

# DECEMBER QUARTER 2016 HIGHLIGHTS

- Manhattan's 100% owned ISR Ponton uranium project in WA reported 24Mlb palaeochannel hosted Inferred Resources and 33Mlb to 67Mlb uranium oxide in four Exploration Targets
- Manhattan Double 8 Inferred Resource of 17.2Mlb uranium oxide upgraded to JORC Code 2012
- Maiden Inferred Resources totalling 7Mlb uranium oxide reported for the Stallion, Highway and Shelf uranium deposits
- Manhattan is continuing to meet with WA Ministers, their advisers and the Department of Mines & Petroleum to gain their support for, and commence drafting, a Reserves Amendment Bill that would excise our key exploration tenement from the QVSNR
- Global energy consumption from nuclear power is projected to increase by 78% from 2014 to 2040. Most of this growth is expected to come from new plants in China and India
- World's top uranium producer, Kazakhstan, announced on 10 January 2017 it's cutting output of the commodity by 10% this year
- In January 2017 the US House of Representatives approved the Advanced Nuclear Technology
  Act designed to bolster research on advanced nuclear reactors, allow more challenges to the
  Federal Regulators and change of rules for energy efficiency standards
- Four Western Australian uranium mine development projects at Yeelirrie, Kintyre, Wiluna and Mulga Rock gain environmental approvals and are ready to swing into production if world uranium prices continue to improve
- Manhattan's Ponton project is a potential lower quartile cost ISR uranium producer with modest capital requirements that could be developed at current uranium prices
- SPOT MARKET URANIUM OXIDE IMPROVES FROM 15 YEAR LOW TO US\$24.50 POUND



## **REVIEW OF OPERATIONS**

#### **INTRODUCTION**

Manhattan Corporation Limited's ("Manhattan") flagship Ponton uranium project is located approximately 200km northeast of Kalgoorlie on the edge of the Great Victoria Desert in WA. The Company has 100% control of around 1,100km² of exploration tenements underlain by Tertiary palaeochannels within the Gunbarrel Basin. These palaeochannels are known to host a number of uranium deposits and drilled uranium prospects (Figures 1 & 2).

The Company is drill testing and developing palaeochannel sand hosted uranium mineralisation amenable to in-situ metal recovery ("ISR").

FIGURE 1: MANHATTAN'S PONTON URANIUM PROJECT



On 23 January 2017 Manhattan reported an upgraded JORC Code 2012 Inferred Resource for the Double 8 uranium deposit at Ponton in WA of 17.2 million pounds ("Mlb") of uranium oxide (" $U_3O_8$ ") at a 200ppm cutoff. As well, maiden JORC Code 2012 combined Inferred Resources estimates for three uranium deposits at Ponton of 21.5 million tonnes ("Mt"), grading from 137 to 151ppm  $U_3O_8$  totalling 6.97Mlb  $U_3O_8$  at a 100ppm cutoff were reported.

The four Inferred Resource estimates reported for Ponton project are:

- Double uranium deposit of 17.2Mlb U<sub>3</sub>O<sub>8</sub> at 200ppm cut off;
- Stallion uranium deposit of 3.3Mlb U<sub>3</sub>O<sub>8</sub> at 100ppm cutoff;
- Highway uranium deposit of 1.9Mlb U<sub>3</sub>O<sub>8</sub> at 100ppm cutoff; and
- Shelf uranium deposit of 1.8Mlb U₃O<sub>8</sub> at 100ppm cutoff

Exploration Results at Ponton, reported on 7 February 2014, have also identified four wide spaced drilled Exploration Targets with tonnage ranges of 4 to 45Mt, grade ranges of 250 to 450ppm  $U_3O_8$  totalling 33 to 67Mlb  $U_3O_8$  at the 200ppm  $U_3O_8$  cutoff. In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.



