# Extensional drilling at Sconi Project continues to unlock growth potential for nickel and cobalt resources 

## HIGHLIGHTS:

- Further positive results returned from Resource extension drilling at Sconi Cobalt-Nickel-Scandium Project
- Cobalt and nickel intersections included:
- 15 metres at $0.14 \%$ cobalt from 11 metres
- 9 metres at $0.30 \%$ cobalt from 9 metres
- 11 metres at $0.16 \%$ cobalt from 8 metres
- 10 metres at $1.80 \%$ nickel from 29 metres
- 20 metres at $1.13 \%$ nickel from 36 metres
- 14 metres at $1.03 \%$ nickel from 21 metres
- Additional 5,000 metres drilling at Greenvale deposit ${ }^{1}$ completed, following receipt of highly-encouraging assays from recent drilling ${ }^{2}$
- testing newly-identified mineralised zones, and
- further extending the Sconi's cobalt-nickel mineralisation footprint
- Cobalt-focussed drilling at Lucknow Deposit recently completed
- Assays for the remainder due to be received in the current quarter

[^0]Australian Mines Limited ("Australian Mines" or "the Company") (Australia ASX: AUZ; USA OTCQB: AMSLF; Frankfurt Stock Exchange: MJH) is pleased to release further positive results from the Company's Resource extension drilling program at its Sconi Cobalt-NickelScandium Project.

Australian Mines' Sconi project, located near the township of Greenvale (approximately 225 kilometres inland from Townsville in Northern Australia), is one of the most advanced projects of its type in Australia and represents far more than just an emerging cobalt + nickel + scandium mining project.

It is planned the Sconi Project will become a fully-integrated chemical processing operation capable of delivering battery-grade cobalt sulphate and nickel sulphate to our off-take partner, Korean-based SK Innovation, for direct application at their global electric vehicle battery manufacturing plants without the need for Australian Mines' cobalt and nickel products to undergo any further processing ${ }^{3}$. As such, the Sconi Project is being designed to capture the full "valueadd" of the Project on site ${ }^{4}$.

Given that a significant portion of the favourable cobalt-nickel-scandium bearing geology at Sconi was not fully tested by drilling, and as result, the current Mineral Resource may not reflect the true mineral endowment of the Project, Australian Mines recently embarked on a 50,000 metre Resource Expansion drilling program at Sconi.

Initial assays from this drill program, were reported to the market on 14 September $2018^{5}$ with highly positive with thick zones of nickel mineralisation being confirmed beyond the existing Mineral Resource ${ }^{6}$.

The latest assay results, summarised in this report ${ }^{7}$, continue Australian Mines' success in demonstrating that mineralisation at Sconi is much more extensive then reflected in the current Mineral Resource ${ }^{6}$ used in the impending Bankable Feasibility Study (BFS) for the Project.

Whilst the majority of the assays from this Resource Expansion drilling program at Sconi are still pending, the available results from both the Greenvale deposit and the nearby Lucknow deposit point to continued exploration upside for the Project and a possible improvement in the already impressive Mineral Resource ${ }^{6}$ at Sconi.

[^1]| Drill Hole | Intersection |
| :---: | :---: |
| GVM1286 | 20 metres @ 1.13\% Nickel from 36 metres |
| GVM1298 | 12 metres @ 1.02\% Nickel from 34 metres |
| GVM1396 | 10 metres @ 1.00\% Nickel from 39 metres |
| GVM1281 | 8 metres @ 1.00\% Nickel from 51 metres |
| GVM1275 | 8 metres @ 1.02\% Nickel from 40 metres |
| GVM1257 | 14 metres @ 1.03\% Nickel from 21 metres |
| GVM1258 | 5 metres @ 1.05\% Nickel from 8 metres |
| GVM1256 | 10 metres @ 0.84\% Nickel from 13 metres |
| GVM1327 | 10 metres @ 1.80\% Nickel from 29 metres |
| LKM1002 | 9 metres @ 0.30\% Cobalt from 9 metres |
| LKM1003 | 2 metres @ 0.48\% Cobalt from 2 metres |
| LKM1004 | 11 metres @ 0.14\% Cobalt from 11 metres |
| LKM1005 | 15 metres @ 0.14\% Cobalt from 11 metres |
| LKM1007 | 6 metres @ 0.16\% Cobalt from 5 metres |
| LKM1011 | 11 metres @ 0.16\% Cobalt from 8 metres |
| LKM1012 | 4 metres @ 0.20\% Cobalt from 8 metres |
| LKM1013 | 2 metres @ 0.20\% Cobalt from 6 metres |
| LKM1014 | 5 metres @ 0.21\% Cobalt from 7 metres |
| LKM1016 | 3 metres @ 0.23\% Cobalt from 1 metres |
| LKM1024 | 11 metres @ 0.16\% Cobalt from 2 metres |

Table 1: Selected assay results received from Australian Mines' Greenvale (GVM prefix) and Lucknow (LKM prefix) Resource expansion drilling program, within the Company's $100 \%$-owned Sconi Project in Queensland. Full assay data for the drilling referred to in this announcement are shown in Appendix 1 of this report ${ }^{8}$.
Note: The cut-off grade for the existing Lucknow Mineral Deposit ${ }^{9}$ is $0.1 \%$ cobalt ( $0.1 \%=1,000 \mathrm{ppm}$ )

[^2]

Figure 1: Locations highlighted in red show the eastern and southern extensions of the Sconi Project's Greenvale Deposit, which were recently drill tested by Australian Mines. The thickness of the mineralisation returned from this drilling warranted the Company to commission a further 5,000 metres of Resource drilling over this red area.


Figure 2: Locations highlighted in red show the locations of early assay results at the Lucknow deposit within the Sconi Cobalt-Nickel-Scandium Project in Northern Queensland. The Lucknow Deposit is located 8 kilometres south east of the Sconi Project's Greenvale mine site (and preferred location of the Sconi processing plant) and consists of a 5-kilometre long zone of prospective geology, that includes the Company's existing Lucknow Mineral Resource ${ }^{10}$. As indicated in this figure, the bulk of the assays from the Lucknow Resource expansion drilling remain pending.

[^3]Australian Mines Managing Director, Benjamin Bell, commented: "I am extremely encouraged by the results we are seeing from our extensional drilling across targeted areas within the Sconi Project, as the results to date are pointing towards an increase in the Sconi project's Mineral Resource for both cobalt and nickel.
"Increasing the project's Mineral Resource was our clearly articulated goal from the start of this program and we believe we will be in a strong position, come April 2019, to announce a revised Mineral Resource Estimate for Sconi, followed by an optimised Bankable Feasibility Study for the Project shortly thereafter.
"Any potential upgrade to the Mineral Resource Estimate for Sconi as a result of the current drilling program would have the flow-through effect of enhancing the proposed mine plan and life for the Project as well as delivering overall benefits to any future expansion contemplated.
"I look forward to providing additional updates regarding the results of the Resource expansion drilling at Sconi over the coming week and in the lead up to Christmas"

## ***ENDS***

## For further information:

## Shareholders contact:

Sophia Bolhassan
Investor Relations Manager
Ph: +61 488022944
E: sbolhassan@australianmines.com.au

## Media contact:

Michael Cairnduff
Cannings Purple
Ph: + 61406775241
E: mcairnduff@canningspurple.com.au

## Appendix 1

Drill Hole Locations for highlighted intersections (Table 1 and Appendix 2)

| Hole Number | $\begin{aligned} & \text { Drill } \\ & \text { Type } \end{aligned}$ | Depth metres | Easting | Northing | $\begin{gathered} \text { Dip } \\ \text { (degrees) } \end{gathered}$ | Azimuth | $\begin{gathered} \mathrm{RL} \\ \text { (metres) } \end{gathered}$ | Grid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1256 | RC | 30 | 281080 | 7898840 | -90 | 000 | 506 | GDA94 |
| GVM1257 | RC | 36 | 281012 | 7898768 | -90 | 000 | 505 | GDA94 |
| GVM1258 | RC | 24 | 280920 | 7898762 | -90 | 000 | 507 | GDA94 |
| GVM1275 | RC | 60 | 282649 | 7900874 | -90 | 000 | 506 | GDA94 |
| GVM1281 | RC | 66 | 282652 | 7900812 | -90 | 000 | 505 | GDA94 |
| GVM1286 | RC | 54 | 282665 | 7900808 | -90 | 000 | 519 | GDA94 |
| GVM1298 | RC | 48 | 282681 | 7900831 | -90 | 000 | 493 | GDA94 |
| GVM1327 | RC | 39 | 280979 | 7899034 | -90 | 000 | 506 | GDA94 |
| GVM1396 | RC | 51 | 282567 | 7900870 | -90 | 000 | 512 | GDA94 |
| LKM1002 | RC | 24 | 285598 | 7896166 | -90 | 000 | 506 | GDA94 |
| LKM1003 | RC | 21 | 285643 | 7896165 | -90 | 000 | 506 | GDA94 |
| LKM1004 | RC | 63 | 285384 | 7895636 | -90 | 000 | 506 | GDA94 |
| LKM1005 | RC | 17 | 285413 | 7895640 | -90 | 000 | 506 | GDA94 |
| LKM1007 | RC | 11 | 285478 | 7895643 | -90 | 000 | 506 | GDA94 |
| LKM1011 | RC | 22 | 285520 | 7895769 | -90 | 000 | 506 | GDA94 |
| LKM1012 | RC | 16 | 285529 | 7895805 | -90 | 000 | 506 | GDA94 |
| LKM1013 | RC | 15 | 285529 | 7895685 | -90 | 000 | 506 | GDA94 |
| LKM1014 | RC | 31 | 285499 | 7895650 | -90 | 000 | 506 | GDA94 |
| LKM1016 | RC | 16 | 285561 | 7895630 | -90 | 000 | 506 | GDA94 |
| LKM1024 | RC | 16 | 285530 | 7895525 | -90 | 000 | 506 | GDA94 |

## Appendix 2

## Assay data received to date for highlighted Sconi drilling listed in announcement.

Note: Target elements only reported, other elements in assays were omitted as they do not affect the overall outcome of results.

