

# MAR 20070028: KNELSEN WAPITI RIVER SOUTH

Received date: Nov 30, 2007

Public release date: Oct 27, 2008

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Knelsen Wapiti River South — Potential of Bedrock for Recovery  
as a Component for Concrete

ASSESSMENT REPORT 2006-07 MIMP 9305100784  
KNELSEN ROCK PRODUCTS G.P. LTD.  
November 2007

## PART B: Technical Information

Project: Knelsen Wapiti River South –  
Potential of Bedrock Depths for Recovery  
as a Component for Concrete

Permit: MIMP 9305100784  
Client: Knelsen Rock Products G.P. Ltd  
Client Id: 8079577  
Program: 2006-07 Test Program  
Mineral Assessment Appointee: V.M. Torstensen

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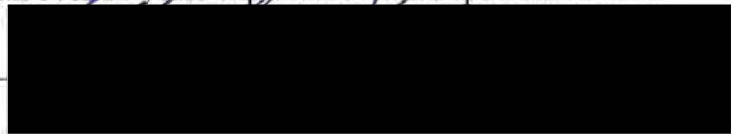
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Author of the Report [Vernon Torstensen]

The author of the Report herein is Vernon Torstensen. Mr. Torstensen is a specialist in aggregate development in Alberta with over 14 years experience in this specialized area.

Signature \_\_\_\_\_



Introduction: Scope and Purpose of the Work

Access to aggregate suitable as a component of concrete is limited in the Grande Prairie area and this is expected to be more of a concern in upcoming years.

As replacement for conventional aggregate material found in near surface sand and gravel formations, sandstone bedrock is known to be a potential component for concrete. The test program described herein, is a preliminary assessment of the presence of sandstone bedrock beneath a large area of future surface mining that will remove the overlying sands and gravels and allow for a viable extraction of bedrock.

The primary purpose of the preliminary drilling described in the Test Data is to measure the depth of aggregate above the bedrock and the depth to bedrock. To establish the presence of sandstone bedrock potentially suitable as a component for concrete production, a rudimentary sampling method is employed by examination of the bedrock material adhered to the drill bits.

Testing was limited to the perimeter of the main sand and gravel extraction area that has been approved for development over the next 10-50 years, and was accessible under an approved SME.

Summary: Work Performed and Results

Seventeen test holes were drilled in June, 2006 within SME020101. By 2006 SME020101 had been amended several times to allow for a large SML Application to be approved. The resulting available access under SME020101 therefore surrounded a future SML of several hundred acres that will be developed over the next 10-50 years. It was found that the perimeter data is a strong indicator that the central SML excavation to remove aggregate will be of significant depth to 8-10 meters and will potentially allow for a viable extraction of bedrock material in conjunction with the extraction of aggregate within the central SML. Sampling of the bedrock material adhered to the drill bits indicated that the bedrock is a sandstone bedrock potentially suitable as a component for concrete production.

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Site Location [Ref. PART C: Appendix — Map#1]

The area of the MIMP is several hundred acres adjacent to a rail line directly into Grande Prairie. Access for testing under SME 020101 allowed for testing of areas near the rail line (the rail line is the primary route for a viable bedrock extraction operation).

The site is located between the convergence of the Wapiti and Smoky Rivers and the CN rail line.

Work Performed Detail [Ref. PART C: Appendix — Map#2 and Table #1]

Results: Data, Analysis, Statement of Results

Viable gravel extraction depths are indicated in Test Locations (TLs) 01, 03, 10, 12, 13, and 14. Potential bedrock extraction below viable gravel extraction depths was found in TLs 01, 03, 10, 13, and potentially 14 (TL14 gravel depths are exceptional, however the auger was unable to penetrate to bedrock).

Conclusions

The preliminary analysis described herein confirms that there is potential for viable extraction of bedrock that is suitable as a component for concrete production.

Further testing is necessary to confirm the consistency of the results throughout the MIMP area, however the overall viability of a bedrock extraction operation is highly dependent upon the access to the central SML and the cooperation of the operator of the central SML that will be developed over the next 10-50 years.



