Additional Information Request # 2

Location of Project Components within the Local Watersheds

Related Comments:

CEAR #544 (Ontario Ministry of Natural Resources)

The Ontario Ministry of Natural Resources is concerned that there are some inconsistencies in the various maps presented in the EIS and IR responses 2.1, 2.3 and 24.17. A comparison of maps provided in these responses shows some discrepancies in the location of various project components, particularly the location of the soil surface stockpiles.

The map provided for IR 24.17 (drawing 4, year 11) is missing one of the surface soil stockpiles presented in the map for IR 2.3 (drawing 4, year 12), located to the west of the MRSA. Though responses to both IR 2.1 and IR 24.17 state that there will be no project infrastructure in sub-basins 104, 107, 108, these maps indicate otherwise, as the surface soil stockpile would be located in sub-basin 104 and 107. As well, one of the surface soil stockpiles, south of the Processed Solids Management Facility (PSMF) appears to overlap sub-basin 105. Additionally, the map for IR 24.17 shows the MRSA extending into sub-basin 108.

For clarity and accuracy:

Provide a good quality, high resolution map that overlays all of the project components and mining infrastructure and clearly depicts all the sub-watershed boundaries and the Site Study Area (SSA) so that the information in the map is consistent with the information presented in responses to IRs 2.1, 2.3 and 24.17. Using the map, confirm that:

- Pit 5 is correctly placed in the stream 2 sub-watershed (sub-basin 102);
- All project infrastructure is within the SSA; and
- All project components, including the surface soil stockpiles, are within their “assigned” sub-basins/sub-watersheds and indicate, where applicable, which sub-basins/sub-watershed they will report to.

Clarification of definitions:

- Clarify that the “soil surface stockpiles” referred to in the responses to IRs 2.3 and 24.17 are the same as the “overburden stockpiles” discussed in the EIS and its supporting documents.

SCI Response:

The project components and mining infrastructure are illustrated on the attached figures. All project infrastructure is located within the SAA and the sub-watersheds boundaries are illustrated on the figures. The provided figures include the following:

