

MUNOK 1

TYPE OF REPORT [type of survey(s)]: Airphoto Interpretation

TOTAL COST: \$3,800.00

AUTHOR(S): J. T. Shearer, M.Sc., P.Geol.

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2013

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5482788

PROPERTY NAME: Munok 1

CLAIM NAME(S) (on which the work was done): 1015626

COMMODITIES SOUGHT: Phosphate

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Liard Mining Division

NTS/BCGS:

LATITUDE:      °      '      "

LONGITUDE:      °      '      "

(at centre of work)

OWNER(S):

1) Homegold Resources Ltd

2)

MAILING ADDRESS:

Unit 5 - 2330 Tyner Street

Port Coquitlam, BC V3C 2Z1

OPERATOR(S) [who paid for the work]:

1) Same as above

2)

MAILING ADDRESS:

Same as above

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation			\$3,800.00
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil			
Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
<b>TOTAL COST:</b>			\$3,800.00

## Jo Shearer

---

**From:** MT.Online@gov.bc.ca  
**Sent:** December-29-13 9:38 PM  
**To:** jo@homegoldresourcesltd.com  
**Subject:** SOW-M (5482788) 2013/DEC/29 21:38:26 Mineral Titles Online Event Confirmation

**This email is to confirm submission of the following Mineral Titles Online event:**

**Event Number:** [5482788](#)

**Event Type:** SOW -- Exploration and Development Work / Expiry Date Change

**Recording Date:** 2013/DEC/29

**Tenure Type:** Mineral Claim

**Owner(s):** SHEARER, JOHAN THOM ([124452](#)), 100.0%

**Event Detail:** <https://www.mtonline.gov.bc.ca/mtov/eventDetail.do?eventID=5482788>

**Work Type Description:** Technical Work

**Physical Items:** Geological, PAC Withdrawal (up to 30% of technical work performed), Preparatory Surveys, Prospecting

### Financial Summary:

**Total Required Work Amount:** \$4093.04

**PAC Name:** J Shearer

**PAC Debit:** \$293.04

**PAC Credit:** \$0.00

**Total Submission Fees:** \$0.00

**Total Paid:** \$0.00

**Work Start Date:** 2013/jun/15

**Work Stop Date:** 2013/dec/27

**Total Value of Work:** 3800.00

**Mine Permit No:**

**Summary of the work value:**

**Tenure Number:** [1015626](#)  
**Tenure Type:** Mineral Claim  
**Claim Name/Property:** MUNOK 1  
**Issue Date:** 2013/jan/01  
**Old Good To Date:** 2014/jan/01  
**New Good To Date:** 2017/jun/01  
**Number of Days Forward:** 1247  
**Area in Ha:** 169.5755  
**Tenure Required Work Amount:** \$4093.04  
**Tenure Submission Fee:** \$0.00

**Related Summary:**

If you have not yet submitted your report for this work program, your technical work report is due in 90 days as per Section 33 of the Mineral Tenure Act and Section 16 and Schedule A of the Mineral Tenure Act Regulation. Please attach a copy of your confirmation page to the front of your report.

If you have questions concerning the registration of exploration and development work/expiry date change or the filing of physical/technical reports, please make inquiries to [Mineral.Titles@gov.bc.ca](mailto:Mineral.Titles@gov.bc.ca) or call 1-866-616-4999 (toll free).

**Mineral Titles Branch**  
**Province of British Columbia**  
**Toll Free: 1-866-616-4999**  
**Email: [Mineral.Titles@gov.bc.ca](mailto:Mineral.Titles@gov.bc.ca)**  
**<http://www.MineralTitles.gov.bc.ca/>**  
**Mineral Titles Online: <https://www.mtonline.gov.bc.ca>**

---

Server Name: PRODUCTION

**AIRPHOTO INTERPRETATION REPORT  
on the  
MUNOK 1 CLAIM  
TENURE # 1015626**

**LATITUDE 54°20'26"N/LONGITUDE 120°25'13"W  
NTS SHEETS 93I/08W (93I.038)  
LIARD MINING DIVISION  
EVENT # 5482788**

for

**Homegold Resources Ltd.  
Unit 5 – 2330 Tyner Street,  
Port Coquitlam, BC  
V3C 2Z1**

by

**J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)  
Phone: 604-970-6402  
E-mail: [jo@HomegoldResourcesLtd.com](mailto:jo@HomegoldResourcesLtd.com)**

**BC Geological Survey  
Assessment Report  
34758**

**January 4, 2014**

**Fieldwork completed between June 15, 2013 and December 27, 2013**

# TABLE of CONTENTS

	Page
<b>SUMMARY</b> .....	iii
<b>INTRODUCTION</b> .....	1
<b>LOCATION and ACCESS</b> .....	2
<b>MINERAL TENURE/CLAIM LIST</b> .....	4
<b>HISTORY</b> .....	7
<b>REGIONAL GEOLOGY</b> .....	8
<b>PROPERTY GEOLOGY</b> .....	10
<b>MINERALIZATION (as defined by previous work)</b> .....	13
<b>MUNOK ZONE</b> .....	18
<b>AIRPHOTO INTERPRETATION</b> .....	22
<b>CONCLUSIONS and RECOMMENDATIONS</b> .....	25
<b>REFERENCES</b> .....	28
<b>APPENDICES</b>	
<b>Appendix I Statement of Qualifications</b> .....	29
<b>Appendix II Statement of Costs</b> .....	30
<b>Appendix III Selected Airphotos</b> .....	31

## LIST of ILLUSTRATIONS

	Page
FIGURE 1	Munok Phosphate Prospect Location Map..... iv
FIGURE 2	Munok Phosphate Prospect Detail Location Map..... 3
FIGURE 3	Claim Map..... 5
FIGURE 3a	Regional Claim Map..... 6
FIGURE 4	Munok Phosphate Prospect District Geology Map ..... 9
FIGURE 5	Google Image of Area ..... 12
FIGURE 6	Geology of Munok Area ..... 16
FIGURE 6a	Regional Claim Map and Fold Structures ..... 17
FIGURE 6b	Assay Results for Muinok Mountain ..... 19
FIGURE 7	Airphoto Key Map ..... 21
FIGURE 8	Airphoto #36/40 ..... 23
FIGURE 9	Airphoto #35/40 ..... 24

## LIST of TABLES

	Page
TABLE 1	List of Claims ..... 4
TABLE 2	Stratigraphic Section Measurement ..... 11
TABLE 3	Trench Results Muinok Zone ..... 15

## LIST of PHOTOGRAPHS

	Page
PHOTO 1	Trench #1 Muinok Mountain..... 15

## SUMMARY

The Munok Phosphorite prospect is located within the Liard Mining Division in north-central B.C. and situated approximately 150 km northeasterly from Prince George and 75km southerly from Tumbler Ridge. The Munok prospect, consisting of 3 claims encompassing ?? ha.

Prince George is the nearest major center to the Wapiti prospect and more than adequately supports exploration programs in the area. The northern and middle portion of the claims, near Belcourt Lake, and along Belcourt Creek can be accessed by a logging/oil field access road which has become partially over grown; however, the western and southern portions of the property are more easily accessed by helicopter. Helicopters available for charter include from Pacific Western Helicopters Ltd. based in Prince George, Highland Helicopters Ltd. based in Chetwynd and Ridge Rotors Inc. based for the summer months only out of Tumbler Ridge.

The Munok Phosphorite claims are underlain predominantly by Early and Middle Triassic Sulphur Mountain Formation, Lower Carboniferous Rundle Group and Upper Devonian Exshaw and Banff Formations. An extensive study of phosphate deposits of British Columbia" was undertaken by the British Columbia Geological Survey Branch under the auspices of Ministry of Employment and Investment, Energy and Minerals Division during the period from 1985 to 1990. Bulletin 98,"Phosphate Deposits in British Columbia" authored by S. Butrenchuk, P. Geo. was published in 1996 and includes an overview of the phosphate occurrences in the Tumbler Ridge Project study area.

The target sought at the Munok Phosphorite Zone is a sedimentary-style "upwelling-type" phosphorite deposit (FO7). Drilling was conducted north of the claim area in 1989 by Esso (Assessment Report #8407) Initial exploration prospecting and sampling was conducted over a large portion of the 127 km long prospective area from Meosin Mountain in the southwestern portion of the claims to the Mount Palsson to the northwest and included sampling and hand trenching at the Wapiti Phosphate prospect in 2008.

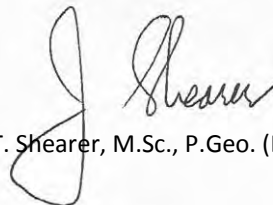
Impressive phosphate (% P2O5) values over significant widths are located within the Belt with values to 34.7% P2O5 over 2 metres. Potential exists within the Munok claims to host an open pitable phosphorite deposit associated with the un-named syncline where dip slope hosted phosphate horizons present attractive potential mining scenarios. Follow up trenching and detailed geological mapping is recommended in 2014.

Well-developed northwest trending linears are common towards Belcourt Lake but also occur to the southeast and are probably reflective of the continuation of major fold axis.

At almost right angles are prominent linears across the main ridge in a east-west orientation. These linears are accentuated by avalanche paths and drainages. Bedding clearly northwest-southwest.

The current program of airphoto interpretation more closely defined the favourable phosphorite horizons can be traced within the sub-alpine environment.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)



# LOCATION MAP



FIGURE 1 Munok Phosphorite Prospect Location Map

## INTRODUCTION

This report documents airphoto interpretation throughout the Munok claim area and helicopter access.

Continued fieldwork is proposed for summer 2014.

