



MANTLE MINING

ASX: MNM

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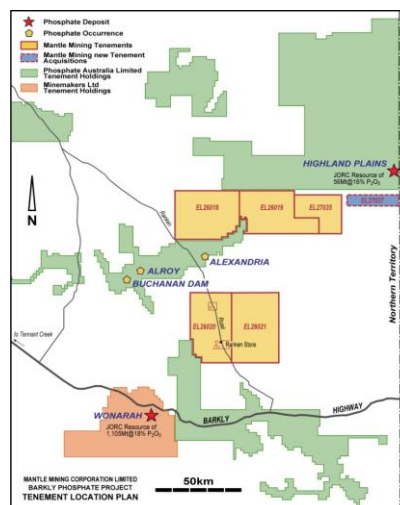
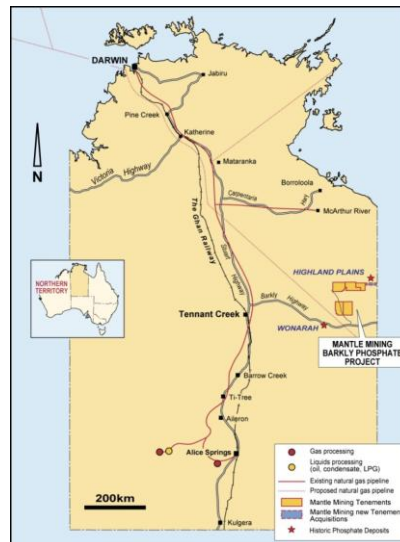
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ASX Release

3 December 2009

Mantle Drilling Intersects High Grade Phosphate Rock

Mantle Mining Corporation Limited (ASX: MNM), is pleased to report that drilling Barkly Phosphate Project in the Northern Territory (Figure 1) has intersected wide zones of potentially significant phosphate mineralization (up to 48 metres from 12 metres depth – hole 19). Whilst individual metre grades may vary, promising widths of high grade mineralization, (up to 24% P₂O₅ – hole 23), exist in each hole (Table 1).



Highlights:

- Mineralisation intercepted in five holes (BTRC 019, 20, 21, 22 & 23) spaced along a 40km basin with all holes remaining open at end of hole at near 60m (Table 1),
- Results from on-site portable XRF machine analysis on RC Drill chips can be influenced by chip size and may thus not be representative of true interval grades,
- The portable XRF machine reads elemental Phosphorus (P) and all samples will be confirmed by laboratory analysis to follow,
- The holes are located in an area not previously known as hosting phosphate, are in-line with Mantle's targeting logic, and are interpreted to be along trend from the Wolarah Phosphate deposit, (Figure 2), and
- Detailed planning is underway for additional close spaced step out holes whilst the rig is onsite.

Figure 1: Mantle's Barkly Phosphate Project location



HOLE NO	SAMPLE	FM	TO	P ₂ O ₅
BTRC019	256904	12	13	10.46
BTRC019	256906	14	15	5.75
BTRC019	256907	15	16	16.79
BTRC019	256909	17	18	10.09
BTRC019	256911	19	20	10.50
BTRC019	256912	20	21	6.29
BTRC019	256913	21	22	15.37
BTRC019	256914	22	23	15.54
BTRC019	256916	24	25	14.17
BTRC019	256917	25	26	11.50
BTRC019	256919	27	28	15.53
BTRC019	256920	28	29	14.73
BTRC019	256922	30	31	7.76
BTRC019	256923	31	32	6.17
BTRC019	256925	33	34	23.04
BTRC019	256927	35	36	7.19
BTRC019	256928	36	37	18.02
BTRC019	256930	38	39	17.82
BTRC019	256937	45	46	4.96
BTRC019	256939	47	48	12.49
BTRC019	256940	48	49	6.42
BTRC019	256942	50	51	10.73
BTRC019	256950	58	59	12.17
BTRC019	256951	59	60	19.32

