



Bedrock geology of the southern Knee Lake area, Manitoba (parts of NTS 53L14, 15)

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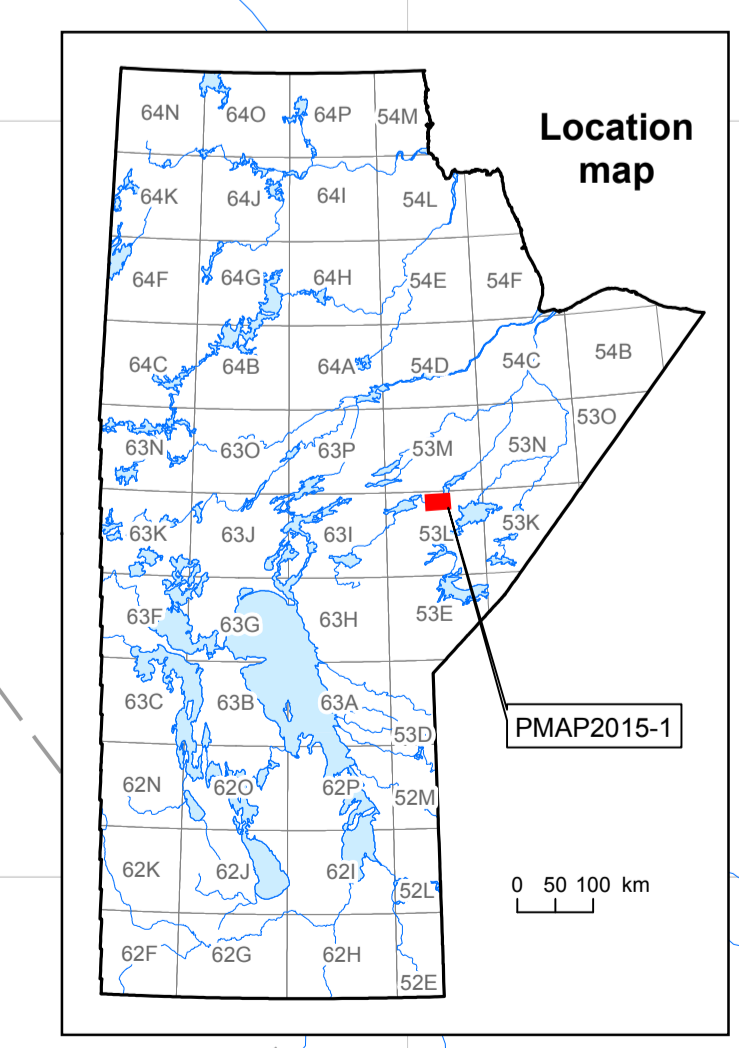
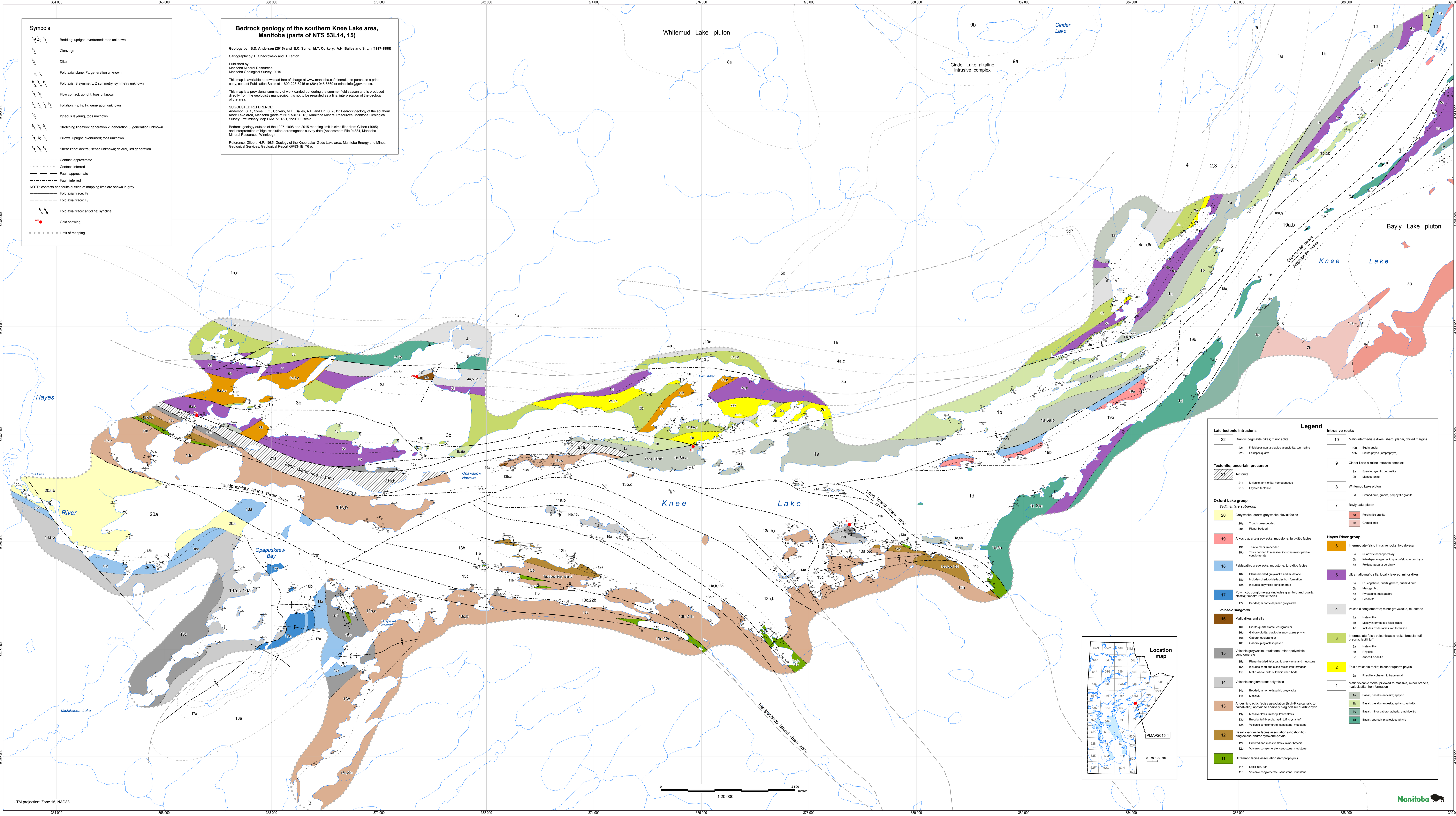
This map is a provisional summary of work carried out during the summer field season and is produced directly from the geologist's manuscript; it is not to be regarded as a final interpretation of the geology of the area.

