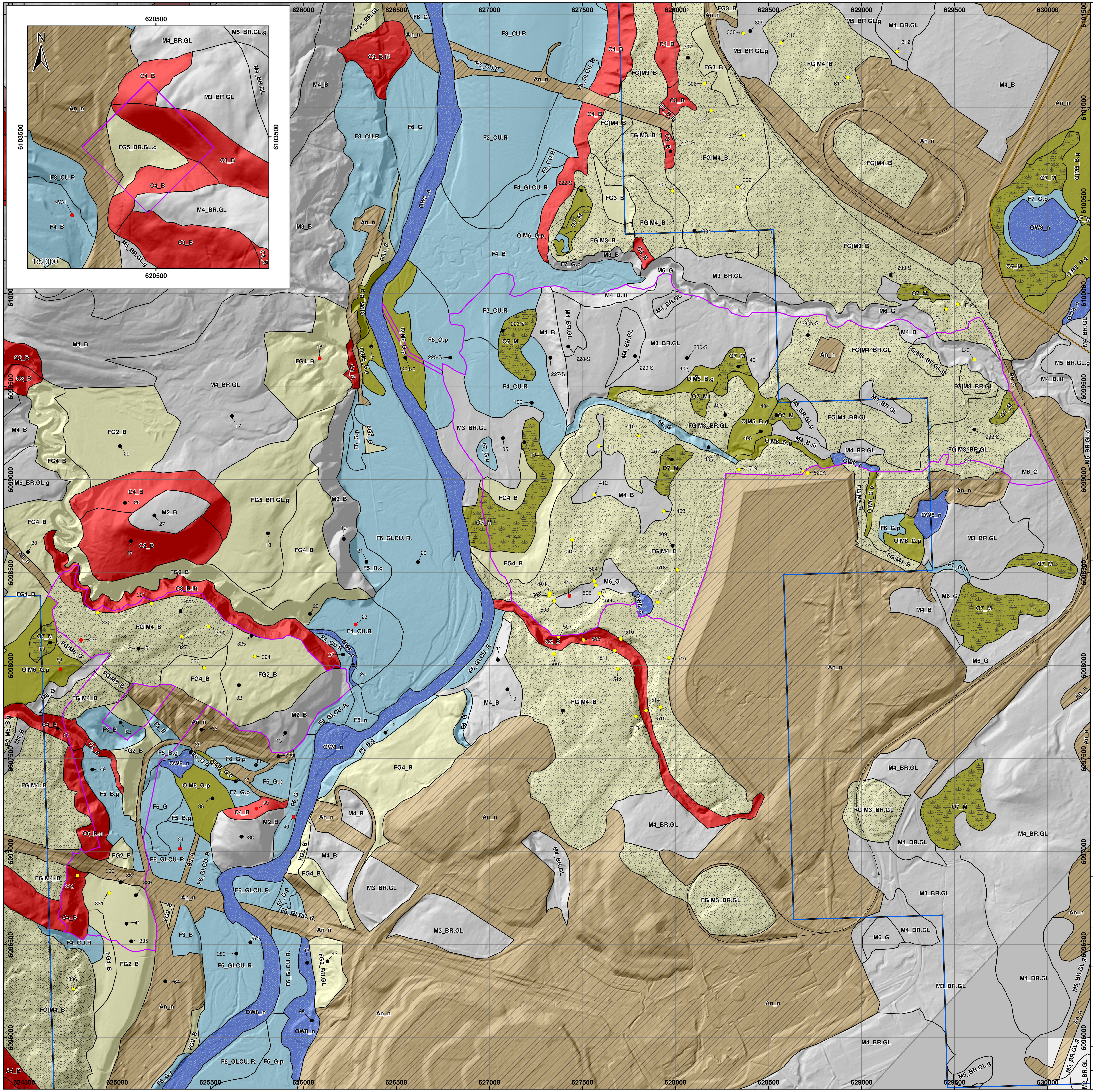
Appendix 10-E

Murray River Coal Project: Surficial Material and Soil Map of the Project Development Footprint Area



- Soil Sampled, Exceeding CCME - A
- Soil Sampled
- Soil Not Sampled
- Local Study Area
- Mine Site Assessment Footprint
- Licence Area
- Highway
- Railway

Surficial Material

Code	Description
A	Anthropogenic - areas disturbed by human activity
C	Colluvium - variable coarse fragment content, angular particles, fine/medium textures, erodible
F	Fluvial - on floodplain and very gently sloping alluvial fans. Gravelly to cobbly, sandy materials sometimes overlain by non-gravelly sandy silts
FG	Glaciofluvial - gravelly to cobbly sands often in stratified, terraces above active floodplains.
FG|M	Glaciofluvial Veneer above till
M	Morainal - variable coarse fragment content, mixed particles, sandy to silty texture; commonly compact subsurface
O	Organic - dark, poorly to moderately decomposed organic material, often less than 1 m thick
O|M	Organic Veneer over till
OW	Open Water
R	Bedrock - rock outcrops and bedrock covered by a thin mantle of mineral or organic materials. Weathered bedrock (D) may be included in these units.

