

Bloodtear E-Y Mining Report

(Dec 8th-Dec 31st)

E-YCML has long been the industrial hub of the Sev3rence Alliance. It attracts miners from all across the galaxy and has even become notorious amongst reds who hunt in our space. E-Y was the first system in the entire galaxy to achieve Industry Level V, while the next closest was still dabbling in Industry Level III.

Since the launch of Dominion and the introduction of Fleet Finder, Bloodtear Fleet has been able to provide 23hr a day perfect boosts from a Roqual for the entire system. The Bloodtear E-Y Mining Fleet has provided hundreds of miners with invaluable fleet bonuses, protection, intel, friendly industrial contacts, teamwork, and chat during all hours of the night. The fleet has remained listed in fleet finder for self invite for all blues, and neutrals are invited upon request in local chat. All players have been welcome.

With the introduction of loot logging, Bloodtear Fleet has been keeping an hourly loot record of fleet activities for many weeks now. This is a report of those activities...



Loot Log Analysis

The loot log records the cumulative lootings of an item type up until the log is cleared, along with a timestamp of the last recorded looting. Using this raw data alone is not enough to accurately portray what's been going on in E-Y. Most miners do jetcan mining, and hauling is performed by another character. This leads us to the assumption that all mined goods are "touched" twice in the loot log (once when mined, once when hauled). Ice is touched a third time when it is crushed by a Roqual back at a POS.

Certain activities are flagged as suspicious, such as if everyone is mining ABC ores (Arkonor, Bistot, Crokite), and someone magically "loots" 150,000 of Veldspar. The odds are good that they were merely shuffling ore around at a POS and happened to be in fleet. Such suspicious activities are identified and removed from the counts. To deal with the "touching" problem, the actual counts of ores are cut in half to give a more accurate representation of mining activity.

I wrote a special program to do loot analysis from loot logs that I've been collecting ever hour on the hour. This allows a detailed analysis of activity during each hour of the day.

E-Y Miner Population

These statistics actually surprised me, as we didn't know so many unique players had been involved in the mining fleet.

Total Unique Players: 397
Average Unique Players per Day: 82.75

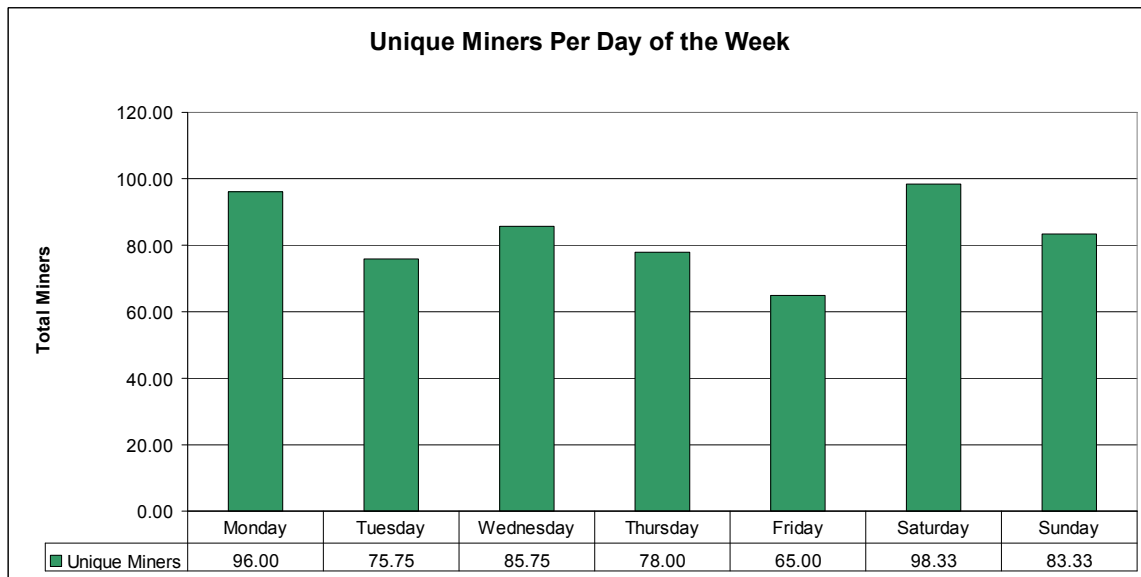


Figure 1: The weekend is the most popular time for mining. Weekdays tends to be less populated, although still very active.

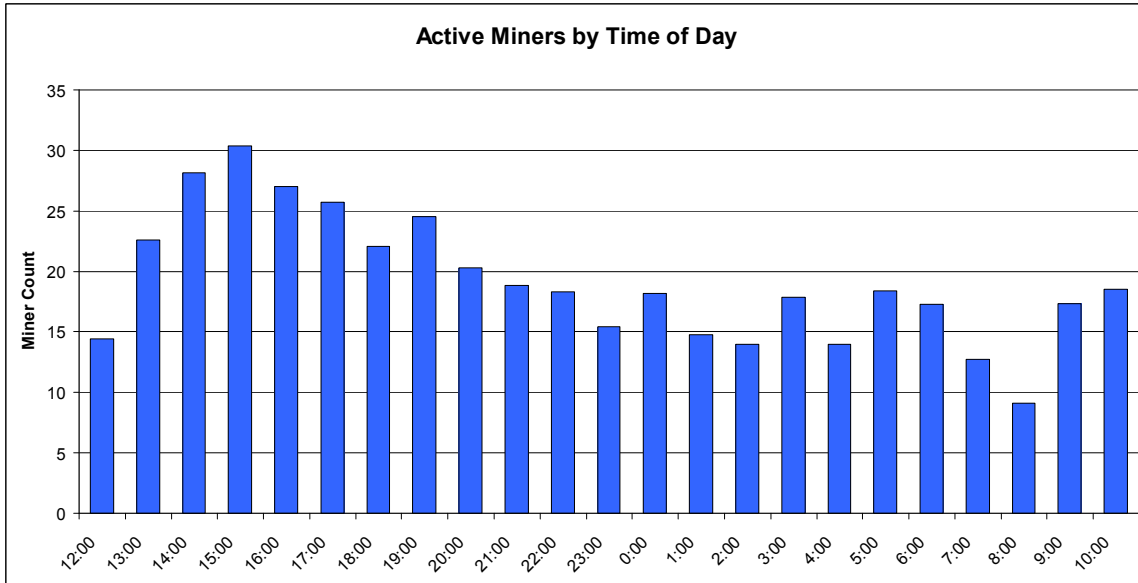


Figure 2: Activity level peaks 3 hours after downtime and then has a steady decline until all Europeans have gone to bed. Americans begin logging on around 22:00. Note: ABC ores are mostly consumed by 17:00, at which point many people leave fleet.

