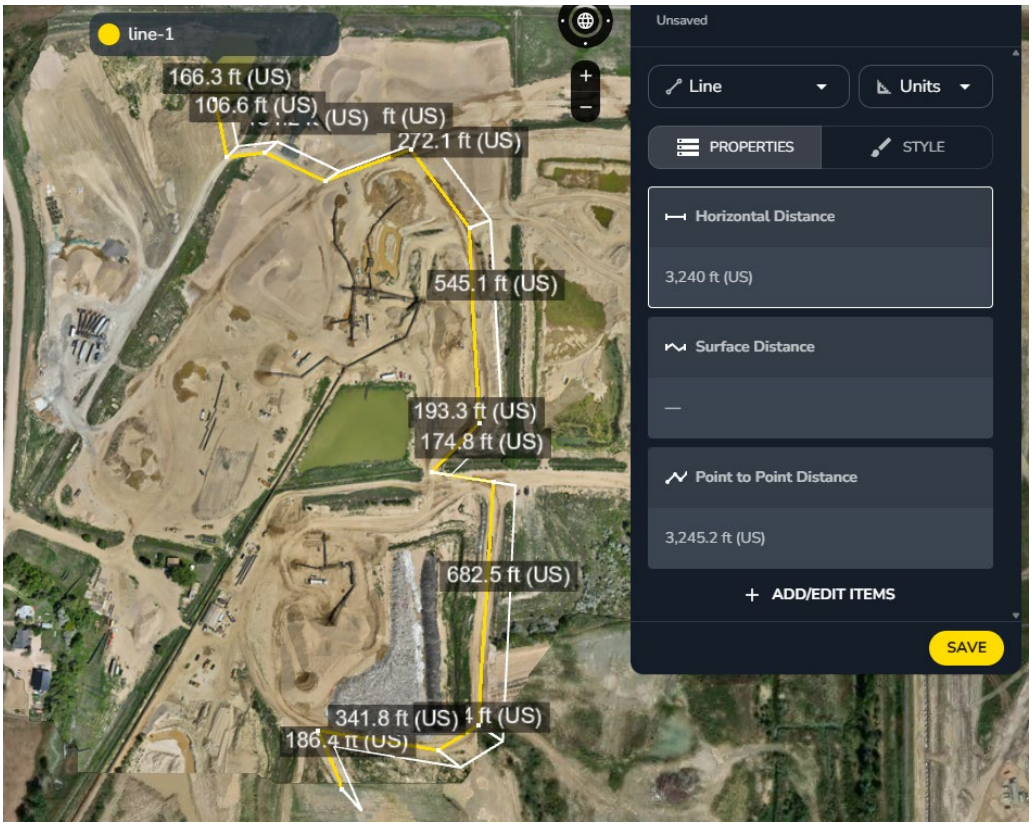
Tract C

Tract C: Backfill Haul Distance

Tract D

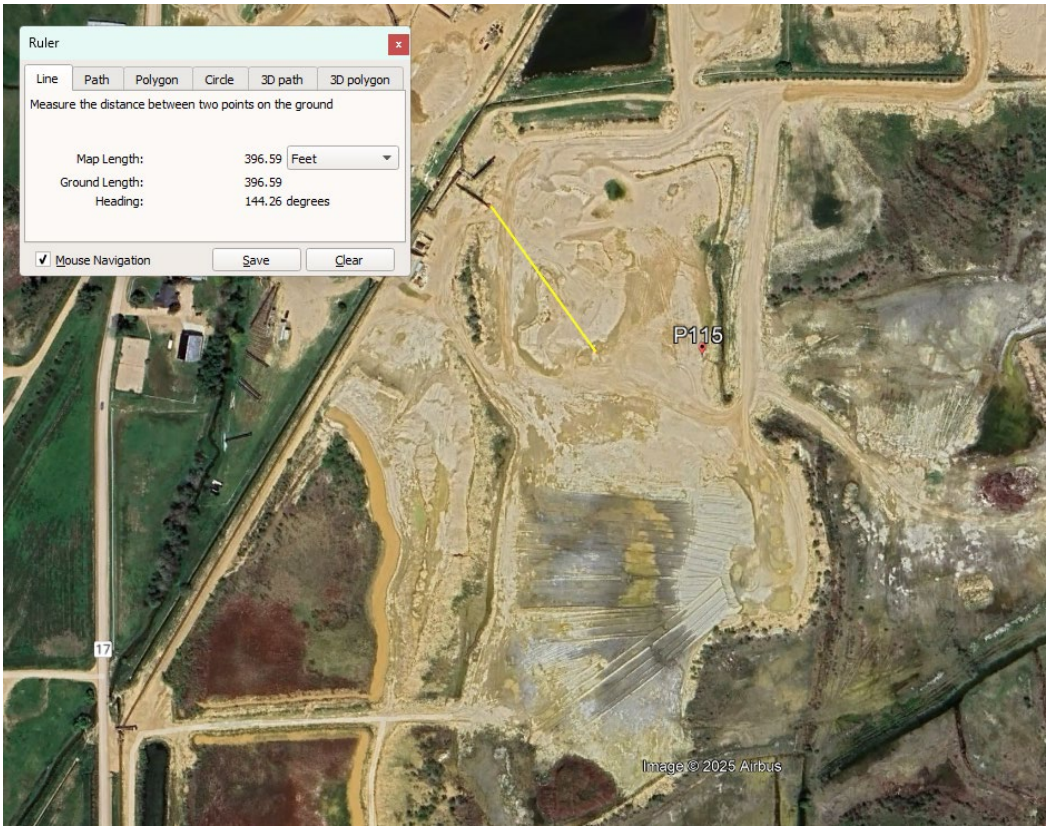
Tract D: Being Backfilled

Tract D: Backfill Haul Distance



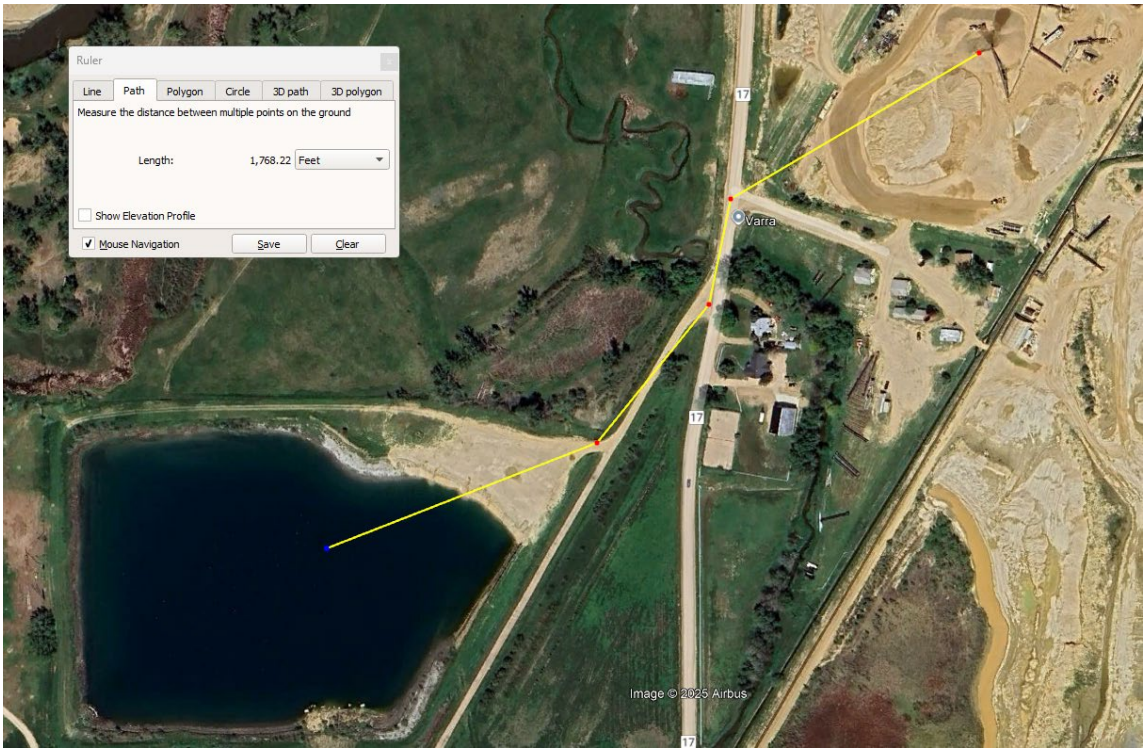
Topsoil Haul Distance

Tract A – Topsoil Haul Distance

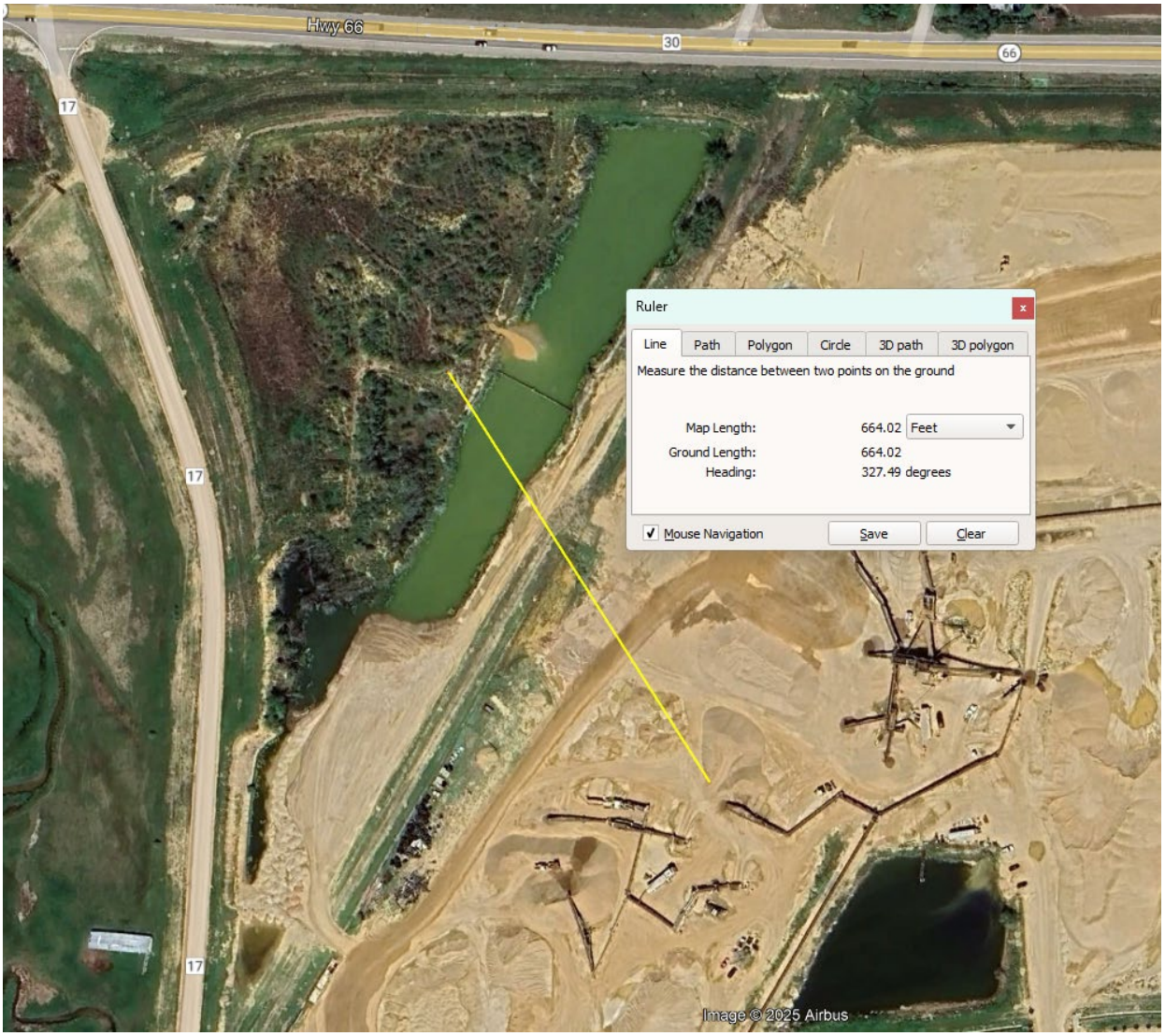


Tract B – Topsoil Haul Distance

Tract C – Topsoil Haul Distance



Tract D – Topsoil Haul Distance



Structures to be Removed

Scale house and scale:

Quonset hut materials storage and fuel tank

Culverts at south edge of pond in Tract C

COST SUMMARY WORK

Task description 2025 Financial Warranty Update Permit Action: 2025 Financial Warranty Update