SUGGESTED REFERENCE:
Anderson, S.D., Syme, E.C., Corkery, M.T., Bales, A.H. and Lin, S. 2015. Bedrock geology of the southern Knee Lake area, Manitoba (parts of NTS 53L14, 15). Manitoba Mineral Resources, Manitoba Geological Survey, Preliminary Map PMA2015-1, 1:20,000 scale.

Bedrock geology outside of the 1997-1998 and 2015 mapping limit is simplified from Gilbert (1985) and interpretation of high-resolution aeromagnetic survey data (Assessment File 94884, Manitoba Mineral Resources, Winnipeg).

Reference: Gilbert, H.P. 1985. Geology of the Knee Lake-Gods Lake area, Manitoba Energy and Mines, Geological Services, Geological Report GR83-18, 74 p.

- Symbols**
- Bedding: upright; overturned; tops unknown
 - Cleavage
 - Dike
 - Fold axial plane: F₁; generation unknown
 - Fold axis: S symmetry, Z symmetry, symmetry unknown
 - Flow contact: upright; tops unknown
 - Foliation: F₁; F₂; F₃; generation unknown
 - Igneous layering; tops unknown
 - Stretching lineation: generation 2; generation 3; generation unknown
 - Pillows: upright; overturned; tops unknown
 - Shear zone: dextral; sense unknown; dextral, 3rd generation
 - Contact: approximate
 - Contact: inferred
 - Fault: approximate
 - Fault: inferred
- NOTE: contacts and faults outside of mapping limit are shown in grey.
- Fold axial trace: F₁
 - Fold axial trace: F₂
 - Fold axial trace: anticline; syncline
 - Gold showing
 - Limit of mapping



