South Crofty Operations Update

09.10.2018 | GlobeNewswire

VANCOUVER, Oct. 09, 2018 - Strongbow Exploration Inc. (TSX-V: SBW) (“Strongbow” or the “Company”) is pleased to provide the following operational update regarding the South Crofty tin project, Cornwall, UK.

Photographs and videos accompanying the following summary can be accessed here.

Highlights

- All groundworks for the mine water treatment plant are complete, ready for concrete to be poured and plant construction to commence.
- The mine dewatering scheme has been devised and designed.
- Variable speed drives required to control the pumps have been delivered to site; and the pumps are due to be delivered by mid-November 2018.
- Clearing of a blockage to the New Cook’s Kitchen (“NCK”) shaft was completed in June 2018, allowing for the installation of the pumps and pipe column into the shaft for the dewatering phase.
- Results from a camera survey of the New Cook’s Kitchen shaft show the shaft to be open to the bottom.

OPERATIONS UPDATE

Mine Water Treatment Plant
Following the water treatment trials that took place between November 2016 and March 2017, and the subsequent awarding of a water discharge permit by the Environment Agency in October 2017, Strongbow engaged Siltbuster Process Solutions Ltd to undertake flow sheet design and optimisation work on a full-scale plant capable of treating 25,000m^3/day of mine water.

The pH of the mine water is neutral (pH of 6.5). The process for removing dissolved metals from solution involves aeration (addition of hydrogen peroxide), followed by addition of lime to increase the pH to precipitate metals from the water, addition of a flocculent to bind metals for recovery in a settling tank, and then addition of CO_2 to reduce the pH before discharge of clean, treated water that meets strict Environment Agency water quality standards. The main metals recovered in the process are iron and manganese, plus lesser amounts of copper and arsenic.

The optimisation works successfully focused on reducing lime consumption, reducing estimated operating costs, through increasing aeration in the Stage 1 mixing tanks. This action had the additional benefit of reducing the thickening area required to settle the sludge containing precipitated metals from the mine water during the treatment process. Nomenca PLC was engaged to work with Siltbuster to complete the detailed design and engineering of the optimised plant.

To expedite the construction of the plant, Strongbow took the decision to begin groundworks during the dry summer months. However, before excavation could commence a mains water pipe that crossed the construction site had to be diverted and historical mine workings were capped.

The water main was diverted and re-laid around the perimeter of the site by Balfour Beatty on behalf of South West Water. This work was completed in June 2018 enabling excavation of the main water treatment plant site to commence. The excavation works were undertaken by Henderson Mine Research Ltd, a local company that specialises in historical mine research and remediation. During the excavation, all historical shafts, adits and stopes that were identified during the site investigation were recorded and subsequently capped with reinforced concrete. Cornwall Archaeology Unit undertook a watching brief during the work to

ensure that all features of historical interest were recorded.

The capping works were completed in August 2018. The ground was then prepared for the main plant construction. All drainage and electrical ducts were installed before placing down compacted engineered fill material. This brought the ground level up to the formation level of the reinforced concrete slab that will form the foundations of the plant. All groundworks are complete, ready for concrete to be poured and plant construction to commence.

Mine Dewatering Operations
In order to enable the mine to be dewatered in an efficient and effective manner, Strongbow engaged International Mining Engineering Consultants Ltd (“IMEC”) to assist in devising a dewatering scheme. The scheme utilises a phased approach to dewatering using high-head multi-stage submersible pumps to pump mine water from NCK shaft directly to the mine water treatment plant.

Phase 1 will dewater from surface to the 195 fathom level (350 metres below surface); Phase 2 will dewater from 195fm level to the 400fm level (730 metres below surface); and Phase 3 will dewater from 400fm level to 470fm level (the bottom of the mine, 870 metres below surface).

Two pumps will be installed in the shaft, each capable of delivering 525m^3/hr of water to the treatment plant.

The pipe column, shaft deck and temporary lifting frame has been designed by IMEC and fabricated in Navan, Ireland, at a specialist fabrication shop that undertakes work for the Irish mining industry. The fabrication work is complete and the components are awaiting shipment to the mine site.

Two submersible dewatering pumps and electric motors are due for delivery to the mine in mid-November 2018.

The pump motors are designed to be controlled by a variable speed drive so that the speed of the pump can be varied from zero to 3,000 rpm. This speed variation is necessary to maintain a constant 1,050m^3/hr of water delivery to the treatment plant with the varying head of water that will exist in the mine as the water level is lowered. Additionally, the speed control enables the flow rate of water through the whole treatment plant to be controlled, ensuring Strongbow can meet the conditions of its environmental permit and limit the discharge of treated mine water into the Red River during flood conditions. The variable speed drives, manufactured by Schneider Electric, have been delivered to site.

Underground Preparation Works
After the mine closed in 1998 a new tunnel was mined from the Tuckingmill Decline to intersect NCK shaft 50 metres below surface. The development of the tunnel resulted in a partial blockage of the NCK shaft. The blockage has been removed and the shaft is now clear for the installation of the pumps.

Strongbow has also undertaken preparation works in Middle Engine Shaft and the Dolcoath Deep adit. This work will eventually allow treated mine water from the water treatment plant to be discharged into the adit system via Middle Engine Shaft, as per the conditions of Strongbow’s water discharge consent.

Finally, an underwater camera survey was undertaken in New Cook’s Kitchen shaft to ensure that the shaft compartments were open and in suitable condition to allow the dewatering pumps to be installed. As the pumps and pipe column are planned to be centralised within their respective shaft compartments by brackets supported from the existing steel guides within the shaft, a full survey of the guides was also undertaken. The survey successfully demonstrated that the shaft was open to shaft bottom, 780m below surface.

ABOUT SOUTH CROFTY

South Crofty is an iconic former producing copper and tin mine located in the towns of Camborne and Pool, Cornwall, UK. The first documented production history from South Crofty dates back to 1592, and it was the last tin mine to close in Cornwall in 1998.

Strongbow published a NI 43-101 Mineral Resource Estimate on the project on April 19, 2016 (see Technical Report here), and published a NI 43-101 Preliminary Economic Assessment on the project on February 16, 2017 (see Technical Report here).

The project received an Underground Permission (mining licence) in 2013, which is valid until 2071, and Planning Permission to construct a new process plant in 2011. In October 2017, Strongbow was successful in securing a Water Discharge Permit allowing for the dewatering of the now flooded mine workings. In January 2018, the Company completed the sale of a 1.5% Net Smelter Returns Royalty to its largest shareholder, Osisko Gold Royalties, for C$7,170,000. These proceeds are being used to construct a water treatment plant.

For additional information please contact: Irene Dorsman at (604) 210 8752 or by e-mail at idorsman@strongbowexploration.com or Sherman Dahl of Pretium Communications at (250) 558 8340.

Blytheweigh (Financial PR/IR-London) Tel:	+44 207 138 3204
Tim Blythe	tim.blythe@blytheweigh.com
Camilla Horsfall	camilla.horsfall@blytheweigh.com

ON BEHALF OF THE BOARD OF DIRECTORS

“Richard D. Williams”
Richard D. Williams, P.Geo

Neither the 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.