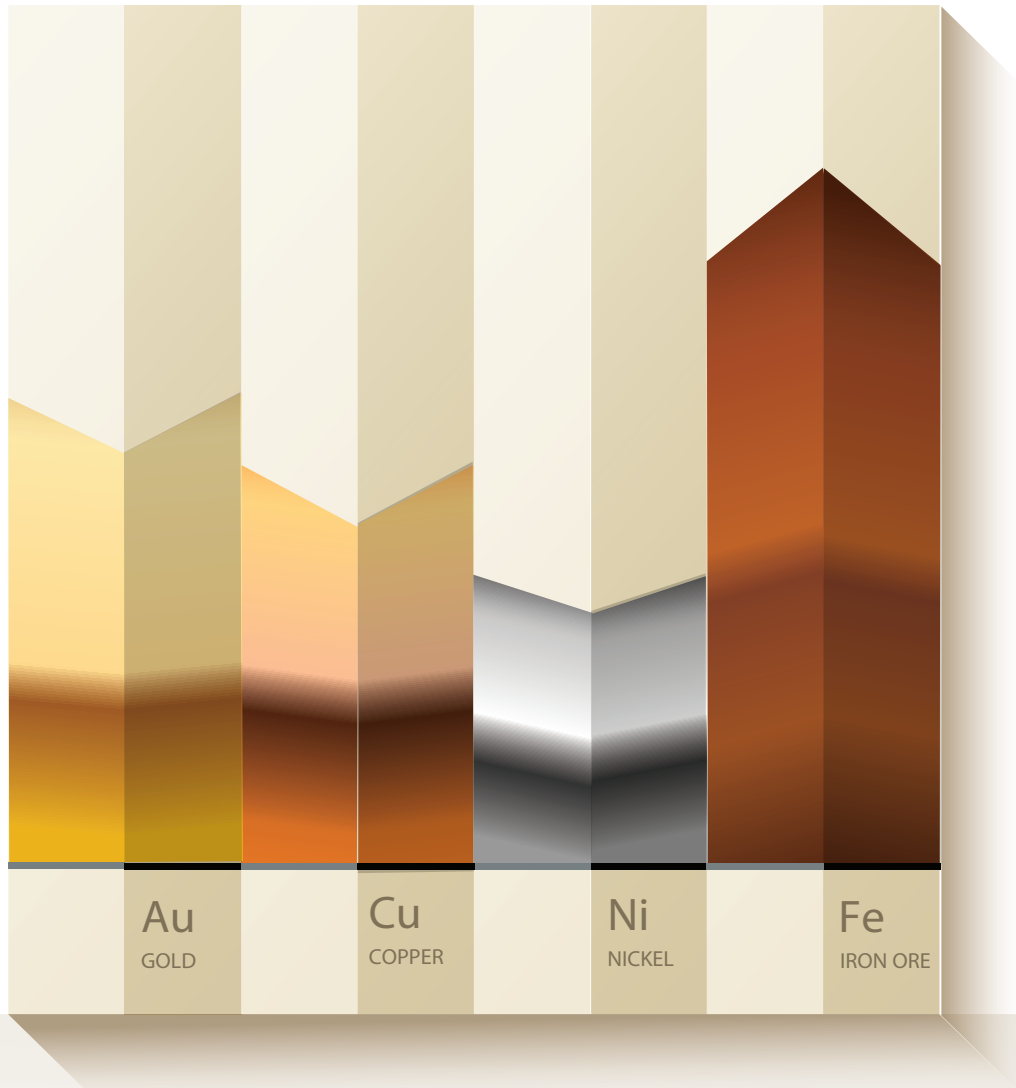




*Capital Group*



# PCF Resources Thermometer

## Nickel Extract

March 2017

## Top 150 ASX Listed Resource Companies - 28 February 2017

By Market Capitalisation.

