Investigator Resources Ltd: Announces Significant 26% Upgrade for Paris Silver Resource to 42Moz Contained Silver

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Perth - Investigator Resources Ltd. (ASX:IVR) announces the upgrade of the Paris Silver Project Mineral Resource Estimates following the infill drilling program undertaken late last year. The Paris Silver Project is located within the Company's 100% held Peterlumbo tenement on the northern Eyre Peninsula of South Australia.

- Total Mineral Resource estimated at 9.3Mt @ 139g/t silver and 0.6% lead for 42Moz contained silver and 55kt contained lead at a cut-off of 50g/t silver.

o Compared with the previous 2015 Inferred Mineral Resource Estimate of 8.8Mt @ 116g/t silver for 33Moz using the same cut-off, the new estimates show:

o 20% increase in silver grade re-emphasising the high grade and quality ounces of Paris compared with Australian peer silver deposits.

o 26% increase in contained silver ounces reflects progressive growth in the resource estimates for Paris.

- Indicated component is 4.3Mt @ 163g/t silver & 0.6% lead for 23Moz contained silver and 26kt contained lead (mostly in the area of recent infill drilling).

o Provides confidence to proceed with prefeasibility studies on the Paris Silver Project to build on positive initial metallurgical work.

o Average grade of 118g/t silver retained in the less densely drilled areas of Inferred Resource.

- Tonnage-grade curves imply flexibilities to lower the cut-off for more ounces or achieve higher grades; e.g.

o 16.4Mt @ 96g/t silver & 0.5% lead for 50Moz contained silver & 86kt lead (at 30g/t silver cut-off).

o 6.2Mt @ 179g/t silver & 0.6% lead for 36Moz contained silver & 19kt contained lead (at 70g/t silver cut-off).

Investigator Managing Director, Mr John Anderson said "Investigator is pleased to report the upgraded results of the Mineral Resource for the Paris Silver Project. The high grade and additional ounces confirm Paris as possibly the best undeveloped silver deposit in Australia. The increased confidence in the resource enables Investigator to continue with prefeasibility studies including mine design, local water supply and metallurgical extraction. The objective is to develop Paris as a high-grade open-pit mining project. The prefeasibility study is scheduled for completion in the third quarter of 2017."

"The upgraded Paris resource technically underpins the search for much larger copper-gold porphyry deposits at the adjacent Nankivel Prospect where a drilling program is currently in progress," Mr Anderson added.

Mineral Resource Overview

The revised Mineral Resource was independently prepared by H & S Consulting Pty Ltd ("H&SC") using the Multiple Indicator Kriging ("MIK") method of estimation, which is suitable for the complex mineralisation style of the Paris silver deposit. Mr Simon Tear, Director and Consulting Geologist at H&SC, was contracted to estimate the Mineral Resource as the independent Competent Person.

The updated Mineral Resource has been estimated and reported in accordance with the guidelines of the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Minerals Resources and Ore Reserves ("2012 JORC Code"). Investigator considers the dominant soft host rock and shallow depth of the Paris deposit offers potential for an open-pit mining operation; H&SC has modelled and classified the resource in accordance with that assumption. The Mineral Resource Estimates are reported using a silver cut-off grade of 50g/t and was constrained to above the 25mRL (equivalent to about 160m below the surface

- Figure 4, see link below).

The 2017 Paris Mineral Resource estimate compares with the 2015 Paris Inferred Resource of 8.8Mt @ 116g/t silver, containing 33Moz, also at a 50g/t silver cut-off (Investigator ASX release: 9 November 2015). The 2017 resource estimates represent a 5% increase in tonnage, 20% increase in silver grade and 26% increase in contained silver metal. The increases have largely developed in the area of infill drilling ("Infill Area") undertaken late in 2016.
The lead content was estimated in the initial 2013 Inferred Mineral Resource (Investigator ASX release: 15 October 2013) at 5.6Mt @ 0.6% lead for 38kt of contained lead (at a 30g/t silver cut-off). The lead content was not considered in the 2015 Mineral Resource Estimates.