Site: **M1999-006 - Kurtz Sand, Gravel and Reservoir Project (P115)**

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Tract A: Dewater Pond - initial pumping	PUMPING	2	691	$426,422
01b	Tract A: Dewater Pond - continual pumping	PUMPING	1	126	$12,367
01c	Tract A: Grade slope under liner	DOZER	2	79	$54,070
01d	Tract A: Rip source material for liner	DOZER	2	15	$10,639
01e	Tract A: Haul liner and backfill material from Tract A source	TRUCK	3	258	$131,906
01f	Tract A: Mix material for liner	DOZER	2	50	$33,881
01g	Tract A: Compact liner	COMPACT	1	66	$16,762
02a	Tract B: Push sand stockpile into pit	DOZER	2	274	$211,774
02b	Tract B: Haul backfill materials from Tract A source to pit and pond	TRUCK	4	260	$162,485
03a	Tract C: Haul backfill material from Tract A source to Pond	TRUCK	6	679	$584,644
04a	Tract D: Haul backfill material from Tract A source	TRUCK	5	24	$17,674
05a	Haul topsoil to all disturbed areas	TRUCK	3	176	$111,190
05b	Seed all disturbed areas	REVEGE	-	-	$313,006
06a	Demo and remove concrete and conveyor	DEMOLISH	-	-	$324,612
07a	Mobilization and Demob.	MOBILIZE	1	2	$11,154
			SUBTOTALS:	**1415**	**$1,983,797.43**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02		Total =	$40,073
Performance bond:	1.05		Total =	$20,830
Job superintendent:	707.75	$79.27	Total =	$56,103
Profit:	10.00		Total =	$198,380
			TOTAL O & P =	$315,386
		CONTRACT AMOUNT (direct + O & P)=		$2,299,183

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty	500.00	Total =	$500
Engineering work	4.25	Total =	$97715
Reclamation	5.00		$114,959
CONTINGENCY:	3.00	Total =	$59,514

TOTAL INDIRECT COST =	$588,074
TOTAL BOND AMOUNT (direct + indirect) =	**$2,571,871**

Yellow cells are where data is input

Green cells is the data output with the completed formula

Cells in red indicate cells that were not necessary for completion of the cost estimate

Return to Summary

Task description: **Dewater Tract A pit - initial pumping**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01A State: Colorado

Date: 6/23/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Submersible pump - 460v, 8 in.	8
Attachment 1:	Suction hose - 6 in. diam., 25 ft.	8
Attachment 2:	Discharge hose - 6 in. D., 25 ft.	8
Labor Unit 1:	Pump operator	2

Horsepower: 95

Shift Basis: 1 per day

Weight: 0.70 (US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$49.45	NA
Operating Cost/Hour:	$20.60	100
Operator Cost/Hour:	$28.23	NA
Total Unit Cost/Hour:	$70.05	per pump
Total Fleet Cost/Hour:	$616.86	plus two operators

Tract A Pond at Static GW Elevation (4793') [yd3]: 5,018,171

Tract A Pond at Static GW Elevation (4793') [gal]: 1,013,540,070

PUMPING QUANTITIES

Initial Pond Volume: 1,013,540,070

Final Pond Volume: **1,013,540,070** gallons

Total Pond Inflow Surface Area: 0 Sq. ft.

Total Pond Inflow Volume per Hour: 0.00 gallons

Conversion factor: 1.0000

Unit inflow rate in gph/sq. ft.: 0.0000

Source of estimated volume: Volume extraction from June 2024 Propeller Surface

PUMPING TIME

Maximum Pump Capacity:	170,000	gph/pump
Estimated Suction Head:	0	feet
Estimated Discharge Head:	15	feet
Total Head:	15	feet
CPB Pump Capacity:	168,000	gph/pump
Site Altitude:	4,800	feet
Adjusted Pumping Capacity:	1,344,000	gph
Initial Unadjusted Pumping	754.12	hours
Inflow during Initial Pumping:	0	gallons
Net Unadjusted Pumping Time:	754.12	Hours
Altitude Adjustment Factor:	1.0000	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	691.28	hours

JOB TIME AND COST

Unit cost: $0.000421 /Gallon

Total job time: **691.28** Hours

Total job cost: **$426,422**

Return to Summary

Task description: **Dewater Tract A pit - continual pumping**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01B State: Colorado
Date: 6/23/2025 County: Weld
User: JEL
Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Submersible pump - 460v, 8 in.	1
Attachment 1:	Suction hose - 6 in. diam., 25 ft.	1
Attachment 2:	Discharge hose - 6 in. D., 25 ft.	1
Labor Unit 1:	Pump operator	1

Horsepower: 95
Shift Basis: 1 per day
Weight: 0.70 (US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$49.45	NA
Operating Cost/Hour:	$20.60	100
Operator Cost/Hour:	$28.23	NA
Total Unit Cost/Hour:	$70.05	per pump
Total Fleet Cost/Hour:	$98.28	plus one operator

Location	Inflow (mgd)*	Pond/Pit perimeter (ft)	Avg pond perimeter exposed (ft)	Pctg of Tot Inflow	Inflow over 25 days (gal)	Inflow (gal/hr)
P125 Pit B	2.17	5,963	5,290	88.71	48,127,201	80,212
P115 Tract A	3.89	10,680	2,535	23.74	23,062,846	38,438

*Inflow rate calculated proportionately based on dewatering estimate at adjacent cell P125 Pit B, estimated in the AWES P125 Dewatering Memo (10/28/2024).

PUMPING QUANTITIES

Initial Pond Volume: 23,062,846
Final Pond Volume: **23,062,846** gallons
Total Pond Inflow Surface Area: 0 Sq. ft.
Total Pond Inflow Volume per Hour: 0.00 gallons

Conversion factor: 1.0000
Unit inflow rate in gph/sq. ft.: 0.0000

Source of estimated volume: AWES Dewatering Memo inflow rate. P115 Pond A inflow rate proportional to average length of exposed pond perimeter. Assumes no dewatering in adjacent cells.

PUMPING TIME

Maximum Pump Capacity:	170,000	gph/pump
Estimated Suction Head:	0	feet
Estimated Discharge Head:	15	feet
Total Head:	15	feet
CPB Pump Capacity:	168,000	gph/pump
Site Altitude:	4,800	feet
Adjusted Pumping Capacity:	168,000	gph
Initial Unadjusted Pumping	137.28	hours
Inflow during Initial Pumping:	0	gallons
Net Unadjusted Pumping Time:	137.28	Hours
Altitude Adjustment Factor:	1.0000	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	125.84	hours

JOB TIME AND COST

Unit cost: $0.000536 /Gallon

Total job time: **125.84** Hours

Total job cost: **$12,367**

Total Dewatering Cost: 438,789.55

Return to Summary

BULLDOZER WORK

Task description: **Grade slope under liner**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01C

State: Colorado
Date: 6/24/2025
User JEL
County: Weld

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	1-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$14.53	NA
Ripper op. Cost/Hour:	$3.98	50
Operator Cost/Hour:	$40.04	NA
Total unit Cost/Hour:	$341.58	
Total Fleet Cost/Hour:	**$683.16**	

East wall length (ft):	1820
East wall height (ft):	40
West wall length (ft):	715
West wall height (ft):	10
Approx EX Wall Slopes (H:V):	5:1
East wall vol. to regrade (CY):	107852
West wall vol. to regrade (CY):	2648
Total vol. to regrade (CY):	110500

