

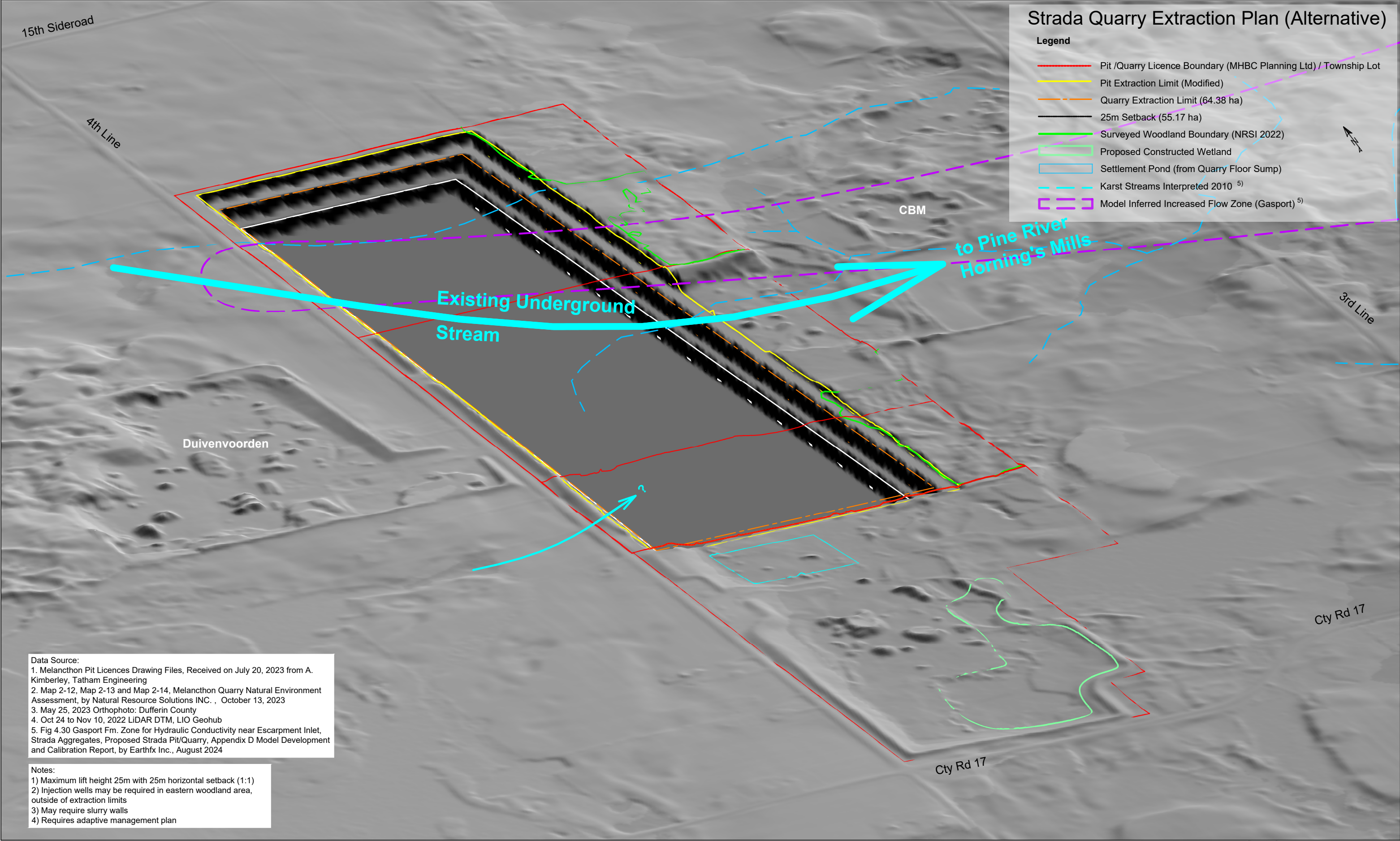


Fig H.23.1

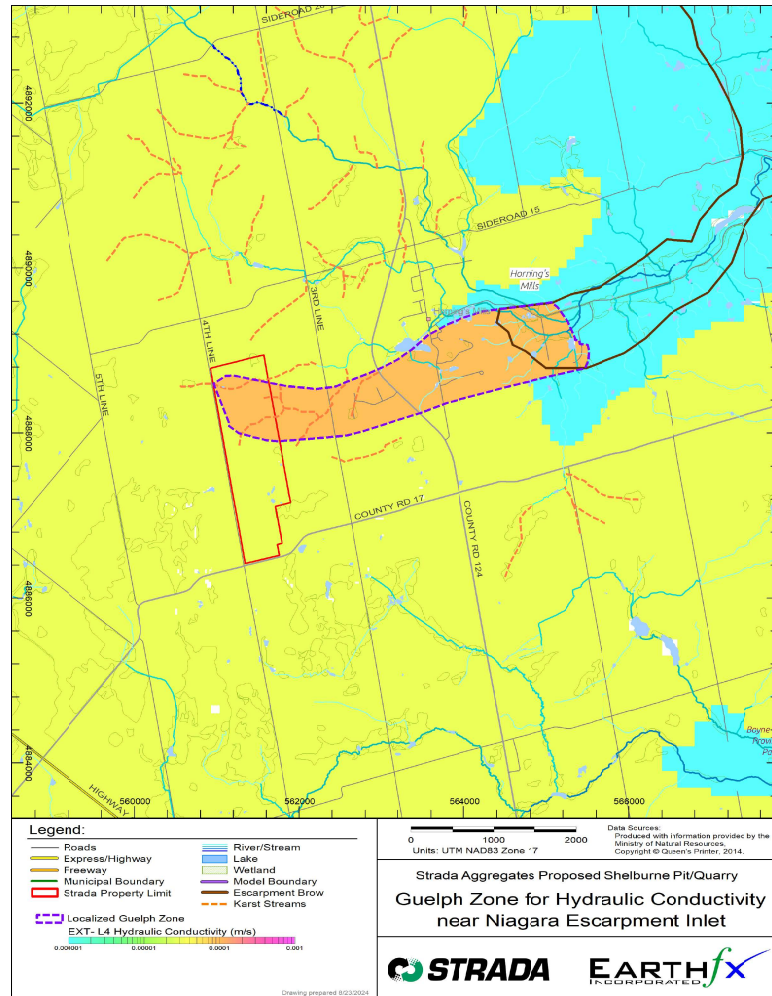


Figure 4.29: Guelph Fm. hydraulic conductivity zone near the Niagara Escarpment re-entrant.

