

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 30 SEPTEMBER 2019

### HIGHLIGHTS

- Significant progress with the 2019 drill program at Elan South and Isolation South during the September quarter
- Elan South 2019 drilling (to quarter end): 85 RAB holes and 14 PQ holes completed for a total of 15,474 metres drilled:
  - Outstanding South East Corner discovery at Elan South; sizeable coal deposition with clear potential for shallow, low-strip, early-phase mining; maiden resource estimate in 4Q 2019
  - Shallow, thick coal seam intersections evidenced across the full east-west extent of the Fish Hook area; significant new resource additions expected
  - Strong extensional and infill results at Oil Pad Ridge
- Isolation South 2019 drilling (to quarter end): 18 RAB holes completed for a total of 2,797 metres drilled:
  - Northern results deliver preliminary validation of existing resource estimate
  - Southern results highlight new resource additions
- Updated Elan Project resource estimates expected in 4Q 2019
- Environmental baseline work and Scoping Study activities progressed at Elan South
- Financial institutions site visit hosted in early September 2019

Atrum Coal Ltd ("Atrum" or the "Company") (ASX: ATU) is pleased to provide its Quarterly Activities Report for the period ending 30 September 2019.

Non-Executive Chairman, Mr. Charles Blixt, commented: *"The strong results from our 2019 drilling program are a testament to the endowment of the Elan Hard Coking Coal Project and the calibre of our team. In particular, the South East Corner discovery at Elan South has highlighted significant coal deposition with clear potential to be a shallow, low-strip,*



**Registered Office**  
Unit 1B, 205-207 Johnston  
Street  
Fitzroy, VIC 3065  
Phone: +61 (0) 3 9191 0135  
Fax: +61 (0) 3 8678 1747  
E [info@atrumcoal.com](mailto:info@atrumcoal.com)  
[www.atrumcoal.com](http://www.atrumcoal.com)

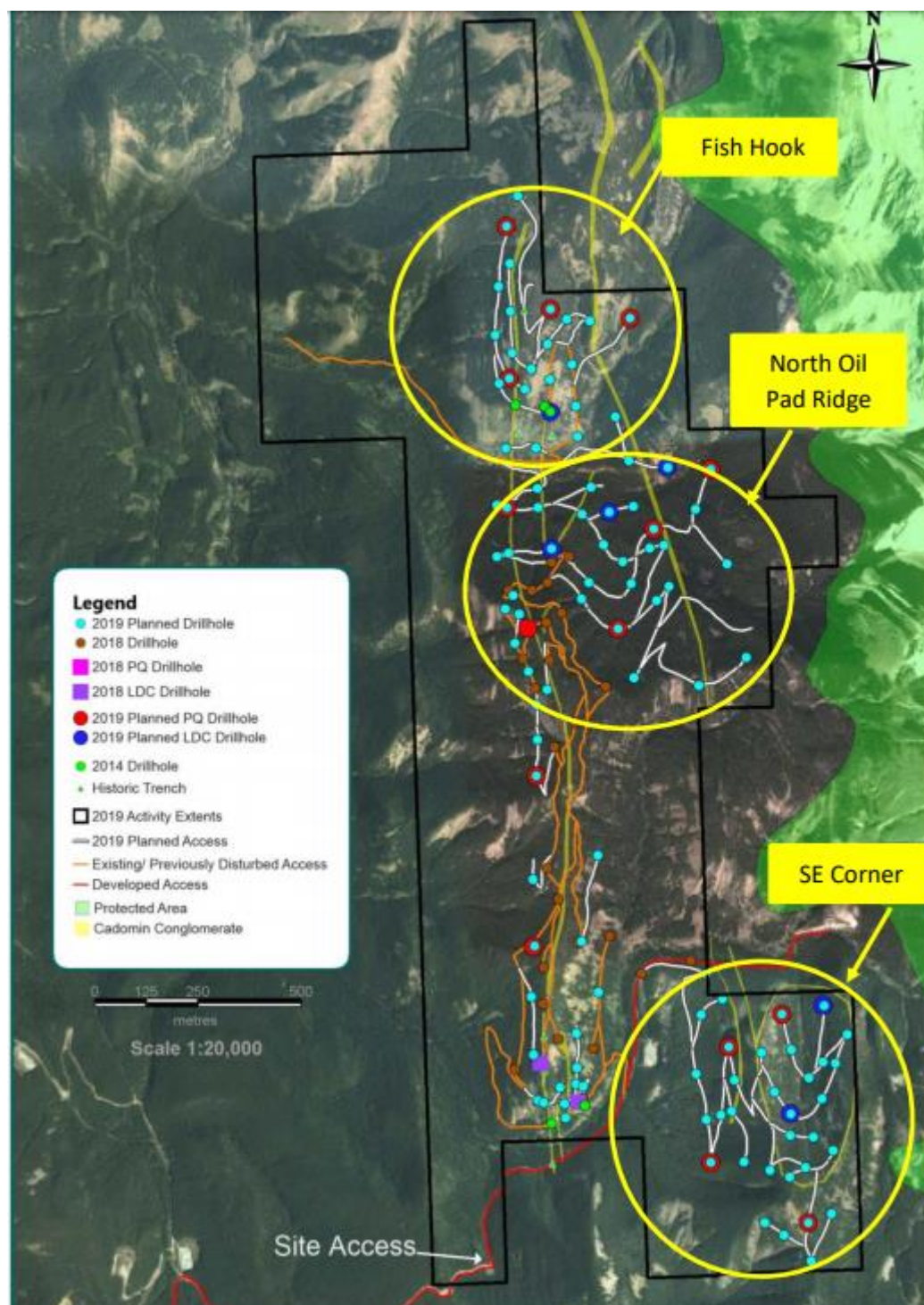
**Board of Directors**  
Chairman (Non-Exec) C. Blixt  
Managing Director/CEO M. Wang  
Non-Executive Director R. Barker  
Non-Executive Director G. Edwards  
Non-Executive Director C. Fear  
Company Secretary J. Stedwell