MATERIAL QUANTITIES

Initial Volume:	110,500	CY
Swell factor:	1.120	
Loose volume:	123,760	LCY
Source of estimated volume:	Propeller flight 6/11/25. Assume walls will be regraded to 3:1.	
Exterior perimter length		
Interior perimeter length		
Linear Feet		LF
Length		ft
Depth		ft
Source of estimated swell factor:	Wisconsin DOT	https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf

HOURLY PRODUCTION

Average push distance:	50 feet		
Unadjusted hourly production:	1,400.00	LCY/hr	estimated from CAT HB (June 2022) p. 16-10: Bulldozers - Estimating Production Off-the-Job
Materials consistency description:	Partly consolidated wall slope		
Average push gradient:	20%		
Average site altitude:	4,800		
Material weight:	2900 lbs/LCY		
Weight description:	Dry sand and gravel		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.400	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.890	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.5585	

Adjusted unit production:	781.84	LCY/hr
Adjusted fleet production:	1563.68	LCY/hr

JOB TIME AND COST

Fleet size:	2	Dozer(s)
Unit cost:	$0.437	/LCY
Total job time:	79.15	Hours
Total job cost:	**$54,070**	

Return to Summary

BULLDOZER RIPPING WORK

Task description: **Rip liner and backfill material source area in Tract A**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01D State: Colorado
Date: 7/01/2025 County: Weld
User: JEL
Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$40.04	NA
Total Unit Cost/Hour:	$345.55	
Total Fleet Cost/Hour:	**$691.10**	

Selected estimating method: Area

MATERIAL QUANTITIES

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 19.13 acres Rip Depth (ft): 2.56 Volume: 78,992 CY
Exhibit C-2

Source of estimated quantity: See Individual Tract TRUCK|LOADER sheets

Total backfill/liner material needed

Tract A	126,621 LCY
Tract B	135,844 LCY
Tract C	317,211 LCY
Tract D	12,485 LCY
TOTAL:	592,161 LCY

Available Fill (excludes sand pile)

Tract A - existing fill stocks	395,000 LCY
Tract A - liner regrade	110,500 LCY
TOTAL:	505,500 LCY

Fill Required	86,661 LCY
Swell factor:	1
Excavation Fill Required	77,376 CY

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.56	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	150.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.748	acres/hour
	3,091	CY/hr

No of lifts: 1

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.748	CY/hr
Site Altitude:	4,680	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.621	acres/hour
Adjusted Hourly Fleet Production:	**1.24**	acres/hr

JOB TIME AND COST

Fleet size: 2 Dozers

Unit cost: $556.28 Per acre

Total job time: **15.39** Hours

Total job cost: **$10,639**

Return to Summary

TRUCK/LOADER TEAM WORK

Task description: **Haul shale/clay to Tract A unlined walls to construct liner**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update

Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01E State: Colorado

Date: 6/24/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

Equipment Description

Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 966H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	Water Tanker, 3,500 Gal.

Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	75	NA	NA	25	25
Ownership cost/hour:	$27.14	$57.78	NA	NA	$52.82	$11.65
Operating cost/hour:	$62.81	$34.69	NA	NA	$10.94	$5.61
%Utilization-riper:	NA	$0.00	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$24.82	$56.64	NA	NA	$56.70	$0.00
Unit Subtotals:	$114.77	$149.11	NA	NA	NA	$17.26
Number of Units:	3	1	0	0	0	1
Group Subtotals:	Work:	$493.42	Support:	$0.00	Maint:	$17.26
Total work team cost/hour:	$510.68					

MATERIAL QUANTITIES

Initial volume: 126,621 CCY Swell factor: 1.000

Loose volume: **126,621** LCY

Tract A East Wall to be lined (length, ft):	1820
Tract A East Wall height (ft):	40
Tract A East Wall slope length (ft):	126
Tract A West Wall to be lined (length, ft):	715
Tract A West Wall height (ft):	10
Tract A West Wall slope length (ft):	32
Total Slope Area to be lined (sq.ft):	252824
Liner Depth (ft):	4
Liner Vol (CY):	37455
4'x 4' Keyway Vol (CY):	1502
Total Liner Material Vol (CY):	38958

Tract A Pond 1 Backfill Vol (CY):	75700
Tract A Pond 2 Backfill Vol (CY):	11963.4
Total Ponds Backfill Vol (CY):	87664

Source of estimated volume:	Propeller flight 6/11/25. Assume walls will be regraded to 3:1. No liner was discussed in the orginal permit documents. A liner depth of 4 ft with a 4'x4' keyway from the P125 site (in process of permitting) was used.	
Source of estimated swell factor:	Wisconsin DOT - avg of clay (1.3) and shale (1.025)	https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf
Material Purchase Cost:	$0.00	
Total Cost:	$0.00	

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	2,450	Pounds/LCY
Description:	Clay and Shale	
Rated Payload:	50,300	Pounds
Payload Capacity:	20.53	LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY	
Heaped Volume:	18.00	LCY	
Average Volume:	15.00	LCY	
Adjusted Volume:	18.00	LCY	
	Final Truck Volume Based on Number of Loader Passes: _____	**15.75**	LCY

Loading Tool Capacity — Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)	
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050	
Adjusted Capacity:	**5.250**	LCY	

Job Condition Corrections: — Site Altitude (ft.): 4,800

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time:

Number of LoadingTool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating:	NA
Selected Value within this Basic Rating:	NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	0.000	minutes
	Adjusted Loader Cycle Time:	**0.500**	minutes
	Net Load Time per Truck:	**1.100**	minutes

Material Destir	Haul Dist (ft)	Haul Dist weighted by Hauled Vol (ft)
Liner	1240	382
Pond 1	836	500
Pond 2	2672	252
Total weighted haul dist (ft):		1134

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes
Truck Load Time:	1.100	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes

Adjusted for site altitude:	0.500	Minutes
Adjusted for site altitude:	1.100	Minutes
Adjusted for site altitude:	0.900	Minutes

1240

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1238.00	0.00	3.00	3.00	1460	0.848
				Haul Time:	**0.848**	minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1238.00	0.00	3.00	3.00	1604	0.772
				Return Time:	**0.772**	minutes
				Total Truck Cycle Time:	**4.120**	minutes

Loading Tool unit Production	590.63	LCY/Hour
Truck Unit Production	229.39	LCY/Hour
Optimal No. of Trucks:	2.6	Truck(s)

Adjusted for job efficiency:	490.22	LCY/Hour
Adjusted for job efficiency:	190.39	LCY/Hour
Selected Number of Trucks:	3.0	Truck(s)

Adjusted hourly truck team production:	490.22	LCY/Hour
Adjusted single truck/loader team production:	490.22	LCY/Hour
Adjusted multiple truck/loader team production	**490.22**	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	**258.30**	Hours
Unit cost:	$1.042	/LCY	Total job cost:	**$131,906**	

