

29 June 2015

# AMUR MINERALS CORPORATION (AIM: AMC)

# **Operational Blueprint Defined For Kun-Manie**

Amur Minerals Corporation ("Amur" or the "Company") is pleased to present the forward looking Operational Blueprint ("Blueprint") for the development of the Kun-Manie nickel copper sulphide project located in the Russian Far East. The optimised design has been derived from the combination of an extensive Company generated update to the 2007 SRK Consulting Ltd ("SRK") Pre Feasibility Study ("PFS") and the consideration of the terms and conditions as contained within the newly acquired "Detailed Exploration and Production Licence" (the "Licence").

## Highlights of the Operational Blueprint include the following:

- Existing resources can sustain a 15 year production period where 6.0 million tonnes per annum are produced. Infill drilling will be required.
- Mine production will be derived from four open pits and two underground operations.
- A simple flotation concentrate will be generated which can be smelted by the Company owned smelter as verified by Outotec.
- The project has an estimated operating cost per ore tonne of \$US 34.86 per ore tonne.
- The total initial capital expenditure is projected to be \$US 1.38 billion to be expended in a two year construction period. Sustaining capital is estimated to be \$US 474 million over 15 years.
- The Net Present Value ("NPV") using a 10% discount rate is projected to be \$US 0.71 billion and \$US1.44 billion using the long term nickel prices of \$US 7.50 per pound and \$US 9.50. per pound These economic projects cover an owner operated smelter and refinery.

The Blueprint establishes an operational plan for the comprehensive beneficiation of the sulphide ores from mining through the sale of final metal products generated by a Company owned smelter / refinery on the international market. Definition of the Blueprint included various trade off sensitivity studies that identified the most profitable configuration for Kun-Manie. From the plan, the operational configuration, technical operating parameters, operating and capital cost expenditures as well as pro forma cash flow projects have been established by the Company. The results will be independently audited by one of three shortlisted western mining consultancies possessing Russian experience.

#### **Robin Young, CEO of Amur Minerals Corporation, commented:**

"This Operation Blueprint contained within our PEA, represents ten years of successful exploration at Kun Manie, along with a total redesign of the project. As we worked on the study, we challenged all past and previous assumptions. As a result, mining will best be performed using a combination of underground and open pit productions, power will be generated on site, a substantial access road upgrade can be supported and the construction of own smelter and refinery.

"These choices make a tremendous difference to the bottom line, which we measure in global project NPV. Moving forward through infill drilling, metallurgy and more detailed engineering studies, we will continue to search for ways to optimise the project so that it delivers the highest possible value to the shareholders. We are comfortable with the final values we have generated as a Company, however, we are compiling a Request for Proposal from three independent companies."

## **Enquiries:**

| <i>Company</i><br>Amur Minerals Corp. | Nomad and Broker<br>S.P. Angel Corporate<br>Finance LLP | Public Relations<br>Yellow Jersey  |
|---------------------------------------|---|------------------------------------|
| Robin Young CEO                       | Ewan Leggat<br>Katy Birkin                              | Dominic Barretto<br>Kelsey Traynor |
| +44 (0) 7981 126 818                  | +44 (0) 20 3470 0470                                    | +44 (0) 77 99 003 220              |

#### **Notes to Editors**

The information contained in this announcement has been reviewed and approved by the CEO of Amur, Robin Young. Mr. Young is a Geological Engineer (cum laude) and is a Qualified Professional Geologist, as defined by the Toronto and Vancouver Stock Exchanges.

For further information, see the Company website at <u>www.amurminerals.com</u>.

# Long Term Operational Blueprint

In 2014, the Company initiated an internal evaluation and update of the 2007 SRK Consulting Ltd ("SRK") Pre Feasibility Study ("PFS"). A substantial amount of technical data had been acquired since the 2007 PFS was issued, including the increase in the resource base through step out drilling and the discovery of two new deposits. The first conclusion derived from the update was that the additional resource could support a 20 year mine life producing at a nominal production rate of 4.0 million tonnes per year. This work confirmed that infill drilling should take priority over resource expansion, which also remains highly prospective.

In mid-2014, the PFS update was under executive review and prepared for release when two events impacted the quality of the study, placing its release on hold.

- Economic sanctions placed against the Russian Federation required a reassessment of the equipment selection by identifying alternatives from within Russia and from sources outside the sanctions bloc.
- A rapid devaluation of the Russian Rouble impacted the quality of all operating costs and selected capital equipment estimates. This especially disrupted the projections related to labour costs. The

devaluation was so significant that it invalidated significant portions of the study.

