31 July 2019

# quarterly

# **JUNE 2019 QUARTERLY ACTIVITIES REPORT**

#### **HIGHLIGHTS**

- A strategic partnership with Lundin Mining Corporation has been formed over the Stellar Project within the Alaska Range Project:
  - Lundin Mining have invested AU \$4.3M in PolarX to become the Company's largest shareholder (12.9%).
  - PolarX will use these funds to execute a jointly agreed program of exploration for porphyry Cu-Au mineralisation on the Stellar Project.
  - Lundin Mining have the right to commence a three-year earn-in Phase on the Stellar Project (excluding the Zackly Claims) by 31 December 2019.
  - Lundin Mining can earn a 51% interest in the Stellar Project through staged exploration funding of US \$24M and staged cash payments to PolarX of US \$20M over a three-year period.
  - Lundin Mining can accelerate this timeframe at its discretion and has the right to withdraw at any time if the requisite staged cash payments to that point have been made to PolarX.
- An Induced Polarisation (IP) survey to define drill targets at the Saturn porphyry prospect in the Stellar Project commenced during the quarter, with 5,000m of core drilling planned throughout August and September 2019.
- PolarX has planned 2,000m of further drilling at Zackly to increase the size of the current resource, particularly around the thick, high-grade near-surface intersections in holes ZX-18020 and ZX-18024 (55m @2.8g/t Au, 0.6% Cu and 47m @ 3.1g/t Au and 0.6% Cu respectively) at the eastern end of the prospect.
- Zackly and Saturn occur in a 12km long WNW trending mineralised corridor. This corridor also contains the Mars Cu-Au target at the western end where geochemical and ground geophysical prospecting techniques have provided additional targets for drilling.

#### **FORWARD PROGRAM**

- Complete IP program and data interpretation at the Saturn porphyry Cu-Au target.
- 5,000m core drilling program to test the Saturn porphyry Cu-Au target.
- Commence metallurgical test-work for Zackly Cu-Au-Ag mineralisation.
- Commence drilling at the eastern end of the Zackly Skarn.



#### **CORPORATE**

As of 30 June 2019, the Company had on issue 372,712,638 ordinary shares and 23,450,000 unlisted options, and cash of ~AU \$4.26M.

Subsequent to period end, the Company completed a non-renounceable rights issue (Entitlement Offer), which raised gross proceeds of  $^{\sim}$ A\$3.46M pursuant to the issue of a further 43,203,922 Shares at an issue price of \$0.08 per Share. Accordingly, as at the date of this report the Company has 415,916,560 shares on issue.

#### STRATEGIC PARTNERSHIP WITH LUNDIN MINING CORPORATION

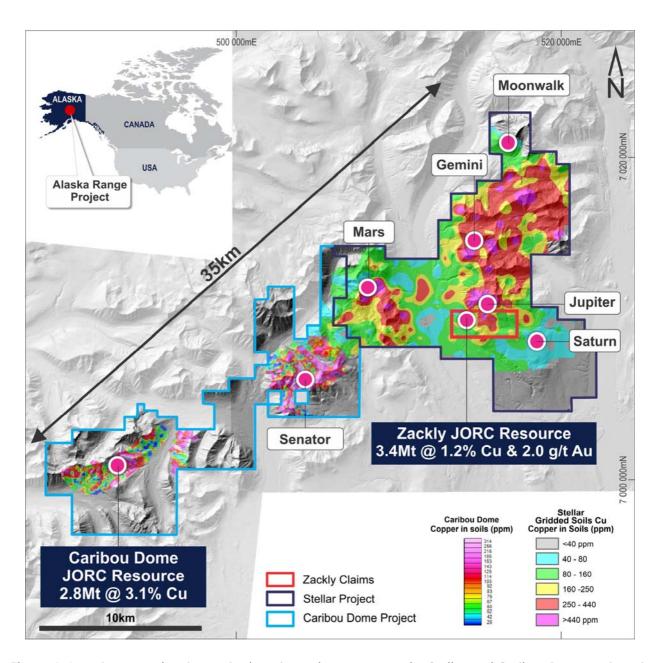
PolarX is focussed on the exploration and development of its Alaska Range Project which contains the Caribou Dome Project and the Stellar Project. Collectively these form a contiguous package covering 262km² with ~35km strike length containing extensive copper- and gold-in-soil anomalism along the entire length (Figure 1). With JORC resources at Caribou Dome and Zackly, they form a high-grade copper and copper-gold portfolio with demonstrated endowment and clear upside potential for resource extensions and larger porphyry copper-gold discoveries.