### Increasing Demand

- Phosphorous is one of three base nutrients essential for plant growth with no substitute.
- Increasing demand, with limited supply.
  - Demand increasing due to growth in population, changing diet among developing countries and increased use of biofuel.
  - Global consumption expected to grow at 2% per annum
  - Current phosphate rock prices increased from USD \$50/5 in 2007 to USD \$200/t in 2012 (70% PBL)

### Changing Supply Dynamics

- Morocco exports 40% of World traded phosphate rock
  - Recent regional instability in North Africa highlights the need for greater diversity of supply sources
- Major mining companies are now seeking to enter fertiliser space by adding Phosphate and Potash to their portfolios e.g. Vale, BHP, NMDC
  - Increasing interest from institutional investors in Phosphate and Potash investments
- Recently, financial sector experts and media are increasingly pointing to agricultural plays as the key to solving food inflation and hunger problems.
- World production/consumption of phosphate in 2010 was 180mt growing at 2.6% per annum.
- India – world's 2<sup>nd</sup> largest importer and consumer of fertiliser, accounting for 30% of total world trade in rock phosphate; India has no phosphate resources
- South-east Asia also large user, needing to import 50% of its phosphate and 100% of its potash.

## LOCATION and ACCESS

The Munok Phosphorite property is located within the Liard Mining Division of north central B.C. approximately 150 km northeasterly from Prince George and 80km southeasterly from the town of Tumbler Ridge (Fig. 1). The Munok project encompasses a total of 3 claims and ?? ha. The Munok claims are centered at approximately 54° 2'26" north latitude and 120°25'13" west longitude within BCGS map sheets 93I.038 (Fig. 2).

The Sulphur Mountain Formation, Whistler Member, Phosphorite bearing units trend northwest-southeast, parallel to the overall northwesterly trend of the Rocky Mountains and Foothills. The BC Rail line which connects Prince George, Tumbler Ridge and Fort St. John tunnels under the Tumbler Ridge project area near the headwaters of the Wolverine River (Wolverine Tunnel) approximately 55 kilometers to the northwest of the Munok claims.

Elevations within the Wapiti property range from 1200m to 2000m a.s.l. and the annual precipitation is moderate to high with large accumulations of snow expected during winter months.

Prince George is the nearest major center to the Munok prospect and more than adequately supports exploration programs in the area. The northern and middle portion of the claims, near Belcourt Lake, and along Belcourt Creek can be accessed via Highway 52 turning south at 44km (Stoney Lake) onto to Oway Mainline past the Wapiti FSR (Forest Service Road) to the Red Deer Creek Bridge (56km) by a logging/oil field access road which has become partially over grown; however, the western and southern portions of the property are more easily accessed by helicopter. Helicopters available for charter include from Pacific Western Helicopters Ltd. based in Prince George, Highland Helicopters Ltd. based in Chetwynd and Ridge Rotors Inc. based for the summer months out of Tumbler Ridge.

The Munok Phosphorite prospect lies within the Hart Range of the Rocky Mountains and extends easterly towards the Rocky Mountain Foothills. The Hart Ranges exhibit the typical "Alpine Mountain" appearance where cliff forming strata alternate with recessive units.

Precipitation in the area is moderate to high; summers are usually cool and rain is common. Generally snow is still around and hampers travel above the 1600 m elevation until mid-June. Vegetation cover is dense and forest growth is extensive below timberline at about 1800m. Snow starts to accumulate again come October 1<sup>st</sup>. Extensive areas of wild fire burn have cleared out underbrush growth making ground based prospecting more accessible near Belcourt Lake.

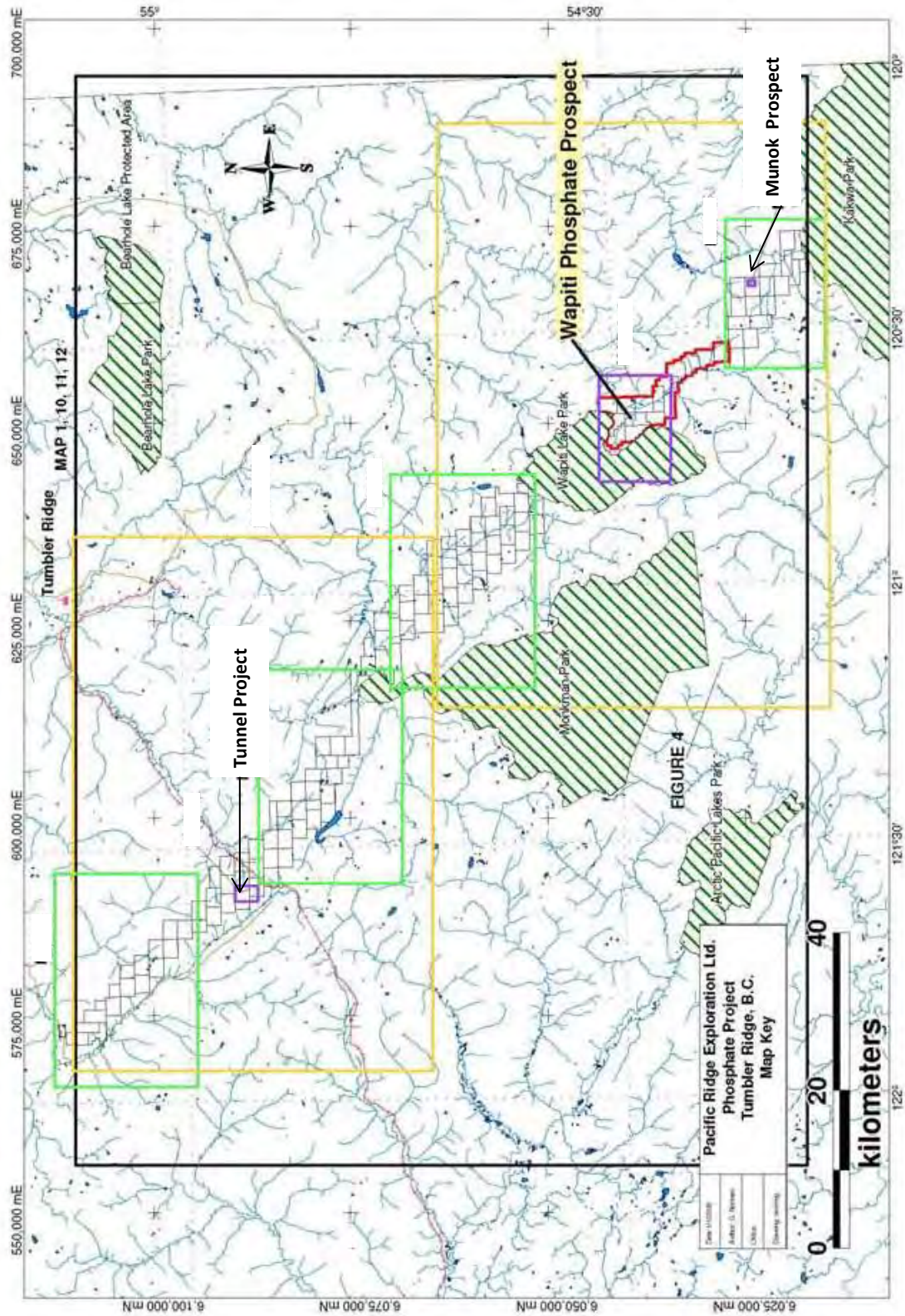


FIGURE 2 Munok Phosphorite Prospect – Detail Location Map

## MINERAL TENURE/ CLAIM LIST

The Munok 1 claim, totalling 165.58 hectares is listed in Table I and outlined in Figure 3.

TABLE I  
List of Claims

Name	Tenure #	Area (ha)	Location Date	Current Expiry Date	Registered Owner
Munok 1	1015626	165.58	January 1, 2013	June 1, 2017	J. T. Shearer

Total 165.58 ha

\* upon acceptance of assessment credits documented by this report.

Cash may be paid in lieu if no work is performed. Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.

