Moss Lake announces preliminary economic analysis results

29.07.2013 | CNW

TORONTO, July 29, 2013 /CNW/ - Moss Lake Gold Mines Ltd. (TSX-V: MOK) is pleased to announce receipt of results from an independent 43-101 Preliminary Economic Analysis (PEA) on its 100%-owned Moss Lake property, located 100 kilometres due west of Thunder Bay, Ontario. The information presented below summarizes results of a conceptual mining and milling scenario based on mineral resource estimates presented in a recent 43-101 Technical Report dated April 4, 2013.

It is very important to highlight that the PEA is preliminary in nature; it includes Inferred Mineral Resources that are too speculative geologically to have economic conditions applied to them that would enable them to be characterized as mineral reserves, and there is no certainty that the PEA will be realized.

The purpose of the study is to provide a reasonably informed investor with the technical disclosure required, in prescribed and regulated format, to make decisions.

PRESIDENT'S MESSAGE

George Mannard, President, commented "This analysis provides a reasonable basis to assess the potential economic viability of the Moss Lake gold deposit. The base case selected was determined on the basis of optimizing discounted cash flow scenarios in terms of NPV and IRR. These exercises, regardless of their stage from PEA through final feasibility, require the projection of commodity pricing and financial conditions well into the future - the future has not been written yet. We believe strongly that the future holds higher gold prices. This is why we are in the business.

This scenario provides a 15% IRR at a gold price of $1,629 Cdn per ounce. The Moss deposit has considerable potential to grow with further drilling. It is a vast resource in a politically-stable jurisdiction, close to town and road accessible. The Wawa-Abitibi Terrain is arguably the second largest historic gold producing metallotect in the world. We believe establishment of mining infrastructure in this region, particularly a mill, could provide the catalyst for camp-scale development of the region's many known resources and occurrences. All could benefit from regional development within this vision."

HIGHLIGHTS

Mining/Processing

- Open pit mining and CIL processing at 40,000 tonnes per day
- Life-of-mine waste:ore stripping ratio of 2.5:1
- Four-year permitting/pre-production period
- Ten-year minelife averaging 244,000 ounces per year
  - Years 1 - 5 average 296,000 ounces per year
  - Years 6 - 10 average 192,000 ounces per year

Key Assumptions

- Mining recoveries of 79.2% and 84.2%
- Low grade stockpiles with marginal or mill cut-off grades of 0.32 to 0.38 gAu/tonne to be
- Expected accuracy of capital cost estimates of ± 35%

Pre-Production Capital Costs $117.56 million

Operating Costs $548 million or $922 Cdn per ounce

Economics

- After Tax Cumulative Cash Flow: $440 million
- After Tax Net Present Value (NPV): $196 million at 5% discount rate
- After Tax Internal Rate of Return (IRR): 12%

Key Assumptions

- Average gold price of US$ 1,546/oz and exchange rate of 1.0033 $Cdn/1.0 $US (3-year
- Royalty of 8.75% of Net Profit paid
- Ontario Mining Tax rate 10%
  Income Tax rate 26.5% (15% federal and 11.5% provincial)

Sensitivity Analysis

After Tax Cumulative Cash Flow (million$)

	-20%	-15%	-10%	-5%	Base Case Scenario	+5%	+10%	+15%	20%
PRODUCTION PARAMETERS									
Gold price (CAN$/oz)	1 241	1 318	1 396	1 473	1 551	1 629	1 706	1 784	1 861
Gold Price	-98.17	39.49	185.40	315.42	440.13	561.07	681.81	802.21	910.00
Change (%)	-122%	-91%	-58%	-28%		27%	55%	82%	107%
ECONOMIC PARAMETERS									
OPEX	732.30	659.63	586.53	513.43	440.13	365.02	285.24	204.46	120.78
Change (%)	66%	50%	33%	17%		-17%	-35%	-54%	-73%
CAPEX	546.14	519.67	493.21	466.67	440.13	412.42	384.51	356.14	327.48
Change (%)	24%	18%	12%	6%		-6%	-13%	-19%	-26%

After Tax NPV at 5% (million$)

	-20%	-15%	-10%	-5%	Base Case Scenario	+5%	+10%	+15%	20%
PRODUCTION PARAMETERS									
Gold price (CAN$/oz)	1 241	1 318	1 396	1 473	1 551	1 629	1 706	1 784	1 861
Gold Price	-158.18	-69.03	27.90	113.53	196.18	276.07	356.01	434.90	505.38
Change (%)	-181%	-135%	-86%	-42%		41%	81%	122%	158%
ECONOMIC PARAMETERS									
OPEX	382.57	336.22	289.63	243.04	196.18	148.13	97.59	46.44	-6.36
Change (%)	95%	71%	48%	24%		-24%	-50%	-76%	-103%
CAPEX	288.69	265.59	242.50	219.37	196.18	171.93	147.53	122.75	97.74
Change (%)	47%	35%	24%	12%		-12%	-25%	-37%	-50%