**Key Projects**  
Elan 100%  
Groundhog 100%  
(incl Panorama North JV) (65%)  
Bowron River 100%


early-phase mining area. Overall results to date, at both Elan South and Isolation South, highlight the likelihood of significant new resource additions later this year."

## Elan Hard Coking Coal Project

### Elan South exploration progress



Elan South current drilling areas and 2019 drilling plan



Regulatory approvals for the planned 2019 drilling program at Elan South were received in late May. Construction of drill site access roads at Elan South started in early June and drilling at Elan South commenced at the end of June.

A total of 85 rotary air blast holes of the Elan South 2019 program had been drilled by quarter end for a total of 14,274 metres drilled. We are currently drilling hole 98. These holes were drilled across the Oil Pad Ridge, South East Corner and Fish Hook areas of Elan South.

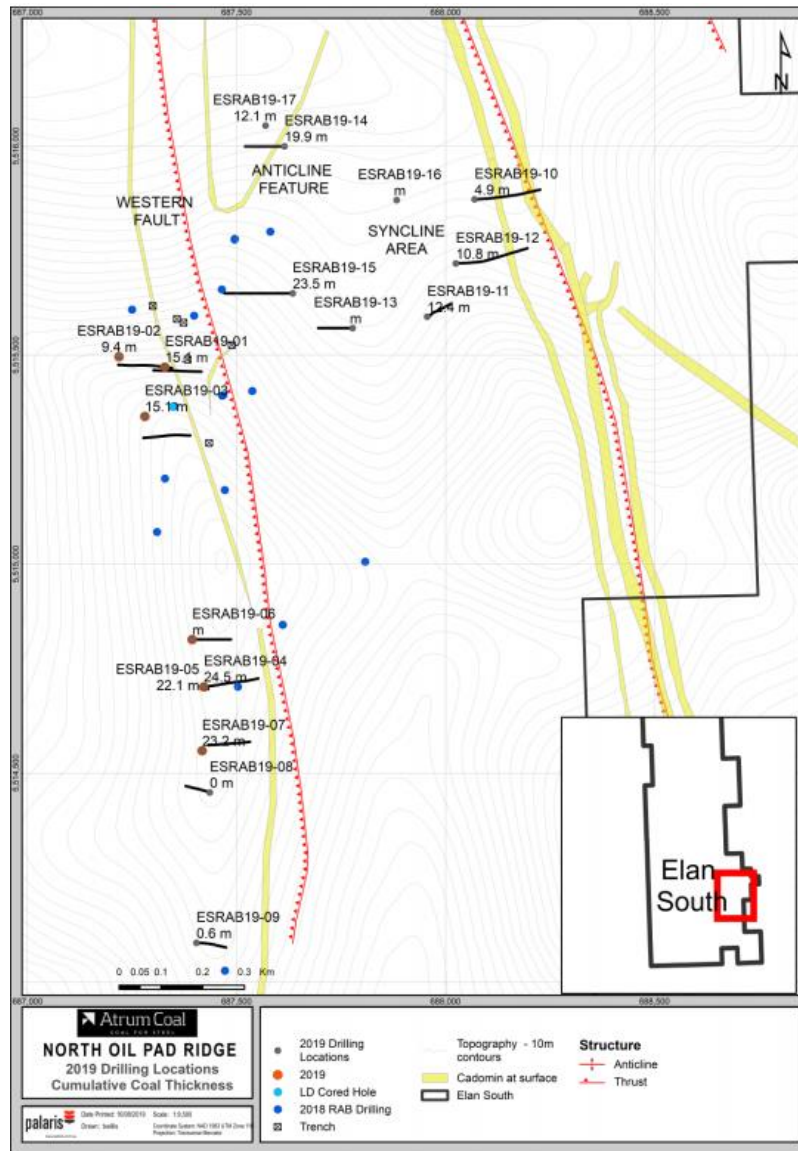
There were also 14 PQ holes drilled (with 1,200 metres drilled) so far for coal quality and washability testwork purposes; these cores have been dispatched to laboratories for analysis. Large diameter coring (LDC) activities commenced at Elan South in late September.