Return to Summary

BULLDOZER WORK

Task description: **Mix material for liner**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01F State: Colorado

Date: 6/24/2025 County Weld

User JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	3-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$14.53	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA
Total unit Cost/Hour:	$337.60	
Total Fleet Cost/Hour:	**$675.20**	

MATERIAL QUANTITIES

Initial Volume:	63,311	CY
Swell factor:	1.163	
Loose volume:	73,599	LCY
Source of estimated volume:	Assumed half volume of liner material (Task 02B)	
Area		ac
Depth		ft
Source of estimated swell factor:	Wisconsin DOT - avg of clay (1.3) and shale (1.025)	https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf

HOURLY PRODUCTION

Average push distance:	50	
Unadjusted hourly production:	1,400.00	LCY/hr
Materials consistency description:	Clay and Shale	
Average push gradient:	0%	
Average site altitude:	4,800	
Material weight:	2,450 lbs/LCY	
Weight description:	Avg of clay and shale	

Job Condition Correction Factor

		Source
Operator Skill:	0.750	
Material consistency:	1.100	(AVG.)
Dozing method:	1.000	(CAT HB)
Visibility:	1.000	(GEN.)
Job efficiency:	0.830	(AVG.)
Spoil pile:	0.900	(1 SHIFT/DAY)
Push gradient:	1.000	(SSD-FC)
Altitude:	1.000	(CAT HB)
Material Weight:	0.850	(CAT HB)
Blade type:	1.000	(CAT HB)
Net correction:	0.5238	(PAT)

Adjusted unit production:	733.37	LCY/hr
Adjusted fleet production:	1466.73	LCY/hr

JOB TIME AND COST

Fleet size:	2	Dozers
Unit cost:	$0.460	/LCY
Total job time:	50.18	Hours
Total job cost:	**$33,881**	

Return to Summary

COMPACTION WORK

Task description: **Compact liner**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 01G State: Colorado
Date: 6/24/2025 County: Weld
User: JEL
Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 815F Horsepower: 240
Compactor Type: Soil - tamping foot Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$107.16	NA
Operating Cost/Hour:	$117.19	100
Operator Cost/Hour:	$31.50	NA
Total Unit Cost/Hour:	**$255.85**	
Total Fleet Cost/Hour:	**$255.85**	

MATERIAL QUANTITIES

Loose volume: 126,621 LCY Shrinkage factor: 0.910
Compacted volume: **115,225** CCY
Source of estimated volume: Same as hauled quantity (Task 01B)
Source of estimated shrinkage factor: Cat Handbook

HOURLY PRODUCTION

Compacted width per pass (W):	6.50	feet
Average Compactor Speed (S):	8.00	mph
Compacted thickness of each lift (L):	10.00	inches
Conversion Constant (C):	16.3	(5,280ft./12in./ 27cu.ft.)
Required number of machine passes (P):	4	passes
Unadjusted Hourly Unit Production:	2,119.00	CCY/hour

Site Altitude: 4,800 ft

Job Condition Correction Factors

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.8300	multiplier

Adjusted Hourly Unit Production:	1,758.77	CCY/Hour
Adjusted Hourly Fleet Production:	**1,758.77**	CCY/Hour

JOB TIME AND COST

Fleet size:	1	Compactor(s)
Unit cost:	$ 0.145	per CCY

Total job time:	**65.51**
Total job cost:	**$16,762**

Return to Summary

BULLDOZER WORK

Task description: **Tract B: Push sand pile into adjacent pit**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Date: 6/24/2025 County Weld

User JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D10T
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	2-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$174.79	NA
Operating Cost/Hour:	$136.68	100
Ripper own. Cost/Hour:	$22.93	NA
Ripper op. Cost/Hour:	$12.04	5
Operator Cost/Hour:	$40.04	NA
Total unit Cost/Hour:	$386.48	
Total Fleet Cost/Hour:	**$772.97**	

Sand Pile Vol (LCY): 202,613

Receiving Pit Capacity (CY): 332,224

MATERIAL QUANTITIES

Initial Volume:	202,613	CY
Swell factor:	1.000	
Loose volume:	202,613	CY
Source of estimated volume:	Propeller volume measurement (6/11/25 flight)	
Source of estimated swell factor:	Wisconsin DOT	https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf

HOURLY PRODUCTION

Average push distance:	500	
Unadjusted hourly production:	400	LCY/hr
Materials consistency description:	Sand stockpile	
Average push gradient:	12%	
Average site altitude:	4,800	
Material weight:	2,600 lbs/LCY	
Weight description:	Sand	

Job Condition Correction Factor — Source — Ref Cat HB-49, 19-55

Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.100	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.250	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.000	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.9244	

Adjusted unit production:	369.77	LCY/hr
Adjusted fleet production:	739.53	LCY/hr

JOB TIME AND COST

Fleet size:	2	Dozer(s)
Unit cost:	$1.045	/LCY
Total job time:	273.98	Hours
Total job cost:	**$211,774**	

Return to Summary

TRUCK/LOADER TEAM WORK

Task description: **Haul backfill material to Tract B pit and pond**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update

Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 02B State: Colorado

Date: 7/02/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

Equipment Description

Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 966H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	Water Tanker, 3,500 Gal.

Tract B Pond to be Backfilled [CY]:	6,233
Tract B Remaining Pit to be Backfilled [CY]:	129,611
Vol to fill Tract B pit not filled by sand pile and pond [yd3]:	135,844

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	75	NA	NA	NA	25
Ownership cost/hour:	$27.14	$57.78	NA	NA	$52.82	$11.65
Operating cost/hour:	$62.81	$34.69	NA	NA	$10.94	$5.61
%Utilization-riper:	NA	$0.00	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$24.82	$56.64	NA	NA	$56.70	$0.00
Unit Subtotals:	$114.77	$149.11	NA	NA	NA	$17.26
Number of Units:	4	1	0	0	0	1
Group Subtotals:	Work:	$608.19	Support:	$0.00	Maint:	$17.26
Total work team cost/hour:	$625.45					

MATERIAL QUANTITIES

Initial volume:	135,844	CY	Swell factor:	1.000
Loose volume:	**135,844**	LCY		

Source of estimated volume:	Propeller volume measurement (6/11/25 flight)
Source of estimated swell factor:	Wisconsin DOT
Material Purchase Cost:	$0.00
Total Cost:	$0.00

https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	2,900	Pounds/LCY
Description:	Dry sand and gravel	
Rated Payload:	50,300	Pounds
Payload Capacity:	17.34	LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY	
Heaped Volume:	18.00	LCY	
Average Volume:	15.00	LCY	
Adjusted Volume:	18.00	LCY	
	Final Truck Volume Based on Number of	**15.75**	LCY

Loading Tool Capacity — Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)	
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050	
Adjusted Capacity:	**5.250**	LCY	