It takes people about an hour or so to login after downtime, and another 30-45mins to scan down any new belts. Hidden belts that didn't despawn will regrow some ore over downtime.

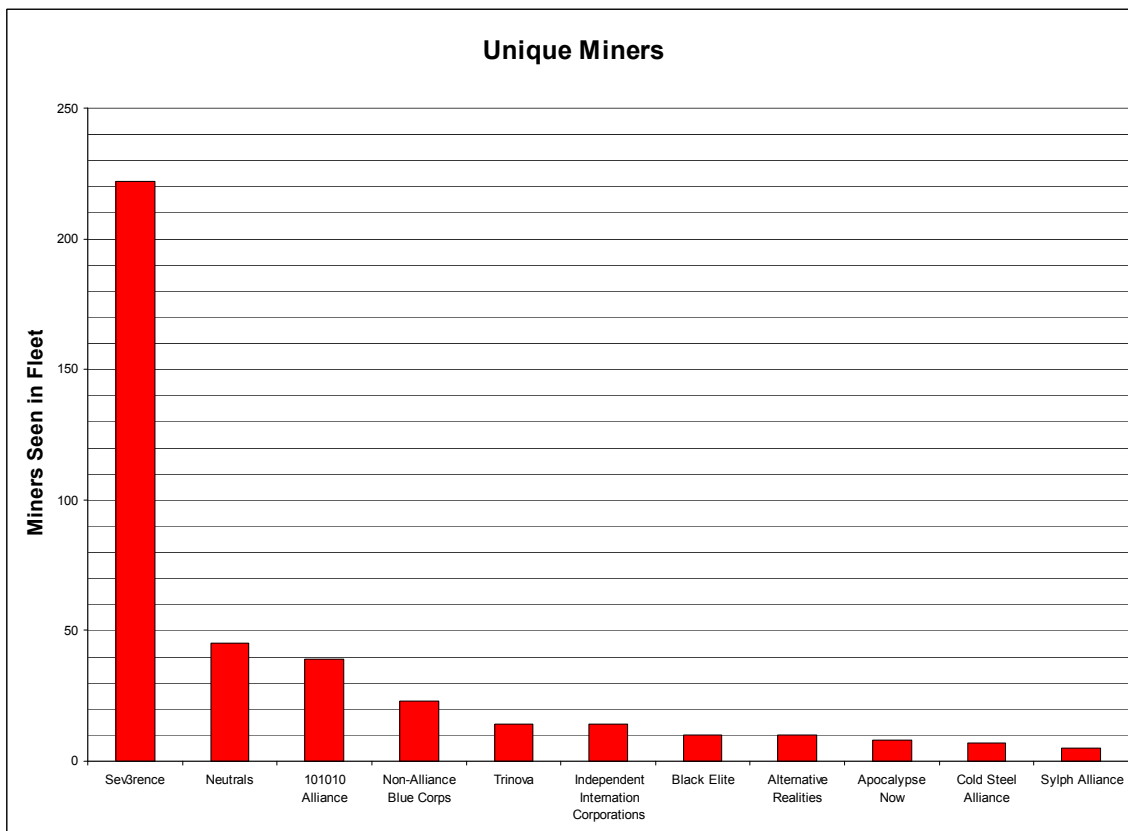


Figure 3: The breakdown of fleet membership as seen through December.

E-Y Mining Statistics

E-Y is the powerhouse of Sev3rence industry, and as such it has the most active mining community. Below are the statistics of ice and ore mined from the system:

Total ISK Mined:	82,131,222,332 ISK (82.1 bil)
Total m3 Mined:	321,795,525 m3
Average ISK Mined per Day:	3,422,134,264 ISK (3.4 bil)
Average m3 Mined per Day:	13,408,147 m3

Total Ore Mined

Ice/Ore type	Amount Mined	Avg. per Day
Arkonor	1,050,452	43,769
Bistot	1,914,113	79,755
Crokite	1,685,482	70,228
Dark Ochre	2,308,549	96,190
Gneiss	1,975,378	82,307
Hedbergite	2,210,865	92,119
Hemorphite	2,295,186	95,632
Jaspert	3,217,450	134,060
Kernite	5,467,586	227,816
Mercosit	285,805	11,908
Omber	5,291,829	220,492
Plagioclase	6,037,639	251,568
Pyroxeres	6,769,085	282,045
Scordite	5,628,216	234,509
Spodumain	3,357,775	139,907
Veldspar	24,560,823	1,023,368
Clear Icicle	1,024	43
Dark Glitter	118,311	4,930

Ores ordered by value are Mercosit, Arkonor, Bistot, Crokite. These ores are consumed in that order by miners, but are restricted by asteroid supply. E-Y is supplied with 5 hidden asteroid belts, each on a 3 day respawn timer – unless mined to completion earlier. We have seen good teamwork and coordination within the fleet for to mining out ore belts to force a respawn.

ABC ores are typically consumed by cherry-pickers right after downtime (12:00 through 17:00), thus leaving miners from other time zones unfulfilled. This leads to the trend of ABC mining after downtime, and ice mining for the rest of the day (more charts to follow).

To put some perspective on this, the value mined out of E-Y in a month equals the value of two titans, and the ores are enough to fill 15 freighters each day.