### **Oil Pad Ridge**

Seventeen (17) rotary air blast holes have been completed for 3,750 metres drilled.

The holes at Oil Pad Ridge involved a mixture of extensional targeting and infill drilling. Coal deposition was intercepted in all but one of the holes with many thick seam intervals returned. Average apparent cumulative thickness across all the holes that intersected coal was 16.3 metres (and ranging between a minimum of 4.9 metres up to a maximum of 23.5 metres). Depth to first coal ranged from 0.7 to 219.4 metres across all reported holes. Please see our news release *“Outstanding Results from initial drilling at South East Corner of Elan South”* of 16 August 2019 for detailed results.





**Completed Borehole locations and cumulative coal thickness**

## South East Corner

Forty-six (46) rotary air blast holes were completed for 7,431 metres drilled.

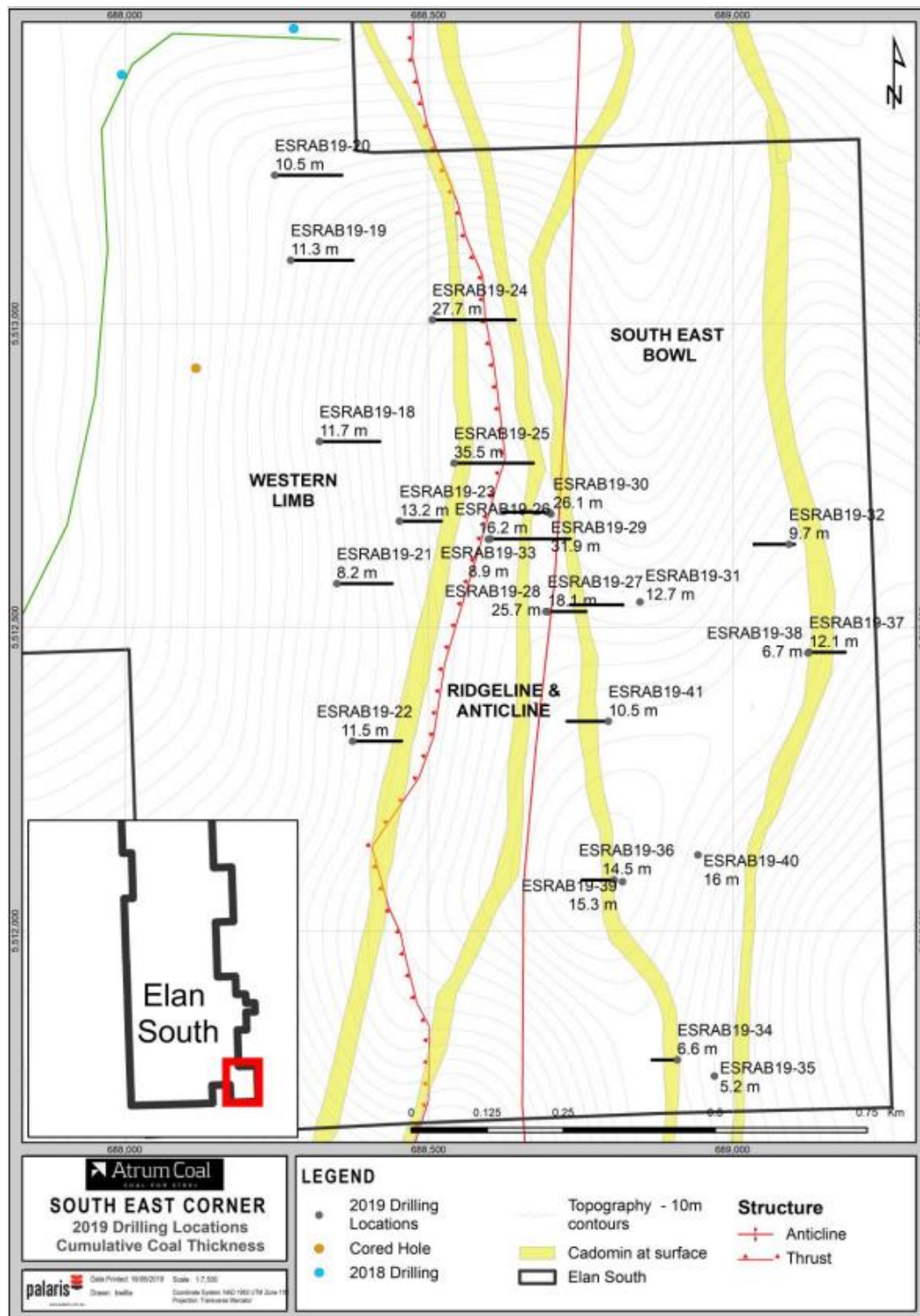
Drilling in this area was targeted to test several identified zones that had the potential to host large, shallow emplacements of coal that might support early-stage, low-strip mine designs.

Shallow coal was intercepted in all 46 holes drilled at South East Corner, with an average apparent cumulative thickness across all these holes of 16.4m (and ranging between a minimum of 4.5 metres up to a maximum of 44.0 metres). Multiple holes evidence coal intervals commencing from less than 5 metres below surface.

In aggregate, these results have demonstrated that the South East Corner (an approx. 2km<sup>2</sup> tenement area that is connected to the south-east end of the current resource boundary at Oil Pad Ridge) is a significantly endowed and potentially low-strip, early-phase mining area for the Elan Project.

Atrum plans to incorporate a maiden resource estimate for the South East Corner area in its overall resource estimate update for Elan South later this year.

Fourteen (14) PQ holes were also completed at South East Corner so far for 1,385 metres of drilling. In addition, we completed 1 large diameter core hole of 138 metres.