Figure 1 – Conceptual Site Plan

Figure 2 – Conceptual Site Access Road and Plant Site Area General Arrangement

Figure 3 – Conceptual Open Pit and Mine Rock Storage Area General Arrangement

Figure 4 – Conceptual Process Solids Management Facility General Arrangement

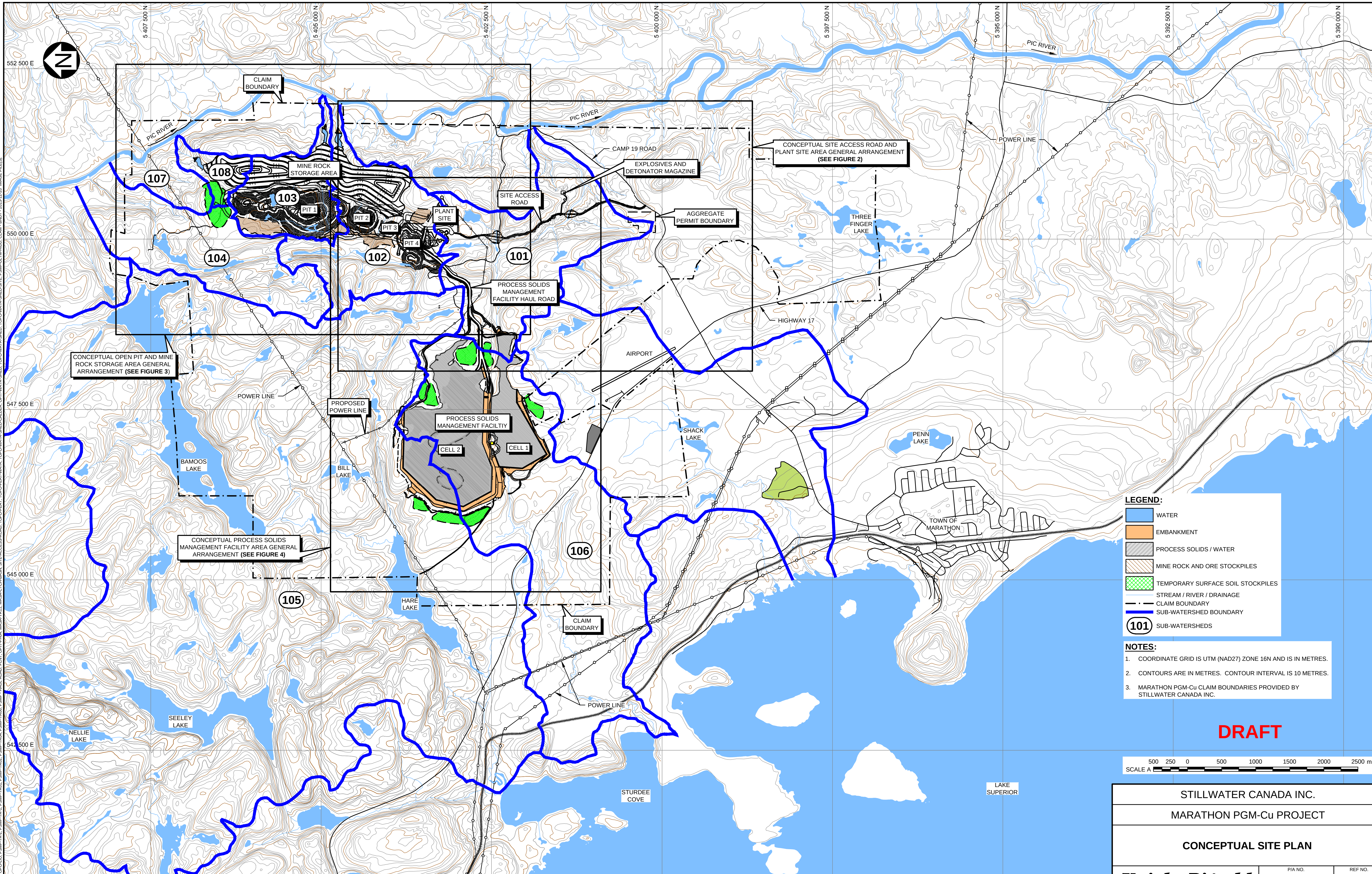
The MRSA conceptual configuration extends into sub-basin 108 as shown on Figure 3. This was indicated in the summary table provided with the response to IR 2.1 as well as summary Tables 1 and 2 provided in the response to IR 24.17.

The temporary surface soil stockpile located north of the Open Pit will be located in sub-basins 104, 107 and 108 as shown on Figure 1 and Figure 3. This temporary stockpile was not included in the responses to IR 2.1 and 24.17. However, this temporary stockpile was shown west of the MRSA on Drawing 4 included with the response to IR 2.3. The infrastructure in sub-basins 104, 107, and 108 associated with the temporary surface soil stockpile would include the stockpile, and sediment control measures and access roads that would be constructed with the footprint of the stockpile or immediately downstream of the stockpile along the respective stockpile toe.

The temporary surface soil stockpile located south of the PSMF will be located entirely in sub-basin 106. The surface soil stockpile is shown to overlap the Shack Lake sub-basin south of the PSMF in the response to IR 24.17 due to a discrepancy in the sub-basin boundary. With respect to this surface soil stockpile, the location and adjacent sub-basin boundaries are shown in greater detail on Figure 1 and Figure 4. The temporary surface soil stockpiles will be used to reclaim the downstream slopes of the PSMF embankments during construction.

Pit 5 and Pit 4 have been combined as part of the ongoing optimization of the mine development. The combined Pit 4 and Pit 5 is labeled as Pit 4 as shown on the attached figures. Pit 4 is predominantly located in sub-basin 102. The southern extents of Pit 4 overlaps sub-basin 101. All of the runoff and ground water inflow to Pit 4 will report to sub-basin 102.