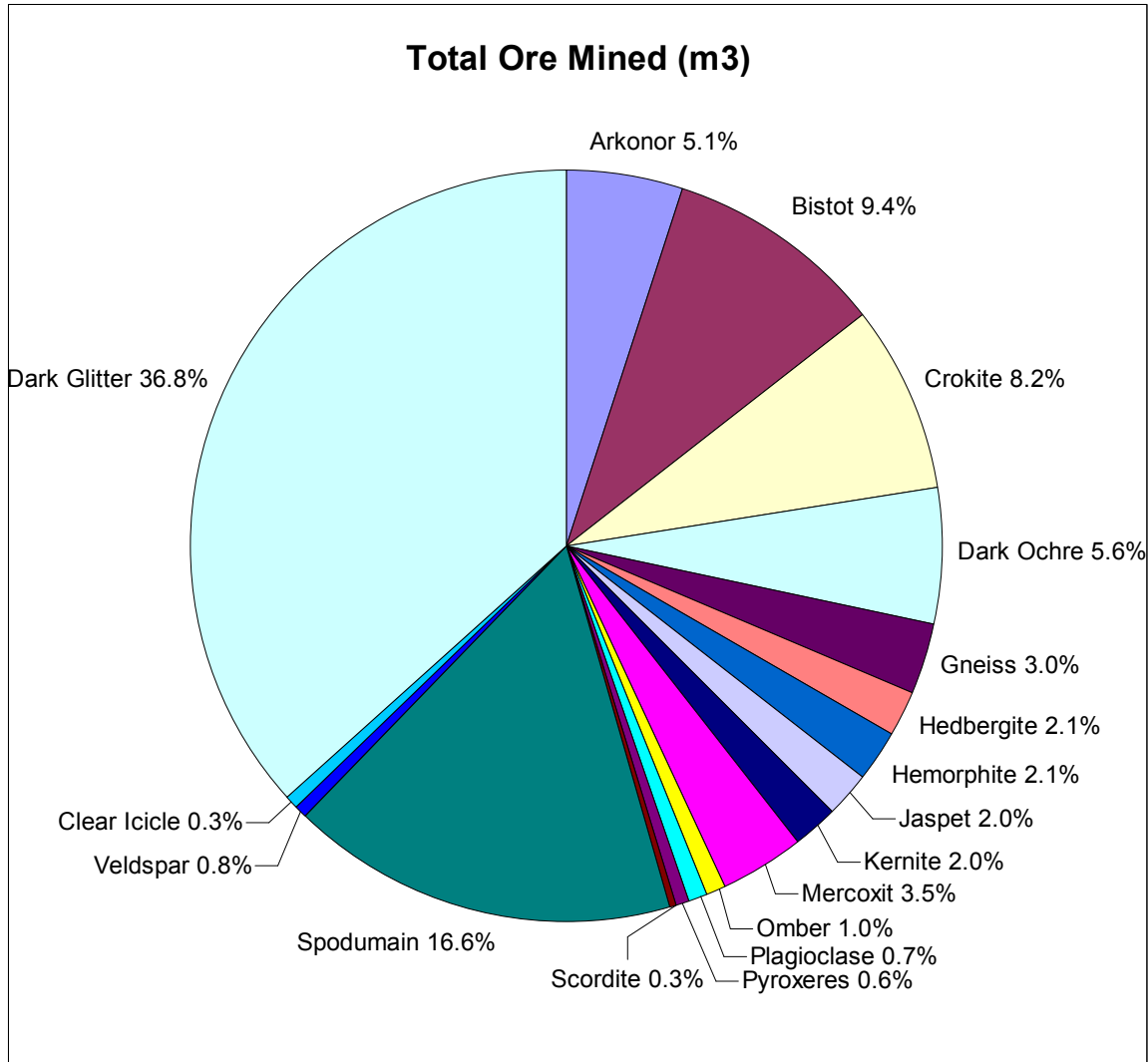


Figure 4: Minerals mined (weighted by m3).

The popular ores are mined to extinction every day, with Spodumain being the great “fallback” ore for mining. Spodumain is the last “high quality” ore which spawns in enough bulk to be mined throughout the day.

Dark Glitter tops the chart for m3 mined due to the sheer number of ice miners, as well as the 1000m3 per block. Clear Icicle is rarely touched, except to gather components needed for POS upkeep that aren’t provided by Dark Glitter. Anyone mining Veldspar (unless it’s the last ore in an almost finished belt) is doing mining wrong. It should be noted, that we see more Bistot than Crokite which is interesting. We’ve also started to see the higher quality variations ores (5% and 10% better refined) in the last week. We’re not sure why they weren’t there two weeks ago...

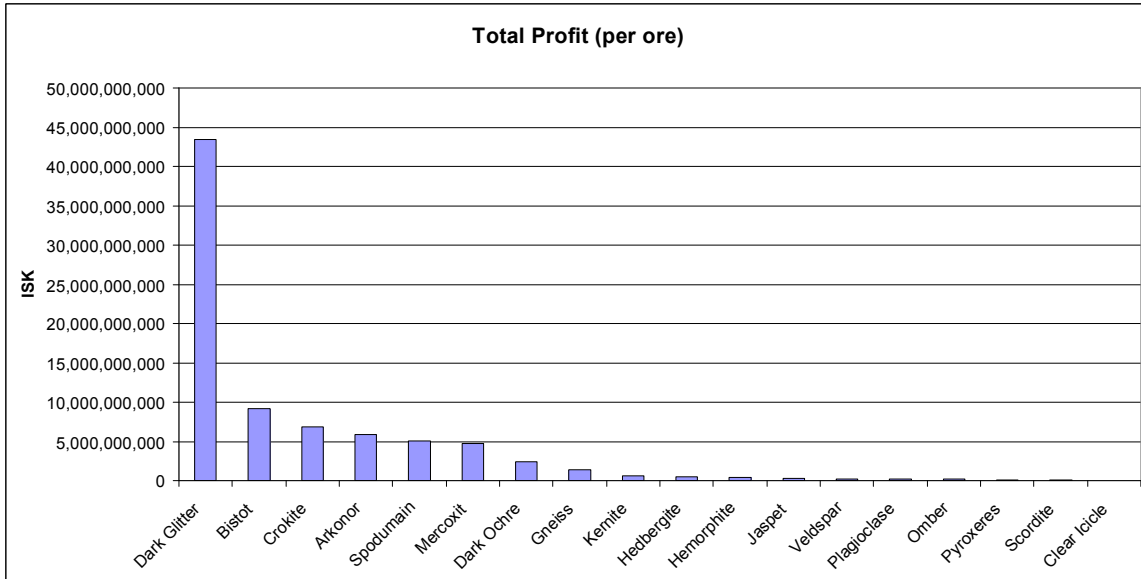


Figure 5: E-Y is very famous for its ice mining operations. This is not to say the ice is incredibly more valuable, but that there are MANY more people mining the ice than the ore. Multi-boxers stick to ice mining, while single miners stick to ore mining.

Ice mining is the most common activity, which is why it tops the charts. The ice belt receives the most protection from organized players, and is the resting place of almost all multi-boxers.