Visual representation of Paris Silver Mineral Resource

Figures 2 and 3 (see link below) illustrate the distributions of the MIK resource blocks that contributed to the plus 50g/t Mineral Resource.

The striped distribution of Inferred and Indicated zones outside the Infill Area reflects the closer spaced drilling every hundred metres along the deposit compared with the less dense drilling on the intervening sections.

Geological Setting

The Paris deposit is interpreted to be a silver mineralised body associated with a felsic volcanic breccia system in an intermediate sulphidation epithermal environment with a significant component of stratabound control. The deposit has an elongate sub-horizontal tabular shape with dimensions of approximately 1.5km length and 400m width, situated at the base of a Gawler Range Volcanic (mid-Proterozoic) sequence at an unconformity with the underlying Hutchison Group (palaeo-Proterozoic) dolomitic marble. Some of the deposit is hosted by altered or oxidised dolomite.

The depth of the mineralisation ranges from 5m to 160m below the flat surface (Figure 4, see link below) consistently along the length of the deposit axis.

The host volcanic stratigraphy comprises felsic volcanic breccia with variable contents of dolomite, volcanic, sulphide, graphitic meta-sediment and granite clasts. The breccia host is fault-bounded along its long axis by graphitic and ferruginous meta-sediment. Steep dipping, granitic dykes occur in the underlying dolomite and are interpreted as basement intrusions parallel to the longitudinal axis of the body of mineralisation. Sporadic development of calc-silicate assemblages occurs within the dolomite at the margins of the dykes. Cross cutting felsic intrusives occurring at either end and at the centre of the deposit may comprise different generations of dykes associated with the brecciation and mineralisation of the deposit.

Silver mineralisation is predominantly in the form of acanthite and native silver in pyrite with a minor component as solid solution within other sulphide species (galena, sphalerite, arsenopyrite etc.). High-grade silver zones within the breccia can be in the form of coarse clasts or aggregates/disseminations of sulphide clasts. A high degree of clay alteration has overprinted the breccia body, much of which is considered to be hypogene. Secondary weathering effects are interpreted to have produced minor zones of enriched supergene mineralisation observed towards the base of the complete oxidation regime at about 15m depth below surface.

Quality and Further Avenues for the Paris silver resource

The updated Mineral Resource Estimates, incorporating the infill drilling data, show a significant increase in the deposit grade and the amount of contained silver ounces along with a substantial increase in confidence in the Paris Mineral Resource.

The widespread broad intersections achieved by the infill drilling gave rise to the 20% increase in global grade.

The progressive improvement in silver grade and contained ounces for the 2013, 2015 and now the 2017 Mineral Resource Estimates is shown in Figure 1 (see link below).

The grade and shallow distribution of the Paris Mineral Resource demonstrates quality ounces with high grades close to surface as shown in Figure 4.

Considering that the average grade of the Inferred category remains close to the 2015 silver grade estimate, it is reasonable to expect that similar infill drilling of the lightly drilled areas will further improve confidence for the remainder of the Paris Mineral Resource. The higher grade areas to the north and south of the Infill Area

shown in Figure 5 are particularly of interest for further infill drilling.

Figures 6 & 7 (see link below) summarise the ore tonnage, grade and corresponding contained silver at a range of silver cut-off grades from 10g/t to 130g/t. The cut-off of 50g/t silver was selected for the updated resource estimates as appropriate for assumed open-pit and processing scenarios and current silver prices.

Reducing the silver cut-off would be a consideration under higher silver price and/or lower operating costs. At 30g/t cut-off, the Mineral Resource is 16.4Mt @ 96g/t silver and 0.5% lead for 50Moz contained silver and 86kt lead. The Indicated Resource estimate at a 30g/t silver cut-off is 7.1Mt @ 115g/t silver and 0.6% lead for 26Moz contained silver and 39kt contained lead.
Increasing the silver cut-off would be a consideration under lower silver prices and/or high operating costs. At 70g/t cut-off, the Mineral Resource is 6.2Mt @ 179g/t silver and 0.6% lead for 36Moz contained silver and 38kt lead. The Indicated Resource estimate at a 70g/t silver cut-off is 3.0Mt @ 208g/t silver and 0.6% lead for 20Moz contained silver and 19kt contained lead.

