

NI 43-101 TECHNICAL REPORT

HOLBROOK BASIN POTASH PROJECT

602550E 3847300N in the 1983 North American Datum (NAD 83).

FOR

PASSPORT METALS INC.
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January 27, 2009

Summary

Passport Metals Inc. Holbrook Basin Potash Project is located 13 kilometres (8 miles) east of the Town of Holbrook in the County of Navajo, Arizona. The project consists of 12 mineral exploration permits totaling 7,933.31 acres or 3,210.5 hectares. Passport Metals Inc. is earning a 100% interest, subject to a 1% Net Smelter Return (NSR) royalty from Southwest Exploration Inc. in the exploration permits by making cash payments totaling US\$1,250,000 and issuing 500,000 common shares. Passport must also grant 1,000,000 options with the price set by the 10 day trading average from the date of TSX Venture Exchange approval. The options have a three year expiry date.

The project lies within the Permian Holbrook Basin of east central Arizona. The central 9,030 square kilometres of the basin is underlain by an evaporite sequence that includes a central 1,550 square kilometre portion that hosts a continuous potash horizon ranging in thickness from 0.3 to 12.2 metres. The potash is the target of the Passport Metals Inc. exploration program.

Previous exploration on the current property holdings consisted of 9 drill holes in the potash completed by Arkla Exploration Company in the 1960's. This drilling confirmed the presence of the potash. The potash was intersected at depths from 280.4 to 321.6 metres (920 to 1055 feet). The potash horizon ranged in thickness from 1.2 to 1.5 metres (4 to 5 feet) and graded from 11.13% K₂O to 14.74% K₂O. The entire Holbrook Basin averages 1.2 metres in thickness with an average grade of 15.05% K₂O.

A 5 hole combined reverse circulation / diamond drilling program is recommended to verify the presence of the potash horizon and to provide PQ size core through the horizon for chemical and solution analysis. A gamma ray survey will also be conducted on each hole to confirm the potash content to compliment the conventional assaying. The total cost of the recommended exploration program is US\$382,000.

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Introduction

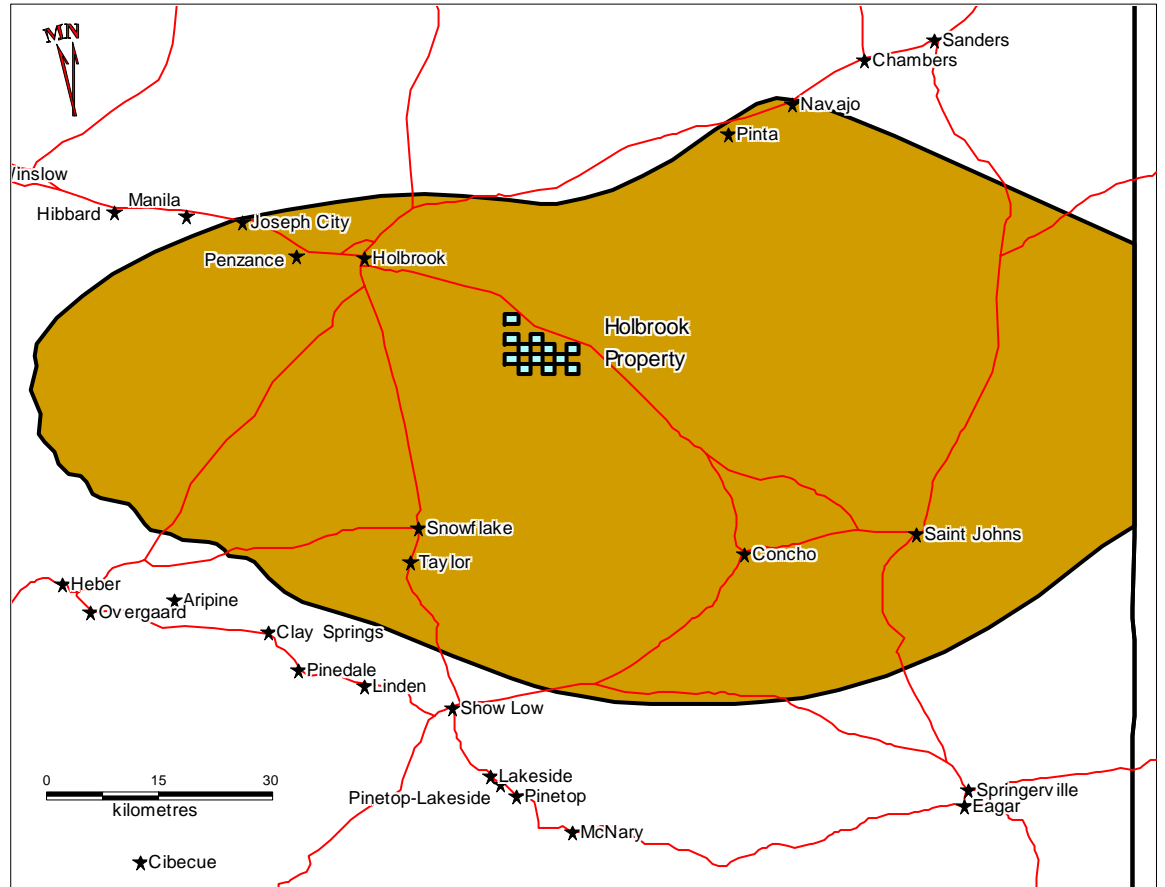
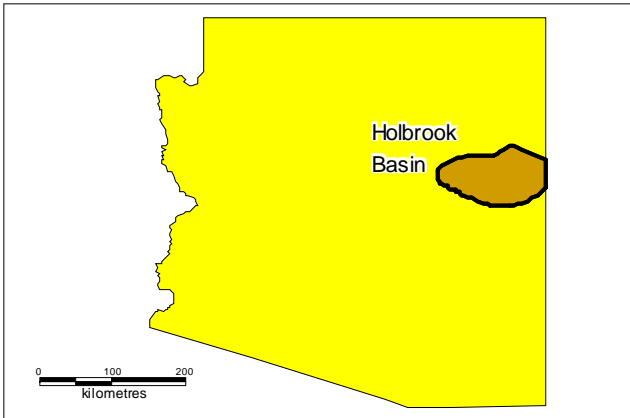
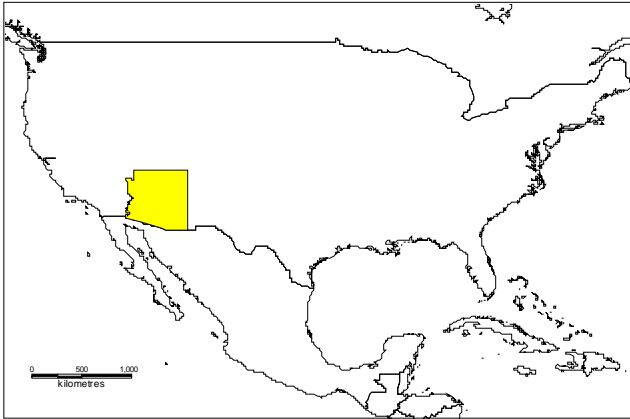
Passport Metals Inc. (PPI) commissioned Stephen B. Butrenchuk, P.Geol. to provide a NI 43-101 Technical Report for the Holbrook Basin potash project located in east central Arizona. This report has been prepared to support the Passport Metals Inc. News Release dated September 30, 2008.