| Hole Number | $\begin{aligned} & \text { Depth } \\ & \text { From } \\ & \text { (metres) } \end{aligned}$ | $\begin{array}{\|c} \text { Depth } \\ \text { To } \\ \text { (metres) } \end{array}$ | Sample <br> Number | $\begin{aligned} & \text { Drill } \\ & \text { Type } \end{aligned}$ | Cobalt (in ppm) | Nickel (in ppm) | Scandium (in ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1256 | 0 | 1 | AS008566 | RC | 66 | 361 | 32 |
| GVM1256 | 1 | 2 | AS008567 | RC | 165 | 349 | 33 |
| GVM1256 | 2 | 3 | AS008568 | RC | 209 | 687 | 42 |
| GVM1256 | 3 | 4 | AS008569 | RC | 68 | 318 | 45 |
| GVM1256 | 4 | 5 | AS008570 | RC | 29 | 328 | 41 |
| GVM1256 | 5 | 6 | AS008571 | RC | 13 | 205 | 28 |
| GVM1256 | 6 | 7 | AS008572 | RC | 31 | 313 | 41 |
| GVM1256 | 7 | 8 | AS008573 | RC | 25 | 305 | 42 |
| GVM1256 | 8 | 9 | AS008574 | RC | 24 | 393 | 42 |
| GVM1256 | 9 | 10 | AS008575 | RC | 48 | 1020 | 55 |
| GVM1256 | 10 | 11 | AS008576 | RC | 78 | 1301 | 57 |
| GVM1256 | 11 | 12 | AS008577 | RC | 114 | 1521 | 52 |
| GVM1256 | 12 | 13 | AS008578 | RC | 396 | 2616 | 36 |
| GVM1256 | 13 | 14 | AS008579 | RC | 1032 | 8844 | 10 |
| GVM1256 | 14 | 15 | AS008580 | RC | 497 | 7282 | 7 |
| GVM1256 | 15 | 16 | AS008581 | RC | 336 | 6502 | 5 |
| GVM1256 | 16 | 17 | AS008582 | RC | 215 | 4758 | 7 |
| GVM1256 | 17 | 18 | AS008583 | RC | 575 | 10551 | 6 |
| GVM1256 | 18 | 19 | AS008584 | RC | 197 | 10222 | 35 |
| GVM1256 | 19 | 20 | AS008585 | RC | 1396 | 11206 | 35 |
| GVM1256 | 20 | 21 | AS008586 | RC | 579 | 5105 | 19 |
| GVM1256 | 21 | 22 | AS008587 | RC | 490 | 7811 | 40 |
| GVM1256 | 22 | 23 | AS008588 | RC | 336 | 11844 | 25 |
| GVM1256 | 23 | 24 | AS008589 | RC | 111 | 3820 | 10 |
| GVM1256 | 24 | 25 | AS008590 | RC | 97 | 2888 | 8 |
| GVM1256 | 25 | 26 | AS008591 | RC | 109 | 2258 | 5 |
| GVM1256 | 26 | 27 | AS008592 | RC | 104 | 2054 | 5 |
| GVM1256 | 27 | 28 | AS008593 | RC | 160 | 2093 | 7 |
| GVM1256 | 28 | 29 | AS008594 | RC | 110 | 1685 | 6 |
| GVM1256 | 29 | 30 | AS008595 | RC | 108 | 1596 | 4 |
| GVM1257 | 0 | 1 | AS008596 | RC | 265 | 752 | 62 |
| GVM1257 | 1 | 2 | AS008597 | RC | 490 | 805 | 65 |
| GVM1257 | 2 | 3 | AS008598 | RC | 822 | 1168 | 64 |


| GVM1257 | 3 | 4 | AS008599 | RC | 226 | 553 | 59 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1257 | 4 | 5 | AS008600 | RC | 45 | 458 | 56 |
| GVM1257 | 5 | 6 | AS008602 | RC | 79 | 215 | 57 |
| GVM1257 | 6 | 7 | AS008603 | RC | 89 | 213 | 55 |
| GVM1257 | 7 | 8 | AS008604 | RC | 60 | 222 | 58 |
| GVM1257 | 8 | 9 | AS008605 | RC | 39 | 247 | 54 |
| GVM1257 | 9 | 10 | AS008606 | RC | 19 | 238 | 47 |
| GVM1257 | 10 | 11 | AS008607 | RC | 46 | 309 | 49 |
| GVM1257 | 11 | 12 | AS008608 | RC | 113 | 774 | 57 |
| GVM1257 | 12 | 13 | AS008609 | RC | 52 | 859 | 57 |
| GVM1257 | 13 | 14 | AS008610 | RC | 219 | 1447 | 63 |
| GVM1257 | 14 | 15 | AS008611 | RC | 196 | 1337 | 61 |
| GVM1257 | 15 | 16 | AS008612 | RC | 216 | 1372 | 61 |
| GVM1257 | 16 | 17 | AS008613 | RC | 104 | 1350 | 61 |
| GVM1257 | 17 | 18 | AS008614 | RC | 262 | 4344 | 46 |
| GVM1257 | 18 | 19 | AS008615 | RC | 152 | 3497 | 163 |
| GVM1257 | 19 | 20 | AS008616 | RC | 245 | 3293 | 94 |
| GVM1257 | 20 | 21 | AS008617 | RC | 316 | 4268 | 68 |
| GVM1257 | 21 | 22 | AS008618 | RC | 446 | 7369 | 59 |
| GVM1257 | 22 | 23 | AS008619 | RC | 779 | 8669 | 52 |
| GVM1257 | 23 | 24 | AS008620 | RC | 1709 | 9574 | 38 |
| GVM1257 | 24 | 25 | AS008621 | RC | 2212 | 14375 | 44 |
| GVM1257 | 25 | 26 | AS008622 | RC | 2207 | 14447 | 29 |
| GVM1257 | 26 | 27 | AS008623 | RC | 2410 | 14467 | 30 |
| GVM1257 | 27 | 28 | AS008624 | RC | 613 | 13314 | 24 |
| GVM1257 | 28 | 29 | AS008626 | RC | 356 | 9951 | 66 |
| GVM1257 | 29 | 30 | AS008627 | RC | 476 | 8205 | 70 |
| GVM1257 | 30 | 31 | AS008628 | RC | 718 | 8143 | 44 |
| GVM1257 | 31 | 32 | AS008629 | RC | 531 | 7137 | 32 |
| GVM1257 | 32 | 33 | AS008630 | RC | 404 | 8647 | 33 |
| GVM1257 | 33 | 34 | AS008631 | RC | 486 | 11732 | 26 |
| GVM1257 | 34 | 35 | AS008632 | RC | 284 | 9199 | 20 |
| GVM1257 | 35 | 36 | AS008633 | RC | 154 | 3949 | 8 |
| GVM1258 | 0 | 1 | AS008634 | RC | 48 | 919 | 63 |
| GVM1258 | 1 | 2 | AS008635 | RC | 45 | 927 | 86 |
| GVM1258 | 2 | 3 | AS008636 | RC | 61 | 1224 | 78 |
| GVM1258 | 3 | 4 | AS008637 | RC | 62 | 1330 | 70 |
| GVM1258 | 4 | 5 | AS008638 | RC | 90 | 2200 | 73 |
| GVM1258 | 5 | 6 | AS008639 | RC | 98 | 2547 | 64 |
| GVM1258 | 6 | 7 | AS008640 | RC | 107 | 2247 | 62 |
| GVM1258 | 7 | 8 | AS008641 | RC | 251 | 3018 | 49 |
| GVM1258 | 8 | 9 | AS008642 | RC | 5224 | 15389 | 21 |
| GVM1258 | 9 | 10 | AS008643 | RC | 1451 | 13253 | 20 |
| GVM1258 | 10 | 11 | AS008644 | RC | 412 | 9332 | 28 |


| GVM1258 | 11 | 12 | AS008645 | RC | 359 | 8412 | 26 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1258 | 12 | 13 | AS008646 | RC | 374 | 6179 | 20 |
| GVM1258 | 13 | 14 | AS008647 | RC | 274 | 5297 | 21 |
| GVM1258 | 14 | 15 | AS008648 | RC | 218 | 4091 | 18 |
| GVM1258 | 15 | 16 | AS008649 | RC | 154 | 2530 | 11 |
| GVM1258 | 16 | 17 | AS008650 | RC | 156 | 2692 | 14 |
| GVM1258 | 17 | 18 | AS008652 | RC | 149 | 2421 | 10 |
| GVM1258 | 18 | 19 | AS008653 | RC | 171 | 2500 | 20 |
| GVM1258 | 19 | 20 | AS008654 | RC | 41 | 1047 | 31 |
| GVM1258 | 20 | 21 | AS008655 | RC | 54 | 812 | 36 |
| GVM1258 | 21 | 22 | AS008656 | RC | 53 | 543 | 33 |
| GVM1258 | 22 | 23 | AS008657 | RC | 48 | 513 | 35 |
| GVM1258 | 23 | 24 | AS008658 | RC | 56 | 626 | 36 |
| GVM1275 | 0 | 1 | AS009191 | RC | 438 | 1240 | 53 |
| GVM1275 | 1 | 2 | AS009192 | RC | 353 | 885 | 54 |
| GVM1275 | 2 | 3 | AS009193 | RC | 200 | 560 | 56 |
| GVM1275 | 3 | 4 | AS009194 | RC | 232 | 665 | 52 |
| GVM1275 | 4 | 5 | AS009195 | RC | 141 | 503 | 52 |
| GVM1275 | 5 | 6 | AS009196 | RC | 64 | 389 | 50 |
| GVM1275 | 6 | 7 | AS009197 | RC | 52 | 351 | 45 |
| GVM1275 | 7 | 8 | AS009198 | RC | 53 | 294 | 47 |
| GVM1275 | 8 | 9 | AS009199 | RC | 23 | 237 | 39 |
| GVM1275 | 9 | 10 | AS009200 | RC | 15 | 193 | 40 |
| GVM1275 | 10 | 11 | AS009202 | RC | 6 | 173 | 33 |
| GVM1275 | 11 | 12 | AS009203 | RC | 23 | 217 | 32 |
| GVM1275 | 12 | 13 | AS009204 | RC | 33 | 188 | 38 |
| GVM1275 | 13 | 14 | AS009205 | RC | 24 | 153 | 38 |
| GVM1275 | 14 | 15 | AS009206 | RC | 20 | 137 | 34 |
| GVM1275 | 15 | 16 | AS009207 | RC | 18 | 130 | 32 |
| GVM1275 | 16 | 17 | AS009208 | RC | 11 | 108 | 31 |
| GVM1275 | 17 | 18 | AS009209 | RC | 15 | 172 | 35 |
| GVM1275 | 18 | 19 | AS009210 | RC | 17 | 302 | 40 |
| GVM1275 | 19 | 20 | AS009211 | RC | 72 | 828 | 66 |
| GVM1275 | 20 | 21 | AS009212 | RC | 60 | 856 | 58 |
| GVM1275 | 21 | 22 | AS009213 | RC | 94 | 1319 | 61 |
| GVM1275 | 22 | 23 | AS009214 | RC | 127 | 1763 | 63 |
| GVM1275 | 23 | 24 | AS009215 | RC | 146 | 1930 | 55 |
| GVM1275 | 24 | 25 | AS009216 | RC | 110 | 2113 | 17 |
| GVM1275 | 25 | 26 | AS009217 | RC | 222 | 3009 | 49 |
| GVM1275 | 26 | 27 | AS009218 | RC | 200 | 2911 | 45 |
| GVM1275 | 27 | 28 | AS009219 | RC | 217 | 3727 | 47 |
| GVM1275 | 28 | 29 | AS009220 | RC | 286 | 4308 | 45 |
| GVM1275 | 29 | 30 | AS009221 | RC | 274 | 4141 | 50 |
| GVM1275 | 30 | 31 | AS009222 | RC | 221 | 4033 | 48 |