PolarX Limited and Lundin Mining Corporation (Lundin Mining) have agreed terms for a strategic earn-in joint venture over select porphyry Cu-Au targets in PolarX's 100% owned Stellar Project. The Zackly Cu-Au skarn claims are excluded from the earn-in area (Figure 1). Key terms are as follows:

- Lundin Mining have subscribed for 53.4M ordinary shares in PolarX at A\$0.08 per share for A\$4.3M.
   Lundin Mining is now PolarX's largest shareholder owning 12.9% of the Company. This share subscription secures an exclusive option for Lundin Mining to enter an earn-in joint venture on porphyry Cu-Au targets within PolarX's Stellar Claims.
- PolarX has agreed to use the proceeds of this share subscription to fund an exploration program on those porphyry Cu-Au targets. The exploration program is to be completed by the end of 2019, subject to extension in certain limited circumstances, and will be determined by a five-person exploration committee (3 Lundin Mining members, 2 PolarX).
- Lundin Mining will make its decision as to whether to exercise the option to commence the earn-in on or before the later of a thirty-day period to review results of the exploration program and 31 December 2019 (the "Option Exercise Date").
- Lundin Mining can exercise the option to enter into a 3-year Earn-in Period for a joint venture at any time prior to Option Exercise Date, with the following earn-in terms:
  - Year 1 upfront cash payment to PolarX of US\$2M within 30 days of the Option Exercise Date (anticipated to be 30 January 2020) plus a minimum of US\$8M exploration expenditure by the end of Year 1 to earn the right to continue.
  - Year 2 upfront cash payment to PolarX of US\$3M within 30 days of the first anniversary of the Option Exercise Date (anticipated to be 30 January 2021) plus a minimum of US\$8M exploration expenditure by the end of Year 2 to earn the right to continue.
  - Year 3 upfront cash payment to PolarX of US\$5M within 30 days of the second anniversary of the Option Exercise Date (anticipated to be 30 January 2022) plus a minimum of US\$8M exploration expenditure by the end of Year 3 to earn the right to then enter into a joint venture.



- o Final cash payment of US\$10M to PolarX to exercise the right to form a joint venture initially owned 51% Lundin Mining and 49% PolarX.
- Lundin Mining can withdraw at any time prior to formation of the JV as long as the required upfront cash payments for said year to PolarX have been made to that point.
- Lundin Mining may accelerate the earn-in phase by spending the total of \$24M and making the \$20M cash payments in a shorter timeframe at its sole election.
- Once formed, the JV will be managed by a five-person board (3 Lundin Mining appointees, 2 PolarX appointees). Both parties will be responsible for funding their share of future expenditure, with standard dilution provisions for non-contributing parties.



**Figure 1.** Location map showing main deposits and prospects at the Stellar and Caribou Dome projects in central Alaska and showing regional copper geochemistry in soil sampling draped on digital elevation.