Fig H.23.2

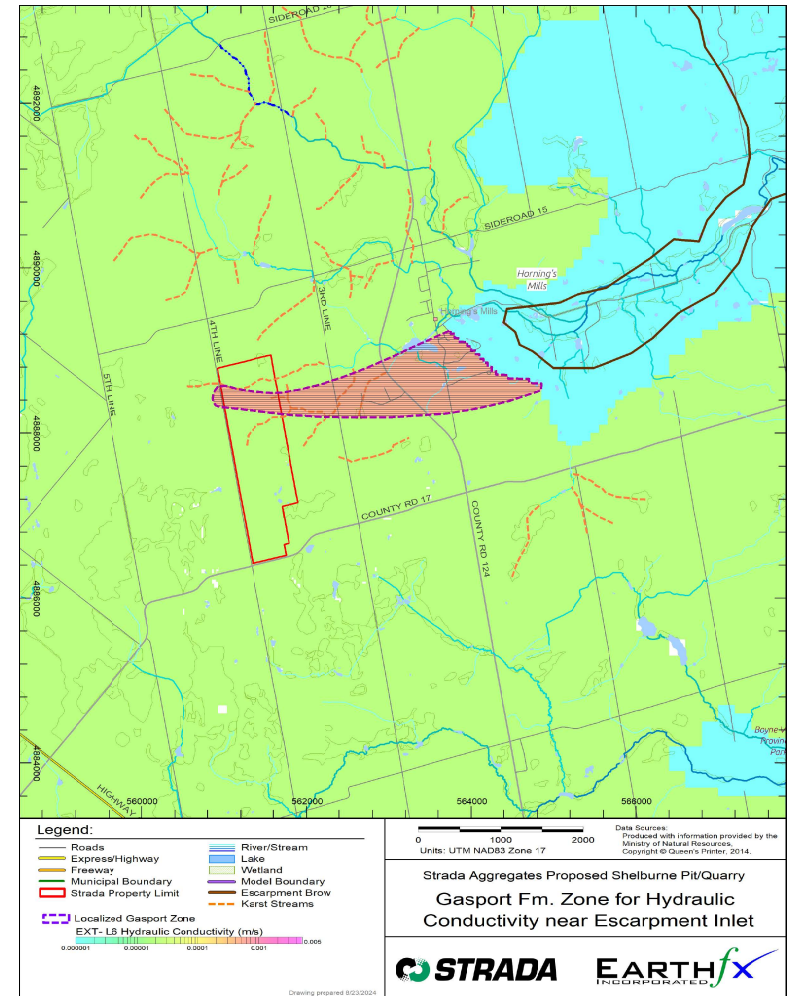


Figure 4.30: Gasport Fm. hydraulic conductivity zone near the Niagara Escarpment re-entrant.

In Situ Material Volumes within Strada Proposed Quarry Footprint (Modified) ¹

Summary	In Situ Material Volume 1,000 m³	Fines (5%) ² 1,000 m³	Material Volume (less Fines) 1,000 m³
	(1)	(2)	(3)=(1)-(2)
A. Overburden			
A.1 Prince Pit - Mainly Sand and Gravel, and Limited Glacial Till	4,900	250	
A.2 Melancthon and Bonnefield Pits - Mainly Glacial Till	5,100	250	
Subtotal Overburden (A.1 + A.2)	10,000	500	9,500
B. Bedrock			
B.1 Upper Bedrock Guelph/Eramosa	10,600	530	
B.2 Middle Bedrock Goat Island (Ancaster/Niagara)	8,300	420	
B.3 Lower Bedrock Gasport / IRM	9,800	490	
Subtotal Bedrock (B.1 + B.2 + B.3)	28,700	1,440	27,260
Total Overburden + Bedrock - Fines	38,700	1,940	36,760

Notes:

- 1) Peer Reviewed Modified Proposed Quarry Footprint.
- 2) Fines estimated at 5% include Marketable Quarry Fines, Sediment on Quarry Floors, Turbidity in Quarry Effluent Water, Dust in Quarry Air and recovered Fines utilized for rehabilitation.

File: Strada (21-407)

File Date: Sept. 20, 2024

File: Strada (21-407)

Date: September 18, 2024 (Updated Sept 20, 2024)