After Tax IRR (million$)

	-20%	-15%	-10%	-5%	Base Case Scenario	+5%	+10%	+15%	20%
PRODUCTION PARAMETERS									
Gold price (CAN$/oz)	1 241	1 318	1 396	1 473	1 551	1 629	1 706	1 784	1 861
Gold Price	-5%	2%	6%	10%	12%	15%	17%	19%	21%
Change (%)	-140%	-84%	-48%	-20%		20%	36%	52%	68%
ECONOMIC PARAMETERS									
OPEX	18%	16%	15%	14%	12%	11%	9%	7%	5%
Change (%)	41%	31%	22%	11%		-12%	-27%	-43%	-63%
CAPEX	18%	16%	15%	14%	12%	11%	10%	9%	8%
Change (%)	41%	29%	19%	9%		-9%	-17%	-26%	-33%

Potential Upside

- Gold price appreciation - longterm
- High potential to increase resources with further drilling

- First mover infrastructure advantage in the highly prospective Shebandowan greenstone belt
- Decrease in $Cdn/$US exchange rates to more longterm historic levels

Potential Risks

- Hydrology and surface water treatment strategies require more study, the results of which could impact cost estimates
- Gold price deterioration - longterm
- Public support - by all concerned parties and stakeholders - for responsible economic development in this region

Independence and Expertise

This study was led by independent consulting company InnovExplo of Val d'Or, Quebec. Mining engineering input was from principal author Sylvie Poirier, Ing (OIQ No.112196, PEO No.100156918 of InnovExplo. Geology and resource estimates were performed by Pierre-Luc Richard, MSc, PGeo (APGO No.1714, OGQ No.1119) also of InnovExplo. Julie Palich, MSc, PGeo (APGO No.1880, AusIMM No.301564) of Caracle Creek Consulting provided Environmental Studies, permitting and Social and Community Impact inputs. All metallurgical and mineral processing expertise was provided by Gary Patrick, BSc (AusIMM No.108090) Consulting Metallurgist of Metallurg Pty Ltd., Perth, Australia. These contributors are all independent of the issuer and "Qualified Persons" as defined by Regulation 43-101, National Instrument 43-101 and Form 43-101F1.

More Details

To provide more detail, the "Summary" section of the Preliminary Economic Analysis report follows in its entirety. The complete report will be filed on SEDAR (www.sedar.com) within 45 days.

SUMMARY

On August 12, 2012, InnovExplo Inc. ("InnovExplo") was contracted by Mr. George Mannard, M.Sc, P.Geo, president of Moss Lake Gold Mines Ltd. ("Moss Lake Gold Mines" or "the issuer"), to complete a Preliminary Economic Assessment ("PEA") and Technical Report ("the report") for the Moss Lake Project ("the project" or "the property") in compliance with Regulation 43-101/NI 43-101 and Form 43-101F1. Moss Lake Gold Mines is a Canadian mineral exploration company trading publicly on the TSX Venture Exchange in Canada (TSX-V: MOK). InnovExplo is an independent mining and exploration consulting firm based in Val-d'Or (Québec).

This report presents the results of the PEA for the Moss Lake Project. The PEA is based on a Mineral Resource Estimate produced by InnovExplo in an earlier report prepared for the issuer titled "Technical Report and Mineral Resource Estimate for the Moss Lake Project (compliant with Regulation 43-101 / NI 43-101 and Form 43-101F1)", dated April 4, 2013. The Mineral Resource Estimate is compliant with the Canadian Securities Administrators National Instrument 43-101 Standards of Disclosure for Mineral Properties (NI 43-101) and Form 43-101F1 Technical Report.

In addition to the principal author, Sylvie Poirier, Ing (OIQ No. 112196, PEO No. 100156918), of InnovExplo, the other qualified persons responsible for the preparation of this report were: Pierre-Luc Richard, MSc, PGeo (APGO No. 1714, OGQ No. 1119), Julie Palich Msc (APGO No. 1880; APEG of BC #37646; AUSIMM No. 301564), Gary Patrick BSc (AusIMM No. 108090). In addition, Alain Tremblay, Eng, formerly of InnovExplo, and Marie-Claire Dagenais, Jr Eng, of InnovExplo, helped prepare this report under the supervision of Sylvie Poirier.