HOLE NO	SAMPLE	FM	TO	P ₂ O ₅
BTRC020	256968	15	16	14.63
BTRC020	256969	16	17	6.79
BTRC020	256971	18	19	6.20
BTRC020	256975	22	23	17.56
BTRC020	256980	27	28	10.71
BTRC020	256982	29	30	5.19
BTRC020	256984	31	32	8.51
BTRC020	256986	33	34	8.39
BTRC020	256987	34	35	8.80
BTRC020	256988	35	36	6.74
BTRC020	256989	36	37	6.36
BTRC020	256990	37	38	5.02
BTRC020	256992	39	40	20.20
BTRC020	256996	43	44	5.62
BTRC020	256997	44	45	7.83
BTRC020	256998	45	46	8.77
BTRC020	257001	48	49	10.51
BTRC020	257002	49	50	7.63
BTRC020	257007	54	55	12.87
BTRC020	257008	55	56	7.62
BTRC020	257010	57	58	4.48
BTRC020	257011	58	59	6.73

HOLE NO	SAMPLE	FM	TO	P ₂ O ₅
BTRC021	257020	8	9	3.37
BTRC021	257036	24	25	8.95
BTRC021	257038	26	27	10.56
BTRC021	257045	33	34	7.28
BTRC021	257046	34	35	5.32
BTRC021	257047	35	36	8.28
BTRC021	257048	36	37	11.87
BTRC021	257049	37	38	7.97
BTRC021	257050	38	39	7.53
BTRC021	257051	39	40	6.53
BTRC021	257052	40	41	6.99
BTRC021	257056	44	45	11.79
BTRC021	257057	45	46	18.79
BTRC021	257058	46	47	7.70
BTRC021	257060	48	49	17.24
BTRC021	257061	49	50	8.75
BTRC021	257068	56	57	16.62
BTRC021	257069	57	58	5.33

Hole BTRC019

Hole BTRC020

Hole BTRC021

HOLE NO	SAMPLE	FM	TO	P ₂ O ₅
BTRC022	257097	24	25	5.95
BTRC022	257100	27	28	14.78
BTRC022	257101	28	29	9.91
BTRC022	257102	29	30	11.61
BTRC022	257104	31	32	10.47
BTRC022	257105	32	33	10.74
BTRC022	257106	33	34	12.56
BTRC022	257108	35	36	13.77
BTRC022	257114	41	42	5.71
BTRC022	257120	47	48	7.78
BTRC022	257122	49	50	6.07
BTRC022	257124	51	52	15.57
BTRC022	257125	52	53	3.67
BTRC022	257127	54	55	7.36
BTRC022	257129	56	57	7.89
BTRC022	257130	57	58	6.55
BTRC022	257132	59	60	10.54

Hole BTRC022

HOLE NO	SAMPLE	FM	TO	P ₂ O ₅
BTRC023	257141	8	9	4.28
BTRC023	257157	24	25	13.12
BTRC023	257158	25	26	11.33
BTRC023	257159	26	27	9.07
BTRC023	257161	28	29	17.62
BTRC023	257163	30	31	13.69
BTRC023	257164	31	32	16.68
BTRC023	257166	33	34	24.29
BTRC023	257167	34	35	18.58
BTRC023	257168	35	36	17.99
BTRC023	257172	39	40	11.39
BTRC023	257177	44	45	8.90
BTRC023	257181	48	49	5.88
BTRC023	257184	51	52	18.62
BTRC023	257186	53	54	8.53
BTRC023	257188	55	56	6.43
BTRC023	257190	57	58	14.58
BTRC023	257191	58	59	6.29
BTRC023	257192	59	60	15.66

Hole BTRC023

Table 1: Phosphate Intervals from Portable XRF Machine (conversion rate %P x 2.2914 = %P₂O₅)