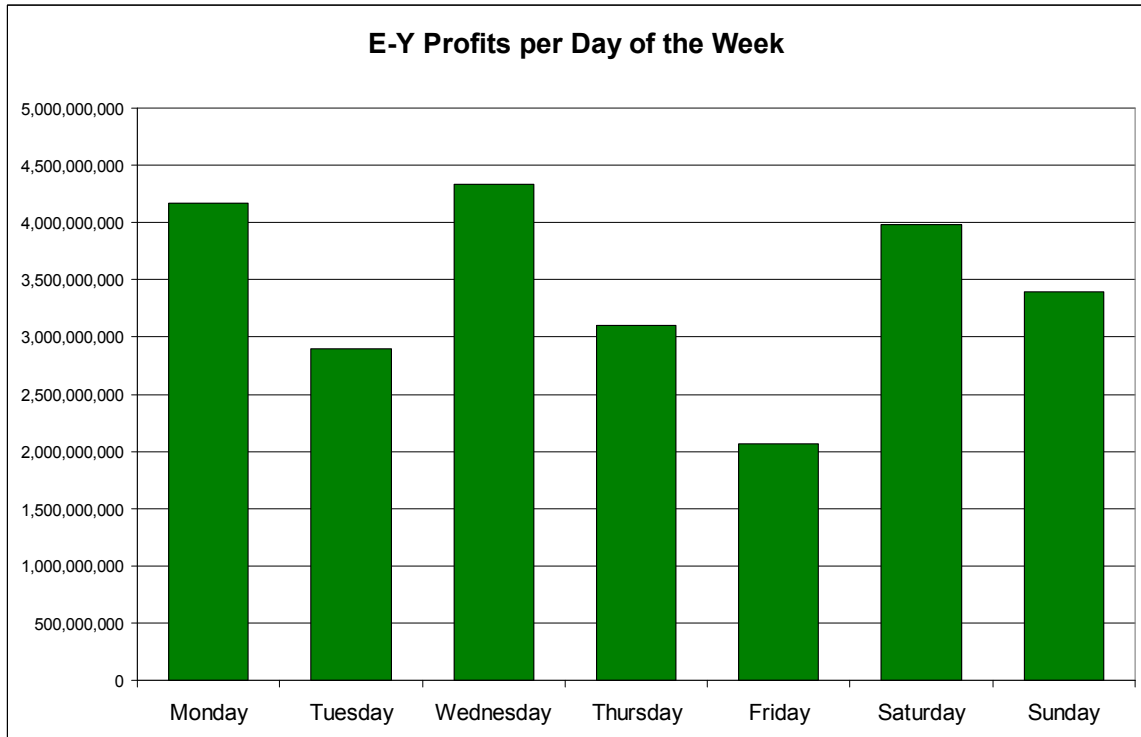


Figure 6: Monday, Wednesday, and Saturday are the most profitable days for mining. Surprisingly Friday is the least profitable. Possibly due to increased red activity or the fact that it's Friday night. Christmas was Friday when not many were on, that's probably what tossed the average.

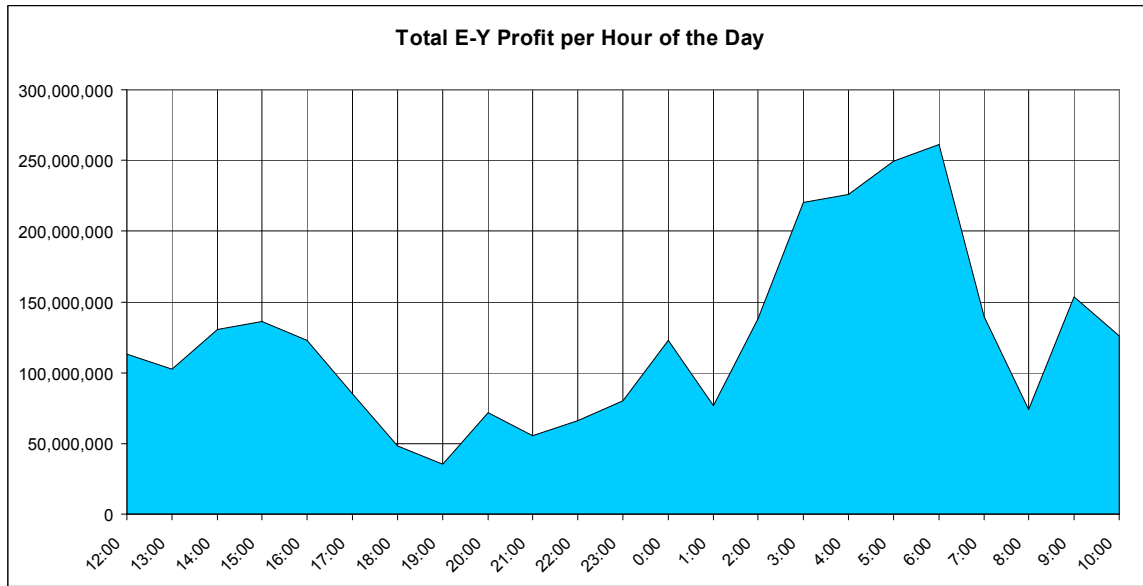


Figure 7: The total value of ores being mined in E-Y by hour of day.

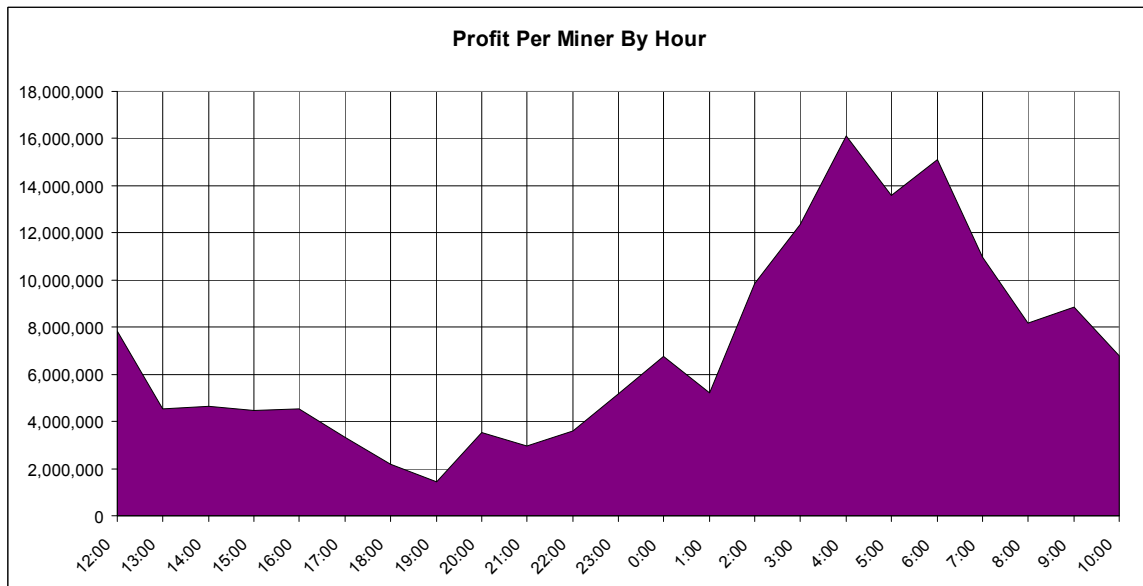


Figure 8: The total profit per hour divided by the number of miners per hour. This yields the average profit per miner per hour.

The majority of value being extracted from E-Y comes in the hours before downtime. This corresponds to ice mining as will be made apparent in a later section. The average profit per hour appears highest for the ice miners, however this isn't necessarily true. Ice mining is the easiest to become proficient (fully trained) in, and regular ore miner statistics are plagued by half-trained neutrals who want a piece of the ABC ores. This leads to an increased number of active miners, which in turns lowers the average profit per ore miner. The actual ISK/hr will be listed in a later section for each ore.