The referenced “soil surface stockpiles” and “overburden stockpiles” are the same stockpiles. Surface soils and overburden will be temporarily stored in the Temporary Surface Soil Stockpiles as illustrated on the attached figures. The Temporary Surface Soil Stockpiles will be utilized for reclamation.



LEGEND:

- WATER
- EMBANKMENT
- PROCESS SOLIDS / WATER
- MINE ROCK AND ORE STOCKPILES
- TEMPORARY SURFACE SOIL STOCKPILES
- STREAM / RIVER / DRAINAGE
- CLAIM BOUNDARY
- SUB-WATERSHED BOUNDARY
- (101) SUB-WATERSHEDS

NOTES:

1. COORDINATE GRID IS UTM (NAD27) ZONE 16N AND IS IN METRES.
2. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 10 METRES.
3. MARATHON PGM-Cu CLAIM BOUNDARIES PROVIDED BY STILLWATER CANADA INC.

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A	09DEC'14	ISSUED WITH TRANSMITTAL	CNH	SIR	CNH	RAM

STILLWATER CANADA INC.

MARATHON PGM-Cu PROJECT

CONCEPTUAL SITE PLAN

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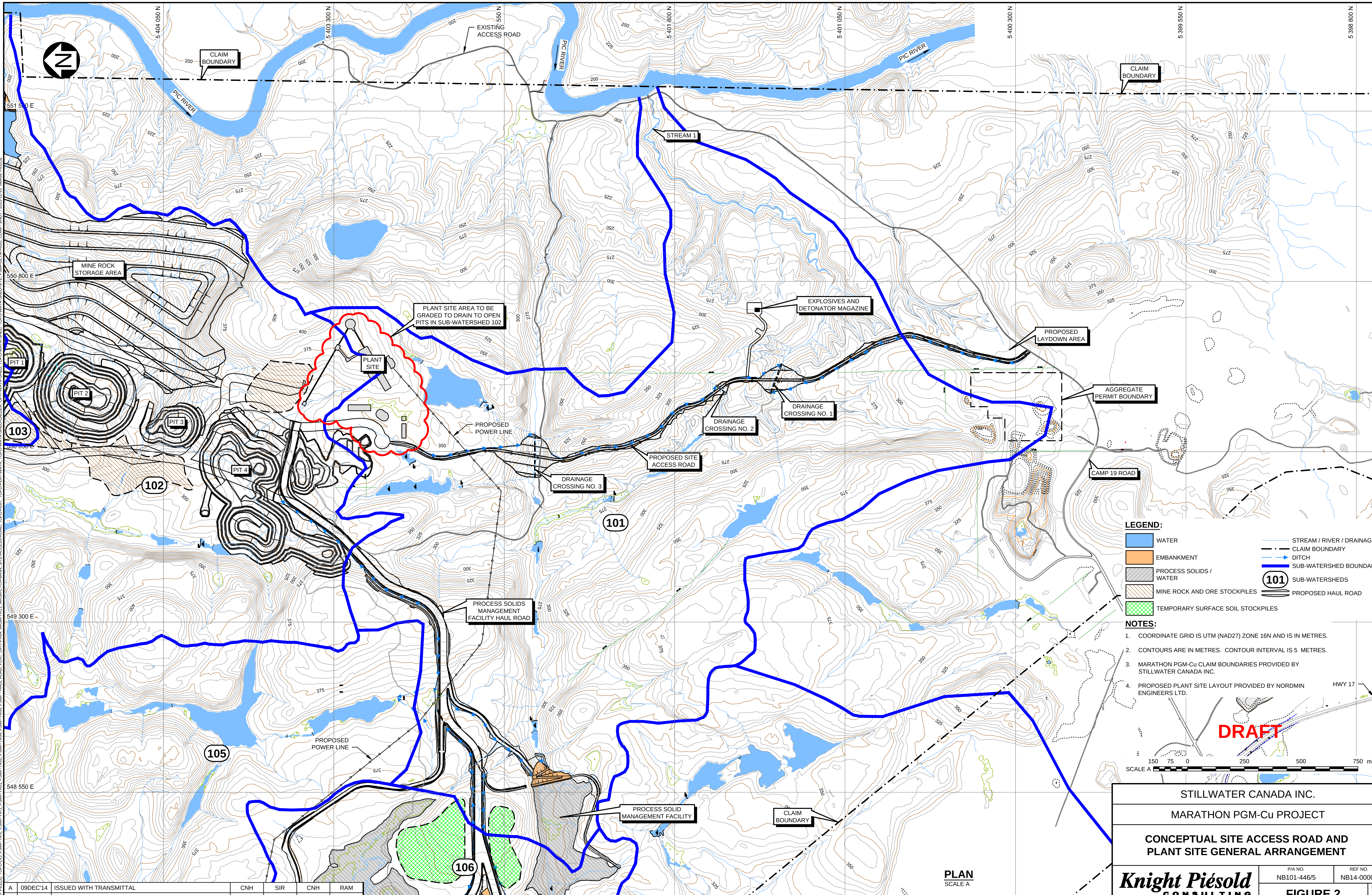
P/A NO. NB101-446/5

