

Goldsource Announces Positive Preliminary Economic Assessment on Eagle Mountain Gold Project, Guyana

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Base Case Pre-Tax NPV(5%) of US\$69.4 Million, 84% IRR

VANCOUVER, BRITISH COLUMBIA--(Marketwired - Jul 31, 2014) - [Goldsource Mines Inc.](#) ("Goldsource" or the "Company") (TSX VENTURE:GXS)(FRANKFURT:G5M) is pleased to announce the summary results of its Preliminary Economic Assessment ("PEA") Technical Report for the near-surface oxide resources ("saprolite") at its Eagle Mountain gold project ("Eagle Mountain") located in Guyana, South America approximately 230 kilometres southwest of the capital, Georgetown. Conceptually, the PEA results suggest that the project has low capital and operating costs, minimized technical risk and a short development timeline. Summaries of the total current resources, resources used for the PEA, a preliminary Life of Mine Plan ("LOMP"), operating costs, capital costs, sensitivities and project economics are presented in tables below. A Technical Report compliant with NI43-101 is being completed by A.C.A. Howe International Limited of Toronto, Canada ("ACA Howe"), to be filed on SEDAR at www.sedar.com within 45 days of this news release. All values are presented as US dollars unless specified.

Ioannis (Yannis) Tsitos, Goldsource's President stated: "We are extremely pleased with the PEA results for this relatively low-risk phase of development for the Eagle Mountain gold project. The results exhibit very attractive Rates of Return. The creativity of the phased construction approach, its modular design and the simplicity of the mining and processing of the low-strip ratio saprolite material have resulted in an optimized development scenario for this deposit. In addition, the inventory of potentially recoverable ounces of gold in the oversize materials and the underlying hard rock resource provide us with a significant 'blue-sky' potential for further development."

N. Eric Fier, CPG, P.Eng, Goldsource's Chief Operating Officer commented: "Through our experience, we have applied the responsible phased-approach business model to the Eagle Mountain gold project in order to minimize initial capital and project risk. This conceptual approach encompasses a "Phase I" starter open cut for mining at 1,000 tonnes per day ("tpd") with subsequent low impact and low cost gravity-only processing. Upon successful completion of Phase I, the Company plans to systematically install and operate three additional similar plants over a four-year schedule with a cumulative rate of 3,500 to 4,000 tpd. Conceptually, additional processing plants will be paid for through operating cash flow. The project has several potential opportunities to accelerate PEA-defined production once initial success in Phase I is achieved."

The Company cautions that the PEA is preliminary in nature in that it is based largely on Inferred Mineral Resources which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be characterized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

PRELIMINARY ECONOMIC ASSESSMENT HIGHLIGHTS

The PEA incorporates a gold price of \$1,250 per ounce gold. Highlights of the Base Case economic

estimates are as follows:

- Pre-tax Net Present Value ("NPV")(5%) of \$69.4 million and after-tax NPV(5%) of \$45.6 million.
- Pre-tax NPV(7%) of \$61.1 million and after-tax NPV(7%) of \$39.8 million.
- Pre-tax Internal Rate of Return ("IRR") of 84% and after-tax IRR of 63%.
- Phase I, pre-production capital costs of \$5.9 million including a 15% contingency.
- Total capital costs including all proposed expansions (Phase II, III & IV expansions) and sustaining capital are estimated at \$24.2 million.
- Cash operating costs, exclusive of sustaining capital, for saprolite mine life averages \$480 per ounce gold including a 15% contingency.
- Cost per tonne of mill feed averages \$8.96.
- Pre-tax undiscounted operating cash flow before capital expenditures totalling \$123.4 million.
- 8-year LOMP PEA mine plan totalling 8.6 million tonnes at an average grade of 1.20 g/tonne gold (diluted and recoverable).
- Of the 8.6 million tonnes, only 7.3 million tonnes (undersize sub-2mm) grading 1.20 g/tonne gold will be conceptually processed. The remaining tonnes (oversize larger than 2mm) would be stockpiled for further metallurgical test work and potential further processing.
- Conceptually, the first four years of gold production would be 5,600, 14,400, 21,600 and 28,800 ounces gold, respectively.
- Life of mine production of an estimated 168,700 ounces gold from gravity-only processing at estimated 60% recovery.
- Inventory of 161,900 oz Au in settlement ponds from gravity-only processing rejects for potential future reprocessing using standard technologies.
- Not considered in the PEA are the in-situ "fresh-rock" resources of Indicated 2,331,000 tonnes @ 1.52 g/tonne Au containing 114,000 oz and Inferred 13,433,000 tonnes @ 1.13 g/tonne, containing 486,000 oz (both at 0.5 g/t Au cut-off).