Rank	Mkt Cap (A\$M)		%		
	Feb	Jan			
1	1	BHP Billiton Limited (ASX:BHP)	\$124,594.2	\$135,955.2	(8.4%)
2	2	Rio Tinto Ltd. (ASX:RIO)	\$99,605.6	\$107,981.0	(7.8%)
3	3	Fortescue Metals Group Limited (ASX:FMG)	\$20,644.5	\$20,737.9	(0.5%)
4	4	Newcrest Mining Limited (ASX:NCM)	\$16,975.5	\$16,507.8	2.8%
5	5	South32 Ltd (ASX:S32)	\$13,256.2	\$14,640.3	(9.5%)
6	6	Alumina Ltd. (ASX:AWC)	\$5,313.3	\$5,586.9	(4.9%)
7	7	Evolution Mining Limited (ASX:EVN)	\$3,628.2	\$3,577.8	1.4%
8	9	Whitehaven Coal Limited (ASX:WHC)	\$2,965.3	\$2,914.0	1.8%
9	8	Iluka Resources Ltd. (ASX:ILU)	\$2,838.8	\$3,157.0	(10.1%)
10	10	OZ Minerals Limited (ASX:OZL)	\$2,777.6	\$2,682.0	3.6%
11	11	Northern Star Resources Limited (ASX:NST)	\$2,516.3	\$2,288.1	10.0%
12	12	Independence Group NL (ASX:IGO)	\$2,141.4	\$2,211.9	(3.2%)
13	13	Regis Resources Limited (ASX:RRL)	\$1,693.4	\$1,593.2	6.3%
14	14	New Hope Corporation Limited (ASX:NHC)	\$1,421.1	\$1,329.7	6.9%
15	15	ST Barbara Ltd. (ASX:SBM)	\$1,263.2	\$1,153.8	9.5%
16	17	Resolute Mining Limited (ASX:RSG)	\$1,186.5	\$1,072.3	10.7%
17	18	Sandfire Resources NL (ASX:SFR)	\$1,015.8	\$1,037.9	(2.1%)
18	16	Galaxy Resources Limited (ASX:GXY)	\$992.3	\$1,141.7	(13.1%)
19	20	Saracen Mineral Holdings Limited (ASX:SAR)	\$880.2	\$856.0	2.8%
20	21	Syrah Resources Limited (ASX:SYR)	\$770.2	\$812.4	(5.2%)
21	25	Westgold Resources Limited (ASX:WGX)	\$740.4	\$604.8	22.4%
22	24	Zimplats Holdings Ltd. (ASX:ZIM)	\$656.6	\$645.8	1.7%
23	19	Orocobre Limited (ASX:ORE)	\$648.4	\$887.6	(26.9%)
24	23	Western Areas Limited (ASX:WSA)	\$645.3	\$667.0	(3.2%)
25	22	Pilbara Minerals Limited (ASX:PLS)	\$575.6	\$676.5	(14.9%)
26	30	Mount Gibson Iron Limited (ASX:MGX)	\$553.8	\$416.7	32.9%
27	28	Metals X Limited (ASX:MLX)	\$505.8	\$487.5	3.7%
28	26	Gold Road Resources Limited (ASX:GOR)	\$461.7	\$505.3	(8.6%)
29	40	Lynas Corporation Limited (ASX:LYC)	\$404.9	\$299.3	35.3%
30	34	Dacian Gold Limited (ASX:DCN)	\$387.0	\$340.8	13.5%
31	29	Champion Iron Limited (ASX:CIA)	\$385.9	\$482.4	(20.0%)
32	39	Tribune Resources Limited (ASX:TBR)	\$343.2	\$300.6	14.2%
33	31	Atlas Iron Limited (ASX:AGO)	\$338.6	\$402.6	(15.9%)
34	35	Silver Lake Resources Limited (ASX:SLR)	\$335.0	\$337.5	(0.7%)
35	38	Ramelius Resources Limited (ASX:RMS)	\$330.9	\$315.1	5.0%
36	27	Yancoal Australia Ltd (ASX:YAL)	\$328.1	\$492.2	(33.3%)
37	33	Perseus Mining Limited (ASX:PRU)	\$320.3	\$345.7	(7.3%)
38	32	Energy Resources of Australia Ltd. (ASX:ERA)	\$313.2	\$357.2	(12.3%)
39	37	Beadell Resources Ltd (ASX:BDR)	\$301.8	\$323.0	(6.6%)
40	43	Terramin Australia Limited (ASX:TZN)	\$273.1	\$251.4	8.6%
41	46	Avanco Resources Limited (ASX:AVB)	\$270.3	\$218.7	23.6%
42	42	Grange Resources Limited (ASX:GRR)	\$260.4	\$254.6	2.3%
43	47	Altura Mining Limited (ASX:AJM)	\$254.3	\$216.2	17.7%
44	36	Magnis Resources Limited (ASX:MNS)	\$247.4	\$331.9	(25.4%)
45	44	Flinders Mines Limited. (ASX:FMS)	\$236.3	\$245.9	(3.9%)
46	41	Berkeley Resources Ltd. (ASX:BKY)	\$229.0	\$293.9	(22.1%)
47	45	Millennium Minerals Limited. (ASX:MOY)	\$226.5	\$226.5	0.0%
48	48	Blackham Resources Limited (ASX:BLK)	\$218.3	\$215.8	1.2%
49	51	CI Resources Limited (ASX:CII)	\$209.8	\$202.3	3.7%
50	53	Base Resources Limited (ASX:BSE)	\$204.1	\$185.6	10.0%

Rank	Mkt Cap (A\$M)		%		
	Feb	Jan			
51	50	Neometals Limited (ASX:NMT)	\$199.9	\$208.3	(4.1%)
52	49	Paladin Energy Ltd (ASX:PDN)	\$197.0	\$214.1	(8.0%)
53	60	Gascoyne Resources Limited (ASX:GCV)	\$184.7	\$150.9	22.4%
54	52	Eastern Goldfields Limited (ASX:EGS)	\$177.6	\$192.3	(7.7%)
55	57	Danakali Limited (ASX:DNK)	\$171.9	\$159.5	7.7%
56	61	Greenland Minerals & Energy Ltd (ASX:GGG)	\$164.9	\$149.9	10.0%
57	54	Alkane Resources Limited (ASX:ALK)	\$164.2	\$171.8	(4.4%)
58	72	Panoramic Resources Limited (ASX:PAN)	\$162.9	\$113.6	43.4%
59	55	Pantoro Ltd (ASX:PNR)	\$160.0	\$163.6	(2.2%)
60	56	Kidman Resources Limited (ASX:KDR)	\$155.3	\$161.1	(3.6%)
61	58	Cudoco Limited (ASX:CDU)	\$153.8	\$157.7	(2.5%)
62	66	TNG Limited (ASX:TNG)	\$136.6	\$124.5	9.7%
63	64	Finders Resources Limited (ASX:FND)	\$135.4	\$135.4	0.0%
64	65	Lucapa Diamond Company Ltd (ASX:LOM)	\$131.6	\$130.0	1.2%
65	62	Peninsula Energy Limited (ASX:PEN)	\$129.8	\$135.7	(4.4%)
66	68	Red River Resources Ltd. (ASX:RVR)	\$127.3	\$122.1	4.3%
67	162	Summit Resources Limited (ASX:SMM)	\$126.4	\$42.5	197.4%
68	67	Stanmore Coal Limited (ASX:SMR)	\$124.3	\$123.0	1.0%
69	81	Global Geoscience Limited (ASX:GSC)	\$122.6	\$103.4	18.6%
70	59	Doray Minerals Limited (ASX:DRM)	\$121.4	\$155.3	(21.8%)
71	77	RAND Mining Ltd. (ASX:RND)	\$120.3	\$108.3	11.1%
72	86	Iron Road Limited (ASX:IRD)	\$118.6	\$94.9	25.0%
73	95	Cardinal Resources Limited (ASX:CDV)	\$118.6	\$77.5	52.9%
74	69	Havilah Resources NL (ASX:HAV)	\$118.2	\$119.9	(1.4%)
75	80	Coal of Africa Limited (ASX:CZA)	\$115.2	\$104.1	10.7%
76	74	Xanadu Mines Ltd. (ASX:XAM)	\$112.5	\$109.9	2.3%
77	112	Aurelia Metals Limited (ASX:AMI)	\$112.0	\$66.0	69.8%
78	78	Atrum Coal NL (ASX:ATU)	\$104.4	\$107.8	(3.1%)
79	63	West African Resources, Ltd. (ASX:WAF)	\$104.0	\$135.5	(23.2%)
80	75	Kore Potash Limited (ASX:K2P)	\$102.7	\$109.3	(6.0%)
81	70	Paringa Resources Limited (ASX:PNL)	\$100.6	\$117.7	(14.5%)
82	87	OreCorp Limited (ASX:ORR)	\$98.8	\$92.8	6.5%
83	97	Tiger Resources Ltd. (ASX:TGS)	\$96.1	\$75.6	27.2%
84	71	Tigers Realm Coal Limited (ASX:TIG)	\$95.0	\$116.5	(18.5%)
85	92	Northern Minerals Limited (ASX:NTU)	\$94.4	\$80.9	16.7%
86	84	BC Iron Limited (ASX:BCI)	\$94.2	\$96.2	(2.0%)
87	98	Austral Gold Limited (ASX:AGD)	\$93.4	\$75.3	24.1%
88	73	Toro Energy Limited (ASX:TOE)	\$92.4	\$110.4	(16.4%)
89	93	OM Holdings Limited (ASX:OMH)	\$88.0	\$80.7	9.1%
90	85	Tasman Resources Ltd. (ASX:TAS)	\$87.8	\$95.4	(7.9%)
91	83	Metro Mining Ltd (ASX:MMI)	\$87.7	\$96.5	(9.1%)
92	79	Terracom Limited (ASX:TER)	\$86.9	\$105.9	(17.9%)
93	102	Altona Mining Limited (ASX:AOH)	\$85.9	\$72.5	18.5%
94	94	Capral Limited (ASX:CAA)	\$85.4	\$78.3	9.1%
95	90	Focus Minerals Limited (ASX:FML)	\$85.0	\$82.2	3.3%
96	88	Wolf Minerals Limited (ASX:WLF)	\$84.6	\$86.8	(2.5%)
97	123	DGR Global Limited (ASX:DGR)	\$84.3	\$61.8	36.4%
98	103	Bougainville Copper Ltd. (ASX:BOC)	\$84.2	\$72.2	16.7%
99	76	Sheffield Resources Limited (ASX:SFX)	\$82.4	\$108.6	(24.2%)
100	201	Equator Resources Limited (ASX:EQU)	\$81.7	\$28.1	190.9%