REF NO. NB14-00009

FIGURE 1

REV A



LEGEND:

- WATER
- EMBANKMENT
- PROCESS SOLIDS / WATER
- MINE ROCK AND ORE STOCKPILES
- TEMPORARY SURFACE SOIL STOCKPILES
- STREAM / RIVER / DRAINAGE
- CLAIM BOUNDARY
- DITCH
- SUB-WATERSHED BOUNDARY
- (101) SUB-WATERSHEDS
- PROPOSED HAUL ROAD

NOTES:

1. COORDINATE GRID IS UTM (NAD27) ZONE 16N AND IS IN METRES.
2. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 5 METRES.
3. MARATHON PGM-Cu CLAIM BOUNDARIES PROVIDED BY STILLWATER CANADA INC.
4. PROPOSED PLANT SITE LAYOUT PROVIDED BY NORDMIN ENGINEERS LTD.

SCALE A 150 75 0 250 500 750 m

PLAN
SCALE A

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHK'D	APP'D
A	09DEC'14	ISSUED WITH TRANSMITTAL	CNH	SIR	CNH	RAM

STILLWATER CANADA INC.

MARATHON PGM-Cu PROJECT

CONCEPTUAL SITE ACCESS ROAD AND PLANT SITE GENERAL ARRANGEMENT

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P/A NO. NB101-446/5 | REF NO. NB14-00009