This Preliminary Economic Assessment (PEA) is preliminary in nature as it includes Inferred Mineral Resources that are too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

Moss Lake Property

The Moss Lake property is located in Moss Township, approximately 100 km west of the city of Thunder Bay , in the province of Ontario, Canada. The nearest settlement is Kashabowie, located 24 km to the northeast on provincial Highway 11 (part of the TransCanada highway system). The property lies within NTS map sheet 52B/10. Most of the property lies within Moss Township and the remainder in the Burchell Lake area. The property consists of one block of land comprised of 105 unpatented mining claims and two 21-year mining leases comprising 15 patented claims. The mining claims and leases are of irregular shapes and sizes aggregating a total of 3,224.09 ha. All the unpatented mining claims and mining leases are registered 100% in the name of Moss Lake Gold Mines Ltd.

Geology, Mineralization and Exploration Model

The property lies about 2 to 3 km southeast of the boundary between the Quetico and Wawa subprovinces, in the westernmost Ontarian part of the Wawa Subprovince. A considerable portion of the Moss Lake property is underlain by intermediate to felsic volcaniclastic rocks of the northeast-trending, fault-bounded Central Felsic to Intermediate Metavolcanic Belt (Osmani, 1997), a subunit of the Shebandowan Greenstone Belt, itself part of the Wawa Subprovince of the Superior Province.

Gold mineralization in the Moss Lake deposit, between Snodgrass Lake and Span Lake, occurs in sheared intermediate to felsic metavolcanic rocks and in sheared and fractured diorite to gabbro or feldspar and quartz-feldspar porphyry bodies emplaced within intermediate to felsic metavolcanic rocks of the CFB. Gold mineralization in the Snodgrass Lake area has been described in detail by Chorlton (1987) and Harris (1970). At the Moss Lake deposit, the diorite to gabbro bodies, the quartz-feldspar and feldspar porphyries, and the felsic metavolcanics are all cut by the Snodgrass Shear Zone, a steeply dipping ductile shear zone up to 4.5 metres wide and striking NE (N040) to ENE (N060-N075).

Other anomalous gold values were also obtained from fractured diorite, sheared feldspar porphyry, and a moderately deformed, pink-weathering quartz-amphibole-phyric intrusion. This relatively late porphyry dyke or sill intrudes the diorite and felsic schist. In hand specimen, the quartz-amphibole-phyric intrusion is said to show a strong resemblance to the syenogranitic rocks of the Moss Lake Stock, suggesting both may be related to the same magmatic event.

Previous reports agreed that a model for the Moss Lake gold deposit most certainly implies an "intrusion-related gold deposit". Although some authors have favoured a porphyry-style deposit, others have thought of it as a hybrid model between porphyry and more classical orogenic models.

During their site visit, authors examined numerous mineralized intersections that collectively suggest gold grades may occur within sheared rocks, although not exclusively. Mineralization appears as disseminated sulphides, quartz-albite veining and flooding, as well as late faulting. Alteration minerals related to mineralization consist mainly of silica, albite, sericite, carbonates, and sulphides (pyrite and minor chalcopyrite). Other alteration minerals not necessarily associated with mineralization are chlorite, hematite and epidote.

2013 Mineral Resource Estimate

Based on the density of the processed data, the search ellipse criteria, and the specific interpolation parameters, the authors are of the opinion that the current Mineral Resource Estimate can be classified as Indicated and Inferred resources. The estimate follows CIM standards and guidelines for reporting mineral resources and reserves. A minimum mining width of 5 metres (true width) and a cut-off grade of 0.5 g/t (open pit potential) and 2.0 g/t Au (underground potential) were used for the Mineral Resource Estimate.

InnovExplo received a Gems / MS Access diamond drill hole database for the Moss Lake Project. Following adequate verifications and updates, the database used for the resource estimate contains 320 surface diamond drill holes and 32 underground diamond drill holes with conventional analytical gold assay results, as well as coded lithologies from the drill core logs descriptions. The 352 drill holes cover the strike-length of the project at a drill spacing varying from 15 metres to 50 metres.

The Mineral Resource Estimate detailed in this report was made using 3D block modelling and the inverse distance square interpolation (ID2) method for a corridor of the Moss Lake Project with a strike-length of 3.2 km and a width of approximately 1.2 km, down to a vertical depth of 750 metres below surface. The result of the study is a single Mineral Resource Estimate for eighteen (18) mineralized zones and one (1) envelope zone containing the remaining isolated gold intercepts, with Indicated and Inferred Resources, for both a Whittle-optimized in-pit volume and a complementary underground volume. The effective date of this Mineral Resource Estimate is February 8, 2013.

InnovExplo estimates that the Moss Lake deposit has Indicated Resources of 39,797,000 tonnes grading 1.1 g/t Au (1,377,300 ounces of gold) and Inferred Resources of 50,364,000 tonnes grading 1.1 g/t Au (1,751,600 ounces of gold).