| GVM1275 | 31 | 32 | AS009223 | RC | 220 | 3699 | 46 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1275 | 32 | 33 | AS009224 | RC | 223 | 4028 | 48 |
| GVM1275 | 33 | 34 | AS009226 | RC | 223 | 3921 | 48 |
| GVM1275 | 34 | 35 | AS009228 | RC | 244 | 3838 | 48 |
| GVM1275 | 35 | 36 | AS009229 | RC | 766 | 4661 | 48 |
| GVM1275 | 36 | 37 | AS009230 | RC | 1295 | 5682 | 50 |
| GVM1275 | 37 | 38 | AS009231 | RC | 1169 | 5831 | 50 |
| GVM1275 | 38 | 39 | AS009232 | RC | 1398 | 6238 | 50 |
| GVM1275 | 39 | 40 | AS009233 | RC | 1438 | 7490 | 49 |
| GVM1275 | 40 | 41 | AS009234 | RC | 1244 | 8106 | 44 |
| GVM1275 | 41 | 42 | AS009235 | RC | 607 | 12166 | 35 |
| GVM1275 | 42 | 43 | AS009236 | RC | 1065 | 10519 | 36 |
| GVM1275 | 43 | 44 | AS009237 | RC | 971 | 13028 | 31 |
| GVM1275 | 44 | 45 | AS009238 | RC | 1958 | 9955 | 38 |
| GVM1275 | 45 | 46 | AS009239 | RC | 1056 | 13599 | 31 |
| GVM1275 | 46 | 47 | AS009240 | RC | 692 | 8099 | 23 |
| GVM1275 | 47 | 48 | AS009241 | RC | 240 | 6401 | 9 |
| GVM1275 | 48 | 49 | AS009242 | RC | 944 | 7984 | 26 |
| GVM1275 | 49 | 50 | AS009243 | RC | 230 | 4552 | 10 |
| GVM1275 | 50 | 51 | AS009244 | RC | 166 | 3054 | 10 |
| GVM1275 | 51 | 52 | AS009245 | RC | 163 | 2762 | 9 |
| GVM1275 | 52 | 53 | AS009246 | RC | 163 | 2805 | 9 |
| GVM1275 | 53 | 54 | AS009247 | RC | 165 | 2337 | 11 |
| GVM1275 | 54 | 55 | AS009248 | RC | 208 | 2377 | 13 |
| GVM1275 | 55 | 56 | AS009249 | RC | 132 | 1934 | 13 |
| GVM1275 | 56 | 57 | AS009250 | RC | 156 | 2396 | 10 |
| GVM1275 | 57 | 58 | AS009252 | RC | 137 | 2344 | 10 |
| GVM1275 | 58 | 59 | AS009253 | RC | 136 | 2221 | 9 |
| GVM1275 | 59 | 60 | AS009254 | RC | 123 | 2134 | 8 |
| GVM1281 | 0 | 1 | AS009507 | RC | 67 | 896 | 53 |
| GVM1281 | 1 | 2 | AS009508 | RC | 20 | 487 | 48 |
| GVM1281 | 2 | 3 | AS009509 | RC | 10 | 392 | 43 |
| GVM1281 | 3 | 4 | AS009510 | RC | 33 | 439 | 49 |
| GVM1281 | 4 | 5 | AS009511 | RC | 313 | 643 | 50 |
| GVM1281 | 5 | 6 | AS009512 | RC | 165 | 518 | 64 |
| GVM1281 | 6 | 7 | AS009513 | RC | 80 | 436 | 57 |
| GVM1281 | 7 | 8 | AS009514 | RC | 79 | 523 | 56 |
| GVM1281 | 8 | 9 | AS009515 | RC | 99 | 498 | 52 |
| GVM1281 | 9 | 10 | AS009516 | RC | 251 | 497 | 55 |
| GVM1281 | 10 | 11 | AS009517 | RC | 211 | 405 | 55 |
| GVM1281 | 11 | 12 | AS009518 | RC | 89 | 301 | 52 |
| GVM1281 | 12 | 13 | AS009519 | RC | 54 | 409 | 51 |
| GVM1281 | 13 | 14 | AS009520 | RC | 58 | 364 | 55 |
| GVM1281 | 14 | 15 | AS009521 | RC | 26 | 290 | 44 |


| GVM1281 | 15 | 16 | AS009522 | RC | 206 | 488 | 51 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1281 | 16 | 17 | AS009523 | RC | 112 | 349 | 44 |
| GVM1281 | 17 | 18 | AS009524 | RC | 62 | 344 | 54 |
| GVM1281 | 18 | 19 | AS009526 | RC | 39 | 358 | 45 |
| GVM1281 | 19 | 20 | AS009527 | RC | 41 | 360 | 47 |
| GVM1281 | 20 | 21 | AS009528 | RC | 88 | 360 | 42 |
| GVM1281 | 21 | 22 | AS009529 | RC | 120 | 312 | 37 |
| GVM1281 | 22 | 23 | AS009530 | RC | 92 | 435 | 41 |
| GVM1281 | 23 | 24 | AS009531 | RC | 47 | 248 | 37 |
| GVM1281 | 24 | 25 | AS009532 | RC | 47 | 413 | 28 |
| GVM1281 | 25 | 26 | AS009533 | RC | 46 | 349 | 34 |
| GVM1281 | 26 | 27 | AS009534 | RC | 33 | 371 | 39 |
| GVM1281 | 27 | 28 | AS009535 | RC | 79 | 1186 | 51 |
| GVM1281 | 28 | 29 | AS009536 | RC | 146 | 1721 | 55 |
| GVM1281 | 29 | 30 | AS009537 | RC | 163 | 1932 | 51 |
| GVM1281 | 30 | 31 | AS009538 | RC | 188 | 2084 | 43 |
| GVM1281 | 31 | 32 | AS009539 | RC | 272 | 3367 | 46 |
| GVM1281 | 32 | 33 | AS009540 | RC | 300 | 3380 | 48 |
| GVM1281 | 33 | 34 | AS009541 | RC | 309 | 2967 | 56 |
| GVM1281 | 34 | 35 | AS009542 | RC | 291 | 3692 | 44 |
| GVM1281 | 35 | 36 | AS009543 | RC | 262 | 4188 | 48 |
| GVM1281 | 36 | 37 | AS009544 | RC | 245 | 3552 | 45 |
| GVM1281 | 37 | 38 | AS009545 | RC | 320 | 3402 | 48 |
| GVM1281 | 38 | 39 | AS009546 | RC | 380 | 3480 | 50 |
| GVM1281 | 39 | 40 | AS009547 | RC | 494 | 3637 | 44 |
| GVM1281 | 40 | 41 | AS009548 | RC | 168 | 1069 | 40 |
| GVM1281 | 41 | 42 | AS009549 | RC | 704 | 3649 | 49 |
| GVM1281 | 42 | 43 | AS009550 | RC | 494 | 3054 | 46 |
| GVM1281 | 43 | 44 | AS009552 | RC | 490 | 2873 | 44 |
| GVM1281 | 44 | 45 | AS009553 | RC | 579 | 3358 | 47 |
| GVM1281 | 45 | 46 | AS009554 | RC | 1550 | 7673 | 47 |
| GVM1281 | 46 | 47 | AS009555 | RC | 1702 | 8026 | 43 |
| GVM1281 | 47 | 48 | AS009556 | RC | 2223 | 11320 | 41 |
| GVM1281 | 48 | 49 | AS009557 | RC | 1443 | 9630 | 42 |
| GVM1281 | 49 | 50 | AS009558 | RC | 566 | 8609 | 45 |
| GVM1281 | 50 | 51 | AS009559 | RC | 405 | 3201 | 50 |
| GVM1281 | 51 | 52 | AS009560 | RC | 863 | 15301 | 38 |
| GVM1281 | 52 | 53 | AS009561 | RC | 1491 | 10104 | 43 |
| GVM1281 | 53 | 54 | AS009562 | RC | 854 | 10626 | 34 |
| GVM1281 | 54 | 55 | AS009563 | RC | 763 | 11674 | 28 |
| GVM1281 | 55 | 56 | AS009564 | RC | 679 | 11957 | 25 |
| GVM1281 | 56 | 57 | AS009565 | RC | 525 | 10833 | 27 |
| GVM1281 | 57 | 58 | AS009566 | RC | 438 | 11853 | 24 |
| GVM1281 | 58 | 59 | AS009567 | RC | 389 | 7802 | 26 |


| GVM1281 | 59 | 60 | AS009568 | RC | 295 | 6049 | 14 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1281 | 60 | 61 | AS009569 | RC | 246 | 4430 | 21 |
| GVM1281 | 61 | 62 | AS009570 | RC | 204 | 4157 | 13 |
| GVM1281 | 62 | 63 | AS009571 | RC | 133 | 2315 | 8 |
| GVM1281 | 63 | 64 | AS009572 | RC | 122 | 2242 | 8 |
| GVM1281 | 64 | 65 | AS009573 | RC | 116 | 2301 | 8 |
| GVM1281 | 65 | 66 | AS009574 | RC | 100 | 1997 | 9 |
| GVM1285 | 0 | 1 | AS009680 | RC | 425 | 6922 | 38 |
| GVM1285 | 1 | 2 | AS009681 | RC | 418 | 7527 | 33 |
| GVM1286 | 0 | 1 | AS009682 | RC | 376 | 8486 | 30 |
| GVM1286 | 1 | 2 | AS009683 | RC | 381 | 7711 | 23 |
| GVM1286 | 2 | 3 | AS009684 | RC | 252 | 3648 | 45 |
| GVM1286 | 3 | 4 | AS009685 | RC | 267 | 3633 | 44 |
| GVM1286 | 4 | 5 | AS009686 | RC | 254 | 5058 | 42 |
| GVM1286 | 5 | 6 | AS009687 | RC | 193 | 807 | 54 |
| GVM1286 | 6 | 7 | AS009688 | RC | 260 | 1573 | 54 |
| GVM1286 | 7 | 8 | AS009689 | RC | 206 | 683 | 61 |
| GVM1286 | 8 | 9 | AS009690 | RC | 258 | 3625 | 46 |
| GVM1286 | 9 | 10 | AS009691 | RC | 170 | 551 | 58 |
| GVM1286 | 10 | 11 | AS009692 | RC | 194 | 845 | 52 |
| GVM1286 | 11 | 12 | AS009693 | RC | 145 | 490 | 42 |
| GVM1286 | 12 | 13 | AS009694 | RC | 215 | 2739 | 46 |
| GVM1286 | 13 | 14 | AS009695 | RC | 105 | 415 | 49 |
| GVM1286 | 14 | 15 | AS009696 | RC | 128 | 618 | 50 |
| GVM1286 | 15 | 16 | AS009697 | RC | 100 | 397 | 40 |
| GVM1286 | 16 | 17 | AS009698 | RC | 34 | 459 | 35 |
| GVM1286 | 17 | 18 | AS009699 | RC | 48 | 292 | 43 |
| GVM1286 | 18 | 19 | AS009700 | RC | 18 | 195 | 27 |
| GVM1286 | 19 | 20 | AS009702 | RC | 24 | 348 | 28 |
| GVM1286 | 20 | 21 | AS009703 | RC | 35 | 229 | 38 |
| GVM1286 | 21 | 22 | AS009704 | RC | 20 | 163 | 34 |
| GVM1286 | 22 | 23 | AS009705 | RC | 26 | 348 | 35 |
| GVM1286 | 23 | 24 | AS009706 | RC | 105 | 1323 | 51 |
| GVM1286 | 24 | 25 | AS009707 | RC | 278 | 3640 | 51 |
| GVM1286 | 25 | 26 | AS009708 | RC | 255 | 2866 | 50 |
| GVM1286 | 26 | 27 | AS009709 | RC | 127 | 2239 | 58 |
| GVM1286 | 27 | 28 | AS009710 | RC | 74 | 1642 | 49 |
| GVM1286 | 28 | 29 | AS009711 | RC | 119 | 2208 | 50 |
| GVM1286 | 29 | 30 | AS009712 | RC | 161 | 3593 | 47 |
| GVM1286 | 30 | 31 | AS009713 | RC | 145 | 3655 | 47 |
| GVM1286 | 31 | 32 | AS009714 | RC | 131 | 3488 | 48 |
| GVM1286 | 32 | 33 | AS009715 | RC | 139 | 3597 | 49 |
| GVM1286 | 33 | 34 | AS009716 | RC | 132 | 4006 | 46 |
| GVM1286 | 34 | 35 | AS009717 | RC | 125 | 2504 | 50 |