This report is based on historic information from the 1960 to 1980 period. The present property holdings were drilled for potash by Arkla Exploration Company during that period. This data was stored with the Arizona Geological Survey. The data has not yet been verified by the current author.

The author visited the offices of the Arizona Geological Survey to review and gather the historical exploration data on January 20, 2009 and visited the property on January 21, 2009.

Reliance on Other Experts

The author is not relying on any experts. The information used in this report is from Arizona Geological Survey reports and maps and from the historical files of the work completed by Arkla Exploration Company and Duval Corporation. While the author has no way to verify this data, the exploration was completed to the standards of the day by competent geologists and assayers.



Projection : Lat Long NAD 83

HOLBROOK BASIN POTASH PROJECT
LOCATION
FIGURE 1

Property Description and Location

The Holbrook Basin Potash Project consists of 12 mineral exploration permits (Table 1) totaling 7933.31 acres or 3,210.5 hectares (Figure 2). The permits are contiguous on the corners with the exception of 08-113251. The property lies on United States Geological Survey 30 X 60 1:100,000 Quadrangle Sheet St Johns Arizona. The centre of the property is at Universal Transverse Mercator coordinates 602550E 3847300N in the 1983 North American Datum (NAD 83).

Surface rights are believed to be held by the Hopi Tribe, although this has not been confirmed by the author. Surface rights on the intervening ground (Figure 2) are held by the Hopi Tribe and the underlying mineral rights are held by the NZ Legacy Company.

Table 1. Mineral Exploration Permits

| Mineral Exploration Permit Number | Legal Description | | Acres | Grant Date | Expiry Date |
|-----------------------------------|--------------------------|----------------------------|----------|------------|-------------|
| | Township Range Section | | | | |
| 08-113251 | T. 16N – R.23E – Sec. 06 | Lots 1-7 SENW S2NE E2SW SE | 727.03 | 10/16/2008 | 10/15/2013 |
| 08-113254 | T. 16N – R.23E – Sec. 16 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113255 | T. 16N – R.23E – Sec. 18 | Lots 1-4 E2 E2W2 | 725.34 | 10/16/2008 | 10/15/2013 |
| 08-113256 | T. 16N – R.23E – Sec. 20 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113257 | T. 16N – R.23E – Sec. 22 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113258 | T. 16N – R.23E – Sec. 24 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113259 | T. 16N – R.23E – Sec. 26 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113260 | T. 16N – R.23E – Sec. 28 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113261 | T. 16N – R.23E – Sec. 30 | Lots 1-4 E2 E2W2 | 720.94 | 10/16/2008 | 10/15/2013 |
| 08-113262 | T. 16N – R.23E – Sec. 32 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113263 | T. 16N – R.23E – Sec. 34 | all | 640 | 10/16/2008 | 10/15/2013 |
| 08-113264 | T. 16N – R.23E – Sec. 36 | all | 640 | 10/16/2008 | 10/15/2013 |
| TOTAL | | | 7,933.31 | | |

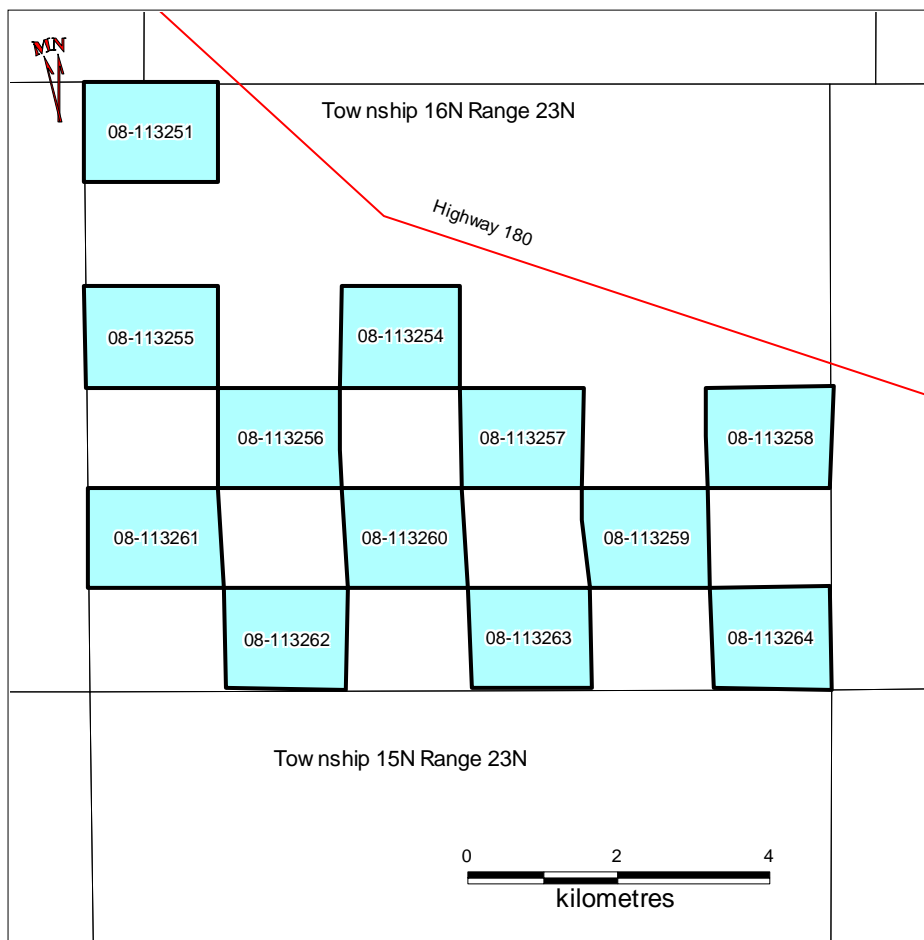
The Passport Metals Inc. holdings consist of Mineral Exploration Permits. These exclusive permits are valid for 1 year and are renewable up to 5 years. Annual rent is \$2.00 per acre for the first year, which includes the second year and \$1.00 per acre for years three through five. The minimum work requirement is \$10.00 per acre per year for years 1-2; and \$20.00 per acre per year for years 3-5. Cash in lieu of work is permitted. The holder of the exploration permit has the surface rights necessary for prospecting and exploration and the right to ingress and egress from the land covered by the permit. The permittee shall be liable to and shall compensate the owner and any lessee of the surface of the State Land covered by the permit for any loss to the owner and for any damage resulting from exploration activities. An Exploration Plan of Operation must be submitted annually and approved by the Arizona State Land Department prior to startup of exploration activities. An exploration permit is not a right to mine. A mineral lease needs to be obtained before actual mining activities can begin.