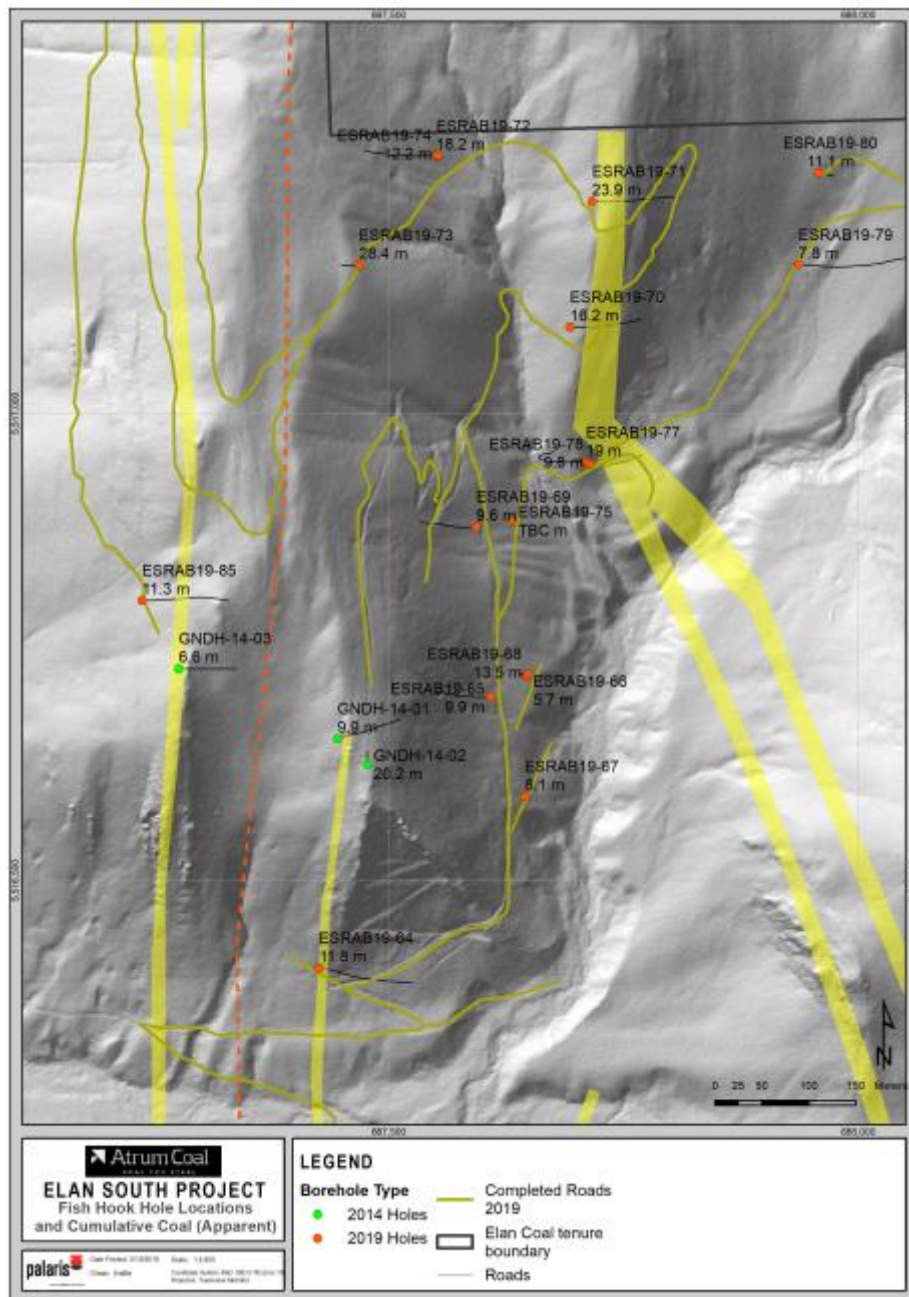
Completed Borehole locations and cumulative coal thickness South East Corner

## Fish Hook

Eighteen (18) rotary air blast holes have been completed for 2,900 metres drilled.

Total cumulative coal thicknesses (apparent) in all reported holes ranged from 7.8 to 28.4 metres and averaged 14.8 metres. Depth to first coal ranged from 13.1 to 62.1 metres across all reported holes.

These results demonstrate shallow, thick coal seam intersections across the full east-west extent of the Fish Hook area. They also confirm the favourable geological structures prevailing in this zone, which deliver strong potential for low strip ratio mining. The net result is expected to be the addition of significant new resources in the Fish Hook area of Elan South.



Completed and planned borehole locations in the Fish Hook area

For full details on the Elan South 2019 drilling program and results, see Atrum ASX releases dated 18 July 2019, *Amended Elan South Drilling Update*; 16 August 2019, *Initial Drilling Results at South East Corner of Elan South*; 3 September 2019, *Drilling Results Update*; and 3 October, *Initial Drilling at Fish Hook Area Exceeds Expectations*.

### **Isolation South exploration progress**

The decision to concurrently progress evaluation of Isolation South, alongside acceleration of the flagship Elan South development area, reflects Atrum's strategy to rapidly advance multiple, large Tier 1 hard coking coal developments across its highly endowed and 100%-owned Elan Project.

The coal deposition at Isolation South is characterised by shallow seams with moderate dip angles, highlighting strong potential for low-strip ratio mining.

Regulatory approvals for the planned 2019 drilling program at Isolation South were received in late July. Access road construction started immediately and drilling at Isolation South commenced in late August.

