



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

November 30, 1978

NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH — ALOSH
944 CHESTNUT RIDGE ROAD
MORGANTOWN, WEST VIRGINIA 26505

PLAINTIFF'S
EXHIBIT
CAM-320

Mr. Gordon J. Gill
Technical Director, Talc Division
Cyprus Industrial Minerals Company
555 South Flower Street
Los Angeles, California 90071

Gordon
Dear Mr. Gill:

Enclosed are preliminary tables of the medical data collected earlier this year. I have included the data from your individual mine and mill as well as combined results from Montana. We will be doing a more extensive and detailed analysis of the data, including the results of before and after shift breathing tests, and comparison of pulmonary function, symptoms, and x-ray findings with control groups.

Pneumoconiosis is Grade 1 or greater of rounded or irregular opacities and pleural thickening is grade 1 and 2 as read by three radiologists using the standard ILO/UC films for pneumoconiosis. FEV₁ is Forced Expiratory Flow in one second, FVC is Forced Vital Capacity, and FEF₅₀ is Forced Expiratory Flow at 50% of FVC. Breathing obstruction is defined as an FEV₁/FVC ratio less than 70%. Cough is defined as answering yes to the question: "Do you usually cough first thing in the morning and/or during the day in the winter for as much as three months each year?" Bronchitis is defined as answering yes to the question: "Do you usually bring up any phlegm from your chest first thing in the morning in the winter and/or during the day in the winter?" Mild shortness of breath is defined as answering yes to the question: "Are you troubled by shortness of breath when hurrying on level ground or walking up a slight hill?" Moderate shortness of breath as answering yes to the question: "Do you get short of breath walking with other people of your own age on level ground?" Severe shortness of breath as answering yes to the question: "Do you have to stop for breath when walking at your own pace on level ground?"

If you have any questions, feel free to call me at (304) 599-7476.

Sincerely,

John F. Gamble, Ph.D., Chief,
Epidemiology & Statistics Section

Enclosure

cc: Jack Buettner
P.O. Box 1502
Grand Island, NE 68801

W.W. Baskins
P.O. Box 977
Three Forks, MT 59752

Elton Hogg
P.O. Box 7187
Pima Mine Road
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PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 216 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	AGE																					TOTAL
	<20			20-29			30-39			40-49			50-59			>=60						
	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	
<=4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	4	0	0	12	15	1	1	1		1			1					4	17	20	
5-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1			5	10	15	3	2	2	1	1		1						11	13	17	
10-14						0	0	0	0	0	0	33		0	0	0	0	0	0	0	0	0
					5	5	3		8	1	1	3		1		1		1	6	8	16	
15-19						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						2	2	5	12	1		2		2	1	1			3	8	17	
20-24						2	0	0	0	0	50	0	0	0	0	0	0	0	0	33	0	
						1	1		8	3	2	6	1	1		1			6	3	15	
25-29										0	0	0	0	0	0	0	0	0	0	0	0	0
										5	1	6	2		2				7	1	8	
>=30									0	0	0	0	0	0	0	0	0	0	0	0	0	0
									1	2	3	4	4	6	10	3	1	2	9	11	16	
TOTAL	0	0	0	0	0	0	0	0	0	0	13	05	0	0	0	0	0	0	0	02	01	
	2	4	2	9	27	38	10	9	31	13	8	22	8	10	14	4	3	2	46	61	109	

F=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH PLEURAL THICK FOR 216 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	4	2	2	12	15	1	1	1			1			1				4	17	20
5-9	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	09	0	0
	1			5	10	15	3	2	2	1	1		1						11	13	17
10-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0
				1	5	5	3		8	1	1	3		1		1			6	8	16
15-19	0	0	0	0	0	0	08	0	0	0	0	50	0	0	0	0	0	0	0	0	12
							1				1										2
				2	2	5	12	1		2		2	2	1		1			3	8	17
20-24	0	0	0	0	0	0	13	0	0	17	0	0	0	0	100	0	0	0	17	0	13
							1			1		1			1				1		2
				1	1		8	3	2	6	1	1			1				6	3	15
25-29	0	0	0	0	0	0	0	0	0	40	0	17	0	0	50	0	0	0	29	0	25
										2		1			1				2		2
										5	1	6	2		2				7	1	8
>=30	0	0	0	0	0	0	0	0	0	25	0	25	0	30	0	0	0	0	11	0	25
										1		1		3					1		4
							1		2	3	4	4	6	10	3	1	2		9	11	16
TOTAL	0	0	0	11	0	0	10	0	06	15	0	18	13	0	29	25	0	0	13	0	19
				1			1		2	2		4	1		4	1			6		10
	2	4	2	9	27	38	10	9	31	13	8	22	8	10	14	4	3	2	46	61	109

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PLEURAL THICK
NUMBER DIAGNOSED PLEURAL THICK
NUMBER IN CATEGORY

30%

in Asbest.