By: RL

Re: Insitu Proposed Pit / Quarry Limits Extraction Volume Calculations

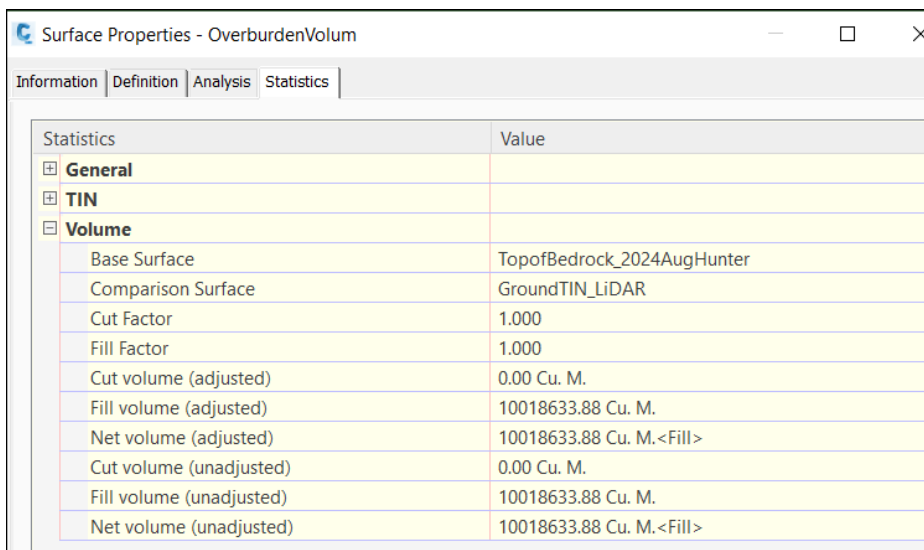
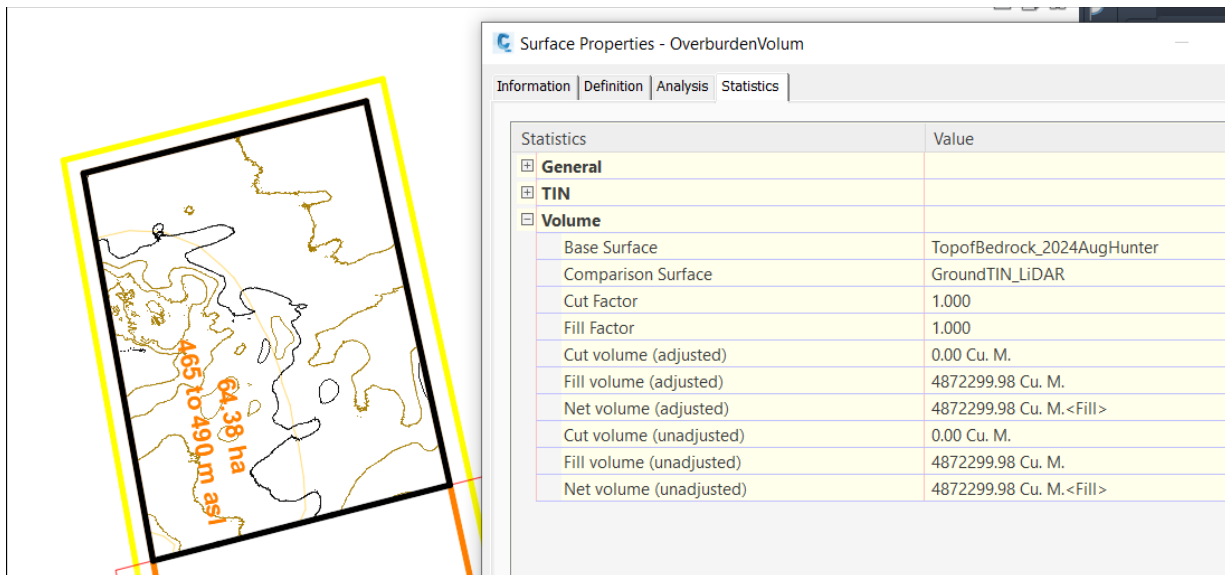
1. Overburden Volume

Prince Pit (W1/2 Lot 14) Sand/Gravel and Limited Till:	4,872,300 m ³	24.067 ha
Melancthon Pit (W1/2 Lot 13) / Bonnefield Pit (W1/2 Lot 12) Mostly Till:	5,146,334 m ³	40.318 ha
Total:	10,018,634 m ³	64.385 ha

Top Surface: LiDAR DEM (Oct 24 to Nov 10, 2022)

Bottom Surface: Hunter Top of Bedrock (Aug 30, 2024 Version, based on Table H.1)

Boundary: Hunter Modified Quarry Extraction Limit (Fig H.3)