Mineral Resource Estimate Results for the Moss Lake Project

Moss Lake - 2013 MINERAL RESOURCE ESTIMATE						
Open Pit Potential - Mineral Resource > 0.5 g/t Au (within Pit Shell)						
Zone	Indicated Resource			Inferred Resource		
	Tonnes	g/t Au	Ounces	Tonnes	g/t Au	Ounces
101	7 655 000	1.1	268 800	2 684 000	1.4	120 100
102	32 140 000	1.1	1 108 500	9 984 000	1.1	360 000
Other				36 235 000	1.0	1 136 200
Sub-Total	39 795 000	1.1	1 377 300	48 904 000	1.0	1 616 300
Underground Potential - Mineral Resource > 2.0 g/t Au (outside Pit Shell)						
Zone	Indicated Resource			Inferred Resource		
	Tonnes	g/t Au	Ounces	Tonnes	g/t Au	Ounces
101				223 000	3.2	22 700
102				290 000	2.4	22 600
Other				949 000	3.0	90 100
Sub-Total				1 461 000	2.9	135 400
Mineral Resource Total (Open Pit and Underground Potential combined)						
Zone	Indicated Resource			Inferred Resource		
	Tonnes	g/t Au	Ounces	Tonnes	g/t Au	Ounces
101	7 655 000	1.1	268 800	2 907 000	1.5	142 800
102	32 140 000	1.1	1 108 500	10 274 000	1.2	382 600
Other				37 184 000	1.0	1 226 300
Total	39 795 000	1.1	1 377 300	50 364 000	1.1	1 751 600

- The Independent and Qualified Persons for the Mineral Resource Estimate, as defined by Regulation 43-101, are Pierre-Luc Richard, MSc, PGeo (InnovExplo Inc), and Carl Pelletier, BSc, PGeo (InnovExplo Inc), and the effective date of the estimate is February 8, 2013.
- These Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability.
- In-Pit results are presented undiluted and in situ, within Whittle-optimized pit shells. Underground results are presented undiluted and in situ, outside Whittle-optimized pit shells. The estimate includes 18 gold-bearing zones and 1 envelope containing isolated gold intercepts.
- In-Pit and Underground resources were compiled at cut-off grades from 0.3 to 5.0 g/t Au (for sensitivity characterization). A cut-off grade of 0.5 g/t Au was selected as the official in-pit cut-off grade and a cut-off grade of 2.0 g/t Au was selected as the official underground cut-off grade.
- Whittle parameters: mining cost = C$2.28; pit slope angle = 50.0 degrees; production cost = C$9.55; mining Dilution = 5%; mining recovery = 95%; processing recovery = 80% to 85%; gold price = C$1,500 .
- Cut-off grades must be re-evaluated in light of prevailing market conditions (gold price, exchange rate and mining cost).
- The estimate is based on 352 diamond drill holes (90,978 m) drilled from 1983 and 2008.
- A fixed density of 2.78 g/cm^3 was used.

- A minimum true thickness of 5.0 m was applied, using the grade of the adjacent material when assayed or a value of zero when not assayed.
- Capping was established at 35 g/t Au, supported by statistical analysis and the high grade distribution within the deposit.
- Compositing was done on drill hole sections falling within the mineralized zone solids (composite = 1 m).
- Resources were evaluated from drill hole samples using the ID2 interpolation method in a multi-folder percent block model using Gems version 6.4. Based on geostatistics, the ellipse range for interpolation was 75m x 67.5m x 40m.
- The Indicated category is defined by combining the blocks within the two main zones (101 and 102) and various statistical criteria, such as average distance to composites, distance to closest composite, quantity of drill holes within the search area.
- Ounce (troy) = metric tons x grade / 31.10348. Calculations used metric units (metres, tonnes and g/t).
- The number of metric tons was rounded to the nearest thousand. Any discrepancies in the totals are due to rounding effects; rounding followed the recommendations in Regulation 43-101.
- The pitshell used for the resource estimate extends slightly beyond the property limits in its northeastern portion. Although the entire resource lies within the property limits, some waste material outside the property limits will need to be removed to access some of the resource. Consequently, this portion of the pit may need to be re-considered in a future economic study.
- InnovExplo is not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues or any other relevant issue that could materially affect the Mineral Resource Estimate.

Mining Method

Mining of the Moss Lake deposit has been designed as an open pit with a planned production of 13,400,000 tonnes per year (13.4M tpy), or 40,000 tpd of mineralized material processed at the mill for an average of 335 days per year of mill operation and 350 days per year of mine operation.

The mineral resource block model developed by InnovExplo has been imported into Whittle™ software from Dassault Systèmes GEOVIA (formerly Gemcom Software International). Design parameters such as operating costs, mine recovery, dilution and gold price were used to generate an optimal pit shell.