Passport Metals Inc. is earning a 100% interest, subject to a 1% Net Smelter Return (NSR) royalty from Southwest Exploration Inc. by making the following payments and share issuances:

Table 2. Holbrook Basin Potash Project Agreement Terms

| | US\$ Cash | shares | options | exploration' |
|------------|--------------------|----------------|------------------|---------------------|
| on signing | \$100,000 | | 1,000,000 | |
| for 43-101 | | 250,000 | | \$200,000 |
| 1-Apr-09 | \$125,000 | 250,000 | | |
| 1-Oct-09 | \$225,000 | | | |
| 1-Apr-10 | \$250,000 | | | |
| 1-Oct-10 | \$350,000 | | | |
| | \$1,050,000 | 500,000 | 1,000,000 | |

The options will be set by the 10 day trading average from the date of signing. The options have a three year expiry date.



Projection: Lat Long NAD 83

Figure 2

**HOLBROOK PROJECT
Mineral Exploration Permits**

The mineral exploration permits are issued based on map staking, so the boundaries of the permits are not physically marked in the field.

Figure 3 shows the location of the Arkla Exploration Company drill holes drilled during the 1960's referenced to the property boundaries. Figure 5 clearly shows the location of the property boundaries relative to the suspected extent of the potash horizon with the Holbrook Basin.

The author is not aware of any environmental liabilities associated with the property.

An Exploration Plan of Operation must be submitted annually and approved by the Arizona State Land Department (ASLD) prior to startup of exploration activities. Archaeological and Biological surveys as well as any other applicable permits must be submitted for ASLD review if the exploration activities will create any surface disturbance. Both of these studies have been completed. The archeological report has been submitted and is awaiting verification by the State that there are no archeological problems. There will be a stumpage charge for vegetation. A bond, typically US\$3,000 for a single permit or US\$15,000 for five or more permits (a blanket bond), is required. Passport has submitted an Exploration Plan of Operations proposed drilling program.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

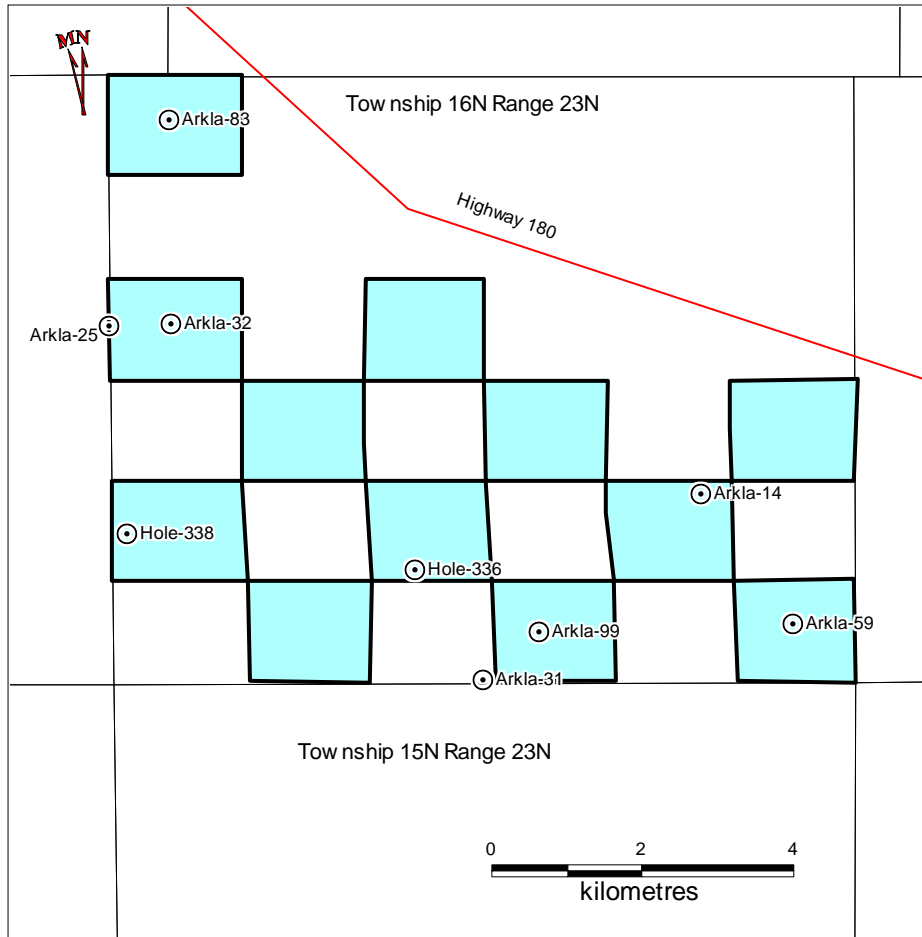
The Holbrook Basin Potash Project is located 12.8 kilometres (8 miles) east of the Town of Holbrook in the County of Navajo, Arizona. The exploration permits lie immediately south of State Highway 180. A number of secondary un-named roads provide access to the various exploration permits. Most of the area can be traversed by 4-wheel drive vehicles or by ATV's when the ground is dry. The lands are generally quite flat with minor low lying rolling hills. The elevation ranges from 1600m to 1700 m (5250 to 5575 feet). The area is range land with scant vegetation, consisting of minor salt cedar and scrub grasses.

Temperatures range from 11°C to 34°C during the spring, summer and fall and -7°C to 17°C during the winter period of November to February. Precipitation ranges from 80 to 380 mm per month with a total annual accumulation of 21.6 cm. Exploration and mining activities are not affected by any specific time of year.

Personnel, equipment and accommodation for the planned exploration program are available locally in Holbrook. There is an operational rail line at Holbrook and power is readily available there as well. Water for drilling and exploration can be purchased through the local state office in Holbrook.

History

The potash potential of the Holbrook Basin was evaluated in considerable detail in the 1960's and early 1970's by Arkla Exploration Company and Duval Corporation and several others. The potash was originally discovered while drilling the Holbrook Basin for oil. The basin is approximately 20720 square kilometres (8000 square miles) in size with the potash restricted to a 1550 square kilometre (600 square mile) area in the north central portion of the basin. (Rauzi, 2000).



Projection: Lat Long NAD 83

HOLBROOK PROJECT

Figure 3 Arkla Exploration Company Drill Collar Locations

There have been a total of 135 holes drilled in the Holbrook Basin for potash. The potash lies between 213 and 610 metres (700 and 2000 feet), but the depth in most holes is between 305 and 442 metres (1000 and 1450 feet). The potash horizon ranges from 0.3 cm to 12 metres (1 to 40 feet). (Rauzi, 2008).