Rank			Mkt Cap (A\$M)		%
	Feb	Jan	28-Feb-17	31-Jan-17	Change
101	82	NSL Consolidated Limited (ASX:NSL)	\$79.0	\$98.1	(19.5%)
102	106	Australian Pacific Coal Limited (ASX:AQC)	\$78.5	\$69.6	12.8%
103	125	MOD Resources Limited (ASX:MOD)	\$78.2	\$60.4	29.6%
104	114	Talisman Mining Ltd (ASX:TLM)	\$77.1	\$65.0	18.6%
105	111	Aeon Metals Limited (ASX:AQR)	\$76.5	\$66.1	15.8%
106	104	Tanami Gold NL (ASX:TAM)	\$76.4	\$71.7	6.6%
107	200	MacPhersons Resources Limited (ASX:MRP)	\$76.1	\$28.2	169.7%
108	134	Wollongong Coal Limited (ASX:WLC)	\$74.9	\$56.2	33.3%
109	118	Silver Mines Limited (ASX:SVL)	\$72.7	\$63.4	14.7%
110	109	Troy Resources Limited (ASX:TRY)	\$72.6	\$68.1	6.7%
111	101	Agrimin Limited (ASX:AMN)	\$71.9	\$73.1	(1.7%)
112	96	Vimy Resources Limited (ASX:VMY)	\$71.3	\$76.0	(6.2%)
113	91	Salt Lake Potash Limited (ASX:SO4)	\$71.0	\$81.1	(12.4%)
114	113	Breaker Resources NL (ASX:BRB)	\$70.9	\$65.7	7.9%
115	89	Medusa Mining Limited (ASX:MML)	\$70.7	\$83.1	(15.0%)
116	100	Universal Coal plc (ASX:UNV)	\$70.5	\$73.1	(3.6%)
117	115	Echo Resources Limited (ASX:EAR)	\$70.4	\$64.9	8.5%
118	107	Boss Metals Limited (ASX:BOE)	\$69.5	\$69.5	0.0%
119	105	A-Cap Resources Limited (ASX:ACB)	\$68.9	\$69.7	(1.3%)
120	110	Prairie Mining Limited (ASX:PDZ)	\$68.3	\$67.6	1.1%
121	99	Talga Resources Limited (ASX:TLG)	\$67.3	\$74.6	(9.8%)
122	108	S2 Resources Limited (ASX:S2R)	\$66.4	\$68.9	(3.6%)
123	131	Highlands Pacific Limited (ASX:HIG)	\$65.5	\$56.9	15.1%
124	124	Newfield Resources Limited (ASX:NWF)	\$65.4	\$60.9	7.4%
125	147	Graphitecorp Ltd (ASX:GRA)	\$64.2	\$47.9	33.9%

Rank			Mkt Cap (A\$M)		%
	Feb	Jan	28-Feb-17	31-Jan-17	Change
126	120	Kingsgate Consolidated Limited (ASX:KCN)	\$63.7	\$62.6	1.8%
127	139	Axiom Mining Limited (ASX:AVQ)	\$62.5	\$52.3	19.4%
128	169	Tawana Resources NL (ASX:TAW)	\$60.0	\$39.4	52.4%
129	126	Equatorial Resources Limited (ASX:EQX)	\$59.7	\$60.4	(1.0%)
130	146	Capricorn Metals Limited (ASX:CMM)	\$58.4	\$48.7	20.0%
131	128	Dome Gold Mines Limited (ASX:DME)	\$57.0	\$59.4	(4.0%)
132	127	MZI Resources Ltd. (ASX:MZI)	\$56.7	\$59.9	(5.4%)
133	121	Birimian Gold Limited (ASX:BGS)	\$56.6	\$62.5	(9.4%)
134	116	Hexagon Resources Limited (ASX:HGX)	\$55.4	\$64.0	(13.4%)
135	117	Resource Generation Limited (ASX:RES)	\$55.2	\$64.0	(13.6%)
136	133	Soon Mining Limited (ASX:SMG)	\$55.0	\$55.0	0.0%
137	149	Reward Minerals Limited (ASX:RWD)	\$54.3	\$47.5	14.3%
138	129	Bannerman Resources Limited (ASX:BMN)	\$53.5	\$59.1	(9.4%)
139	155	Triton Minerals Limited (ASX:TON)	\$53.3	\$44.1	20.9%
140	161	Hastings Technology Metals Ltd (ASX:HAS)	\$50.9	\$42.5	19.8%
141	136	Red 5 Limited (ASX:RED)	\$50.3	\$54.1	(7.0%)
142	156	Inca Minerals Limited (ASX:ICG)	\$50.3	\$44.0	14.3%
143	119	Avenira Limited (ASX:AEV)	\$50.0	\$63.2	(20.8%)
144	135	WPG Resources Ltd (ASX:WPG)	\$49.9	\$55.9	(10.8%)
145	140	Anova Metals Limited (ASX:AWV)	\$49.9	\$52.0	(4.0%)
146	141	Heron Resources Limited (ASX:HRR)	\$49.8	\$51.9	(4.0%)
147	130	Mineral Deposits Ltd. (ASX:MDL)	\$49.8	\$57.0	(12.7%)
148	182	WCP Resources Limited (ASX:WCP)	\$49.7	\$33.0	50.6%
149	170	Primary Gold Limited (ASX:PGO)	\$49.7	\$38.9	27.8%
150	138	Mineral Commodities Limited (ASX:MRC)	\$48.6	\$52.6	(7.7%)