## MINERAL ASSESSMENT EXPENDITURE BREAKDOWN BY TYPE OF WORK

- Estimated Expenditure** (submitting with **Statement of Intent to File**)  
 **Actual Expenditure** (for **Part B of Report**; Must match total filed in Part A)

Project Name: Knelsen Wapiti River South

	<u>AMOUNT</u>
1. Prospecting	\$ _____
2. Geological Mapping & Petrography	\$ _____
3. Geophysical Surveys	
a. Airborne	\$ _____
b. Ground	\$ _____
4. Geochemical Surveys	\$ _____
5. Trenching and Stripping	\$ _____
6. Drilling	\$ <u>4083.07</u>
7. Assaying & whole rock analysis	\$ _____
8. Other Work: <span style="padding-left: 20px;">SME plotting and Application</span>	\$ <u>750.00</u>
<span style="padding-left: 20px;">Rail Crossing Management</span>	\$ <u>600.00</u>
<b>SUBTOTAL</b>	\$ <u>5433.07</u>
9. Administration (up to 10% of subtotal)	\$ <u>543.00</u>
<b>TOTAL</b>	\$ <u>5976.07</u>
<u>V. M. TORSTENSEN</u>	<u>14 Jan '08</u>
SUBMITTED BY (Print Name)	DATE

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## PART C: Appendix of Supplementary Information

Map #1: MIMP Area  
Map #2: Test Locations within SME  
Table #1: Test Log

**MINERAL AGREEMENT DETAIL REPORT**

Report Date: November 29, 2007 3:04:01 PM

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**Agreement Number:** 093 9305100784

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Status: ACTIVE  
Agreement Area: 508Term Date: 2005-10-31  
Continuation Date:

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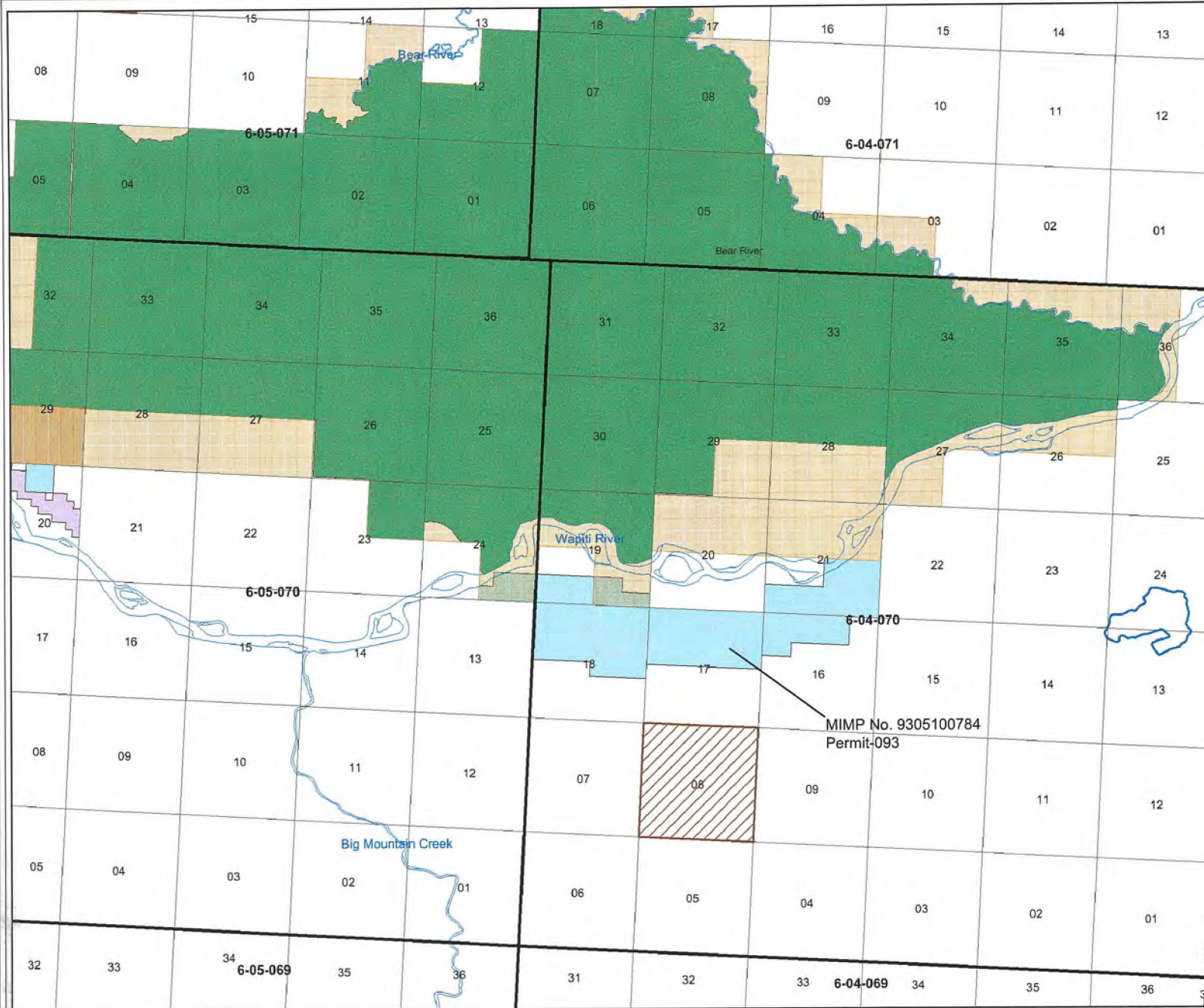
**DESIGNATED REPRESENTATIVE**Client Id: 8079577  
Client Name: KNELSEN ROCK PRODUCTS G.P. LTD.  
Address: PO BOX 21119  
GRANDE PRAIRIE, AB  
CANADA T8V 6W7

