

Figure S1: Frequency histogram of forward (A) and reverse (B) read lengths produced from paired-end Illumina MiSeq amplicon sequencing of ITS. Note, reads lengths are subsequent to primer removal and initial trimming for quality.

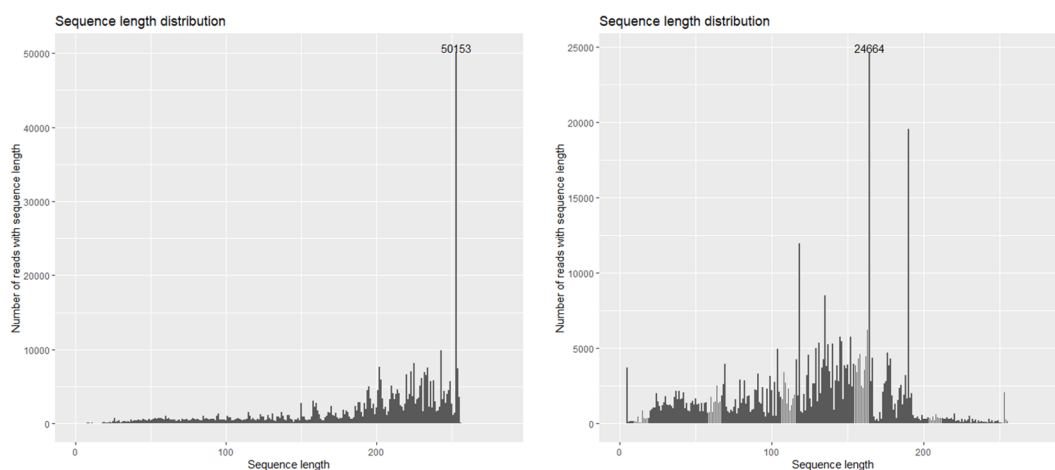


Figure S2: Frequency histogram of forward (A) and reverse (B) read lengths produced from paired-end Illumina MiSeq amplicon sequencing of 16S. Note, reads lengths are subsequent to primer removal and initial trimming for quality.

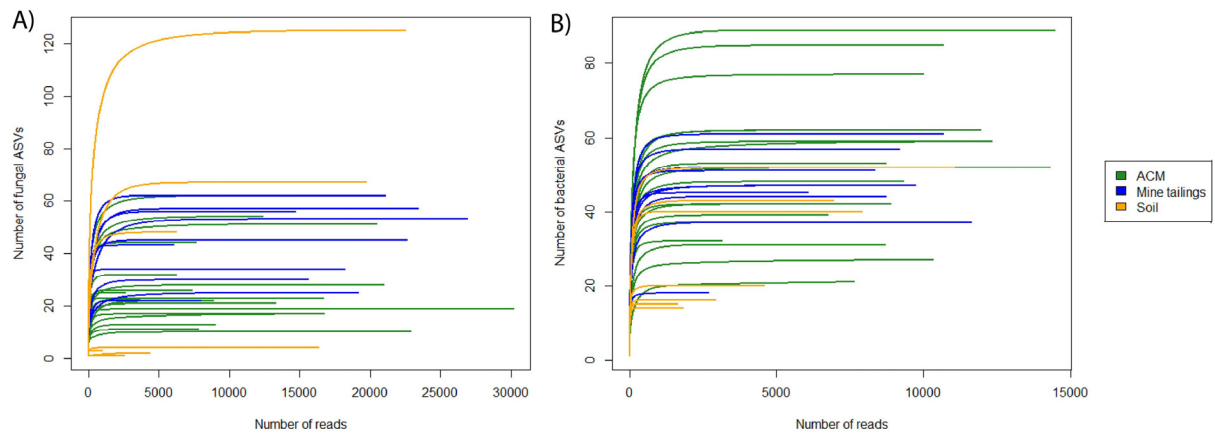


Figure S3: Rarefied species accumulation curves by read count in the A) ITS dataset, and B) 16S dataset. ACM (green), asbestos contaminated material; Mine tailings (blue), raw asbestos samples from mine tailings; Soil (orange), asbestos contaminated soil samples.

Table S1: Abundances of the most abundance 60 ITS ASVs, with identifications determined based on high percentage sequence matches with reference sequences on NCBI.

ITS ASVs	ACM	Mine	Soil
<i>Alternaria alternata</i>	61	2591	110
<i>Biscogniauxia</i> sp.	0	632	0
<i>Bullera alba</i>	0	489	0
<i>Caloplaca austroclitina</i>	15208	0	0
Capnodiales sp.	648	0	0
<i>Cladosporium cladosporioides</i>	4753	13687	2232
<i>Cladosporium</i> sp.	0	501	0
<i>Cladosporium sphaerospermum</i>	1558	0	677
<i>Coniosporum</i> sp.	5465	0	33
<i>Cyphellophora</i> sp.	2280	0	0
<i>Devriesia</i> sp.	6104	0	0
Didymellaceae	7588	0	0
<i>Elaphocordyceps</i> sp.	5770	0	0
<i>Epicoccum nigrum</i> 1	455	9618	656
<i>Epicoccum nigrum</i> 2	0	8227	0
<i>Fomitopsis hemitephra</i>	0	3505	0
Fungi 1	0	14116	0
Fungi 2	0	1501	0
Fungi 3	0	1429	0
Fungi 4	935	0	0
Fungi 5	0	7111	0
Fungi 6	18144	0	0
Fungi 7	0	5744	0
Fungi 8	0	5561	0
Fungi 9	0	2340	0
Fungi 10	4614	0	0