FIGURE 2 REV A

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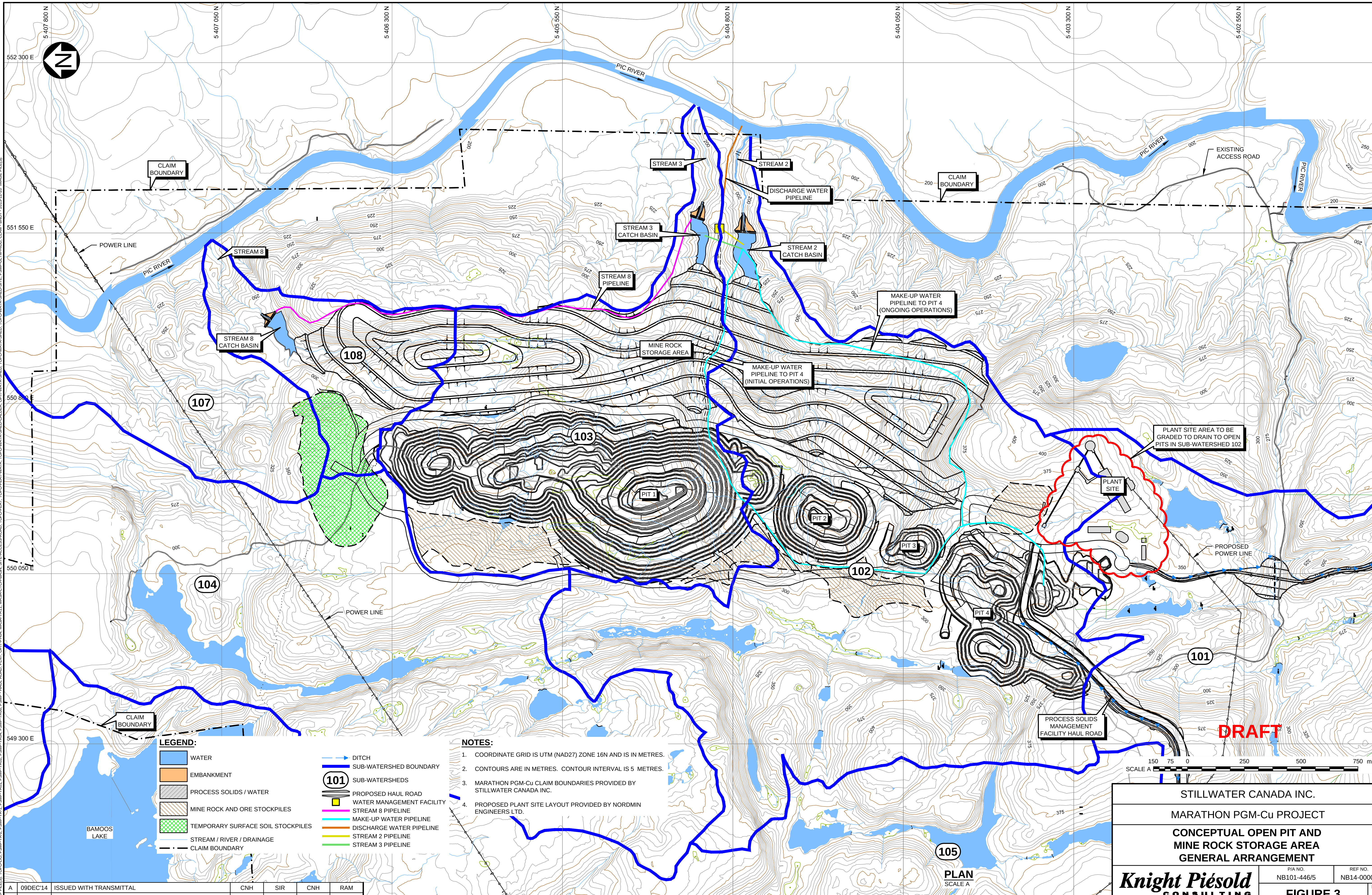
XREF FILE(S): TOPO-LIO; PSMF-YR-2; PSMF-YR-1; PSMF-YR01; PSMF-YR02; PSMF-YR04; PSMF-YR06; PSMF - HAUL ROAD; PLNT; OPIT-PH04; MRSA-YR11; MRSA-CTCH-BASN; SITE-ACCESS-ROAD; TOPO-FEAT; TOPO-FEAT-WATR; TOPO-WATR-SHED-CALDER; OPIT-WATR-SHED; TOPO-WATR-SHED; TOPO-WATR-SHED-SITE; PSMF-ULTM-HIDD; CLAM - BNDY - 2013-12-20 IMAGE FILE(S):