Future Work

With 55% of the contained silver ounces now included in the Indicated category, Investigator will advance the Paris silver project with the preparation of a Prefeasibility Study. Planning is underway with priority to be given to the metallurgical testwork on bulk samples selected from the infill RCP drilling.

Open-pit mining methodology is seen as the optimal mining method for the shallow, near-surface Paris deposit, and consultants will be sought to assist with the mine and operation design. In addition, a geohydrology study will be undertaken of the palaeo-aquifer identified as a potential water supply 12km east of Paris.

Targeting models are improving considerably both with the more detailed drilling at Paris but also from the research program being applied to the Company's drill dataset. Along with the current drilling of porphyry targets at Nankivel, new silver targets are being developed in old and new prospects around the growing Paris silver resource.

A Summary of the information used in the resource estimates

Following the initial Paris discovery in 2011 utilising soil geochemistry surveys, a multiple aircore, Reverse Circulation Percussion ("RCP") and diamond drilling program was undertaken over the Paris Project area between 2011 and 2013. The drill pattern was variable with a nominal 50m distance between drilled sections. Along sections, the drillhole spacing is was nominally either 25m or 50m. A total of 298 holes for 36,530m were included in the 2013 resource estimate. In late 2013, an additional 18 drillholes were completed at the northern end of the deposit (Investigator ASX release: 29 January 2014).

In late 2015, following an initial review by H&SC, it was noted that the deposit contained highly skewed data for silver (similar to that observed in nuggetty gold deposits) and that a more sophisticated modelling method on less constrained data was appropriate to properly estimate the size and grade of the deposit. Multiple Indicator Kriging ("MIK") was considered to be an appropriate estimation technique, following a detailed geological interpretation by both Investigator and H&SC. Utilising the additional 18 drillholes of 2013 (a total of 314 holes for 37,943m) and the MIK estimating methodology, the 2015 Resource was completed by H&SC (Investigator ASX release: 9 November 2015).

In late 2016 the Infill Area drill program was undertaken on the central area of the Paris silver deposit (Investigator ASX release: 17 January 2017). This program had three key objectives; to verify the prior geological model, determine the extent of the grade continuity in the previous scattered high-grade silver intersections within the central area of the resource and to upgrade the Mineral Resource Estimates to include Indicated Resource category material. The aim was to provide a basis for a future Prefeasibility Study. The infill drilling was completed in late November 2016 within a 375m by 200m central area (Figure 5). The Infill Area represents about 20% of the deposit area. The drilling program was designed with the assistance of H&SC to achieve a nominal 25m by 25m pattern, locally adjusted to minimise vegetation disturbance, within the prior drill pattern for the central area.

A total of 50 vertical RCP holes were completed for a total of 5,862m, with depths of between 60m and 150m (average depth 117m). In addition, six vertical diamond twin holes were drilled for a total of 648m, with depths of between 68m and 129m (average depth 108m). The infill RCP and diamond twin drilling was undertaken with due care and a focus on sample recovery. All RCP holes were sampled at one metre intervals and the diamond core was sampled on nominal one metre intervals with adjustments for lithological/mineralisation boundaries.

The 2017 Mineral Resource Estimates included 383 holes (diamond, RCP and aircore) for 45,718m. Hole

spacing is variable between 25m and 100m between sections with spacing on section nominally 25m or 50m. Downhole sample spacing was nominally 1m. The deposit comprised two kriged domains which reflect the different density of drilling. Four sub-domains were defined from three wireframed 3D surfaces representing the different levels of oxidation i.e. a cover sequence, the oxide zone and the transition zone overlying a fresh rock zone. No specific silver mineral zones were geologically interpreted.

Silver grades are highly skewed with a significant high grade population. Recoverable MIK was chosen as the appropriate grade interpolation technique for this style of mineralisation. The maximum extrapolation distance for the estimates is about 50m and the oxidation limits were treated as soft boundaries. Several check models were completed to provide a sensitivity analysis of the high silver grades.