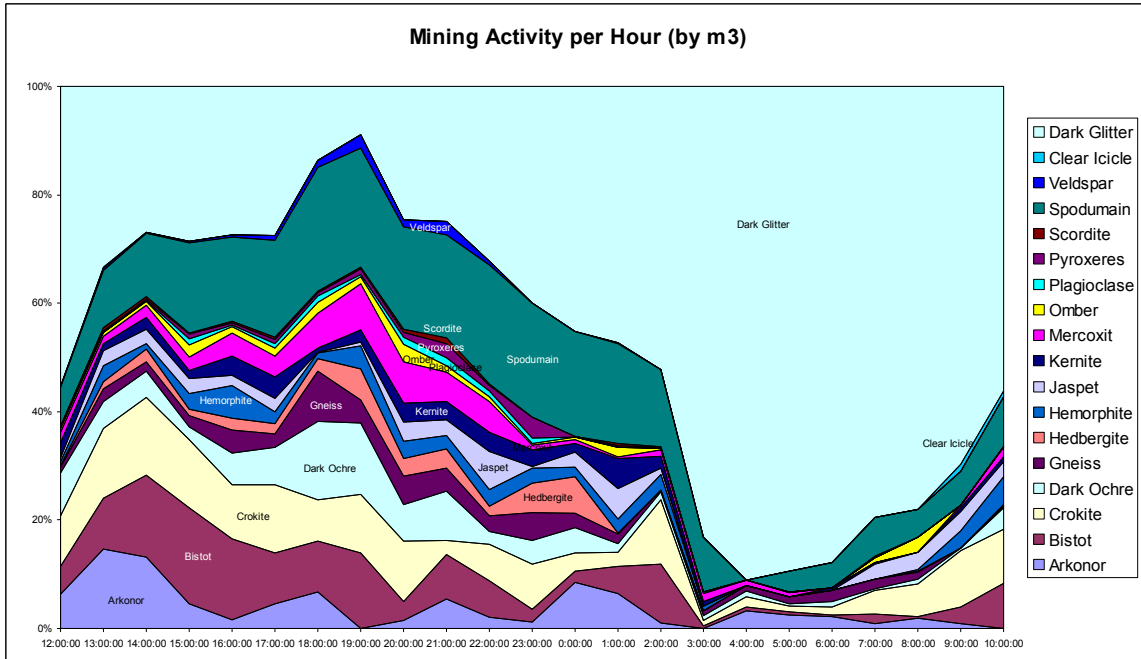


Figure 9: As previously stated, ABC ores are consumed immediately after downtime. Spodumain is a favorite in the fleet. And Dark Glitter dominates after precious ores have been mined to completion.

It is interesting to see the sharp drop off at 3:00 server time, where everyone drops ore mining and switch to ice mining. It's also nice to note that ABC ores do persist throughout the day, but most of the bumps in the ABC graph are due to a forced belt respawn (hence the rise in consumption of other ores just prior).

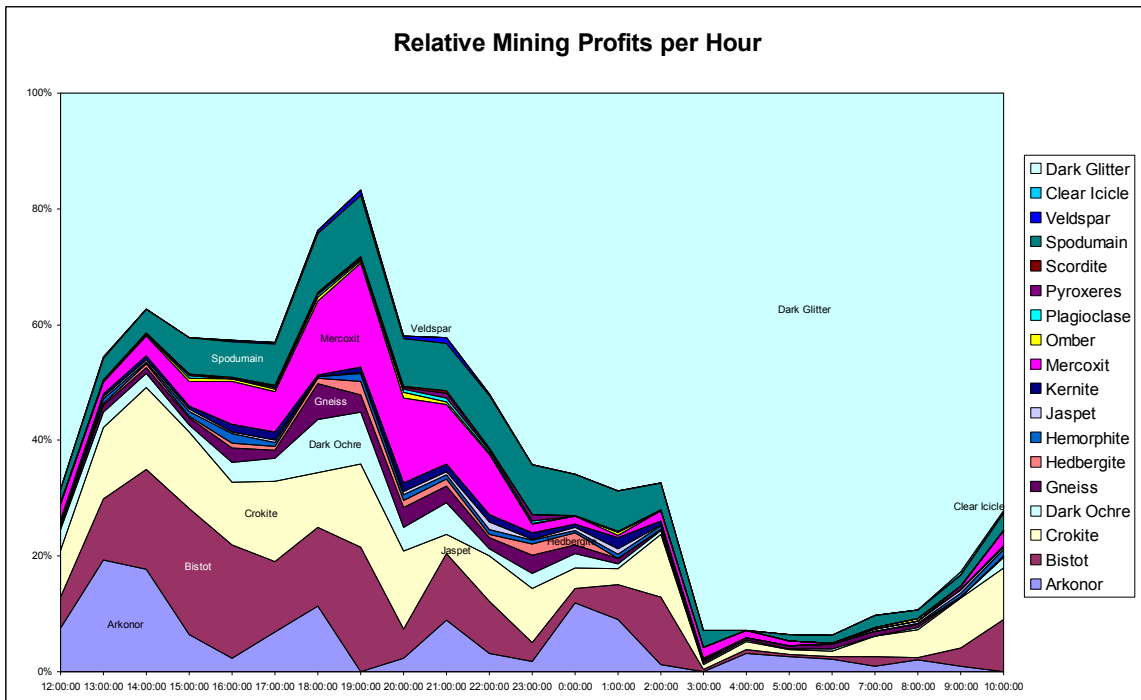


Figure 10: The relative profit of ores mined, for each hour of the day. Again, we see that Dark Glitter dominates the hours leading up to downtime. However, ABC ores produce considerable profit in the earlier hours, with far fewer miners.

Perfect Miner Income

I'm only an expert in Mackinaws and ice. But according to theory these are the absolute best yields you can get for each ship type.

Skiff	2282 Mercxit/hr	82/cycle @ 129.38sec/cycle
Mackinaw	72.44 ice/hr	4/cycle @ 198.79sec/cycle
Hulk	151,841 m3/hr	5459m3/cycle @ 129.38sec/cycle

The next step is to calculate the profit per hour that a perfect miner can make mining any individual ore. The results surprised me, but the mineral market has been unstable recently. Since the launch of Dominion, zydrine and megacyte have dropped in price 10-25% because of all the new hidden belts being mined out that didn't exist before. Pyerite has continued to rise (6.65 ISK/unit) far above where it should be, thus leading to Scordite and Plagioclase becoming very profitable to mine.

Ore Profits Per Hour for Perfect Miner

(Jan 2nd, 2010 prices)

Mineral	ISK/hr
Arkonor	54,011,077
Bistot	46,437,022
Crokite	38,423,527
Mercxit	38,170,558
Dark Glitter	26,615,180
Gneiss	21,486,980
Dark Ochre	20,276,348
Scordite	15,423,671
Spodumain	14,240,029
Plagioclase	14,164,427
Kernite	13,363,026
Veldspar	12,630,617
Hedbergite	12,150,408
Pyroxeres	10,540,684
Hemorphite	9,561,816
Omber	9,204,065
Clear Icicle	8,468,924
Jaspert	6,153,467

It's fascinating how the "low end" ores have spiked in value recently and high end ores have dropped in value considerably. The biggest shocker is that Scordite is worth so much, almost 2.5x as much as Jaspert.