During Q3 and Q4 2014, the Company continued to update the study information where possible whilst monitoring the Rouble exchange rate. By February 2015, the Rouble had stabilised and the Company resumed its update of the study, which included a key change in scope. In Q4 2014, the terms and conditions for the Production Licence were negotiated (though final approval was still pending) with a 20 year Production Licence life being established. As a result, the Company increased the annual nominal throughput from 4.0 million to 6.0 million tonnes. It was determined that the existing resource inventory could support the increase as well as sustain a total production of 90 million tonnes for a 15 year mine life.

Another key decision was undertaken by management wherein a longer term vision of the operation was implemented. This called for the development of an 'Operational Blueprint' of an optimised conceptual design, providing for a fully integrated operation that will produce a substantially improved financial assessment for Kun-Manie. By doing so, a series of trade off studies were identified wherein each step of the proposed operation could be optimised. In June 2015, the Operational Blueprint and the associated economic evaluation were completed.

It is important to note the reasons that the Company is restricted from specifically identifying its work as a PFS by JORC standards and therefore considers the results to be at a PEA level. There are three primary reasons for this use of the study as a PEA. Firstly, the project analysis included Inferred resource as reserves, portions of the work and results were derived internally by the Company, although much of the work is based on external results compiled by qualified specialist companies and our CEO, Mr. Robin Young is a licenced professional geologist provided substantial input to the document which could be considered to be a conflict of interest. Until the PEA has undergone independent audit, the Company cautions the shareholder that there are forward looking statements which could vary substantially from results obtained in the future. Presently, the Company has shortlisted three internationally recognised mining consultancies to complete the audit of the PEA which contains new information and identifiable changes from 2007 allowing the Company to update its strategy in a way that can significantly enhance the long-term economics of mining at Kun Manie. Pressing ahead without consideration of important new data could sacrifice profitability for short savings of time, a trade-off the Company could not have justified to its shareholders.

# **The Proposed Operational Blueprint**

The PEA has established the Operational Blueprint for the Kun-Manie nickel – copper sulphide project. The indicated scale of the project supports the conclusions that it will be a substantial producer, placing the Company among some of the world's larger nickel miners. The integrated Operational Blueprint for Kun-Manie includes the following:

- Power for the site will be generated using diesel fuelled generators, typical of remote Russian operations. The capital cost for site-generated power is substantially less than that required to construct a 360 kilometre long power line, estimated by the utility company to range from US\$800,000 to US\$1,000,000 per kilometre. Conversely, operating costs will be higher than with power delivered through a grid. This is a substantial change from 2007, when the local utility stated that the power line would be constructed at its expense. This is no longer the case. Power generation alternatives such as wind, hydroelectric, etc. could augment the power needs on site and shall be further investigated.
- To support the additional needs to provide power at the site, the access road design will be substantially upgraded by widening it to handle two-way traffic on a year round basis. This

requires additional road maintenance equipment and is substantially higher than previous capital cost estimates related to construction of the 320 kilometre long access road.

• Based on the existing resource inventory at Kun-Manie, the resource is capable of supporting ore production at the nominal annual throughput of six million tonnes of ore for 15 years. Infill drilling of Inferred resources is required to confirm this first. At a later date the Company has the opportunity to add additional resources by step out drilling into highly prospective ground. Mine production will be undertaken using both open pit and underground mining methods. Open pit ores will be derived from four of the five deposits, whilst underground production will be obtained from areas lateral two of the pits. Ore will be transported by truck to the processing plant.

The process plant and tailings impoundment areas have been relocated to more central locations, allowing for optimised ore transport from the four sources along the Kurumkon Trend within the Production Licence. The upsized 6.0 million tonnes of ore per year plant location also provides storage for the greater volume of tailings that will be generated.

- The process plant design has been expanded to handle six million tonnes of ore per annum (18,000 tonnes per day). Additional metallurgical test work indicates that metal recoveries will be improved over previously estimated recoveries, and independent work has confirmed that a single simple concentrate can be generated by classic and proven flotation technology. The concentrate is also suitable for smelting at either a toll smelter or its own captive smelter.
- The concentrate will be truck transported to the Baikal Amur rail line ("BAM") where supplies and fuel will be delivered by rail for backhaul to the mine.
- External smelting specialists have examined the proposed composition of the concentrate to be generated by the processing plant and determined that it is suitable for smelting on a toll or owner operated basis. Preliminary capital cost estimates have been provided and a smelting cost per tonne of concentrate determined. A trade off study indicates that the greater benefit to the Company is generated by owning and operating its own smelter rather than shipping to a toll smelter. The preferred smelter location is immediately adjacent the BAM rail line where coal and limestone can be delivered to support smelting of the concentrate. Anticipated final products are nickel and copper cathodes, cobalt precipitate, and refined platinum, palladium, gold and silver. Available capacity at the smelter can be used to smelt concentrates for a fee on a contract basis should other mining companies in the region have suitable products that require processing.