The Eagle Mountain mining and processing schedules are based on a phased-approach model with four phases proposed over four years. Phase I mining rates would be 1,000 tonnes per day (one 12-hour shift, 7-days per week) in year one ramping up to 4,000 tonnes per day by year four. Conventional open cut mining of soft weathered rock (gold mineralized saprolite) is proposed using a team of excavators, bulldozers and wheel-loaders to excavate and separate materials within the open cut with downhill gravity transport by slurry to the processing facility. The stripping ratio is low and estimated at an average of 0.9:1 (waste:ore) over mine life. No blasting or truck hauling is required for mineralized saprolite.

EAGLE MOUNTAIN MINERAL RESOURCE

In 2012, ACA Howe prepared on behalf of [Eagle Mountain Gold Corp.](#) ("EMGC"), now a subsidiary of Goldsource, a mineral resource estimate for the Eagle Mountain gold deposit, which had been tested by drill campaigns completed between 1947 and 2011. Neither EMGC nor Goldsource has completed additional drilling since this estimate was completed. ACA Howe has therefore reissued the resource without change for the purpose of the 2014 PEA.

Category	Material	Tonnes	Au Grade (g/tonne)	Contained Ounces Au	Used in PEA
Indicated	Saprolite	1,590,000	1.45	74,000	Yes
	Fresh	2,331,000	1.52	114,000	No
	Total	3,921,000	1.49	188,000	
Inferred	Saprolite	7,202,000	1.32	306,000	Yes
	Fresh	13,433,000	1.13	486,000	No
	Total	20,635,000	1.19	792,000	

Notes for mineral resource estimate:

1. A block cut-off value of 0.5 g/tonne gold was applied to all resource blocks assuming a typical mining recovery of 95%, a typical overall processing recovery of 90%, a typical smelter return of 98% and a 3-year trailing average gold price of approximately \$US 1,450 per ounce gold (November 21, 2012).
2. Tonnes and ounces have been rounded to reflect the relative accuracy of the mineral resource estimate; therefore numbers may not total correctly.
3. A notional cut-off gold grade for mineralized domain interpretation was 0.2 g/tonne gold.
4. A top cut of 20 g/tonne gold was applied to raw assay values.
5. Composited diamond drill hole and trench samples are assigned to 29 layered and fault bound resource domains that encompass the Zion and Kilroy portions of the deposit.

6. Corresponding domain blocks and composite samples are projected to a horizontal plane for grade estimation by Ordinary Kriging.
7. The block model is constrained by topography and saprolite and fresh weathering domains with bulk density values of 1.6 t/m³ and 2.6 t/m³ respectively assigned.
8. Mineral Resource tonnes quoted are not diluted.
9. The mineral resource estimate was prepared in accordance with CIM Standards on Mineral Resources and Reserves (adopted November 27, 2010), remains in accordance with CIM Standards on Mineral Resources and Reserves (adopted May 10, 2014), and is reported in accordance with the Canadian Securities Administrators' NI 43-101 and 43-101CP.
10. This mineral resource includes Indicated and Inferred Mineral Resources. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

MINE PLAN

The mine plan consists of standard open cut mining using conventional mining equipment. For Phase I, a team of excavators, bulldozers and wheel-loaders would excavate in-situ soft weathered rock (saprolite) at a rate of 100 tonnes per hour (1000 tonnes per day) and deliver the material to the in-pit grizzly, scrubber and screens with sub-2mm material being delivered by slurry line to the processing plant. Larger than 2mm material would be stockpiled for potential processing in the future.

No blasting or truck hauling would be required for mineralized saprolite. No blasting would be required for waste. Waste material would be loaded and truck hauled to a nearby storage facility. The strip ratio has been estimated at 0.9 to 1 (waste to mineralized saprolite). Top soils would be pre-stripped and stockpiled near the open cuts for future reclamation purposes.

Conceptual mining would consist of one 12-hour shift, 300 days per year based on equipment availability and rainy season conditions. Potential exists to significantly increase production by adding a second shift and/or increasing production days by effectively mitigating periodic heavy rain conditions.

Gold grade control would consist of drilling auger holes on a 5m by 5m pattern 5m deep with collection of representative samples for analysis in the onsite lab. Using a cut-off grade of 0.3 grams of gold per tonne ("g/tonne"), material designation would be determined and properly marked in the mining area for excavation.

METALLURGY

Recent metallurgical test work completed by Met-Solve Laboratories Inc. of Langley, B.C., Canada has determined an approximate gold recovery of 60% for the saprolite resources for sub-2mm material. Additional recovery is possible for larger than 2mm material after completion of further test work.