Legend

Late-tectonic intrusions	Intrusive rocks
22 Granitic pegmatite dikes; minor aplite	10 Mafic-intermediate dikes; sharp, planar, chilled margins
22a K-feldspar-quartz oligoclase-syenite, tourmaline	10a Equigranular
22b Feldspar-quartz	10b Biotite-phryc (amphophyres)
Tectonite; uncertain precursor	9 Cinder Lake alkaline intrusive complex
21 Tectonite	9a Syenite; syenitic pegmatite
21a Mylonite, phylonite; homogeneous	9b Monzonite
21b Layered tectonite	8 Whitemud Lake pluton
Oxford Lake group	7 Bayly Lake pluton
Sedimentary subgroup	7a Prophyritic granite
20 Greywacke, quartz greywacke; fluvial facies	7b Granodiorite
20a Thin to cross-bedded	
20b Planar bedded	
Hayes River group	
19 Arkosic quartz-greywacke, mudstone, turbiditic facies	6 Intermediate-felsic intrusive rocks; hypabyssal
19a Thin to medium-bedded	6a Quartz-kalagay porphyry
19b Thin bedded to massive; includes minor pelitic conglomerate	6b K-feldspar megacrystic quartz-feldspar porphyry
18 Felsitic greywacke, mudstone, turbiditic facies	6c Feldspar-quartz porphyry
18a Fluvial bedded greywacke and mudstone	5 Ultramafic mafic sills, locally layered; minor dikes
18b Includes chert, oxide-facies iron formation	5a Leucogabbro; quartz gabbro; quartz diorite
18c Includes polygenic conglomerate	5b Mesogabbro
17 Polyimitic conglomerate (includes granitoid and quartz clasts); fluvial/turbiditic facies	5c Pyroxenite; melagabbro
17a Bedded; minor felsitic greywacke	5d Peridotite
Volcanic subgroup	4 Volcanic conglomerate; minor greywacke, mudstone
16 Mafic dikes and sills	4a Hornitic
16a Diorite-quartz diorite; equigranular	4b Mostly intermediate-felsic dikes
16b Gabbro-diorite; plagioclase-syenite phryc	4c Includes oxide-facies iron formation
16c Gabbro; equigranular	3 Intermediate-felsic volcanoclastic rocks; breccia, tuff breccia, lapilli tuff
16d Gabbro; plagioclase-phryc	3a Hornitic
15 Volcanic greywacke, mudstone; minor polyimitic conglomerate	3b Rhyolitic
15a Fluvial bedded felsitic greywacke and mudstone	3c Andesitic-dacitic
15b Includes chert and oxide-facies iron formation	2 Felsic volcanic rocks; feldspar-quartz phryc
15c Mafic wacks, with sulphuric chert beds	2a Rhyolite; coherent to fragment
14 Volcanic conglomerate; polyimitic	1 Mafic volcanic rocks; pillowed to massive; minor breccia, hydrolacite, iron formation
14a Bedded; minor felsitic greywacke	1a Basalt, basalt-andesite; aphyric
14b Massive	1b Basalt, basalt-andesite; aphyric, varicose
13 Andesitic-dacitic facies association (high-K calcalkalic to calcalkalic); aphyric to sparsely plagioclase-quartz phryc	1c Basalt, minor gabbro; aphyric; amphibolitic
13a Massive flow; minor pillowed flows	1d Basalt; sparsely plagioclase-phryc
13b Breccia, tuff breccia, lapilli tuff, crystal tuff	
13c Volcanic conglomerate, sandstone, mudstone	
12 Basalt-andesite facies association (shoshonitic); plagioclase and/or pyroxene-phryc	
12a Pillowed and massive flows; minor breccia	
12b Volcanic conglomerate, sandstone, mudstone	
11 Ultramafic facies association (lamprophyric)	
11a Lapilli tuff, tuff	
11b Volcanic conglomerate, sandstone, mudstone	