#### **PEA Production Basis and Projections**

The Blueprint Design originates with the Company's JORC defined resource compiled by SRK and updated at the end of Q1 2015. The current resource ranks among the top 20 nickel sulphide projects in the world, whilst the potential to expand the resource appears highly prospective. The limits of four of the five drilled deposits remain unknown as the potential is open in the dip and strike directions. Kun-Manie is expected to move up the list in the world ranking of sulphide deposits by simple step out drilling. Presently, there are 650,000 tonnes of nickel and 178,000 tonnes of copper delineated by drilling as well as additional by-product metals including cobalt, platinum, palladium, gold and silver.

| Resource | Tonnage | Ni | Ni | Cu | Cu | Pt  | Pt | Pd  | Pd |
|----------|---------|----|----|----|----|-----|----|-----|----|
| Class    | Mt      | %  | t  | %  | t  | g/t | kg | g/t | kg |

| Total Measured  | 15.7  | 0.52 | 81,800  | 0.13 | 21,100  | 0.2 | 2,900  | 0.2 | 3,200  |
|-----------------|-------|------|---------|------|---------|-----|--------|-----|--------|
| Total Indicated | 37.8  | 0.56 | 210,500 | 0.15 | 57,000  | 0.1 | 4,560  | 0.1 | 5,300  |
| Sub-total       | 53.5  | 0.55 | 292,300 | 0.15 | 78,100  | 0.1 | 7,460  | 0.2 | 8,500  |
| Total Inferred  | 67.3  | 0.53 | 358,300 | 0.15 | 100,300 | 0.1 | 9,440  | 0.1 | 9,500  |
| Grand Total     | 120.8 | 0.54 | 650,600 | 0.15 | 178,400 | 0.1 | 16,900 | 0.1 | 18,000 |

With the assistance of Runge, Pincock, Minarco (RPM), pit optimisation models were compiled for four of the drilled deposits. Using all resource classes including Inferred, ultimate pit limits based on Q1 2015 operating costs, metallurgical recoveries and mining constraints for each deposit were generated. Kun-Manie's existing resource inventory is sufficient to produce 90 million tonnes of ore from four open pits over the anticipated 15 year production life. It was also noted that substantial portions of these pits required the removal of large amounts of overlying waste that must be extracted to access the ore. In such cases, underground mining may provide higher profit per ore tonne than open pit production. The configuration and orientation of the mineralised bodies was examined and it was confirmed that an underground method such as Reverse Room and Pillar could be a viable alternative. A trade off study was completed confirming an optimal blend of open pit and underground production provides a greater operating profit than open pit production alone. The following table provides a summary reserve potential based on the conversion of Inferred resource to Indicated resource by infill drilling.

| Production             | Total  | Total | Total | Strip | Ni   | Cu   | Со   | Pt    | Pd    |
|------------------------|--------|-------|-------|-------|------|------|------|-------|-------|
| All Resource Classes   | Tonnes | Ore   | Waste | Ratio | (%)  | (%)  | (%)  | (g/t) | (g/t) |
|                        | (Mt)   | (Mt)  | (Mt)  |       |      |      |      | -     |       |
| Open Pit / Underground |        | 90.0  | 130.5 |       | 0.56 | 0.15 | 0.01 | 0.13  | 0.15  |
| Open Pit Component     | 175.5  | 45.0  | 130.5 | 2.9   | 0.59 | 0.15 | 0.01 | 0.13  | 0.16  |
| Underground Component  |        | 45.0  |       |       | 0.54 | 0.15 | 0.01 | 0.13  | 0.14  |

The analysis provided key information for future planning purposes. Open pit production will be derived from Maly Kurumkon / Flangovy, Vodorazdelny, Ikenskoe / Sobolevsky and Kubuk. Underground production will be derived from the deposits at Flangovy and Kubuk. Infill drilling of the conceptual reserve will be focused on the underground portion wherein the majority of the resource is currently classified as Inferred, while the open pit production areas are generally Measured and Indicated. The future infill drill programme will be given priority, allowing for the generation of a full JORC qualified reserve to be utilised in the assembly of a Definitive Feasibility Study. Step out drilling to further expand the global resource will begin subsequent to completion of the infill verification work.