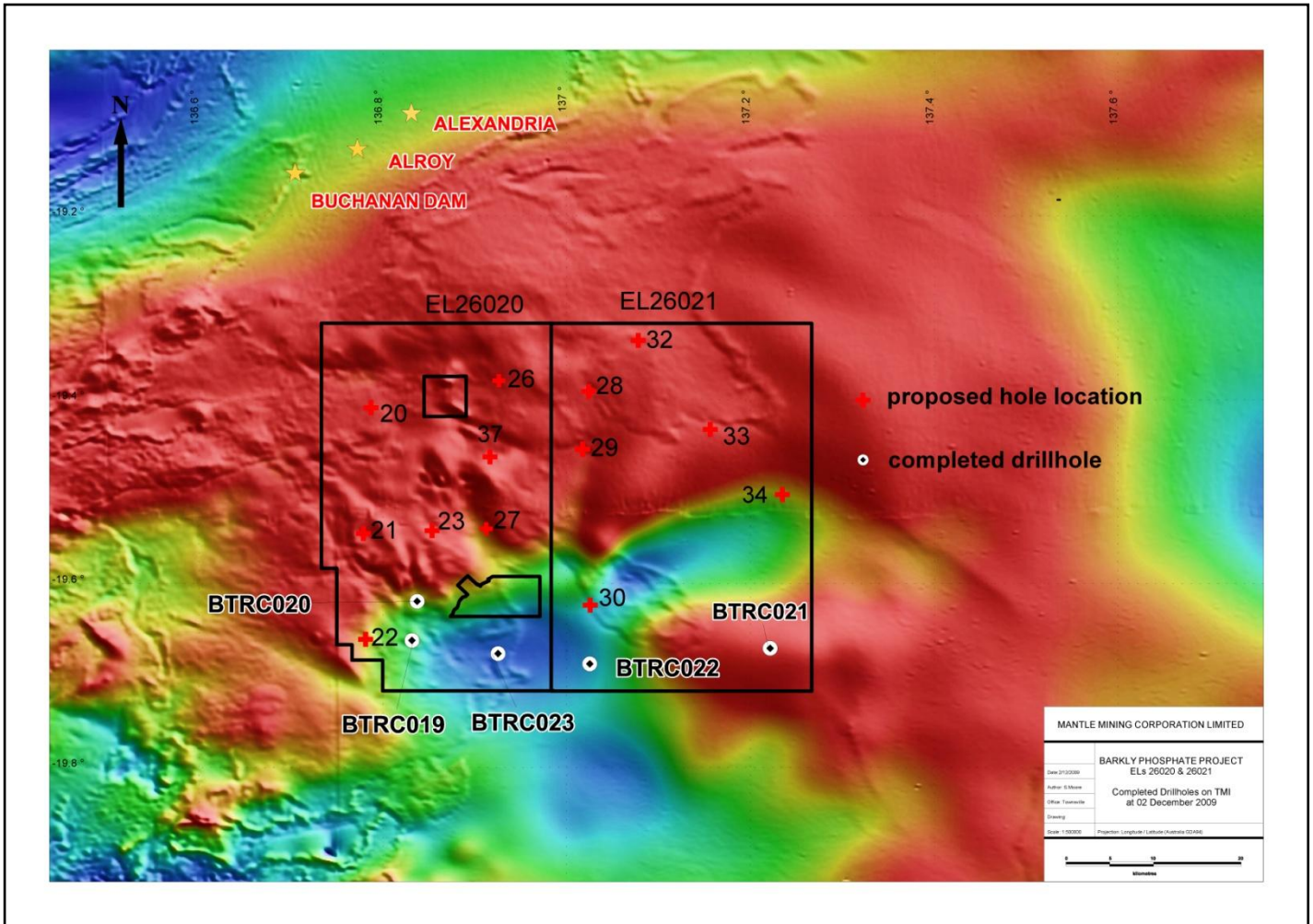


Figure 2: Total Magnetic Image (TMI) with hole locations

Further information:

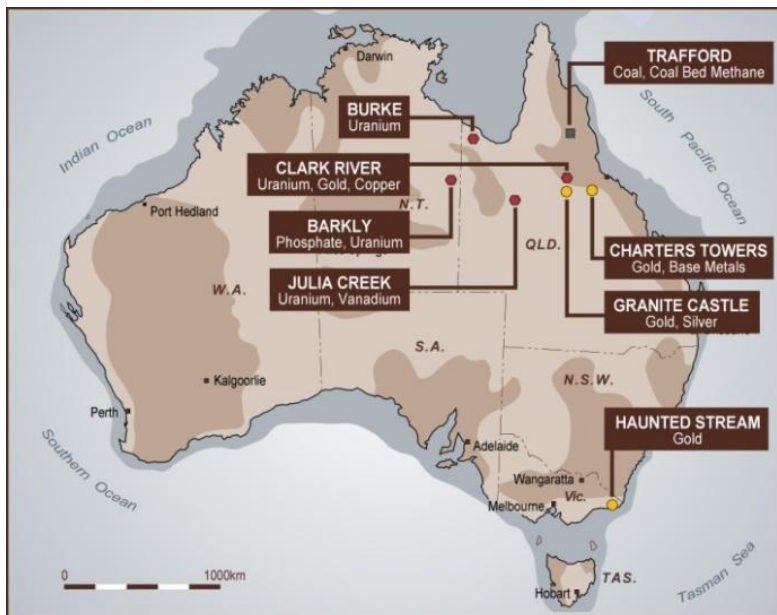
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Competent Person Statement:

The information in this report that relates to Exploration Results is based on information compiled by Mr Stuart Moore, an Executive of Mantle Mining Corporation Ltd. Mr Moore is a Member of the Australasian Institute of Mining and Metallurgy (M.AusIMM) and 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 as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Moore consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Mantle Mining's Other Projects:

- Haunted Stream Gold
- Granite Castle Gold
- Charters Towers Gold
- Trafford Coal & CBM
- Julia Creek Uranium
- Clarke River Uranium
- Burke Uranium

Figure 3: Mantle Mining project locations.

In Victoria, Mantle controls a number of tenements highly prospective for gold/copper including many historical, high-grade, mines along a twelve kilometre gold anomalous corridor closely tracking the Haunted Stream fault. Anomaly 4 was recently announced as a major drill target for possible deep vein gold or porphyry copper-gold mineralisation. It is the Company's intention to fast-track a diamond core drill hole targeted to intercept the anomaly at depth, followed by down the hole geophysics. Detailed definition by ground magnetics has been completed with drilling proposed for January. The Company was also notified of potential grant of Mining Licence 5505 located within the Haunted Stream exploration licence area.

In Queensland, Mantle's Granite Castle and Charters Towers projects contain standard JORC compliant gold resources. At Granite Castle the JORC compliant gold/silver resource mineralisation occurs in a single sub-vertical shear, 600m long. Over 6 km of additional, sub-parallel shears have been located, all with drillholes and/or rockchip samples at similar grades to the JORC compliant shear. The Company has designed a programme of additional soils sampling and surface based Induced Polarisation (IP) surveys in order to most effectively design a shallow drilling campaign on the next most prospective (Coronation) shear. Drilling is currently proposed for early in the new-year, weather dependant.

In Queensland, Mantle is negotiating an access agreement with the traditional custodians of Mt Mulligan – Trafford Coal & Coal Bed Methane (CBM) project. The attractiveness of using CBM for low emission power generation and sale of electricity, or supply for LNG production, is significant. The Company progressed very positive discussions with the traditional custodians towards Authorisation (signing) of an Indigenous Land Use Agreement (ILUA), however has been delayed by the advent of a Third Party claim. The Company has retained Special Counsel to work with its legal advisor, Minter Ellison, Lawyers, to resolve the claim.

In Queensland, Mantle controls a number of tenements near Julia Creek, Charters Towers and in the Gulf of Carpentaria near Westmoreland, all prospective for uranium and base metals. Value accretion from these projects is being sought from joint venture activity thereby allowing the Company to focus its own resources on its highest priority projects whilst maintaining exposure to any upsides delivered through joint venture. The Company has recently entered into its first such joint venture - with Southern Uranium Limited (ASX: SNU) - at its Mt Brown tenement. Mt Brown is immediately adjacent to SNU's Pandanus West Project and forms part of Mantle's Clarke River Project.