Job Condition Corrections: Site Altitude (ft.): 4680

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time:

Number of Loading Tool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating:	NA
Selected Value within this Basic Rating:	NA
Track Loaders – Material Description:	

Cycle Time Elements (min.):

Load:	NA	Maneuver:	NA	Dump:	0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	0.000	minutes
	Adjusted Loader Cycle Time:	**0.500**	minutes
	Net Load Time per Truck:	**1.500**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	1.500	Minutes	Adjusted for site altitude:	1.100	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1956.00	0.00	3.00	3.00	1398	1.400
				Haul Time:	**1.400**	minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1956.00	0.00	3.00	3.00	1499	1.305
				Return Time:	**1.305**	minutes
				Total Truck Cycle Time:	**5.605**	minutes

Loading Tool unit Production	630.00	LCY/Hour	Adjusted for job efficiency:	522.90	LCY/Hour
Truck Unit Production	168.61	LCY/Hour	Adjusted for job efficiency:	139.95	LCY/Hour
Optimal No. of Trucks:	3.7	Truck(s)	Selected Number of Trucks:	4	Truck(s)

		Adjusted hourly truck team production:	522.90	LCY/Hour	
		Adjusted single truck/loader team production:	522.90	LCY/Hour	
		Adjusted multiple truck/loader team production	**522.90**	LCY/Hour	

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	**259.79**	Hours
Unit cost:	$1.196	/LCY	Total job cost:	**$162,485**	

Return to Summary

TRUCK/LOADER TEAM WORK

Task description: **Haul backfill material to Tract C Pond**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update

Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 03A State: Colorado

Date: 6/23/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

Equipment Description

Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 966H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 120M
-Water Truck:	Water Tanker, 3,500 Gal.

Vol to fill Tract C Pond to 2' above WSEL [yd3]: 317,211

Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	75	NA	NA	25	25
Ownership cost/hour:	$27.14	$57.78	NA	NA	$52.82	$11.65
Operating cost/hour:	$62.81	$34.69	NA	NA	$10.94	$5.61
%Utilization-riper:	NA	$0.00	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$24.82	$56.64	NA	NA	$56.70	$0.00
Unit Subtotals:	$114.77	$149.11	NA	NA	$120.46	$17.26
Number of Units:	5	1	0	0	1	1
Group Subtotals:	Work:	$722.96	Support:	$0.00	Maint:	$137.72
Total work team cost/hour:	$860.68					

MATERIAL QUANTITIES

Initial volume:	317,211	CY	Swell factor:	1.000
Loose volume:	**317,211**	LCY		

Source of estimated volume: See POND BACKFILL CALCS_v1 from Brian Ewert

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: $0.00

Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	1,600	Pounds/LCY
Description:	Top Soil	
Rated Payload:	50,300	Pounds
Payload Capacity:	31.44	LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY	
Heaped Volume:	18.00	LCY	
Average Volume:	15.00	LCY	
Adjusted Volume:	18.00	LCY	
	Final Truck Volume Based on Number of	**15.75**	LCY

Loading Tool Capacity — Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)	
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050	
Adjusted Capacity:	**5.250**	LCY	

Job Condition Corrections: Site Altitude (ft.): 4680

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating:	NA
Selected Value within this Basic Rating:	NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	0.000	minutes
	Adjusted Loader Cycle Time:	**0.500**	minutes
	Net Load Time per Truck:	**1.500**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes
Truck Load Time:	1.500	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes

Adjusted for site altitude:	0.500	Minutes
Adjusted for site altitude:	1.100	Minutes
Adjusted for site altitude:	0.900	Minutes

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4906.00	0.00	3.00	3.00	1754	2.796
				Haul Time:	**2.796**	minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4906.00	0.00	3.00	3.00	1816	2.702
				Return Time:	**2.702**	minutes
				Total Truck Cycle Time:	**8.398**	minutes

Loading Tool unit Production	630.00	LCY/Hour
Truck Unit Production	112.53	LCY/Hour
Optimal No. of Trucks:	5.6	Truck(s)

Adjusted for job efficiency:	522.90	LCY/Hour
Adjusted for job efficiency:	93.40	LCY/Hour
Selected Number of Trucks:	5	Truck(s)

Adjusted hourly truck team production:	466.98	LCY/Hour
Adjusted single truck/loader team production:	466.98	LCY/Hour
Adjusted multiple truck/loader team production	**466.98**	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	**679.28**	Hours
Unit cost:	$1.843	/LCY	Total job cost:	**$584,644**	

Return to Summary

TRUCK/LOADER TEAM WORK

Task description: **Haul backfill material to Tract D exposed groundwater**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update

Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 04A State: Colorado

Date: 6/25/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

Equipment Description

Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 966H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	Water Tanker, 3,500 Gal.

Vol to fill Tract D exposed GW area [yd3]: 12,485

Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	75	NA	NA	NA	25
Ownership cost/hour:	$27.14	$57.78	NA	NA	$52.82	$11.65
Operating cost/hour:	$62.81	$34.69	NA	NA	$10.94	$5.61
%Utilization-riper:	NA	$0.00	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$24.82	$56.64	NA	NA	$56.70	$0.00
Unit Subtotals:	$114.77	$149.11	NA	NA	NA	$17.26
Number of Units:	5	1	0	0	0	1
Group Subtotals:	Work:	$722.96	Support:	$0.00	Maint:	$17.26
Total work team cost/hour:	$740.22					

MATERIAL QUANTITIES

Initial volume:	12,485	CY	Swell factor:	1.000
Loose volume:	**12,485**	LCY		

Source of estimated volume:	Propeller volume measurement (6/11/25 flight)
Source of estimated swell factor:	Wisconsin DOT
Material Purchase Cost:	$0.00
Total Cost:	$0.00

https://wisconsindot.gov/documents2/research/0092-22-05-final-report.pdf

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	2,900	Pounds/LCY
Description:	Dry sand and gravel	
Rated Payload:	50,300	Pounds
Payload Capacity:	17.34	LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY	
Heaped Volume:	18.00	LCY	
Average Volume:	15.00	LCY	
Adjusted Volume:	18.00	LCY	
	Final Truck Volume Based on Number of	**15.75**	LCY

Loading Tool Capacity — Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050
Adjusted Capacity:	**5.250**	LCY

Job Condition Corrections: — Site Altitude (ft.): 4680

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time:

Number of Loading Tool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	0.000	minutes
	Adjusted Loader Cycle Time:	**0.500**	minutes
	Net Load Time per Truck:	**1.500**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	1.500	Minutes	Adjusted for site altitude:	1.100	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3240.00	0.00	3.00	3.00	1614	2.008
				Haul Time:	**2.008**	minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3240.00	0.00	3.00	3.00	1694	1.913
				Return Time:	**1.913**	minutes
				Total Truck Cycle Time:	**6.820**	minutes