1% PLT

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 216 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	AGE																					TOTAL
	<20			20-29			30-39			40-49			50-59			>=60						
	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	
<=4	0	0	0	0	0	0	0	0	0	---	---	0	---	---	0	---	---	---	0	0	0	
	1	4	2	2	12	15	1	1	1			1			1				4	17	20	
5-9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	1			5	15	15	3	2	2	1	1		1						11	13	17	
10-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
				2	5	5	3		8	1	1	3		1		1			6	8	16	
15-19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
							2	2	5	12	1	2		2	1	1			3	8	17	
20-24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
							1	1		8	3	2	6	1	1		1		6	3	15	
25-29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
										5	1	6	2		2				7	1	8	
>=30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
									1	2	3	4	4	6	10	3	1	2	9	11	16	
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	4	2	9	27	39	10	9	31	13	8	22	8	10	14	4	3	2	46	61	109	

F=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

MEAN FEFSO FOR 228 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

MONTANA REGION

TATC EXPOSURE (YEARS)	AGE																					TOTAL		
	<20			20-29			30-39			40-49			50-59			>=60								
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<4	579	482	504	476	522	499	362	469	245	----	----	150	----	----	140	----	----	----	473	515	457	4	21	21
	1	6	2	2	14	16	1	1	1			1			1									
5-9	209	----	----	474	526	463	305	479	331	384	216	----	423	----	----	----	----	----	398	499	455	12	15	17
	1			6	12	16	3	2	1	1	1		1											
10-14	----	----	----	385	521	436	232	440	391	294	224	219	----	530	----	----	164	----	293	440	385	6	10	14
				2	5	6	3	2	6	1	1	2		1			1							
15-19	----	----	----	----	----	412	544	416	346	351	----	608	----	222	296	----	145	----	479	334	381	3	8	17
						2	2	5	12	1		2		2	1		1							
20-24	----	----	----	----	----	328	609	----	348	380	403	434	296	410	----	113	----	----	359	405	379	6	3	16
						1	1		9	3	2	6	1	1		1								
25-29	----	----	----	----	----	----	----	----	----	368	287	349	336	----	164	----	----	----	360	287	308	8	1	9
										6	1	7	2		2									
>=30	----	----	----	----	----	----	583	----	457	305	354	257	277	152	182	399	214	277	335	218				
							1		2	3	5	4	5	10	3	2	2	9	11	17				
TOTAL	394	482	504	457	528	467	367	452	352	378	306	375	302	308	163	165	276	214	362	443	376			
	2	6	2	10	31	41	10	11	29	14	8	23	8	9	14	4	4	2	48	69	111			

FEFSO IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEFSO

NUMBER IN CATEGORY

MEAN FEV1 POP 228 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

MONTANA REGION

TATC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S
<=4	453	423	484	405	472	428	274	448	285	---	---	258	---	---	188	---	---	---	384	457	407
	1	6	2	2	14	16	1	1	1	---	---	1	---	---	1	---	---	---	4	21	21
5-9	260	---	---	404	453	444	317	402	370	272	280	---	282	---	---	---	---	---	369	435	440
	1	---	---	6	12	16	3	2	1	1	1	---	1	---	---	---	---	---	12	15	17
10-14	---	---	---	379	447	440	318	445	350	240	222	254	---	298	---	---	199	---	325	384	375
	---	---	---	2	5	6	3	2	6	1	1	2	---	1	---	---	1	---	6	10	14
15-19	---	---	---	---	---	424	426	370	365	421	---	423	---	261	259	---	187	---	424	320	372
	---	---	---	---	---	2	2	5	12	1	---	2	---	2	1	---	1	---	3	8	17
20-24	---	---	---	---	---	372	534	---	368	390	376	372	422	294	---	221	---	---	391	348	370
	---	---	---	---	---	1	1	---	9	3	2	6	1	1	---	1	---	---	6	3	16
25-29	---	---	---	---	---	---	---	---	---	325	358	400	316	---	269	---	---	---	322	358	371
	---	---	---	---	---	---	---	---	---	6	1	7	2	---	2	---	---	---	8	1	9
>=30	---	---	---	---	---	---	---	465	---	373	294	332	307	345	234	257	355	322	305	344	273
	---	---	---	---	---	---	---	1	---	2	3	5	4	5	10	3	2	2	9	11	17
TOTAL	356	423	484	423	461	435	356	405	360	342	311	361	320	315	238	248	274	322	351	401	374
	2	6	2	10	11	11	10	11	29	14	8	23	8	9	14	4	4	2	48	69	111

