

**FEATURES LEGEND**

Site investigated	△
Drillhole	○
Deposit Type	
clean	GRAVEL (Red), sandy GRAVEL (Orange), gravelly SAND (Green), SAND (Blue)
dirty/very dirty	(Pink), (Yellow), (Light Green), (Cyan)
unknown	(Light Pink), (Light Yellow), (Light Green), (Light Blue)
UNKNOWN deposit type	(Grey)

**Deposit Type Definitions:**

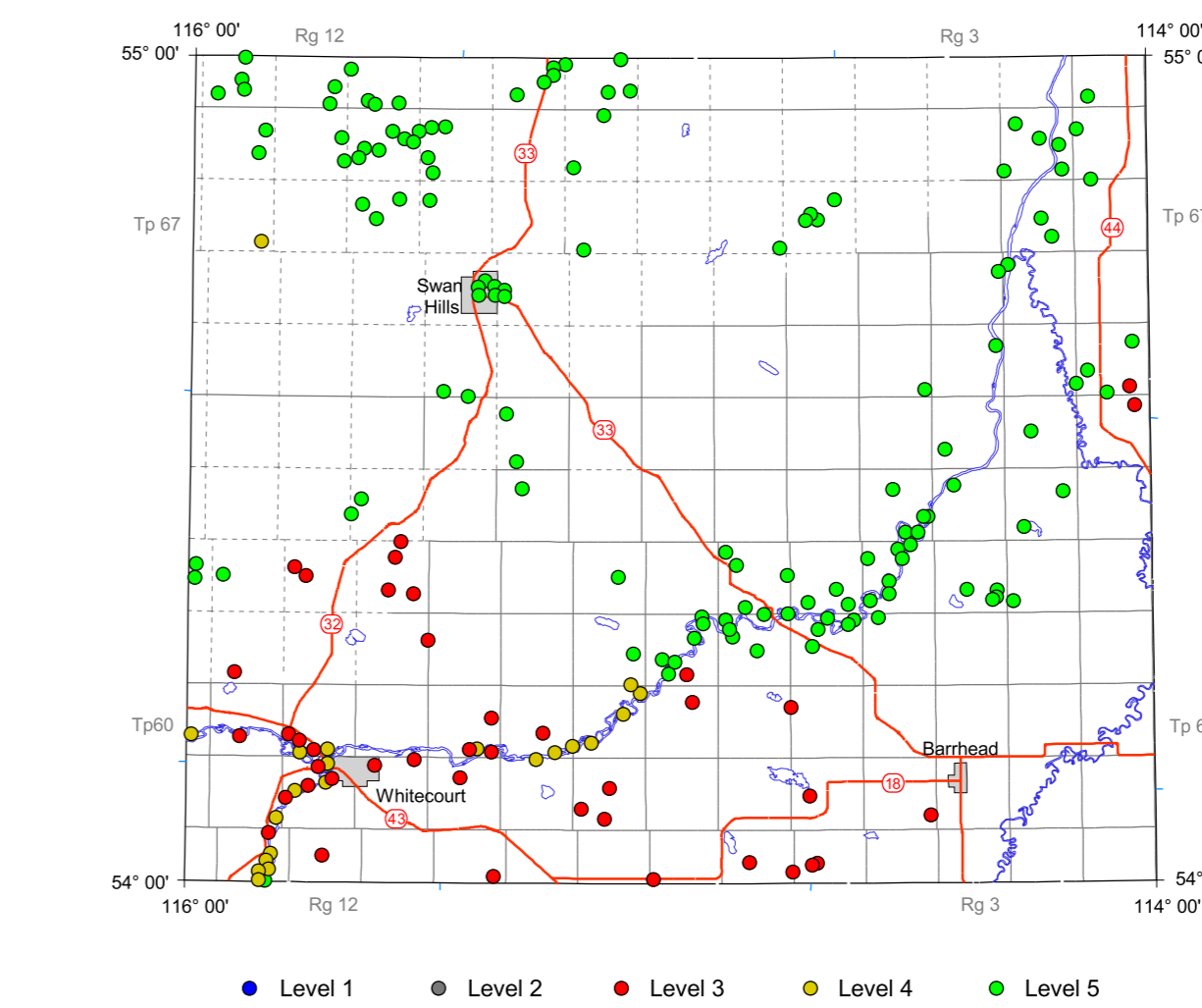
GRAVEL deposit: contains greater than 75% gravel.  
 sandy GRAVEL deposit: contains 50% to 75% gravel.  
 gravelly SAND deposit: contains 25% to 50% gravel.  
 SAND deposit: contains less than 25% gravel.  
 UNKNOWN deposit: amount of gravel unknown.  
 clean deposit: contains less than 3% silt and clay.  
 dirty deposit: contains 3% to 10% silt and clay.  
 very dirty deposit: contains greater than 10% silt and clay.  
 unknown: contains unknown percentage of mixed silt and clay.