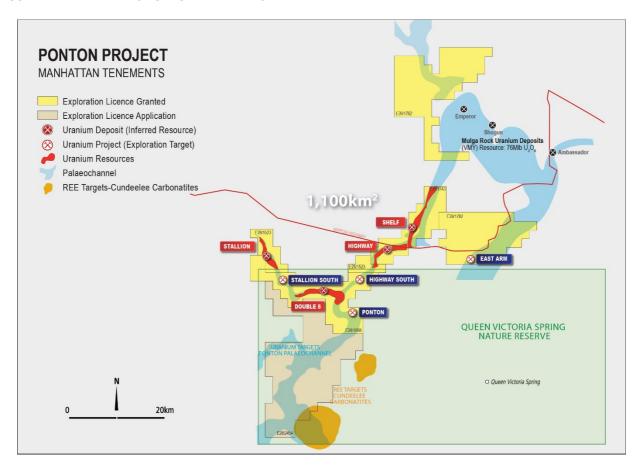
The four Exploration Targets reported for the Ponton project are:

- Double 8 of between 2.5 and 5.5Mlb U₃Oଃ;
- Stallion South of between 8 and 16Mlb U₃O8;
- Highway South of between 8 and 16Mlb U<sub>3</sub>O<sub>8</sub>; and
- Ponton of between 15 and 30Mlb U₃O<sub>8</sub>

The four Inferred Resource estimates and four Exploration Targets at Ponton reported here were prepared by the Company's independent resource consultants H&S Consultants ("H&SC").

The Double 8 uranium deposit and the four Exploration Targets at Double 8, Stallion South, Highway South and Ponton are all located on granted exploration licence, E28/1898, located mostly within the Queen Victoria Spring Nature Reserve ("QVSNR") (Figures 2 & 3).

FIGURE 2: MANHATTAN'S PONTON TENEMENTS



The four Mineral Resource Estimates reported in January 2017, and the four Exploration Targets previously reported in 2014, are based on actual exploration results including Manhattan's aircore and sonic drilling of over 767 holes and 52,700 metres of drilling along the palaeochannels immediately to the north of QVSNR in 2009 and 2010, 21 holes and 1,170 metres of drilling by Manhattan in 2016 and over 70km of conductive palaeochannels defined by the Company's airborne EM and magnetic surveys within QVSNR (Figure 3) and uranium mineralised sands discovered in previous drilling of 114 holes and 6,900 metres of drilling and down hole gamma logging by PNC Exploration ("PNC") and Uranerz Limited ("Uranerz") in the area in the 1980's.

Manhattan is now seeking exploration access approval to exploration licence E28/1898 located mostly within the QVSNR. The licence was granted in August 2011. On gaining exploration access to E28/1898 Manhattan will recommence drill testing and evaluation of the Double 8 uranium deposit and the four Exploration Targets identified at Double 8, Stallion South, Highway South and Ponton prospects where resource definition drilling will underpin the future development of the project.



#### **REVIEW OF PROJECTS**

## 1. PONTON PROJECT (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

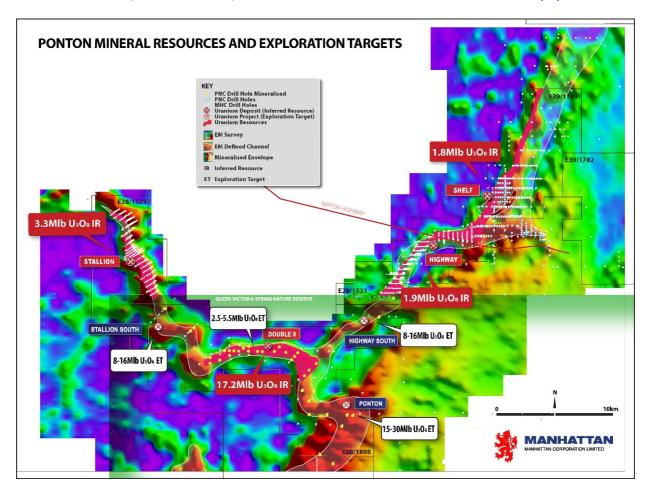
The Ponton project area is underlain by Tertiary palaeochannels within the Gunbarrel Basin. Carbonaceous sand hosted uranium mineralisation, below 40 to 70 metres of cover, has now been defined by drilling along 55 kilometres of the palaeochannels at Stallion, Stallion South, Double 8, Ponton, Highway and Highway South prospects (Figure 3). At a depth of 40 to 70 metres the uranium mineralisation is in shallow reduced sand hosted tabular uranium deposits in a confined palaeochannel that is potentially amenable to ISR metal recovery, the lowest cost method of producing yellowcake with the least environmental impact.