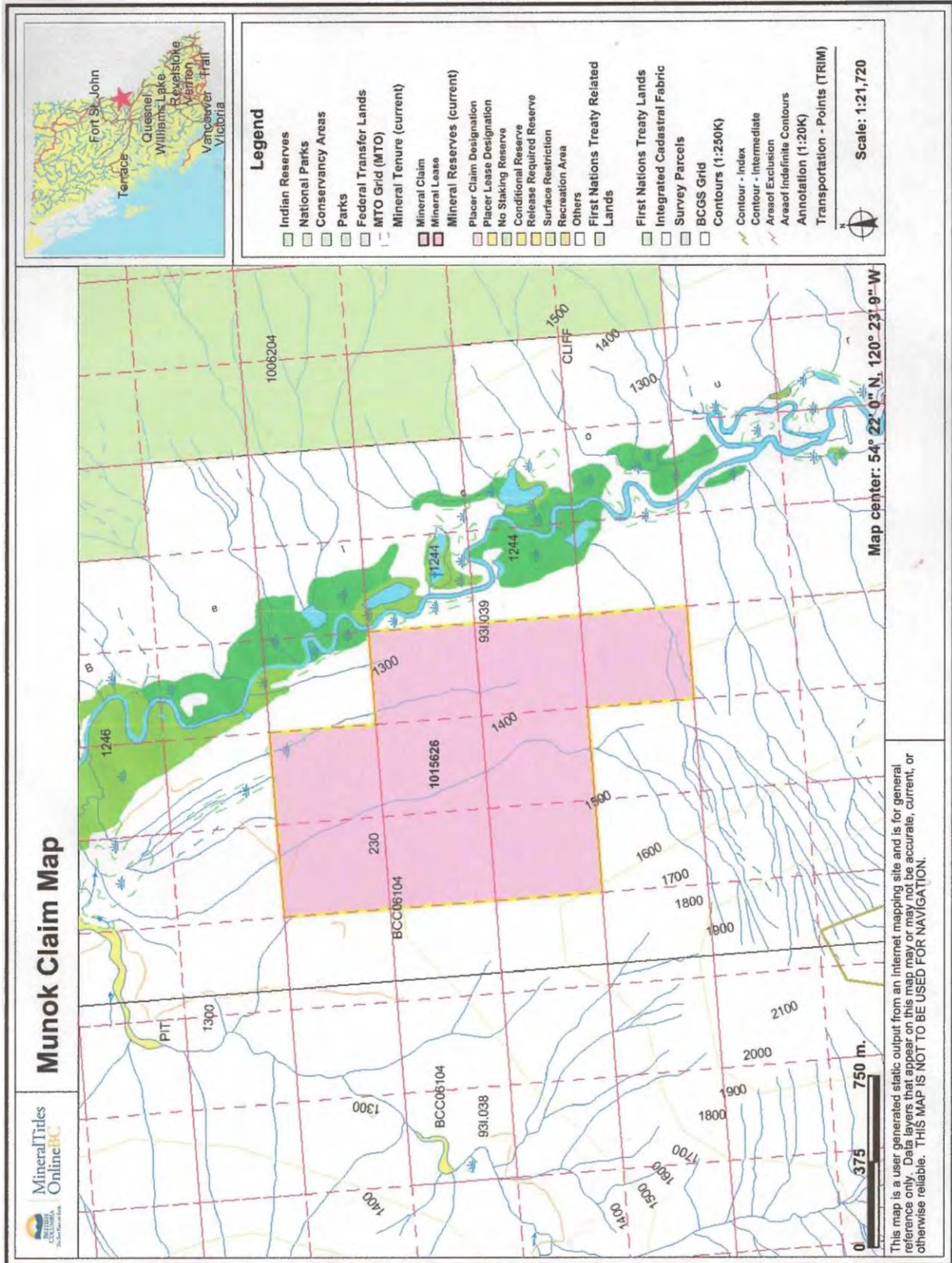


FIGURE 3 Claim map



## HISTORY

The British Columbia Geological Survey Branch has been geological mapping and conducting structural/stratigraphic investigations in the Monkman Pass area since the mid- 1960's. Gibson (1972, 1975) produced a comprehensive account of the Triassic strata of the area, although spent little time mapping the phosphorite within the Sulphur Mountain Member. Previous exploration work on the Wapiti prospect was work by Esso Resources Canada Limited ("Esso") during the period from 1978 to 1980 who after completing reconnaissance style work during 1978 and 1979 focused on the Wapiti area completing detailed trenching and core drilling during 1980 (12 hole program). The Esso work straddles the Wapiti claim block and Wapiti Provincial Park which borders the claims on the north.

Study of phosphate deposits of British Columbia was undertaken by the British Columbia Geological Survey Branch under the auspices of the Ministry of Employment and Investment, Energy and Minerals Division during the period from 1985 to 1990. Bulletin 98, "Phosphate Deposits in British Columbia" authored by S. Butrenchuk, P. Geo. was published in 1996 and includes general geology an overview of the phosphate occurrences in the Tumbler Ridge Project study area.

In 2008, Pacific Ridge Exploration Ltd. contracted the services of Future Metals Inc. who conducted helicopter supported reconnaissance style sampling and follow-up hand trenching of phosphate bearing stratigraphy during July and August 2008. Fieldwork consisted of Phase I reconnaissance rock sampling program which was completed from July 2 through to August 5 and a Phase II follow-up hand trenching program which was completed during the period from August 6 to August 16. A total of 33 samples were collected and analyzed for phosphate (reported as % P<sub>2</sub>O<sub>5</sub>) from the Wapiti Phosphate Zone to the north of the Munok Zone.



## REGIONAL GEOLOGY

Bedded phosphate deposits in British Columbia occur in marine strata from Helikian to Lower Jurassic age rocks. The sediments were deposited along the western margin of the stable craton (Douglas and Price, 1972) with deposition of phosphate within platformal or shelf-edge facies environments. Triassic sedimentation in northeastern British Columbia including the Triassic Sulphur Mountain Formation took place on a stable shelf characterized by a pattern of embayments and platforms. A minor embayment developed south of Fort St. John during early Triassic (McCrossan and Glaister, 1964) which was flanked to the South by the Wapiti platform and to the north by the Nig Creek platform. These conditions prevailed into early Middle Triassic and provided a good environment for phosphate deposition.

During Early Triassic there was a rapid marine transgression. Deposition was continuous through the early and middle Triassic except in the Wapiti area where there is a disconformity of short duration between the Vega-Phroso and Whistler members of the Sulphur Mountain Formation. Good grades of phosphorite occur above this disconformity.

Early Triassic deposition took place in a stable shelf environment, the eastern limits of which are marked by bar and deltaic deposits (McCrossan and Glaister, 1964; Douglas et al., 1970). During Middle Triassic deposition took place under partial restricted stagnant conditions. Lower and Middle sediments are characterized by good continuity of stratigraphic units.

The Spray River Group of Triassic age within the Tumbler Ridge area is composed of the Whitehorse and Sulphur Mountain Formations. The Whitehorse Formation is composed of inter-bedded silty dolostone, sandstone, siltstone, sandy limestone, intra-formational conglomerate, solution breccias, anhydrite, limestone and cherty dolostone.

The Sulphur Mountain Formation in northeastern British Columbia consists of brown-weathering sequence of medium-bedded siltstones, calcareous and dolomitic siltstones, silty dolomite, limestone and minor shale. Attaining a thickness of 100 to 500m, it thickens northward and was deposited in a shallow marine deltaic environment (Gibson, 1974). The Sulphur Mountain Formation is phosphatic in northern British Columbia although it is nonphosphatic in southern British Columbia. The Sulphur Mountain Formation is divided into Vega-Phroso, Whistler and Llama members.

The Rocky Mountains where the bedded phosphorites occur are characterized by thrust faults and concentric folds. Thrust faults are generally southwest dipping, concave upward and imbricate. In the northern British Columbia the thrusts are more widely spaced with more numerous concentric folds as compared to the southern Rocky Mountains.



## PROPERTY GEOLOGY

The Munok Phosphate property is underlain by Spray River Group of Triassic age which includes the Whitehorse and Sulphur Mountain Formations, Permian Belcourt and Mowich Formations, Lower Carboniferous Rundle Group and Upper Devonian Exshaw and Banff Formations. The Formations form a northwest–southeast trending belt of rocks that have been traced the full extent of the property. The units have been folded into northwest – southeast trending tight anticlines and relatively broad synclines. In general the northeast limbs, of the synclines are more gently dipping to the southwest and the southwest limbs are steeply dipping to the northeast. Many valley floors trace major synclinal axes. Within the Wapiti area structural elements have been assigned nomenclature including: Wapiti Syncline, North Anticline, South Anticline, Middle Syncline and Red Deer Syncline. Significant thrust features include the Becker Thrust and the North Thrust.

The Sulphur Mountain Formation in northeastern British Columbia consists of brown-weathering sequence of medium-bedded siltstones, calcareous and dolomitic siltstones, silty dolomite, limestone and minor shale. Attaining a thickness of 100 to 500m, it thickens northward and was deposited in a shallow marine deltaic environment (Gibson, 1974). Although the Sulphur Mountain Formation is phosphatic in northern British Columbia, it is nonphosphatic in southern British Columbia. The Formation is divided into Vega-Phroso, Whistler and Llama members.

The Sulphur Mountain Formation is underlain by the thin Permian Belcourt and Mowich Formations (1991). The Belcourt Formation includes skeletal limestone, dolostone with chert and carbonate pebble conglomerate while the Mowich is composed of calcareous sandstone and thin chert pebble conglomerate at the base. Note that online Geofile maps (2005-6) indicate that Belcourt and Mowich in the location southeast of Wapiti Lake correlate within the Stoddart Group, Fantasque and Kindle Formations.

The Permian strata is in turn underlain by Lower Carboniferous Rundle Group limestone with locally abundant chert nodules and dolostone and Upper Devonian Exshaw and Banff Formations. The Exshaw Formation is composed of black rusty weathering shale with minor sandstone and limestone and minor volcanic tuff while the Banff Formation is indicative of rhythmic interbeds of black shale and brown weathering wackestone.