FEV1 IS IN CENTILITRES PER SECOND

F=FX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1

NUMBER IN CATEGORY

MEAN FVC FOR 228 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S
<=4	542	502	550	479	560	520	335	580	406	---	---	411	---	---	289	---	---	---	458	550	502
	1	6	2	2	14	16	1	1	1			1			1				4	21	21
5-9	359	---	---	565	547	571	425	525	529	346	404	---	348	---	---	---	---	---	476	534	568
	1			6	12	16	3	2	1	1	1		1						12	15	17
10-14	---	---	---	505	543	564	450	575	445	330	303	357	---	362	---	---	283	---	448	481	483
				2	5	6	3	2	6	1	1	2		1			1		6	10	14
15-19	---	---	---	---	---	543	539	455	497	584	---	497	---	353	345	---	279	---	554	407	493
						2	2	5	12	1		2		2	1		1		3	8	17
20-24	---	---	---	---	---	507	673	---	500	539	478	489	662	384	---	306	---	---	543	447	496
						1	1		9	3	2	6	1	1		1			6	3	16
25-29	---	---	---	---	---	---	---	---	---	463	551	537	392	---	426	---	---	---	445	551	513
										6	1	7	2		2				8	1	9
>=30	---	---	---	---	---	---	---	599	---	479	392	445	460	493	391	403	467	520	445	467	422
								1		2	3	5	4	5	10	3	2	2	9	11	17
TOTAL	450	502	559	535	556	547	471	514	485	472	420	480	454	435	385	378	374	520	473	502	496
	2	6	2	10	31	41	10	11	29	14	8	23	8	9	14	4	4	2	48	69	111

FVC IS IN CENTILITERS

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FVC
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 228 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YR APS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	0	0	0	0	0	0	0	100	1	100	1	1	1	0	0	10	2	21	21
5-9	0	0	0	0	0	13	0	50	100	0	100	0	0	0	0	0	13	18	2	13	18
10-14	1	0	0	6	12	16	3	2	1	1	1	1	1	1	1	12	15	17	1	15	17
15-19	0	0	0	0	0	0	33	0	0	0	0	50	0	0	0	0	25	24	0	25	24
20-24	0	0	0	0	0	0	0	0	33	0	0	100	0	0	0	33	0	13	2	0	13
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	44	2	1	4
>=30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	27	59	5	3	10
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 235 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	0	0	21	29	100	0	0	---	---	0	---	---	100	---	---	---	25	14	27
					7	5	1								1				1	3	6
	1	6	2	2	10	17	1	1	1			1			1				4	21	22
5-9	0	---	---	17	---	44	0	0	0	0	0	---	0	---	---	---	---	---	08	0	19
				1		7													1		7
	1			6	12	16	3	2	2	1	1		1						12	15	18
10-14	---	---	---	0	21	17	33	50	13	0	0	33	---	0	---	0	---	---	17	20	18
					1	1	1	1	1			1							1	2	3
				2	6	6	3	2	8	1	1	3		1		1			6	10	17
15-19	---	---	---	---	---	0	0	0	31	0	---	50	---	0	0	---	0	---	0	0	28
									4			1									5
						2	2	5	13	1		2		2	1		1		3	8	18
20-24	---	---	---	---	---	0	0	---	22	33	0	33	0	0	---	100	---	---	33	0	25
									2	1		2				1			2		4
						1	1		9	3	2	6	1	1		1			6	3	16
25-29	---	---	---	---	---	---	---	---	17	0	14	---	0	---	0	---	---	---	13	0	11
									1		1								1		1
									6	1	7		2		2				8	1	9
>=30	---	---	---	---	---	---	---	0	---	0	33	40	0	0	51	67	0	0	22	08	41
									1		2	2			5	2			2	1	7
									1		2	3	5	4	6	10	3	2	9	12	17
TOTAL	0	0	0	10	13	31	20	09	21	14	13	29	0	0	43	75	0	0	17	09	28
				1	4	13	2	1	7	2	1	7			6	3			8	6	33
	2	6	2	10	31	42	10	11	33	14	8	24	8	10	14	4	4	2	48	70	117