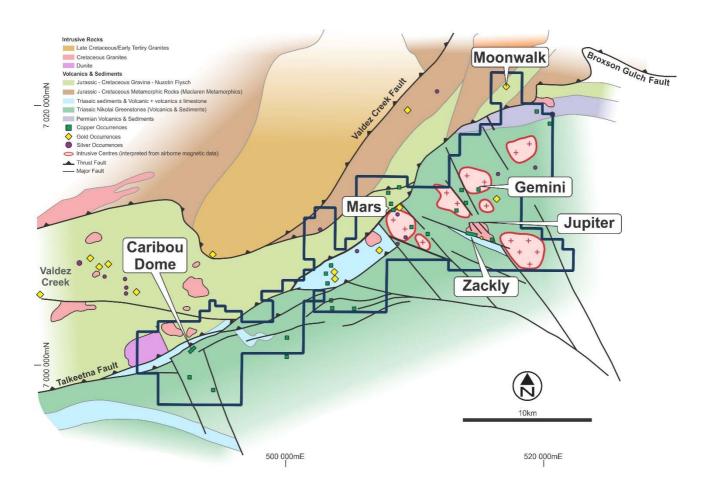


#### **EXPLORATION PROGRAMS**

### **GEOLOGICAL SETTING AND PORPHYRY CU-AU POTENTIAL**

The Alaska Range Project occurs immediately south of a series of thrust faults which mark the local boundary between the Tintina Gold Belt to the north and the well-endowed Cretaceous porphyry copper belt to the south (this belt hosts the supergiant Pebble Deposit which contains 37Mt of copper and 107Moz gold).

A corridor of NW to WNW trending faults intersects the thrusts in the NE part of the Alaska Range Project (refer to Figure 2). A series of magnetic anomalies consistent with porphyry-style intrusions occur within this fault corridor. Interpreted porphyry-style intrusions occur below Mars, Gemini and Saturn.



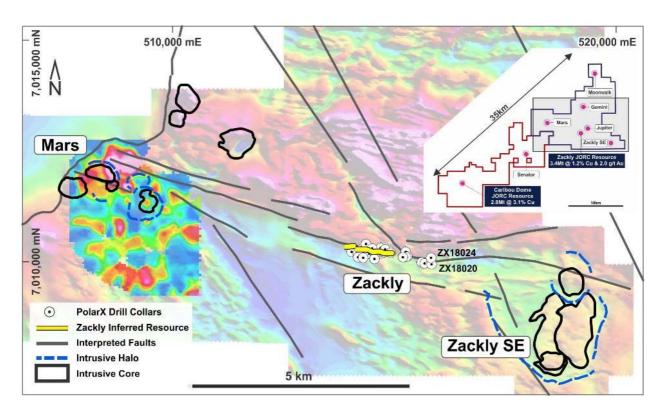
**Figure 2.** Geological interpretation for the Alaska Range Project, showing the Zackly prospect occurring in limestones next to a cluster of intrusive centres, bounded by a major fault corridor which is perpendicular to terrane bounding thrust faults.



#### IP SURVEY UNDERWAY OVER THE SATURN PORPHYRY TARGET

Geological and geophysical interpretations published to date indicate that the Stellar Project is a high priority for copper-gold exploration:

- A very pronounced, 12km long structural corridor extends from Mars in the WNW to Saturn in the ESE. This structural corridor is up to 1km wide and hosts the Zackly Skarn along its northern edge (Figure 3).
- The Saturn complex can be resolved with an interpretation of multiple intrusive bodies surrounded by a significant halo of magnetite destruction.
- Inversion modelling of the magnetic data has highlighted that the anomaly at Saturn represents a steeply south plunging, upward flaring cylinder. The magnetic body is approximately 2km x 1km in areal extent and extends to depths in excess of 3km which the lower extent of the inversion model (Figure 4). It is covered by 10-15m of glacial till and is blind to surface geochemistry.



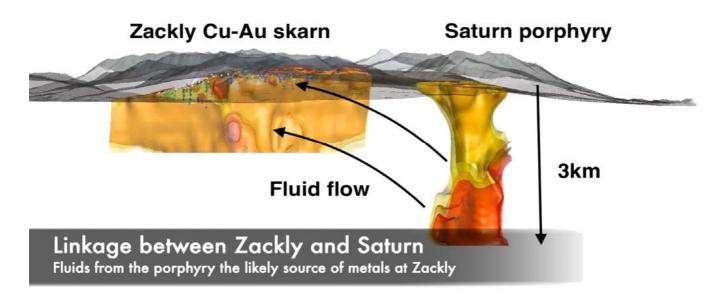
**Figure 3** District scale overview showing the 12km long WNW trending corridor which hosts Mars porphyry Cu-Au target, the high-grade Zackly Cu-Au skarn and the Zackly SE porphyry target.