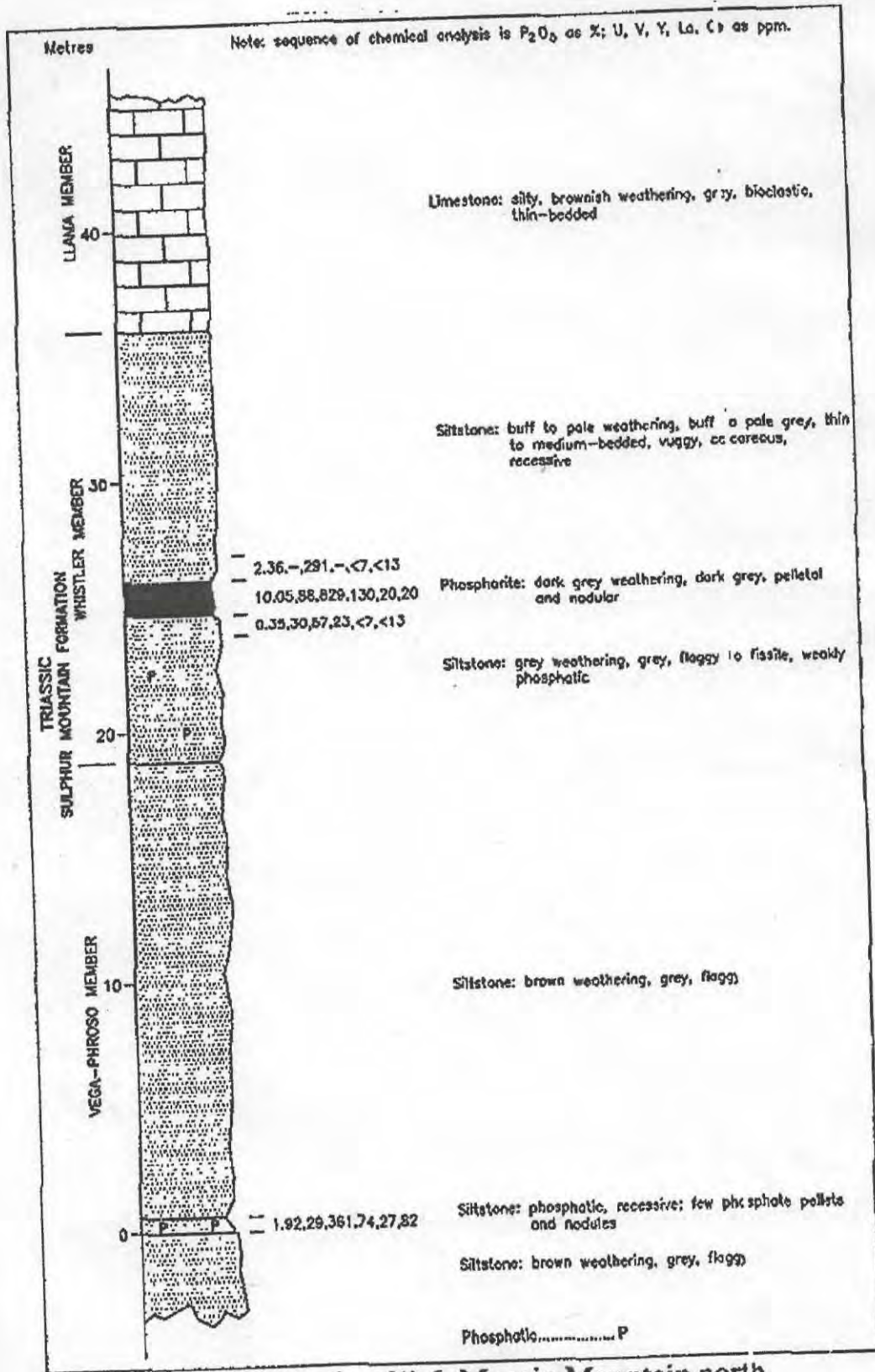


Table 2 Stratigraphic Section Measurement



Figure 5 Google Image of Area

## MINERALIZATION (As defined by previous work)

### Phosphate Bearing Strata

The majority of the known phosphorite occurrences and phosphatic sediments occur in the Whistler member of the Sulphur Mountain Formation and in correlative rocks of the Toad Formation. In general, phosphatic and phosphorite beds are found throughout the Whistler member which outcrops from Mesoin Mountain in the southeast to Watson Peak in the Northwest a distance of approximately 125 km. The colour of the unit tends to be darker than both overlying and underlying members. A basal conglomerate, 5 to 20cm thick, containing phosphorite exists within the Wapiti Lake - Meosin Mountain area. Within the area southeast of Wapiti Lake, phosphorite ranges in thickness from 0.8 to 3.2m with assays varying from 11.9 to 23.7 % P<sub>2</sub>O<sub>5</sub> (Heffernan, 1980 & A. Legun, 1987; BC Geological Survey Branch, Bulletin 98). Phosphate is found in the form of pellets, nodules, phosphate cement, phosphatic fragments, or clasts and phosphatized fossil debris. Minor phosphate is also present within the other members.

The Sulphur Mountain Formation is divided into Vega-Phroso, Whistler and Llama members. The Vega-Phroso Member overlies Permian strata and is brown weathering, flaggy consisting of grey siltstone with minor shale and bioclastic units. The phosphatic beds are generally thin (0.3m) and locally occur in the upper part of the section. The Vega-Phroso Member varies from 80 to 270m thick.

The Whistler Member is a grey weathering dark grey recessive siltstone approximately 20 to 85 meters thick which disconformably overlies the Vega-Phroso member. In outcrop, the northwest trending sedimentary unit extends from Meosin Mountain in the southeast to Watson Peak in the northwest. In many localities, its lower contact is marked by a thin 5 to 20cm basal phosphatic conglomerate. The basal conglomerate is present in the Wapiti Lake area with the phosphatic bearing beds present throughout the Whistler Member.

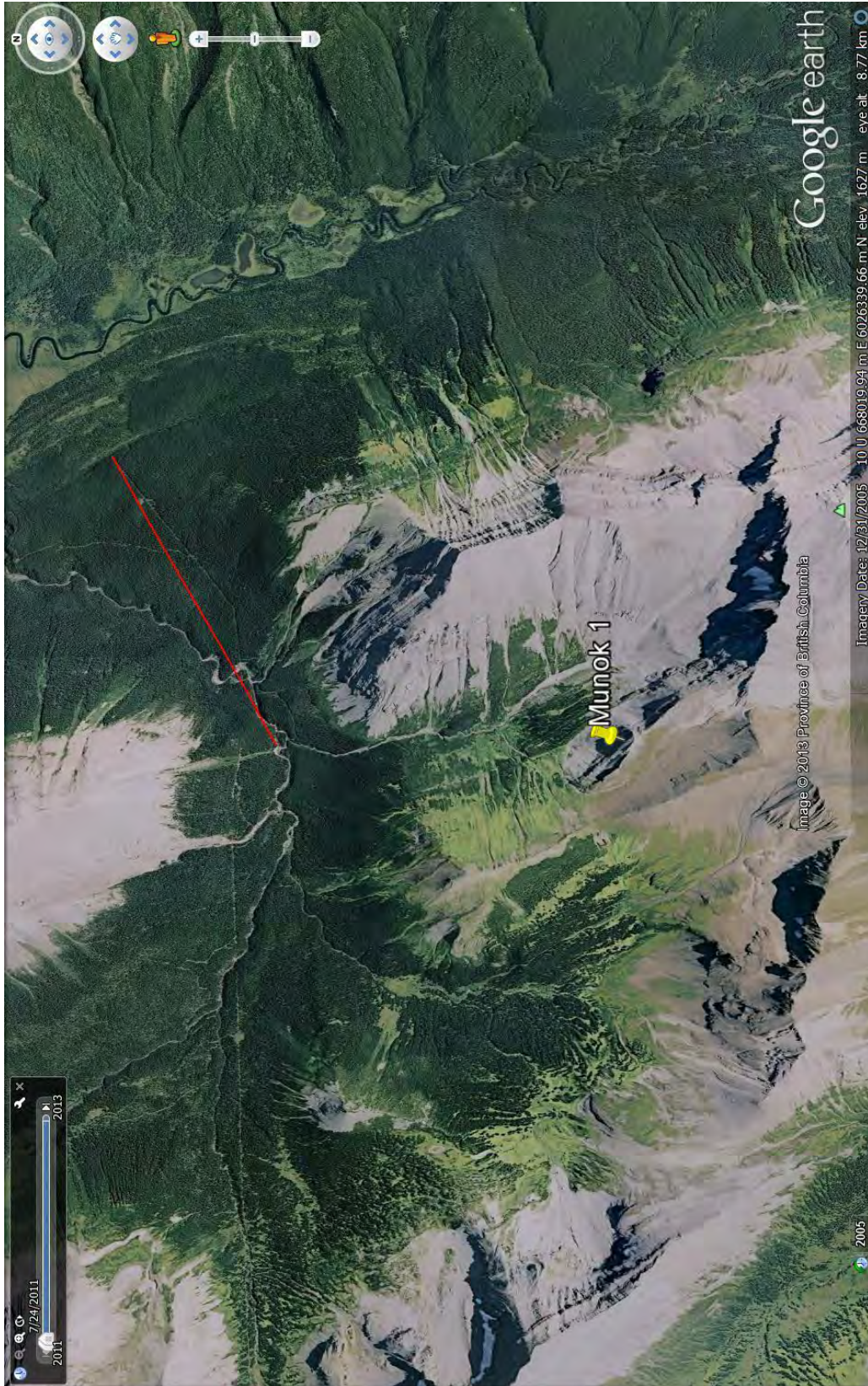
The Llama member varies from 60 to 360m in thickness and is a resistant sequence of dolomitic and quartzitic siltstone and limestone with minor sandstone and dolostone and conformably overly the Whistler member.

Previously Pacific Ridge crews collected samples from the Phosphate property as part of the 2008 exploration work program on the Tumbler Ridge Project.

The target sought for at the Munok Phosphate property is a sedimentary-style phosphate deposit. The 2008 exploration program to prospect and sample prospective showings and horizons with focus to the Whistler Member of the Sulphur Mountain Formation for phosphate bearing zones as highlighted by S. Butrenchuck's Bulletin 98. Exploration prospecting and sampling was conducted over a large portion of the 127km long claim package from Meosin Mountain in the southwestern portion of the claims to the Mount Palsson to the northwest and included sampling and hand trenching at the Wapiti Phosphate prospect. Crews collected 30 samples during the 2008 field season including 4 grab samples during the Phase I exploration phase.

Impressive phosphate (% P<sub>2</sub>O<sub>5</sub>) values over significant widths are located within the Munok claims with values to 34.7% P<sub>2</sub>O<sub>5</sub> over 2 metres. Potential exists within the Wapiti claims to host an open pitable phosphorite deposit associated with the un-named syncline as dip slope scenarios create attractive potential mining scenarios.

Exploration within the Tumbler Ridge project exploration program has demonstrated that significant areas of high grade sedimentary phosphate are located within the Munok Phosphate prospect which warrants additional follow up exploration including geological mapping, trench sampling and diamond drilling.





