# Allen

~~VH171~~ H4S2

~~Springer~~ M3L9.1

| Nov | Met | Troil | Goeth |
|---|---|---|---|
| 15 | 5 | 5 | 5 |
| 22 | 5 | 5 | 5 |
| 31 | 5 | 5 | 5 |
| 37 | 5 | 5 | 5 |
| 49 | 5 | 5 | 5 |
| 50 | 5 | 5 | 5 |
| 56 | 5 | 5 | 5 |
| 55 | 5 | 5 | 5 |
| 62 | 40 | 5 | 5 |
| 60 | 3.7% | 5 | 5 |
| 62 | | 1 | 5 |
| 65 | | 51 | 5 |
| 64 | | 4.7% | 5 |
| 60 | | | 5 |
| 66 | | | 5 |
| 48 | | | 5 |
| 60 | | | 5 |
| 54 | | | 11 |
| 916 | | | 87 |
| 83.7% | | | 8.0% |

Total 1094

$$\frac{83.7(3.3)}{100} + \frac{3.7(7.7)}{100} + \frac{4.7(4.75)}{100} + \frac{8.0(4.3)}{100} = D$$

$$2.76 + 0.28 + 0.22 + 0.34 = 3.6$$

$\frac{3.7(7.7)}{3.60}$ = 7.9 wt% Met

$\frac{4.7(4.75)}{3.60}$ = 6.2 wt% Troil

$\frac{8.0(4.3)}{3.60}$ = 9.6 wt% Goeth

# Allen ~~Springer~~ - Pyroxenes

| | MgO | FeO | CaO | Totals | En | Fs | Wo | Total | Fs | Wo |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31.66 | 11.59 | 0.63 | 100.65 | .785 | .161 | .011 | 0.957 | 16.82 | 1.1 |
| 2 | 31.98 | 11.10 | 0.32 | 100.03 | .793 | .154 | .006 | 0.953 | 16.16 | 0.6 |
| 3 | 31.93 | 11.36 | 0.61 | 98.86 | .792 | .158 | .011 | 0.961 | 16.44 | 1.1 |
| 4 | 31.96 | 11.40 | 0.52 | 99.05 | .793 | .159 | .009 | 0.961 | 16.55 | 0.9 |
| 5 | 31.98 | 11.29 | 0.50 | 99.36 | .793 | .157 | .009 | 0.959 | 16.37 | 0.9 |
| 6 | 31.69 | 11.38 | 0.51 | 98.78 | .786 | .158 | .009 | 0.953 | 16.58 | 0.9 |
| 7 | 32.17 | 11.21 | 0.44 | 98.90 | .798 | .156 | .008 | 0.962 | 16.22 | 0.8 |
| 8 | 32.05 | 11.44 | 0.47 | 99.70 | .795 | .159 | .008 | 0.962 | 16.53 | 0.8 |
| 9 | 31.91 | 11.23 | 0.51 | 99.34 | .792 | .156 | .009 | 0.957 | 16.30 | 0.9 |
| 10 | 31.59 | 11.25 | 0.53 | 99.87 | .784 | .157 | .015 | 0.956 | 16.42 | 1.6 |
| 11 | 30.91 | 11.23 | 1.72 | 99.49 | .767 | .156 | .031 | 0.954 | 16.35 | 3.2 |
| 12 | 32.13 | 11.20 | 0.66 | 100.30 | .797 | .156 | .012 | 0.965 | 16.17 | 1.2 |
| 13 | 32.12 | 11.35 | 0.55 | 100.76 | .797 | .158 | .010 | 0.965 | 16.37 | 1.0 |
| 14 | 32.17 | 11.04 | 0.49 | 100.73 | .798 | .154 | .009 | 0.961 | 16.02 | 0.9 |
| 15 | 33.02 | 12.20 | 0.42 | 99.41 | .819 | .170 | .007 | 0.996 | 17.07 | 0.7 |
| 16 | 32.36 | 11.46 | 0.49 | 100.59 | .803 | .159 | .009 | 0.971 | 16.37 | 0.9 |
| 17 | 31.72 | 10.80 | 1.06 | 99.39 | .787 | .150 | .019 | 0.956 | 15.69 | 2.0 |
| 18 | 31.67 | 11.42 | 0.54 | 99.60 | .786 | .159 | .010 | 0.955 | 16.65 | 1.0 |
| 19 | 31.88 | 11.40 | 0.63 | 100.15 | .791 | .159 | .011 | 0.961 | 16.55 | 1.1 |
| 20 | 31.98 | 11.23 | 0.46 | 99.11 | .793 | .156 | .008 | 0.957 | 16.30 | 0.8 |
| | | | | | | | | M = | 16.4 | 1.1 |
| | | | | | | | | σ = | 0.29 | 0.58 |

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~~Springer~~ - Olivines

| | MgO | FeO | Total | FeO | FeO + MgO | Mol % Fa |
|---|---|---|---|---|---|---|
| 1 | 42.99 | 17.32 | 99.29 | 0.241 | 1.307 | 18.44 |
| 2 | 42.67 | 17.71 | 99.09 | 0.246 | 1.305 | 18.85 |
| 3 | 42.49 | 17.29 | 98.66 | 0.241 | 1.295 | 18.61 |
| 4 | 42.59 | 17.60 | 99.05 | 0.245 | 1.302 | 18.82 |
| 5 | 42.76 | 17.69 | 99.47 | 0.246 | 1.307 | 18.82 |
| 6 | 43.00 | 17.56 | 99.35 | 0.244 | 1.311 | 18.61 |
| 7 | 42.51 | 17.70 | 98.82 | 0.246 | 1.301 | 18.91 |
| 8 | 42.67 | 17.50 | 98.88 | 0.244 | 1.303 | 18.73 |
| 9 | 42.70 | 17.39 | 98.95 | 0.242 | 1.301 | 18.60 |
| 10 | 43.06 | 17.49 | 99.11 | 0.243 | 1.311 | 18.54 |
| 11 | 42.94 | 17.49 | 99.00 | 0.243 | 1.308 | 18.58 |
| 12 | 42.91 | 17.36 | 98.92 | 0.242 | 1.307 | 18.52 |
| 13 | 42.90 | 17.65 | 99.12 | 0.246 | 1.310 | 18.78 |
| 14 | 42.66 | 17.79 | 99.25 | 0.248 | 1.306 | 18.99 |
| 15 | 42.78 | 17.36 | 99.14 | 0.242 | 1.303 | 18.57 |
| 16 | 42.99 | 17.63 | 99.42 | 0.245 | 1.311 | 18.69 |
| 17 | 43.01 | 17.39 | 99.40 | 0.242 | 1.309 | 18.49 |
| 18 | 42.53 | 17.84 | 99.31 | 0.248 | 1.303 | 19.03 |
| 19 | 42.92 | 17.91 | 99.75 | 0.249 | 1.314 | 18.95 |
| 20 | 42.85 | 17.46 | 99.30 | 0.243 | 1.306 | 18.61 |

$\bar{M} = 18.71$

$\sigma = 0.18$