 The pattern of the Saturn magnetic body has been interpreted as a halo of magnetite destruction surrounding an intrusive body, which could be indicative of an oxidized intrusion. The geometry of the Saturn magnetic body, its geological setting and the interpretation of the magnetic pattern all support the presence of an intrusive cluster surrounded by a zone of propylitic alteration. These factors plus the proximity of high-grade Cu-Au mineralisation at the Zackly



Skarn deposit provides very strong evidence that Saturn may be a large-scale porphyry Cu-Au system.

- An induced polarisation (IP) survey has commenced over the Saturn target, and will cover approximately 32 line-km of surveying (Figure 5). This survey is designed to locate the presence of disseminated sulphides associated with the intrusive core and in the surrounding alteration halo and will be used in conjunction with the magnetic data to finalise drill collar locations for a 5,000m program which will commence in early August 2019.
- Results from the IP program will be released in August 2019 once the field data has been processed.
- Results from the drilling program will be released once available.



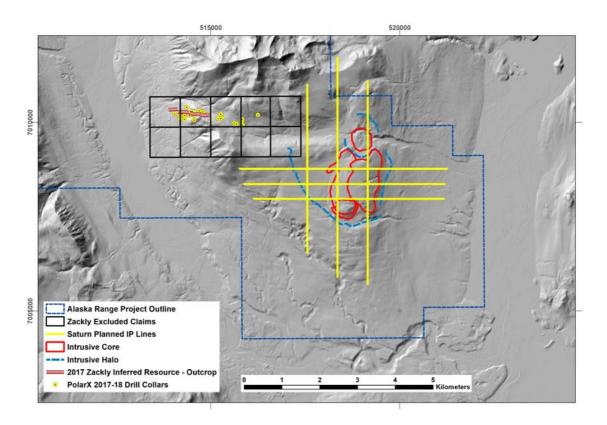
**Figure 4** Oblique view of 3D inversion modelling showing the strongly magnetic, upward flaring cylinder of the Saturn anomaly and its spatial relationship to the mineralisation at Zackly. The image shows three cylindrical iso-surfaces of magnetic susceptibility, with red representing the most magnetic and yellow the least. Non-magnetic areas are blank.

## **ZACKLY SKARN DEPOSIT (100% PolarX and excluded from the Lundin Mining earn-in area)**

The skarn alteration and associated Cu-Au-Ag mineralisation at Zackly occurs in silty limestones (exoskarn) and also locally in andesitic-basalt volcanic rocks and dioritic intrusive rocks (endokarn). A drill program comprising 18 core holes for approximately 3,560m was completed in 2018, and determined that the mineralisation extends below the current resource and for at least 850m outside the resource along-strike to the east (Figure 6).

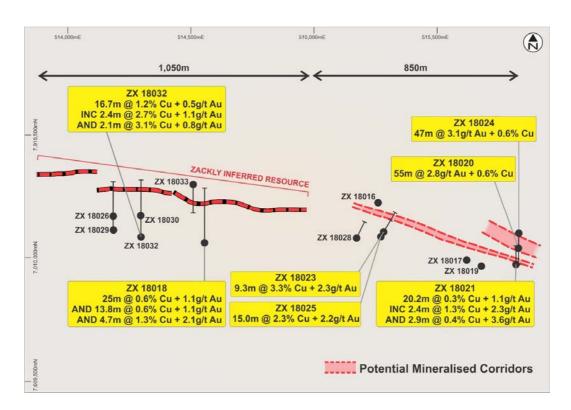


Further drilling comprising up to 2,000m of core drilling has been planned, mainly to extend the thick, high-grade, near-surface intersections in holes ZX-18020 and ZX-18024 at the eastern end of the skarn system.



