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PRELIMINARY EVALUATAION REPORT

PHASE III – TEST PITS

Economic Potential for Industrial Aggregates

In

North Himsworth Township

For

Jeffrey James Staples

Prepared by:

Fudge & Associates
North Bay, Ontario

Signed by: D. Fudge
Signed by: M. Gaudreau

Dated: 2019-06-03

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SUMMARY

In 2018, Fudge & Associates was retained by the claim's holder, Jeffery James Staples, to evaluate the industrial potential on Legacy Mining Claims 4277714, 4277715, 4277716, 4277717, 4277718 & 4277719.

Mining claims 4277714 - 4277718 are contiguous and considered as Area 1, while Mining Claim 4277719 is considered a separate project area labeled as Area 2. Therefore, this PHASE III test pit evaluation report is being filed to include both Area 1 and Area 2 test areas.

The three (3) phase evaluation process was initiated in mid-May or 2018. During that period Don Fudge Sole-owner of Fudge and Associates engaged in several meetings with Jeff Staples in preparation to commence PHASE I work program. The Work was planned to commence after the snow had melted and conditions on the ground dried, water table declined and before the broadleaf foliage emerged. During the period of May 16, 2018 to May 18, 2018 Fudge & Associates retained Jean Marc Gaudreau to complete a cursory geological inspection. The three (3) day ground mapping campaign was successful in mapping the local geology. The field exercise recorded major outcroppings, their elevations, strike, dip, rock type, descriptions, photos and other details. On May 22, 2018 Marc Gaudreau consulted with Mike Easton of the Ontario Geological Survey to review the rocks and discuss field observations. Sample NIP18-016 was left with Mr. Easton to perform petrographic work. During the period of May 24, 2018 to May 27, 2018 the report and recommendations was prepared for Phase II of the program which resulted in the collection of three (3) 50-kilogram test samples.

PHASE III of the project was completed in November 30, 2018 and December 21, 2018. The results of the test pits confirmed numerous highly prospective sources of consolidated and unconsolidated material which would require permitting before bulk extraction.

INTRODUCTION

Fudge & Associates was retained by the claims holder, Jeffery James Staples, to evaluate the industrial potential on Mining Claims 4277714 (cell claims 178275, 181681, 185681, 205176, 234034, 330446), 4277715 (cell claims 117711, 178275, 181681, 185681, 198277, 205176, 340380), 4277716 (cell claims 181681, 181682, 181683, 198961, 234034, 264279, 278604), 4277717 (cell claims 117711, 181681, 181682, 181683, 198277, 264279, 330925), 4277718 (cell claims 181683, 193355, 193356, 230587, 278604, 278605, 315485) & 4277719 (cell claims 146171, 163255, 230529, 242678, 278548, 297201, 330925). Project Area 1 includes Mining Claims 4277714 to 4277718 inclusive. Project Area 2 is focussed on Mining Claim 427719.

The focus of PHASE III evaluation process was to determine the potential reserves within discreet geological bedrock units to meet Ontario Ministry of Transportation technical specifications for aggregates. The test pits were completed in late fall of 2018 on November 30, 2018 and December 21, 2018.

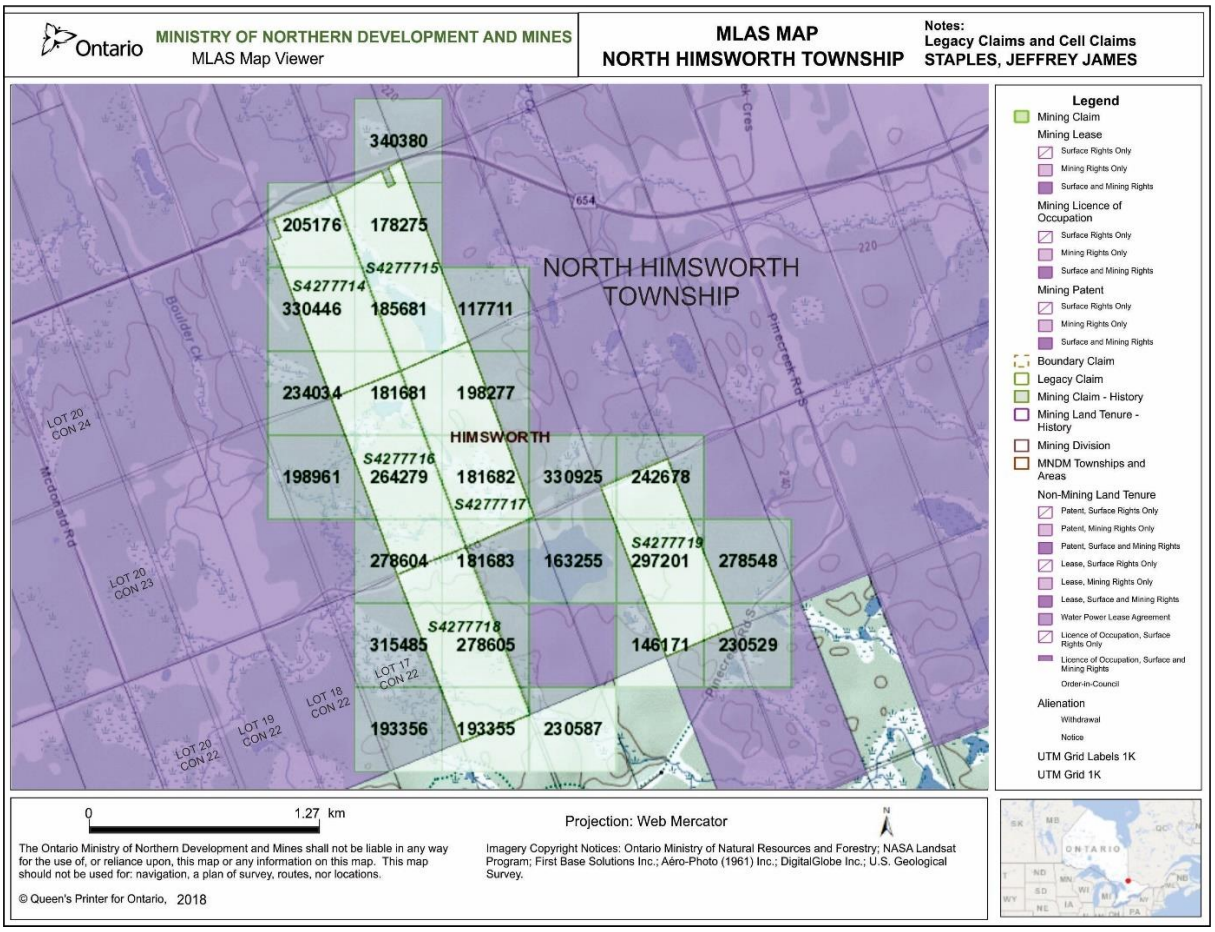
LOCATION & ACCESS

From North Bay, the project area is best accessed via Kings Highway 11 south from North Bay. From North Bay travel south on Hwy 11 to Hwy 654, then west on Hwy 654 to Pine Creek Road and then southward on Pine Creek Road to Hart Road then westerly to UTM coordinate (NAD83, Zone 17) 0623785E, 5114613N claim post #1 of claim 4277719. The claim block was accessed from Hart Road along a 400m distance. Hart Road also can be utilized to access the north boundary of claim 4277718 and the south boundary of claim 427776 and 4277717. The north boundary of claims 4277714 and 4277715 are accessible by vehicle via Hwy 654. The project area host numerous creeks ponds and trails. The waterways are not suitable for navigation.

TENURE/OWNERSHIP

The mining claim blocks were staked by R. J. Meike under the direction of Fudge & Associates between November 17, 2017 and November 22, 2017. in the name of Jeffery James Staples. Mr. Staples also is the registered owner of the Patented Lands immediately adjacent to mining claims 4277714 and 4277716.

Mining Claims and cell claims include: 4277714 (cell claims 178275, 181681, 185681, 205176, 234034, 330446), 4277715 (cell claims 117711, 178275, 181681, 185681, 198277, 205176, 340380), 4277716 (cell claims 181681, 181682, 181683, 198961, 234034, 264279, 278604), 4277717 (cell claims 117711, 181681, 181682, 181683, 198277, 264279, 330925), 4277718 (cell claims 181683, 193355, 193356, 230587, 278604, 278605, 315485) & 4277719 (cell claims 146171, 163255, 230529, 242678, 278548, 297201, 330925). Project Area 1 includes Mining Claims 4277714 to 4277718 inclusive. Project Area 2 is focussed on Mining Claim 427719. The claims are bound on all sides by patented lands except claim 4277718. On this claim, Cell Claims 193356, 193355 and 230587 on the south boundary of the claim include additional Crown land by "default" of the new online Ministry of Northern Development & Mines Mining Lands, MLAS system which incorporates a grid system overlaying the historical mining claims. The same applies to the south part of claim 4277719. Additional crown land that doesn't follow the Lot and Concession fabric is captured as part of the project are under Cell Claim 146171.



PROPERY HISTORY - AGGREGATE RESOURCE

The landowner has been evaluating aggregate potential on his patented lands for use on his own property by mechanical stripping and test pitting sampling "rotten rock" (*local name for excessively weathered iron rich, pegmatitic, metamorphosed quartz monzolitic rock*). This raised the possibility that commercial quantities of both consolidated and unconsolidated material on the crown lands to the east and south east of his patented lands might be present. Only a few licensed pits remain active in the area and extraction is intermittent. The area is slowly being depleted of readily available quality industrial aggregates. Most of Northern Ontario's rocky landscape is part of the Canadian Shield that was created during the Precambrian Age over 570 million years ago. The North's thriving mining industry owes its existence to the formations created by volcanic eruptions and earthquakes during this violent geological period. The low-lying area between North Bay's Airport Hill escarpment and the Almaguin Highlands (to the south) was formed when a fault parted to form the French and Mattawa River system. Today, you can see evidence of the Precambrian bedrock and granite in the rock cuts along the region's Highway 11 corridor. Following the Precambrian era, the region was submerged beneath raging seas where lime, clay and sand were deposited. All of this helped form the basic environment of the Lake Nipissing passageway – millions of years before the first Ice Age. The local terrain was forged by the succession of ice ages that began 80,000 years ago. In approximately 8,000 B.C., the last retreat melted ice that flooded the landscape, creating Lake Nipissing and its various outlets including Callander's Wasi River. The entire area was blanketed with "glacial till" – a mixture of sand, gravel and boulders that shaped moraines into a variety of landforms. Back then, Callander Bay probably looked as it does today with the exception that the forest cover was then complete. http://www.mycallander.ca/geological-formation/

A selected extract from ARIP070

SELECTED SAND AND GRAVEL RESOURCE AREAS:
NORTH HIMSWORTH AND SOUTH HIMSWORTH TOWNSHIPS
Sand and gravel resources are not extensive in this part of the North Bay area. Five small deposits, all of which are in South Himsworth Township have been selected for possible resource protection at the primary level. The deposits are all ice-contact stratified drift kames or eskers, except for a small outwash apron which mantles the kame at Resource Area 4. The selected resource areas occupy a total of 2800 acres (1130 ha), of which 2450 acres (990 ha) are presently available for extraction. The combined possible sand and gravel resources are estimated to be 134 million tons (122 million tonnes). The five resource areas are the sites of most of the extraction in the two townships and contain virtually all of the possible resources of crushable gravel. Two large deposits, an ice-contact stratified drift deposit in North Himsworth Township and an irregular outwash plain in South Himsworth Township have been selected as Sand and Gravel Resource Areas of Secondary Significance. These areas are relatively undeveloped but may contain significant resources of sand suitable for local needs. Three small sand deposits in South Himsworth Township have also been selected as Secondary Resource Areas. Large lacustrine and outwash sand deposits cover much of the central and southern portion of South Himsworth Township but are generally too fine grained to be of economic value.