| GVM1286 | 35 | 36 | AS009718 | RC | 153 | 4714 | 46 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1286 | 36 | 37 | AS009719 | RC | 1612 | 9814 | 37 |
| GVM1286 | 37 | 38 | AS009720 | RC | 1562 | 11159 | 33 |
| GVM1286 | 38 | 39 | AS009721 | RC | 2085 | 15404 | 24 |
| GVM1286 | 39 | 40 | AS009722 | RC | 772 | 12838 | 34 |
| GVM1286 | 40 | 41 | AS009723 | RC | 1493 | 15442 | 30 |
| GVM1286 | 41 | 42 | AS009724 | RC | 1580 | 11156 | 34 |
| GVM1286 | 42 | 43 | AS009726 | RC | 1817 | 13564 | 31 |
| GVM1286 | 43 | 44 | AS009727 | RC | 992 | 11133 | 37 |
| GVM1286 | 44 | 45 | AS009728 | RC | 1669 | 12091 | 32 |
| GVM1286 | 45 | 46 | AS009729 | RC | 2244 | 11456 | 32 |
| GVM1286 | 46 | 47 | AS009730 | RC | 2256 | 12022 | 31 |
| GVM1286 | 47 | 48 | AS009731 | RC | 1452 | 10537 | 34 |
| GVM1286 | 48 | 49 | AS009732 | RC | 1644 | 12011 | 33 |
| GVM1286 | 49 | 50 | AS009733 | RC | 2118 | 11933 | 32 |
| GVM1286 | 50 | 51 | AS009734 | RC | 1758 | 10705 | 31 |
| GVM1286 | 51 | 52 | AS009735 | RC | 1478 | 10339 | 34 |
| GVM1286 | 52 | 53 | AS009736 | RC | 1551 | 10686 | 31 |
| GVM1286 | 53 | 54 | AS009737 | RC | 1984 | 11596 | 31 |
| GVM1298 | 0 | 1 | AS020332 | RC | 110 | 747 | 62 |
| GVM1298 | 1 | 2 | AS020333 | RC | 98 | 529 | 62 |
| GVM1298 | 2 | 3 | AS020334 | RC | 101 | 489 | 68 |
| GVM1298 | 3 | 4 | AS020335 | RC | 313 | 516 | 74 |
| GVM1298 | 4 | 5 | AS020336 | RC | 209 | 436 | 77 |
| GVM1298 | 5 | 6 | AS020337 | RC | 144 | 362 | 75 |
| GVM1298 | 6 | 7 | AS020338 | RC | 112 | 305 | 70 |
| GVM1298 | 7 | 8 | AS020339 | RC | 105 | 314 | 69 |
| GVM1298 | 8 | 9 | AS020340 | RC | 188 | 422 | 64 |
| GVM1298 | 9 | 10 | AS020341 | RC | 67 | 306 | 59 |
| GVM1298 | 10 | 11 | AS020342 | RC | 66 | 330 | 63 |
| GVM1298 | 11 | 12 | AS020343 | RC | 30 | 283 | 57 |
| GVM1298 | 12 | 13 | AS020344 | RC | 31 | 295 | 52 |
| GVM1298 | 13 | 14 | AS020345 | RC | 23 | 297 | 53 |
| GVM1298 | 14 | 15 | AS020346 | RC | 31 | 290 | 57 |
| GVM1298 | 15 | 16 | AS020347 | RC | 27 | 287 | 55 |
| GVM1298 | 16 | 17 | AS020348 | RC | 29 | 338 | 52 |
| GVM1298 | 17 | 18 | AS020349 | RC | 33 | 419 | 48 |
| GVM1298 | 18 | 19 | AS020350 | RC | 72 | 800 | 55 |
| GVM1298 | 19 | 20 | AS020352 | RC | 70 | 955 | 63 |
| GVM1298 | 20 | 21 | AS020353 | RC | 204 | 2919 | 60 |
| GVM1298 | 21 | 22 | AS020354 | RC | 122 | 2178 | 57 |
| GVM1298 | 22 | 23 | AS020355 | RC | 94 | 1886 | 58 |
| GVM1298 | 23 | 24 | AS020356 | RC | 107 | 1855 | 44 |
| GVM1298 | 24 | 25 | AS020357 | RC | 155 | 2423 | 45 |


| GVM1298 | 25 | 26 | AS020358 | RC | 250 | 3485 | 54 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1298 | 26 | 27 | AS020359 | RC | 211 | 3113 | 52 |
| GVM1298 | 27 | 28 | AS020360 | RC | 353 | 4800 | 47 |
| GVM1298 | 28 | 29 | AS020361 | RC | 325 | 4743 | 49 |
| GVM1298 | 29 | 30 | AS020362 | RC | 260 | 4281 | 48 |
| GVM1298 | 30 | 31 | AS020363 | RC | 270 | 4455 | 48 |
| GVM1298 | 31 | 32 | AS020364 | RC | 297 | 4838 | 42 |
| GVM1298 | 32 | 33 | AS020365 | RC | 443 | 4972 | 42 |
| GVM1298 | 33 | 34 | AS020366 | RC | 710 | 6328 | 42 |
| GVM1298 | 34 | 35 | AS020367 | RC | 647 | 6665 | 41 |
| GVM1298 | 35 | 36 | AS020368 | RC | 505 | 9869 | 33 |
| GVM1298 | 36 | 37 | AS020369 | RC | 516 | 9596 | 34 |
| GVM1298 | 37 | 38 | AS020370 | RC | 438 | 10584 | 28 |
| GVM1298 | 38 | 39 | AS020371 | RC | 565 | 8815 | 37 |
| GVM1298 | 39 | 40 | AS020372 | RC | 328 | 12252 | 24 |
| GVM1298 | 40 | 41 | AS020373 | RC | 266 | 8186 | 19 |
| GVM1298 | 41 | 42 | AS020374 | RC | 204 | 8186 | 16 |
| GVM1298 | 42 | 43 | AS020375 | RC | 434 | 14328 | 29 |
| GVM1298 | 43 | 44 | AS020376 | RC | 200 | 12217 | 14 |
| GVM1298 | 44 | 45 | AS020377 | RC | 182 | 9576 | 13 |
| GVM1298 | 45 | 46 | AS020378 | RC | 209 | 13204 | 16 |
| GVM1298 | 46 | 47 | AS020379 | RC | 178 | 6209 | 10 |
| GVM1298 | 47 | 48 | AS020380 | RC | 155 | 5251 | 8 |
| GVM1327 | 0 | 1 | AS010785 | RC | 112 | 851 | 32 |
| GVM1327 | 1 | 2 | AS010786 | RC | 87 | 405 | 33 |
| GVM1327 | 2 | 3 | AS010787 | RC | 115 | 366 | 34 |
| GVM1327 | 3 | 4 | AS010788 | RC | 143 | 819 | 35 |
| GVM1327 | 4 | 5 | AS010789 | RC | 73 | 384 | 56 |
| GVM1327 | 5 | 6 | AS010790 | RC | 26 | 245 | 75 |
| GVM1327 | 6 | 7 | AS010791 | RC | 32 | 289 | 69 |
| GVM1327 | 7 | 8 | AS010792 | RC | 24 | 251 | 64 |
| GVM1327 | 8 | 9 | AS010793 | RC | 26 | 301 | 63 |
| GVM1327 | 9 | 10 | AS010794 | RC | 24 | 273 | 57 |
| GVM1327 | 10 | 11 | AS010795 | RC | 37 | 271 | 52 |
| GVM1327 | 11 | 12 | AS010796 | RC | 22 | 272 | 45 |
| GVM1327 | 12 | 13 | AS010797 | RC | 70 | 335 | 49 |
| GVM1327 | 13 | 14 | AS010798 | RC | 116 | 390 | 57 |
| GVM1327 | 14 | 15 | AS010799 | RC | 88 | 338 | 77 |
| GVM1327 | 15 | 16 | AS010800 | RC | 74 | 412 | 78 |
| GVM1327 | 16 | 17 | AS010802 | RC | 99 | 470 | 81 |
| GVM1327 | 17 | 18 | AS010803 | RC | 88 | 532 | 65 |
| GVM1327 | 18 | 19 | AS010804 | RC | 86 | 527 | 60 |
| GVM1327 | 19 | 20 | AS010805 | RC | 63 | 638 | 65 |
| GVM1327 | 20 | 21 | AS010806 | RC | 62 | 570 | 54 |