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 215 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

MONTANA REGION

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=4	0	0	5	50	07	35	0	0	0	---	---	0	---	---	100	---	---	---	25	05	36
	1	6	1	1	1	6	1	1	1	---	---	1	---	---	1	---	---	---	1	1	8
5-9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1	---	---	6	12	16	3	2	2	1	1	---	1	---	---	---	---	---	12	15	18
10-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
>=30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	0	0	5	10	17	29	0	0	27	14	25	33	0	0	50	25	25	0	08	09	32
	2	6	2	12	31	42	10	11	33	14	8	24	8	10	10	4	4	2	48	70	117

P=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED COUGH
NUMBER DIAGNOSED COUGH
NUMBER IN CATEGORY

NUMBER OF WORKERS WITH SHORTNESS OF BREATH FOR 234 WORKERS

MONTANA REGION

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	001	006	002	002	014	011	0	001	0	---	---	001	---	---	0	---	---	---	003	021	014
	0	0	0	0	0	006	001	0	001	0		0			001				001	0	008
	0	0	0	0	0	0	0	0	0	0		0			0				0	0	0
	0	0	0	0	0	0	0	0	0	0		0			0				0	0	0
5-9	001	---	---	006	009	014	002	002	001	001	001	---	001	---	---	---	---	---	011	012	015
	0			0	002	002	0	0	001	0	0		0						0	002	003
	0			0	001	0	001	0	0	0	0		0						001	001	0
	0			0	0	0	0	0	0	0	0		0						0	0	0
10-14	---	---	---	002	005	005	002	002	007	0	001	0	---	0	---	---	001	---	004	009	012
				0	0	001	0	0	001	0	0	002		001			0		0	001	004
				0	0	0	0	0	0	0	0	001		0			0		0	0	001
				0	0	0	0	0	0	001	0	0		0			0		001	0	0
15-19	---	---	---	---	---	001	001	003	012	001	---	001	---	002	0	---	0	---	002	005	014
						001	001	002	001	0		001		0	001		001		001	003	004
						0	0	0	0	0		0		0	0		0		0	0	0
						0	0	0	0	0		0		0	0		0		0	0	0
20-24	---	---	---	---	---	001	001	---	006	003	001	003	001	001	---	0	---	---	005	002	010
						0	0		002	0	001	003	0	0		0			0	001	005
						0	0		001	0	0	0	0	0		001			001	0	001
						0	0		0	0	0	0	0	0		0			0	0	0
25-29	---	---	---	---	---	---	---	---	---	001	001	005	002	---	002	---	---	---	003	001	007
										004	0	002	0		0				004	0	002
										001	0	0	0		0				001	0	0
										0	0	0	0		0				0	0	0
>=30	---	---	---	---	---	---	---	001	---	001	0	002	003	005	005	001	002	001	005	008	008
								0		001	002	003	001	0	005	001	0	001	003	002	009
								0		0	0	0	0	0	0	0	0	0	0	0	0
								0		0	001	0	0	001	0	001	0	0	001	002	0
TOTAL	002	006	002	010	029	032	006	009	026	007	004	012	007	008	007	001	003	001	033	058	080
	0	0	0	0	002	010	002	002	006	005	003	011	001	001	007	001	001	001	009	009	005
	0	0	0	0	001	0	001	0	001	001	0	001	0	0	0	001	0	0	003	001	002
	0	0	0	0	0	0	0	0	0	001	001	0	0	001	0	001	0	0	002	002	0