5 407 800 N
5 407 050 N
5 406 300 N
5 405 550 N
5 404 800 N
5 404 050 N
5 403 300 N
5 402 550 N
552 300 E
551 550 E
550 800 E
550 050 E
549 300 E
PIC RIVER
CLAIM BOUNDARY
POWER LINE
STREAM 8
STREAM 8 CATCH BASIN
STREAM 3
STREAM 2
DISCHARGE WATER PIPELINE
STREAM 3 CATCH BASIN
STREAM 2 CATCH BASIN
STREAM 8 PIPELINE
MAKE-UP WATER PIPELINE TO PIT 4 (ONGOING OPERATIONS)
MINE ROCK STORAGE AREA
MAKE-UP WATER PIPELINE TO PIT 4 (INITIAL OPERATIONS)
EXISTING ACCESS ROAD
PLANT SITE AREA TO BE GRADED TO DRAIN TO OPEN PITS IN SUB-WATERSHED 102
PLANT SITE
PROPOSED POWER LINE
PROCESS SOLIDS MANAGEMENT FACILITY HAUL ROAD
PIT 1
PIT 2
PIT 3
PIT 4
101
102
103
104
105
107
108
BAMOOS LAKE
DRAFT
PLAN
SCALE A
150 75 0 250 500 750 m
SCALE A
LEGEND:
WATER
EMBANKMENT
PROCESS SOLIDS / WATER
MINE ROCK AND ORE STOCKPILES
TEMPORARY SURFACE SOIL STOCKPILES
STREAM / RIVER / DRAINAGE
CLAIM BOUNDARY
DITCH
SUB-WATERSHED BOUNDARY
101 SUB-WATERSHEDS
PROPOSED HAUL ROAD
WATER MANAGEMENT FACILITY
STREAM 8 PIPELINE
MAKE-UP WATER PIPELINE
DISCHARGE WATER PIPELINE
STREAM 2 PIPELINE
STREAM 3 PIPELINE
NOTES:
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4. PROPOSED PLANT SITE LAYOUT PROVIDED BY NORDMIN ENGINEERS LTD.
STILLWATER CANADA INC.
MARATHON PGM-Cu PROJECT
CONCEPTUAL OPEN PIT AND MINE ROCK STORAGE AREA GENERAL ARRANGEMENT
Knight Piésold CONSULTING
P/A NO. NB101-446/5
REF NO. NB14-00009
FIGURE 3
REV A
A | 09DEC'14 | ISSUED WITH TRANSMITTAL | CNH | SIR | CNH | RAM
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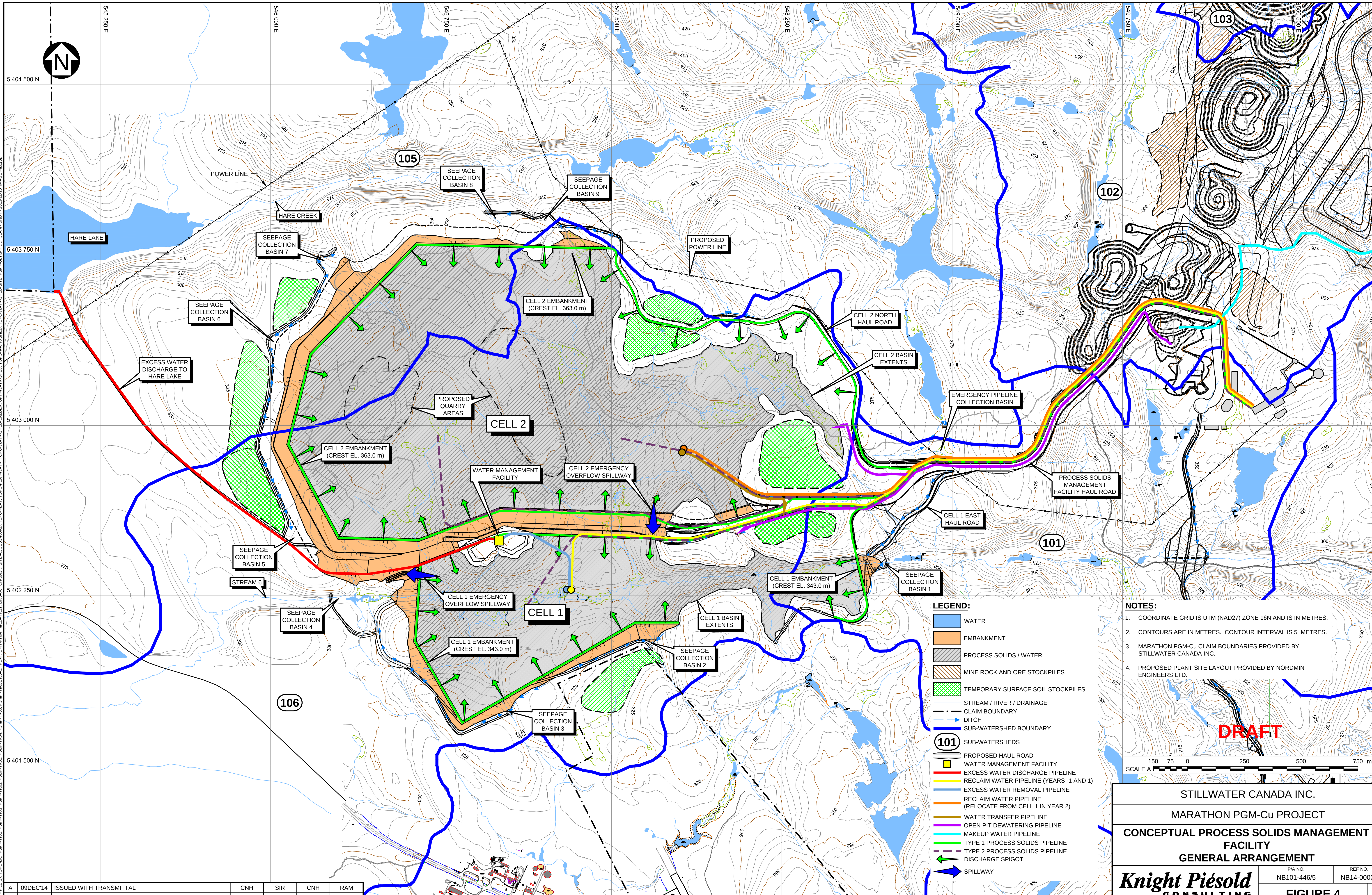
SAVED: I:\101\00446\05\A\Acad\FIGS\B27_rA, 1/9/2014 5:27:06 PM , SRICHARD PRINTED: 1/9/2014 5:28:09 PM, FIG 3, SRICHARD