**BASE MAP LEGEND**

River and lake	(Blue line)
River - intermittent	(Dashed blue line)
Road - paved	(Red line)
Road - gravel	(Orange line)
Road - unimproved	(Dashed orange line)
Railway line	(Black line with cross-ticks)
Trail	(Dotted line)
Park boundary - provincial/national	(Green outline)
City/Town	(Grey outline)
Metis settlement	(Purple outline)
Indian reserve	(Pink outline)
Township/range - surveyed	(Dashed red line)
Township/range - unsurveyed	(Dotted red line)
UTM, zone 11 grid	(Blue crosshair)

This is a common map legend. Not all units may be present on this map.

**Study Level**



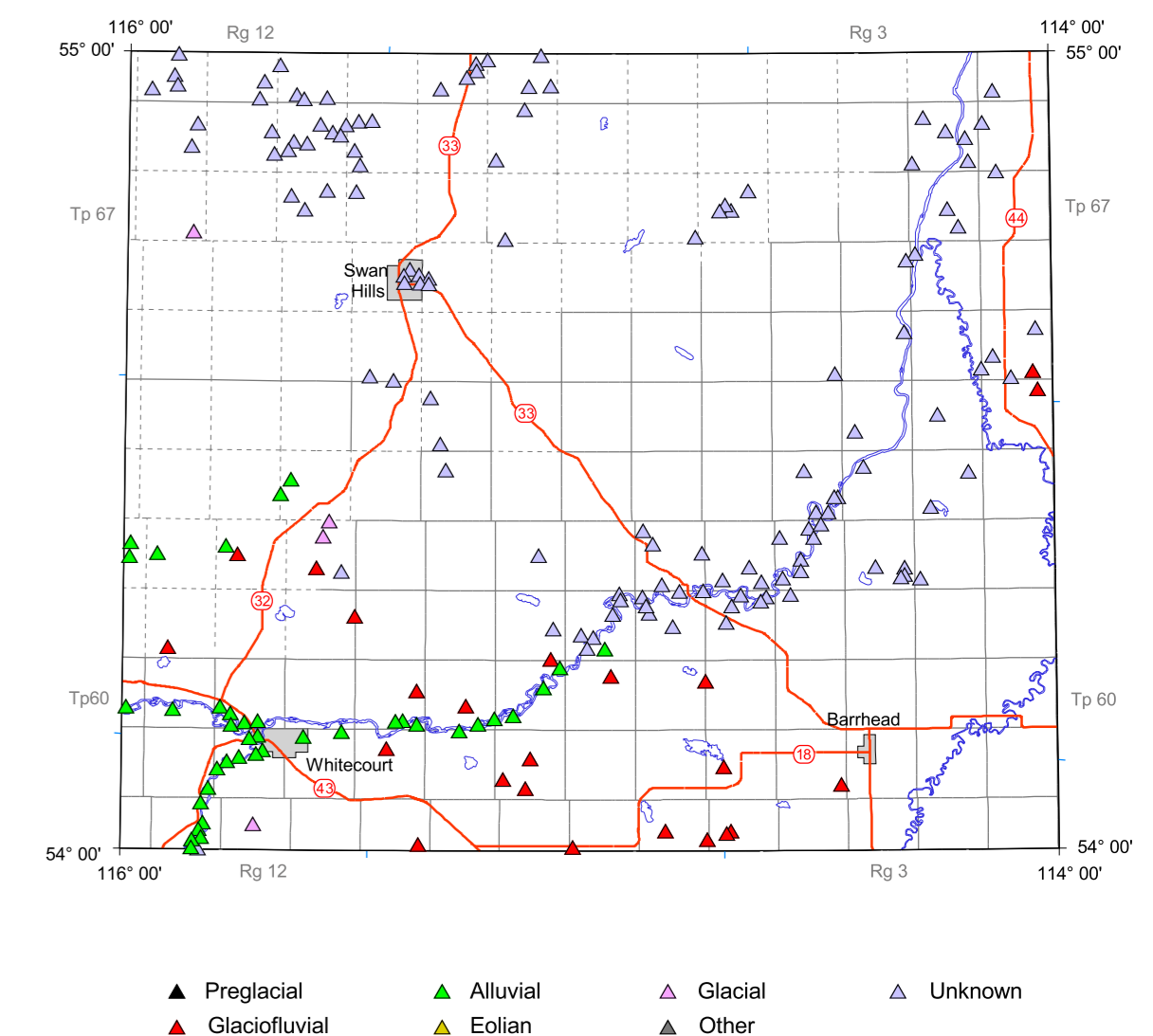
**Study Level Definitions:**

Level 1 Aggregate reserves confirmed by grid testing and sampling.  
 Level 2 Aggregate resources confirmed by multiple test holes and sampling.  
 Level 3 Sand and/or gravel confirmed by Alberta Geological Survey site investigation and limited sampling and testing.  
 Level 4 Sand and/or gravel areas assumed by Alberta Geological Survey investigation of associated sites, remote sensing and other sources of information.  
 Level 5 Potential sand and/or gravel areas identified from remote sensing and other sources of information without Alberta Geological Survey site investigation.

**References:**

Sham, P. (1984): Aggregate resources of the Thunder Lake map area, NTS 83J/02; Alberta Research Council, Map A83J02, scale 1:50 000.  
 Edwards, W.A.D. and Price, M. (1982): Aggregate resources of the Carson Lake map area, NTS 83J/05; Alberta Research Council, Map A83J05, scale 1:50 000.  