Gold is considered to be fine grained with approximately 59 % passing 100 mesh (150 micron). Recovery of fine gold has historically been problematic, however, modern centrifugal gravity concentrators are able to recover finer gold particle sizes.

PROCESSING

A single Sepro 10K (1,000 tpd) gravity processing plant is envisioned for Phase I. Generally, the plant consists of a grizzly, scrubber, screens, and Falcon gravity concentrators. Gold concentrate from the gravity concentrators will be further concentrated using a shaking table and refined on site for production of dore bars.

The processing plant is powered by a 300 to 400 Kilowatt ("kW") diesel generator. Total electrical load for the plant is approximately 250 kW. A backup generator will be in place for redundant purposes. Ample water is locally available for all processing needs for all proposed phases of the project.

Upon successful completion of Phase I, three additional similar plants would be sequentially installed to increase production to between 3,500 to 4,000 tpd by year four.

Coarser grained (larger than 2mm) saprolite would be screened-out and stockpiled. Opportunities to increase production by crushing or milling stockpiled oversized material is possible, depending on further test work. Additional test work on potential flotation and cyanidation may also increase production.

CAPITAL & OPERATING COSTS

Detailed cost estimates have been prepared for the mine and processing plant based on current vendor quotes, experience and industry cost publications. Pre-production capital costs are estimated to total \$5.9 million including a 15% contingency. The Company does not presently have the funds to carry out these developments and plans to source the funds through equity or debt financing or a combination thereof.

Initial capital costs include rehabilitation of the access road, dredging and preparation of tailings settling ponds, construction of the modular processing facility, initial mining equipment purchases, and preproduction development and infrastructure requirements. This includes pre-production and construction of facilities over a period of six months. Infrastructure in the Eagle Mountain area is in reasonable condition. An existing 7-kilometre ("km") road connects the project with the local airport and the main road to Georgetown, which is approximately 230 km away. The local community of Mahdia would be the primary source for skilled workers. The capital costs from the PEA are summarized below.

Capital Costs (Pre-production and LOMP)

Capital Expense Item (Phase I)	Estimated cost in US \$
Mining Equipment Purchases	1,167,000
Process Plant	1,600,000
Lab and Refinery	231,000
Tailings Storage and Settlement	468,000
Access Road Rehabilitation, 7 km	315,000
EPCM, Design and Technical Services	214,000
Site Preparation and Construction	300,000
Working Capital	400,000
Sustaining Capital	0
Indirects	428,000
Contingency at 15%	769,000
Initial capital including contingency	\$5,892,000
Capital Expense Item (All Phases)	
Mining Equipment Purchases (All Phases)	3,687,000
Process Plant	6,400,000
Lab and Refinery	924,000
Tailings Storage and Settlement	2,413,000
Access Road Rehabilitation and Maintenance	715,000
EPCM, Design and Technical Services	858,000
Site Preparation and Construction	1,200,000
Operations Sustaining Capital	2,900,000
Indirect	1,897,000
Contingency at 15%	3,209,000
Total Capital including contingency	\$24,203,000

The operating costs have been entered into a cost model to determine the cost per tonne of material handled to the processing plant, whether waste or mineralized material. The operating cost is divided into cost per tonne mining, cost per tonne processing and cost per tonne general and administrative.

The PEA has estimated total operating costs at an average of \$8.96 per tonne of material processed.

Operating Costs

Aspects of Operations (Averages over LOMP)	Cost per tonne of Saprolite
Mining Cost (Ore and Waste)	\$2.80
Processing of Saprolite - Gravity Only	\$3.10
Tailings Storage, Settlement and Maintenance	\$0.31
General and Administrative ("G & A")	\$2.75
Contingency at 15%	In costs above
Total Average LOMP Cost per tonne	\$8.96
Average Operating Cost per Ounce Gold Sold (LOMP)	\$480 / oz.

Pit Optimization and Production Scheduling

Optimized pits were created based on the presented operating costs and used for conceptual mine design and scheduling. Eight non-contiguous pits were outlined.

Mine Inventory

Pit	Mine Tonnes	Grade (g/tonne)	Total Waste Tonnes	Stripping Ratio by Mass
1	107,000	0.94	394,000	3.7:1
2	4,417,000	1.25	3,880,000	0.9:1
3	1,204,000	1.25	472,000	0.4:1
4	805,000	1.04	429,000	0.5:1
5	805,000	1.42	356,000	0.4:1
6	363,000	0.96	220,000	0.6:1
7	591,000	0.78	443,000	0.7:1
8	301,000	1.30	762,000	2.5:1
Total	8,593,000	1.20	6,956,000	0.9:1

Notes:

1. Non-mineralized dyke material estimated to be 5% by mass.
2. Dilution 10% at 0.15 g/tonne.
3. Cut-off grade 0.3 g/tonne.