Within E28/1898 approximately 6,900 metres of drilling, in 114 drill holes, was drilled and down hole gamma logged by PNC and Uranerz in 1983 to 1986. This drilling discovered the palaeochannel sand hosted uranium mineralisation at Double 8, Stallion South, Highway South and Ponton (Figure 3). Manhattan has obtained and compiled all the PNC and Uranerz exploration results including the geological drill logs, assay results, down hole gamma logs, logging tool calibrations and estimated disequilibrium factors. These drill logs and gamma logs have been digitised and verified by Manhattan's independent consultants.

In 2009 Uranio drilled 1,683 metres of aircore in 20 holes and from December 2009 to September 2016 Manhattan drilled over 52,400 metres of aircore and sonic drilling in 735 holes along the palaeochannels at Ponton to the north of the QVSNR. Manhattan and Uranio's exploration and drilling results and the historic PNC and Uranerz data have been reviewed and the Inferred Resource estimated for Double 8, Stallion, Highway and Shelf deposits and Exploration Targets reported for Double 8, Stallion South, Highway South and Ponton prospects.

FIGURE 3: DOUBLE 8, STALLION, HIGHWAY AND SHELF INFERRED RESOURCES (IR)

DOUBLE 8, STALLION SOUTH, HIGHWAY SOUTH & PONTON EXPLORATION TARGETS (ET)





### 2. DOUBLE 8 URANIUM DEPOSIT (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

The Double 8 uranium deposit is located in granted tenement E28/1898 in the southwest of the project area within the QVSNR (Figures 2 & 3).

#### **DOUBLE 8 INFERRED RESOURCE ESTIMATES**

An Inferred Resource of 7,800 tonnes (17.2Mlb) of uranium oxide at a 200ppm  $U_3O_8$  cutoff for the Double 8 uranium deposit was reported on 23 January 2017. The reported resources are based on RC drilling by PNC in the mid 1980's. This information was prepared and first disclosed under the JORC Code 2004. This updated JORC Code 2012 resource estimate was prepared by H&SC.

#### **Double 8 Inferred Resources**

DOUBLE 8 INFERRED RESOURCE ESTIMATES						
CUTOFF GRADE $eU_3O_8(ppm)$ TONNES (MILLION) GRADE $eU_3O_8(ppm)$ TONNES $U_3O_8(t)$ POUNDS (MILLION) $U_3O_8(Mlb)$						
100	110	170	18,700	42.0		
150	51	240	12,240	26.0		
200	26	300	7,800	17.2		
250	14	360	5,040	11.0		

H&SC's resource estimate for the Double 8 uranium deposit is based on approximately 2,706m of drilling from 44 aircore holes drilled by PNC in the early 1980's along 10 kilometres of the palaeochannel at Double 8 (Figure 3). The drilling has covered an area of approximately 9 x 1.2 km of the Ponton palaeochannel. 40 holes were successfully logged for uranium decay products using a down hole gamma radiometric probe. The original analog gamma logging data has been digitized and recalibrated by the Company's consultants as digitized logs converted to  $eU_3O_8$ .

The uranium mineralisation at Double 8 remains open and is yet to be closed off by drilling. Manhattan considers that further drilling, on 100m x 400m centres, of the Double 8 deposit and Exploration Target will expand on the reported resources and targets and the confidence levels of reported resources will improve.

#### **DOUBLE 8 EXPLORATION TARGET**

The Double 8 Exploration Target, reported in January 2014, is based on 44 drill holes totalling approximately 2,700 metres of drilling and down hole gamma logs in areas of the deposit where drill spacing is considered too wide to define a Mineral Resource to an inferred resource status.

Exploration Results have identified a drilled Exploration Target with uranium mineralisation potential, at a 200ppm  $U_3O_8$  cutoff, at Double 8 of 4 to 8Mt grading 250 to 450ppm  $U_3O_8$  containing 1,100 to 2,500 tonnes or 2.5 to 5.5Mlb of contained  $U_3O_8$ .

# **Double 8 Exploration Target**

DOUBLE 8 EXPLORATION TARGET							
CUTOFF GRADE U <sub>3</sub> O <sub>8</sub> (ppm)	TONNAGE RANGE (MILLION)	GRADE RANGE U <sub>3</sub> O <sub>8</sub> (ppm)	TONNAGE RANGE U <sub>3</sub> O <sub>8</sub> (t)	POUNDS RANGE (MILLION) U <sub>3</sub> O <sub>8</sub> (Mlb)			
200	4 - 8	250 - 450	1,100 - 2,500	2.5 - 5.5			

In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.