Loading Tool unit Production	630.00	LCY/Hour
Truck Unit Production	138.55	LCY/Hour
Optimal No. of Trucks:	4.5	Truck(s)

Adjusted for job efficiency:	522.90	LCY/Hour
Adjusted for job efficiency:	115.00	LCY/Hour
Selected Number of Trucks:	5	Truck(s)

Adjusted hourly truck team production:	522.90	LCY/Hour
Adjusted single truck/loader team production:	522.90	LCY/Hour
Adjusted multiple truck/loader team production	**522.90**	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	**23.88**	Hours
Unit cost:	$1.416	/LCY	Total job cost:	**$17,674**	

Return to Summary

TRUCK/LOADER TEAM WORK

Task description: **Haul topsoil to Tracts A, B, C, D**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update

Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 05A State: Colorado

Date: 6/25/2025 County: Weld

User: JEL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST Shift basis: 1 per day

Equipment Description

Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 966H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 120M
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	75	NA	NA	25	25
Ownership cost/hour:	$27.14	$57.78	NA	NA	$ 52.82	$11.65
Operating cost/hour:	$62.81	$34.69	NA	NA	$ 10.94	$5.61
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$ -	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$ -	$0.00
Operator cost/hour:	$24.82	$56.64	NA	NA	$ 56.70	$0.00
Unit Subtotals:	$114.77	$149.11	NA	NA	120.46	$17.26
Number of Units:	3	1	0	0	1	1
Group Subtotals:	Work:	$493.42	Support:	$0.00	Maint:	$137.72
Total work team cost/hour:	$631.14					

MATERIAL QUANTITIES

Initial volume:	92,121	CCY	Swell factor:	1.000
Loose volume:	**92,121**	LCY		

Source of estimated volume: Apply 6" topsoil to disturbed surfaces on all Tracts. Areas estimated from Propeller flight P115 on 6/11/2025, except for Tract C Pond disturbed area provided in POND BACKFILL CALCS by Brian Ewert.

Source of estimated swell factor: Cat Handbook

Material Purchase Cost:	$0.00
Total Cost:	$0.00

Topsoil depth (ft):	0.5
Topsoil Area - Tract A [sf]:	1,711,908
Topsoil Area - Tract B [sf]:	2,269,476
Topsoil Area - Tract C [sf]:	527,076
Topsoil Area - Tract D [sf]:	466,092
Total Topsoil Vol [cu.yd]:	92,121

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	1,600	Pounds/LCY
Description:	Top Soil	
Rated Payload:	50,300	Pounds
Payload Capacity:	31.44	LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY	
Heaped Volume:	18.00	LCY	
Average Volume:	15.00	LCY	
Adjusted Volume:	18.00	LCY	
	Final Truck Volume Based on Number of	**15.75**	LCY

Loading Tool Capacity — Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)	
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050	
Adjusted Capacity:	**5.250**	LCY	

Job Condition Corrections: Site Altitude (ft.): 4,800

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of LoadingTool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	0.000	minutes
	Adjusted Loader Cycle Time:	**0.500**	minutes
	Net Load Time per Truck:	**1.500**	minutes

	Haul Distance (ft)	Haul Distance weighted by Topsoil Vol (ft)
Tract A	397	137
Tract B	434	198
Tract C	1768	187
Tract D	664	62
Total Weighted Haul Distance (ft):		584

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes
Truck Load Time:	1.500	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes

Adjusted for site altitude:	0.500	Minutes
Adjusted for site altitude:	1.500	Minutes
Adjusted for site altitude:	0.900	Minutes

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	584.16	0.00	3.00	3.00	807	0.724
				Haul Time:	**0.724**	minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	584.16	0.00	3.00	3.00	902	0.647

Return Time: **0.647** minutes

Total Truck Cycle Time: **4.271** minutes

Loading Tool unit Production	630.00	LCY/Hour
Truck Unit Production	221.25	LCY/Hour
Optimal No. of Trucks:	2.8	Truck(s)

Adjusted for job efficiency:	522.90	LCY/Hour
Adjusted for job efficiency:	183.64	LCY/Hour
Selected Number of Trucks:	3	Truck(s)

Adjusted hourly truck team production: 522.90 LCY/Hour

Adjusted single truck/loader team production: 522.90 LCY/Hour

Adjusted multiple truck/loader team production **522.90** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s)

Unit cost: $1.073 /LCY

Total job time: **176.17** Hours

Total job cost: **$111,190**

Return to Summary

REVEGETATION WORK

Task description: **Seed banks of pond**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 05B State: Colorado User: JEL

Date: 6/23/2025 County: Weld Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units /Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	$0.51	$102.00
			Total Fertilizer Materials Cost/Acre	**$102.00**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$43.12
Total Fertilizer Application Cost/Acre	**$43.12**

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	$102.41
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$441.21**

SEEDING*

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Western Wheatgrass (Arriba, Barton, Rosana)	2.50	NA	$11.50
Blue Grama (Hachital, Lovington)	1.50	NA	$29.00
Sideoats Grama (Vaughn, Butte, Niner, El Reno, Haskell)	2.25	NA	$29.00
Smooth Brome (Lincoln, Manchar)	2.00	NA	$4.05
Sand Dropseed	0.25	NA	$22.00
Perennial Ryegrass (Calibra or Garibalsi tetraploid)	0.75	NA	$3.85
Slender Wheatgrass (Pryor, Revenue or San Luis)	2.50	NA	$4.25
Alkaligrass (Fults II, Salt on Sea)	1.25	NA	$62.00
Switchgrass (Nebraska 28, Blackwell)	1.00	NA	$13.74
Totals Seed Mix	14.00	0.00	179.39

*Seed mix follows General Seed Mixes for Weld County documentfound at http://www.weld.gov/Government/Departments/Public-Works/Weed-Management/Controlling-Weeds/Reseeding.