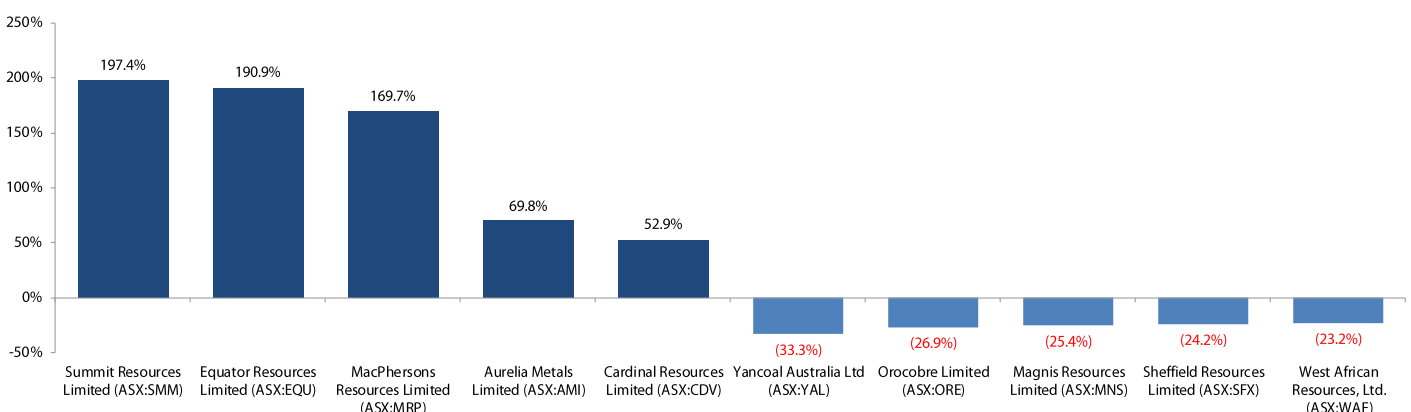
## New Entrants

- 67 Summit Resources Limited (ASX:SMM)
- 100 Equator Resources Limited (ASX:EQU)
- 107 MacPhersons Resources Limited (ASX:MRP)
- 128 Tawana Resources NL (ASX:TAW)
- 139 Triton Minerals Limited (ASX:TON)
- 140 Hastings Technology Metals Ltd (ASX:HAS)
- 142 Inca Minerals Limited (ASX:ICG)
- 148 WCP Resources Limited (ASX:WCP)
- 149 Primary Gold Limited (ASX:PGO)

## New Exits

- Deep Yellow Limited (ASX:DYL)
- Gindalbie Metals Ltd. (ASX:GBG)
- Kazakhstan Potash Corp. Ltd (ASX:KPC)
- Gold Mountain Limited (ASX:GMN)
- Vietnam Industrial Invest. Ltd (ASX:VII)
- Mincor Resources NL (ASX:MCR)
- Ironbark Zinc Ltd. (ASX:IBG)
- Bassari Resources Limited (ASX:BSR)
- Amani Gold Limited (ASX:ANL)

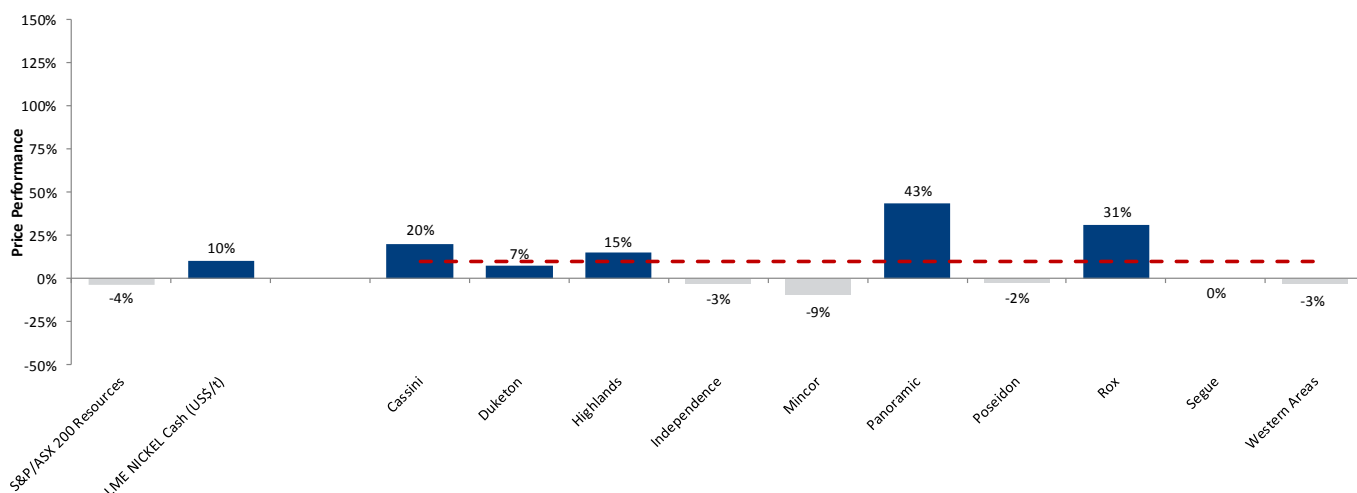
## Winners and Losers - Market Capitalisation Performance