 Edwards, W.A.D. and Price, M. (1982): Aggregate resources of the Whitecourt map area, NTS 83J/04; Alberta Research Council, Map A83J04, scale 1:50 000.  
 Edwards, W.A.D. and Richardson, R.J.H. (1982): Aggregate resources of the Tawatinnaw map area, NTS 83I; Alberta Research Council, Map A83I, scale 1:250 000.  
 Edwards, W.A.D. and Scafe, D. (1996): Mapping and resource evaluation of the Tertiary and preglacial sand and gravel formations of Alberta; Alberta Energy-Alberta Geological Survey, OFR 1994-06, 241 p.  
 Edwards, W.A.D. and Steele, K.G. (1982): Aggregate resources of the Barrhead map area, NTS 83J/01; Alberta Research Council, Map A83J01, scale 1:50 000.  
 Edwards, W.A.D., Boisvert, D.R., Pawlowicz, J.G., Andriashek, L.D. and Fenton, M.M. (1991): Sand and gravel resources of the Athabasca area, Alberta (83P west and 83I northwest); Alberta Research Council, OFR 1991-22, 55 p.  
 Peterson, B.N. (1980): Sand and gravel resources of the Whitecourt area, Alberta; Alberta Research Council, OFR 1980-04, 40 p.  
 Sham, P. (1982): Aggregate resources of the Green Court map area, 83J/03; Alberta Research Council, Map A83J03, scale 1:50 000.  
 Sham, P. (1982): Aggregate resources of the Whitecourt map area, NTS 83J; Alberta Research Council, Map A83J, scale 1:250 000.  
 St. Onge, D.A. and Richard, S.H. (1975): Surficial geology, Whitecourt, Alberta, west of fifth meridian; Geological Survey of Canada, "A" Series Map 1367A, scale 1:250 000.  
 Vonhof, J.A. (1969): Tertiary gravels and sands in the Canadian Great Plains; Ph. D. thesis, University of Saskatchewan, Saskatoon, Saskatchewan, 279 p.