Seed costs found at greatbasinseeds.com

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	Units /Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$36.14	$36.14
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$1021.70**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$85.37
Weed spray, truck, non-aquatic area, nox. [DMG]	$83.26
Total Mulch Application Cost/Acre	**$168.63**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres:	114.20	Cost /Acre:	$2,192.69
Estimated Failure Rate:	25%	Cost /Acre*:	$548.17
*Selected Replanting Work Items:		SEEDING	

Initial Job Cost:	**$250,405.20**
Reseeding Job Cost:	**$62,601.30**
Total Job Cost:	**$313,006**
Job Hours:	

P115 Tract A exposed S.A. above WSEL [ac]:	39.3
P115 Tract B all [ac]:	52.1
P115 Tract C backfill area [ac]:	12.10
P115 Tract D all [ac]:	10.70

Return to Summary

DEMOLITION WORK

Task description: **Demo and remove concrete and conveyor**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 06A State: Colorado
Date: 6/25/2025 County: Weld
User: JEL
Agency or organization name: DRMS

UNIT COSTS **Location adjustment:** 89.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost	Source
Wingwalls	5 x 25' at Truck Scales	Demo and on-site disposal in existing pit	125.00	LF	$148.74	$18,592.08	CDOT Cost Data Book
Concrete pads - quonset hut, fuel tank, 2 x truck scales, scale house	Quonset Hut: 267 SY Fuel Tank: 21 SY Truck Scale 1: 101 SY Truck Scale 2: 72 SY Scale House: 16 SY	Demo and on-site disposal of concrete pads, assumed to equal structure footprints	376.00	SY	$124.15	$46,680.40	CDOT Cost Data Book
Quonset Hut	60' x 40'	Remove structure	1.00	EA	$11466.74	$11,466.74	CDOT Cost Data Book
Culverts	8'L x 2.5'-5'D RCP	Remove and dispose of RCP culverts from Tract C Pond	300.00	LF	$57.25	$17,175.60	CDOT Cost Data Book
Conveyor	3' x 6', 4620' long	Disassemble conveyor, trusses, tower, and bridge and store on-site. Remove concrete foundations and dispose off-site.	1.00	EA	269,000.00	$269,000.00	Divide Constructors Estimate (June 2025)
Fuel tanks	10,000 gallons	Haul tank to dump - 10,000 gal. tank	1.00	EA	$1,000.00	$1,000.00	American Gypsum Estimate (January 2025)

Job Hours: **Subtotal (unadjusted):** **$363,914.83** **Total Cost (adjusted for location):** **$324,612.03**

Return to Summary

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization and Demob.**

Site: **Kurtz Sand, Gravel and Reservoir Project** Permit Action: 2025 Financial Warranty Update Permit/Job#: M1999006

PROJECT IDENTIFICATION

Task #: 07A State: Colorado

Date: 6/25/2025 County: Weld

User: JEL

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day

Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D8T - 8SU	52.21	$187.01	$125.64	2	$625.30	$251.28	$250.00
CAT 966H high lift	25.80	$57.78	$59.44	2	$234.44	$118.88	$250.00
CAT 815F	22.88	$107.16	$59.44	1	$166.60	$59.44	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Grove RT890E, 142', 81.60 MT	54.55	$222.11	$125.64	1	$347.75	$125.64	$250.00
Cat D10T	72.90	$174.79	$178.00	2	$705.57	$355.99	$250.00
				Subtotals:	**$2,180.12**	**$970.67**	**$1,500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 12-18 cy, 6x4	$114.77	4	$459.08	$459.08
Water Tanker, 3,500 Gal.	$34.10	1	$34.10	$34.10
		Subtotals:	**$493.18**	**$493.18**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GREELEY	
Total one-way travel distance:	24.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost *	$10,561.91	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	$591.82	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.60	0.60
Return Time (Hours):	0.60	0.60
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	1.20	1.20

JOB TIME AND COST

Total job time:	**2.40**	Hours
Total job cost:	**$11,154**	

HIGHWAY 66

HIGHWAY 66

OWNER: DEPARTMENT OF TRANSPORTATION

OWNER: FIRESTONE TOWN OF WILLARD KEVIN D

OWNER: DEPARTMENT OF TRANSPORTATION

OWNERS: MILLER JOSEPH RAY et al MILLER CHRISTINE ANNE

OWNER: DIXIE WATER LLC

OWNERS: MORRIS EARL GEOFFREY et al MORRIS JENNIFER

OHU

OWNER: DOT

EXPOSED GW TO BE BACKFILLED

26.0'x51.7' RESIDENCE 1344 SQ.FT.-HEIGHT ±15.2

8.3'x24.3' SCALE HOUSE

PERMIT BOUNDARY 82.6 ACRES

PERMIT BOUNDARY 213.5 ACRES

TRACT D

REVEGETATION AREA=10.7 ACRES

OWNER: PLATTEVILLE DAIRY LLC

TRACT B

REVEGETATION AREA=52.1 ACRES

TO BE BACKFILLED

OWNER: FIRESTONE TOWN OF

PRODUCT STOCKPILE AREA

WET PLANT

COUNTY ROAD 17

PRODUCT STOCKPILE AREA

TO BE BACKFILLED

SAND PILE

202,647 CY

22.0'x80.0' SHED

SILT POND TO BE BACKFILLED

LENGTH=1820 FT

-PARCEL B- 82.66 Acres (±3,600,518 sq.ft.)

LENGTH=715 FT

ACTIVE AREA OF EXTRACTION

ACTIVE AREA OF EXTRACTION

OWNER: READY MIXED CONCRETE COMPANY

CENTER SEEP DITCH TO BE EXTRACTED AFTER RELOCATING FLOW TO SEEP DITCH ON EAST BOUNDARY

OWNER: VARRA COMPANIES INC

TRACT C

REVEGETATION AREA=12.1 ACRES

-SUBJECT PROPERTY- 296.29 Acres (±12,906,291 sq.ft.)

-PARCEL A- 213.63 Acres (±9,305,773 sq.ft.)

S.22N. T.1W. R.67W.

OWNER: FIRESTONE TOWN OF

OWNER: VARRA COMPANIES INC

TRACT A

REVEGETATION AREA=39.3 ACRES

OWNER: VARRA COMPANIES INC

ACTIVE AREA OF EXTRACTION

OWNER: READY MIXED CONCRETE COMPANY

LEGEND

- PERMIT BOUNDARY
- SECTION BOUNDARY
- AREA OF REVEGETATION
- APPROX. 5:1 CUT SLOPE TO BE REGRADED AT 3:1 AND LINED.
- CONVEYOR TO TRANSPORT TOPSOIL, THEN REMOVED.
- EXISTING STRUCTURES
- STRUCTURES TO BE REMOVED.

0 100' 200'

SCALE: 1" = 200'

COUNTY ROAD 17

SILT POND RECYCLE WATER FOR WET PLANT TO BE BACKFILLED

SETTLING POND TO BE BACKFILLED

LOT A, RE-5021 (Not a Part)

OWNER: ACORD ST VRAIN VALLEY RANCH LLC

OWNER: VARRA COMPANIES INC

OWNER: CROSSROAD VALLEY RANCH LLC

RAPTOR MATERIALS, INC.
8120 GAGE STREET
FREDERICK, COLORADO 80534
TELEPHONE: (303) 666-6657

PROJECT: Kurtz Project – OMLR Permit M1999-006

DRAWING: 2024-2025 Annual Report

NOTES: 2024 AERIAL & CONTOUR INFORMATION from Propeller website (raptormaterialsllc.prpellr.com)

SCALE: 1 inch = 200 feet
DATE: 25 September 2009
REVISION: 02 July 2025
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