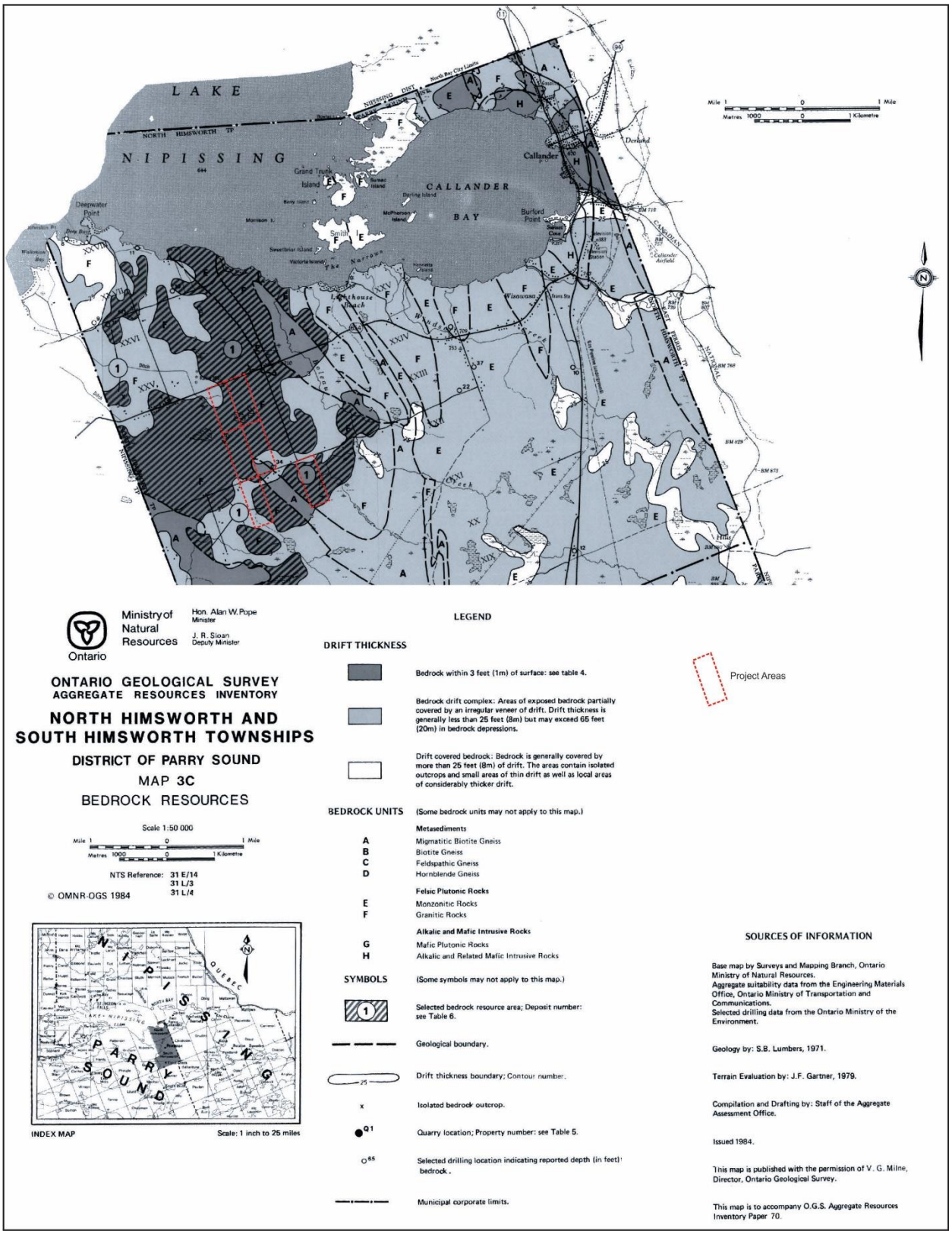


Figure 1 Significant Bedrock Areas

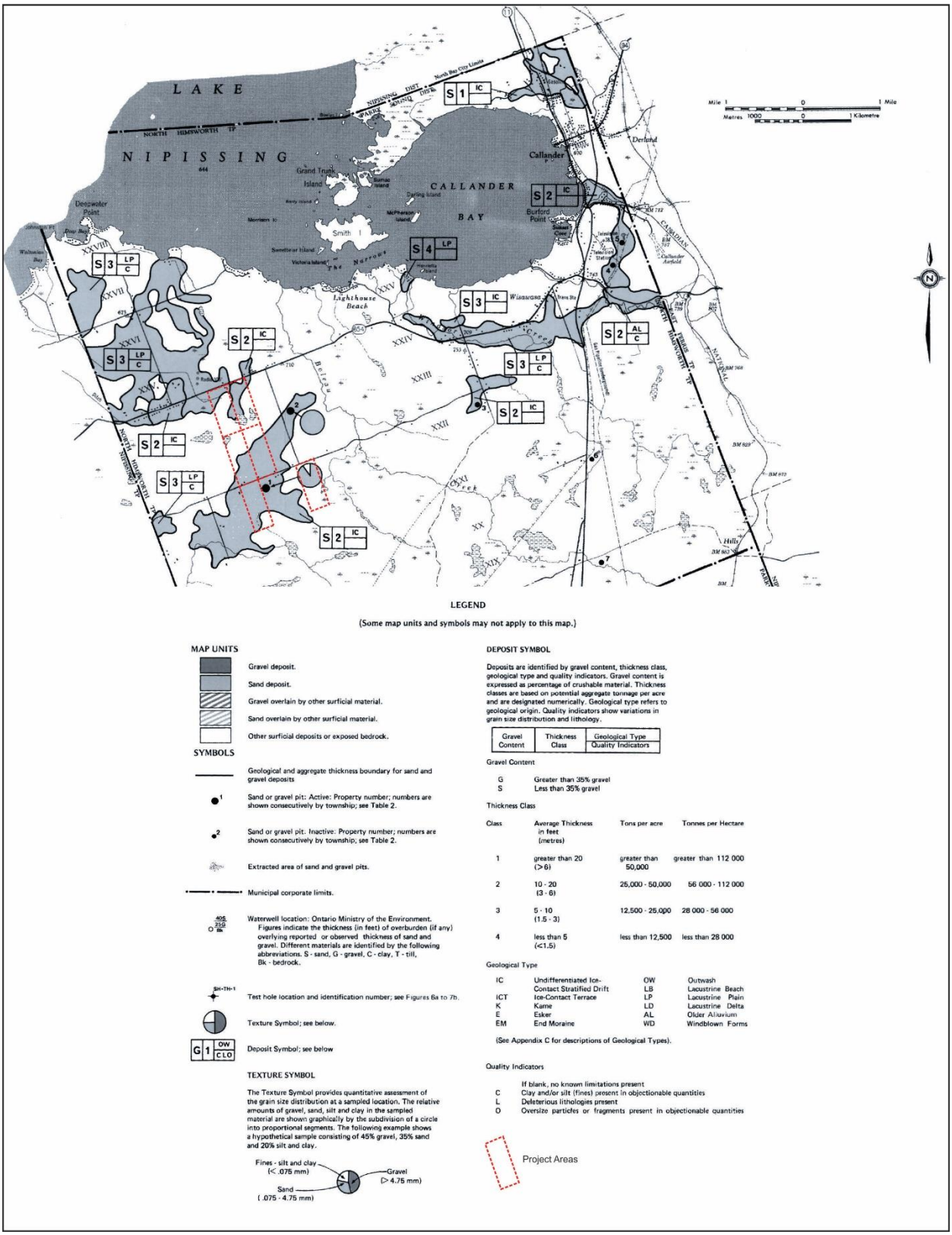


Figure 2 Gravel Deposit Areas

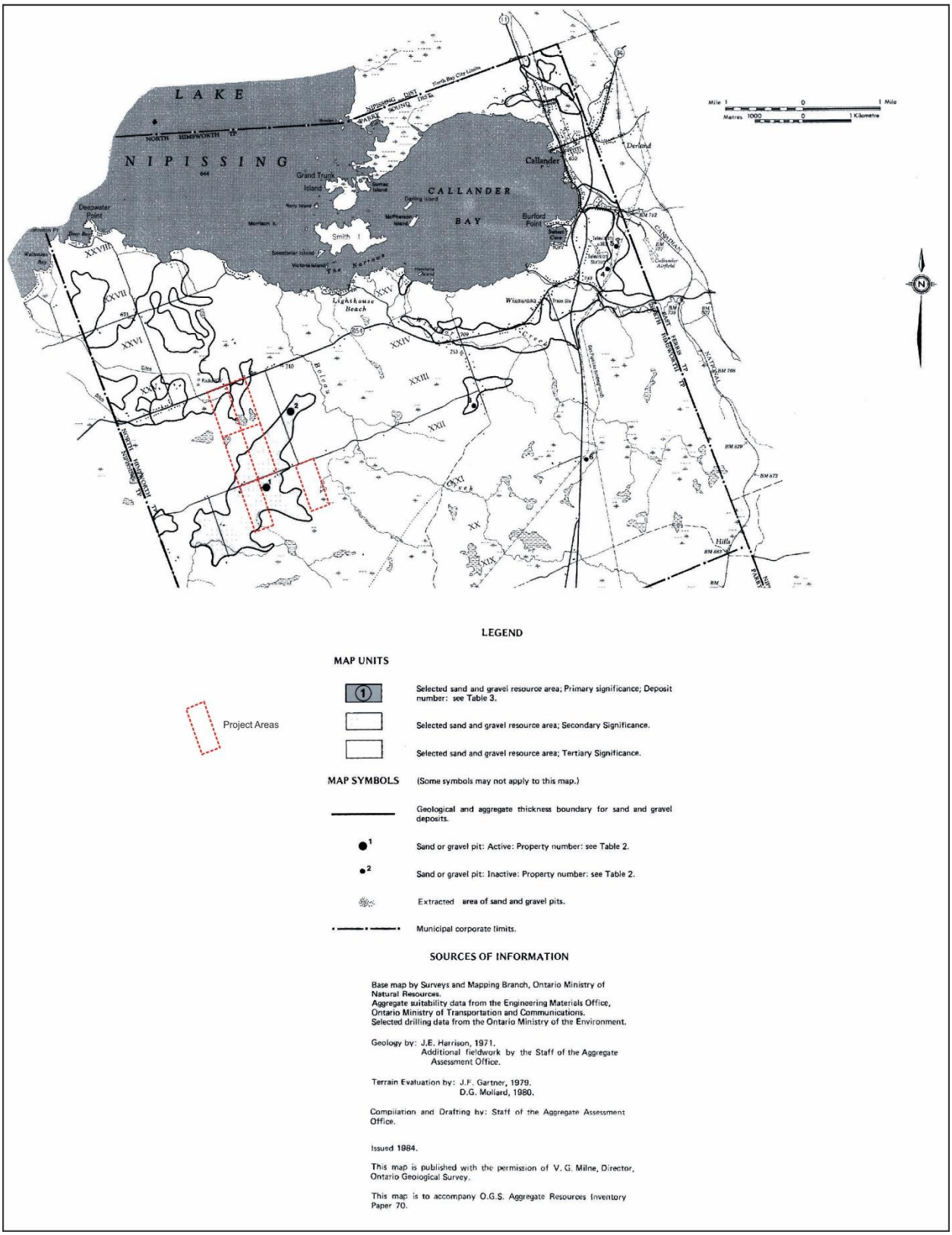


Figure 3 Selected Sand & Gravel Resource Areas

REGIONAL GEOLOGICAL SETTING - POWASSAN BATHOLITH

Mid-Mesoproterozoic granitoid rocks in the North Bay area, Grenville Province, Ontario
The regional geological setting which in includes North Himsworth are batholiths composed largely of metamorphosed quartz monzolitic rocks characterized by the presence of dark red garnet porphyroblasts set in a pink or cream matrix of fine-grained, recrystalized feldspar, usually with minor quartz, biotite, and amphibole. The rocks are commonly foliated and may be migmatitic. Other phases include medium- to fine-grained leucogranitic, syenitic, and darker dioritic orthogneiss. Very locally, the rocks are massive, coarse grained, non-migmatic, and retain original features such as rapakivi texture, and primary igneous minerals such as bright green clinopyroxene and large mesoperthite grains.
Geological Survey of Canada – Current Research 2001-F8
Earth Sciences Sector Information Division, Room 200,
601 Booth Street, Ottawa, Ontario K1A 0E8

The regional geology southwest of Callander Bay area is underlain by a metamorphic complex of granitic rocks regional metamorphosed to the almandine-amphibolite facies, although intrusive and sedimentary rocks younger than the metamorphic complex which are also present.

After review of Lumbers, S.B. 1971. Geology of the North Bay Area, Districts of Nipissing and Parry Sound; Ontario Geological Survey, Geological Report 94, two (2) major rock units are known to underlie the project areas. Migmatitic biotite gneiss and granitic rocks composed of 1. migmatitic and gneissic biotite granite and minor hornblende-biotite granite, 2. Migmatitic and gneissic hornblende-biotite granite and minor biotite granite, 3. Non-migmatitic, gneissic biotite granite and minor gneisses hornblende-biotite granite, 4. Migmatitic and gneissic garnet-biotite granite.

The metasediments underwent partial anatexis during regional metamorphism with the result that many are now migmatitic containing numerous discontinuous veins and lenses of granitic material. The high-rank metamorphism and complex flow folding, to which the metasediments were subjected, destroyed primary structures indicative of tops of beds so that detailed structural studies would be needed to establish the stratigraphic succession. Now these rocks are subdivided on a lithological basis only. Metasedimentary gneisses or the metamorphic complex are divided lithologically into two (2) major groups: 1. Clastic siliceous metasediments and 2. Calcareous metasediments. Clastic siliceous metasediments form all but a small part of the metasedimentary gneisses and are derived from sandstones and siltstones probably ranging in original composition from orthoquartzite to graywacke. Megascopically, these gneisses can be distinguished from plutonic rocks of the metamorphic complex by their prominent compositional layering, reflecting relic bedding and by their fine- to medium-grained granular texture reflecting their original clastic nature. On the basis of mineralogic and metamorphic features, the clastic siliceous metasediments are subdivided for mapping purposes into four (4) units, each of which is named according to the most characteristic feature: 1) biotite gneiss; 2) migmatitic biotite gneiss; 3) feldspathic gneiss; and 4) muscovitic and quartzose gneiss. Geologic boundaries

drawn in these metasedimentary gneisses are necessarily somewhat subjective because individual units commonly have gradational contacts and contain locally abundant interlayers of other units.

Clastic siliceous metasediments: Biotite Gneiss and Migmatitic Biotite Gneiss.
Most commonly, the biotite gneisses are thinly bedded with thin, fine grained, schistose, biotite-rich layers alternating with thicker, fine to medium-grained, gneissic, more ortho-feldspathic layers. These relationships suggest that the original sediment was rhythmically bedded with either graded sand-silt couplets, or alternating sand and silt beds, or both. In many places originally thick-bedded o very thick-bedded, relatively courser sandstones occur within the thinly bedded sandy and silty sequences and are now courser in grain size than the metasandstones in the originally thinly bedded sequences. Most of the hornblende gneiss found within the biotite gneiss is in the thinly bedded sequences.
Metamorphic recrystallization and deformation have destroyed primary sedimentary structures indicative of tops of beds, and locally in thinly bedded sequences deformation has resulted in fragmentation of the biotite-rich layers, forming tectonic breccia. In the thinly bedded sequences medium- to course-grained porphyroblasts of biotite, garnet, hornblende, feldspar and quartz are common and this difference may reflect slightly different bulk compositions of the sequences. Where migmatitic, the biotite gneiss commonly contains numerous course-grained porphyroblasts and porphyoblastic aggregates of quartz and feldspar resembling pebbles, but no convincing evidence was found to indicate that conglomeratic or sedimentary breccia deposits were originally present.
Opaque minerals in the six (6) varieties are mainly iron-titanium oxides, minor pyrrhotite, and rare pyrite. Trace amounts of carbonate as a secondary alteration product are found in the hornblende-bearing varieties, and in some varieties, biotite is partly altered to chlorite.
Feldspathic Gneiss: Relic bedding in the feldspathic gneiss is defined most commonly by 1) variations in grain size and in biotite content, 2) thin layers and seams of biotite, and 3) layers of hornblende gneiss. The relic bedding is relatively continuous but is disrupted and complexly deformed, and like the biotite gneiss, the feldspathic gneiss was apparently originally thinly bedded to very thick bedded sequences. The feldspathic gneiss is essentially a quartz-feldspar rock. The feldspathic gneiss appears to represent original arkosic sandstone and siltstone. Variations in grain size of the gneiss could reflect original sandy and silty material, and the local abundance of iron-titanium oxides may indicate that the original sandstone and siltstone were locally ferruginous. Like the biotite gneiss, the feldspathic gneiss generally contains more plagioclase than potassic feldspar, and most of the feldspathic gneiss is associated with biotite gneiss. The tendency for quartz and feldspar in the feldspathic gneiss to be more equigranular than the biotite gneiss could indicate that the feldspathic gneiss was originally a better sorted sandstone. These relationships may indicate that the feldspathic gneiss represents in part reworking of the poorly sorted sands and silts that gave rise to the biotite gneiss.

Felsic Plutonic Rocks: Felsic plutonic rocks consist of gneissic, felsic plutonic rocks that are dividable into two (2) major lithological groups on the basis of quartz and mafic mineral contents: 10 pinkish granitic rocks characterized by biotite, biotite and hornblende, or less commonly by biotite and garnet as the major mafic constituents and by abundant visible quartz; and 2) pink, grey and green monzonitic rocks characterized by garnet, hornblende, and biotite, and locally, pyroxene as major mafic constituents and by only minor or no visible quartz.

Granitic Rocks: Three (3) varieties of the gneissic granite rocks can be mapped: biotite granite, hornblende-biotite granite, and garnet-biotite granite, and in addition, migmatitic varieties of these granites are common, although hornblende-biotite granite is only slightly migmatic. Most of the granite bodies in the area are mixtures of biotite granite and hornblende-biotite granite. Compared o the other two granites, garnet-biotite granite shows a much smaller range in modal comparison. Potassic feldspar in all of the granite rocks shows grid twining indicative of microcline and is slightly perthitic, except in some hornblende-biotite granites where is it mesoperthite with about 50 percent absolved sodic plagioclase. Plagioclase is unzoned and is rarely antipathic containing tiny spindles of potassic feldspar; most of the antiperthitic plagioclase is found in hornblende-biotite granite associated with the Powassan monzonitic mass. Course-grained, relic feldspar phenocrysts in the granitic rocks are generally perthitic potassic feldspar, but some, particularly in hornblende-biotite granite, are plagioclase. Biotite granites may not only have been formed by crystallization from a melt but are also of such composition that they would readily undergo anatexis during high-rank metamorphism.