PRODUCTION & FINANCIAL MODEL

Total mine inventory for mineralized saprolite is 8,563,000 tonnes grading 1.20 g/tonne gold. Of this estimated inventory approximately 7,303,000 tonnes grading 1.20 g/tonne gold is considered plant feed representing the undersize sub 2mm material. An estimated 1,290,000 tonnes grading 1.20 g/tonne gold will be stockpiled representing large than 2mm material for potential further processing. Details of the production schedule and economic model are as follows:

Production Schedule and Financial Model

	Pre-Production	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Plant Feed Tonnes (sub 2mm size)		300,000	600,000	900,000	1,200,000	1,200,000	1,200,000	1,200,000
Proportion of Inferred Tonnes		67 %	80 %	80 %	80 %	81 %	77 %	
Proportion of Inferred Gold		68 %	77 %	77 %	77 %	79 %	76 %	
Plant Feed Grade (g/tonne)		0.96	1.24	1.25	1.25	1.19	1.01	1.01
Au Oz in Plant Feed		10,900	28,200	42,400	56,500	54,100	45,900	60,500
Total Waste Tonnes		214,000	617,000	930,000	1,240,000	1,219,000	830,000	1,229,000
Stripping Ratio by Mass (based on all material sizes)		0.6:1	0.9:1	0.9:1	0.9:1	0.9:1	0.6:1	0.9:1
Gold Recovered, Net of Gov't Royalty (Ounces)		5,300	13,700	20,500	27,400	26,200	22,200	29,400
Revenue (\$000s)		6,625	17,125	25,625	34,250	32,750	27,750	36,750
Operating Costs Including G&A (\$000s)		3,055	6,397	9,602	12,802	12,770	12,179	12,770
Operating Profit (\$000s)		3,570	10,728	16,023	21,448	19,980	15,571	23,980
Capital Costs (\$000s)	5,892	4,610	6,102	4,955	1,895	288	518	2,000
Pre-Tax Cash Flow (\$000s)	-5,892	-1,039	4,626	11,069	19,553	17,192	15,053	23,600

30% Tax (\$000s)		441	2,348	3,814	5,526	6,000	4,045	6,6
Post-Tax Cash Flow (\$000s)	-5,892	-1,480	2,278	7,255	14,027	11,192	11,008	17,0

Indicators

Pre-Tax NPV _(5%) (Millions)	\$69.4
Pre-Tax NPV _(7%) (Millions)	\$61.1
Pre-Tax IRR	84%
Post-Tax NPV _(5%) (Millions)	\$45.6
Post-Tax NPV _(7%) (Millions)	\$39.8
Post-Tax IRR	63%

PEA SENSITIVITY ANALYSIS

The economic sensitivity of the proposed operation was explored by varying key assumptions within reasonable ranges (see table below). As is typically the case, the price of gold and operating costs are the most sensitive parameters.

At a gold price as low as \$1,100 per ounce, the project is expected to remain quite profitable with an IRR of 49%. With an increase in operating costs of more than 30%, the project is also projected to remain quite profitable with an IRR of 30%.

Based on limited metallurgical test work, gold recovery was estimated at 60% using gravity methods alone. Should the actual recovery be as low as 50%, the project is expected to remain quite profitable with an IRR of 43%.

Increases in capital costs caused the least disturbance in profitability. Even with an increase in capital costs of 30%, the project is expected to remain quite profitable. Quotes have been received for the major capital costs (processing plant, mining equipment, road work) and a 15% contingency has been applied. Large capital cost overruns are unlikely.

Scenario	NPV _(7%) (Millions)	IRR
Base Case	\$39.8	63 %
Gold Price \$1100	\$28.5	49 %
Gold Price \$1500	\$58.7	85 %
Gold Price \$1750	\$77.6	105 %
Operating Costs +10%	\$32.2	54 %
Operating Costs +20%	\$23.8	43 %
Operating Costs +30%	\$14.7	30 %
Gold Recovery 50%	\$24.0	43 %
Capital Costs +10%	\$37.8	56 %
Capital Costs +20%	\$35.8	51 %
Capital Costs +30%	\$33.8	45 %

RECOMMENDATIONS & FUTURE OPPORTUNITIES

The majority of the proposed plant feed consists of Inferred mineral resources. Further sampling and surveying should be carried out within and surrounding the proposed pits in an effort to upgrade Inferred blocks to higher resource categories with adequate QA/QC and additional density data collection.