The mine design parameters are:

- Maximum capacity of 225 metric tonnes for off-road haul trucks
- 10 metre high mining bench
- Double bench at final walls
- Ramp gradient of 10%
- 30 metre wide ramp - double-lane traffic
- 20 metre wide ramp - single-lane traffic
- One-way ramp for the last two (2) permanent benches on the east side of the pit
- Temporary ramp for the last two (2) benches

Metallurgy and Processing

The proposed Moss Lake Process Plant design is based on well known and established Gravity/CIL technology, which consists of single stage crushing, SAG milling, ball milling, gravity recovery of free gold followed by leaching/adsorption of gravity tailings, detoxification of tailings, elution & gold smelting and tailings disposal. Services to the process plant will include reagent mixing, storage and distribution, water, and compressed air services.

The plant will treat 14.0 million tonnes per annum of mineralized material. The plant design accommodates the sequential and combined processing of the different types of mineralized material while keeping the design as simple as possible.

Environment

Environmental baseline studies (EBS) have predominantly not been undertaken by Moss Lake Gold Mines or past operators. Baseline studies will need to be initiated prior to, or concurrent with, the start of the prefeasibility study to identify existing site conditions and environmental sensitivities associated with the Moss Lake Project (the "Project"). In accordance with regulatory expectations, environmental baseline studies will need to address potentially sensitive physical, biological and human components including, but not necessarily limited to: physiography and climate, hydrology and surface water quality, hydrogeology and groundwater quality, acid rock drainage and metal leaching, soils, fisheries and aquatic environments, terrestrial wildlife, vegetation and wetlands, air quality, noise, archaeology and heritage, socio-economic and land use, traditional use/traditional knowledge. The comprehensive EBS study will be designed in consultation with regulatory authorities and First Nations/community stakeholders.

There are no Protected Areas within the Project area; the nearest Protected Area is the Quetico Provincial Park located 20 km west of the Property. According to regional land cover mapping, the Property is predominantly covered by wooded areas and lakes. Several low-lying areas have been mapped as wetlands around Snodgrass and Kawawiagamak Lakes and may require special consideration in any permitting and planning activities. Towards the southern property boundary the ground cover trends more predominantly to wetlands and "herbs".

The Property comprises three named lake systems: Moss Lake, Snodgrass Lake, and Kawawiagamak Lake and several smaller open water bodies. Drainage is south into Quetico Provincial Park through a series of stream/creek and lake systems. Development of the open pit will necessitate diverting Wawiag River, which drains an upstream watershed of 143 km^2, and drainage of Snodgrass Lake, which is only 2-4 metres deep. A fish habitat replacement area, comprising 51 ha, has been incorporated into the initial Project design immediately downstream of the open pit. Detailed evaluation of the hydrology, fish habitat and aquatic environment in this area will be necessary to facilitate permitting of these activities.

Proposed Surface Infrastructure

New infrastructure for the Moss Lake operations will be required. Following is a list of the proposed new infrastructure:

- Crusher and mill complex;
- Office, garage, camp and associated services buildings;
- New electrical main line, site substation and site electrical distribution installations;
- Pit dewatering system, surface water management and water treatment plant;
- Access roads to the site and on the site.

The waste stockpile will be large, covering a surface area of approximately 2.68M m^2. The overburden stockpile will be smaller than the waste stockpile. Its surface area will be approximately 1.07M m^2. Low-grade mineralized material will be transported to the stockpile to eventually be milled. The proposed stockpile will have a capacity of 15M tonnes.

Capital and Operating Costs

The PEA study is based on capital pricing as of the first quarter 2013. The capital costs include various added contingencies depending on the sector. The pre-production costs are estimated at $542,503,252, including $35,997,057 of capitalized operating costs. Sustaining capital is estimated at $315,216,116, excluding $28.4M for final closure costs.

The total capital expenditure of $857.72M for the Moss Lake Project is estimated in eight (8) components: Capitalized operating cost, overburden removal cost, owners cost, site development and preparation, surface installation and equipment, electricity and communication, water management, environmental cost.

Breakdown of the Capital Cost

Description	Pre-production	Sustaining	Total cost
Capitalized operating cost	$ 35,997,057		$ 35,997,057

Overburden removal cost	$ 4,484,987	$ 106,695,767	$ 111,180,754
Owners cost	$ 14,636,420		$ 14,636,420
Site development & preparation	$ 7,014,184		$ 7,014,184
Surface installation & equipment	$ 424,876,684	$ 183,597,549	$ 608,474,233
Electricity and communication	$ 25,889,000		$ 25,889,000
Water management	$ 11,737,600		$ 11,737,600
Environmental	$ 17,867,320	$ 24,922,800	$ 42,790,120
Total capital expenditures	$ 542,503,251	$ 315,216,116	$ 857,719,367

The following assumptions were made in the capital cost estimation:

- The expected accuracy range of the capital cost estimates for this PEA Study is ± 35%.
- Currency is expressed in Canadian dollars (C$ or CAD) unless stated otherwise.
- Most of the item costs were derived from CostMine 2011.
- The principal equipment costs were given by Toromont.
- The pumping system was provided by Pompaction.
- The surface water management costs were provided by Stavibel.
- The environmental costs study has been prepared by Caracle Creek.
- The modular camp cost was provided by ATCO Structures & Logistics Ltd.
- The mill capital cost was provided by Metallurg Pty Ltd.
- All remaining costs were estimated using in-house cost data from recent projects or preliminary budget prices from suppliers.