Granitic rocks are particularly abundant in west North Himsworth Township where large masses of metasediments, mainly migmatic biotite gneiss, are surrounded by the plutonic rocks and are probably roof pendants. The special association of granitic rocks with metasediments suggest that at least some of the more siliceous granite rocks were formed by contamination of the monzonitic magma by these metasediments. On the other hand, the granitic rocks could be in part siliceous concentrations in the upper part batholith.

Foliation: Thickening and thinning of different lithological units around folds and local presence of boudins show that the ductility (the ability of the rocks to fold without fracture of faulting) of the various metasediments was not uniform during deformation. In general, migmatitic biotite gneiss, micaceous, originally silty sediments, and hornblende gneiss was rendered more ductile than non-migmatitic biotite gneiss by partial melting. The ductility of a particular lithological unit is not everywhere the same but varies relative o the ductility of the surrounding lithologic sequence. Boudins are confined mainly to micaceous, originally silty layers in biotite gneiss to hornblende gneiss layers intercalated with clastic siliceous metasediments.

Within the project area, the rock outcroppings examined and sampled under this project match the regional geology map by Lumbers, S.B. 1971. A detailed geology map is therefore not provided as part of this report. The two major rock units on the Property include;

1. Migmatic biotite gneiss (derived from metamorphosed sediments)
2. Migmatic and biotite gneissic granite, minor hornblende-biotite granite, migmatitic and gneissic hornblende-biotite granite and minor biotite granite, and non-migmatitic gneissic biotite granite and minor gneissic hornblende-biotite granite.

Methodology

Compiling the review of historical geological information, geological mapping and assaying and completion and the testing a 50 kilogram sample concluded that a number test pits were required to further evaluate the Property before advancing to the permitting stage. This report details the test pitting and final evaluation.

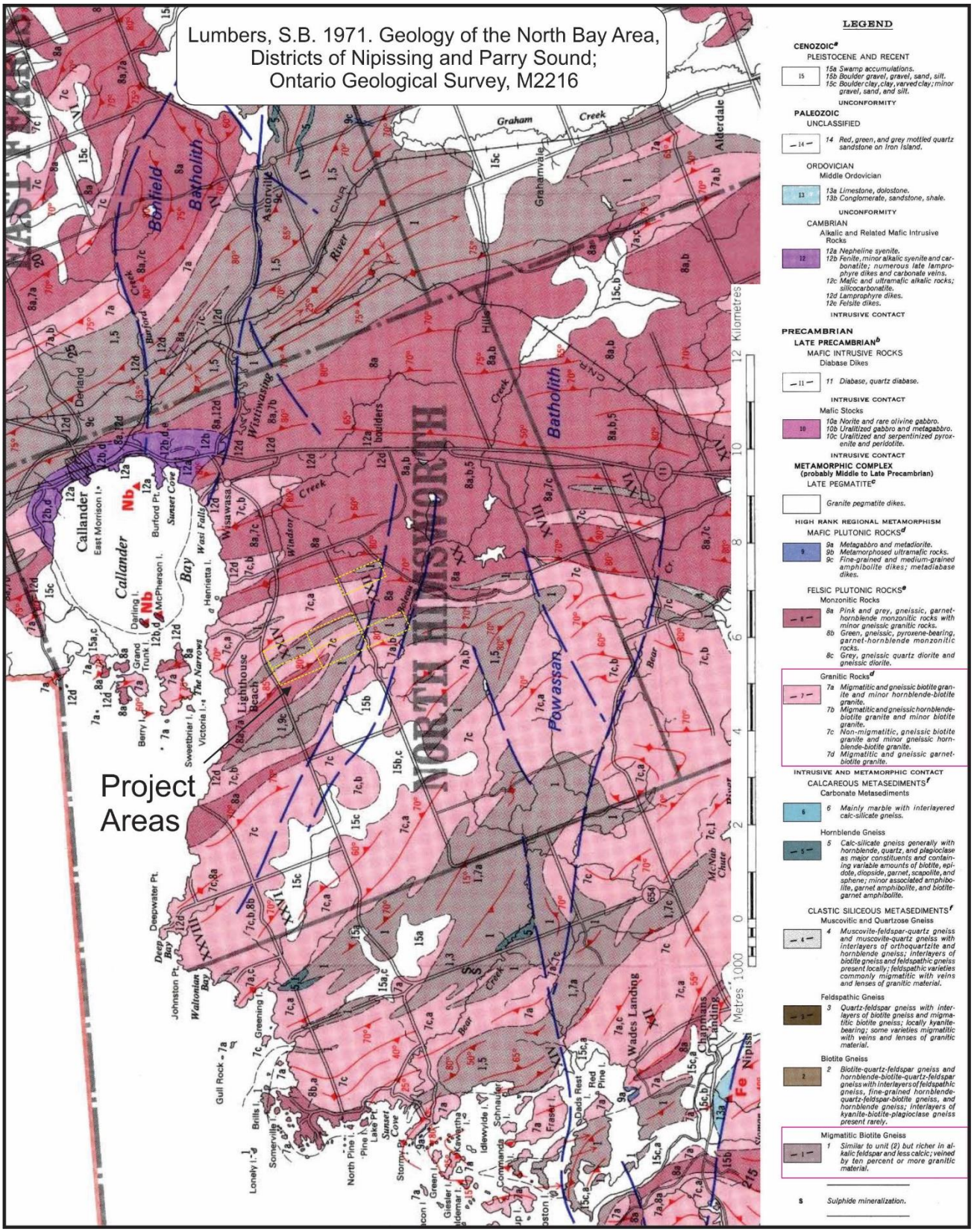


Figure 4 Geology underlying the legacy claims as described by Lumbers, S.B. 1971

2019 PROPERTY EVALUATION SUMARY

PHASE I - 2018

Prospecting and detailed mapping of the Property, preparation and filing of an assessment report.

PHASE II - 2018

Collection of a 50 kg lab sample for the intention of the testing to confirm if the material from this test site would qualify for asphalt aggregate. The following tests results from AME Materials Engineering in Caledon, Ontario confirmed the material submitted qualifies for an asphalt aggregate material and preparation and filing of an assessment report.

PHASE III – 2018

Completion of 33 test pits to determine sedimentology profile, overburden depth and bedrock. Preparation and filing of this assessment report completed in May 2019.

- **The test pits were excavated with a John Deere 200 and John Deere 490 rented from J. Andrew & Daughter, 113 Waltonian Drive, Callandar, Ontario P0H 1H0.**
- **The excavations were dug on November 30, 2018 (John Deere 200) and December 21, 2018 (John Deere 490).**
- **The excavations were supervised and documented on site by Wesly Fudge retained under Fudge & Associates.**
- **The test pit work was completed on legacy claims S4277714, S4277715, S4277716, S4277718 and the Patent owned by Jeffrey Staples. The work was performed on cell claims, 178275, 330446, 315485 and 315485.**
- **The work was completed un Exploration Permit number PR-18-000164.**
- **All test pits were filled in after documenting.**
- **See field notes section for excavation details.**

Test Pit Table 1.
Coordinates Projection: NAD83, Zone 17
Site supervisor: Wesly Fudge

Test Pit No.	Date	Easting	Northing	Depth to Bedrock and Description
TP # 1	Nov. 30, 2018	0621326	5114620	7 – 8 feet to pegmatitic bedrock
TP # 2	Nov. 30, 2018	0621293	5114620	11 feet to bedrock
TP # 3	Nov. 30, 2018	0621231	5114585	12 feet to bedrock
TP # 4	Nov. 30, 2018	0621275	5114739	Excavation stopped at 12 feet due to caving
TP # 5	Nov. 30, 2018	0621600	5114685	5 feet to bedrock
TP # 6	Nov. 30, 2018	0621615	5114660	5 feet to bedrock
TP # 7	Nov. 30, 2018	0621642	5114600	11 feet to bedrock
TP # 8	Nov. 30, 2018	0621724	5114630	Excavation stopped at 14 feet due to caving

TP # 9	Nov. 30, 2018	0621766	5114699	Excavation stopped at 15 feet due to caving
TP # 10	Nov. 30, 2018	0621828	5114765	12 feet to bedrock
TP # 11	Nov. 30, 2018	0621957	5114741	Excavation stopped at 16 feet, no bedrock
TP # 12	Nov. 30, 2018	0621953	5114800	4 feet to bedrock
TP # 13	Nov. 30, 2018	0621992	5114794	16 feet to bedrock
TP # 14	Nov. 30, 2018	0622032	5114821	7 feet to bedrock
TP # 15	Nov. 30, 2018	0622053	5114832	10 feet to bedrock
TP # 16	Nov. 30, 2018	0622034	5114897	Excavation stopped at 10 feet, no bedrock
TP # 17	Nov. 30, 2018	0621938	5115052	4 feet to bedrock
TP # 18				NO TEST PIT EXCAVATED
TP # 19				NO TEST PIT EXCAVATED
TP # 20	Dec. 21, 2018	0622031	5115984	10 feet to bedrock sloping to east 15°
TP # 21	Dec. 21, 2018	0622016	5115980	2 feet to bedrock
TP # 22				NO TEST PIT EXCAVATED
TP # 23	Dec. 21, 2018	0622067	5115972	6 feet to bedrock
TP # 24	Dec. 21, 2018	0622052	5115922	5 feet to bedrock
TP # 25	Dec. 21, 2018	0621975	5115939	7.5 feet to bedrock
TP # A	Nov. 30, 2018	0621839	5114694	15 feet to bedrock
TP # B	Nov. 30, 2018	0621709	5114663	Excavation stopped at 15 feet due to caving
TP # C	Nov. 30, 2018	0621697	5114739	7 feet to bedrock
TP # D	Nov. 30, 2018	0621800	5114724	10 feet to bedrock
TP # E	Nov. 30, 2018	0621776	5114742	8 feet to bedrock
TP # F	Nov. 30, 2018	0621668	5114871	9 feet to bedrock
TP # G	Nov. 30, 2018	0621664	5114914	9 feet to bedrock
26 JS	Dec. 21, 2018	0622389	5113836	17 feet to bedrock
27 JS	Dec. 21, 2018	0622496	5113640	12 feet to bedrock
28 JS	Dec. 21, 2018	0622529	5113613	8 feet to bedrock

NOTES: Test pits numbered A – G and JS means that owner Jeff Staples was on site during those dates of excavations.

RECOMMENDATIONS

The focus of PHASE III evaluation process was to determine the potential reserves within discreet geological bedrock units to meet Ontario Ministry of Transportation technical specifications for aggregates. The test pits completed in late fall of 2018 on November 30, 2018 and December 21, 2018 confirmed the presence of migmatic and biotite gneissic granite, minor biotite granite, and non-migmatitic gneissic biotite granite bedrock under shallow overburden meeting MTO specifications for road aggreagates. The site should be considered for commercial quarry permitting and production.

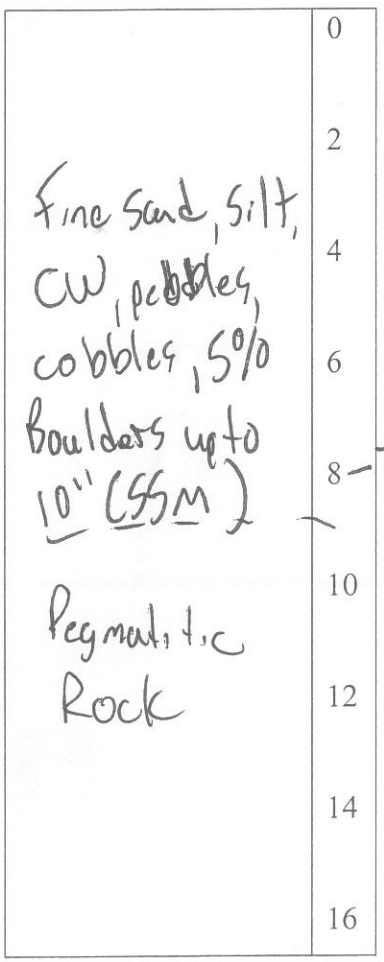
FIELD LOGS

FUDGE Associates

Technician: WF

Test Pit #: TP#1
Location:
GPS: E 17T 062 1326
N 5114620

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:

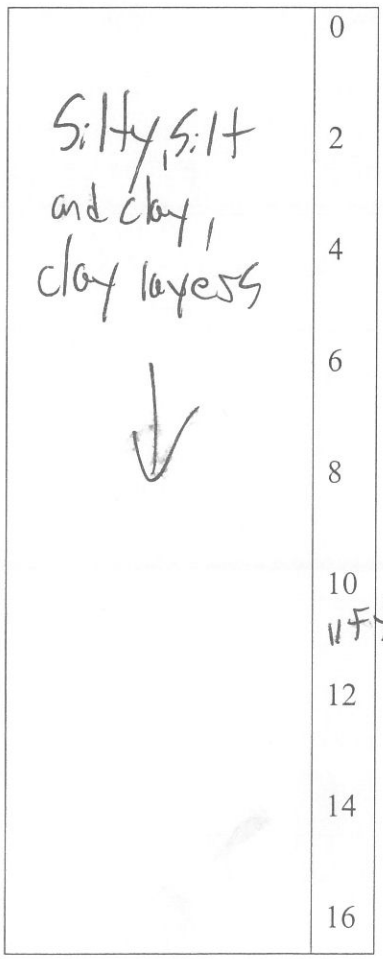


FUDGE Associates

Technician: WF

Test Pit #: TP#2
Location: _____
GPS: E ~~17T 062112~~ 17T 062293
N 5114620

Date: Nov 30 18
Client: JS
Job#: _____
Equipment: _____
Operator: _____

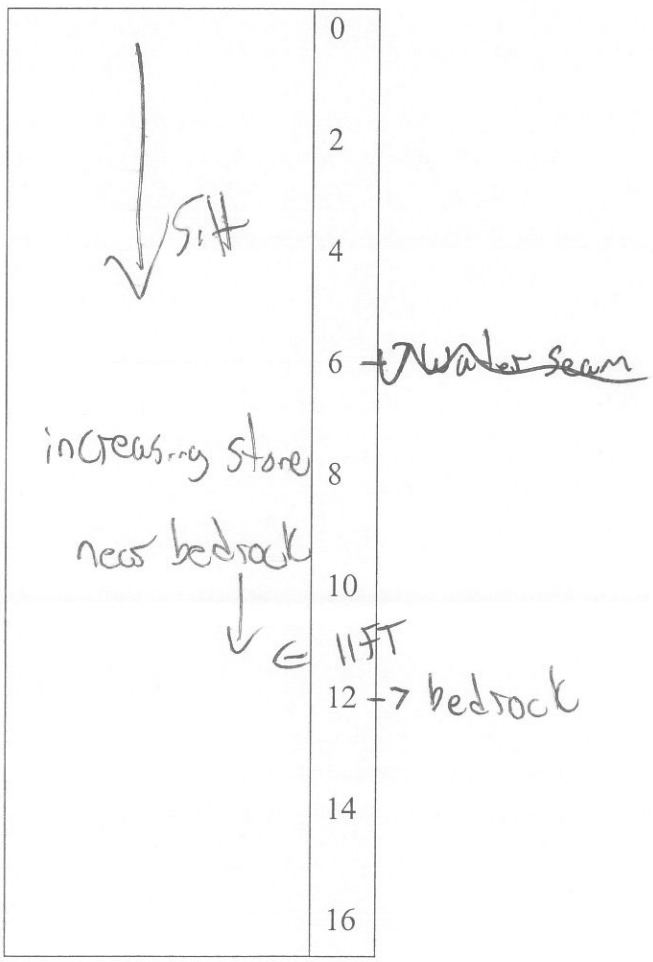


FUDGE Associates

Technician: WF

Test Pit #: TP#3
Location:
GPS: E 17T 0621431
N 5114585

Date: Nov 30/18
Client:
Job#:
Equipment:
Operator:

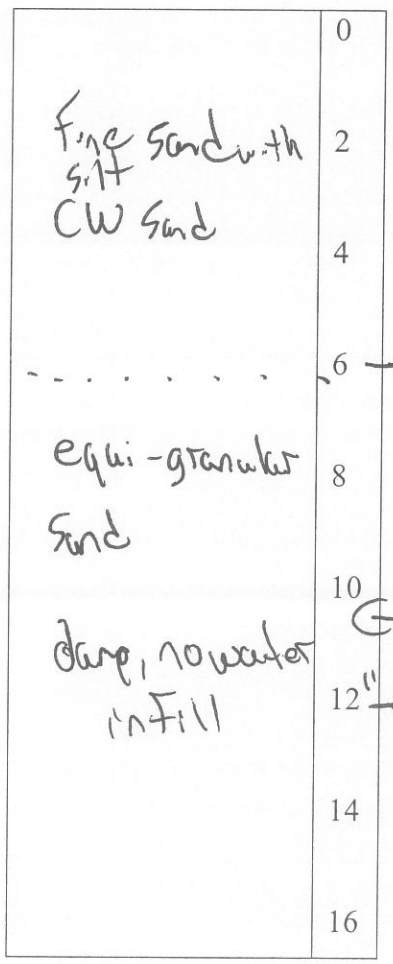


FUDGE Associates

Technician: WF

Test Pit #: TP#4
Location:
GPS: E 17T 062175
N 5114738

Date: NOV 30/18
Client: JS
Job#:
Equipment:
Operator:



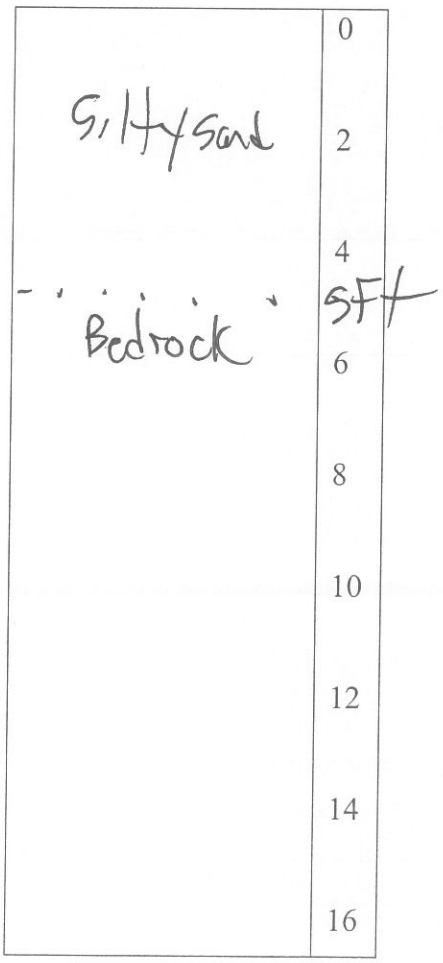
Possible mortar sand

FUDGE Associates

Technician: WF

Test Pit #: TP#5
Location:
GPS: E 17T0621600
N 5114685

Date: Nov 30/18
Client:
Job#:
Equipment:
Operator:

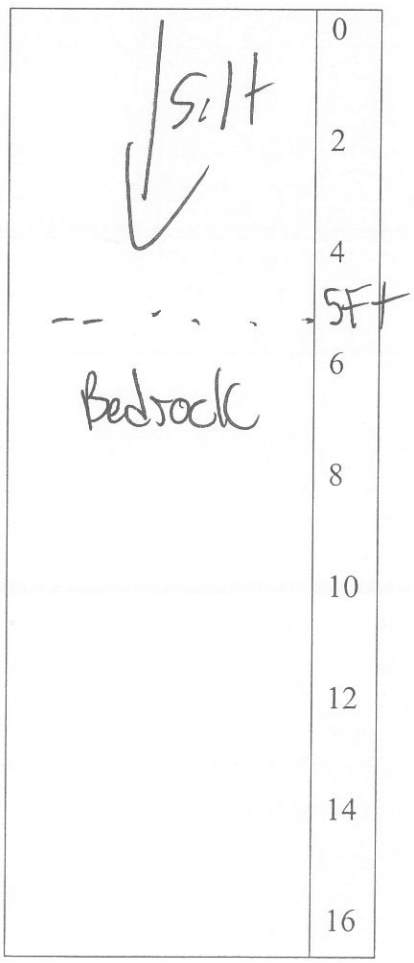


FUDGE Associates

Technician: WF

Test Pit #: TP#6
Location:
GPS: E 17T0621615
N 5114660

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:

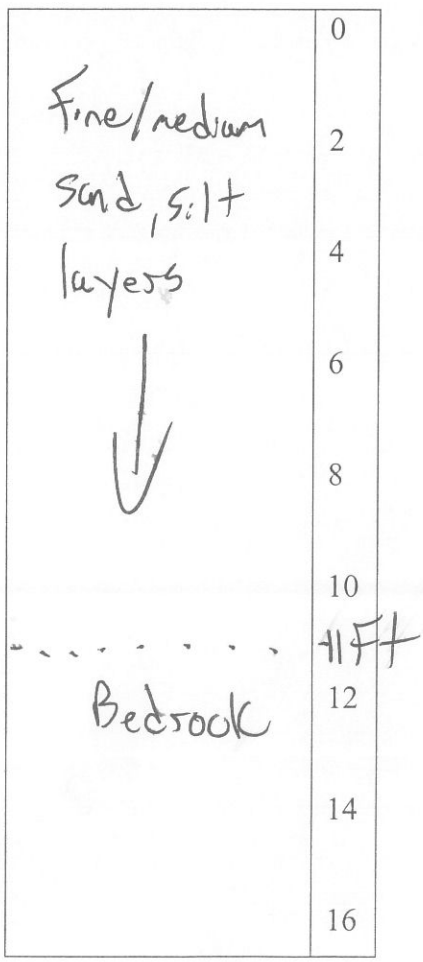


FUDGE Associates

Technician: WF

Test Pit #: TP#1
Location:
GPS: E 17T 0621642
N 5114600

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:



Dry hole

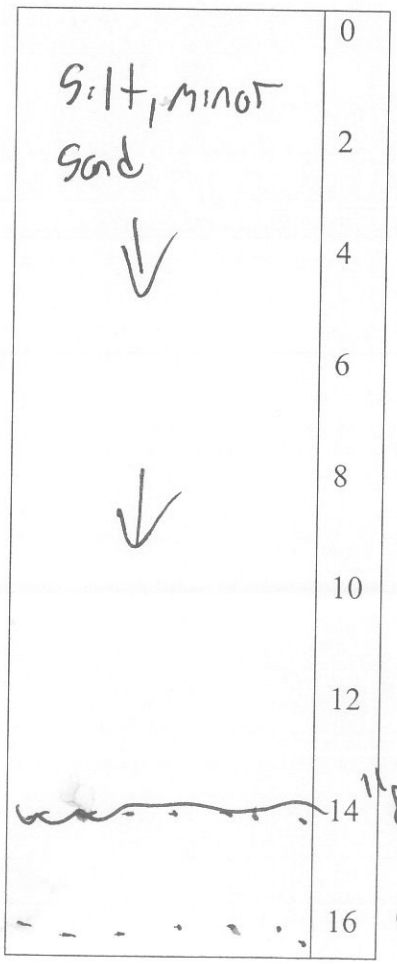
FUDGE Associates

W

Technician: WF

Test Pit #: TP#8
Location:
GPS: E 17T 0621724
N 5114630

Date: Nov 30 18
Client: JS
Job#:
Equipment:
Operator:

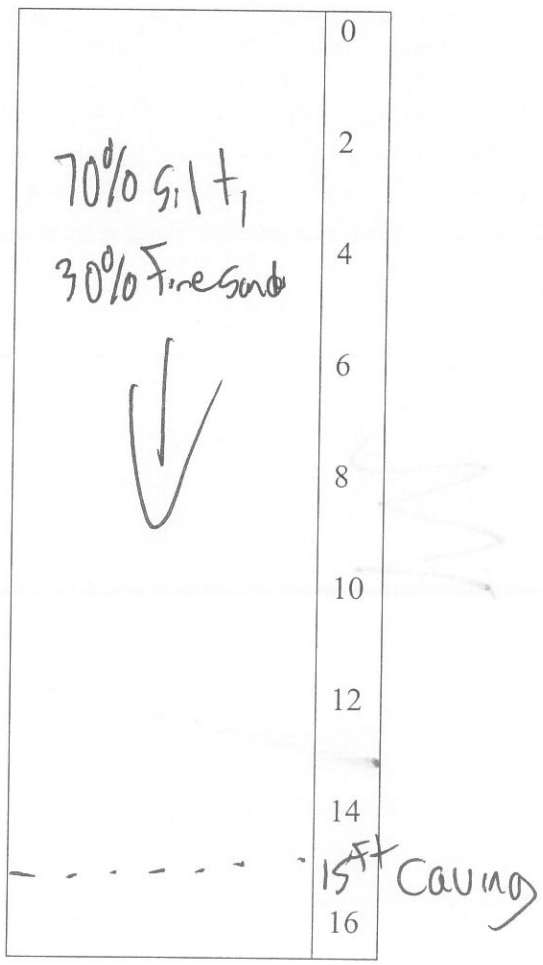


FUDGE Associates

Technician: WF

Test Pit #: TP#9
Location:
GPS: E 17T 0621766
N 5114655

Date: Nov 30 18
Client: JS
Job#:
Equipment:
Operator:

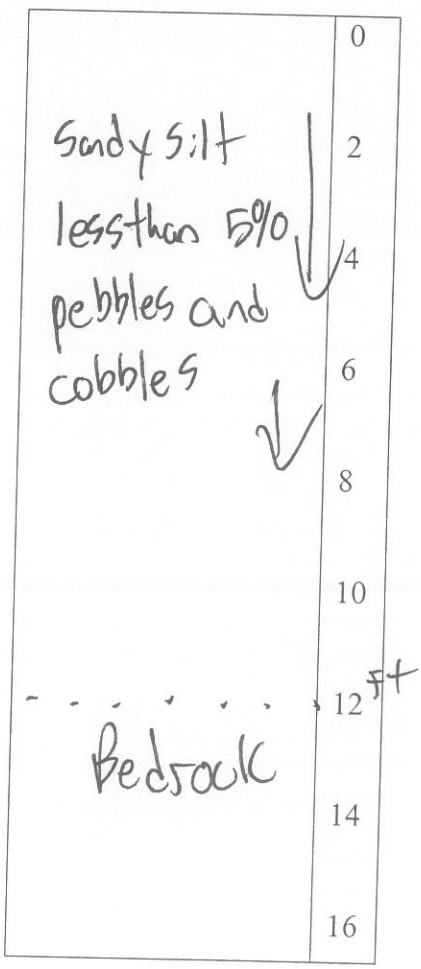


FUDGE Associates

Technician: WF

Test Pit #: TP#10
Location:
GPS: E 17T 0621828
N 5114765

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:



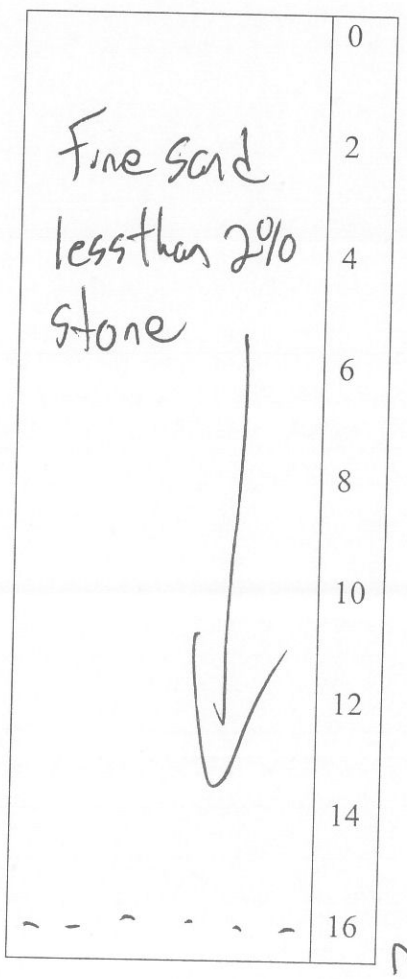
Bedrock outcrop 40 feet at 40° NE

FUDGE Associates

Technician: WF

Test Pit #: TP#11
Location:
GPS: E 17T0621957
N 5114741

Date: Nov 30/18
Client:
Job#:
Equipment:
Operator:

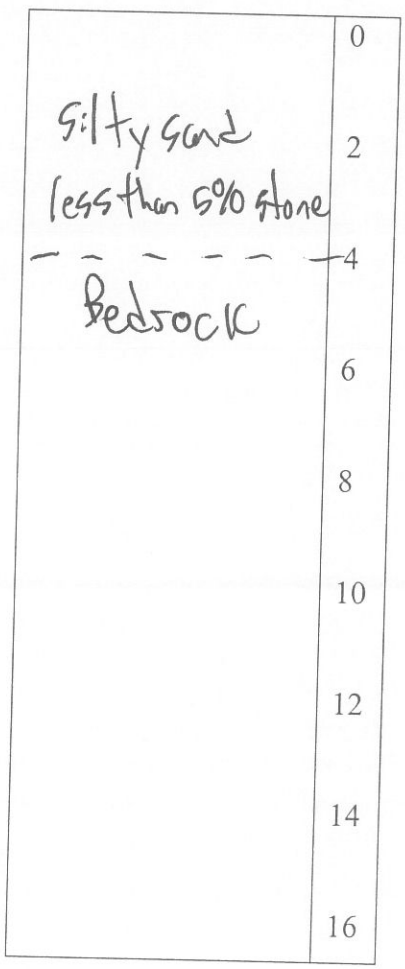


FUDGE Associates

Technician: WF

Test Pit #: TP#12
Location:
GPS: E 17T0621953
N 5114800

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:

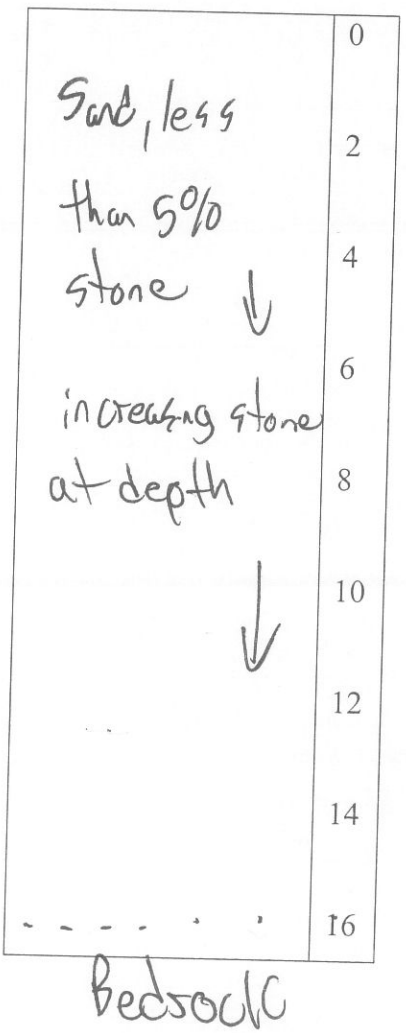


FUDGE Associates

Technician: WS

Test Pit #: TP#13
Location:
GPS: E 17T0621992
N 5114794

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:



Septic Sand

Crown Land

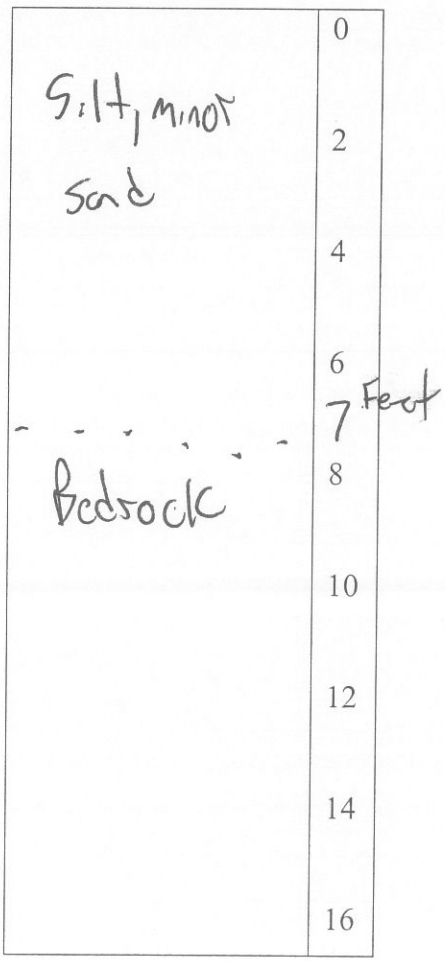
100m South to Pond

FUDGE Associates

Technician: WF

Test Pit #: TP#14
Location:
GPS: E 17T0622032
N 5114821

Date: Nov30/18
Client: JS
Job#:
Equipment:
Operator:

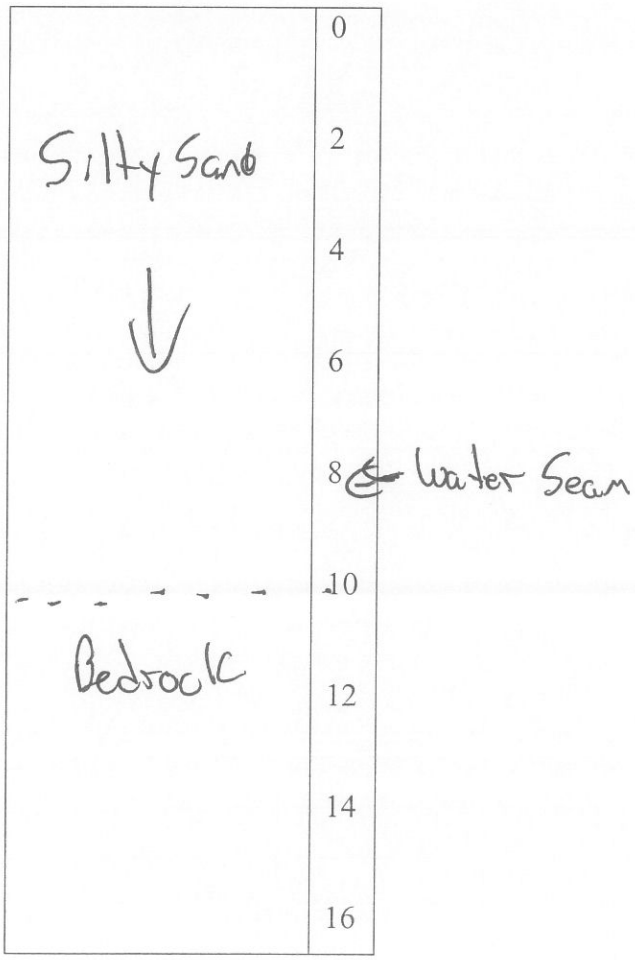


FUDGE Associates

Technician: WF

Test Pit #: TP#15
Location:
GPS: E 17T 0622053
N 5114832

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:

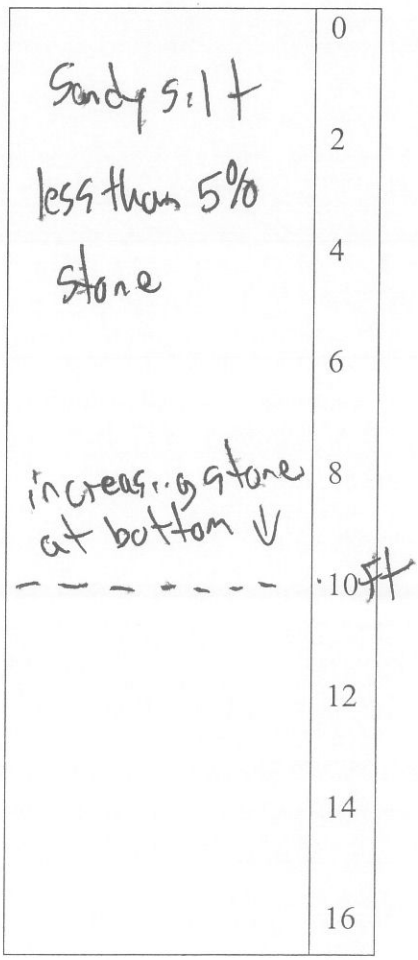


FUDGE Associates

Technician: WF

Test Pit #: TP#16
Location:
GPS: E 17T 0622034
N 5114897

Date: Nov 30/18
Client: JS
Job#:
Equipment:
Operator:

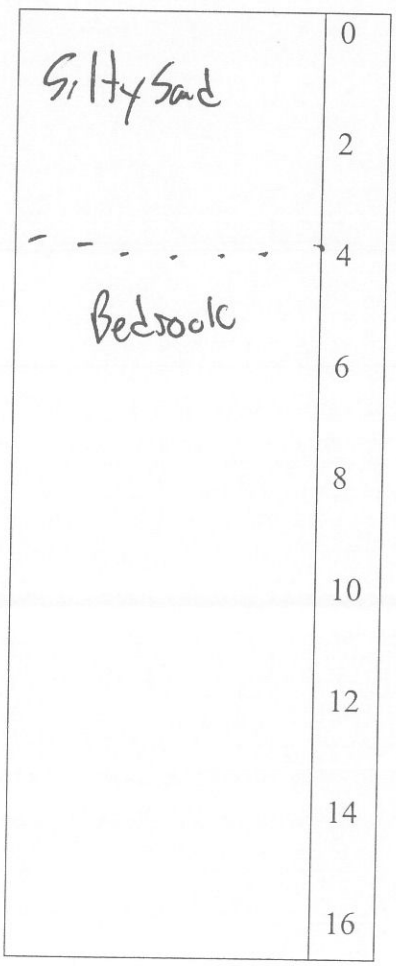


FUDGE Associates

Technician: WF

Test Pit #: TP#17
Location:
GPS: E 17T0621938
N 5115052

Date: Nov 30/18
Client:
Job#:
Equipment:
Operator:

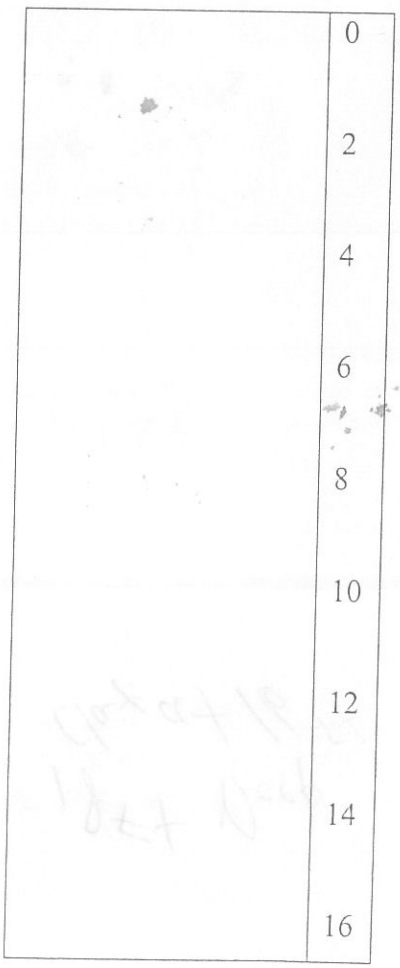


FUDGE Associates

Technician: WT

Test Pit #:_____
Location:_____
GPS: E_____
N_____

Date:_____
Client:_____
Job#:_____
Equipment:_____
Operator:_____



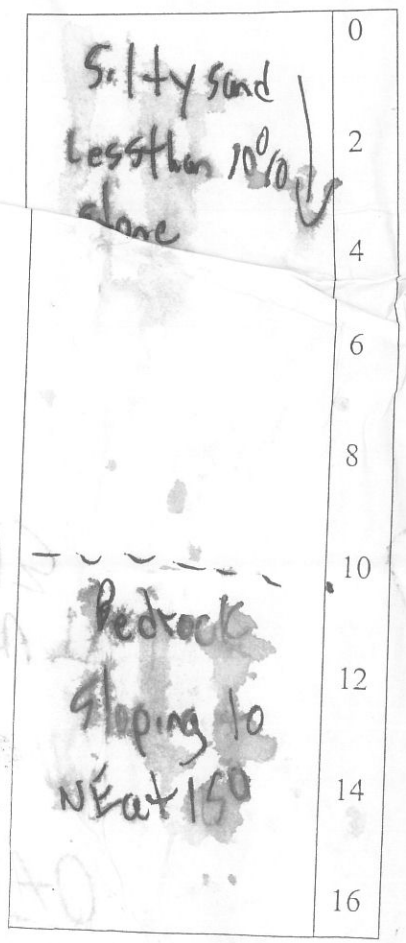
NO TP #18, #19

FUDGE
Associates

Technician: WF

Test Pit #: TP#20
Location:
GPS: E 17T0622031
N 5115484

Date: Dec 2/08
Client: JS
Job#:
Equipment:
Operator:



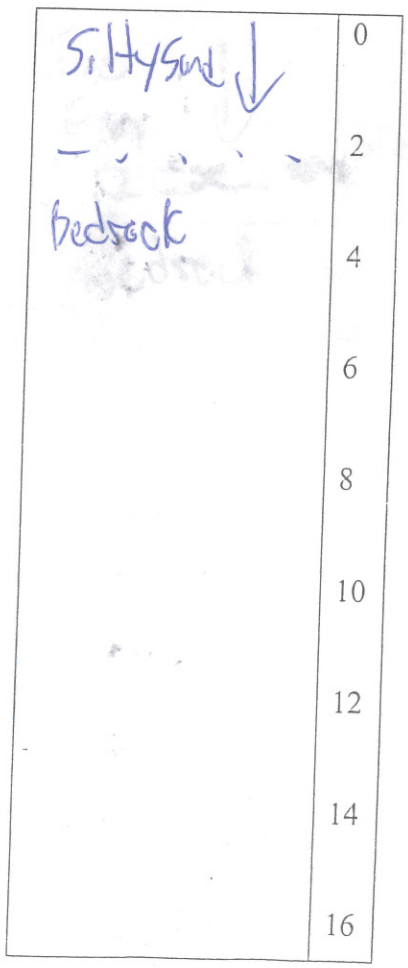
weak bedding to NE at 15°

FUDGE Associates

Technician: WF

Test Pit #: TP#24
Location:
GPS: E 1706222016
N 5115980

Date: Dec 21/18
Client: JS
Job#:
Equipment:
Operator:

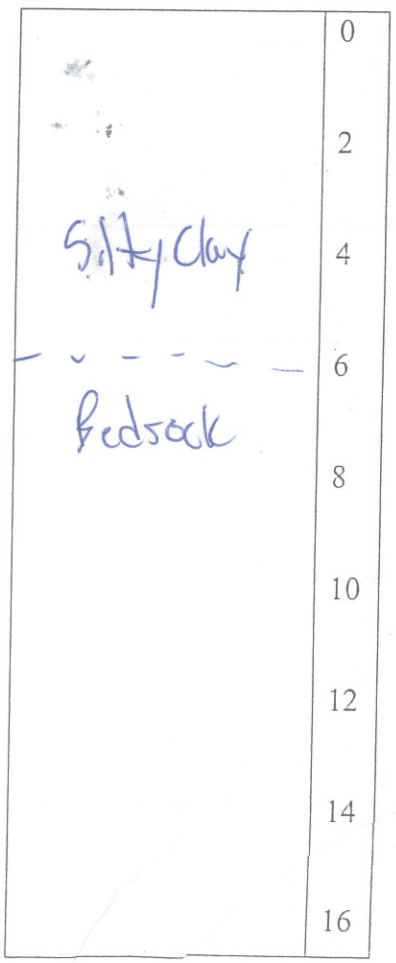


FUDGE Associates

Technician: WF

Test Pit #: TP#23
Location:
GPS: E 17T0622067
N 5115972

Date: Dec 21/10
Client: JS
Job#:
Equipment:
Operator:



Toe of slope

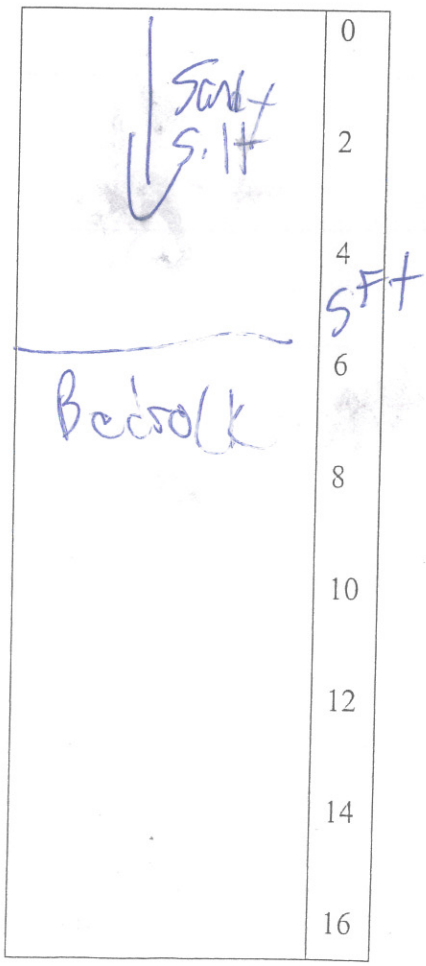
80 Ft south, is bedrock

FUDGE Associates

Technician:_____

Test Pit #: TP 24
Location:_____
GPS: E 11+0622052
N 5115922

Date:_____
Client:_____
Job#:_____
Equipment:_____
Operator:_____



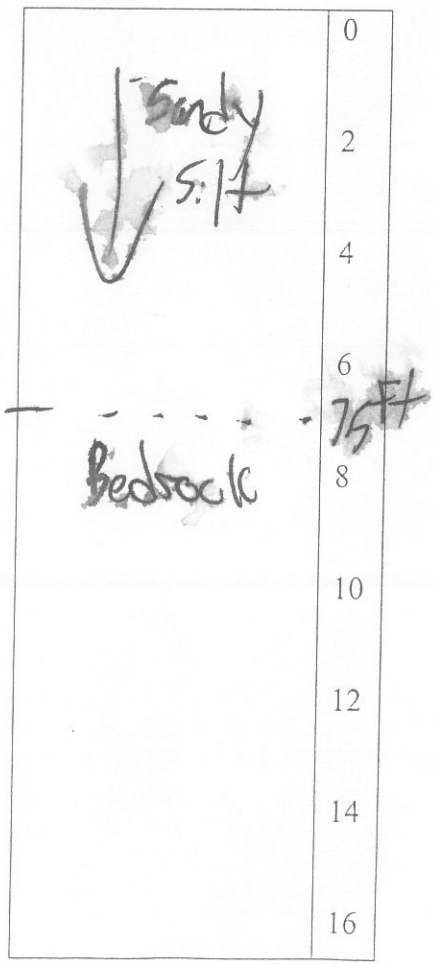
FUDGE Associates

Technician: WF

Test Pit #: TP#24
Location:
GPS: E 17+0621976
N 5115439

Date: Dec 21/18
Client: JS
Job#:
Equipment:
Operator:

Poor GPS coverage

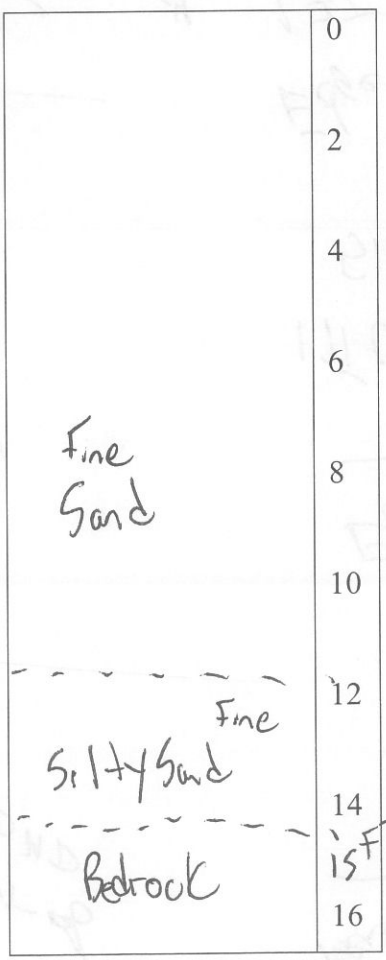


FUDGE & Associates

Technician: WJ

Test Pit #: Prior TP #A
Location:
GPS: E 17T 0621839
N 5114684

Date: Nov 30/18
Client: JS
Job#:
Equipment: John Deere 200LC
Operator: J Andrew



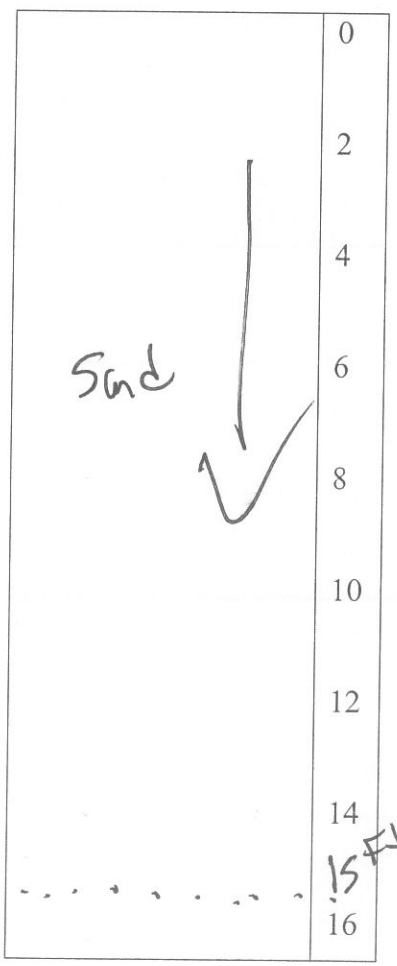
SSM

FUDGE Associates

Technician: WF

Test Pit #: Tw 016 test hole B
Location:
GPS: E 17T 0621708
N 5114663

Date:
Client:
Job#:
Equipment:
Operator:

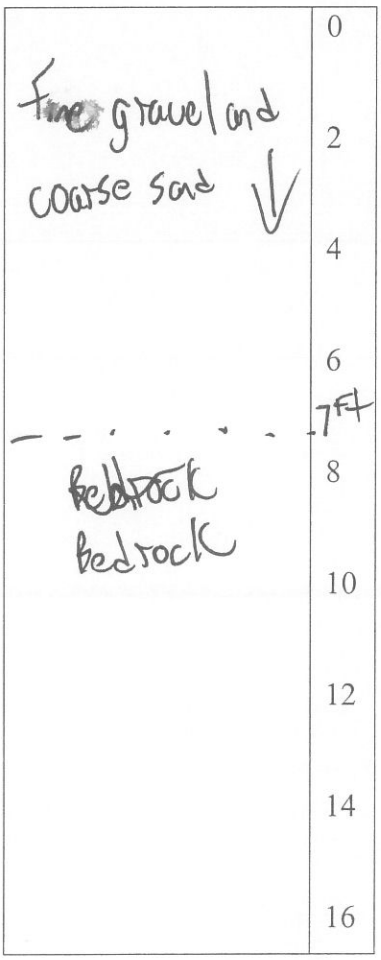


FUDGE Associates

Technician: WF

Test Pit #: Old Test P. + C
Location:
GPS: E 17T 0621697
N 5114739

Date:
Client:
Job#:
Equipment:
Operator:



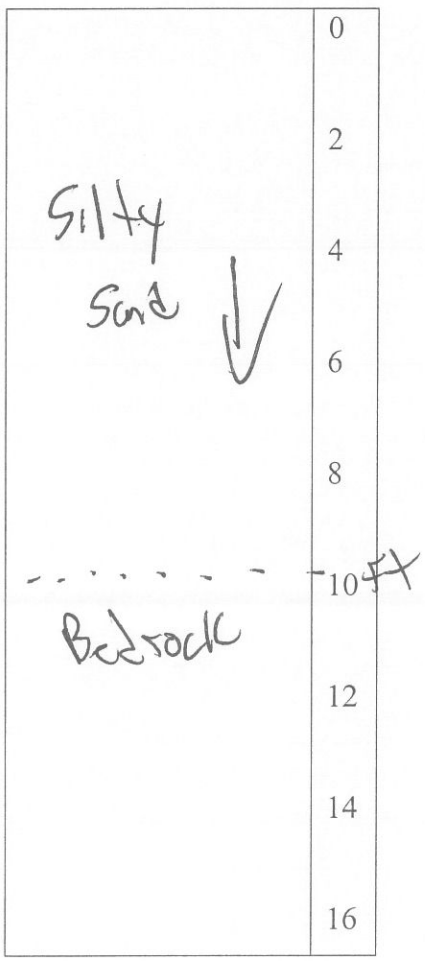
up-slope, North 30 feet from hole is bedrock face

FUDGE Associates

Technician: WF

Test Pit #: Old Test Hole D
Location:
GPS: E 17T 0621800
N 5114724

Date:
Client:
Job#:
Equipment:
Operator:

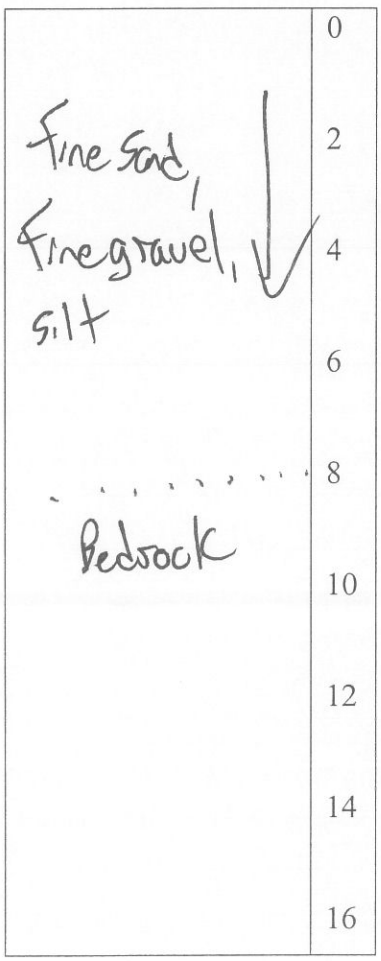


FUDGE Associates

Technician: WS

Test Pit #: Old Test Pit E
Location:
GPS: E 17T 0621776
N 5114742

Date:
Client:
Job#:
Equipment:
Operator:

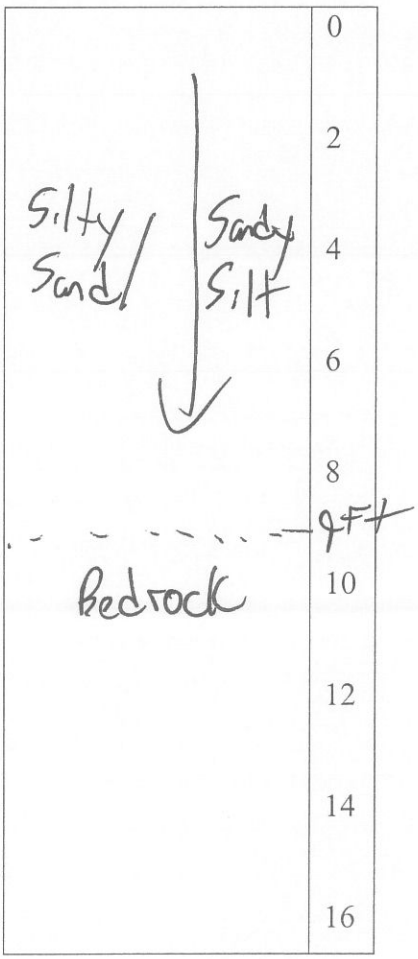


FUDGE Associates

Technician: WF

Test Pit #: Old Test Pit F
Location: _____
GPS: E 17T 0621668
N 5114871

Date: _____
Client: _____
Job#: _____
Equipment: _____
Operator: _____



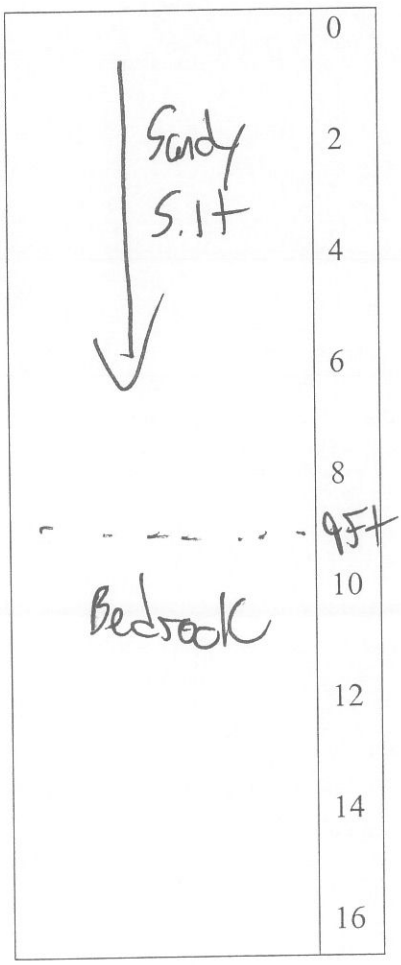
FUDGE Associates

Technician: LF

Test Pit #: Old Test Pit G
Location:
GPS: E 17T 0621664
N 5114914

Date:
Client:
Job#:
Equipment:
Operator:

JS estimates
1 acre size between test pit "G and "F"

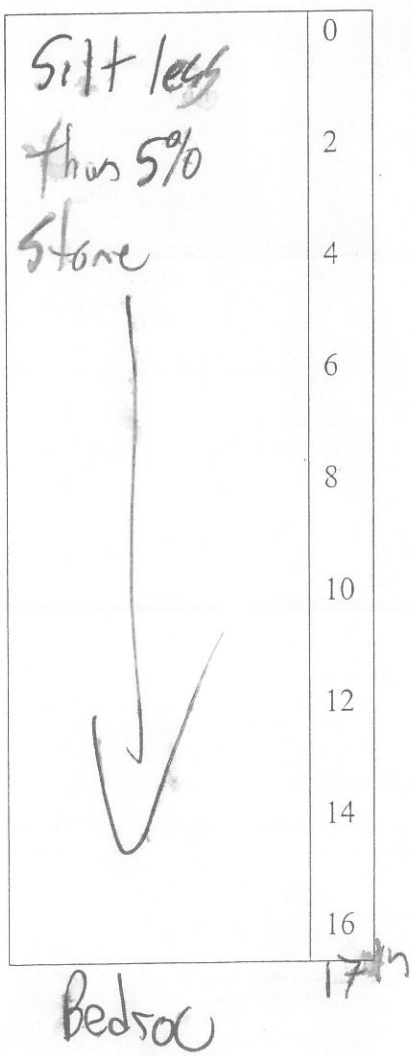


FUDGE Associates

Technician: WF

Test Pit #: 26JS
Location:
GPS: E 1710622389
N 5113836

Date: Dec 21/19
Client: JS
Job#:
Equipment:
Operator:

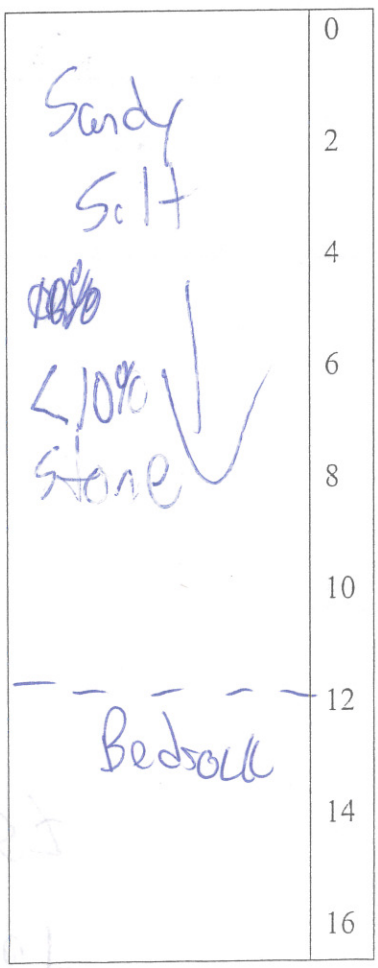


FUDGE Associates

Technician: WS

Test Pit #: 275
Location:
GPS: E 17T 0622496
N 5113640

Date: Dec 21/18
Client: SG
Job#:
Equipment:
Operator:

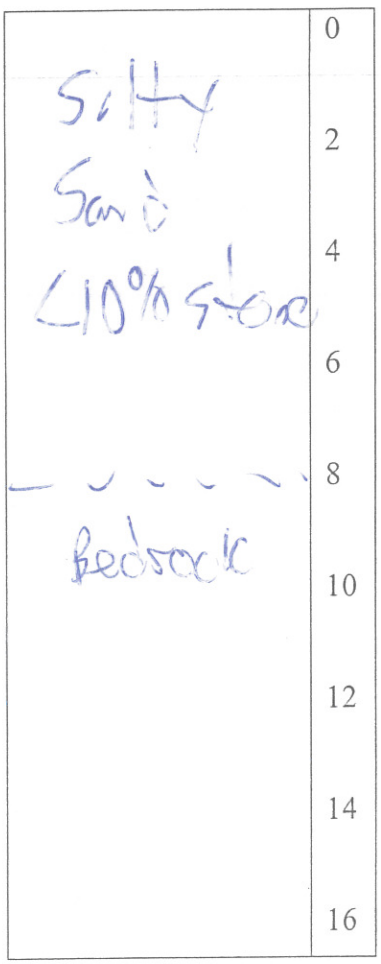


FUDGE Associates

Technician: WF

Test Pit #: 28JS
Location:
GPS: E 17T0622529
N 5113613

Date: Dec 21' 18
Client: JS
Job#:
Equipment:
Operator:



PHOTOS


ANDREW
DEERE

REFERENCES

Ontario Geological Survey ARIP070
1984: Aggregate Resources Inventory of the North Bay Area, Districts of Nipissing and Parry Sound; Ontario Geological Survey Aggregates Resources Inventory Paper 70, 82p.,6 tables, 9 maps, scale 1:50 000.