Table 3. Arkla Exploration Company Drill Holes on Current Passport Metals Inc. Permits

| Hole ID | Legal | Easting | NAD27 Zone 12 | | Dip | Metres Total Depth | Metres Potash | Permit |
|----------|------------|----------|---------------|-----------|-----|-----------------------|------------------|-----------|
| | | | Northing | Elevation | | | | |
| Arkla-14 | 16N-23E-26 | 603478.7 | 3847151.1 | 1629.0 | -90 | 396.3 | 307.2-309.7 | 08-113259 |
| Arkla-25 | 16N-23E-18 | 595596.4 | 3849760.2 | 1657.6 | -90 | 335.4 | 304.8-306.0 | 08-113255 |
| Arkla-31 | 16N-23E-34 | 600623.7 | 3844111.8 | 1608.2 | -90 | 282.3 | 267.5-269.4 | 08-113263 |
| Arkla-32 | 16N-23E-18 | 596408.5 | 3849784.2 | 1644.5 | -90 | 382.6 | 295.7-296.9 | 08-113255 |
| Arkla-59 | 16N-23E-36 | 604721.3 | 3845062.8 | 1624.7 | -90 | 400.9 | 312.7-313.9 | 08-113264 |
| Arkla-83 | 16N-23E-06 | 596345.9 | 3853053.2 | 1646.3 | -90 | 402.4 | 315.3-315.9 | 08-113251 |
| Arkla-99 | 16N-23E-34 | 601348.6 | 3844895.0 | 1614.0 | -90 | 287.2 | 280.4-283.5 | 08-113263 |
| Hole-336 | 16N-23E-28 | 599704.1 | 3845864.5 | 1628.0 | -90 | no information | | 08-113260 |
| Hole-338 | 16N-23E-30 | 595869.0 | 3846403.7 | 1622.0 | -90 | no information | | 08-113261 |

A total of nine holes were drilled by Arkla Exploration Company on the current Passport Metals Inc. exploration permits as shown in table 3. The thicker interval in Arkla-31 and Arkla-99 consist of two beds separate by potassium poor interbed. The presence of potash was confirmed by down hole Gamma Ray surveys.

Geological Setting

The focus of the potash exploration is the Permian Holbrook Basin, located in east central Arizona. The northwest – southeast trending basin comprises an area of thickened Permian sedimentary rocks. Underlying the basin is a series of Cambrian through Pennsylvanian sediments lying on a basement of Precambrian granites and metamorphic rocks. Younger rocks over top of the basin include Triassic and Cretaceous sediments and Tertiary sediments and volcanoclastics. (Figure 4).

Four distinct units underlie the Permian basin. The oldest rocks are the medium to very coarse grained sandstones of the Cambrian Tapeats Sandstone. The sandstones are overlain by a predominantly dolomitic limestone of the Devonian Martin Formation. Overlying the dolomites is the coarse-grained massive Mississippian Redwall Limestone. The youngest rocks of the four units are the limestones and interbedded shales of the Pennsylvanian Naco Formation.

The Permian rocks consist of oldest Supai Formation, Coconino Sandstone and the youngest Kaibab Formation. The key unit for the potash is the Supai Formation, a sequence of interbedded redbeds, evaporates and marine limestone divided into three parts. The lower member consists primarily of redbeds. The middle Fort Apache Formation is a marine fossiliferous unit, consisting of dolomite, limestone and some evaporite.

The upper member of the Supai Formation consists of siliclastic sediments and interbedded limestone, dolomite and evaporite. The evaporite ranges from 0 to 148 metres and consists of halite, anhydrite and gypsum with sylvite near the top of the sequence.

The Coconino sandstone consists of fairly homogeneous very fine- to fine-grained cross-bedded sandstone, while the overlying Kaibab Formation consists of limestone.

The Triassic units include sandstone of the Moenkopi Formation overlain by redbed sediments and local lacustrine sediments of the Chinle Formation.

These rocks are overlain first by Cretaceous sandstones and later Tertiary lacustrine and fluvial sediments with interbedded waterlain ash fall tuffs.

Evaporite Stratigraphy (taken largely from Rauzi, 2000)

The stratigraphy of the evaporite sequence is based on the 223 wells that were drilled for salt and potash in the Holbrook Basin in the 1960's and 1970's. Salt within the evaporite sequence underlies about 9030 square kilometres (3500 square miles) and potash underlies about 1550 square kilometres (600 square miles) (Figure 5). The evaporite deposition in the Holbrook Basin has been attributed to sabkha and low-energy restricted marine conditions.

The Supai Formation consists largely of red to reddish-brown clayey siltstone and halite with anhydrite, gypsum, and carbonate. Halite grades laterally in anhydrite, gypsum, and mudstone at the perimeter of the basin and ultimately into fine-grained clastic strata beyond the perimeter of the salt basin. The Supai Formation overlies the Naco Formation (Pennsylvanian) throughout the Holbrook Basin and onlaps structurally high Precambrian granitic and metamorphic rocks to the east.

The Supai Formation has been divided into four members to better describe the evaporite stratigraphy: youngest Corduroy Member, Fort Apache Member, Big A Butte Member and oldest Amos Wash Member.

Arkla Exploration Company identified 5 cycles of halite deposition in the Supai Formation based on regionally extensive carbonate beds. Each cycle starts with deposition of halitic mudstone and halite and ends with a fining upward sequence of siltstone and shale overlain by carbonate, which could represent flooding of the marginal and inner sabkha by marine water. Cycle 1 starts at the base of the Big A Butte Member and ends with deposition of the Fort Apache Member. Cycles 2 through 4 start at the base of the Corduroy Member and end with deposition of what Arkla referred to as the first regionally extensive dolomite below the top of the evaporite strata. Cycle 5 starts at the top of the first dolomite and ends with the deposition of regionally persistent anhydrite beds that cap the evaporite strata. Potash mineralization occurs in generally in the top 30 metres (100 feet) of Cycle 5.