The uranium mineralisation at Double 8 remains open and is yet to be closed off by drilling. Manhattan considers that further drilling, on 100m x 400m centres, of the Double 8 deposit and Exploration Target will expand on the reported resources and targets and the confidence levels of reported resources will improve.

On gaining exploration access to E28/1898, and approval of Manhattan's Program of Work ("**POW**") by the Department of Mines and Petroleum ("**DMP**"), the Company plans to complete approximately 200 aircore drill holes for 16,000 metres of infill resource definition drilling on 400 x 100m centres along the defined palaeochannel within the reported Inferred Resource and Exploration Target areas at Double 8. This drilling program, including the resource definition drilling planned for the Stallion South, Highway South and Ponton prospects, will be completed within approximately one year of POW approval (Figure 3).

## 3. STALLION (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

The Stallion uranium prospect is located in E28/1523 and centred 14 kilometres northwest of the Double 8 uranium deposit at Ponton (Figures 2 & 3).

## **STALLION INFERRED RESOURCE ESTIMATES**

An Inferred Resource of 1,490 tonnes (3.3Mlb) of uranium oxide at a 100ppm  $U_3O_8$  cutoff for the Stallion uranium deposit was reported on 23 January 2017. The reported resources are based primarily on Manhattan's aircore and sonic drilling in 2010 and 2016. This JORC Code 2012 resource estimate was prepared by H&SC.

#### **Stallion Inferred Resources**

STALLION INFERRED RESOURCE ESTIMATES						
CUTOFF GRADE $eU_3O_8(ppm)$ TONNES (MILLION) GRADE $eU_3O_8(ppm)$ TONNES $U_3O_8(t)$ POUNDS (MILLION) $U_3O_8(MI)$						
100	9.9	151	1,490	3.3		
150	3.6	200	<b>720</b>	1.6		
200	1.3	253	330	0.7		

H&SC's resource estimate for the Stallion uranium deposit is based on a total of 252 drill holes totalling 18,746m of drilling including 7 aircore holes for approximately 401 metres of drilling by PNC in the early 1980s and Manhattan's 226 vertical aircore drill holes totalling 16,914m and 16 duplicate sonic drill holes totalling 1,179m of drilling along 8 kilometres of the palaeochannel at Stallion in 2009 and 2010 and 3 aircore holes for 252m, utilising improved high resolution gamma probe technology, drilled into the Stallion deposit twinning previously drilled Manhattan aircore and sonic drill holes in 2016 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones. All drill holes were gamma logged. The original PNC analog gamma logging data has been digitized and recalibrated by the Company's consultants as digitized logs converted to eU<sub>3</sub>O<sub>8</sub>.

The geological controls and style of the palaeochannel sand hosted uranium mineralisation at Stallion are similar to the mineralisation encountered at Double 8.

## 4. HIGHWAY (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

The Highway uranium prospect is located in E28/1523 and E39/1143 centred 15 kilometres northwest of the Double 8 uranium deposit at Ponton (Figures 2 & 3).



#### **HIGHWAY INFERRED RESOURCE ESTIMATES**

An Inferred Resource of 860 tonnes (1.9Mlb) of uranium oxide at a 100ppm U<sub>3</sub>O<sub>8</sub> cutoff for the Highway uranium deposit was reported on 23 January 2017. The reported resources are based primarily on Manhattan and Uranio's aircore and sonic drilling in 2009, 2010 and 2016. This JORC Code 2012 resource estimate was prepared by H&SC.

# **Highway Inferred Resources**

HIGHWAY INFERRED RESOURCE ESTIMATES					
CUTOFF GRADE eU₃O <sub>8</sub> (ppm)	TONNES (MILLION)	GRADE eU₃O <sub>8</sub> (ppm)	TONNES U <sub>3</sub> O <sub>8</sub> (t)	POUNDS (MILLION) U3O8(MIL	
100	5.7	150	860	1.9	
150	2.4	196	470	1.0	
200	1.0	234	220	0.5	

H&SC's resource estimate for the Highway uranium deposit is based on a total of 304 drill holes totalling 18,236m of drilling including 6 aircore holes for approximately 279 metres of drilling by PNC and 27 RC hole for approximately 1,378m of aircore and reverse circulation ("RC") drilling by Uranerz in the early 1980s, Uranio's 5 aircore holes totalling 381m in 2009, Manhattan's 260 vertical aircore drill holes totalling 15,832m and 3 duplicate sonic drill holes totalling 183m of drilling along 10 kilometres of the palaeochannel at Stallion in 2009 and 2010 and 3 aircore holes for 183m, utilising improved high resolution gamma probe technology, drilled into Highway twinning previously drilled Manhattan aircore and sonic drill holes in 2016 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones. All drill holes were gamma logged. The original PNC and Uranerz analog gamma logging data has been digitized and recalibrated by the Company's consultants as digitized logs converted to eU<sub>3</sub>O<sub>8</sub>.