LEGEND:

- WATER
- EMBANKMENT
- PROCESS SOLIDS / WATER
- MINE ROCK AND ORE STOCKPILES
- TEMPORARY SURFACE SOIL STOCKPILES
- STREAM / RIVER / DRAINAGE
- CLAIM BOUNDARY
- DITCH
- SUB-WATERSHED BOUNDARY
- (101) SUB-WATERSHEDS
- PROPOSED HAUL ROAD
- WATER MANAGEMENT FACILITY
- EXCESS WATER DISCHARGE PIPELINE
- RECLAIM WATER PIPELINE (YEARS -1 AND 1)
- EXCESS WATER REMOVAL PIPELINE
- RECLAIM WATER PIPELINE (RELOCATE FROM CELL 1 IN YEAR 2)
- WATER TRANSFER PIPELINE
- OPEN PIT DEWATERING PIPELINE
- MAKEUP WATER PIPELINE
- TYPE 1 PROCESS SOLIDS PIPELINE
- TYPE 2 PROCESS SOLIDS PIPELINE
- DISCHARGE SPIGOT
- SPILLWAY

NOTES:

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4. PROPOSED PLANT SITE LAYOUT PROVIDED BY NORDMIN ENGINEERS LTD.

STILLWATER CANADA INC.

MARATHON PGM-Cu PROJECT

CONCEPTUAL PROCESS SOLIDS MANAGEMENT FACILITY GENERAL ARRANGEMENT

Knight Piésold CONSULTING

P/A NO.	REF NO.
NB101-446/5	NB14-00009

FIGURE 4 — REV A

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