**Figure 5** Planned IP survey lines at Saturn showing coverage extending well outside the magnetic anomaly.





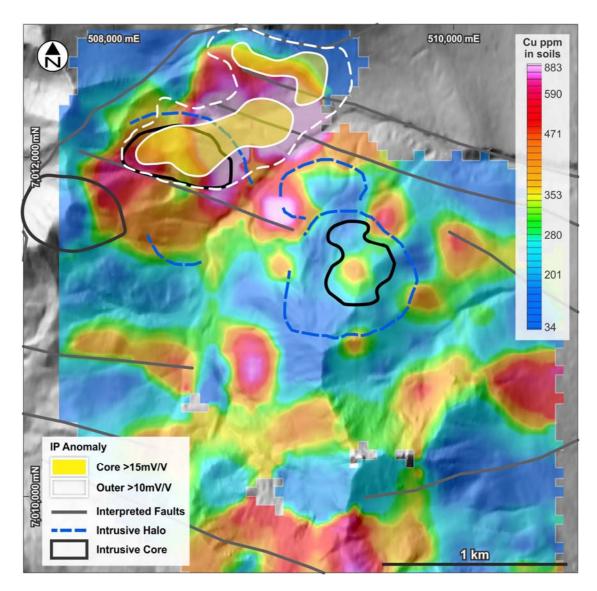
**Figure 6**. Drill plan for Zackly showing the surface trace of the inferred resource (red) and the 2018 drill holes. New drilling has been planned around the high-grade intersections in holes ZX-18020 and ZX-18024.

### MARS PORPHYRY CU-AU TARGET

The Mars prospect lies 6km to the WNW of the Zackly Skarn (see Figure 3) and is included in the Stellar Project claims which are subject to the Lundin Mining partnership. Mars is characterised by co-incident copper, gold, molybdenum and arsenic anomalism in detailed soil sampling over a large area of approximately 2,000m x 1,500m, spatially co-incident with a strong magnetic anomaly and an IP anomaly.

The Mars prospect is drill-ready and will be evaluated after the drilling at Saturn.





**Figure 7** IP anomaly outlines plotted on gridded soil sampling copper assays for Mars. Also shown in black outlines are the magnetic anomalies.

## Key results to date include:

- 1. Copper (>250ppm) and molybdenum (>5ppm) anomalism in soils occurs in the central 1400m x 800m part of the multi-element anomaly, within larger haloes of gold and arsenic anomalism. Peak values for copper were 1,775ppm and for molybdenum were 24.2ppm.
- 2. Gold (>50ppb) and arsenic (>50ppm) anomalism in soils covers a larger 2000m x 1500m area, with peak values of 556ppb gold and 1,230ppm arsenic.
- 3. The copper and molybdenum anomalies coincide with a previously identified IP anomaly (Figure 7), which has been modelled at depths of 100-150m below surface.



- 4. Rock-chip sampling shows numerous anomalous samples for copper and gold, with 18 of the 87 samples assaying over 1% copper and 10 assaying over 0.5g/t gold.
- 5. Peak assays in rock-chips of 7.44%, 4.49%, 4.45% and 1.65% copper and 6.93g/t, 2.94g/t, 2.41g/t and 1.78g/t gold all occur on the northern edge of the soil anomaly closets to the intersection of the terrane bounding fault, WNW structure and intrusive cluster.



Figure 8 Copper oxides on steep outcrop at Mars, looking back towards Zackly

# **MOONWALK AU TARGET**

No work during the Quarter.

## **SENATOR CU TARGET**

No work during the quarter.

#### **CARIBOU DOME DEPOSIT**

No work during the Quarter

#### **Frazer Tabeart**

**Managing Director** 



#### ADDITIONAL DISCLOSURE

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this report has been presented in accordance with the JORC Code.

Information in this report relating to Exploration results is based on information compiled by Dr Frazer Tabeart (an employee and shareholder of PolarX Limited), who is a member of The Australian Institute of Geoscientists. Dr Tabeart has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Tabeart consents to the inclusion of the data in the form and context in which it appears.

There is information in this report relating to:

- (i) the mineral resource estimate for the Caribou Dome deposit (Alaska Range Project), which was previously announced on 5 April 2017;
- (ii) the mineral resource estimate for the Zackly deposit (Alaska Range Project), which was previously announced on 20 March 2018; and
- (iii) exploration results exploration results which were previously announced on 13 July 2018, 17 July 2018, 24 July 2018, 7 August 2018, 15 August 2018, 21 August 2018, 27 August 2018, 20 September 2018 and 25 September 2018, 31 October 2018, 5 November 2018, 29 January 2019 and 25 March 2019.