Apart from some shallow lignite hosted uranium mineralisation encountered along the northern part of the palaeochannel at Highway, the geological controls and style of the channel sand hosted uranium mineralisation at Highway are similar to the mineralisation encountered at Double 8 and Stallion.

## 5. SHELF (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

The Shelf uranium deposit is located along the palaeochannel approximately 10km northeast of Highway in E39/1143.

## **SHELF INFERRED RESOURCE ESTIMATES**

An Inferred Resource of 810 tonnes (1.8Mlb) of uranium oxide at a 100ppm  $U_3O_8$  cutoff for the Shelf uranium deposit was reported on 23 January 2017. The reported resources are based on RC and aircore drilling by Uranerz in the mid 1980's and Manhattan and Uranio's aircore drilling in 2009 and 2010. This JORC Code 2012 resource estimate was prepared by H&SC.

# **Shelf Inferred Resources**

SHELF INFERRED RESOURCE ESTIMATES						
CUTOFF GRADE $eU_3O_8(ppm)$ TONNES (MILLION) GRADE $eU_3O_8(ppm)$ TONNES $U_3O_8(t)$ POUNDS (MILLION) $U_3O_8(Mib)$						
400	5.0	407	040	4.0		
100	5.9	137	810	1.8		
150	1.4	187	270	0.6		
200	0.3	270	80	0.2		



H&SC's resource estimate for the Shelf uranium deposit is based on a total of 352 drill holes totalling 21,550m of drilling including 110 holes for approximately 5,871m of aircore and RC drilling by Uranerz in the early 1980's, Uranoi's 15 aircore holes totalling 1,302m in 2009 and Manhattan's 227 vertical aircore drill holes totalling 14,377m in 2010 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones along 14 kilometres of the palaeochannel at Shelf in 2010. The original Uranerz analog gamma logging data has been digitized and recalibrated by the Company's consultants as digitized logs converted to eU<sub>3</sub>O<sub>8</sub> and all the Uranio and Manhattan drill holes were gamma logged.

Apart from some shallow lignite hosted uranium mineralisation encountered at the central Shelf uranium deposit the geological controls and style of the channel sand hosted uranium mineralisation at Highway are similar to the mineralisation encountered at Double 8 and Stallion.

#### 6. STALLION SOUTH (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

Stallion South is located immediately to the south of Stallion and northwest of Double 8 along the Ponton palaeochannel. This prospect is within granted licence E28/1898 within the QVSNR (Figures 2 & 3).

The drilled uranium mineralisation at Stallion South is also hosted in palaeochannels within reduced carbonaceous sands and weathered granitic sands in a confined aquifer overlying crystalline granite basement.

#### STALLION SOUTH EXPLORATION TARGET

The Stallion South Exploration Target, reported in January 2014, is based on 13 drill holes totalling approximately 780 metres of drilling and down hole gamma logs. This drilling, on approximately 400m x 3km centres along the palaeochannel, is considered too wide to define a Mineral Resource to an inferred resource status.

Exploration Results have identified a drilled Exploration Target with uranium mineralisation potential at a 200ppm  $U_3O_8$  cutoff, for Stallion South of 12 to 24Mt grading 250 to 350ppm  $U_3O_8$  containing 3,600 to 7,300 tonnes or 8 to 16Mlb of contained  $U_3O_8$ .

## **Stallion South Exploration Target**

STALLION SOUTH EXPLORATION TARGET						
CUTOFF GRADE TONNAGE RANGE GRADE RANGE TONNAGE RANGE $U_3O_8(ppm)$ (MILLION) $U_3O_8(ppm)$ TONNAGE RANGE $U_3O_8(t)$ POUNDS RANGE (MILLION) $U_3O_8(mb)$						
200	12 - 24	250 - 350	3,600 - 7,300	8 - 16		

In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.