A similar MIK analysis was completed for the lead mineralisation using the same domains and sub-domains. There were no high grade issues with the lead mineralisation.

Density data comprises 11,118 samples for both mineralisation and waste rock. Check methods indicated a slight over-reporting of the density of between 5% and 7%. This resulted in a new series of default density values being derived for the mineral sub-domains comprising 1.96t/m3 for cover material, 1.97t/m3 for oxide, 2.16t/m3 for transition and 2.78t/m3 for fresh rock. Average density for the Paris deposit is 2.21t/m3; 2.20t/m3 for the Indicated Resource category and 2.22t/m3 for the Inferred Resource category (refer to Table 1 for further details).

Preliminary metallurgical tests in 2013 (Investigator ASX release: 21 October 2013) showed positive recovery results across a range of silver grades and host styles observed at the Paris silver deposit. This indicated conventional processing methodologies are likely options for the Paris Silver Project. Bulk samples of the Infill Area RCP drilling have been collected and preserved for further metallurgical testwork, forming part of the Prefeasibility Study.

Full details of the estimation and modelling techniques can be found in 'Section 3 - Estimation and Reporting of Mineral Resources' of Table 1 (see link below).

The resource estimate varies from the 2015 estimate with the changes in data and grade interpolation methodology as follows:

- Increased drill hole data from 34,522m composites to 42,524m composites with the new data derived from 25m spaced drillholes.

- Minor reduction in values of the default densities used in the MIK grade interpolation particularly for the main transition unit from 2.25t/m3 to 2.16t/m3 and the completely oxidised zone from 2.10t/m3 to 1.97t/m3.

- 2m composites were used for variography in order to achieve better variograms.

- Two domains, compared with four previously, were defined reflecting areas of different drilling density; i.e. detailed and peripheral. The previous four domains which reflected oxidation level, now define oxidation sub-domains.

- Reduction in initial search sizes from 50m by 50m by 10m with a 0.5% expansion to 35m by 35m by 5m with a 50% expansion. An extra search, 75m by 75m by 10m, was added to maintain some consistency with the 2015 search parameters.

- Reduction in block size from 50m by 50m by 5m to 25m by 25m by 5m.

- Values used in the compromise between mean and median values for the top indicator class were changed due to new data. The new compromise value for the transition zone in the detailed drilling area increased significantly. In addition, the complete oxidation zone was been included in the compromise methodology whereas previously it was just the transition and fresh zones.

The classification of the resource estimates was derived from the data point distribution and grade continuity. Due consideration has also been given to other factors including geological understanding and continuity, drilling method and recovery, quality assurance and quality control ("QA/QC") and density data. The majority of the Indicated Resource comes from the more densely drilled Infill Area and localised areas of closer spaced drilling outside the Infill Area.

The most significant issue for the deposit is the sensitivity of the estimates to the high silver grades and the variable grade distribution of the silver mineralisation. There was a considerable increase in the silver grade for the global estimates that occurred within the detailed drilling area. This is due to greater 'connectivity' of the mineralisation and hence better grade continuity with the closer spaced drilling.

Appendix 1 (see link below) has Table 1: 'Assessment and Reporting Criteria Table Mineral Resource - JORC 2012'. This describes compliance with the 2012 JORC Code requirements for the reporting of the Mineral Resource estimates for the Paris Silver deposit. This release should be read in conjunction with the Investigator ASX release on the initial Paris Mineral Resource of 15 October 2013 and the revised 2015 Paris Mineral Resource estimate issued 9 November 2015.

To view tables and figures, please visit:
http://abnnewswire.net/lnk/I6P8S7PZ

About Investigator Resources Limited:

Investigator Resources Ltd. (ASX:IVR) is a metals explorer focussing on silver, copper and gold discovery in southern Gawler Craton, South Australia. It combines original geological concepts, the latest research and its deep exploration experience to make high-value greenfields discoveries for shareholders.

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