Other than as disclosed in those announcements, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

#### **Forward Looking Statements:**

Any forward-looking information contained in this report is made as of the date of this report. Except as required under applicable securities legislation, PolarX does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this report is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward-looking information due to the inherent uncertainty thereof.



# **LIST OF MINING CLAIMS**

PROJECT	LOCATION	LICENCE(S)	OWNERSHIP INTEREST
ALASKA RANGE PROJECT			
Caribou Dome Claims  Stellar Claims	Alaska USA	Claim & ADL Caribou 1 - Caribou 20 ADL# 563243 - 563262 Copper 1 - Copper 6 ADL# 588461 - 588466 Copper 7 - Copper 11 ADL# 645375 - 645379 CD 1 - CD66 ADL# 664859 - 664924 CDS 001 - 038 ADL# 719949 - 719986 CD 001 - 040 ADL# 719909 - 719948 CDS 001 - 038 ADL# 719949 - 719986 CDE-01 - 20 ADL# 722216 - 722241 CDE 26 ADL# 722241 CDE 26 ADL#725113 - 725123 SBX 71 ADL#726910 SBX 74 - 75 ADL#726913 - 726914 SBX 77 - 82 ADL#726916 - 726921 SB 154 - 155	Option to earn 90%  Option to earn 90%
Stellar Claims	Alaska, USA	SB 154 - 155 ADL# 704562 - 704563 SB 167 - 168 ADL# 704575 - 704576 ZK 3 - 5 ADL# 704621 - 704623 ZK 14 ADL# 704632 ZK 19 - 21 ADL# 704637 - 704639 Z 1 - 5 ADL# 709427 - 709431 Z 6 - 10 ADL# 711728 - 711732 SB 281 - 283 ADL# 714079 - 714081 SB 297 - 299 ADL# 714095 - 714097 SB 317 - 319 ADL# 714115 - 714117 SB 346 - 348 ADL# 714144 - 714146 SB 364 - 368 ADL# 714162 - 714166 SB 376 - 379 ADL# 714174 - 714177 SB 389 - 390 ADL# 714187 - 714188 SB 417 ADL# 715392 SBA 001 - 066 ADL# 721446 - 721511	100%



PROJECT	LOCATION	LICENCE(s)	OWNERSHIP INTEREST
Stellar Claims (cont.)		SBX 001 - 070  ADL# 724789 - 724858  LYKN 1 - 2  ADL# 725111 - 725112  CDE-21 - 25  ADL# 722236 - 722240  CDE 27  ADL# 722242  SBX 72 - SBX 73  ADL# 726911 - 726912  SBX 76  ADL# 726915  SBX 83 - SBX 91  ADL# 726922 - 726930  SBX 92 - 121  ADL# 728878 - 728907	100%

No Alaska Range Project claims were acquired, relinquished or disposed of during the period.

PROJECT	LOCATION	LICENCE(S)	OWNERSHIP INTEREST
UNCLE SAM GOLD PROJECT *	Alaska, USA	Claim& ADL #	Nil

<sup>\*</sup>Notes: Subject to a mineral lease and purchase agreement with Great American Minerals Exploration Inc. (GAME), pursuant to which game will lease the Uncle Sam gold project for up to 10 years with an option to purchase outright at any time during the lease period on the terms and conditions detailed in the ASX announcement of 30 July 2015 (Option Agreement).

During the December 2017 quarter the Company received noticed from the Department of Natural Resources (State of Alaska) that the mineral claims which comprise the Uncle Sam gold project had been declared abandoned (DNR Notice). The basis for the decision was an error on the affidavit of labor filed by the previous tenement owner in 2011. Further, as a result GAME has sought to terminate the Option Agreement.

The Company is currently reviewing its options in relation to this matter, including whether GAME has complied with its obligations under the Option Agreement, but notes that the Uncle Sam gold project:

- is considered a non-core asset and has a \$nil carrying value in the Company's financial statements; and
- is independent of the Company's Alaska Range Project.

For a detailed listing of the Uncle Sam Gold project mineral claims, held prior to receipt of the DNR Notice. Refer Appendix 1 to the Quarterly Activities Report dated 31 October 2017.