Man-hours Spent Mining

With all the mining that goes on in E-Y, I just couldn't help but wonder how much time do we actually spend? I've calculated the number of man-hours spent mining each type of ore, what day of the week we spend the most time, etc. These charts represent the lower bounds on how much time is spent because they are calculated using ideal perfect miners as a reference. In reality the miners in E-Y probably spend 30-50% more time than represented here.

Total Man-hours: 3079 hrs
Average Man-hours per day: 128.3 hrs

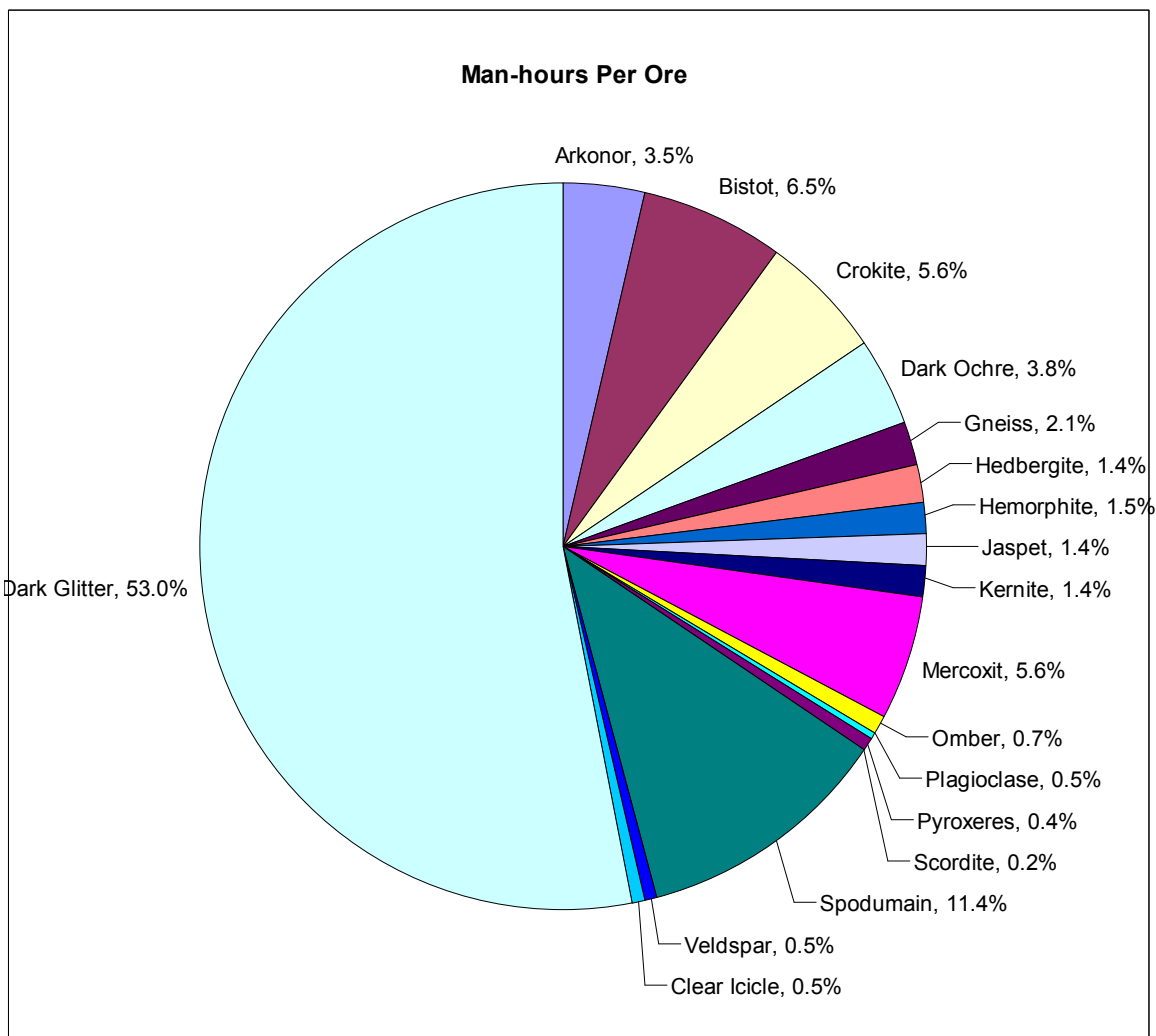


Figure 11: This is the breakdown of where time is spent in E-Y on an average day. Clearly ice is the primary export of E-Y, followed by Spodumain. Note that an average day has 128.3 man-hours spent in it, thus 68hrs are spent mining Dark Glitter each day, minimum.