**Genesis or Geological Feature**

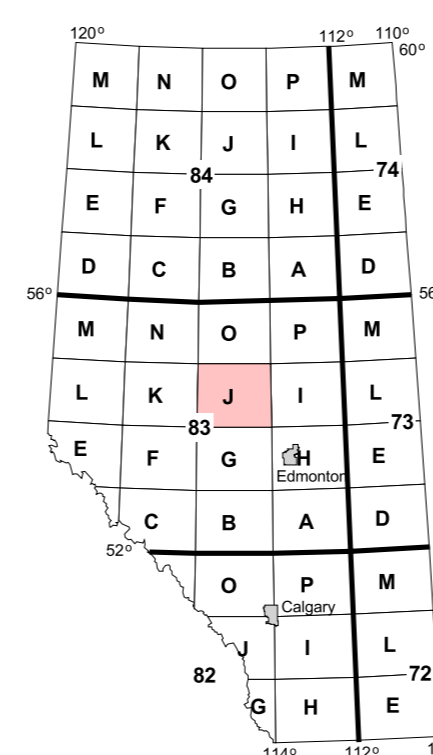
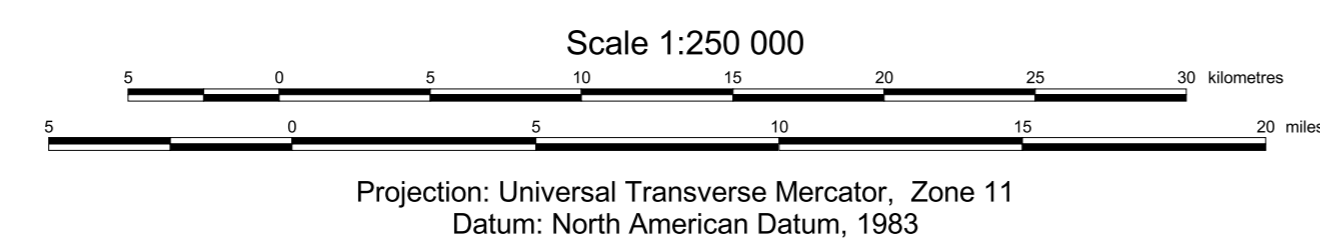


▲ Preglacial    ▲ Alluvial    ▲ Glacial    ▲ Unknown  
 ▲ Glaciofluvial    ▲ Eolian

Published 2004  
 Copies of this map may be obtained from:  
 Information Sales  
 Alberta Geological Survey  
 Telephone: (780) 422-3767  
 Web site: www.ags.gov.ab.ca

**Map 275**  
**Sand and Gravel Deposits with Aggregate Potential**  
**Whitecourt, Alberta (NTS 83J)**

Geology compiled by: W.A.D. Edwards, H.D. Budney, T. Berezniuk,  
 M.J. Cadrin and G. Stoyko



**Acknowledgement:**

GIS/Database/Cartography by:  
 M.C. Price, D.K. Chao, Z.A. Amer  
 and N.L. Blundon  
 Digital base map provided by:  
 Spatial Data Warehouse

**Disclaimer:**

The Alberta Geological Survey and its employees and contractors make no warranty, guarantee or representation, express or implied, or assume any legal liability regarding the correctness, accuracy, completeness, or reliability of this publication. When using information from this publication in other publications or presentations, due acknowledgement should be given to the Alberta Energy and Utilities Board/Alberta Geological Survey.