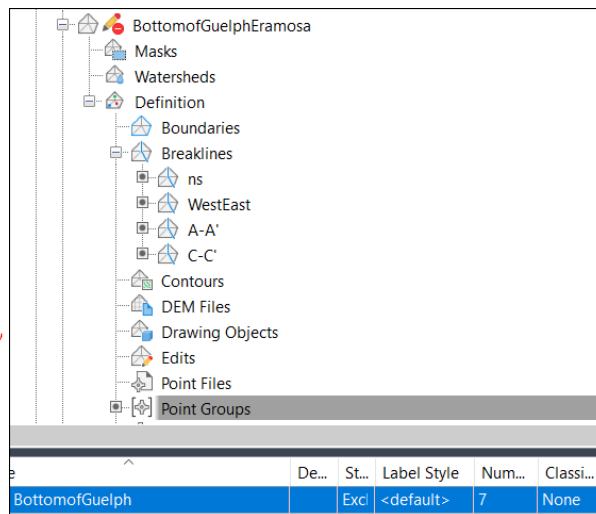
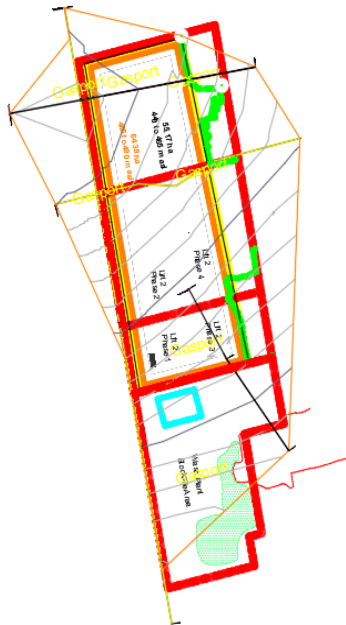
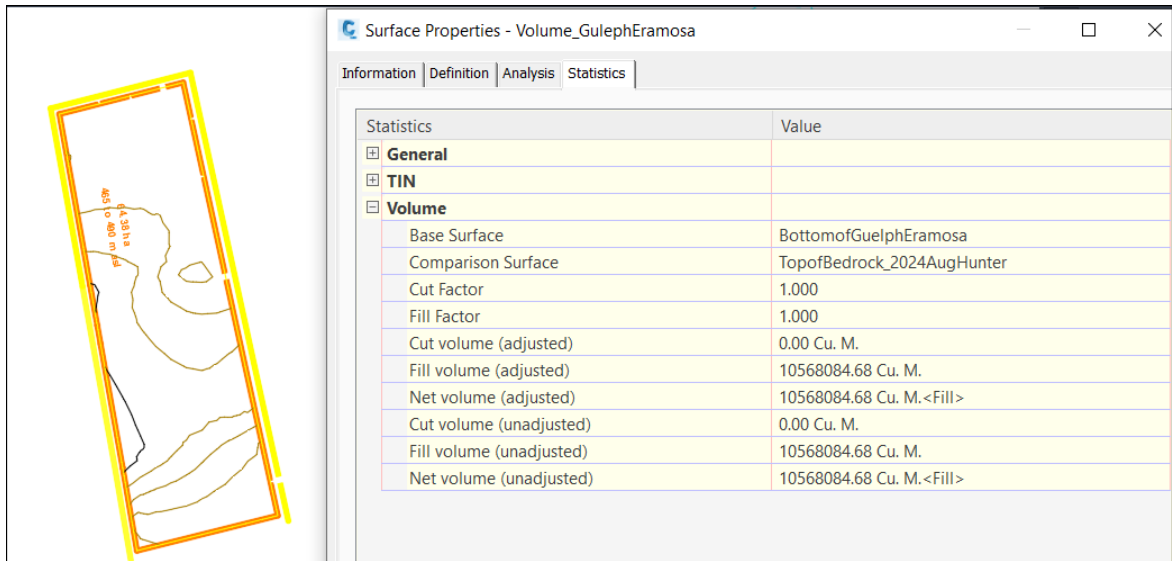


2. Geology surfaces from *Strada NDACT DRAFT Impact Assessment Report, August 2024*

- Fig 10.2 Cross Section Locations
- Fig 10.3 West-East Cross Section C
- Fig 10.4 North-South Cross Section A
- Appendix B Proposed Cross Sections Provided by Client

1) Guelph Eramosa Volume: 10,568,085 m³ (64.385 ha)

- Top of Bedrock: 478.4 m asl to 494.5m asl
- Bottom of Guelph Eramosa: 466.2 m asl to 476.2 m asl