The plant flowsheet consists of a classical flotation plant suitable for sulphide mineralisation. The design and metallurgical recovery results have been verified by SGS Minerals located in Chita, Chichinskaya Oblast of the Russian Federation. The projected life of mine production through the 6.0 million tonne ore per annum plant is summarised in the tables below.

| Delivered Mine  | e Proc | luction     | ] | Plan                      | ion | Smelter Deliverable Concentrate |                            |   |           |
|-----------------|--------|-------------|---|---------------------------|-----|---------------------------------|----------------------------|---|-----------|
| Strip Ratio     |        | 2.9         |   | Mill Feed                 | t   | 90,000,000                      | Tonnes Dry<br>Concentrate  | t | 6,300,000 |
| Open Pit Waste  | t      | 130,450,000 |   | Recovery of<br>Nickel     | %   | 80.4                            | Contained<br>Moisture      | % | 8.00%     |
| Pit Ore         | t      | 44,950,000  |   | Tonnes of<br>Recovered Ni | t   | 411,556                         | Concentrate<br>Wet Tonnes  | t | 6,804,000 |
| Underground Ore |        | 45,050,00   |   | Recovery of<br>Copper     | %   | 90.2                            | Ni Grade in<br>Concentrate | % | 6.53%     |
| Ni Head Grade   | %      | 0.56        |   | Tonnes of<br>Recovered Cu | t   | 124,899                         | Cu Grade in<br>Concentrate | % | 1.98%     |

| Ni Delivered         | t | 512,123     |
|----------------------|---|-------------|
| Cu Head Grade        | % | 0.15        |
| Cu Delivered         | t | 138,506     |
| Co Head Grade        | % | 0.01        |
| Co Delivered         | t | 9,821       |
| Pt Head Grade        | % | 0.13        |
| Pt Delivered         | g | 11,796,212  |
| Pd Head Grade        | % | 0.14        |
| Pd Delivered         | g | 12,355,279  |
| %MgO                 | % | 14.9        |
| %S                   | % | 1.2         |
| Total Material Mined | t | 220,450,000 |

| Recovery of<br>Cobalt     | %  | 66.00%    |
|---------------------------|----|-----------|
| Tonnes of<br>Recovered Co | t  | 6,482     |
| Recovery of Pt            | %  | 69.00%    |
| Grams of<br>Recovered Pt  | þű | 8,139,386 |
| Recovery of Pd            | %  | 75%       |
| Grams of<br>Recovered Pd  | сŋ | 9,266,459 |

| Co Grade in<br>Concentrate | %  | 0.10% |
|----------------------------|----|-------|
| Pt Grade in<br>Concentrate | сŋ | 1.29  |
| Pd Grade in<br>Concentrate | g  | 1.547 |

The concentrate will be transported by truck fleet from the site to the rail siding on the Baikal Amur rail line located approximately 320 road kilometres to the west. Supplies and fuel will be backhauled to the site.

The most critical component to the Blueprint was the decision to construct and operate a captive smelter located adjacent the BAM rail line. This location provides access to coal and limestone necessary to smelt the concentrate. It also allows the Company to capture the revenue generated from all metals, whereas toll smelting revenues are limited to only 70% of the nickel and 50% of the copper and nothing from any of the by-product metals. Penalties and transport fees are also incurred. The capital cost for the construction of the smelter and attendant refinery are substantial, however, the PEA results indicated that the additional revenues more than offset the cost and ultimately provide a higher Net Present Value for the global Kun-Manie operation.

#### **Input Parameters and Financial Projections**

The pro forma cash flow model for the Operational Blueprint newly estimated Q1 2015 operating costs. Updated capital cost estimates reflect the increased nominal production rate of 6.0 million tonnes per year and specific commodity pricing factors.

From first principle design considerations, the Company estimated the cost per tonne of ore. These costs were generated based on Q1 2015 estimates. The Operational Blueprint operating costs are projected to be 74% higher than those estimated in 2007.

| Estimated Cost Per Ore Tonne   | Q1 2015 | 2007 PFS |
|--------------------------------|---------|----------|
| (AMC Sourced)                  | US\$    | US\$     |
| Mining Cost Per Ore Tonne*     | 9.10    | 3.46     |
| Processing and Tailings        | 10.51   | 6.82     |
| G&A                            | 1.72    | 1.46     |
| Transport From Mine to Smelter | 2.26    | 1.93     |
| Smelting Cost Per Ore Tonne    | 11.27   | 6.33     |

| Total Co | ost Pe | r O | )re ' | Ton | ine | <br> |  |  |   | 34.8 | 36 | 20.0 | 0 |
|----------|--------|-----|-------|-----|-----|------|--|--|---|------|----|------|---|
|          |        |     |       |     | -   |      |  |  | - |      |    | -    |   |

\*The cost per tonne for mining is based on the total mining cost of open pit and underground ore divided by the 90 million tonne life of mine production total.