| GVM1327 | 21 | 22 | AS010807 | RC | 64 | 770 | 63 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1327 | 22 | 23 | AS010808 | RC | 41 | 632 | 61 |
| GVM1327 | 23 | 24 | AS010809 | RC | 36 | 548 | 53 |
| GVM1327 | 24 | 25 | AS010810 | RC | 43 | 586 | 58 |
| GVM1327 | 25 | 26 | AS010811 | RC | 53 | 685 | 57 |
| GVM1327 | 26 | 27 | AS010812 | RC | 37 | 862 | 65 |
| GVM1327 | 27 | 28 | AS010813 | RC | 43 | 827 | 66 |
| GVM1327 | 28 | 29 | AS010814 | RC | 97 | 1139 | 73 |
| GVM1327 | 29 | 30 | AS010815 | RC | 353 | 11151 | 21 |
| GVM1327 | 30 | 31 | AS010816 | RC | 352 | 11000 | 20 |
| GVM1327 | 31 | 32 | AS010817 | RC | 180 | 12026 | 14 |
| GVM1327 | 32 | 33 | AS010818 | RC | 182 | 12397 | 13 |
| GVM1327 | 33 | 34 | AS010819 | RC | 276 | 16848 | 19 |
| GVM1327 | 34 | 35 | AS010820 | RC | 670 | 15520 | 26 |
| GVM1327 | 35 | 36 | AS010821 | RC | 1006 | 14102 | 30 |
| GVM1327 | 36 | 37 | AS010822 | RC | 517 | 14560 | 24 |
| GVM1327 | 37 | 38 | AS010823 | RC | 225 | 6389 | 15 |
| GVM1327 | 38 | 39 | AS010824 | RC | 154 | 4018 | 9 |
| GVM1396 | 0 | 1 | AS013002 | RC | 218 | 2594 | 54 |
| GVM1396 | 1 | 2 | AS013003 | RC | 138 | 3517 | 57 |
| GVM1396 | 2 | 3 | AS013004 | RC | 277 | 4191 | 56 |
| GVM1396 | 3 | 4 | AS013005 | RC | 193 | 4254 | 62 |
| GVM1396 | 4 | 5 | AS013006 | RC | 249 | 3915 | 64 |
| GVM1396 | 5 | 6 | AS013007 | RC | 316 | 3608 | 67 |
| GVM1396 | 6 | 7 | AS013008 | RC | 311 | 3631 | 65 |
| GVM1396 | 7 | 8 | AS013009 | RC | 240 | 3254 | 70 |
| GVM1396 | 8 | 9 | AS013010 | RC | 231 | 3022 | 66 |
| GVM1396 | 9 | 10 | AS013011 | RC | 252 | 2715 | 60 |
| GVM1396 | 10 | 11 | AS013012 | RC | 339 | 1677 | 61 |
| GVM1396 | 11 | 12 | AS013013 | RC | 263 | 900 | 60 |
| GVM1396 | 12 | 13 | AS013014 | RC | 460 | 1106 | 55 |
| GVM1396 | 13 | 14 | AS013015 | RC | 260 | 880 | 58 |
| GVM1396 | 14 | 15 | AS013016 | RC | 331 | 794 | 56 |
| GVM1396 | 15 | 16 | AS013017 | RC | 218 | 713 | 51 |
| GVM1396 | 16 | 17 | AS013018 | RC | 111 | 435 | 45 |
| GVM1396 | 17 | 18 | AS013019 | RC | 95 | 423 | 36 |
| GVM1396 | 18 | 19 | AS013020 | RC | 80 | 426 | 37 |
| GVM1396 | 19 | 20 | AS013021 | RC | 14 | 283 | 29 |
| GVM1396 | 20 | 21 | AS013022 | RC | 12 | 231 | 27 |
| GVM1396 | 21 | 22 | AS013023 | RC | 22 | 249 | 33 |
| GVM1396 | 22 | 23 | AS013024 | RC | 10 | 185 | 33 |
| GVM1396 | 23 | 24 | AS013026 | RC | 11 | 226 | 37 |
| GVM1396 | 24 | 25 | AS013027 | RC | 14 | 188 | 44 |
| GVM1396 | 25 | 26 | AS013028 | RC | 8 | 140 | 30 |


| GVM1396 | 26 | 27 | AS013029 | RC | 24 | 249 | 62 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GVM1396 | 27 | 28 | AS013030 | RC | 29 | 266 | 61 |
| GVM1396 | 28 | 29 | AS013031 | RC | 31 | 313 | 48 |
| GVM1396 | 29 | 30 | AS013032 | RC | 27 | 345 | 58 |
| GVM1396 | 30 | 31 | AS013033 | RC | 32 | 420 | 60 |
| GVM1396 | 31 | 32 | AS013034 | RC | 51 | 922 | 58 |
| GVM1396 | 32 | 33 | AS013035 | RC | 61 | 1879 | 57 |
| GVM1396 | 33 | 34 | AS013036 | RC | 12 | 213 | 61 |
| GVM1396 | 34 | 35 | AS013037 | RC | 51 | 2607 | 47 |
| GVM1396 | 35 | 36 | AS013038 | RC | 55 | 3644 | 55 |
| GVM1396 | 36 | 37 | AS013039 | RC | 48 | 4407 | 59 |
| GVM1396 | 37 | 38 | AS013040 | RC | 93 | 5738 | 52 |
| GVM1396 | 38 | 39 | AS013041 | RC | 262 | 5824 | 54 |
| GVM1396 | 39 | 40 | AS013042 | RC | 721 | 9630 | 48 |
| GVM1396 | 40 | 41 | AS013043 | RC | 1839 | 16794 | 54 |
| GVM1396 | 41 | 42 | AS013044 | RC | 1014 | 12005 | 36 |
| GVM1396 | 42 | 43 | AS013045 | RC | 473 | 9502 | 25 |
| GVM1396 | 43 | 44 | AS013046 | RC | 317 | 8101 | 18 |
| GVM1396 | 44 | 45 | AS013047 | RC | 281 | 6069 | 14 |
| GVM1396 | 45 | 46 | AS013048 | RC | 418 | 8361 | 23 |
| GVM1396 | 46 | 47 | AS013049 | RC | 357 | 8615 | 24 |
| GVM1396 | 47 | 48 | AS013050 | RC | 422 | 6858 | 14 |
| GVM1396 | 48 | 49 | AS013052 | RC | 767 | 13507 | 24 |
| GVM1396 | 49 | 50 | AS013053 | RC | 781 | 10216 | 33 |
| GVM1396 | 50 | 51 | AS013054 | RC | 1084 | 8433 | 33 |
| LKM1002 | 0 | 1 | AS014503 | RC | 537 | 3132 | 25 |
| LKM1002 | 1 | 2 | AS014504 | RC | 196 | 2323 | 31 |
| LKM1002 | 2 | 3 | AS014505 | RC | 49 | 607 | 26 |
| LKM1002 | 3 | 4 | AS014506 | RC | 28 | 455 | 21 |
| LKM1002 | 4 | 5 | AS014507 | RC | 38 | 443 | 15 |
| LKM1002 | 5 | 6 | AS014508 | RC | 196 | 3614 | 41 |
| LKM1002 | 6 | 7 | AS014509 | RC | 60 | 1101 | 32 |
| LKM1002 | 7 | 8 | AS014510 | RC | 336 | 5159 | 54 |
| LKM1002 | 8 | 9 | AS014511 | RC | 542 | 3181 | 23 |
| LKM1002 | 9 | 10 | AS014512 | RC | 1759 | 6787 | 25 |
| LKM1002 | 10 | 11 | AS014513 | RC | 1260 | 3870 | 15 |
| LKM1002 | 11 | 12 | AS014514 | RC | 5329 | 6589 | 32 |
| LKM1002 | 12 | 13 | AS014515 | RC | 3053 | 4937 | 20 |
| LKM1002 | 13 | 14 | AS014516 | RC | 2102 | 3993 | 14 |
| LKM1002 | 14 | 15 | AS014517 | RC | 6358 | 5105 | 22 |
| LKM1002 | 15 | 16 | AS014518 | RC | 4246 | 5062 | 20 |
| LKM1002 | 16 | 17 | AS014519 | RC | 1110 | 3410 | 8 |
| LKM1002 | 17 | 18 | AS014520 | RC | 2305 | 4355 | 10 |
| LKM1002 | 18 | 19 | AS014521 | RC | 772 | 2989 | 7 |


| LKM1002 | 19 | 20 | AS014522 | RC | 410 | 2602 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1002 | 20 | 21 | AS014523 | RC | 329 | 4290 | 5 |
| LKM1002 | 21 | 22 | AS014524 | RC | 530 | 4968 | 8 |
| LKM1002 | 22 | 23 | AS014526 | RC | 326 | 3936 | 5 |
| LKM1002 | 23 | 24 | AS014527 | RC | 263 | 3570 | 5 |
| LKM1003 | 0 | 1 | AS014528 | RC | 428 | 1230 | 5 |
| LKM1003 | 1 | 2 | AS014529 | RC | 564 | 2057 | 5 |
| LKM1003 | 2 | 3 | AS014530 | RC | 4000 | 6224 | 17 |
| LKM1003 | 3 | 4 | AS014531 | RC | 5752 | 6170 | 14 |
| LKM1003 | 4 | 5 | AS014532 | RC | 808 | 2475 | 5 |
| LKM1003 | 5 | 6 | AS014533 | RC | 389 | 1790 | 5 |
| LKM1003 | 6 | 7 | AS014534 | RC | 1151 | 3653 | 7 |
| LKM1003 | 7 | 8 | AS014535 | RC | 599 | 2387 | 4 |
| LKM1003 | 8 | 9 | AS014536 | RC | 460 | 2383 | 5 |
| LKM1003 | 9 | 10 | AS014537 | RC | 335 | 2053 | 4 |
| LKM1003 | 10 | 11 | AS014538 | RC | 327 | 2001 | 3 |
| LKM1003 | 11 | 12 | AS014539 | RC | 284 | 1885 | 3 |
| LKM1003 | 12 | 13 | AS014540 | RC | 296 | 2346 | 4 |
| LKM1003 | 13 | 14 | AS014541 | RC | 290 | 3018 | 4 |
| LKM1003 | 14 | 15 | AS014542 | RC | 292 | 3354 | 4 |
| LKM1003 | 15 | 16 | AS014543 | RC | 682 | 6978 | 8 |
| LKM1003 | 16 | 17 | AS014544 | RC | 460 | 3994 | 5 |
| LKM1003 | 17 | 18 | AS014545 | RC | 308 | 2910 | 4 |
| LKM1003 | 18 | 19 | AS014546 | RC | 286 | 2345 | 5 |
| LKM1003 | 19 | 20 | AS014547 | RC | 263 | 2588 | 15 |
| LKM1003 | 20 | 21 | AS014548 | RC | 254 | 2564 | 25 |
| LKM1004 | 0 | 1 | AS014549 | RC | 268 | 2740 | 45 |
| LKM1004 | 1 | 2 | AS014550 | RC | 318 | 3283 | 44 |
| LKM1004 | 2 | 3 | AS014552 | RC | 207 | 2816 | 40 |
| LKM1004 | 3 | 4 | AS014553 | RC | 247 | 2834 | 39 |
| LKM1004 | 4 | 5 | AS014554 | RC | 212 | 3207 | 34 |
| LKM1004 | 5 | 6 | AS014555 | RC | 219 | 3599 | 34 |
| LKM1004 | 6 | 7 | AS014556 | RC | 200 | 3212 | 39 |
| LKM1004 | 7 | 8 | AS014557 | RC | 232 | 3508 | 40 |
| LKM1004 | 8 | 9 | AS014558 | RC | 312 | 3939 | 38 |
| LKM1004 | 9 | 10 | AS014559 | RC | 317 | 4095 | 38 |
| LKM1004 | 10 | 11 | AS014560 | RC | 274 | 3076 | 33 |
| LKM1004 | 11 | 12 | AS014561 | RC | 237 | 2420 | 30 |
| LKM1004 | 12 | 13 | AS014562 | RC | 632 | 3372 | 25 |
| LKM1004 | 13 | 14 | AS014563 | RC | 1758 | 4076 | 14 |
| LKM1004 | 14 | 15 | AS014564 | RC | 1589 | 3653 | 10 |
| LKM1004 | 15 | 16 | AS014565 | RC | 1265 | 4896 | 12 |
| LKM1004 | 16 | 17 | AS014566 | RC | 2200 | 7471 | 12 |
| LKM1004 | 17 | 18 | AS014567 | RC | 1180 | 4913 | 9 |