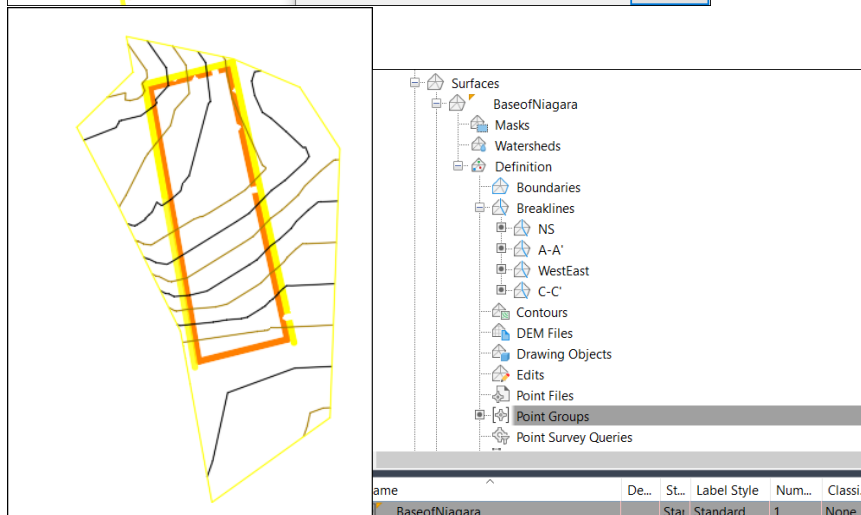
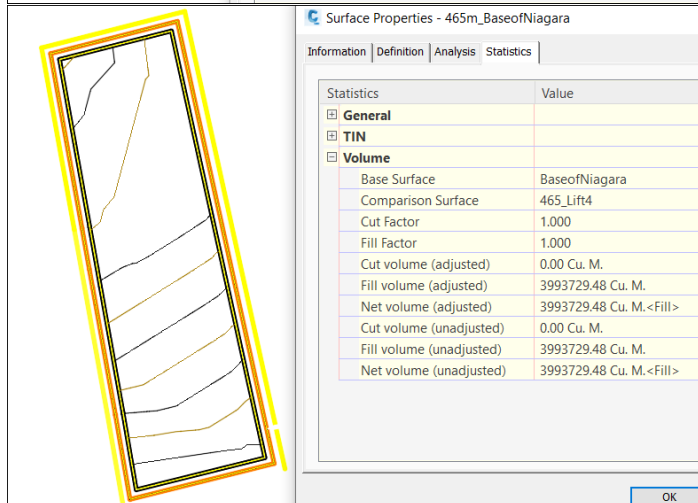
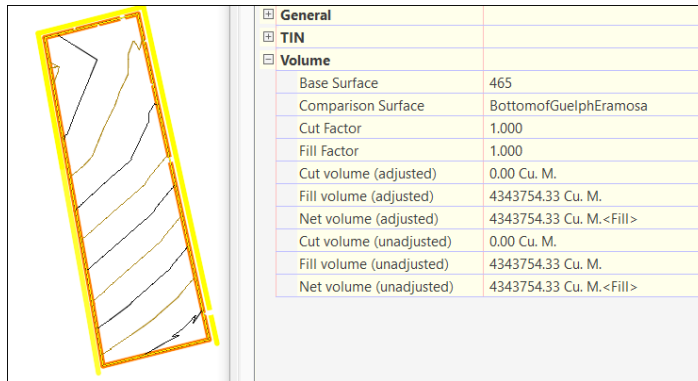


Base Surface of Guelph Eramosa

2) Ancaster Niagara Volume : 8,337,483 m³

- Bottom of Guelph Eramosa: 466.2 m asl to 476.2 m asl
- Bottom of Ancaster Niagara: 452.5 m asl to 462.6 m asl

Base of Guelph Eramosa to 465m asl: 64.385 ha 4,343,754 m³
 465m asl to the base of Ancaster Niagara: 55.165ha 3,993,729 m³
 Total: 8,337,483 m³