The updated capital costs for the Blueprint design were estimated using Q1 2015 available information from public sources and calculated by staff. A summary of the initial and sustaining capital requirements follow:

| Capital Cost Category          | Initial            | Sustaining    |
|--------------------------------|--------------------|---------------|
| Total Capital Expenditure      | \$1,381,473,753    | 474,735,562   |
| Infrastructure & Per           | rmanent Facilities |               |
| Studies                        | \$5,000,000        | \$-           |
| Road - 320 Km Access Road      | \$312,000,000      | \$7,000,000   |
| Power Generated -6mt           | \$117,810,000      | \$3,150,000   |
| Site Facilities                | \$9,865,000        | \$-           |
| EPCM (Road, Power, Facilities) | \$6,048,404        | \$97,745      |
| Processing                     | \$133,285,000      | \$4,255,000   |
| Tailings                       | \$13,646,349       | \$23,277,818  |
| Electric Furnace Smelter       | \$126,500,000      | \$4,950,000   |
| Converter Smelter              | \$189,750,000      | \$3,300,000   |
| Refinery                       | \$341,550,000      | \$2,750,000   |
| Smelter Infrastructure         | \$22,000,000       | \$-           |
| Haul Roads                     | \$9,735,000        | \$19,911,000  |
| Ikenskoe Diversion             | \$-                | \$2,000,000   |
| Total Fixed Asset              | \$1,287,189,753    | \$70,691,562  |
| Mobile Eq                      | uipment            |               |
| Transportation Fleet           | \$14,989,000       | \$28,950,000  |
| Mining Fleet                   | \$79,295,000       | \$375,094,000 |
| Total Mobile                   | \$94,284,000       | \$404,044,000 |

The economic potential of the Operational Blueprint was determined using nickel prices of US\$7.50 per pound (US\$16,534 per tonne) and US\$9.50 per pound (US\$20,940 per tonne). The lower price of US\$7.50 was selected as the base case as this was the long term nickel price from the 2007 SRKPFS. The second is the long term price projection in 2017 by TD Securities, which predicts from US\$ 9.50 to US\$10.00 per pound. The Company utilised the lower limit of US\$9.50 per pound in its economic assessment. Other commodity prices used in the generation of the cash flow model are provided in the table below.

| Copper    | Per Pound | \$2.75     | Per Tonne | \$6,062.65  |
|-----------|-----------|------------|-----------|-------------|
| Cobalt    | Per Pound | \$13.52    | Per Tonne | \$29,806.19 |
| Platinum  | Per Ounce | \$1,123.00 | Per Gram  | \$36.19     |
| Palladium | Per Ounce | \$768.00   | Per Gram  | \$24.75     |

The Operational Blueprint established by the Company is based on external information and an extensive amount of internal work that is to be independently audited. Also, the pro forma cash flow models compiled by the Company are viewed as "forward looking statements" with risks, uncertainties, and other factors which may vary from actual results, performance or achievements of the Company resulting in material differences. A key factor is that the Company has already compiled a shortlist of independent mining consultancies to undertake a comprehensive audit of the Company PEA.

The projected financial potential of Kun-Manie based on the Operational Blueprint covering a 15 year production period is summarised below. Note that initial capital cost requirement for the Blueprint is \$US1.38 billion for the vertically integrated operations.

| Nickel Price Per Pound                           | \$ 7.50  | \$ 9.50  |
|--|----------|----------|
| Nickel Price Per Tonne                           | \$16,530 | \$20,938 |
| Net Present Value in Billion \$US (10% discount) | 0.71     | 1.44     |
| Internal Rate of Return (post-tax)               | 21%      | 32%      |
| Years Payback                                    | 4        | 4        |

The product of ten years of successful exploration, obtaining the production licence, and conducting engineering works, the PEA has permitted the Company to set a forward looking plan to direct the project through additional engineering work, leading to a Definitive Feasibility Study. This plan is being compiled and will be updated based on the results of the external audit of the PEA.