| LKM1004 | 18 | 19 | AS014568 | RC | 1884 | 10511 | 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1004 | 19 | 20 | AS014569 | RC | 1241 | 12431 | 19 |
| LKM1004 | 20 | 21 | AS014570 | RC | 965 | 6710 | 10 |
| LKM1004 | 21 | 22 | AS014571 | RC | 832 | 8198 | 13 |
| LKM1004 | 22 | 23 | AS014572 | RC | 1436 | 12483 | 16 |
| LKM1004 | 23 | 24 | AS014573 | RC | 1108 | 14648 | 13 |
| LKM1004 | 24 | 25 | AS014574 | RC | 496 | 5315 | 9 |
| LKM1004 | 25 | 26 | AS014575 | RC | 299 | 2972 | 6 |
| LKM1004 | 26 | 27 | AS014576 | RC | 242 | 2654 | 5 |
| LKM1004 | 27 | 28 | AS014577 | RC | 203 | 2181 | 5 |
| LKM1004 | 28 | 29 | AS014578 | RC | 196 | 1974 | 5 |
| LKM1004 | 29 | 30 | AS014579 | RC | 131 | 1529 | 4 |
| LKM1004 | 30 | 31 | AS014580 | RC | 191 | 2015 | 4 |
| LKM1004 | 31 | 32 | AS014581 | RC | 117 | 1592 | 3 |
| LKM1004 | 32 | 33 | AS014582 | RC | 99 | 1703 | - |
| LKM1004 | 33 | 34 | AS014583 | RC | 82 | 1296 | - |
| LKM1004 | 34 | 35 | AS014584 | RC | 66 | 961 | - |
| LKM1004 | 35 | 36 | AS014585 | RC | 90 | 890 | - |
| LKM1004 | 36 | 37 | AS014586 | RC | 92 | 783 | - |
| LKM1004 | 37 | 38 | AS014587 | RC | 91 | 743 | - |
| LKM1004 | 38 | 39 | AS014588 | RC | 92 | 703 | - |
| LKM1004 | 39 | 40 | AS014589 | RC | 78 | 637 | - |
| LKM1004 | 40 | 41 | AS014590 | RC | 95 | 714 | - |
| LKM1004 | 41 | 42 | AS014591 | RC | 66 | 577 | - |
| LKM1004 | 42 | 43 | AS014592 | RC | 89 | 805 | - |
| LKM1004 | 43 | 44 | AS014593 | RC | 88 | 799 | - |
| LKM1004 | 44 | 45 | AS014594 | RC | 94 | 919 | - |
| LKM1004 | 45 | 46 | AS014595 | RC | 100 | 983 | 3 |
| LKM1004 | 46 | 47 | AS014596 | RC | 106 | 1039 | 3 |
| LKM1004 | 47 | 48 | AS014597 | RC | 118 | 1186 | 3 |
| LKM1004 | 48 | 49 | AS014598 | RC | 177 | 1561 | 5 |
| LKM1004 | 49 | 50 | AS014599 | RC | 126 | 1079 | 3 |
| LKM1004 | 50 | 51 | AS014600 | RC | 116 | 974 | 3 |
| LKM1004 | 51 | 52 | AS014602 | RC | 296 | 2476 | 8 |
| LKM1004 | 52 | 53 | AS014603 | RC | 128 | 1035 | 3 |
| LKM1004 | 53 | 54 | AS014604 | RC | 114 | 925 | 3 |
| LKM1004 | 54 | 55 | AS014605 | RC | 102 | 844 | 3 |
| LKM1004 | 55 | 56 | AS014606 | RC | 112 | 922 | 3 |
| LKM1004 | 56 | 57 | AS014607 | RC | 113 | 1079 | 3 |
| LKM1004 | 57 | 58 | AS014608 | RC | 219 | 1593 | 6 |
| LKM1004 | 58 | 59 | AS014609 | RC | 130 | 1042 | 3 |
| LKM1004 | 59 | 60 | AS014610 | RC | 133 | 976 | 3 |
| LKM1004 | 60 | 61 | AS014611 | RC | 111 | 828 | 3 |
| LKM1004 | 61 | 62 | AS014612 | RC | 109 | 802 | 3 |


| LKM1004 | 62 | 63 | AS014613 | RC | 122 | 952 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1005 | 0 | 1 | AS014614 | RC | 161 | 1623 | 61 |
| LKM1005 | 1 | 2 | AS014615 | RC | 150 | 1553 | 57 |
| LKM1005 | 2 | 3 | AS014616 | RC | 111 | 1257 | 56 |
| LKM1005 | 3 | 4 | AS014617 | RC | 130 | 1380 | 54 |
| LKM1005 | 4 | 5 | AS014618 | RC | 230 | 2138 | 53 |
| LKM1005 | 5 | 6 | AS014619 | RC | 205 | 2455 | 49 |
| LKM1005 | 6 | 7 | AS014620 | RC | 167 | 1984 | 47 |
| LKM1005 | 7 | 8 | AS014621 | RC | 269 | 3681 | 56 |
| LKM1005 | 8 | 9 | AS014622 | RC | 286 | 4745 | 39 |
| LKM1005 | 9 | 10 | AS014623 | RC | 445 | 5207 | 40 |
| LKM1005 | 10 | 11 | AS014624 | RC | 1041 | 6642 | 29 |
| LKM1005 | 11 | 12 | AS014626 | RC | 614 | 5371 | 22 |
| LKM1005 | 12 | 13 | AS014627 | RC | 1325 | 4243 | 19 |
| LKM1005 | 13 | 14 | AS014628 | RC | 1166 | 4012 | 20 |
| LKM1005 | 14 | 15 | AS014629 | RC | 2615 | 7911 | 30 |
| LKM1005 | 15 | 16 | AS014630 | RC | 1992 | 7777 | 25 |
| LKM1005 | 16 | 17 | AS014631 | RC | 1623 | 5373 | 21 |
| LKM1007 | 0 | 1 | AS014647 | RC | 419 | 3488 | 34 |
| LKM1007 | 1 | 2 | AS014648 | RC | 293 | 2954 | 36 |
| LKM1007 | 2 | 3 | AS014649 | RC | 438 | 3594 | 29 |
| LKM1007 | 3 | 4 | AS014650 | RC | 365 | 3838 | 19 |
| LKM1007 | 4 | 5 | AS014652 | RC | 407 | 3776 | 22 |
| LKM1007 | 5 | 6 | AS014653 | RC | 3384 | 3298 | 13 |
| LKM1007 | 6 | 7 | AS014654 | RC | 1715 | 2335 | 25 |
| LKM1007 | 7 | 8 | AS014655 | RC | 2738 | 5638 | 21 |
| LKM1007 | 8 | 9 | AS014656 | RC | 694 | 2256 | 8 |
| LKM1007 | 9 | 10 | AS014657 | RC | 708 | 2373 | 9 |
| LKM1007 | 10 | 11 | AS014658 | RC | 749 | 2664 | 8 |
| LKM1011 | 0 | 1 | AS014712 | RC | 201 | 2316 | 28 |
| LKM1011 | 1 | 2 | AS014713 | RC | 373 | 4524 | 40 |
| LKM1011 | 2 | 3 | AS014714 | RC | 363 | 4240 | 42 |
| LKM1011 | 3 | 4 | AS014715 | RC | 283 | 4252 | 48 |
| LKM1011 | 4 | 5 | AS014716 | RC | 308 | 4855 | 43 |
| LKM1011 | 5 | 6 | AS014717 | RC | 252 | 4554 | 42 |
| LKM1011 | 6 | 7 | AS014718 | RC | 406 | 5785 | 29 |
| LKM1011 | 7 | 8 | AS014719 | RC | 749 | 4629 | 16 |
| LKM1011 | 8 | 9 | AS014720 | RC | 1306 | 4973 | 18 |
| LKM1011 | 9 | 10 | AS014721 | RC | 1710 | 3192 | 10 |
| LKM1011 | 10 | 11 | AS014722 | RC | 2744 | 3231 | 9 |
| LKM1011 | 11 | 12 | AS014723 | RC | 1186 | 3729 | 8 |
| LKM1011 | 12 | 13 | AS014724 | RC | 2687 | 5196 | 11 |
| LKM1011 | 13 | 14 | AS014726 | RC | 2110 | 4201 | 11 |
| LKM1011 | 14 | 15 | AS014727 | RC | 1311 | 3856 | 12 |


| LKM1011 | 15 | 16 | AS014728 | RC | 1482 | 4238 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1011 | 16 | 17 | AS014729 | RC | 573 | 2276 | 6 |
| LKM1011 | 17 | 18 | AS014730 | RC | 706 | 2843 | 8 |
| LKM1011 | 18 | 19 | AS014731 | RC | 1851 | 10322 | 24 |
| LKM1011 | 19 | 20 | AS014732 | RC | 431 | 2805 | 6 |
| LKM1011 | 20 | 21 | AS014733 | RC | 241 | 2175 | 4 |
| LKM1011 | 21 | 22 | AS014734 | RC | 201 | 1723 | 3 |
| LKM1012 | 0 | 1 | AS014735 | RC | 0 | 0 | 0 |
| LKM1012 | 1 | 2 | AS014736 | RC | 268 | 2775 | 29 |
| LKM1012 | 2 | 3 | AS014737 | RC | 291 | 3109 | 36 |
| LKM1012 | 3 | 4 | AS014738 | RC | 315 | 2488 | 20 |
| LKM1012 | 4 | 5 | AS014739 | RC | 355 | 3852 | 20 |
| LKM1012 | 5 | 6 | AS014740 | RC | 259 | 2782 | 11 |
| LKM1012 | 6 | 7 | AS014741 | RC | 255 | 2192 | 9 |
| LKM1012 | 7 | 8 | AS014742 | RC | 559 | 2862 | 9 |
| LKM1012 | 8 | 9 | AS014743 | RC | 1291 | 2951 | 12 |
| LKM1012 | 9 | 10 | AS014744 | RC | 2684 | 3878 | 14 |
| LKM1012 | 10 | 11 | AS014745 | RC | 2515 | 3265 | 8 |
| LKM1012 | 11 | 12 | AS014746 | RC | 1603 | 3469 | 8 |
| LKM1012 | 12 | 13 | AS014747 | RC | 997 | 3292 | 7 |
| LKM1012 | 13 | 14 | AS014748 | RC | 863 | 2640 | 5 |
| LKM1012 | 14 | 15 | AS014749 | RC | 655 | 3459 | 7 |
| LKM1012 | 15 | 16 | AS014750 | RC | 290 | 2445 | 5 |
| LKM1013 | 0 | 1 | AS014752 | RC | 228 | 2412 | 29 |
| LKM1013 | 1 | 2 | AS014753 | RC | 134 | 1967 | 18 |
| LKM1013 | 2 | 3 | AS014754 | RC | 153 | 1878 | 17 |
| LKM1013 | 3 | 4 | AS014755 | RC | 293 | 3290 | 25 |
| LKM1013 | 4 | 5 | AS014756 | RC | 263 | 3274 | 21 |
| LKM1013 | 5 | 6 | AS014757 | RC | 501 | 2648 | 11 |
| LKM1013 | 6 | 7 | AS014758 | RC | 1642 | 3506 | 9 |
| LKM1013 | 7 | 8 | AS014759 | RC | 2449 | 3566 | 9 |
| LKM1013 | 8 | 9 | AS014760 | RC | 747 | 2606 | 7 |
| LKM1013 | 9 | 10 | AS014761 | RC | 621 | 3627 | 8 |
| LKM1013 | 10 | 11 | AS014762 | RC | 365 | 2313 | 5 |
| LKM1013 | 11 | 12 | AS014763 | RC | 285 | 2085 | 4 |
| LKM1013 | 12 | 13 | AS014764 | RC | 249 | 2371 | 5 |
| LKM1013 | 13 | 14 | AS014765 | RC | 191 | 1736 | 4 |
| LKM1013 | 14 | 15 | AS014766 | RC | 133 | 1323 | 3 |
| LKM1014 | 0 | 1 | AS014767 | RC | 335 | 3669 | 32 |
| LKM1014 | 1 | 2 | AS014768 | RC | 310 | 3645 | 29 |
| LKM1014 | 2 | 3 | AS014769 | RC | 658 | 3754 | 15 |
| LKM1014 | 3 | 4 | AS014770 | RC | 213 | 2322 | 16 |
| LKM1014 | 4 | 5 | AS014771 | RC | 251 | 2855 | 19 |
| LKM1014 | 5 | 6 | AS014772 | RC | 649 | 3760 | 15 |