Base Surface of Ancaster Niagara

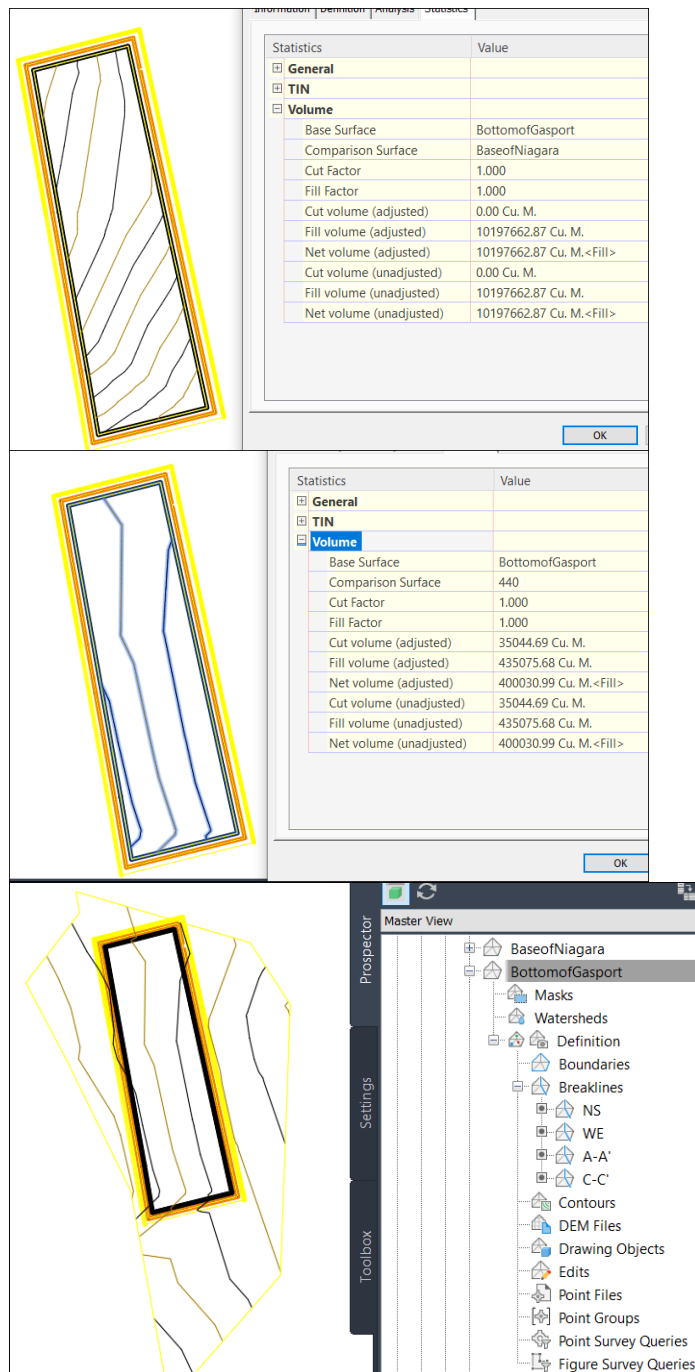
3) Gasport Volume (including IRM) : 9,762,587 m³ (55.165ha)

- Bottom of Ancaster Niagara: 452.5 m asl to 462.6 m asl
- Bottom of Gasport: 437.6 m asl to 440.6 m asl

Base of Ancaster Niagara to bottom of Gasport: 10,197,663 m³

Bottom of Gasport below 440 m asl: - 435,076 m³

Total: 9,762,587 m³



Base Surface of Gasport (including IRM)



October 5, 1995

Mr. Garry T. Hunter
Hunter and Associates
2695 North Sheridan Way, Ste. 120
Mississauga ON L5K 2N6

Re: Dibblee Osgoode Quarry Site

Dear Sir:

As you are aware, the necessary licenses and permits required for the opening of the above mentioned quarry having been issued, the operation and management of the site will now be the responsibility of our National Capital Region executive vice-president, Raymond Collette.

Consequently, all future correspondence and communication regarding the subject quarry should be addressed directly to him at Constructions Deschenes Quebec Ltee, 636 Klock Road, P.O. Box 40, Aylmer, QC J9H 5E4. No further studies or reports shall be initiated without his prior approval.

On behalf of our company, I would like to thank you for your hard work and leadership during this long process, without which we would not have been successful.

Yours truly,

F.G. Jewiss
Vice-Chairman

RECEIVED

OCT 11 1995

HUNTER & ASSOCIATES