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**LAND / ZONE DESCRIPTION****6-04-070:** 16L12N,L13-L15;17N;18N,L7N,L8N;19L1S,L2-L4;21SE,L3,L4**6-05-070:** 24L1,L2S,L2NE

METALLIC AND INDUSTRIAL MINERALS

# Metallic and Industrial Minerals



### Legend

- Alberta Boundary
- Meridian
- Township
- Section
- Major River
- Major Lake
- Major Road
- 30 Day Pending
- Reserved/Withdrawn - Restrictions
- No Surface Access - Restrictions
- Subject To - Restrictions
- Other - Restrictions
- Municipality
- Special Lease - 037
- Phosphate Exploration - 069
- Permit - 093
- Other - 042
- Natural Gas Storage - 036
- Lease - 094
- Application Special Lease - A37
- Application Phosphate Exploration - A69
- Application Permit - A93
- Application Other - A42
- Application Natural Gas Storage - A36
- Application Lease - A94
- Mineral Ownership Undetermined
- Minerals Not Owned by the Alberta Crown
- Parks and Protected Areas
- National Park

November 29, 2007

Map center: 55° 4' 53" N, 118° 35' 41" W

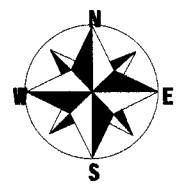
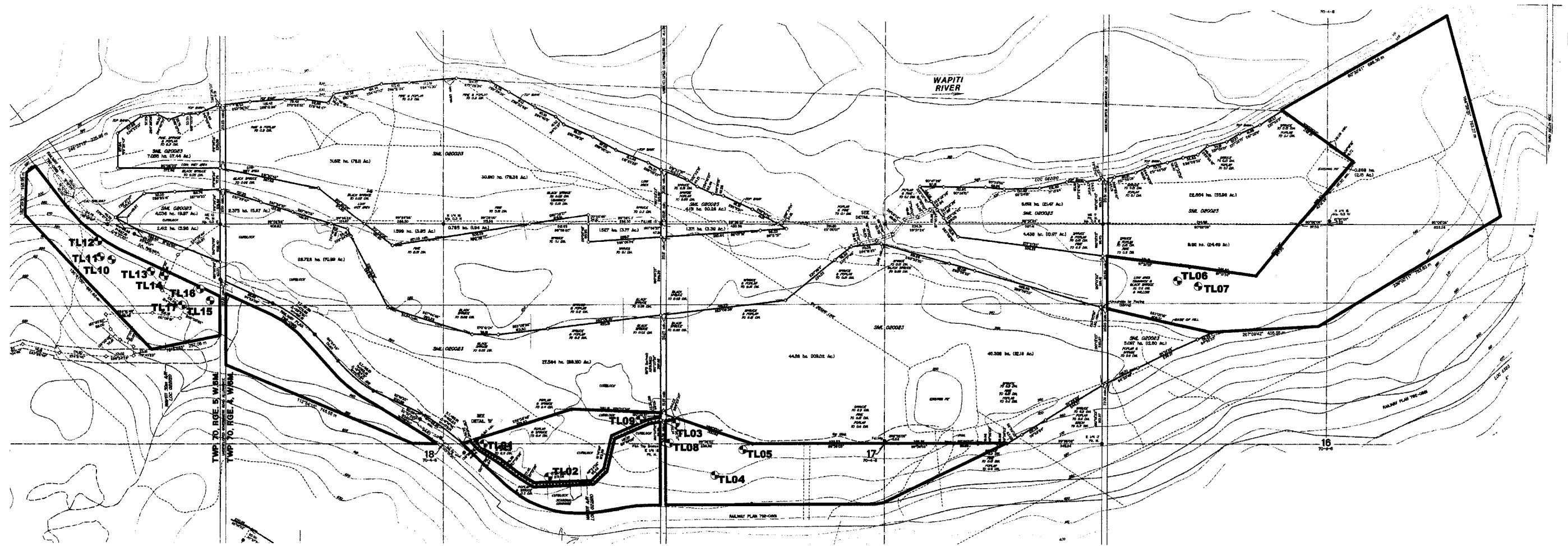
DISCLAIMER: Information presented on this map originates from various sources and is for general use only. Please be advised that some information may have been added, amended and deleted since this map was created.