Operating costs for the Moss Lake Project are estimated in 2013 Canadian dollars with no allowance for escalation. InnovExplo estimated mine operating costs using data from similar operations and from budget quotes supplied by contractors and suppliers.

Operating Costs Summary

Description	Total cost	Unit cost	
General & Administration	$ 162,357,221	1.27 $/t milled	67 US$/oz
Milling and transportation	$ 993,072,544	7.75 $/t milled	407 US$/oz
Mining costs	$ 1,089,302,935	8.50 $/t milled	446 US$/oz
Environmental monitoring	$ 5,557,500	0.04 $/t milled	2 US$/oz
Total	$ 2,250,290,200	17.56 $/t milled	922 US$/oz

Financial analysis

An after-tax model was developed for the Moss Lake Project. All costs are in 2013 Canadian dollars with no allowance for inflation or escalation.

The Moss Lake Project is subject to the following taxes:

- Ontario mining tax rate of 10% (2013 rate);
- Income tax rate of 26.5% (15% federal and 11.5% provincial);

The Moss Lake property is subject to a royalty equal to 8.75% of the net profit.

The economic evaluation of both project scenarios was performed using the Internal Rate of Return (IRR) and the Net Present Value (NPV) methods. The IRR on an investment is defined as the rate of interest

earned on the unrecovered balance of an investment. The discount rate makes the NPV of all cash flows equal to zero. The NPV method converts all cash flows for investments and revenues occurring throughout the planning horizon of a project to an equivalent single sum at present time at a specific discount rate. The discount rate used in the analysis is 5%.

According to the NPV method, a positive NPV represents a profitable investment where the initial investment plus any financing interest are recovered.

The following parameters were considered in the financial analyses:

- An average gold price of US$1546/oz and an exchange rate of 1.0033CAD/1USD (3-yr trailing average as at May 31, 2013).
- Milling recovery of 79.2% in the southern portion of the deposit and 84.2% in the northern portion of the deposit.
- Royal Mint Fees of $3/oz.
- Royalty of 8.75% of Net Profit.

This Preliminary Economic Assessment (PEA) is preliminary in nature as it includes Inferred Mineral Resources that are too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

The financial analysis for the Base Case (gold at US$1546/oz) indicates an after-tax NPV at a 5% discount rate of $196 million, with an IRR of 12% and a payback period of 1.75 years.

A 10% reduction in gold price, which corresponds to C$1396/oz, reduces the NPV to $27.9M and drops the IRR from 12% to 6%.

The resulting main parameters and cash flow analysis are presented in the following Table.

Cash Flow Analysis Summary

Parameters	Results
Potentially Mineable resources	128,154,775 tonnes @ 0.73 g/t
Total contained gold input	3,000,684 ounces
Total contained gold output	2,439,678 ounces
Total waste	314,662,647 tonnes
Total OVB	64,056,410 tonnes
Total moved	506,873,832 tonnes
Mine life (excluding 4 years of pre-production)	10 years
Daily mine production	40,000 tpd
Metal recovery	79.2% and 84.2%
Average operating cash cost	17.56 CAN$/t. milled
	922 CAN$/oz
Pre-production capital	$542,503,252
Sustaining capital	$315,216,115
Total gross revenue	$3,784,428,468
Total operating cost	$2,250,290,200
Total project cost	$3,108,009,568
Closure cost estimate	$28,430,000
Selling cost (3$/oz)	$7,319,034
Royalty (8.75% net profits after-tax)	$43,959,565
Net cash flow (including closure cost)	$705,457,624

Pre-tax NPV (5%) excluding royalty	$353,451,548
Pre-tax IRR excluding royalty	17%
After-tax NPV (5%)	$196,176,417
After-tax IRR	12%
Payback period	1.75 years

Sensitivity analyses were performed on parameters for their potential impact on the outcome of the economic evaluation. The following parameters were analyzed:

Production parameters:

- Gold price ($)

Economic parameters:

- Operating expenditure (OPEX)
- Capital expenditure (CAPEX)

Sensitivity calculations were performed on the project's NPV and IRR, applying a range of variation (± 20%) to the parameter values. The sensitivity analysis demonstrates that the Moss Lake Project is highly sensitive to changes in gold price. It is moderately sensitive to changes in OPEX and CAPEX.