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH
NUMBER WITH MODERATE SHORTNESS OF BREATH

DEMOGRAPHIC DATA FOR 235 WORKERS

MONTANA REGION

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSED	SEX		RACE			SMOKING STATUS *		
			PERCENT MALE	PERCENT FEMALE	PERCENT BLACK	PERCENT OTHER	PERCENT WHITE	PERCENT SMOKERS	PERCENT EXSMOKERS	PERCENT NONSMOKERS
EXPOSED	35.9	15.3	80.0	20.1	0.0	0.9	99.1	49.8	20.4	29.8
UNEXPOSED	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0
TOTALS	35.9	15.3	80.0	20.1	0.0	0.9	99.1	49.8	20.4	29.8

235 TAIC WORKERS
0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKED LESS THAN 6 MONTHS
EX SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHS

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 20 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4			0			0															0
			1			1													0	0	0
5-9					0	0													1	1	2
					1	1	2												0		
10-14																			2		
15-19									0			0									0
									1			1									2
20-24									0			0									0
									1			1									2
25-29												0							0		
												1							1		
>=30												0		0	0	0			0		0
												1		2	2	2			3		4
TOTAL									0			0		0	0	0			0	0	0
												2		2	3	2			7	1	12

S=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH PLEURAL THICK FOR 20 WORKERS BY AGE SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4			0			0															0
			1			1															2
5-9				3	0	0													0	0	0
				1	1	2													1	1	2
10-14				50															50		
				1															1		
				2															2		
15-19									0			0									0
									1			1									2
20-24						0			0												0
						1			1												2
25-29									0										0		
									1										1		
>=30									0		50	50	50	50				33		50	
									1		1	1	1	1				1		2	
									1		2	2	2	2				3		4	
TOTAL			0	33	0	0		0	0		33	50	50	50				29	0	17	
			1	1					1		1	1	1	1				2		2	
			1	3	1	4		2	2		3	2	2	2				7	1	12	

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PLEURAL THICK
NUMBER DIAGNOSED PLEURAL THICK
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 20 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						0															0
			1			1															2
5-9					0	0													0	0	0
				1	1	2													1	1	2
10-14																			0		
				2															2		
15-19									0			0									0
									1			1									2
20-24						0			0												0
						1			1												2
25-29										0									0		
										1									1		
>=30										0		0	0		0				0		0
										1		2	2		2				3		4
TOTAL			0		0	0			0	0		0	0		0				0	0	0
			1	3	1	4			2	2		3	2		2				7	1	12

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY; PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

MEAN FEF50 FOR 20 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	AGE																		TOTAL		
	<20			20-29			30-39			40-49			50-59			>=60					
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4			560			375														467	
			1			1														2	
5-9			482		607	402													482	607	402
			1		1	2													1	1	2
10-14			385																385		
			2																2		
15-19								376			658									517	
								1			1									2	
20-24						328			459											393	
						1			1											2	
25-29									363										363		
									1										1		
>=30									553		314	141		69					278		191
									1		2	2		2					3		4
TOTAL			560	417	607	376		417	458		429	141		69				350	607	360	
			1	1	1	4		2	2		3	2		2				7	1	12	

FEF50 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NCN-SMOKER

S=SMOKER

CELLS KEY: MEAN FEF50
NUMBER IN CATEGORY

MEAN FEV1 FOR 20 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	AGE																					TOTAL		
	<20			20-29			30-39			40-49			50-59			>=60								
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4			499			426																	462	
			1			1																	2	
5-9				456	433	471													456	433	471			
				1	1	2													1	1	2			
10-14				379															379					
				2															2					
15-19							407			439													423	
							1			1													2	
20-24						372			372														372	
						1			1														2	
25-29									355										355					
									1										1					
>=30									367	341	264		176						298				258	
									1	2	2		2						3				4	
TOTAL			499	456	433	435			389	361	373	264		176				352	433	374				
			1	3	1	4			2	2	3	2		2				7	1	12				

FEV1 IS IN CENTILITERS PER SECOND

F=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1
NUMBER IN CATEGORY

MEAN PVC FOR 20 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL			
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	
<=4			576 1			561 1															568 2	
5-9				576 1	506 1	604 2													576 1	506 1	604 2	
10-14				505 2															505 2			
15-19									518 1			522 1									520 2	
20-24						507 1			480 1												493 2	
25-29										453 1										453 1		
>=30										443 1		475 2	451 2		325 2					448 3		400 4
TOTAL			576 1	528 3	506 1	569 4			499 2	448 2		491 3	451 2		325 2					483 7	506 1	497 12