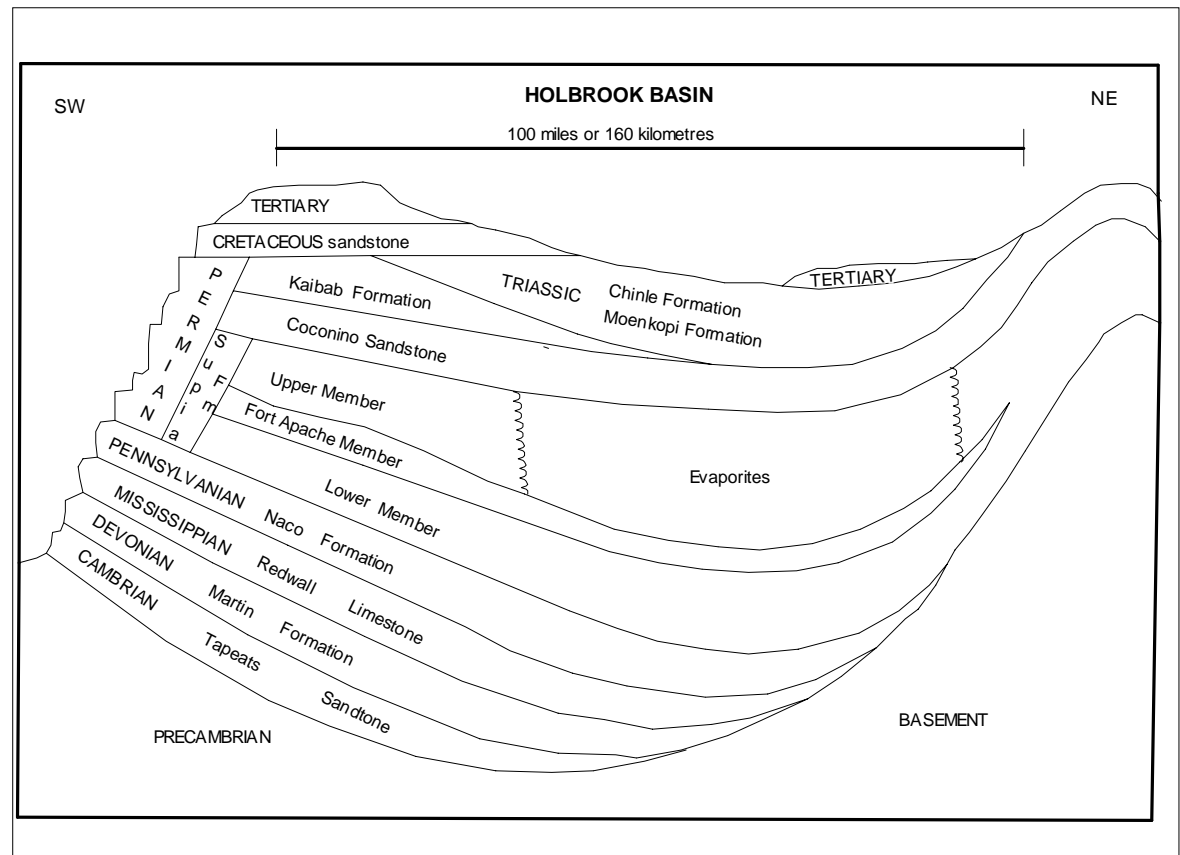
The main body of salt in the Holbrook Salt Basin occurs in the Corduroy Member of the Supai Formation. Salt beds in the Corduroy Member are most commonly 0.3 to 1.5 metres (1 to 5 feet) thick but range in thickness from 2.5 cm (1 inch) to 9.1 metres (30 feet) and are interbedded with mostly red to brown clayey siltstone and shale, some gray to brown carbonate, and white to gray anhydrite. Black carbonaceous shale and dark-brown to black dolomite are reported in some core descriptions. Aggregate thickness of salt in the Corduroy Member ranges up to 161 metres (530 feet). It grades to a thin, 3 metre (10 foot) thick carbonate with some anhydrite and gypsum to the northwest. To the northeast, the Fort Apache Member pinches out as a distinct carbonate unit.

Salt in the Big A Butte Member of the Supai Formation is usually muddy and interbedded with mostly red-brown siltstones and shale and lesser very fine-grained sandstone, gray-brown carbonate, and several thin but persistent beds of anhydrite. Aggregate thickness of salt in the Big A Butte Member ranges up to 46 metres (151 feet). The base of the evaporite interval defines the base of the Big A Butte Member in the Holbrook Basin.

The potash horizon, consisting of the minerals sylvite, carnallite and polyhalite, occur near the top of Cycle 5 in the Corduroy Member. The potash lies within the upper part of the halite and ranges up to 12.1 metres (40 feet) in thickness.

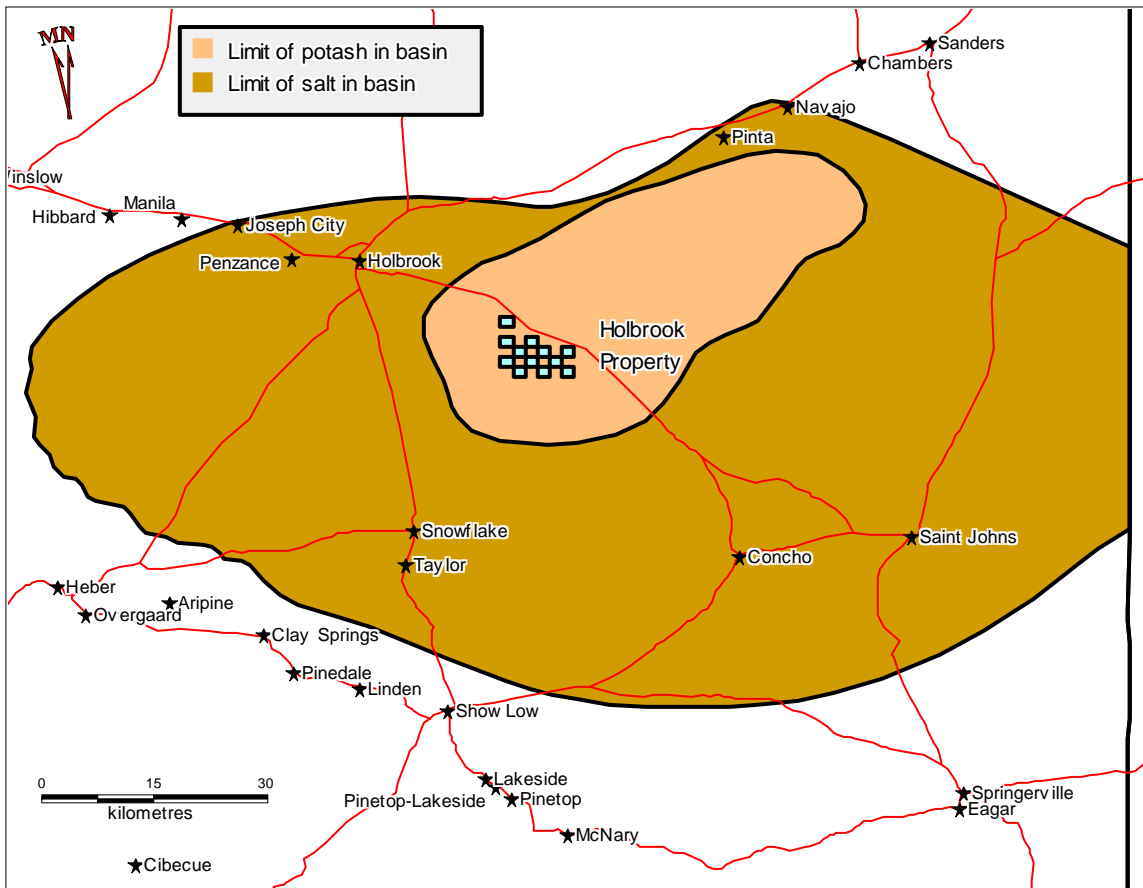
STRATIGRAPHIC TABLE

| | Feet | Metres |
|--------------------------|----------|-------------|
| TERTIARY | | |
| Bidahochi Formation | 0-30 | 0-9.1 |
| TRIASSIC | | |
| Chinle Formation | 0-725 | 0-221.0 |
| Moenkopi Formation | 0-230 | 0-70.1 |
| PERMIAN | | |
| Coconino Sandstone | 370-401 | 112.8-122.2 |
| Supai Formation | | |
| Upper / Evaporite Member | 450-1300 | 137.2-396.2 |
| Fort Apache Member | 0-130 | 0-39.6 |
| Lower Shale Member | 0-605 | 0-184 |
| PENNSYLVANIAN | | |
| Naco Formation | 0-500 | 0-152 |
| MISSISSIPPIAN | | |
| Redwall Limestone | 0-60 | 0-18.3 |
| DEVONIAN | | |
| Martin Formation | 0-300 | 0-91.4 |
| CAMBRIAN | | |
| Sandstones | 330 | 100 |
| PRECAMBRIAN | | |