**Photo 1 TRENCH # 1 MUINOK MOUNTAIN**

**TABLE 3 TRENCH RESULTS MUINOK ZONE**

Trench	Interval (m)	P <sub>2</sub> O <sub>5</sub> (%)	Including (m)	P <sub>2</sub> O <sub>5</sub> (%)	Comments
#1	7.0	3.68	5.0	4.5	Sample #48960,50m west – 1.5m-15.24% P <sub>2</sub> O <sub>5</sub>
#2	11.0	1.3			
#3	10.0	3.3	2.0	5.9	
#4	8.0	2.79			Trench grab 16.2% P <sub>2</sub> O <sub>5</sub> – Grabs west of trench in talus of to 18.9% P <sub>2</sub> O <sub>5</sub>
#5	10.0	4.0	3.0	10.5	Including 1.0m of 21.03%
#5a	4.0	2.8			
#6	6.0	2.81	4.0	11.8	Including 2.0m of 16.0%
#7	2.0	2.97			
#8	6.0	7.66	2.0	11.8	
#9	6.0	3.97	1.0	13.4	



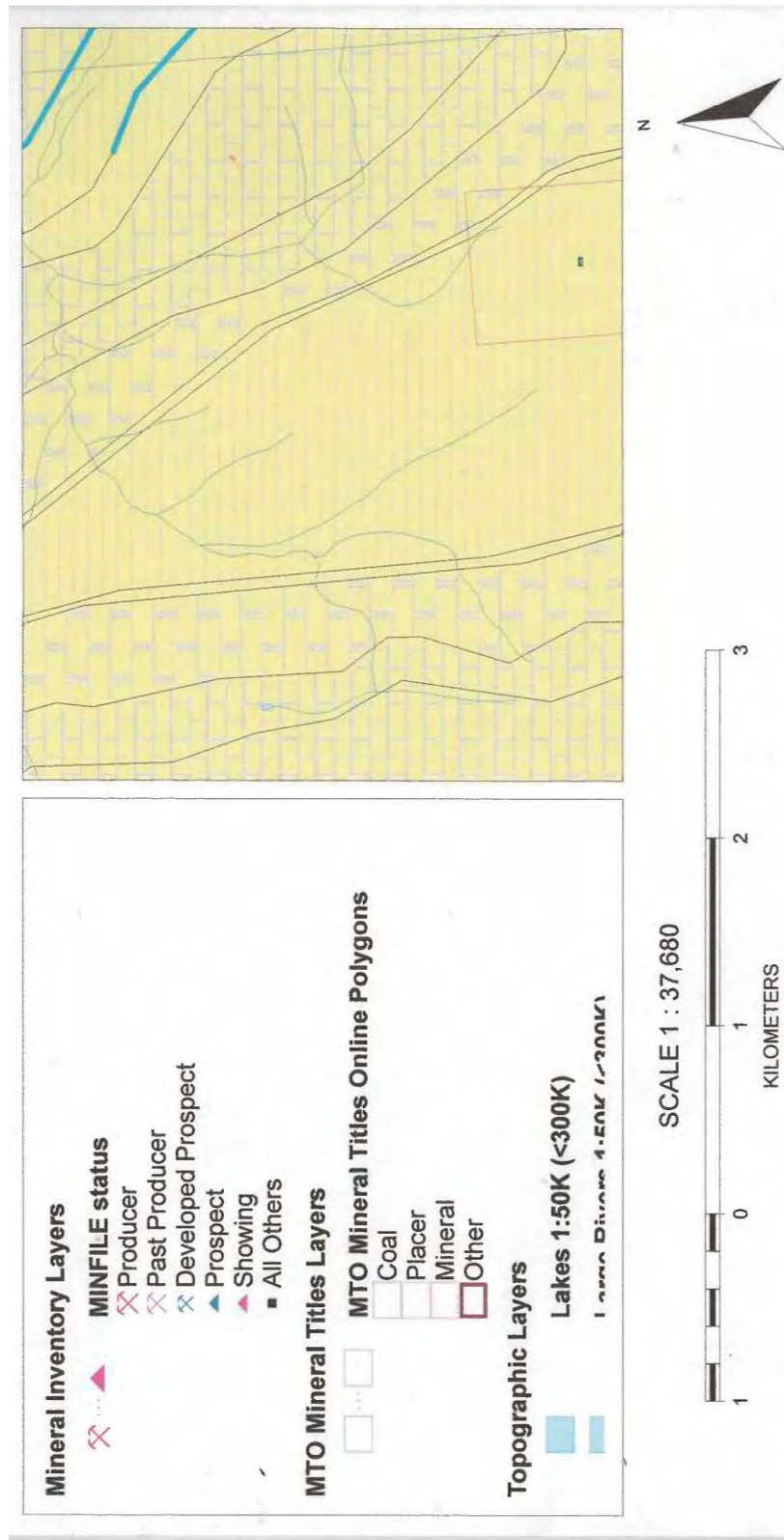


Figure 6 Detail Geology of Munok Area

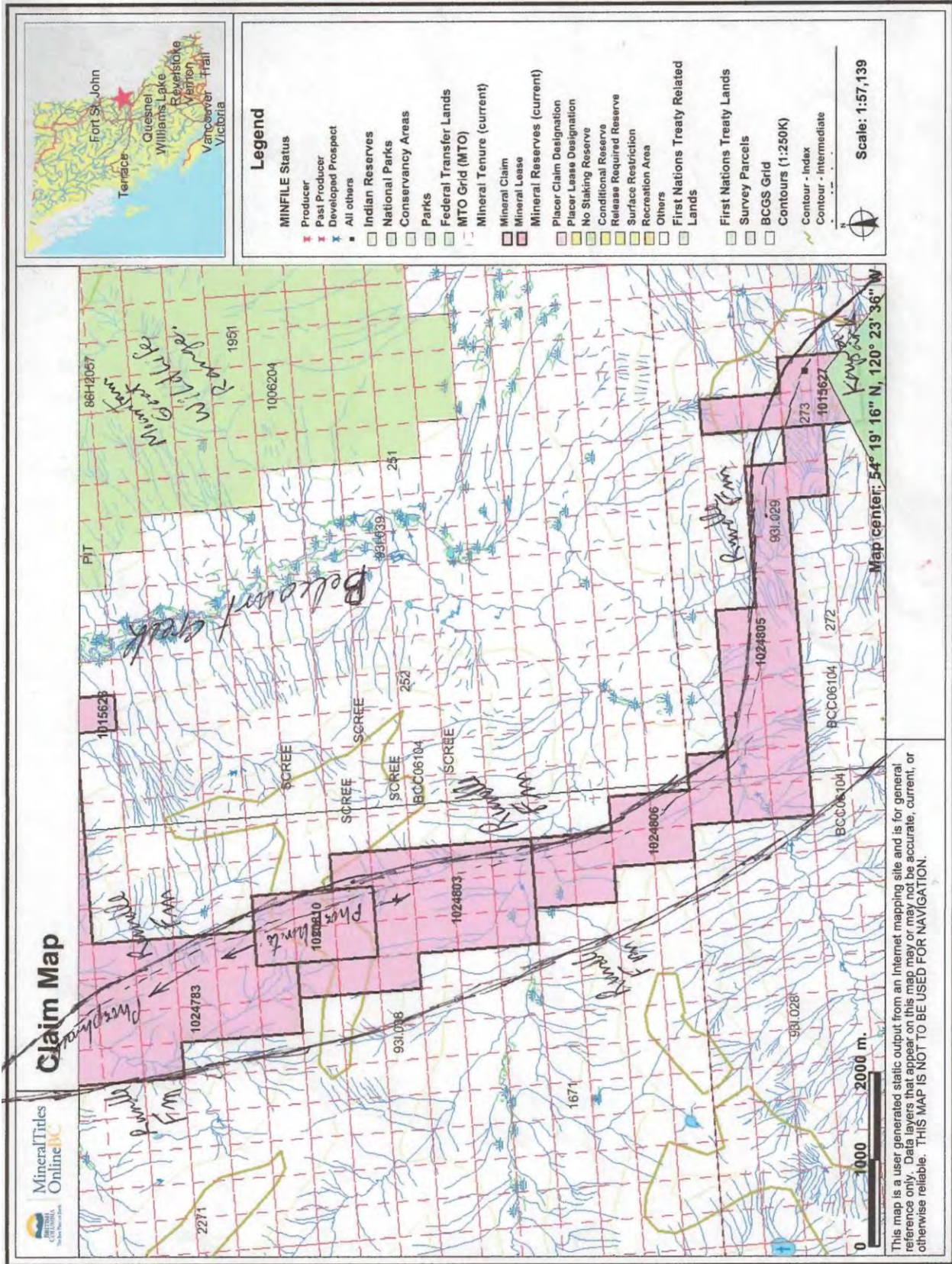


Figure 6a Regional Claim Map and Fold Structures

## MUNOK ZONE

The Munok property encompassing 3 claims and ?? ha. The property covers an approximate 25 kilometre-long strike length of prospective phosphate bearing sediments and is well located with road access to the northern and central portions of the claim group from logging and oil field access roads from Tumbler Ridge.