PVC IS IN CENTILITERS

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PVC
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 20 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4																					0
		1				1														2	
5-9				2	0	0													0	0	0
				1	1	2													1	1	2
10-14				2															0		
				2															2		
15-19									0			0									0
									1			1									2
20-24						0			0												0
						1			1												2
25-29									0										0		
									1										1		
>=30									0		0	100		100					67		50
									2		2	2		2					2		2
									1		2	2		2					3		4
TOTAL				2	0	0			0	0		0	100		100				29	0	17
									2		2	2		2					2		2
				1	3	1	4		2	2		3	2	2					7	1	12

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 20 WORKERS BY AGE SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4			0			0															0
			1			1															2
5-9				0	0	50												0	0	50	
				1	1	2												1	1	2	
10-14				0														0			
				2														2			
15-19									100			0									50
									1											1	
									1			1								2	
20-24						0			0												0
						1			1												2
25-29										100								100			
										1								1			
										1								1			
>=30										0		50	0		50			0		50	
										1		2	1		2			3		2	
										1		2	2		2			3		4	
TOTAL			0	0	0	25			50	50		33	0		50			14	0	33	
			1	3	1	4			2	2		3	2		2			7	1	12	

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 20 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS GRAND ISLAND

TALC EXPOSURE (YEARS)	AGE																					TOTAL
	<20			20-29			30-39			40-49			50-59			>=60						
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	
<=4			100			0																50
			1																			1
			1			1																2
5-9				0	0	50													0	0		50
						1																1
				1	1	2													1	1		2
10-14				0															0			
				2															2			
15-19									100			0										50
									1													1
									1			1										2
20-24						0			0													0
						1			1													2
25-29										100									100			
										1									1			
										1									1			
>=30									0		50		0		50				0			50
											1				1							2
									1		2		2		2				3			4
TOTAL			100	0	0	25			50	50		33	0		50				14	0		42
			1			1			1	1		1			1				1			5
			1	1	1	4			2	2		3	2		2				7	1		12

E=EX-SMOKER

N=NON-SMOKER

L=SMOKER

CELLS KPY: PERCENT DIAGNOSED COUGH
NUMBER DIAGNOSED COUGH
NUMBER IN CATEGORY

NUMBERS OF WORKERS WITH SHORTNESS OF BREATH FOR 20 WORKERS

CYPRUS GRAND ISLAND

TALC EXPOSURE (YFAPS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	---	---	0.1	---	---	001	---	---	---	---	---	---	---	---	---	---	---	---	---	002	
						0														0	
						0														0	
						0														0	
5-9	---	---	---	---	001	002	---	---	---	---	---	---	---	---	---	---	---	---	001	001	002
					0	0													0	0	0
					0	0													0	0	0
					0	0													0	0	0
10-14	---	---	---	---	---	002	---	---	---	---	---	---	---	---	---	---	---	---	002	---	---
						0													0		
						0													0		
						0													0		
15-19	---	---	---	---	---	---	---	001	---	---	001	---	---	---	---	---	---	---	---	---	002
								0			0									0	
								0			0									0	
								0			0									0	
20-24	---	---	---	---	---	001	---	001	---	---	---	---	---	---	---	---	---	---	---	---	002
						0		0												0	
						0		0												0	
						0		0												0	
25-29	---	---	---	---	---	---	---	---	0	---	---	---	---	---	---	---	---	---	0	---	---
									001										001		
									0										0		
									0										0		
>=30	---	---	---	---	---	---	---	---	001	---	001	002	---	001	---	---	---	---	003	---	002
									0		001	0		001					0	---	002
									0		0	0		0					0		0
									0		0	0		0					0		0
TOTAL	---	---	001	003	001	004	---	---	002	001	---	002	002	---	001	---	---	---	006	001	010
			0	0	0	0			0	001		001	0		001				001	0	002
			0	0	0	0			0	0		0	0		0				0	0	0
			0	0	0	0			0	0		0	0		0				0	0	0

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH
NUMBER WITH MODERATE SHORTNESS OF BREATH

DEMOGRAPHIC DATA FOR 20 WORKERS

CYPRUS GRAND ISLAND

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSED	SEX		RACE			SMOKING STATUS *		
			PERCENT MALE	PERCENT FEMALE	PERCENT BLACK	PERCENT OTHER	PERCENT WHITE	PERCENT SMOKERS	PERCENT EX-SMOKERS	PERCENT NON-SMOKERS
EXPOSED	37.5	19.7	100.0	0.0	0.0	5.0	95.0	60.0	35.0	5.0
UNEXPOSED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	37.5	19.7	100.0	0.0	0.0	5.0	95.0	60.0	35.0	5.0