Section after Pierce and Gerrard (1966)
Stratigraphic Table after (Carr, 1966)

HOLBROOK PROJECT
Diagrammatic Geological Section of Holbrook Basin
FIGURE 4



Projection: Lat Long NAD 83

Figure 5

**HOLBROOK PROJECT
Limits of Salt and Potash in Holbrook Basin**

Deposit Types

The following discussion is taken from Williams-Stroud et al (1994). The majority of the world potash resources are found in sub-surface bedded salt deposits which yield high grade, large tonnage ore bodies that are amenable to low cost mining and beneficiation. Because of the relatively high solubility of potassium minerals, potash from salt deposits is ideal for use as fertilizers.

The majority of potash-bearing bedded salt deposits are believed to have formed as a result of the evaporation of seawater or mixtures of seawater and other brines in restricted marine basins. These deposits form where a natural barrier lets in a restricted flow of seawater which evaporates into a salt-precipitating brine. The density of the brine at the distal end increases with increased salinity, sinks to the bottom, and sets up a reflux current or higher density brine back toward the ocean. The barrier restricts the flow of evaporation concentrated brines back to the ocean. The least soluble salts are precipitated nearer the sill, and the most soluble components come out of solution in the deeper parts of the basin. The result is a lateral facies change in a tabular-shaped deposit that is due to the salinity gradients in the brine. Although small subbasins of high grade sylvite are commonly found near the margins, the potash is generally located in the centre of the basin surrounded by successively less soluble facies.

The evaporation of seawater results in the precipitation of alkaline earth carbonate minerals, followed by calcium sulfates, halite, magnesium sulfates and then magnesium and potassium chlorides. The ratio of sodium to potassium in seawater is 27:1, and in general, mineable potash beds are accompanied by thicker halite deposits. Often, the potash ore zone is located near the tops of halite beds in relatively thin layers because the potash is precipitated from brines of higher salinities occurring near the end of the evaporation sequence. The potash salt precipitated from evaporation of seawater after precipitation of magnesium sulfates is carnallite ($\text{KCl}\cdot\text{Mg Cl}_2\cdot 6\text{H}_2\text{O}$) rather than sylvite (KCl) due to the high concentration of magnesium in seawater.

The origin of evaporites believed to be marine derived which lack magnesium sulfate and magnesium chlorite minerals are due to post-depositional dissolution processes. The principle potash minerals are sylvite, carnallite, kainite and langbeinite.

Evaporite deposits found in cratonic basins are usually associated with biogenic deposits such as shelf carbonates and fringing reefs and with clastic redbed deposits. Some evaporite deposits are found at continental margins which were sites of tectonic activity during the Mesozoic and Cenozoic Eras. The high solubility of evaporite minerals precludes the formation of salt outcrops in most parts of the world, and their occurrence is generally limited to the subsurface. The proximity of evaporite deposits may be inferred from saline waters in springs or wells, solution breccias, or thick outcrops of gypsum or anhydrite. The vast majority of potash deposits were discovered as a result of drilling for petroleum.

The initial appraisal of a potash deposit is based on drill cores spaced on 400 to 1600 metre centres depending on the complexity of the deposit.

Mineralization

The potash mineralization within the Holbrook Basin was identified from drill programs in the 1960's and 1970's. The potash deposits were shown to be uneconomic and little work has been undertaken since that time. The recent upswing in potash prices has renewed interest in these potash deposits. However, the only hard data available is from the 1960's to 1970's exploration period. **Passport Metals Inc. has yet to verify any of this data and will be unable to do so without drilling.**

The results from 135 widely spaced drill holes within the northeast oriented 60 kilometre by 20 to 30 kilometre potash horizon indicate the potash lies between 213 and 610 metres (700 and 2000 feet), with the depth in most holes is between 305 and 442 metres (1000 and 1450 feet). The potash horizon ranges from 0.3 cm to 12 metres (1 to 40 feet). (Rauzi, 2008).

The detailed geology of the potash horizon throughout the Holbrook Basin is summarized from (Cox, 1965).

Potash mineralization is confined to a maximum interval of 13.7 metres (45 feet) below a persistent 1.8 to 3 metre (6 to 10 foot) anhydrite bed locally known as the Puerco anhydrite or the "E" marker bed. A maximum of 6.7 metres (22 feet) of salt containing potash minerals has been found to date. Along the northwest side of the entire area two persistent beds separated by a few feet of lesser material, contain potash salts,

The No.1 potash bed ranges from 0 to 2.4 metres (0 to 8 feet) in thickness, contains 5% to 15% clay and up to 10% potash as sylvite over a 1.5 metre (5 foot) thickness. It is not separated from the next lower bed. There is no carnallite present in this horizon,

The No. 2 or lower potash bed ranges from 0 to 2.7 metres (0 to 9 feet) in thickness with up to 17% K₂O as sylvite over a 1.5 metre (5 foot) thickness. Locally this bed contains as much as 3% K₂O as carnallite. The clay content of bed No, 2 ranges from 1% to 5%.

Below the No, 2 potash bed there is a section as much as 3 metres (10 feet) thick which contains as much as 6% K₂O carnallite, but does not contain sylvite.

The grain size of the material containing potash is 30 to 254 mm (1/8 Inch to 1 inch) crystal size. The mineral is always sylvite and it is generally pink, although some of it is absolutely colorless. It is intergrown with halite, a little clay, and occasionally some anhydrite.

Table 4. Arkla Exploration Company Drill Hole Assay Results

| Hole ID | Interval by Gamma Ray | Interval sampled | | %K ₂ O |
|----------|--------------------------|------------------|---------------|-------------------|
| | | From | To | |
| Arkla-14 | 307.2-309.7 | 309.2 | 310.4 | 11.05 |
| Arkla-25 | 304.8-306.0 | | no assay data | |
| Arkla-31 | 267.5-269.4 | | no assay data | |
| Arkla-32 | 295.7-296.9 | 296.0 | 297.2 | 14.59 |
| Arkla-59 | 312.7-313.9 | 312.9 | 314.1 | 12.15 |
| Arkla-83 | 315.3-315.9 | 315.8 | 317.0 | 13.09 |
| Arkla-99 | 280.4-283.5 | 282.5 | 282.5 | 14.00 |
| Hole-336 | | | no assay data | |
| Hole-338 | | | no assay data | |

There are assay results from five of the nine holes completed by Arkla Exploration Company on the current Passport exploration permits (Table 4). The assay results range from 11.05% K₂O to 14.59% K₂O all over 1.2 metres (4 feet). The analysis did not differentiate between sylvite and carnallite, though Cox (1965) reported the bed could contain as much as 3% of the K₂O as carnallite. **These assay results are from the 1960's drilling program and have not been verified by the author.**

Exploration

Passport Metals Inc. has yet to complete any exploration on the Holbrook Basin Potash Project.