Fungi 11	0	2937	0
Fungi 12	2141	0	0
<i>Fusarium acuminatum</i>	0	2718	154
<i>Fusarium gramineum</i>	543	0	0
<i>Fusarium oxysporum</i>	120	183	3262
<i>Fusarium</i> sp.	8528	0	0
<i>Ganoderma australe</i>	0	698	0
Helotiales sp.	2087	0	306
Hymenochaetales sp. 1	0	600	0
Hymenochaetales sp. 2	0	403	0
<i>Lecidea</i> sp.	0	2810	0
Leprocaulaceae	5738	0	0
<i>Meyerozyma guilliermondii</i>	0	558	0
<i>Neodevriesia</i> sp. 2	1311	0	132
<i>Neodevriesia</i> sp. 1	1875	0	0
<i>Neodevriesia</i> sp. 3	1336	0	0
<i>Paraphoma</i> sp.	415	0	0
<i>Physcia</i> sp.	9233	0	0
<i>Plectosphaerella</i> sp.	157	0	454
<i>Preussia minima</i>	112	397	0
<i>Protoblastenia rupestris</i>	9702	0	0
<i>Pseudopithomyces chartarum</i>	901	808	451
<i>Salinomyces thailandica</i>	725	0	0
<i>Sporobolomyces ruberrimus</i>	0	3120	0
Stereaceae	0	1465	0
<i>Trichosporon asahii</i>	0	783	3808
<i>Verrucaria</i> sp. 1	6743	0	0
<i>Verrucaria</i> sp. 2	1709	0	0
Verrucariaceae	1342	0	0
<i>Vishniacozyma carnescens</i>	145	0	1424
<i>Vishniacozyma</i> sp.	12	332	66
<i>Wallemia muriae</i>	399	0	510
<i>Yarrowia lipolytica</i> 1	0	1391	2314
<i>Yarrowia lipolytica</i> 2	0	806	365

Table S2: Abundances of the most abundance 60 16S ASVs, with identifications determined based on high percentage sequence matches with reference sequences on NCBI.

16S ASVs	ACM	Mine	Soil
<i>Acinetobacter</i> sp. 1	0	38	5008
<i>Acinetobacter</i> sp. 2	0	127	556
<i>Acinetobacter</i> sp. 3	0	56	1074
<i>Actinomyces</i> sp.	2537	0	0
Archaea	1550	0	0
Bacteria 1	5759	607	0
Bacteria 2	1618	1174	0

Bacteria 3	2151	1478	0
Bacteria 4	2215	371	0
Bacteria 5	0	1703	0
Bacteria 6	0	1505	0
Bacteria 7	632	200	0
Bacteria 8	0	3887	0
Bacteria 9	0	1501	0
Bacteria 10	0	498	0
Bacteria 11	0	316	0
Bacteria 12	0	1172	0
Bacteria 13	0	1077	0
Bacteria 14	0	805	0
Bacteria 15	168	591	0
Bacteria 16	657	0	0
Bacteria 17	913	0	0
Bacteria 18	0	747	0
Bacteria 19	0	509	0
Bacteria 20	96	77	0
Bacteria 21	229	0	0
Bacteria 22	0	1630	0
Bacteria 23	1609	0	0
Bacteria 24	0	890	0
Bacteria 25	0	1301	0
Bacteria 26	788	0	0
Bacteria 27	905	0	0
Bacteria 28	0	939	0
<i>Bradomyces</i> sp.	341	110	0
<i>Caloplaca</i> sp.	3588	0	0
<i>Chroococcidiopsis</i> sp. 1	0	2781	0
<i>Chroococcidiopsis</i> sp. 2	0	4136	0
<i>Chroococcidiopsis</i> sp. 3	0	3449	0
<i>Chroococcidiopsis</i> sp. 4	0	2020	0
<i>Chroococcidiopsis</i> sp. 5	0	1513	0
<i>Chroococcidiopsis</i> sp. 6	748	0	0
Cyanobacterium	4026	0	0
<i>Dermatocarpon</i> sp.	769	0	14
<i>Dothideomycetes</i> sp.	694	0	0
<i>Fibrella</i> sp.	1128	0	0
Fungi	0	352	0
<i>Hymenobacter</i> sp.	635	0	0
Prokaryote	1220	64	169
<i>Pseudonocardia</i> sp.	914	0	0
<i>Ralstonia</i> sp.	114	0	596
<i>Rubrobacter</i> sp.	5956	1660	0
<i>Sphingomonas</i> sp. 1	705	0	942
<i>Sphingomonas</i> sp. 2	705	0	0
<i>Sphingomonas</i> sp. 3	2784	0	0

<i>Spirosoma</i> sp. 1	0	1315	0
<i>Spirosoma</i> sp. 2	0	775	0
<i>Stigonema</i> sp.	0	2839	0
<i>Verrucaria</i> sp. 1	1346	0	0
<i>Verrucaria</i> sp. 2	3574	0	0
<i>Verrucaria</i> sp. 3	414	0	0