20 TALE WORKERS
0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKED LESS THAN 6 MONTHS
EX-SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHS

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 33 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS THREE FORKS

CALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE			40-49			50-59			>=60			TOTAL		
	E N S			E N S			E N S			E N S			E N S			E N S			E N S			F N S		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	F	N	S
<=4					0	0																0	0	
					1	1																1	1	
5-9				0	0	0																0	0	0
				1	1	2																1	1	2
10-14					0	0				0												0	0	
					3	2				2												3	4	
15-19						0	0	0		0												0	0	0
						1	1	1		2												1	1	3
20-24										0	0	50	0									0	50	0
										1	2	2	1									2	2	2
25-29										0		0	0	0								0		0
										1		2	1									2		2
>=30										0		0	0	0	0	0	0					0		0
										1		1	1	1	1	1	1					3		2
TOTAL				0	0	0	0	0	0	0	50	0	0	0	0	0	0					0	13	0
				1	5	6	1	1	5	4	2	4	2		1	1						9	8	16

=EX-SMOKER

=NON-SMOKER

=SMOKER

CELLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH PLEURAL THICK FOR 33 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS THREE FOPKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=4					0	0													0	0	
					1	1													1	1	
5-9				0	0	0													0	0	0
				1	1	2													1	1	2
10-14					0	0			0										0	0	
					3	2			2										3	4	
15-19						0	0	0	0										0	0	0
						1	1	1	2										1	1	3
20-24									100	0	0	0							0	0	50
									1	2	2	1							2	2	2
25-29										100		0	0						50		0
										1									1		
										1		2	1						2		2
>=30										0		0	0		100	0			0		50
															1						1
										1		1	1		1	1			3		2
TOTAL				0	0	0	0	0	20	25	0	0	0		100	0			11	0	13
									1	1					1				1		2
				1	5	6	1	1	5	4	2	4	2		1	1			9	8	16

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PLEURAL THICK
NUMBER DIAGNOSED PLEURAL THICK
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 33 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRIUS THREE PORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						0													0		0
					1	1													1	1	1
5-9				0	0	0													0	0	0
				1	1	2													1	1	2
10-14					0	0			0										0	0	0
					3	2			2										3	4	4
15-19						0	0	0	0										0	0	0
						1	1	1	2										1	1	3
20-24									0	0	0	0							0	0	0
									1	2	2	1							2	2	2
25-29									0		0	0							0		0
									1		2	1							2		2
>=30									0		0	0		0	0				0		0
									1		1	1		1	1				3		2
TOTAL				0	0	0	0	0	0	0	0	0	0	0	0				0	0	0
				1	5	6	1	1	5	4	2	4	2	1	1				9	8	16

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

MEAN PEF50 FOR 33 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS THREE FORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL			
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	
<=4					612															612		
					1															1		
5-9					529	569	574													528	569	574
					2	1	2													2	1	2
10-14					520	365			369											520	367	
					3	2			2											3	4	
15-19						363	498	525	260											498	525	294
						1	1	1	2											1	1	3
20-24									199	420	403	315								420	403	257
									1	2	2	1								2	2	2
25-29										223		365	358							290		365
										1		2	1							2		2
>=30										362		492	369		81	240				323		286
										1		1	1		1	1				3		2
TOTAL					528	548	448	498	525	291	356	403	384	363		81	240			394	509	354
					2	5	5	1	1	5	4	2	4	2		1	1			10	8	15

PEF50 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PEF50
NUMBER IN CATEGORY

MEAN FEV1 FOR 33 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPFUS THREE FORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4				519															519		
				1															1		
5-9				458	491	475													458	491	475
				2	1	2													2	1	2
10-14				417	437				361										417	399	
				1	2				2										3	4	
15-19				442	399	434	302												399	434	349
				1	1	1	2												1	1	3
20-24								327	401	376	352								401	376	339
								1	2	2	1								2	2	2
25-29									326		378	391							358		378
									1		2	1							2		2
>=30									379		424	318		239	311				336		331
									1		1	1		1	1				3		2
TOTAL				458	452	453	399	434	330	377	376	383	354		239	311			384	431	379
				2	5	5	1	1	5	4	2	4	2		1	1			10	8	15