Drilling

Passport Metals Inc. has not yet completed any drilling on the Holbrook Basin Potash Project. Arkla Exploration Company drilled 9 holes in the 1960's on the ground currently comprising the Passport Metals Inc. exploration permits. These results have been discussed in the history and mineralization sections of this report.

Sampling Method and Approach

Passport Metals Inc. has yet to complete any exploration on the Holbrook Basin Potash Project.

The sampling procedure from the Arkla Exploration Company drilling program was as follows: two whipstocks were driven from a single hole giving three 10.8 cm (4 ¼ inch) cores through the potash bearing zone that were spaced 1 to 4.6 metres (3 to 15 feet) apart. Gamma ray and neutron logs were run in the main hole. The cores were logged in detail and those sections of the cores in which visible potash minerals were present were split by sawing into a quarter cut. This cut was crushed through 20-mesh, tumbled in a mixing drum and split in a Jones splitter. The sample was made into several pulps which were sent to several different assayers.

Arkla originally had issues with reproducibility of results as chemical analysis was often in conflict with gamma ray-neutron logging. They solved this problem through whipstocking, resulting in 3 distinct cores per hole. The core was then split through the section to be analyzed with one half crushed in 30cm (1 foot) increments or on lithologic breaks to approximately 20 mesh and then each increment was thoroughly mixed in a small, five gallon, cement mixer. After mixing, the crushed material was run through a sand splitter until a 100-gram sample was obtained. This sample was analyzed by the chloroplatinic method. The bulk sample was re-split to obtain two 20-gram samples for K₂O content by a temperature-change method, performed locally in the Arkla office. Usually a composite sample over a part of the zone was analyzed for chemical content to compare with averaged results of the single sample.

Duval Corporation believed that single coring was enough with their core recovery close to 100%. Duval's complete sample and assay methodology is not known. However, Duval made visual estimates of the K₂O content by dragging a sharp 4-H pencil across the surface of a core. The hardness of sylvite was such that the 4-H pencil gouged the sylvite but left a black mark on the halite. As a result, the geologist was able to estimate the K₂O content within 2% to 3%.

Sample Preparation, Analyses and Security

Passport Metals Inc. has yet to complete any exploration on the Holbrook Basin Potash Project. This section is not applicable to this report.

Data Verification

Passport Metals Inc. has yet to complete any exploration on the Holbrook Basin Potash Project. This section is not directly applicable to this report.

Passport has no record of any quality control measures that may have been implemented by Arkla or Duval during the 1960's to 1970's exploration program. Well logs, samples, core descriptions, and six assay reports from the potash drilling are available in the well files of the Arizona Oil and Gas Conservation Commission at the Arizona Geological Survey in Tucson, Arizona. They were examined by the author.

Adjacent Properties

This report is not directly relying on data from adjacent properties. This report does make use of the geological information on the entire Holbrook Basin as discussed and referenced in several of the preceding sections.

Mineral Processing and Metallurgical Testing

Arkla Exploration Company completed a preliminary feasibility study (McKee And Company, 1966) on its Holbrook Basin Potash Holdings. This study included very preliminary mineral processing testing. Four samples from float fractions were tested. Each sample was placed in heavy liquid with a density of 1.85 with the float and sink material examined separately. The objective of the testing was to produce a product of above 60% K₂O but the testing found the sylvite –halite middlings and sylvite-carnallite middlings prevented this. A recommendation to utilize a leaching process was made. **Passport Metals Inc. has yet to verify any of this data. It has been included for historical purposes only.**

Mineral Reserves and Mineral Resource Estimates

There have been two estimates for the entire potash component of the Holbrook Basin. The area of the Holbrook Basin underlain by potash is 1,550 square kilometres or 155,000 hectares. Carr (1966) estimated a geological target of 256.9 million tonnes of potash at an average grade of 19.76% K₂O. Rauzi (2008) reviewed all of the available data and estimated a geologic target for the entire Holbrook Basin of 682 million tonnes at 6% K₂O to 2.58 billion tonnes at 20% K₂O.

The current Passport Metals Inc. holdings comprise a total of 3,210.5 hectares, suggesting these holdings could host 2.07% of the total geological target or 14.1 million tonnes at 6% K₂O to 53.4 million tonnes at 20% K₂O.

There are no current 43-101 mineral reserves or mineral resources on the Passport Metals Inc. Holbrook Basin Potash Project holdings. The reader is cautioned that the potential quantity and grade indicated above is conceptual in nature. It has been provided only for illustration purposes. At this time, there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the discovery of these mineral resources.

Other Relevant Data and Information

Potash is a fertilizer, but is commonly considered an “industrial mineral” in the sense that it is a mineral resource that is of massive tonnage whose economic development is more a function of market and mining profitability than the identification, control, and development of high-grade sylvinitic rock.

Global demand for potash is growing as a result of increases in population, higher incomes in some developing countries and increased production of biofuels, including ethanol and diesel made from agricultural products (Ober, 2006)

Potash Corporation of Saskatchewan Inc. reported in its October 23, 2008 news release the upward trend for potash pricing continued in the third quarter, with the average realized price for offshore sales reaching \$601 per tonne, a 262-percent increase from last year's third quarter. Incremental spot market prices to Brazil and Southeast Asia each increased by approximately \$700 per tonne since last year's third quarter, while China paid an additional \$400 per tonne and India \$355 per tonne on their contracts with Canpotex Limited (Canpotex), the offshore marketing company for Saskatchewan potash producers. In North America, realized prices of \$563 per tonne were 189 percent higher than in the same quarter last year, as Potash Corp. continued to recognize the benefit of approximately \$370 per tonne of previously announced price increases since last year's third quarter. By the end of this year's third quarter, Potash Corp. began to realize an additional \$275 per tonne increase introduced September 1, 2008.

Due to the downturn in the economy in 2008 demand for potash has softened in 2009. It is expected that this trend will not continue as farmers will require increased fertilizers within the next 6 months to 2 years.

Interpretation and Conclusions

Passport Metals Inc. Holbrook Basin Potash Project is a viable exploration project. The 1960's and 1970's exploration completed by Arkla Exploration Company and Duval Corporation clearly show the north-central section of the Holbrook Basin is underlain by a continuous potash horizon of variable thickness.

While the Passport project only covers 2.26% of the potash horizon, the early work suggests these mineral exploration permits could host a potash deposit.

The recent upswing in potash demand and potash pricing is projected to continue according to the world's largest potash producer, Potash Corporation of Saskatchewan Inc., in its October 23, 2008 news release.