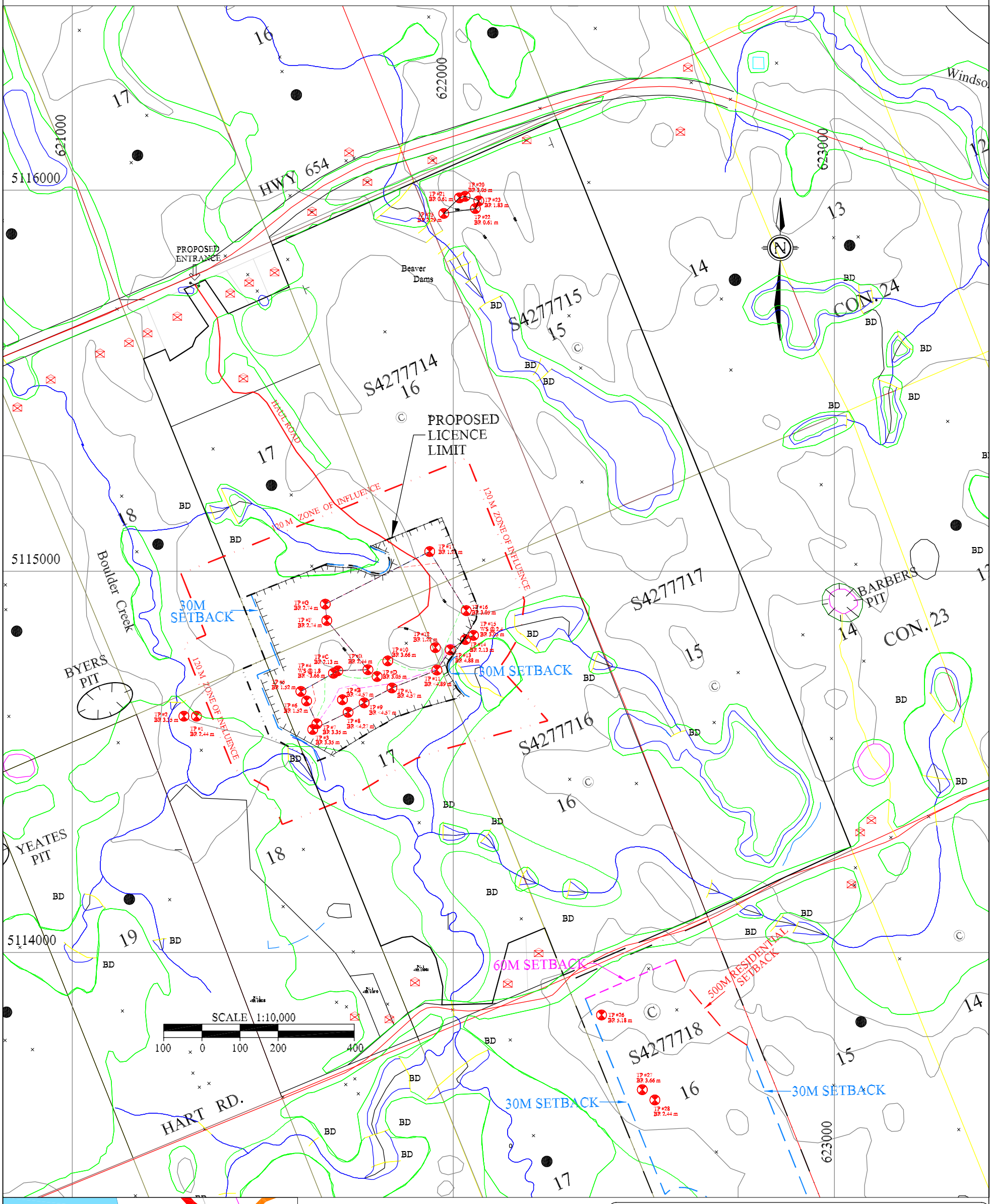
Lumbers, S.B. 1971. Geology of the North Bay Area, Districts of Nipissing and Parry Sound; Ontario Geological Survey, Geological Report 94, 112p.

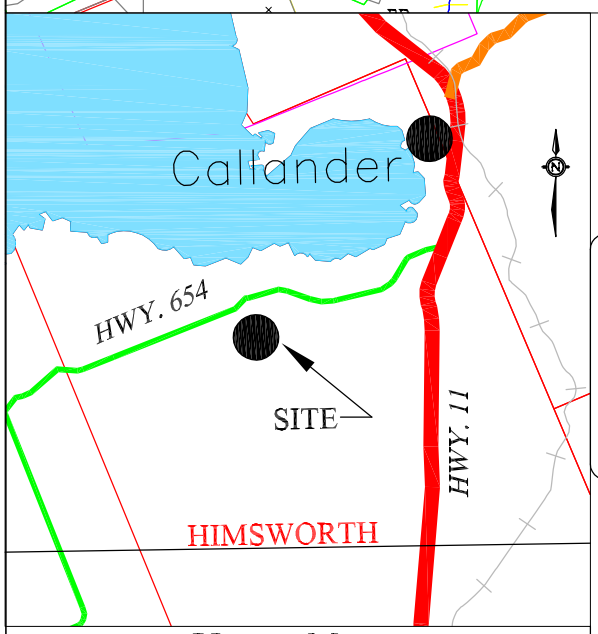
Mid-Mesoproterozic granitoid rocks in the North Bay area, Grenville Province Ontario Current Research 2001, A. Davidson and O. Breemen.

Google Earth Pro 7.3.1.4507 (64-bit).

Graphics maps.com, Worldatlas.

Personal communication with Jeffrey Staples





Key Map

Scale :– 1 : 200,000

LOCATION DIRECTIONS:

FROM THE INTERCHANGE OF HIGHWAY 11 AND HIGHWAY 654, TRAVEL 6.4 Km. WEST TO THE ENTRANCE LOCATION ON THE LEFT.

SITE LOCATION

PART LOT 16, CONCESSIONS 23 & 24
PART LOT 17, CONCESSIONS 23 & 24
PART LOT 18, CONCESSION 24

TOWNSHIP OF HIMSWORTH
TERRITORIAL DISTRICT OF PARRY SOUND

LEGEND

- RESIDENTIAL DWELLING
- PATENT LAND
- © CROWN LAND
- PERMIT LIMIT
- IP # G BR 3.2m — TEST PIT 2018 (DATES NOT RECORDED)
- IP # 3 BR 3.2m — TEST PIT NOVEMBER/DECEMBER 2018

FUDGE & Associates
160 Bryan Road
North Bay, Ontario
Canada P1C 1C2

SITE PLAN PREPARED UNDER THE DIRECTION OF D. FUDGE

APPLICANT:

Jeff Staples

LICENCE #

AUTHORIZED SIGNATURE

Preliminary Evaluation
Phase III Test Pits

Drawn by: P. Chandler	Checked by: D. T. Fudge
Date: June 2, 2019	Scale: AS SHOWN

HART RD.

PROPOSED ENTRANCE

60M SETBACK

30M SETBACK

30M SETBACK

500M RESIDENTIAL SETBACK

120 M ZONE OF INFLUENCE

120 M ZONE OF INFLUENCE

120 M ZONE OF INFLUENCE

S4277718

TP #26
BR 5.18 m

TP #27
BR 3.66 m

TP #28
BR 2.44 m

Boulder Creek

Beaver Dams

623000

14

15

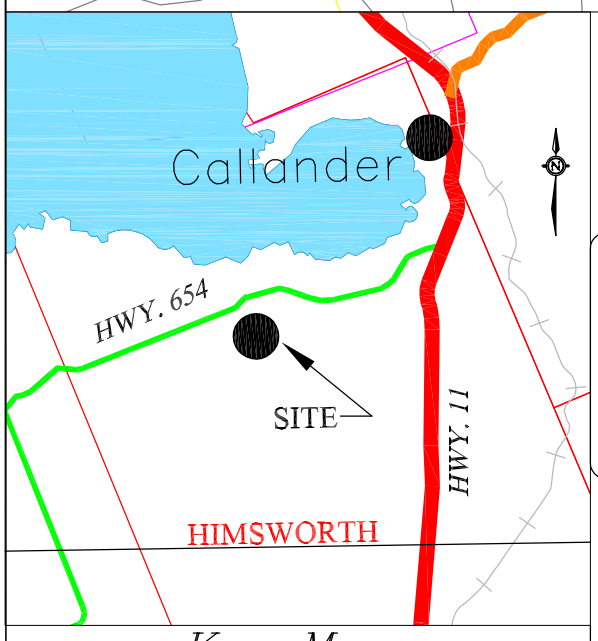
16

17

BD

SCALE 1:5,000

100 0 100 200 400



Key Map
Scale :– 1 : 200,000

LOCATION DIRECTIONS:

FROM THE INTERCHANGE OF HIGHWAY 11 AND HIGHWAY 654, TRAVEL 6.4 Km. WEST TO THE ENTRANCE LOCATION ON THE LEFT.

SITE LOCATION

LOTS 16, CONCESSION 22
TOWNSHIP OF HIMSWORTH
TERRITORIAL DISTRICT OF PARRY SOUND

LEGEND

- RESIDENTIAL DWELLING
- PATENT LAND
- © CROWN LAND
- – – – PERMIT LIMIT
- TP # G BR 3.2m TEST PIT 2018 (DATES NOT RECORDED)
- TP # 3 BR 3.2m TEST PIT NOVEMBER/DECEMBER 2018

FUDGE & Associates
160 Bryan Road
North Bay, Ontario
Canada P1C 1C2

SITE PLAN PREPARED UNDER THE DIRECTION OF D. FUDGE

APPLICANT:

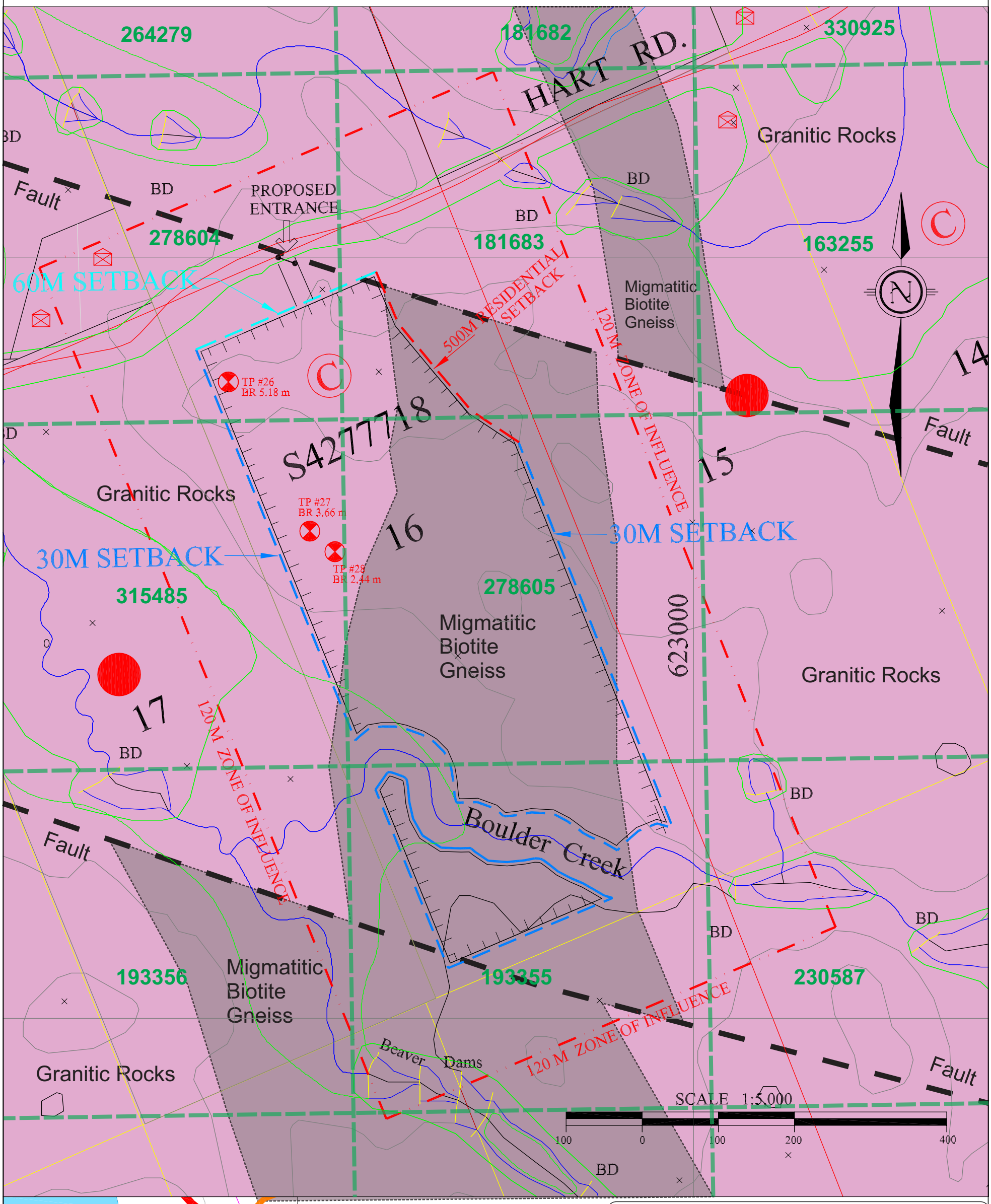
Jeff Staples

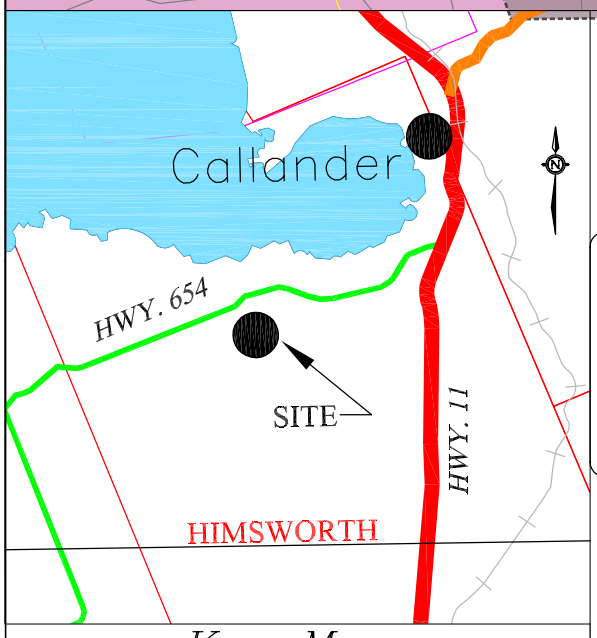
PERMIT #

AUTHORIZED SIGNATURE

Preliminary Evaluation Phase III Test Pits

Drawn by: P. Chandler	Checked by: D. T. Fudge
Date: June 2, 2019	Scale: AS SHOWN





Key Map
Scale :– 1 : 200,000

LOCATION DIRECTIONS:

FROM THE INTERCHANGE OF HIGHWAY 11 AND HIGHWAY 654, TRAVEL 6.4 Km. WEST TO THE ENTRANCE LOCATION ON THE LEFT.