On gaining exploration access to E28/1898, and approval of Manhattan's POW by DMP, the Company plans to complete approximately 250 aircore drill holes for 20,000 metres of infill resource definition drilling on 400 x 100m centres along the defined palaeochannel at Stallion South. This drilling program, including the resource definition drilling planned for Double 8 and the Highway South and Ponton prospects, will be completed within approximately one year of POW approval (Figure 3).



## 7. HIGHWAY SOUTH (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

Highway South is centred 5km along the palaeochannel to the northeast of Double 8. This prospect is within granted licence E28/1898 within the QVSNR (Figures 2 & 3).

The drilled uranium mineralisation at Highway South is also hosted in palaeochannels within reduced carbonaceous sands and weathered granitic sands in a confined aquifer overlying crystalline granite basement.

#### **HIGHWAY SOUTH EXPLORATION TARGET**

The Highway South Exploration Target, reported in January 2014, is based on 33 drill holes totalling approximately 1,980 metres of drilling and down hole gamma logs. This drilling, on approximately 400m x 2km centres along the palaeochannel, is considered too wide to define a Mineral Resource to an inferred resource status.

Exploration Results have identified drilled Exploration Targets with uranium mineralisation potential at a 200ppm  $U_3O_8$  cutoff, for Highway South of 12 to 24Mt grading 250 to 350ppm  $U_3O_8$  containing 3,600 to 7,300 tonnes or 8 to 16Mlb of contained  $U_3O_8$ .

## **Highway South Exploration Target**

HIGHWAY SOUTH EXPLORATION TARGET						
CUTOFF GRADE TONNAGE RANGE GRADE RANGE TONNAGE RANGE $U_3O_8(ppm)$ (MILLION) $U_3O_8(ppm)$ TONNAGE RANGE $U_3O_8(t)$ POUNDS RANGE (MILLION) $U_3O_8(mb)$						
200	12 - 24	250 - 350	3,600 - 7,300	8 - 16		

In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.

On gaining exploration access to E28/1898, and approval of Manhattan's POW by DMP, the Company plans to complete approximately 250 aircore drill holes for 20,000 metres of infill resource definition drilling on 400 x 100m centres along the defined palaeochannel at Highway South. This drilling program, including the resource definition drilling planned for Double 8 and the Stallion South and Ponton prospects, will be completed within approximately one year of POW approval (Figure 3).

## 8. PONTON (WA)

Interest: Manhattan 100%

**Operator: Manhattan Corporation Limited** 

Ponton is located along the palaeochannel to the southeast of Double 8. This prospect is within granted licence E28/1898 within the QVSNR (Figures 2 & 3).

The drilled uranium mineralisation at Ponton is also hosted in palaeochannels within reduced carbonaceous sands and weathered granitic sands in a confined aquifer overlying crystalline granite and Patterson Group shale basement.

# PONTON EXPLORATION TARGET

The Ponton Exploration Target, reported in January 2014, is based on 24 drill holes totalling approximately 1,440 metres of drilling and down hole gamma logs. This drilling, on approximately 1km x 1km centres along the palaeochannel, is considered too wide to define a Mineral Resource to an inferred resource status.



Exploration Results have identified drilled Exploration Targets with uranium mineralisation potential, at a 200ppm  $U_3O_8$  cutoff, for the Ponton prospect of 23 to 45Mt grading 250 to 350ppm  $U_3O_8$  containing 6,800 to 13,600 tonnes or 15 to 30Mlb of contained  $U_3O_8$ .

## **Ponton Exploration Target**

PONTON EXPLORATION TARGET						
CUTOFF GRADE TONNAGE RANGE GRADE RANGE TONNAGE RANGE $U_3O_8$ (ppm) (MILLION) $U_3O_8$ (ppm) TONNAGE RANGE $U_3O_8$ (t) $U_3O_8$ (MIb)						
200	23 - 45	250 - 350	6,800 - 13,600	15 - 30		

In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.

On gaining exploration access to E28/1898, and approval of Manhattan's POW by DMP, the Company plans to complete approximately 300 aircore drill holes for 24,000 metres of infill resource definition drilling on 400 x 100m centres along the defined palaeochannel at the Ponton prospect. This drilling program, including the resource definition drilling planned for Double 8 and the Stallion South and Highway South prospects, will be completed within approximately one year of POW approval (Figure 3).