Therefore a drilling program is required to verify the 1960's and 1970's exploration data. A search of the data files at the Arizona Geological Survey has shown 9 holes were completed by Arkla Exploration Company on the current Passport holdings.

The first step will be to twin a number of these holes to intersect and test the potash horizon. Based on the 1960's Arkla logs the total depth for each hole will be in the order of 1100 feet as shown in Table 3.

Table 5. Arkla Exploration Company Drill Holes on Passport Holdings

| Arkla DDH | expected potash interval | rotary drill interval | diamond drill interval |
|-----------|--------------------------|-----------------------|------------------------|
| Arkla-14 | 1008-1016 ft | 890 ft | 890-1090 ft |
| Arkla-25 | 1000-1004 ft | 895 ft | 895-1095 ft |
| Arkla-59 | 1026-1030 ft | 940 ft | 940-1140 ft |
| Arkla-83 | 1033-1037 ft | 920 ft | 920-1120 ft |
| Arkla-99 | 920-930 ft | 850 ft | 850-1050 ft |

Since the depth to the potash horizon is already approximately known, the drilling program will be done in two phases. Initially a reverse circulation rig will be utilized to sink the hole to a point approximately 100 feet above the suspected location of the potash horizon. The reverse circulation rig will be removed and a diamond drill rig will be brought in to drill the next 200 feet in each hole to core through the potash horizon.

Down hole gamma ray geophysical surveying will be completed in each hole to confirm the presence of potash. The drill core will then be sawn and sent for analysis.

Recommendations

The Holbrook Basin Potash Project of Passport Metals Inc. covers approximately 7,933.31 acres or 3,210.5 hectares. Previous exploration by Arkla Exploration Company on the current Passport holdings suggests these holdings may be underlain by a continuous potash horizon. A 5 hole combined reverse circulation / diamond drilling program is recommended to verify the presence of the potash horizon and to provide PQ size core through the horizon for chemical analysis. A gamma ray survey will also be conducted on each hole to confirm the potash content to compliment the conventional assaying. The total cost of the recommended exploration program is US\$382,000.

Preliminary discussions should be held with the owner(s) on adjoining ground. Should this property proceed to the production stage, this ground will be required. As well, all of the wireline logs from the Arkla Exploration Company drilling, both on and off the current Passport property should be studied in detail and maps showing the thickness of the potash should be prepared.

References

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- Pierce, H.W. and Gerrard, T.A. (1966). Evaporite deposits of the Permian Holbrook Basin, Arizona. In: Rau, J.L., ed. Second Symposium on Salt: Cleveland, Northern Ohio Geological Society. Volume 1. pp 1-10.
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Cost Estimates

The recommended exploration program will consist of 5 combination rotary and diamond drill holes to reach and then core through the potash horizon. The five holes will duplicate 5 of the Arkla Exploration Company holes from the 1960's drilling program. The following budget is in US dollars.

| | | | | | | |
|------------------------------|------|-------|---|---------------|----------|------------------|
| Personnel | | | | | | \$30,000 |
| Potash Expert | 6 | days | @ | \$600 /day | \$3,600 | |
| Geologist field | 14 | days | @ | \$550 /day | \$7,700 | |
| Geologist travel | 4 | days | @ | \$550 /day | \$2,200 | |
| Engineer | 30 | days | @ | \$550 /day | \$16,500 | |
| Support | | | | | | \$11,600 |
| Room & Board | 50 | days | @ | \$100 /day | \$5,000 | |
| Vehicle + Fuel | 14 | days | @ | \$150 /day | \$2,100 | |
| Vehicle + Fuel | 30 | days | @ | \$150 /day | \$4,500 | |
| Rotary Drilling | | | | | | \$91,880 |
| Cat dozer Mob / Demob | | | | | \$2,000 | |
| Cat dozer | 50 | hours | @ | \$100 /hour | \$5,000 | |
| Compressor back up | 17 | days | @ | \$500 /day | \$8,500 | |
| Drill Mob / Demob | | | | | \$5,000 | |
| Drill footage | 4500 | feet | @ | \$12 /foot | \$54,000 | |
| Additives, cement | | | | | \$4,000 | |
| Casing | 120 | feet | @ | \$24 /foot | \$2,880 | |
| Set Casing | 15 | hours | @ | \$300 /hour | \$4,500 | |
| Room and Board | 60 | days | @ | \$100 /day | \$6,000 | |
| Diamond Drilling | | | | | | \$117,100 |
| Drill Mob / Demob | | | | | \$5,000 | |
| Drill footage (all in) | 1000 | feet | @ | \$80 /foot | \$80,000 | |
| Supplies, contingency | | | | | \$15,000 | |
| Room and Board | 171 | days | @ | \$100 /day | \$17,100 | |
| Analysis | | | | | | \$40,800 |
| Geophysical Logging | 5 | holes | @ | \$7,160 /hole | \$35,800 | |
| Sawing, assaying | | | | | \$5,000 | |
| Support | | | | | | \$6,000 |
| Travel | | | | | \$2,500 | |
| Storage | | | | | \$3,500 | |
| Permitting | | | | | | \$34,100 |
| Archeological surveys | | | | | \$5,500 | |
| Exploration bond | | | | | \$25,000 | |
| Post exploration bond | | | | | \$3,600 | |
| Documentation | | | | | | \$15,000 |
| Electronic drafting | | | | | \$7,000 | |
| Report | | | | | \$8,000 | |
| Contingency | | | | | \$35,520 | |
| Total Drilling Budget | | | | | | \$382,000 |

Certificate of S.B. Butrenchuk

I, Stephen B. Butrenchuk , P.Geol. of 34 Temple Crescent West, Lethbridge, Alberta, T1K 4T4 do hereby certify that: I am the Qualified Person for:

Passport Metals Inc.

608 – 1199 West Pender Street
Vancouver, B.C. V6E 2R1

I earned a Bachelor of Science degree majoring in geology from the University of Manitoba (1996) and a Master of Science degree in geology from the same university in 1970.

I am registered with the Association of Professional Engineers, Geologists and Geophysicists in the Province of Alberta as a Professional Geologist.

I have practiced my profession continuously for 39 years since graduation.

I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a ‘qualified person’ for the purposes of NI 43-101. My relevant experience for the purpose of this Technical Report is:

- 39 years of exploration experience for base and precious metals in the North American Cordillera
- 18 years as an industrial minerals geologist for government and industry working with phosphate, gypsum, barite, zeolite, silica and leonardite.

I am responsible for the preparation of the technical report titled “43-101 Technical Report Holbrook Basin Potash Project” and dated January 27, 2009, relating to the Holbrook Basin property. I completed a site visit to the Holbrook Basin property on January 21, 2009.

I have not had prior involvement with the property that is the subject of the Technical Report.

As of January 27, 2009 to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

I am independent of the issuer after applying all of the tests in section 1.4 of NI 43-101.

I have read NI 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.

I make this Technical Report effective January 27, 2009.

Dated this 27th day of January, 2009.

“signed and sealed”

Stephen B. Butrenchuk, P.Geol.