Previous work was carried out by Esso Resources Canada Limited (“Esso”) during the period from 1978 to 1980 who, after completing reconnaissance style work during 1978 and 1979 focused on the Wapiti area completing detailed trenching, sampling and core drilling during 1980. The Esso work straddles the Wapiti claim block and the Wapiti Provincial Park which borders the claims to the north. Eight holes of the 12-hole program were completed on the 10 claim area now under option to Fertoz, refer to Table 2. Note that during the 1980’s the Wapiti Park did not exist, Esso’s 1980 work included trenching and drilling in the area now covered by the Park. Trench and drill results from the 1980 Esso work program outlined phosphate bearing strata of economic interest over an approximate 5 km strike length that ranges in thickness from one to three metres. Phosphate grades up to 1.1m of 21.2% P<sub>2</sub>O<sub>5</sub> (with average of 0.96m of 22.0% P<sub>2</sub>O<sub>5</sub>) from surface trench samples and 1.6m of 26.3% P<sub>2</sub>O<sub>5</sub> (with average of 0.99m of 23.5% P<sub>2</sub>O<sub>5</sub>) from the drilling of 8 diamond drill holes were obtained during Esso’s 1980 exploration program. Samples procured by the Geological Survey (S. Butrenchuk, 1986 -1987) are also known to contain additional significant levels of rare earth metals and acceptable levels of carbonate content. A summary of the data is given in Tables 2, Summary 1980 Esso Drill Data and Table 3 1980 Esso Trench Data.

A total of 7 grab float and 26 chip samples (predominately hand trenches samples) were obtained from the Wapiti Zone during the 2008 exploration program to confirm previous reported grade- thickness results.

Sampling during 2008 of the Wapiti Zone in close proximity to the DDH 6-11 and DDH 6-12 drill site (previous results of 0.71m of 22.3% P<sub>2</sub>O<sub>5</sub> and 1.07m of 20.3% P<sub>2</sub>O<sub>5</sub> respectively) showed that the 1980 grade-thickness results correlated very well with 2008 surface sample GN-08 – 09 which assayed 22.62 % P<sub>2</sub>O<sub>5</sub> over 0.95m. Also results from GN-08 25 of 24.5% P<sub>2</sub>O<sub>5</sub> over 1.05m, correlated well with the grade-thickness results from sampled intercepts in DDH 3-5 (1.08m of 23.77% P<sub>2</sub>O<sub>5</sub>) and DDH 3-6 (0.91m of 23.2% P<sub>2</sub>O<sub>5</sub>).

The phosphate bearing sediments at the Wapiti Zone have been folded into a series of northwest trending broad synclines and tight anticlines which have been modified by thrust faulting (refer to Esso Resources [1980]). Compilation Map modified from Esso’s Assessment Report 8407, on the Wapiti #1 to 25 Claims by K.J. Hefferan. The phosphorite unit of interest lies at the base of the Whistler Member of the Sulphur Mountain Formation. The base of the phosphorite bed is marked by a thin phosphatic conglomerate (Bulletin 98, Wapiti Lake, page 62).

Overall, the Wapiti Zone exhibits one of the best grade- thickness phosphorite units sampled to date along the belt. On average the zone of interest where it has been trench sampled by Esso returned 22.1% P<sub>2</sub>O<sub>5</sub> over 1.0m. The Esso core drilling, to a maximum depth of approximately 90m, returned an average of 23.5% P<sub>2</sub>O<sub>5</sub> over 1.2m.

Other minerals of interest at Wapiti include rare earth minerals, yttrium (Y), lanthanum (La) and cerium (Ce). A total of 8 samples of high grade phosphorite were analyzed by whole rock analysis for rare earth minerals. The results indicate anomalous values for certain rare earths with a range of from 76 - 752 ppm Y, 47.5 - 360 ppm La and 45.8 - 173 ppm Ce and with averages of 438.1 ppm Y, 215.7 ppm La and 108.1 ppm Ce.

### The Phosphorite Unit

The following general description of the phosphate section from trench mapping and from logging core is taken from Esso’s Report on Geological Mapping, Sampling and Drilling Wapiti #1 – 25 Claims (K.J. Hefferan, 1980).

“Whistler: Black and dark grey, carbonaceous, shaly, calcareous siltstone with algal and bio-clastic laminations. Less than 2% P<sub>2</sub>O<sub>5</sub>.

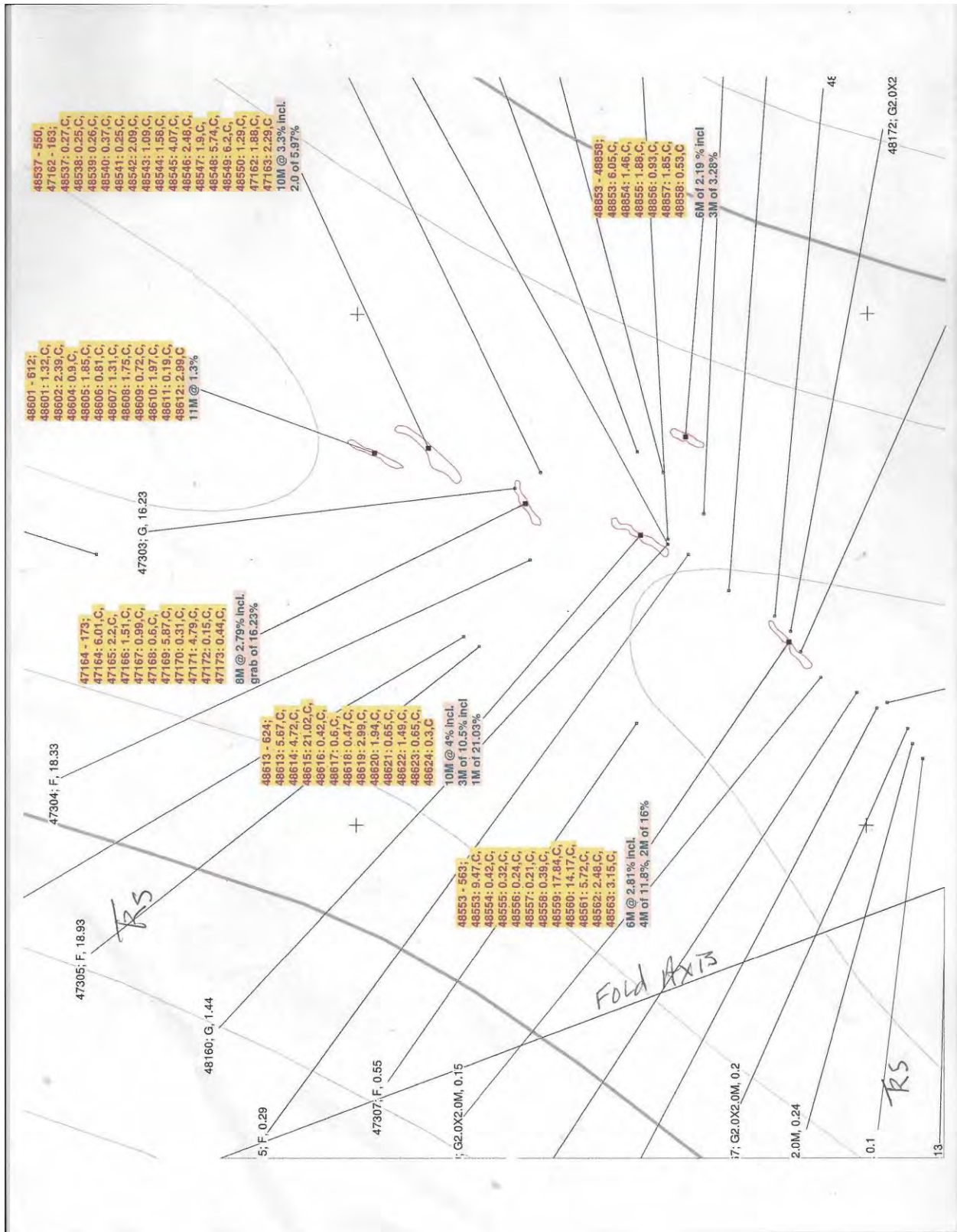


Figure 6b Assay Results for Muinok Mountain

Upper Phosphate: Dark grey, faintly laminated calcareous siltstone with scattered silt and sand-sized pellets, pelletal laminations, and pelletal rip-up clasts, (with grade range of) 6-20% P<sub>2</sub>O<sub>5</sub>; 0.1 to 0.35m (thick).

Whistler Interbed: Light grey, faintly laminated calcareous siltstone. 0.5 to 1.5% P<sub>2</sub>O<sub>5</sub> (grade range), 0.3-1.5 m (thick).

Main Zone: Black, dark grey or salt and pepper coloured pelletal phosphorite, generally calcite cement, some fine skeletal debris, rare evidence of burrows. In places, this zone has the appearance of a conglomerate with clasts and matrix composed of the same material, 15-25% P<sub>2</sub>O<sub>5</sub> (grade range); 0.3 to 0.8 m (thick).

Conglomerate Unit: Dark grey, calcareous, conglomeratic siltstone. Clasts are dark grey, silty, occasionally bored, and rarely contain fine skeletal debris, presumed phosphatic. Matrix is tan to light grey calcareous silt with some pellets, abundant sparry calcite, and fossil fragments (including bones), 15-25% P<sub>2</sub>O<sub>5</sub> (grade range); 0.1 to 0.3 m (thick).

Vega Interbed: Light grey, calcareous, bioturbated siltstone, scattered pellets infill some burrows. 0.5 to 2.5% P<sub>2</sub>O<sub>5</sub> (grade range); 0.2 to 3.5 m (thick).

With respect to preliminary sectional work completed to date, potential for an open pit scenario exists on the Munok Zone positioned on the northwest portion of the Red Deer Syncline where parasitic folds provide dip slope horizon repeats along the hillside. Refer to Section WZ – 08 - 02. The phosphorite unit where sampled in trenches TG-01, TR # 02,03 & 04 exhibits a unit approximately 1m thick averaging 22% P<sub>2</sub>O<sub>5</sub> (Table 3).

A more detailed compilation of all Esso and 2008 information including detailed sectional construction is required to determine the dip slope geometry viability of the phosphorite units.