SITE LOCATION

LOTS 16, CONCESSION 22
TOWNSHIP OF HIMSWORTH
TERRITORIAL DISTRICT OF PARRY SOUND

LEGEND

- RESIDENTIAL DWELLING
- PATENT LAND
- CROWN LAND
- PERMIT LIMIT

FUDGE & Associates
160 Bryan Road
North Bay, Ontario
Canada P1C 1C2

SITE PLAN PREPARED UNDER THE DIRECTION OF D. FUDGE

APPLICANT:

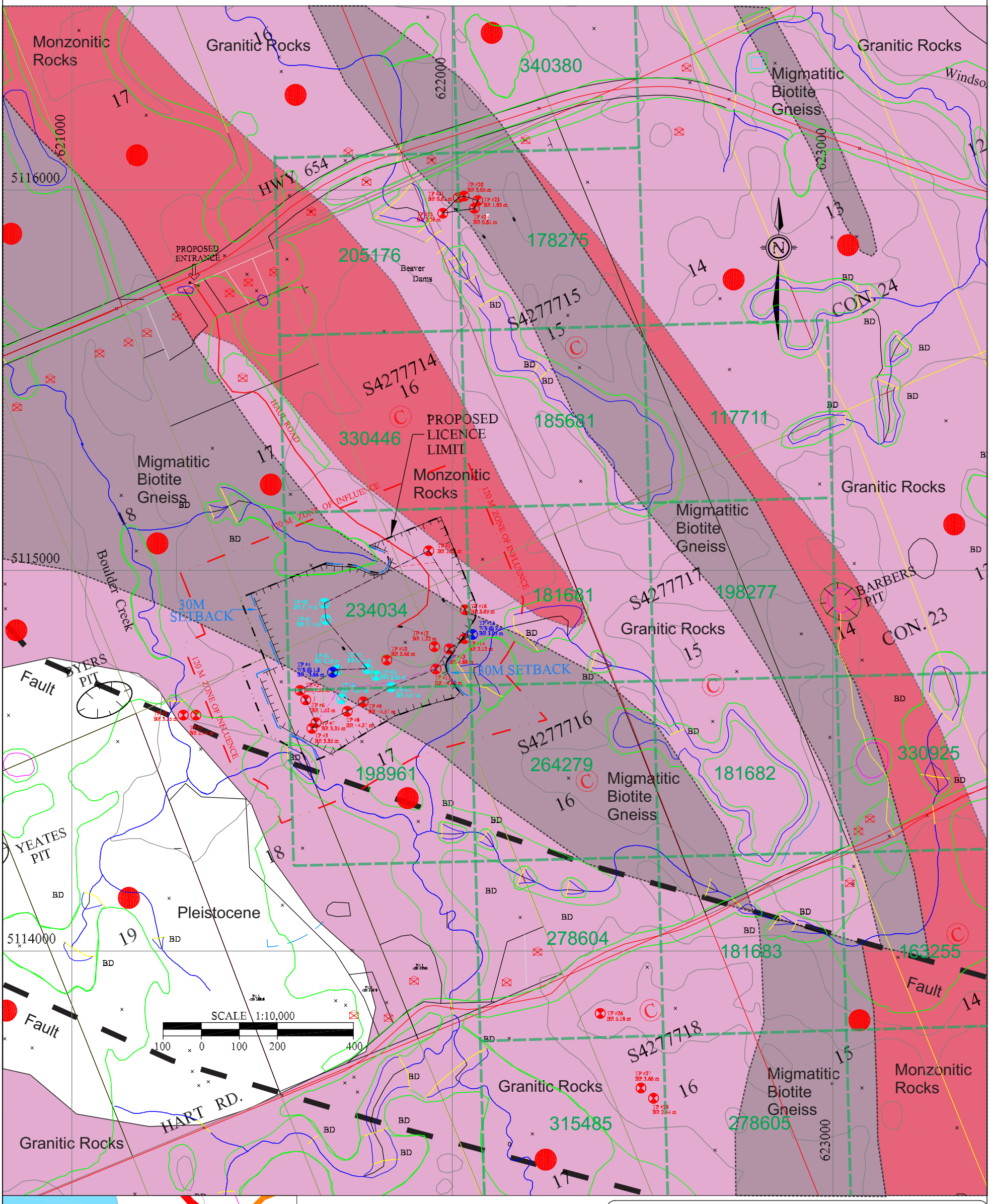
Jeff Staples

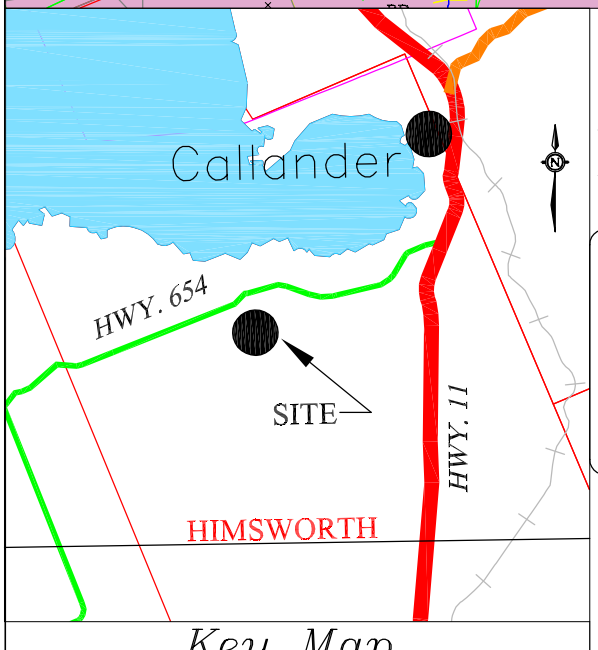
PERMIT #

AUTHORIZED SIGNATURE

Concept Plan, Category 9 & 11

Drawn by: P. Chandler	Checked by: D. T. Fudge
Date: February 19, 2019	Scale: AS SHOWN





Key Map
Scale :– 1 : 200,000

LOCATION DIRECTIONS:

FROM THE INTERCHANGE OF HIGHWAY 11 AND HIGHWAY 654, TRAVEL 6.4 Km. WEST TO THE ENTRANCE LOCATION ON THE LEFT.

SITE LOCATION

PART LOT 16, CONCESSIONS 23 & 24
PART LOT 17, CONCESSIONS 23 & 24
PART LOT 18, CONCESSION 24

TOWNSHIP OF HIMSWORTH
TERRITORIAL DISTRICT OF PARRY SOUND

LEGEND

- RESIDENTIAL DWELLING
- PATENT LAND
- C CROWN LAND
- — · — LICENCE LIMIT

FUDGE & Associates
160 Bryan Road
North Bay, Ontario
Canada P1C 1C2

SITE PLAN PREPARED UNDER THE DIRECTION OF D. FUDGE

APPLICANT:

Jeff Staples

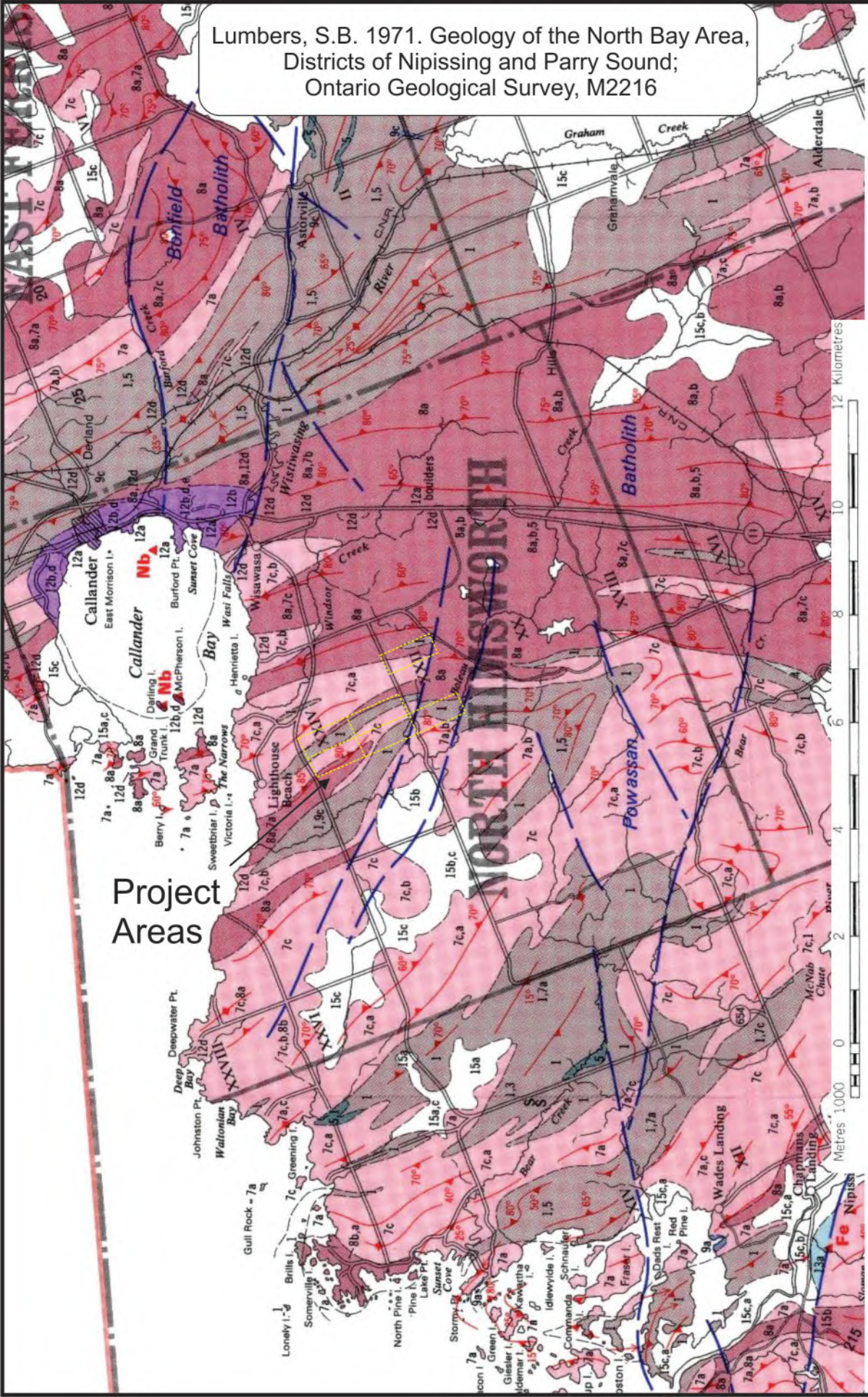
LICENCE #

AUTHORIZED SIGNATURE

Concept Plan, Category 2 & 4

Drawn by: P. Chandler	Checked by: D. T. Fudge
Date: February 19, 2019	Scale: AS SHOWN

Lumbers, S.B. 1971. Geology of the North Bay Area, Districts of Nipissing and Parry Sound; Ontario Geological Survey, M2216



LEGEND

CENOZOIC[a]

PLEISTOCENE AND RECENT

15 — 15a Swamp accumulations. 15b Boulder gravel, gravel, sand, silt. 15c Boulder clay, clay, varved clay; minor gravel, sand, and silt.

UNCONFORMITY

PALEOZOIC

UNCLASSIFIED

14 — 14 Red, green, and grey mottled quartz sandstone on Iron Island.

ORDOVICIAN

Middle Ordovician

13 — 13a Limestone, dolostone. 13b Conglomerate, sandstone, shale.

UNCONFORMITY

CAMBRIAN

Alkalic and Related Mafic Intrusive Rocks

12 — 12a Nepheline syenite. 12b Fenite, minor alkalic syenite and carbonatite; numerous late lamprophyre dikes and carbonate veins. 12c Mafic and ultramafic alkalic rocks; silicocarbonatite. 12d Lamprophyre dikes. 12e Felsite dikes.

INTRUSIVE CONTACT

PRECAMBRIAN

LATE PRECAMBRIAN[b]

MAFIC INTRUSIVE ROCKS

Diabase Dikes

11 — 11 Diabase, quartz diabase.

INTRUSIVE CONTACT

Mafic Stocks

10 — 10a Norite and rare olivine gabbro. 10b Uralitized gabbro and metagabbro. 10c Uralitized and serpentinized pyroxenite and peridotite.

INTRUSIVE CONTACT

METAMORPHIC COMPLEX
(probably Middle to Late Precambrian)

LATE PEGMATITE[c]

Granite pegmatite dikes.

HIGH RANK REGIONAL METAMORPHISM

MAFIC PLUTONIC ROCKS[d]

9 — 9a Metagabbro and metadiorite. 9b Metamorphosed ultramafic rocks. 9c Fine-grained and medium-grained amphibolite dikes; metadiabase dikes.

FELSIC PLUTONIC ROCKS[e]

Monzonitic Rocks

8 — 8a Pink and grey, gneissic, garnet-hornblende monzonitic rocks with minor gneissic granitic rocks. 8b Green, gneissic, pyroxene-bearing, garnet-hornblende monzonitic rocks. 8c Grey, gneissic quartz diorite and gneissic diorite.

Granitic Rocks[d]

7 — 7a Migmatitic and gneissic biotite granite and minor hornblende-biotite granite. 7b Migmatitic and gneissic hornblende-biotite granite and minor biotite granite. 7c Non-migmatitic, gneissic biotite granite and minor gneissic hornblende-biotite granite. 7d Migmatitic and gneissic garnet-biotite granite.

INTRUSIVE AND METAMORPHIC CONTACT

CALCAREOUS METASEDIMENTS[f]

Carbonate Metasediments

6 — 6 Mainly marble with interlayered calc-silicate gneiss.

Hornblende Gneiss

5 — 5 Calc-silicate gneiss generally with hornblende, quartz, and plagioclase as major constituents and containing variable amounts of biotite, epidote, diopside, garnet, scapolite, and sphene; minor associated amphibolite, garnet amphibolite, and biotite-garnet amphibolite.

CLASTIC SILICEOUS METASEDIMENTS[f]

Muscovitic and Quartzose Gneiss

4 — 4 Muscovite-feldspar-quartz gneiss and muscovite-quartz gneiss with interlayers of orthoquartzite and hornblende gneiss; interlayers of biotite gneiss and feldspathic gneiss present locally; feldspathic varieties commonly migmatitic with veins and lenses of granitic material.

Feldspathic Gneiss

3 — 3 Quartz-feldspar gneiss with interlayers of biotite gneiss and migmatitic biotite gneiss; locally kyanite-bearing; some varieties migmatitic with veins and lenses of granitic material.

Biotite Gneiss

2 — 2 Biotite-quartz-feldspar gneiss and hornblende-biotite-quartz-feldspar gneiss with interlayers of feldspathic gneiss, fine-grained hornblende-quartz-feldspar-biotite gneiss, and hornblende gneiss; interlayers of kyanite-biotite-plagioclase gneiss present rarely.

Migmatitic Biotite Gneiss

1 — 1 Similar to unit (2) but richer in alkalic feldspar and less calcic; veined by ten percent or more granitic material.

S — Sulphide mineralization.