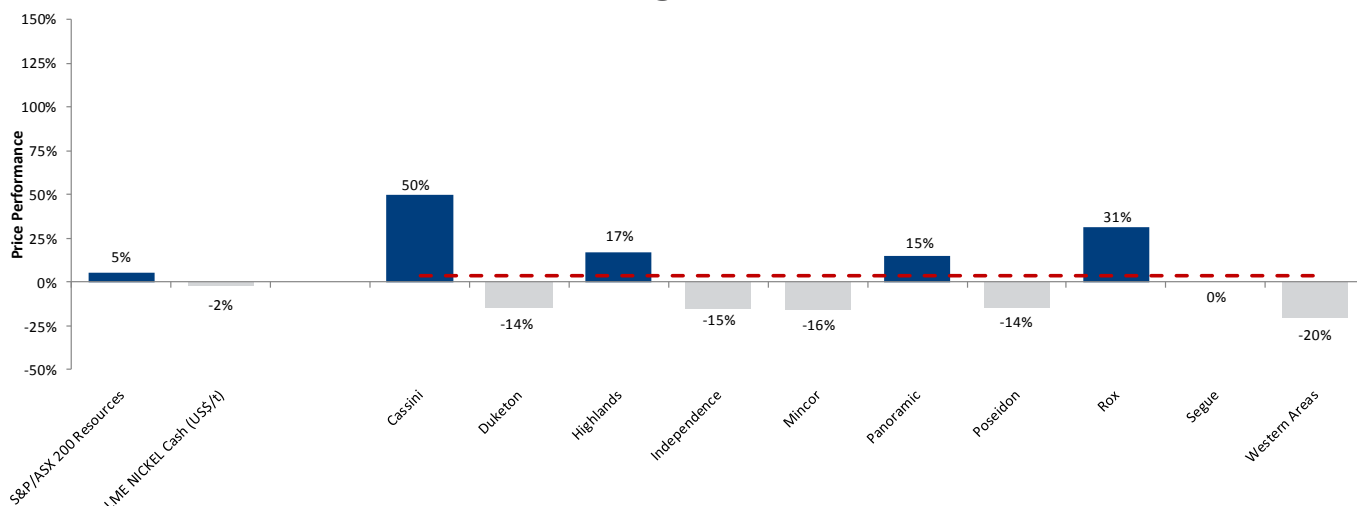
# NICKEL

## *Thermometer*

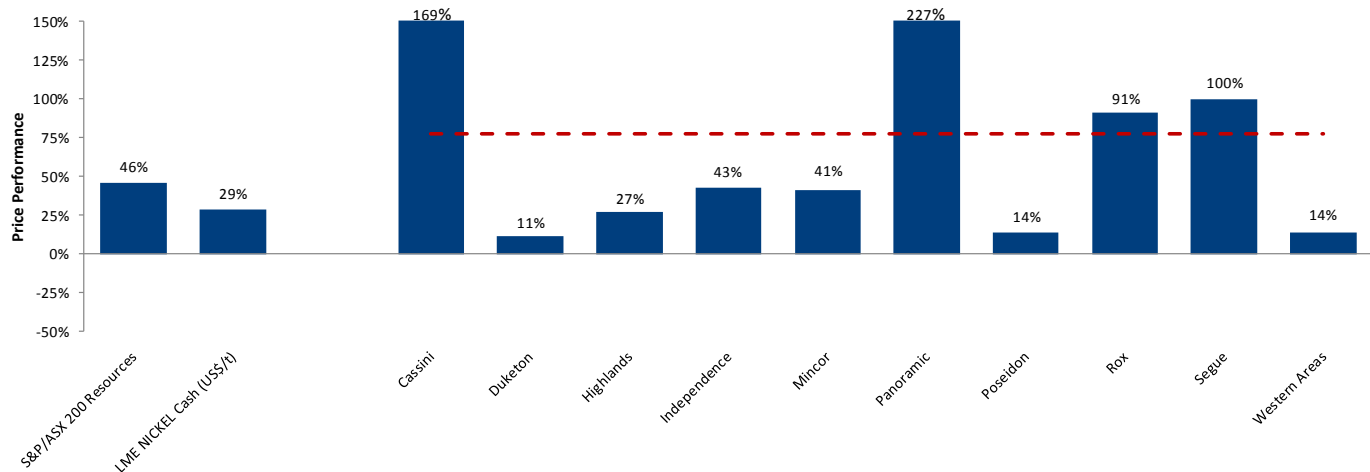
## 1 Month Share Price Performance - Average 10%



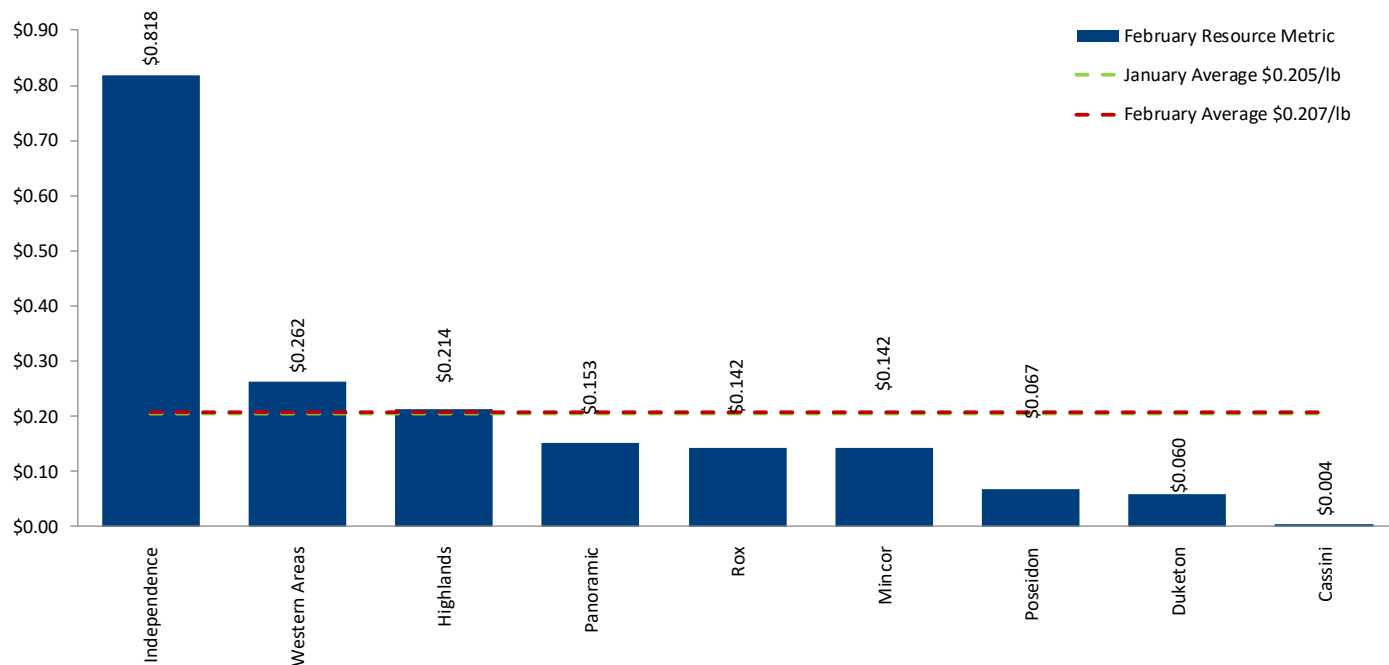
## 3 Month Share Price Performance - Average 3%