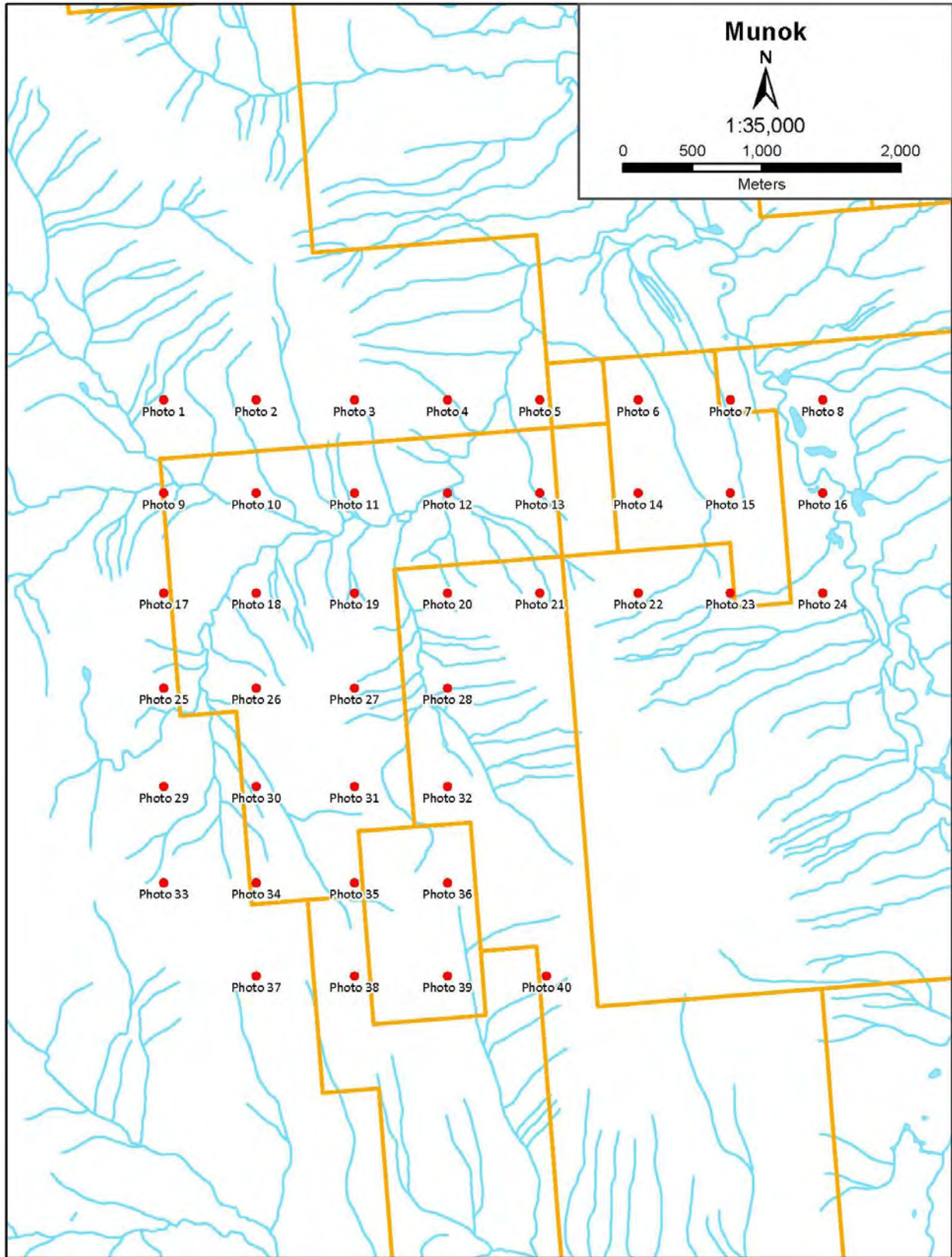


Figure 7 Key Map

## AIRPHOTO INTERPRETATION

A total of a 34 colour airphotos were received on digital DC format. Each photo was greater than 1 GB of data. A selection of low digital scans of the printed product are contained in Appendix III. Each photo was plotted on standard airphoto size as to 9 inch by 9 inch and grouped to the flight lines.

The most important series are:

- (1) Flight line Photos 1-8
- (2) Flight line Photos 9-16
- (3) Flight line Photos 17-24
- (4) Flight line Photos 25-28
- (5) Flight line Photos 29-32
- (6) Flight line Photos 33-36
- (7) Flight line Photos 37-40

A transparent overlay was attached and the prominent geological features as mapped were noted. Each stereo pair was examined in detail using a Gordon stereoscope type F-71 serial #9466. Detailed attention was given to the mapped location of the known alteration and mineralized zones.

Well-developed northwest trending linears are common towards Belcourt Lake but also occur to the southeast and are probably reflective of the continuation of major fold axis.

At almost right angles are prominent linears across the main ridge in a east-west orientation. These linears are accentuated by avalanche paths and drainages. Bedding clearly northwest-southwest.



Figure 8 Airphoto 36/40



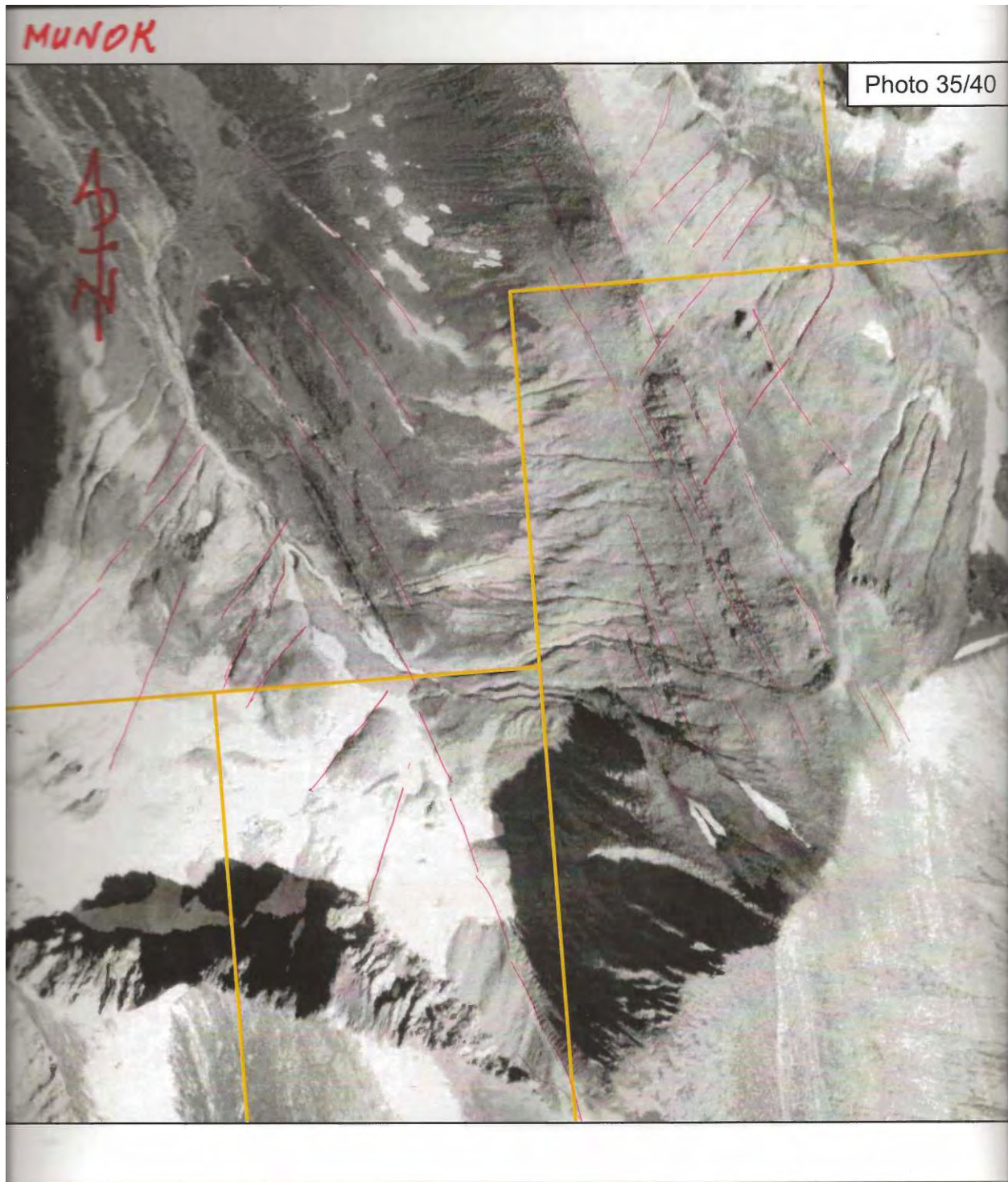


Figure 9 Airphoto 35/40

## CONCLUSIONS and RECOMMENDATIONS

The Munok Phosphorite prospect is located within an extensive belt of sedimentary rocks with one member hosting widespread phosphate mineralization. Attractive grades of phosphate were defined by surface at work at Munok Zone that now warrants follow-up drill testing. The prospect is located within the Liard Mining Division in north-central B.C. approximately 155 km northeasterly from Prince George and 80km southerly from the town of Tumbler Ridge.

In 2008 the services of Future Metals Inc. were contracted to conduct helicopter supported reconnaissance style sampling and follow-up hand trenching of the phosphate bearing stratigraphy during the course of the Tumbler Ridge project 2008 field season during July and August. Fieldwork consisted of Phase I reconnaissance rock sampling program and a Phase II follow-up hand trenching program.