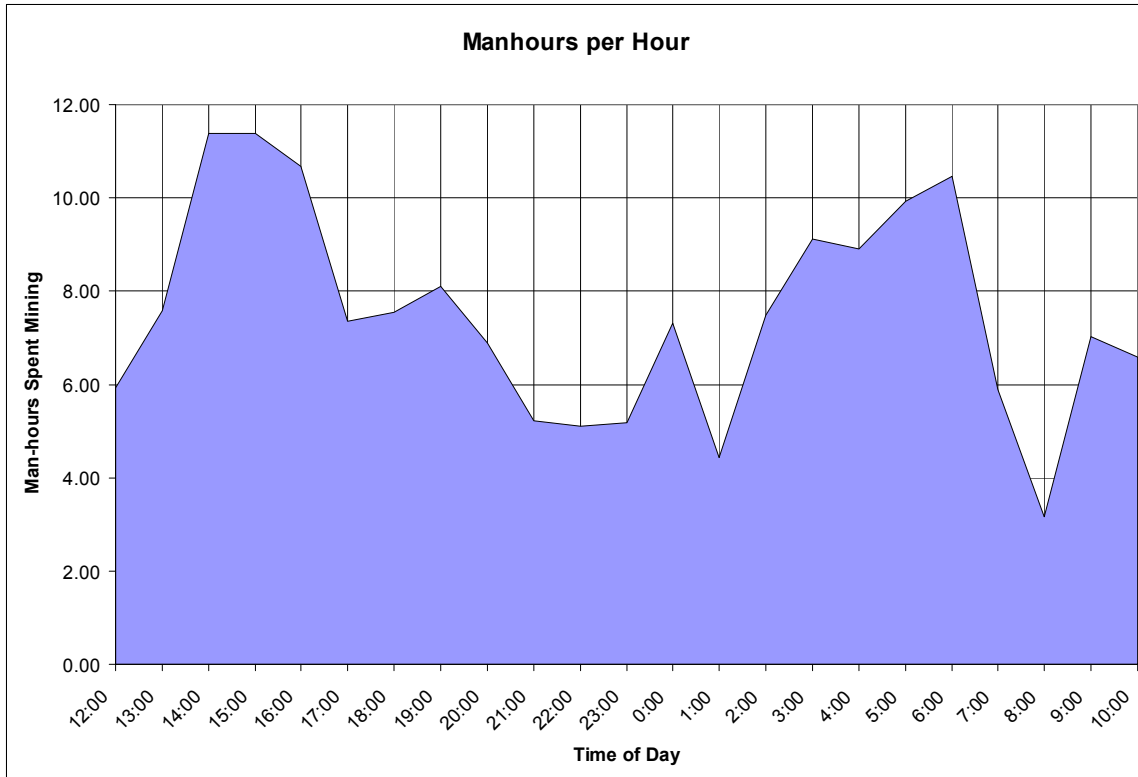


Figure 12: The two peaks coincide with Europe and American play times. Most active time for miners is 2-4hrs after downtime.

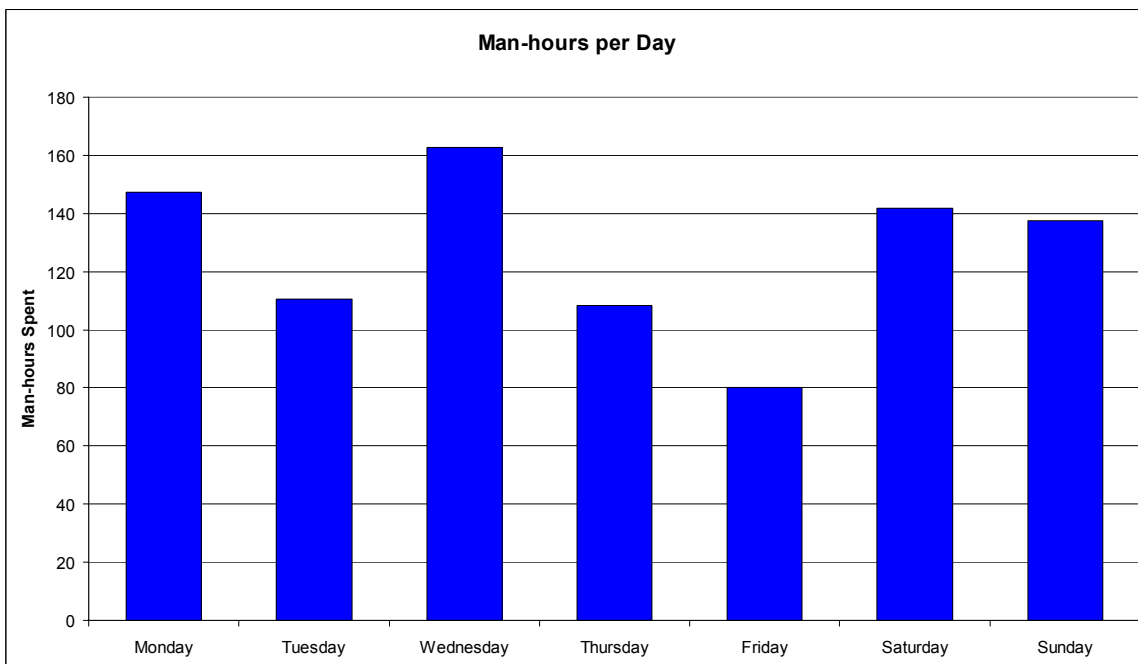


Figure 13: Man-hours spent during each day of the week. This correlates very strongly with E-Y profits per day of the week (since profit is related to time spent).

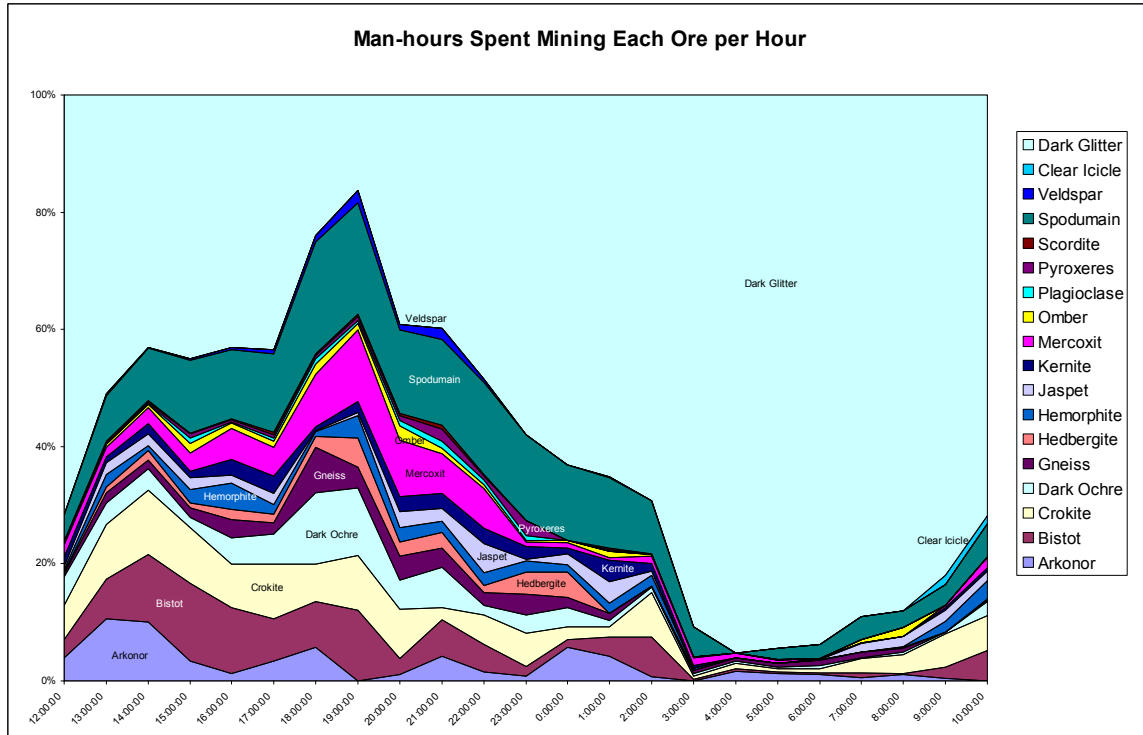


Figure 14: The ice field remains E-Y's largest resource, as can be seen from the number of hours spent mining in it. The valuable ores receive attention while they exist. By comparing this chart with the profits per hour per ore chart, you'll see that ABC ores produce half the profit at a third the time.