Twenty four (24) holes of the planned total 35-hole program at Isolation South had been completed and the results have been released for these holes (totalling 3,713 metres of drilling) in our news releases dated 18 September 2019 – *Isolation South Exploration Update* and 21 October 2019 – *Thick, Shallow Coal at Isolation South*. All holes intersected coal seams confirming historical exploration and showing broad correlation with those at Elan South. Total cumulative coal thicknesses (apparent) in all reported holes ranged from 1.0 to 68.8 metres and averaged 21.2 metres. Depth to first coal ranged from 6.5 to 141.9 metres across all reported holes.

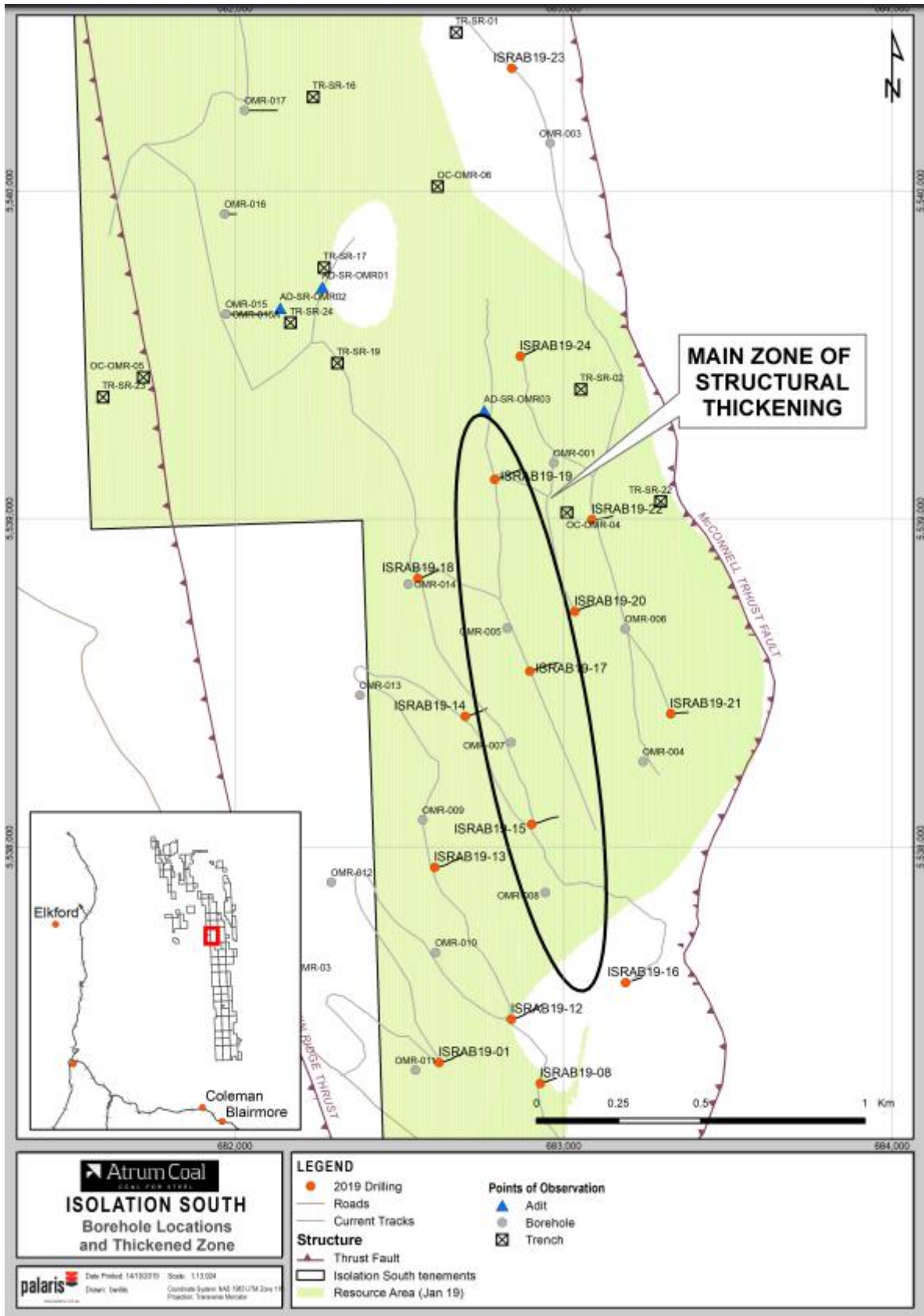
These outcomes have confirmed the results of historical drilling and provided preliminary validation of the existing resource estimate at Isolation South.