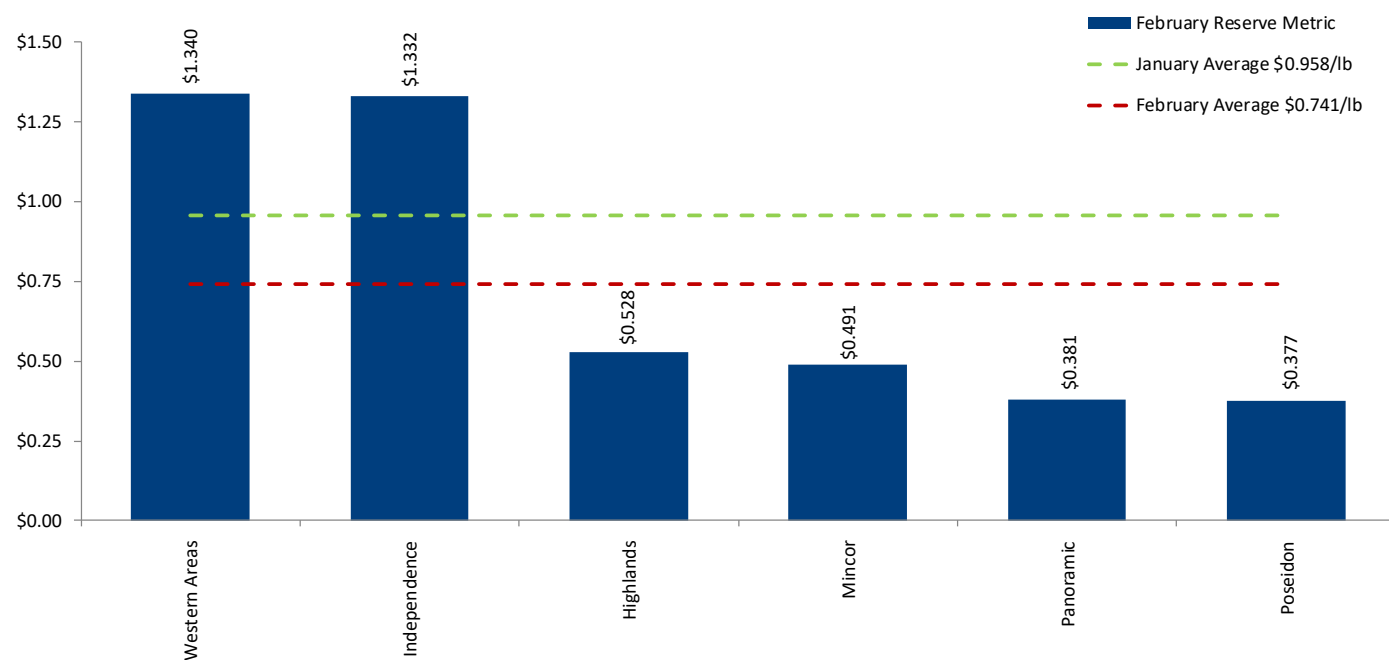
## 12 Month Share Price Performance - Average 78%