#### **SUMMARY**

The four Inferred Mineral Resources of over 24Mlb uranium oxide reported at Ponton in January 2017, along with the Exploration Targets previously reported in 2014 of 33 to 67Mlb uranium oxide, in the contiguous palaeochannel deposits within Manhattan's project area at Ponton demonstrates potential of the project to host a world class ISR sand hosted uranium resource.

The sand hosted uranium mineralisation is located in shallow, 40 to 70 metres deep, contiguous palaeochannels along 55km of strike at Ponton. Manhattan's four granted Exploration Licences and one EL application over the prospective palaeochannels at Ponton cover an area of 1,100km<sup>2</sup>.

It is envisaged that the mining method at Ponton will be in-situ metal recovery (ISR). At this early stage of the project, detailed mining parameters are yet to be determined. No field leaching tests or hydrogeological studies have been undertaken on site to date.

Tetra Tech's 2011 desktop scoping study confirms Manhattan's shallow near surface sand hosted palaeochannel uranium deposits at Ponton have potential to be viable, sustainable low cost ISR uranium producers with modest capital requirements to develop. Their report outlined an 872t U<sub>3</sub>O<sub>8</sub> per annum ISR operation with an assumed recovery of 72.7%. No metallurgical test work has been completed but some preliminary mineralogical data was available.

As a potential ISR operation, no waste rock and minimal process residue will be generated. ISR is a minimal impact mining method and the main issue will be water management.

The Double 8 uranium deposit and the four Exploration Targets at Double 8, Stallion South, Highway South and Ponton are entirely within the Queen Victoria Spring Nature Reserve (QVSNR), where ministerial consent is required to undertake exploration activities, or the Reserve boundaries need to be modified by a Reserves Amendment Bill in the WA parliament to exclude the deposit and Exploration Targets from the Reserve to allow future exploration and development of the deposit.

Manhattan is continuing to meet with WA Ministers, their advisers and the DMP, to gain their support for a Reserves Amendment Bill that would excise our key exploration tenement from the QVSNR. The excision would allow ground access to E28/1898 for us to commence resource definition drilling on the Double 8 uranium deposit and the four Exploration Targets.



Positive developments continue in the uranium and nuclear industry with global energy consumption from nuclear power projected to increase by 78% from 2014 to 2040. Most of this growth is expected to come from new nuclear power plants in China and India (IEA's World Energy Outlook 2016).

With the current global over supply of yellowcake, mostly as a result of the shutdown of the Japanese fleet of 55 reactors in 2011, Kazakhstan announced it will cut output by 10% in 2017 (Mining.com 10 January 2017). The cut, equivalent to 3% of global supply, has seen a recent upswing in the uranium market sector and renewed investor interest in listed uranium companies.

Further positive news from the US nuclear industry where the House of Representatives approved the Advanced Nuclear Technology Act of 2017, on 23 January 2017, to bolster research on advanced nuclear reactors, allow for more challenges to Federal Energy Regulators and change the rules for federal energy efficiency standards (World Nuclear News 25 January 2017).

Australia is the world's third largest uranium producer behind Kazakhstan and Canada. Four new uranium development projects at Yeelirrie, Kintyre, Wiluna and Mulga Rock in WA have gained state and federal environmental approvals to be developed when world prices improve (Nikkei Asian Review 22 January 2017).

The recent improvement in the uranium market sector along with the modest change in fortunes of the commodity's price has generated renewed interest in listed uranium stocks with a rebound in price and improved liquidity for most uranium companies. Manhattan continues to build on its reported uranium resource base and prepare to advance its world class Ponton uranium project as the sector regains investor confidence and the commercial outlook for new uranium mine developments improves.

#### **ALAN J EGGERS**

Executive Chairman 31 January 2017

# **COMPETENT PERSON'S STATEMENT**

The information in this Report that relates to reported Exploration Results or Mineral Resources is based on information compiled by Mr Alan J Eggers, who is a Corporate Member of the Australasian Institute of Mining and Metallurgy ("AusIMM"). Alan Eggers is a professional geologist and an executive director of Manhattan Corporation Limited. Mr Eggers has sufficient experience that is relevant to the style of mineralisation and type of mineral deposits being reported on in this Report and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves "JORC Code 2012". Mr Eggers consents to the inclusion in this Report of the information on the Exploration Results or Mineral Resources based on his information in the form and context in which it appears.

