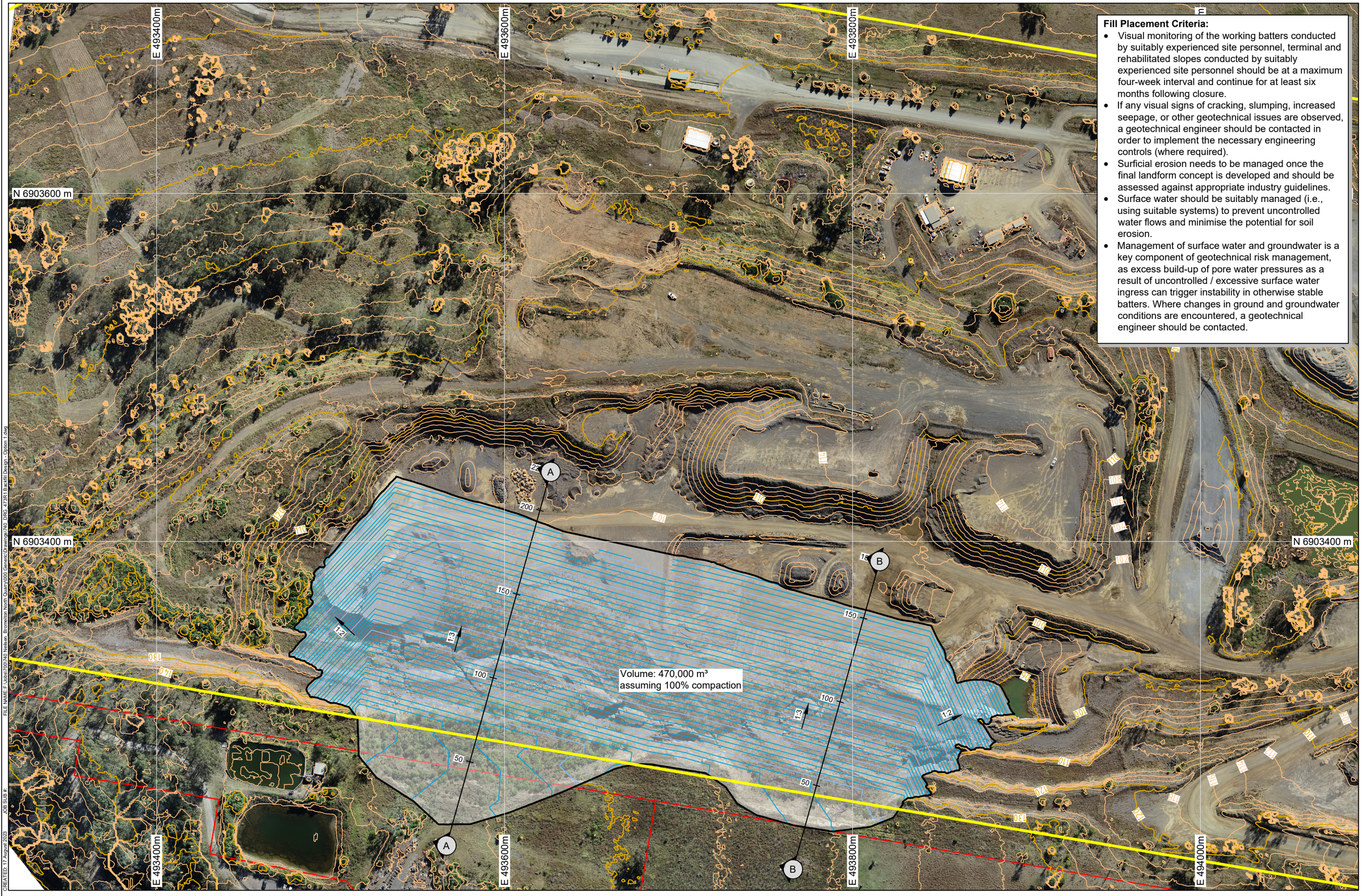
Attachment 4

Generally Agreed Backfill Design



Fill Placement Criteria:

- Visual monitoring of the working batters conducted by suitably experienced site personnel, terminal and rehabilitated slopes conducted by suitably experienced site personnel should be at a maximum four-week interval and continue for at least six months following closure.
- If any visual signs of cracking, slumping, increased seepage, or other geotechnical issues are observed, a geotechnical engineer should be contacted in order to implement the necessary engineering controls (where required).
- Surficial erosion needs to be managed once the final landform concept is developed and should be assessed against appropriate industry guidelines.
- Surface water should be suitably managed (i.e., using suitable systems) to prevent uncontrolled water flows and minimise the potential for soil erosion.
- Management of surface water and groundwater is a key component of geotechnical risk management, as excess build-up of pore water pressures as a result of uncontrolled / excessive surface water ingress can trigger instability in otherwise stable batters. Where changes in ground and groundwater conditions are encountered, a geotechnical engineer should be contacted.

FILE NAME: F:\Jobs\7007\40 Neilsen Bromelton North Quarry\000 Generic\Drawings\740 DRG 473R1 Backfill Design - Option 1.dwg
JOB SUB #
CREATED: 17 August 2023

REV	DESCRIPTION	DATE	BY
1	Note 'Final Design Subject to Review' added	17-08-2023	JHV

Data Sources:
Photography: Groundwork Plus UAV Survey, Captured 2023-05-29
Topography: Groundwork Plus UAV Survey, Captured 2023-05-29, DSM 1m
Cadastre: © The State of Queensland (DNRME) 2019
Ecosystem:
Other: Background Photography: © The State of Queensland (DNRME) 2019

Legend:
- Site Boundary
- Cadastral Boundary

NOTE: Final Design Subject to Review

PROJECT: Bromelton North

CLIENT: Neilsens Quality Gravels Pty Ltd

TITLE: Backfill Design - Option 1

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