## EV / Resource (A\$/lb NiEq)

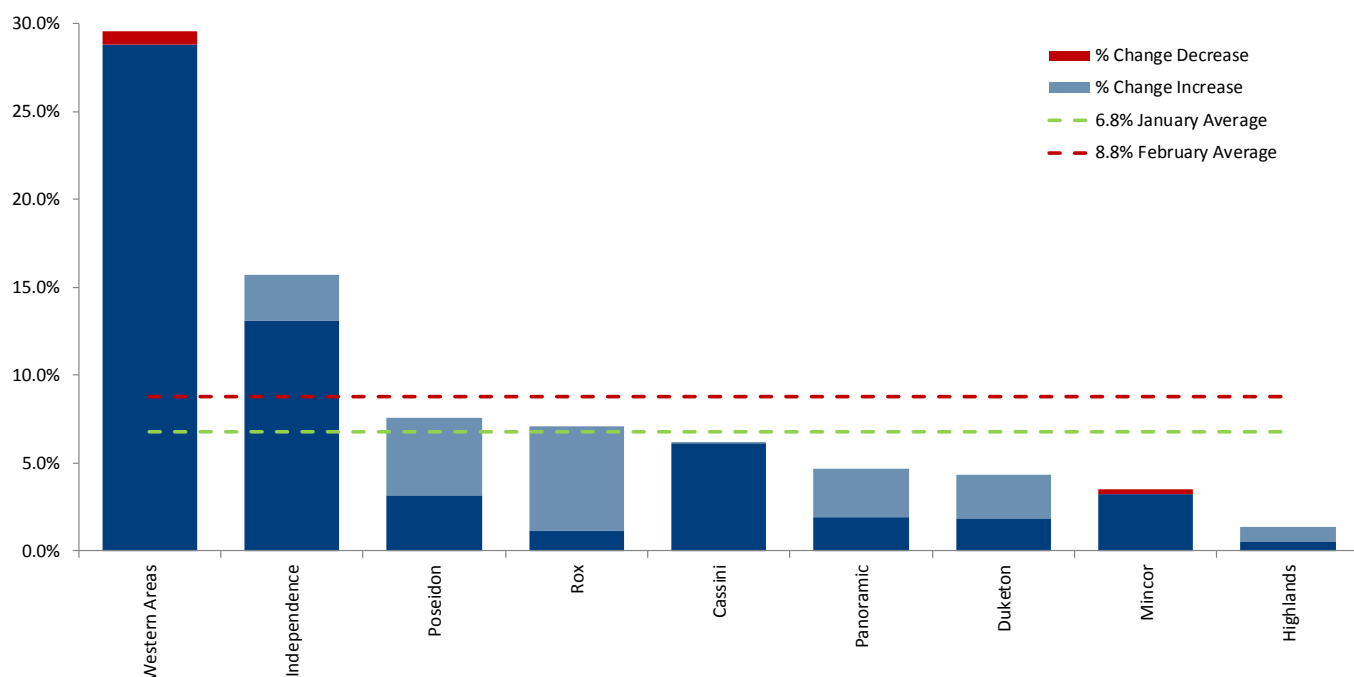


## EV / Reserve (A\$/lb NiEq)



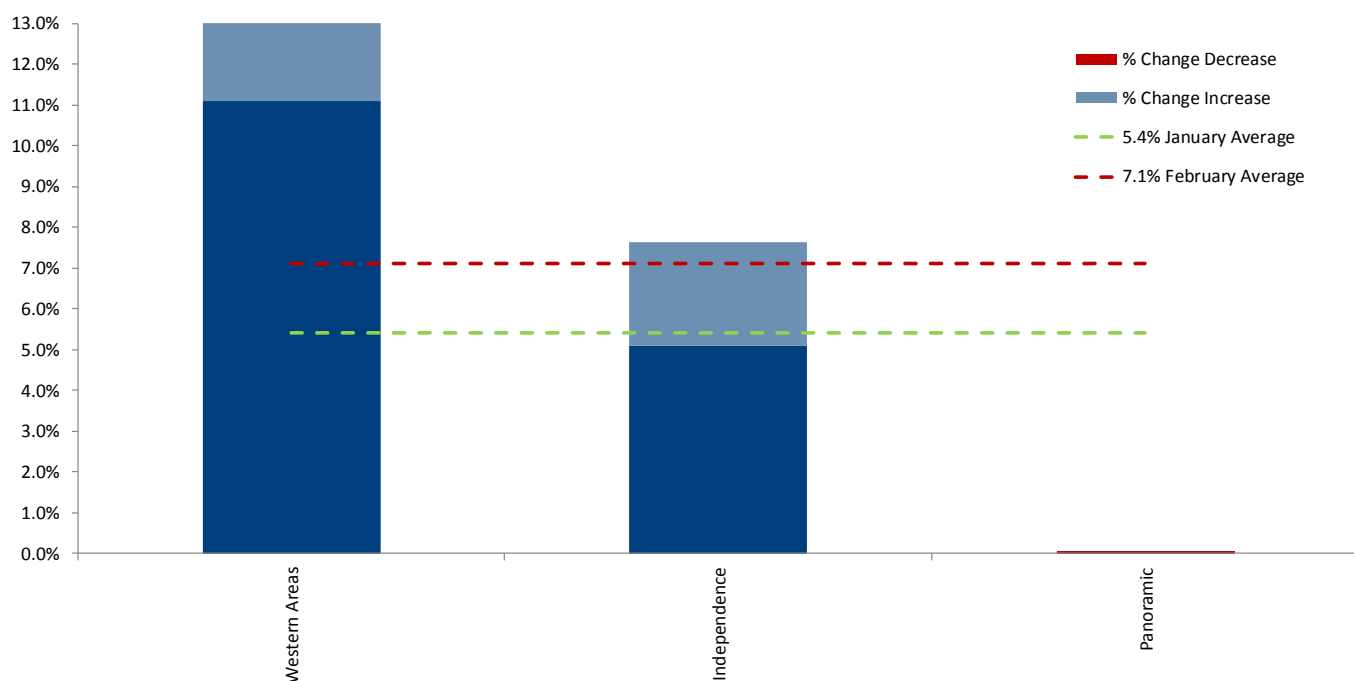
1. Nickel Metrics derived from:  
 - Panoramic - Savannah, Copernicus and Lanfranchi Nickel Projects.  
 - Independence - Tropicana, Long, Jaguar, Stockman and Nova - converted into a NiEq.  
 - Rox - Fisher East Project.  
 - Highlands - JV interest in the Ramu Nickel Project.  
 - Poseidon - All projects, excluding Windarra Gold Tailings.  
 - Mincor - Nickel assets only.

## Nickel Sector Liquidity



Note: Bar chart illustrates monthly share turnover as a percentage of total shares on issue, from largest to smallest. An increase in share turnover (month-on-month) is represented by a light blue bar on top of the prior month's share turnover (being the dark blue bar). A decrease in share liquidity (month-on-month) is represented by the red bar (representing the prior month's share turnover) falling to the dark blue bar component (being the current month's turnover).

## Nickel Sector Short Positions



Note: Bar chart illustrates reported short positions as a percentage of total shares on issue, from largest to smallest result. An increase in short positions (month-on-month) is represented by a light blue bar on top of the prior month's short positions (being the dark blue bar). A decrease in short positions (month-on-month) is represented by the red bar (representing the prior month's short positions) falling to the dark blue bar component (being the current month's short positions). Compares data from 25/1/2017 to 23/2/2017.