M5_P.g — Primary Surficial Material; Soil Moisture Regime; Soil Qualifier; Soil Order

Describes a polygon with dominant morainal soil of subhygric soil moisture regime and podzolic qualities with gleyed characteristics. Description of label codes are below. Complete polygon attributes are contained in the report appendicies

Soil Classification (Order)
- B - Brunisol
- G - Gleysol
- L - Luvisol
- P - Podzol
- R - Regosol
- M - Mesisol
- n - Non-Soil

Soil Qualifier
- g - gleyed (evidence of temporal soil saturation)
- lit - lithic (bedrock contact within 1 m)
- n - not classified
- p - peaty (organic capping < 0.4 m thick)
- t - terric or mineral soil contact within 1.2 m

Soil Moisture Regime
- 0 - Very xeric
- 1 - Xeric
- 2 - Subxeric
- 3 - Submesic
- 4 - Mesic
- 5 - Subhygric
- 6 - Hygric
- 7 - Subhydric
- 8 - Hydric
- n - Not Rated

1:10,000

0 0.5 1

Kilometres

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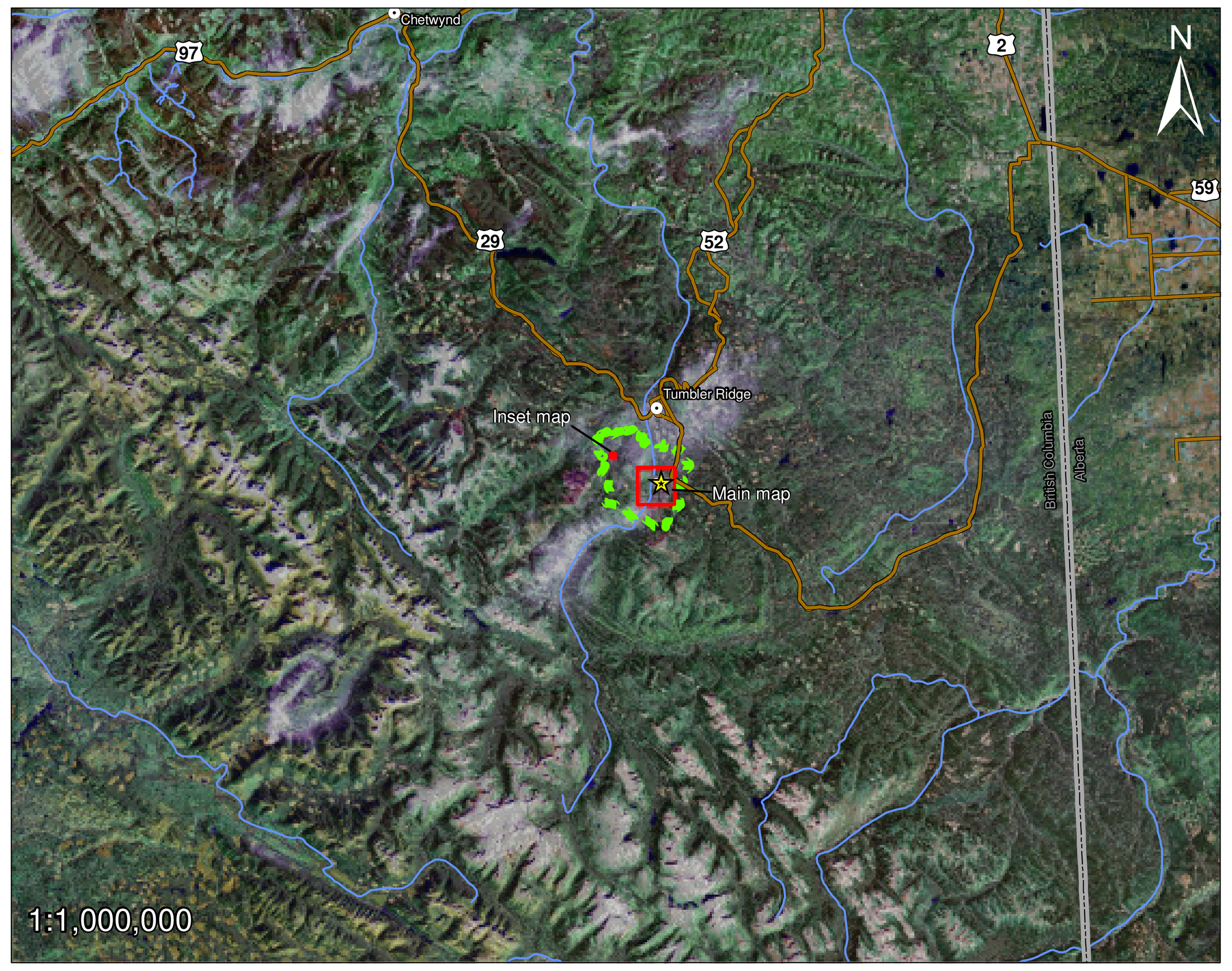
Version# T0.13
July 11, 2014
Projection: NAD 1983 UTM Zone 10N



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Project	Murray River
Site	British Columbia
Figure:	Appendix 10-E
Title	Surficial Material and Soil Map of the Project Development Footprint Area
Scale	1:10,000
Project Number	0194106-0005-0607
Client	HD MINING INTERNATIONAL LTD – Murray River Coal Project
Revision	00
Date	July 11, 2014
Size	24x32in
Layout	T0.13
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PjM	JR
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