Base Data Provided by Spatial Data Warehouse Ltd. Copyright of Government of Alberta.



**TEST DATA FOR SME 020101**

<b>Test Logs:</b>	VM Torstensen dated 10 June 2006			
<b>Location:</b>	Crown Land SME020101 N1/2 16, S1/2 & NW17, N1/2 & SE18 & S1/2 21-70-4-W6 and NE13 & SE24-70-5-W6			
<b>Equipment:</b>	Bobcat (tracked) Mounted Hydraulic Auger (6") capable of 60 foot depth.			
<b>LEGEND:</b>	<p><b>Clay</b> <b>Silt</b> <b>Sand</b></p>	<p><b>Poor Gravel</b> less than 35% rock content <b>Fair Gravel</b> less than 35-50% rock content <b>Good Gravel</b> greater than 50% rock content <b>BedRock</b> <b>Refusal</b> unable to penetrate</p>		
<b>Test Log #</b>	<b>GPS Location</b>	<b>Material Type</b>	<b>Depth (feet)</b>	<b>Comments</b>
TL 01	N6102776.00 E398094.00	Cl Sa G PG FG G	00-09 09-15 15-25 25-30 30-34 34-38	Water @ 25  Sandstone BR @ 38
TL 02	N6102654.00 E398332.00	Cl Sa	00-15 15-33	Sa below
TL 03	N6102851.00 E398804.00	Cl G FG G Sandstone	00-15 15-20 20-29 29-38 38-41	Sandstone BR @ 44
TL 04	N6102659.00 E398949.00	Moss SaCl Sa	00-02 02-05 05-25	
TL 05	N6102753.00 E399053.00	Cl Sa G	00-12 12-18 18-30	W @ 25 Sandstone BR @ 30
TL 06	N6103369.00 E400665.00	Cl	00-10	
TL 07	N6103349.00 E400737.00	Sa	10-25	
TL 08	N6102778.00 E398781.00	SaSiCl	00-20	
TL 09	N6102864.00 E398672.00	Cl Sa Cl Sa G	00-08 08-16 16-20 20-22 22-40	W @ 28 Sandstone BR @ 40
TL 10	N6103457.00 E396723.00	G PG FG Sa	00-08 08-15 15-30 30-42	Sandstone BR @ 42
TL 11	N6103468.00 E396682.00	SiCl	00-06	Sandstone BR @ 6
TL 12	N6103525.00 E396673.00	G PG	00-08 08-15	
TL 13	N6103414.00 E396867.00	SiCl G PG G	00-06 06-11 11-22 22-35	Sandstone BR @ 35
TL 14	N6103396.00 E396916.00	SiCl Sa G PG G	00-07 07-15 15-34 34-39 39-50	G below
TL 15	N6103305.00 E397085.00	Cl	00-25	
TL 16	N6103348.00 E397049.00	Cl Sa PG Sa PG G	00-07 07-10 10-13 13-19 19-21 21-23	Sandstone BR @ 23
TL 17	N6103289.00 E396981.00	SiCl	00-24	



METERS SCALE 1: 15 000

PRO: 2-00106TST DATE: 2006/08 SCALE: AS SHOWN		Notes: - township grids shown are theoretical - grid North; distances are in meters - unless otherwise stated distances and bearings are derived both by calculation from partially rectified air photos and from on-site measurement.	PLAN SHOWING: <b>TEST REPORT FOR SME 020101</b>	
DRAWN BY: V.M.TORSTENSEN B.A. B.Sc. L.G.McDONALD			DEVELOPER: <b>KNELSEN ROCK PRODUCTS G.P. LTD.</b> CONTACT: ABE BANMAN	
TOR LAND RESOURCE INC. #128, 11230-104th Avenue Edmonton AB T5K 2X8 Tel: 780 421 7869 Cell: 780 914 9531(Edm) 403 804 8766(Cal) Fax: 780 665 7336 Email: vemon@torstensen.ca		BOX 21119 GRANDE PRAIRIE AB T8V 6W7 TEL 780 539 7667 FAX 780 539 4474		

Technical clarification requested:

Table 1: GPS datum is UTM Zone 11

Table 1: TL03 shows Bedrock at 44 (i.e BR 41-44)

Map 2: Test Locations are precisely located by UTM coordinates and geo-referenced to the ATS grid

Table 1: Test Logs were completed by V. M. Torstensen as indicated in Table 1.

Map 1: Map 1 is the copy of the map provided by Energy and is referenced within the ATS. Alterations to the map can be considered an infringement and therefore a north arrow is not added (grid north is self-evident within the ATS reference).

Vernon Torstensen provided the above clarifications  
in an email dated February 25, 2008.

ZAB  
March 6, 2008