Interpretation and Conclusions

The Moss Lake deposit is at an advanced stage of exploration and hosts significant gold mineralization.

InnovExplo developed a new interpretation for the Moss Lake deposit using section and plan views. Eighteen (18) mineralized zones enclosed within a gold mineralized envelop characterize the Moss Lake deposit. InnovExplo considers a structural study and surface mapping would greatly improve the understanding of key geological parameters controlling gold mineralization within the project area. Re-logging is also proposed prior to any new drilling program.

After conducting a detailed review of all pertinent information and completing the present Mineral Resource Estimate, InnovExplo concludes the following:

- The geological and grade continuities of the gold mineralized zones of the Moss Lake Project were demonstrated;
- The Moss Lake Project contains at least eighteen (18) continuous mineralized zones;
- The lenses have strike lengths ranging up to 2,500 m;
- In spite of the current drill spacing, geological continuity seems steady throughout the mineralized zones;
- The zones encountered at the Moss Lake deposit have significant possibility to expand as all the extensions are open. The only limitation is the property boundary to the NE that is close to the deposit;
- The potential is high for upgrading Inferred Resources to Indicated Resources with more diamond drilling in all of the zones;
- The potential is high for adding new resources in the extensions of known zones with additional diamond drilling;
- The potential is high for identifying new parallel zones with additional diamond drilling;

The reader should know that the pitshell used for the resource estimate extends slightly beyond the property limits in its northeastern portion. The entire resource lies within the property limits, and this PEA pit optimization constrained pit limits to the property boundaries.

The property is strategically positioned in an area known to be associated with gold mineralization.

InnovExplo considers the present Mineral Resource Estimate to be reliable, thorough, based on quality data, reasonable hypotheses, and parameters compliant with Regulation 43-101 and CIM standards regarding mineral resource estimations. InnovExplo believes that the Moss Lake Project Mineral Resources are sufficiently advanced for a preliminary economic assessment study.

The open-pit mining plan resulted in 2.44 million ounces of recoverable gold. The mine plan was designed for a nominal 40,000 tonne-per-day operation, with an average stripping ratio of 2.96:1 when including overburden, and 2.46:1 without overburden. The life of mine (LOM) is estimated at ten (10) years. Average yearly gold production for the first five (5) years is 295,825 ounces, and the average for the last five (5) years is 192,111 ounces. A yearly average of 243,968 gold ounces is predicted over the LOM.

The estimated mill cut-off grade is 0.38 g/t Au in the northern portion of the deposit (formerly known as the Main Zone) and 0.32 g/t Au in the southern portion (formerly known as the QES Zone). The mill cut-off grade was calculated by WHITTLE™ and is based on the input parameters.

InnovExplo concludes that this PEA demonstrates the potential viability of the Moss Lake Project and has upside that could improve the economics of the project such as:

- The possibility of increasing the potentially mineable resource by eliminating the property constraint on the northeast side of the property.
- Increasing the resource within the pit shell through additional drilling in areas identified by geologists.
- Defining pit slopes based on a geotechnical study.

Water management represents a potential risk to the viability of the project and will have to be studied fully in order to develop a safe and feasible option.

The PEA presents a base case scenario that recovers only runoff from the pit and the TMF. In the case that all water would need to be collected and treated, this would significantly affect the required infrastructure elements and increase the treatment costs, thereby representing a potential risk to the viability of the project.

InnovExplo believes that definition drilling and more advanced engineering work are mandatory for the Moss Lake Project to eventually advance to the pre-feasibility study stage.

InnovExplo considers the present PEA to be reliable, thorough, based on quality data, reasonable hypotheses, and parameters compliant with Regulation 43-101 (NI 43-101) and CIM standards regarding mineral resource estimations.

Recommendations

InnovExplo recommends additional work to confirm the economic potential of the Moss Lake deposit and the rest of Moss Lake property.

Despite the fact that the PEA demonstrates a marginally economic result for the project, InnovExplo recommends additional study to further advance the project. The project has sufficient potential to increase its value by eliminating the current boundary constraint on the northeast side, by increasing resources within the current pit limit, and by better defining the water management scenario. A geotechnical study would be required to better define the pit wall slope configuration.

Caracle Creek recommends that environmental and socio-economic studies and public consultation proceed with the objective of gaining provincial and federal environmental approvals for the project in line with the feasibility timing.

The information gained from the environmental studies should be integrated into all infrastructure layout and design options under study for the next phase of development.

Estimated reclamation costs and bonding requirements should be reassessed in the next phase of development.