| LKM1014 | 6 | 7 | AS014773 | RC | 821 | 4249 | 16 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1014 | 7 | 8 | AS014774 | RC | 1067 | 3825 | 11 |
| LKM1014 | 8 | 9 | AS014775 | RC | 2434 | 3308 | 7 |
| LKM1014 | 9 | 10 | AS014776 | RC | 4083 | 4723 | 7 |
| LKM1014 | 10 | 11 | AS014777 | RC | 1844 | 4430 | 9 |
| LKM1014 | 11 | 12 | AS014778 | RC | 1403 | 4760 | 9 |
| LKM1014 | 12 | 13 | AS014779 | RC | 446 | 1848 | 4 |
| LKM1014 | 13 | 14 | AS014780 | RC | 402 | 1756 | 3 |
| LKM1014 | 14 | 15 | AS014781 | RC | 238 | 1372 | 3 |
| LKM1014 | 15 | 16 | AS014782 | RC | 234 | 1830 | 3 |
| LKM1014 | 16 | 17 | AS014783 | RC | 192 | 1470 | 3 |
| LKM1014 | 17 | 18 | AS014784 | RC | 119 | 1066 | 0 |
| LKM1014 | 18 | 19 | AS014785 | RC | 96 | 1043 | 0 |
| LKM1014 | 19 | 20 | AS014786 | RC | 106 | 1071 | 0 |
| LKM1014 | 20 | 21 | AS014787 | RC | 103 | 1137 | 3 |
| LKM1014 | 21 | 22 | AS014788 | RC | 66 | 737 | 0 |
| LKM1014 | 22 | 23 | AS014789 | RC | 107 | 1105 | 3 |
| LKM1014 | 23 | 24 | AS014790 | RC | 119 | 1141 | 3 |
| LKM1014 | 24 | 25 | AS014791 | RC | 99 | 831 | 0 |
| LKM1014 | 25 | 26 | AS014792 | RC | 97 | 985 | 3 |
| LKM1014 | 26 | 27 | AS014793 | RC | 82 | 784 | 0 |
| LKM1014 | 27 | 28 | AS014794 | RC | 92 | 929 | 0 |
| LKM1014 | 28 | 29 | AS014795 | RC | 97 | 966 | 0 |
| LKM1014 | 29 | 30 | AS014796 | RC | 93 | 982 | 0 |
| LKM1014 | 30 | 31 | AS014797 | RC | 83 | 908 | 0 |
| LKM1016 | 0 | 1 | AS014818 | RC | 229 | 1194 | 9 |
| LKM1016 | 1 | 2 | AS014819 | RC | 1368 | 5112 | 28 |
| LKM1016 | 2 | 3 | AS014820 | RC | 2791 | 8717 | 28 |
| LKM1016 | 3 | 4 | AS014821 | RC | 2993 | 9426 | 27 |
| LKM1016 | 4 | 5 | AS014822 | RC | 625 | 2889 | 7 |
| LKM1016 | 5 | 6 | AS014823 | RC | 344 | 1609 | 4 |
| LKM1016 | 6 | 7 | AS014824 | RC | 240 | 1642 | 4 |
| LKM1016 | 7 | 8 | AS014826 | RC | 531 | 3251 | 7 |
| LKM1016 | 8 | 9 | AS014827 | RC | 253 | 3764 | 8 |
| LKM1016 | 9 | 10 | AS014828 | RC | 306 | 2643 | 6 |
| LKM1016 | 10 | 11 | AS014829 | RC | 261 | 2387 | 5 |
| LKM1016 | 11 | 12 | AS014830 | RC | 293 | 2633 | 5 |
| LKM1016 | 12 | 13 | AS014831 | RC | 379 | 3358 | 7 |
| LKM1016 | 13 | 14 | AS014832 | RC | 252 | 2337 | 5 |
| LKM1016 | 14 | 15 | AS014833 | RC | 185 | 1862 | 4 |
| LKM1016 | 15 | 16 | AS014834 | RC | 151 | 1579 | 3 |
| LKM1024 | 0 | 1 | AS014996 | RC | 622 | 2738 | 23 |
| LKM1024 | 1 | 2 | AS014997 | RC | 599 | 3885 | 23 |
| LKM1024 | 2 | 3 | AS014998 | RC | 1129 | 3923 | 16 |


| LKM1024 | 3 | 4 | AS014999 | RC | 2071 | 5305 | 17 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LKM1024 | 4 | 5 | AS015000 | RC | 4196 | 5620 | 19 |
| LKM1024 | 5 | 6 | AS015002 | RC | 1902 | 3572 | 10 |
| LKM1024 | 6 | 7 | AS015003 | RC | 1119 | 3338 | 10 |
| LKM1024 | 7 | 8 | AS015004 | RC | 1363 | 3166 | 10 |
| LKM1024 | 8 | 9 | AS015005 | RC | 1632 | 4422 | 11 |
| LKM1024 | 9 | 10 | AS015006 | RC | 1559 | 4293 | 12 |
| LKM1024 | 10 | 11 | AS015007 | RC | 969 | 2995 | 8 |
| LKM1024 | 11 | 12 | AS015008 | RC | 1264 | 2928 | 8 |
| LKM1024 | 12 | 13 | AS015009 | RC | 1180 | 2915 | 7 |
| LKM1024 | 13 | 14 | AS015010 | RC | 742 | 2116 | 6 |
| LKM1024 | 14 | 15 | AS015011 | $R C$ | 381 | 1640 | 3 |
| LKM1024 | 15 | 16 | AS015012 | RC | 397 | 1458 | 3 |

## Appendix 3

JORC Code, 2012 Edition

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
| Sampling techniques | - Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. <br> - Include reference to measures taken to ensure sample representivity and the appropriate calibration of measurement tools or systems used. <br> - Aspects of the determination mineralisation that are Material to the Public Report. <br> - In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling wa used to obtain 1 m samples from which kg was pulverised to produce a $30-\mathrm{g}$ charge for fire assay'). In other cases more explanation may be required, suc as where there is coarse gold that has inherent sampling problems. Unusua commodities or mineralisation types (eg submarine nodules) may warran disclosure of detailed information. | RC samples of 1 metre drill length were passed through a rig mounted cyclone and collected in calico bags at the rig mounted riffle splitter and represents a sub sample of the entire metre. <br> Between 1.5 kilograms and 3 kilograms of sample was collected. <br> Diamond core was not collected as per the exploration drilling program. <br> Quality assurance of the sampling was carried out on the samples with a duplicate sample collected at the rig using a riffle splitter. The Competent Person is satisfied that the sampling system is up to industry standard. |
| Drilling techniques | - Drill type (eg core, reverse circulation open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). | Drilling supporting the drilling results was Reverse Circulation (RC). Historical drilling (pre-Metallica Minerals, dating to early 1970's) was a mix of rotary air-blast (RAB), AC and RC, however these were not used in any manner to support the drilling program. |
| Drill sample recovery | - Method of recording and assessing cor and chip sample recoveries and results assessed. <br> - Measures taken to maximise sampl recovery and ensure representativ nature of the samples. <br> - Whether a relationship exists between sample recovery and grade and whethe sample bias may have occurred due to preferential loss/gain of fine/coars material. | RC drilling used high air pressure to keep the ateritic samples dry and to maintain good sample recovery. Recovery in the mineralised intervals was deemed to be good to excellent. <br> Relationships between sample recovery and grade could not be determined without original sample weight data, however the Competent Person does not believe a material relationship exists. |


| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
| Logging | - Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. <br> - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. <br> - The total length and percentage of the relevant intersections logged. | An Australian Mines consulting geologist was present at all times during drilling and sampling. <br> Australian Mines geological logging protocols at the time were followed to ensure consistency in drill logs between the geological staff. <br> RC chips were logged for weathering, lithologies (primary and protolith, mineralogy, color and grainsize). RC chip trays (with chips) were retained. <br> The interpreted weathering and fresh zone domains were also logged; ferruginous pisolite, limonite, saprolite, weathered ultramafic and fresh ultramafic. These logs were correlated with assays. <br> The full sample lengths were logged. |
| Subsampling techniques and sample preparation | - If core, whether cut or sawn and whether quarter, half or all core taken. <br> - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. <br> - For all sample types, the nature, quality and appropriateness of the sample preparation technique. <br> - Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. <br> - Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. <br> - Whether sample sizes are appropriate to the grain size of the material being sampled. | The RC samples were dispatched to the analytical laboratory in Townsville. <br> The CP considers the riffle splitter sampling method to be an appropriate sampling method, based upon test work from these deposits. <br> Samples were dry. <br> Field duplicates from RC samples were taken at a rate of $1: 50$, approximately 1 sample per drill hole. Field duplicates were taken by passing the bulk sample through another riffle splitter at the rig. <br> No records were kept regarding the sample sizes for either the original or duplicate samples. A total of 300 field duplicate samples were taken. <br> Sample sizes are considered to be appropriate to the grain size of the material being sampled. |
| Quality of assay data and laboratory tests | - The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. <br> - For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. <br> - Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. | Drill samples were sent to SGS in Townsville. This lab was audited, and the labs conform to Australian Standards ISO9001 and ISO 17025. <br> Samples were dried then pulverized in LM5 Mill to achieve a nominal $85 \%$ passing $75 u m$. The pulp sample is digested in 4 -acid to effect as near to total solubility of the metals as possible, with the solution presented to an ICP for element quantification. Internal standards were used to monitor Quality Control. <br> The processes are considered total. <br> Australian Mines used 3 Certified Reference Materials (CRMs) to monitor the accuracy of the metal analyses. The CRMs were certified for Ni , Cu and Zn , but not for $\mathrm{Fe}, \mathrm{Mg}$, Sc or Co . Ni displayed reasonable precision and accuracy with the exception of one CRM, which showed a low bias. |


| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
|  |  | The QAQC procedures and results show acceptable levels of accuracy and precision were established. |
| Verification of sampling and assaying | - The verification of significant intersections by either independent or alternative company personnel. <br> - The use of twinned holes. <br> - Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. <br> - Discuss any adjustment to assay data. | Australian Mines geological personnel independently reviewed selected RC drill intersections and verified their suitability to be included in the drilling results. <br> There were no twinned diamond / RC hole pairings at Greenvale as part of this program <br> Selected RC drill hole collars were surveyed in the field with a hand-held GPS unit, and the surveyed coordinates (easting and northing) were within 10 metres of the coordinates surveyed by GPS. <br> The GPS locations are considered to be an approximate location of the actual collar coordinates. <br> Assay data recorded as negative values in the database were 'less than detection' and adjusted to zero values for the announcement. |
| Location of data points | - Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. <br> - Specification of the grid system used. <br> - Quality and adequacy of topographic control. | All drill holes drilled by Australian Mines will be surveyed at the end of the program by independent surveying companies, using DGPS to provide accurate surveyed coordinates. Down hole surveys were not required due to the shallow depths of most holes. <br> All grid coordinates are in Map Grid of Australia (MGA) coordinates, with the grid being GDA94 / MGA Zone 55 South. <br> The topographic Digital Terrain Model (DTM) was prepared using data sourced from WorldView-2 satellite imagery dated December 2010. |
| Data spacing and distribution | - Data spacing for reporting of Exploration Results. <br> - Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. <br> - Whether sample compositing has been applied. | Drill spacing was set to 40 metre $\times 40$ metre grid where topography allowed. Some areas were drilled at 20 metre $\times 40$ metre to allow a measured resource to be created. Other areas on the edge of the deposit were drilled at a nominal 80 metres $\times 80$ metres spacing. <br> Samples were not composited at the sampling stage. |
| Orientation of data in relation to geological structure | - Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. <br> - If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if | Drill holes were drilled vertically which is considered to minimize any potential sampling bias with the host lithology, which is broadly horizontal. <br> Any sampling bias resultant from the orientation of drilling and possible structural offsets of mineralisation is considered to be minimal. |


| Criteria | JORC Code explanation | Commentary |
| :--- | :--- | :--- |
|  | material. | Che measures taken to ensure sample <br> security. |
| Sample <br> security | Drill samples were under the care and <br> supervision of Australian Mines staff at all times <br> until transportation by local couriers to the <br> analytical laboratories in Townsville. |  |
| Audits or <br> reviews | - The results of any audits or reviews of of <br> sampling techniques and data. | The drilling procedures, sampling <br> methodologies, sample analyses and the drill <br> hole database were audited by Expedio data <br> management. |

Section 2: Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
| Mineral tenement and land tenure status | - Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. <br> - The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. | The Greenvale Mineral Resource is covered by Mining Lease Application MLA10368. Once the lease is granted it will be $100 \%$ owned by Australian Mines. <br> The MLA was lodged on 20th April 2012. <br> Exploration Permits EPM 25834 and 25865 cover and extend beyond the boundaries of the MLA. EPM 25834 was granted 6/1/2016 and expires $5 / 1 / 2021$ and is held $100 \%$ by Australian Mines. EPM25865 was granted on $15 / 12 / 2015$ and expires $24 / 12 / 2020$, and is likewise held $100 \%$ by Australian Mines <br> The Lucknow Mineral Resource is covered by Mining Lease ML 10366, which was granted on 8 May 2014 and is due for renewal on 31 May 2039. <br> Australian Mines' 100\% owned Exploration Permit EPM 26559, 25834 and 25865 cover and extend beyond the boundaries of the granted Mining Lease. <br> Australian Mines negotiated an ILUA with the Native Title claimants of the area (Gugu Badhun) signed on 24th Feb 2005 and is valid for 20 years. Australian Mines finalised a Mining ILUA with the Gugu Badhun people for ML10368, lodged in July 2012. This ILUA includes a cultural heritage component that covers Australian Mines duty of care for this tenement. |
| Exploration done by other parties | - Acknowledgment and appraisal of exploration by other parties. | The Greenvale deposit is centered on the Greenvale Mine, which operated between 1974 and 1992. <br> The orebody mined during this period was a nickel laterite, with a head grade of $1.56 \% \mathrm{Ni}$ and $0.12 \% \mathrm{Co}$. <br> The Greenvale deposit has been subjected to several drilling programs since the deposit was mined. Anaconda drilled 23 RC holes ( 733 m ) in 1998. Few holes intersected Nickel mineralisation. Straits Resources drilled 141 RC holes ( $5,935 \mathrm{~m}$ ) in 2007/08 and these holes are not included in the drilling results. |
| Geology | - Deposit type, geological setting and style of mineralisation. | The Greenvale and Lucknow Mineral Resources are contained within a laterite, developed by weathering process over ultramafic basement rocks. <br> Nickel and cobalt have been enriched from the ultramafic rocks by both residual and supergene processes. |


| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
|  |  | Scandium is less enriched at Greenvale than the other Sconi deposits of Lucknow and Kokomo, however higher Sc levels are recorded from drill samples obtained from the waste dumps, allowing these dumps to be assessed for inclusion in the Mineral Resource. |
| Drill hole Information | - A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <br> - easting and northing of the drill hole collar <br> - elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar <br> - dip and azimuth of the hole <br> - down hole length and interception depth <br> - hole length. <br> - If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | Drill hole information from the Australian Mines drill program will be used to support the updated Mineral Resource estimate due at the end of the drilling. <br> The locations of drill samples, and the geological logs of these samples will be used to build the geological model, and with the sample analyses, support the Mineral Resource estimate. <br> Tabulations of drill hole collar coordinates, significant assay intersection results and complete drill hole depth and assay results are provided for the drill holes referred to in this announcement. |
| Data aggregation methods | - In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. <br> - Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. <br> - The assumptions used for any reporting of metal equivalent values should be clearly stated. | Exploration results are stated as per requirements with a nominal $0.8 \%$ nickel cut-off and $0.1 \%$ cobalt cut-off grade where applicable. <br> These results are individual holes and not part of a mineral resource. |
| Relationship between mineralisatio $n$ widths and intercept lengths | - These relationships are particularly important in the reporting of Exploration Results. <br> - If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. <br> - If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). | The nickel and cobalt mineralisation is hosted in limonitic and saprolitic profiles which are laterally extensive. They present a vertical grade profile as a result of the weathering processes. <br> Vertical RC drilling completed to date provides the best drilling orientation. |


| Criteria | JORC Code explanation | Commentary |
| :---: | :---: | :---: |
| Diagrams | - Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | Maps and figures depicting drill collar locations and limits of lateritic mineralisation are presented in the body of this report. |
| Balanced reporting | - Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | Exploration results listed in the body of the announcement are supported with an appendix showing the full assay data from these locations along with a locational map showing their distribution across the deposit. |
| Other substantive exploration data | - Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | A total of five wide-diameter $(900 \mathrm{~mm})$ drill holes were drilled into the Greenvale Deposit to sample representative material for pilot plant metallurgical test work conducted in 2018. |
| Further work | - The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). <br> - Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | Australian Mines anticipates calculating an updated Mineral Resource Estimate ${ }^{11}$ for Sconi as a result of this drilling program. The updated Mineral Resource Estimate is scheduled for release in April 2019 |

[^4]
## Appendix 4

## Competent Person's Statement

## Sconi Cobalt-Nickel-Scandium Project

Information in this report that relates to Sconi Cobalt-Nickel-Scandium Project Project's Exploration Results is based on information compiled by Mr Mick Elias, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Elias is a director of Australian Mines Limited. Mr Elias has sufficient experience relevant to this 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Elias consents to the inclusion in this report of the matters based on his information in the form and context in which is appears.


[^0]:    ${ }^{1}$ Three separate, neighbouring deposits form Australian Mines' 100-owned Sconi Cobalt-Nickel-Scandium Project; Namely, Greenvale, Lucknow and Kokomo.
    ${ }^{2}$ Australian Mines Limited, Drilling extends nickel-cobalt resource potential at Sconi Project, released 14 September 2018

[^1]:    ${ }^{3}$ As reaffirmed by SK Innovation President Kim Lee publicly earlier year
    https://translate.google.com.au/translate?hl=en\&sl=ko\&u=http://www.fntimes.com/html/view.php\%3Fud\%3D2018 $041112571223671 a b 245 d 71 a \_18 \& p r e v=$ search
    ${ }^{4}$ Full details of this are expected to be outlined in the Project's Bankable Feasibility Study (BFS) that is due to be released to the market imminently. The Company is still in the final stages of delivering the BFS for the Sconi Project. The draft BFS is currently incomplete, pending independent validation of BFS inputs.
    ${ }^{5}$ Australian Mines Limited, Drilling extends nickel-cobalt resource potential at Sconi Project, released 14 September 2018
    ${ }^{6}$ The Mineral Resource Estimate for the Sconi Cobalt-Nickel-Scandium Project is reported under JORC 2012 Guidelines and was reported by Australian Mines Limited on 31 March 2017. The global Mineral Resource for Sconi, as announced on 31 March 2017 is: Measured 17Mt @ $0.80 \% \mathrm{Ni}, 0.07 \%$ Co, Indicated 48Mt @ 0.58\% Ni, $0.07 \%$ Co, Inferred, $24 \mathrm{Mt} @ 0.41 \% \mathrm{Ni}, 0.06 \%$ Co. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 March 2017 announcement by Australian Mines
    ${ }^{7}$ see Table 1 and Appendix 1 of this report for the full assay data for the drilling

[^2]:    ${ }^{8}$ The assay results contained within Table 1 (and Appendix 1) of this report have not previously been announced to the market and are in addition to the assays previously reported by Australian Mines via the ASX Market Announcements Platform on 14 September 2018.
    ${ }^{9}$ The Company is not aware of any new information or data that materially affects the information included in the market announcement released by the Company on 31 March 2017 in respect of the Sconi Project and all material assumptions and technical parameters underpinning the mineral resource estimates in/that announcement continue to apply and have not materially changed.

[^3]:    ${ }^{10}$ The Company is not aware of any new information or data that materially affects the information included in the market announcement released by the Company on 31 March 2017 in respect of the Sconi Project and all material assumptions and technical parameters underpinning the mineral resource estimates in that announcement continue to apply and have not materially changed.

[^4]:    ${ }^{11}$ The Mineral Resource Estimate for the Sconi Cobalt-Nickel-Scandium Project is reported under JORC 2012 Guidelines and was reported by Australian Mines Limited on 31 March 2017. The global Mineral Resource for Sconi, as announced on 31 March 2017 is: Measured $17 \mathrm{Mt} @ 0.80 \% \mathrm{Ni}, 0.07 \%$ Co, Indicated 48Mt @ $0.58 \% \mathrm{Ni}, 0.07 \% \mathrm{Co}$, Inferred, $24 \mathrm{Mt} @ 0.41 \% \mathrm{Ni}, 0.06 \%$ Co. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 March 2017 announcement by Australian Mines