When the full sequence of coal seams 1 to 4 are present, the holes show more than 40 m of cumulative apparent coal thickness. This is supported by the results from holes 13, 14, and 18 from the northern area of Isolation South.

The results of the southern area holes deliver initial confidence in the likelihood of new resource additions at Isolation South from the current program of drilling.

We are currently drilling hole 32.





Completed and planned borehole locations in the Isolation South area



For full details on the Isolation South 2019 drilling program and results, see Atrum ASX releases dated 29 July 2019, *Isolation South Exploration Permit Received*, and 18 September 2019, *Isolation South Exploration Update* and 21 October 2019, *Thick, Shallow Coal at Isolation South*

## Environmental Baseline Study at Elan South

Full-scope environmental baseline study work at Elan South continued during the quarter. Key activity areas include:

- Hydrogeological program underway with holes started in the South East Corner.
- Aquatic resource sampling ongoing; hydrology and surface water quality characterization completed this fall.
- Terrestrial wildlife and vegetation sampling program executed during summer/fall with winter sampling planned.
- Geotechnical core logging integrated with hydrogeological program.
- Meteorological station established with continuous climate data collection.

As part of the Environmental Impact Assessment (EIA) preparation, engagement with various stakeholders, including First Nations, government agencies, local municipalities and ranchers, continued during the quarter.

## Elan South Scoping Study

Key Scoping Study workstreams on Elan South progressed during the quarter. Completion of this technical and financial evaluation is targeted for the December 2019.

## Panorama North

A mine development option assessment is being undertaken and was advanced during the quarter with respect to the Panorama North Joint Venture. This work is expected to be completed during the December 2019 quarter. JOGMEC holds a 35% equity interest in the project.

## Corporate

### Financial community site visit

Atrum hosted a group of financial analysts and institutional investors on a site visit of the Elan Project in early September. The site visit included a helicopter flyover tour of the vast Elan tenements and the nearby operating Teck Coking Coal Mines on the British Columbia side. The delegates also met with Atrum regulatory consultants and legal advisor, Mine Authorization executives and management of the Alberta Energy Regulator (AER), and several Alberta government ministers. The meetings and in-depth

discussions allowed the delegates to gain a comprehensive perspective of the new regulatory regime for the Elan Hard Coking Coal Project under the new pro-development Alberta Conservative Government.

For full details of the presentations delivered across the site visit schedule, see Atrum ASX releases dated 5 September 2019, *Institutional and Analyst Elan Site Visit Presentation*, and 11 September 2019, *Updated Financial Analysts Site Visit Follow Up Information*.

### Options Exercise

During the quarter 500,000 listed options were exercised at a price of \$0.20 for a total of \$100,000 received.

### Tenement relinquishment

Atrum relinquished a number of non-core tenements in the Groundhog and Panorama project areas during the quarter, reducing the annual lease renewals by a further \$90,000.

### Cash and debt position

Atrum held A\$16.3 million cash at 30 September 2019. The Company has no debt, excluding usual creditors balances.

### For further information, contact:

**Max Wang**  
Managing Director/CEO  
**M** +1 403 973 3137  
[mwang@atrumcoal.com](mailto:mwang@atrumcoal.com)

**Justyn Stedwell**  
Company Secretary  
**P** +61 3 9191 0135  
[jstedwell@atrumcoal.com](mailto:jstedwell@atrumcoal.com)

**Michael Vaughan**  
IR Advisor, Fivemark Partners  
**P** +61 422 602 720

## About Atrum Coal

Atrum Coal (ASX: ATU) is a metallurgical coal developer. The Company's flagship asset is the 100%-owned Elan Hard Coking Coal Project in southern Alberta, Canada. Elan hosts large-scale, shallow, thick, hard coking coal (HCC) deposits with a current JORC Resource Estimate of 298 Mt (70 Mt Indicated and 228 Mt Inferred).<sup>1</sup> Comprehensive quality testing of Elan South coal on samples from the 2018 exploration program, combined with review of substantial historical testwork data for the broader Elan Project, has confirmed Tier 1 HCC quality.