It is recommended that further grind size optimisation testwork be carried out to determine the potential increase in gold leach recoveries arising from increased particle liberation ahead of cyanidation leaching. Additionally further ore characterisation testwork including SAG mill amenability tests needs to be carried out on the different ore zones.

The peak discharge for the Wawiag diversion channel between the open pit and the TMF should be better estimated by constructing a complete hydrological model for the Wawiag River upstream from the mine site. This hydrological model should be calibrated using data from surrounding gaged watersheds with similar characteristics, like the Whitefish River watershed for Water Survey Canada gage number 01AB017.

InnovExplo recommends additional test work on rock samples to define the characteristics and risks related to the water runoff from all the industrial and piling areas on the property. At this time, there is no evidence of acid mine drainage associated with the historical underground exploration program and from the acid base accounting test work. However, additional test work should evaluate whether other deleterious elements would suggest the need to collect and treat these waters.

The pit considered in the PEA is limited to the northeast by the property boundary. Even though the current resources are within the property, this limit is a restriction on the pit size if deeper resources are defined and need to be reached. It is recommended that the issuer examine the possibility of acquiring additional mining titles and surface rights to the north.

If the exploration work outcome is positive, InnovExplo recommends an engineering study, a resource update, and a prefeasibility study in order to further advance the project.

InnovExplo is of the opinion that the character of the Moss Lake property is of sufficient merit to warrant the recommended exploration program and the work described below. The program is divided into two (2) phases. Expenditures for Phase I of the work program are estimated at C$ 6,325,000 (including 15% for contingencies). Expenditures for Phase II of the work program are estimated at C$ 7,164,500 (including 15% for contingencies). The grand total is C$$ 13,489,500 (including 15% for contingencies). Phase II of the program is contingent upon the success of Phase I.

Table 26.1 presents the estimated costs for the various phases of the recommended work program.

Estimated Costs for the Recommended Work Program (in Canadian dollars)

Budget for Phase 1 - Exploration work	Cost Estimate
Compilation, re-logging, surface mapping and structural study	$ 250,000
In-fill drilling	$ 3,000,000
Drilling extensions of mineralized zones	$ 1,500,000
Drilling targets generated from compilation work, re-logging, surface mapping and structural study.	$ 750,000
Contingency (15%)	$ 825,000
Total phase 1	$ 6,325,000
Budget for Phase 2 - Resources estimate, engineering and environmental study	
Geotechnical study	$ 1,500,000
Hydrogeological and water management study	$ 500,000
Metallurgical test work and process engineering	$ 1,100,000
Resources update & pre-feasibility report	$ 450,000
Environmental baseline study	$ 1,480,000
Community consultation	$ 200,000
Environmental assessment application	$ 600,000
Permitting application	$ 400,000

Contingency (15%)	$ 934,500
Total Phase 2	$ 7,164,500
TOTAL Phase 1 and Phase 2	$ 13,489,500

ABOUT MOSS LAKE GOLD MINES LTD.

Moss Lake Gold Mines Ltd. was created in 1994 to consolidate ownership of the Moss Lake gold deposit. It is a 57.6%-owned subsidiary of Wesdome Gold Mines Ltd. which currently owns and operates the Eagle River Gold Mine, the Mishi Gold Mine and the Kiena Gold Mine.

Moss Lake trades on the TSX Venture Exchange under the symbol "MOK" and currently has 47 million common shares issued and outstanding.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

This news release includes certain forward-looking statements concerning the future performance of Moss Lake's business, operations and financial performance and condition, as well as management's objectives, strategies, beliefs and intentions. Such statements include, but are not limited to, statements concerning the intention of Wesdome to convert the Note. Forward-looking statements are frequently identified by such words as "may", "will", "plan", "expect", "anticipate", "estimate", "intend" and similar words referring to future events and results. Forward-looking statements are based on the current opinions and expectations of management. All forward-looking information is inherently uncertain and subject to a variety of assumptions, risks and uncertainties, including the speculative nature of mineral exploration and development, fluctuating commodity prices, competitive risks and the availability of financing, as described in more detail in recent securities filings available at www.sedar.com. Actual events or results may differ materially from those projected in the forward-looking statements and Moss Lake cautions against placing undue reliance thereon. Moss Lake and its management assume no obligation to revise or update these forward looking statements.

Contact

Moss Lake Gold Mines Ltd.
George N Mannard, MScA, P.Geo., President
416-360-3743 ext 22 or

Donovan Pollitt, P.Eng., CFA, Director
416-360-3743 ext 25

8 King St. East, Suite 1305
Toronto, ON, M5C-1B5
Toll Free: 1-866-4-WDO-TSX
Phone: 416-360-3743, Fax: 416-360-7620
Email: info@mosslakegold.com, Website: www.mosslakegold.com