Figure 15: Yarrrr! There be super carriers here!

Profit Distribution

(Grrrr... curse those neutrals! Taking our ores!)

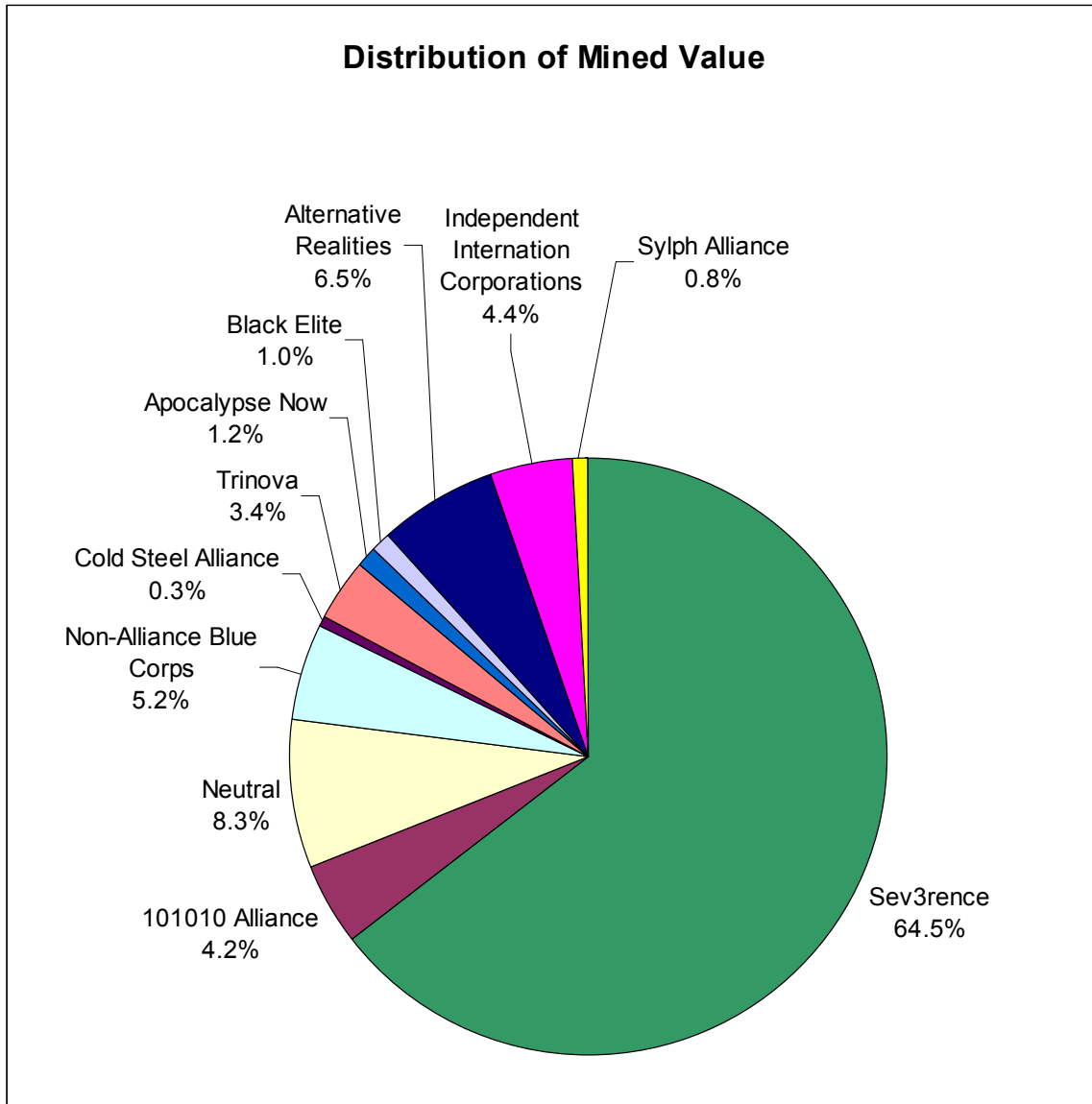


Figure 16: The profit distribution between all the alliances involved in E-Y operations.

It's been pointed out that neutrals require direct invites to the mining fleet, and thus are more likely to do solo mining (and thus might not be accurately represented here). From the loot logs, most neutrals only mine for about 30mins and then are never heard from again. The powerhouse neutrals are mostly out of corp alts of larger multiboxers, and thus the true neutral factor will be a bit smaller.

Sev3rence naturally sees the majority of profit from E-Y. Surprisingly, Cold Steel does not avail themselves of E-Y resources. 101010 Alliance, Black Elite, and Trinova are regular visitors.

Ratting/Salvage

Although the fleet has always remained open to ratters, we don't get many. The majority of loot and salvage is harvested by the mining fleet when rats warp on top of them. Salvaged goods are usually collected by the hauling ship, and thus don't exchange hands twice like mined goods. Below is an account of looted goods.

Item	Quantity
Cap Booster 100	3407
Cap Booster 200	1803
Burned Logic Circuit	1018
Cap Booster 400	1013
Fried Interface Circuit	949
Tripped Power Circuit	919
Contaminated Nanite Compound	817
Charred Micro Circuit	776
Defective Current Pump	645
Armor Plates	642
Cap Booster 150	609
Tangled Power Conduit	588
Cap Booster 800	509
Melted Capacitor Console	490
1MN Afterburner I	375
Cap Booster 50	346
Cap Booster 75	245
ECCM - Radar I	140
Heavy Nosferatu I	126
Warp Scrambler I	126
Warp Disruptor I	119
Miner I	115
Heavy Pulse Laser I	108
Survey Scanner I	105
Heavy Beam Laser I	103
Cargo Scanner I	99

This loot is pocket change compared to the ores, but still interesting to see. I believe something fishy happened with the Cap Booster 100s to inflate their representation. They should be more in line with the 200s from our own experience. The other loot types seem more or less in the right place.

PvP and Reds

While the loot logs contain nothing about red activity, they do reflect the effects on mining. As would be expected, reds frequent E-Y more often during the weekends. E-Y is generally clear for 2-3hrs after downtime, and 1:00 server time onward. The pocket of most red activity falls between 15:00 and 1:00 server time (this is European time after work until bed).

Intel within the mining fleet is usually of the highest quality, with eyes posted in B-W and KBP. Ship losses are usually due to ignoring intel or assuming that reds will not have bookmarks to the hidden belts. Since hidden belts persist for up to three days the reds will bookmark them in prior days and be able to warp to them instantly.

The most regular harassment of the fleet is done by stealth bombers. Conventional ships usually don't last very long, as PvPers are on top of them in record time. As always, our hats are off to the PvPers who do a wonderful job of filtering the reds out before they reach E-Y.



Figure 17: Give us ice or give us death!