# Nickel Transaction Metrics

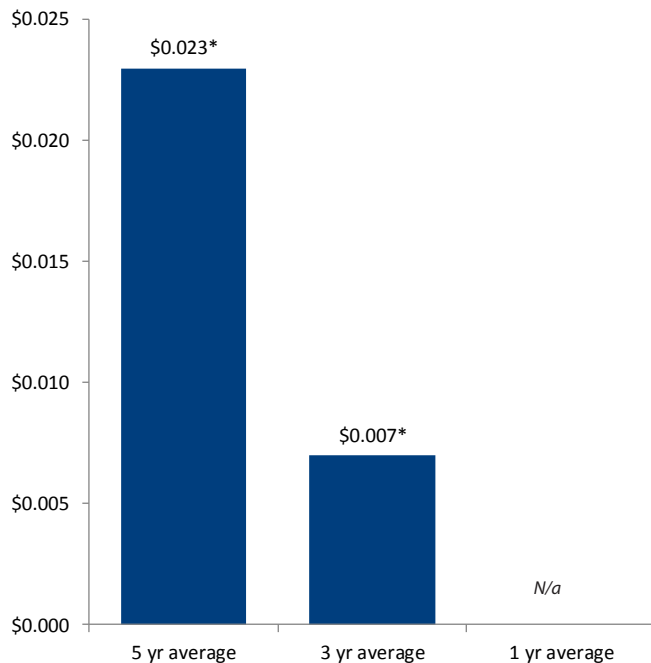
## - Resource and Reserve Multiples



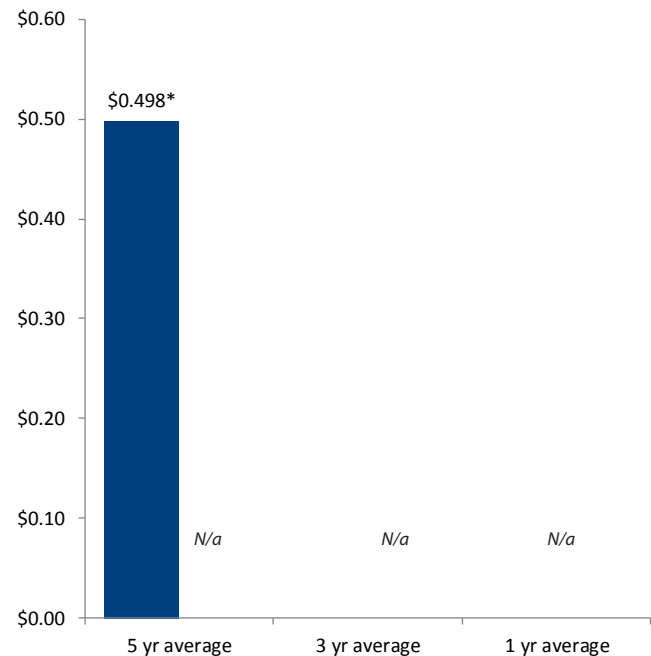
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Transaction multiples based on nickel price of US\$4.66/lb - 28 February 2017

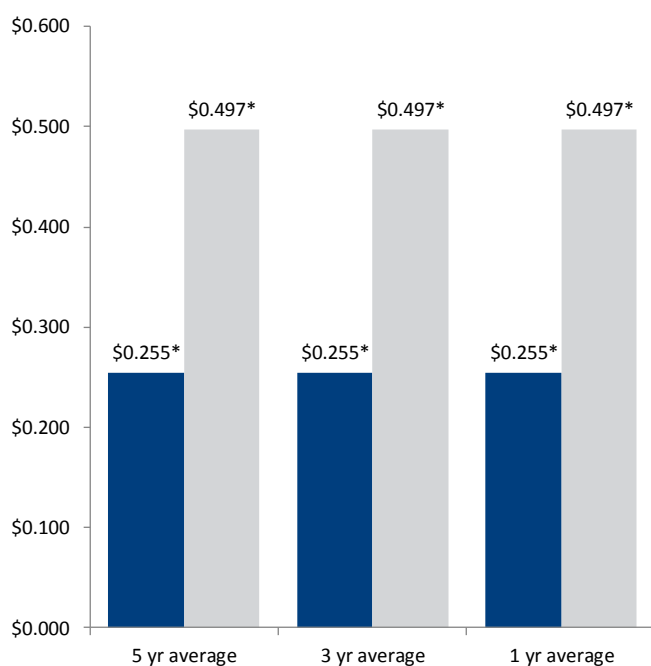
### Exploration (US\$/lb NiEq)



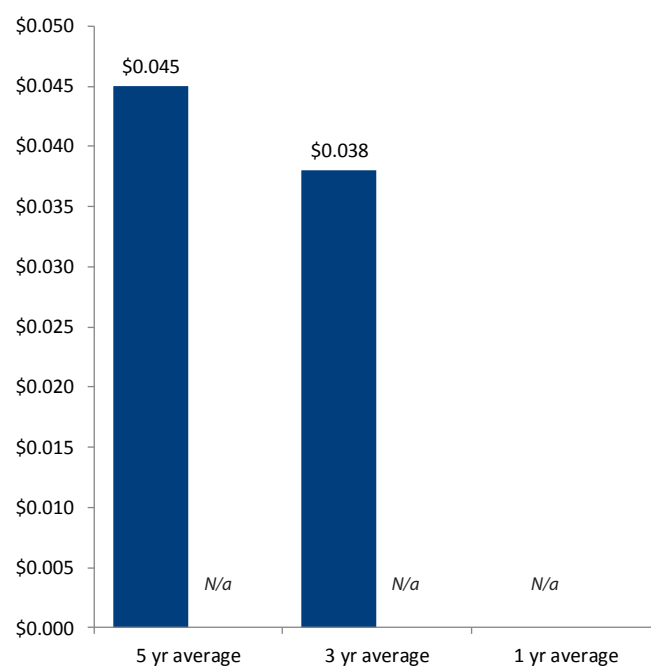
### Development (US\$/lb NiEq)



### Operation (US\$/lb NiEq)



### Care & Maintenance (US\$/lb NiEq)



■ Resource    ■ Reserve

1. Transaction metrics are derived from transactions normalised to account for movements in commodity prices - refer notes on page 3.  
 2. Completed transactions only  
 \*Denotes metric is derived from four transaction results or less  
 3. Nickel Development metrics are based on Sirius Resources's purchase of 30% of Nova & Lundin Mining's purchase of Eagle Mine.





*Capital Group*



Level 3, 8 Colin Street, West Perth  
Western Australia, Australia, 6005  
Tel +61 8 9486 7111  
Email [admin@pcfcapital.com.au](mailto:admin@pcfcapital.com.au)

[www.pfcapital.com.au](http://www.pfcapital.com.au)

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