Resources are open in most directions and good potential exists to initially expand mineralized saprolite. Further drilling is recommended to potentially expand resources for consideration in the phased development of the project.

This project envisions screening-out any material that is larger than 2mm and stockpiling it for potential further processing. If this material were ground finer in a grinding mill, it could be fed into the proposed processing plant. Further metallurgical testing and economic analysis should be carried out to determine whether this gold could be profitably recovered.

Using gravity processing methods alone, gold recovery is expected to be 60% with the remainder of the gold flowing to the tailings storage area. Most of this gold may be recovered with further processing such as flotation or cyanidation. Further metallurgical testing and economic analysis should be carried out to determine whether this gold could be profitably recovered from the tailings. This work should also include further tailings characterization and deposition properties.

Based on the positive results of the PEA, mineral resource estimates should be updated, the economic analysis refined and updated, and a mineral reserve statement prepared to a Pre-Feasibility Study level. Mining the "fresh" rock that would require drilling and blasting should be considered during this work. A budget of \$820,000 is recommended for this work.

The Qualified Persons ("QP") for this Technical Report and who have reviewed and approved the contents of this news release are:

Ian Trinder, P.Geo.	Mineral Resource, Pit Design, Mine Planning, Financial Modeling, Supervising Mining Engineering	ACA Howe International
Douglas Roy, M.A.Sc., P.Eng.		
Alex Lum, P.Eng.	Metallurgical Test Work, Processing Plant Design, Processing Capital & Operating Costs	Met-Solve Laboratories I
Mauritz Lundt, P.Eng.		

ABOUT GOLDSOURCE MINES INC.

[Goldsource Mines Inc. \(www.goldsourcemines.com\)](http://www.goldsourcemines.com) is a Canadian resource company that is working aggressively to develop its advanced-stage, 100%-owned Eagle Mountain gold project in Guyana towards initial staged production in 2015. The project has an existing NI 43-101 resource of 188,000 Indicated and 792,000 Inferred gold ounces, with strong potential to expand its resources. Goldsource Mines is led by an experienced management team, proven in making exploration discoveries, achieving construction on time and budget, and fast-tracking production.

Ioannis (Yannis) Tsitos, President & Director

[Goldsource Mines Inc.](http://www.goldsourcemines.com)

FORWARD-LOOKING STATEMENTS

This news release contains "forward-looking statements" within the meaning of Canadian securities legislation. Such forward-looking statements concern Goldsource's anticipated consolidated results and developments in Goldsource's consolidated operations in future periods, planned exploration and development of the Eagle Mountain Gold Project, plans related to its business and other matters that may occur in the future. These statements relate to analyses and other information that are based on expectations of future performance, including gold production and planned work programs. Statements derived from mineral resource estimates may also constitute forward-looking statements to the extent that they involve estimates of the mineralization that will be encountered if the Eagle Mountain property is developed.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements, including, without limitation: risks related to precious and base metal price fluctuations; risks related to fluctuations in the currency markets (particularly the Guyanese dollar, Canadian dollar and United States dollar); risks related to the inherently dangerous activity of mining, including conditions or events beyond control of Goldsource, and operating or technical difficulties in mineral exploration, development and mining activities; uncertainty in the Goldsource's ability to raise financing and fund the development of the Eagle Mountain Gold Project; uncertainty as to actual capital costs, operating costs, production and economic returns, and uncertainty that development activities will result in a profitable mining operation at the Eagle Mountain Gold Project; risks related to mineral resource figures being estimates based on interpretations and assumptions; risks related to governmental regulations and obtaining necessary licenses and permits; risks related to the business being subject to environmental laws and regulations; risks relating to inadequate insurance or inability to obtain insurance; risks related to potential

litigation; risks related to the global economy; risks related to the Eagle Mountain Gold Project being located in Guyana, including political, economic, social and regulatory instability. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the forward-looking statements. The forward-looking statements are based on beliefs, expectations and opinions of management on the date the statements are made. For the reasons set forth above, investors should not place undue reliance on forward-looking statements.

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

Contact

[Goldsources Mines Inc.](#)

Ioannis (Yannis) Tsitos

President

+1 (604) 694-1760 or Toll Free 1-866-691-1760 (Canada & USA)

+1 (604) 694-1761

[Goldsources Mines Inc.](#)

Fred Cooper

Investor Relations

+1 (604) 694-1760 or Toll Free 1-866-691-1760 (Canada & USA)

+1 (604) 694-1761

info@goldsourcemines.com

www.goldsourcemines.com

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