The initial focus for development is the Elan South area, which is located approximately 13 km from an existing rail line with significant excess capacity, providing direct rail access to export terminals in Vancouver and Prince Rupert. Elan South shares its southern boundary with Riversdale Resources' Grassy Mountain Project, which is in the final permitting stage for a 4.5 Mtpa open-cut HCC operation. Around 30 km to the west, Teck Resources operates five mines (the Elk Valley complex) producing approximately 25 Mtpa of premium HCC for the seaborne market.

A Scoping Study to evaluate development of Elan South is underway with targeted completion in December 2019. This work will feed into a Pre-Feasibility Study (PFS) which is planned to be completed in 2H 2020.

<sup>1</sup> Other than the drilling results released to ASX in 2019, Atrum confirms that it is not aware of any new information or data that materially affects the information included in its ASX releases dated 6 January 2019, *Elan South Hard Coking Coal Resource increased by 170% to 97Mt* and 22 January 2019 *Additional 201Mt JORC Resources defined for Elan Project*. All material assumptions and technical parameters underpinning the estimates in these releases continue to apply and have not materially changed.

## Appendix 1: TENEMENTS LIST

Title Number	Claim Name	TitleType	Good To Date	Status	Area (ha)
394847	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	259
417080	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	565
417081	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	636
417082	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	212
417085	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	1,031
417088	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	777
417089	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	142
417094	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	71
417095	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	425
417096	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	71
417297	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	918
417298	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	1,059
417520	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	212
417521	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	142
417528	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	142
418587	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	1,411
418588	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	1,412
418589	Atrum Coal Groundhog Inc.	License	2020/MAY/31	GOOD	1,273
418955	Atrum Coal Groundhog Inc.	License	2020/SEP/12	GOOD	1,265
417084	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	708
417086	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	142
417292	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	279
417296	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	71
417299	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	779
417525	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	425
417526	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	707
417527	Atrum Coal Panorama Inc.	License	2020/MAY/31	GOOD	71
418953	Atrum Coal Panorama Inc.	License	2020/SEP/12	GOOD	1,346
418957	Atrum Coal Panorama Inc.	License	2020/SEP/12	GOOD	1,415
418958	Atrum Coal Panorama Inc.	License	2020/SEP/12	GOOD	1,345
418961	Atrum Coal Panorama Inc.	License	2020/SEP/12	GOOD	71
Total					<u>19,382</u>



Title Number	Claim Name	TitleType	Area (ha)
120019501	Elan Coal Ltd.	Coal Lease Application	1,536
120019502	Elan Coal Ltd.	Coal Lease Application	1,616
120019503	Elan Coal Ltd.	Coal Lease Application	1,724
120019504	Elan Coal Ltd.	Coal Lease Application	1,662
120019505	Elan Coal Ltd.	Coal Lease Application	1,536
120019506	Elan Coal Ltd.	Coal Lease Application	768
120019507	Elan Coal Ltd.	Coal Lease Application	1,629
120071201	Elan Coal Ltd.	Coal Lease Application	1,936
120071202	Elan Coal Ltd.	Coal Lease Application	64
120071203	Elan Coal Ltd.	Coal Lease Application	1,840
120071204	Elan Coal Ltd.	Coal Lease Application	1,645
120071205	Elan Coal Ltd.	Coal Lease Application	1,582
120071206	Elan Coal Ltd.	Coal Lease Application	112
120071207	Elan Coal Ltd.	Coal Lease Application	960
120071208	Elan Coal Ltd.	Coal Lease Application	1,687
120286501	Elan Coal Ltd.	Coal Lease Application	16
120286502	Elan Coal Ltd.	Coal Lease Application	16
120286503	Elan Coal Ltd.	Coal Lease Application	64
120286504	Elan Coal Ltd.	Coal Lease Application	208
120286505	Elan Coal Ltd.	Coal Lease Application	48
120286506	Elan Coal Ltd.	Coal Lease Application	114
120286507	Elan Coal Ltd.	Coal Lease Application	144
120286508	Elan Coal Ltd.	Coal Lease Application	853
130011401	Elan Coal Ltd.	Coal Lease Application	256
130011402	Elan Coal Ltd.	Coal Lease Application	128
130011403	Elan Coal Ltd.	Coal Lease Application	97
130011404	Elan Coal Ltd.	Coal Lease Application	128
Total	Elan Coal Ltd.		72,888
Grand Total			92,270