The Munok claims are underlain predominantly by Early and Middle Triassic Sulphur Mountain Formation, Lower Carboniferous Rundle Group and Upper Devonian Exshaw and Banff Formations. The stratigraphy comprises a northwest-southeast trending belt of rocks that have been folded into northwest – southeast trending tight anticlines and relatively broad open synclines. An extensive study of phosphate deposits of British Columbia” was undertaken by the British Columbia Geological Survey Branch under the auspices of Ministry of Employment and Investment, Energy and Minerals Division during the period from 1985 to 1990. Bulletin 98, “Phosphate Deposits in British Columbia” authored by S. Butrenchuk, P. Geo., was published in 1996 and includes an overview of the phosphate occurrences in the Tumbler Ridge Project study area.

Within Munok area, the majority of the known phosphate occurrences and phosphatic sediments occur in the Whistler member of the Sulphur Mountain Formation and in correlative rocks of the Toad Formation. Phosphate is found in the form of pellets, nodules, phosphate cement, phosphatic fragments, or clasts and phosphatized fossil debris. The Sulphur Mountain Formation is divided into Vega-Phroso, Whistler and Llama members. The Vega-Phroso Member overlies Permian strata.

The target sought at the Munok Phosphate Zone is a sedimentary-style “upwelling type” phosphorite deposit. Pacific Ridge designed the 2008 Tumbler Ridge exploration program to prospect and sample prospective phosphate showings and horizons within the Whistler Member of the Sulphur Mountain Formation for phosphate-bearing zones as identified by S. Butrenchuk’s Bulletin 98 (BC Geological Survey Branch). Prospecting and sampling was conducted over a large portion of the 127 km long claim package from Meosin Mountain in the southwestern portion of the claims to the Mount Palsson to the northwest and included sampling and hand trenching at the Munok Phosphate prospect.

Overall, the Munok Zone exhibits attractive grade- thickness phosphorite grades. On average the zone of interest where it was trench sampled by Esso returned 22.1%  $P_2O_5$  over 1.0 metre and from the Esso core drilling to a maximum depth of approximately 90m on the zone of interest returned an average of 23.5%  $P_2O_5$  over 1.2 metres.

To the north at the Wapiti, eight samples collected to the north of drill site DDH 6-11&12 returned an average grade of 27.1% over 1.0 metre. The zone extending from the drill site northerly contains 4.2 km of the prospective phosphate horizon. Southerly from drill site DDH 6-11 and 12 there is a significant increase in %  $P_2O_5$  grade with 3 samples averaging 31.23%  $P_2O_5$  over 1.67m. The zone was hand trenched in 2008 in several locations over an approximate 700m strike length bringing the overall strike length of the phosphorite zone to 4.9km. Potential exists within the Wapiti Zone to host a potential open pitable phosphorite deposit.

Further compilation of the 1980 Esso exploration work and the Pacific Ridge work including sectional work is required. Additional hand trenching and diamond drilling is recommended .

Well-developed northwest trending linears are common towards Belcourt Lake but also occur to the southeast and are probably reflective of the continuation of major fold axis.

At almost right angles are prominent linears across the main ridge in a east-west orientation. These linears are accentuated by avalanche paths and drainages. Bedding clearly northwest-southwest.

Exploration within prospect area has demonstrated that significant amounts of high grade sedimentary phosphate are located within the Munok Zone which are easily accessed and exhibit attractive mining possibilities. Additional follow-up exploration including diamond drilling is warranted.

A recommended program of \$350,000 is warranted including 2000m of drilling.

#### Estimate of Costs for Future Work

##### PHASE I Summer of 2014 (June to September)

a) Set up base camp at near Red Deer Falls	
b) Geological map and prospect favourable horizon belt	
c) Confirm previous sampling	
I Approx. 10 day program	
Mob & Demob, Set up & Tear down of camp	
4 man days x 4 men @ \$1,500/day	\$ 6,000.00
Camp, 10 days x 4 men x \$150/day (includes food)	6,000.00
Senior Geologist (Johan T Shearer)	7,000.00
Junior Geologist	5,000.00
Prospector	4,000.00
Fieldman	3,000.00
Helicopter, 10 hrs @ \$2,000/hr (could be less)	20,000.00
Analytical	5,000.00
Field Supplies	1,000.00
Report	3,000.00
Total Phase I	\$ 60,000.00

This gives first-hand knowledge of the property in a relatively remote region, confirmation of grades and selection of drill targets and initial First Nations contacts.

##### PHASE II Fall of 2014 (Sept./Oct.)

Assuming success in Phase I

II 30 to 45 days	
Diamond drilling, Approx. \$100/m x 2,000m	\$ 200,000.00
(this would be a smaller "Gopher drill" easily moved by helicopter or ATV)	
Camp – depends on location of drill sites selected in Phase I	Approx. 30,000.00
Supervision and Core splitting, labour	35,000.00
Waterlines, consumables – variable	?
– depending on drill sites and water source	
Analytical	6,000.00
Permit and First Nations	8,000.00
Helicopter support – depends on location of drill sites \$5,000-\$20,000	20,000.00
Total Phase II Approx.	\$ 350,000.00

PHASE III Fall of 2014 or Spring of 2015

Assuming success in defining continuity of zones by drilling

III	Continued Diamond Drilling	\$ 400,000.00
	Camp or fly-in	?
	Supervision, etc.	50,000.00
	Waterlines, consumables (depending on water source)	?
	Analytical	10,000.00
	Metallurgical Testing, Mine Planning	30,000.00
	Continued First Nations & Permitting	10,000.00
	Environmental Scoping Studies (this could be moved up to Phase II)	20,000.00
	Total Phase III Approx.	<u>\$ 600,000.00</u>

## REFERENCES

- Butrenchuk, S.; 1996:  
Phosphate Deposits in British Columbia, British Columbia Ministry of Employment and Investment Energy and Minerals Division Geological Survey Branch, Bulletin 98.
- Christie, R. L.; 1978:  
Sedimentary Phosphate Deposits, Geological Survey Paper 78-20.
- Heffernan, K.J.; 1980:  
Report on Geological Mapping, Sampling and Drilling Wapiti #1-25 Claims Liard Mining Division, Esso Resources Canada, Assessment Report 8407, Minerals Resources Branch, Dept. of Mining and Petroleum Resources of British Columbia.
- GeoFile; 2005-6:  
British Columbia Government Website, Map Place
- GeoBC – source of colour airphotos
- McMechan, M.E. & Thompson, R.I.; 1995:  
Belcourt Lake, Map 1869A, Geological Survey of Canada.
- McMechan, M.E. & Thompson, R.I.; 1995:  
Wapiti Pass, Map 1872A, Geological Survey of Canada.
- McMechan, M.E., R.I.; 1995:  
Dawson Creek, Map 1858A, Geological Survey of Canada.
- McMechan, M.E. & Thompson, R.I.; 1983:  
Open File 1150, Geological Survey of Canada
- Norman, G., Renning, M.; 2009:  
2008 Reconnaissance Exploration and Hand Trenching Assessment Report on the Wapiti Phosphate Prospect, Liard Mining Division, British Columbia, for Pacific Ridge Exploration Ltd. And Lateegra Gold Corp., February 2009, Assessment Report 30717.
- Shearer, J. T.; 2013a:  
Geochemical and Drilling Assessment Report on the Wapiti Phosphorite Prospect, Liard Mining Division, British Columbia, for Fertoz International Inc., January 2, 2013
- 2013b:  
Mine Plan 2013 Northside and Reclamation Plan 2013 Northside for the Wapiti Project, for Fertoz International Inc. and Homegold Resources Ltd., November 29, 2013
- 2013c:  
Mine Plan 2013 Southside (Winter) and Reclamation Plan 2013 Southside (Winter) for the Wapiti Project, for Fertoz International Inc. and Homegold Resources Ltd., November 29, 2013
- 2012:  
Geological and Airphoto Interpretation Report on the Wapiti Phosphorite Zones, Liard Mining Division, for Fertoz International Inc., April 18, 2012

**APPENDIX I**

**STATEMENT of QUALIFICATIONS**

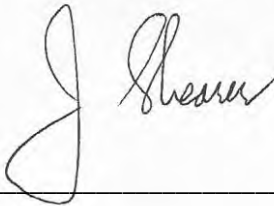
**JANUARY 4, 2014**

**Appendix I**  
**STATEMENT OF QUALIFICATIONS**

I, JOHAN T. SHEARER, of Unit 5 2330 Tyner Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
2. I have over 35 years experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
5. I am the author of a report entitled "Airphoto Interpretation Report on the Munok 1 Claim" dated January 4, 2014.
6. I have carried out Airphoto mapping, and supervised sample collection, August 19-20, 2013. I am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Munok claims by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.
7. I have a royalty interest in the claims.

Dated at Port Coquitlam, British Columbia, this 4<sup>th</sup> day of January 2014.



J.T. Shearer, M.Sc., F.G.A.C., P.Geo.  
Quarry Supervisor  
January 4, 2014

**APPENDIX II**

**STATEMENT of COSTS**

**JANUARY 4, 2014**



**APPENDIX II**  
**Statement of Costs**

	Total without HST
J. T. Shearer, M.Sc., P.Geo., 2 days @ \$700/day	\$ 1,400.00
Truck, Fully equipped 4x4, 2 days @ \$120/day	240.00
Hotel, 1 day	130.00
Helicopter, 1 hr.	1,050.00
Airphotos	300.00
Airphoto Interpretation	700.00
Report Preparation	1,400.00
Word Processing and Reproduction	300.00
	<hr/>
<b>Total</b>	<b>\$ 5,520.00</b>

Event #	5482788
Date filed	December 29, 2013
Filed	\$ 3,800.00
PAC	\$ 293.04
Total	\$ 4,093.04

**APPENDIX III**

**AIRPHOTOS**

**JANUARY 4, 2014**