FEV1 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1
NUMBER IN CATEGORY

MEAN FVC FOR 33 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS THREE FORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4					611														611		
					1														1		
5-9				569	569	559													569	568	559
				2	1	2													2	1	2
10-14					495	559			480										495		519
					3	2			2										3		4
15-19						581	508	536	433										508	536	482
						1	1	1	2										1	1	3
20-24									545	554	478	486							554	478	515
									1	2	2	1							2	2	2
25-29										517		546	491						504		546
										1		2	1						2		2
>=30										515		529	410		458	458			461		493
										1		1	1		1	1			3		2
TOTAL				569	533	563	508	536	474	535	478	527	450		458	458			514	519	517
				2	5	5	1	1	5	4	2	4	2		1	1			10	8	15

FVC IS IN CENTILITERS

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FVC
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 33 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS THREE FORKS

CYPRUS THREE FORKS																					
TALC EXPOSURE (YEARS)	AGE																				
	<20		20-29			30-39			40-49			50-59			>=60			TOTAL			
	E	N	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	
<=4																			0		
					1														1		
5-9				0	0	0												0	0	0	
				2	1	2												2	1	2	
10-14					0	0		0											0	0	
					3	2		2											3	4	
15-19						0	0	0	50									0	0	33	
									1										1		
						1	1	1	2									1	1	3	
20-24									100	50	0	0						50	0	50	
									1	1								1		1	
									1	2	2	1						2	2	2	
25-29									100		50		0					50		50	
									1		1							1		1	
									1		2		1					2		2	
>=30										0		0	0	100	100			33		50	
										1		1	1	1	1			1		1	
									1		1		1	1	1			3		2	
TOTAL					0	0	0	0	0	40	50	0	25	0	100	100		30	0	27	
									2	2		1			1	1		3		4	
					2	5	5	1	1	5	4	2	4	2	1	1		10	8	15	

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 34 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS THREE FORKS

TALC EXPOSURE (YEARS)	AGE																		TOTAL		
	<20			20-29			30-39			40-49			50-59			>=60					
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=4					0	100													0	100	
					1	1													1	1	
					1	1													1	1	
5-9				0	0	50													0	0	50
					1	1													1	1	
				2	1	2													2	1	2
10-14					33	0			0										33	0	
					1	1													1	1	
					3	2			2										3	4	
15-19						0	0	0	0										0	0	0
						1	1	1	2										1	1	3
20-24									0	0	0	0							0	0	0
									1	2	2	1							2	2	2
25-29										0		0	0						0		0
										1		2	1						2		2
>=30										0		100	0		0	0			0		50
										1		1	1		1	1			1		1
										1		1	1		1	1			3		2
TOTAL				0	20	33	0	0	0	0	0	25	0		0	0			0	13	19
					1	2						1							1	3	
				2	5	6	1	1	5	4	2	4	2		1	1			10	8	16

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 34 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS THREE FORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=4				0	100														0	100	
				1	1														1	1	
5-9				0	0	0													0	0	0
				2	1	2													2	1	2
10-14				0	0				0										0	0	0
				1	2				2										3	4	
15-19					0	0	0	0											0	0	0
					1	1	1	2											1	1	3
20-24									0	0	0	0							0	0	0
									1	2	2	1							2	2	2
25-29									0		50		0						0		50
										1	2		1						2		2
>=30									0		100		0		100	0			0		100
										1	1		1		1	1			3		2
TOTAL				0	0	17	0	0	0	0	0	50	0		100	0			0	0	25
					1						2				1						4
				2	5	6	1	1	5	4	2	4	2		1	1			10	8	16

NUMBER OF WORKERS WITH SHORTNESS OF BREATH FOR 34 WORKERS

CYPRUS THREE FORKS

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	---	---	---	---	001	001	---	---	---	---	---	---	---	---	---	---	---	---	001	001	---
					0	0													0	0	---
					0	0													0	0	---
					0	0													0	0	---
5-9	---	---	---	002	001	001	---	---	---	---	---	---	---	---	---	---	---	002	001	001	---
				0	0	001												0	0	001	---
				0	0	0												0	0	0	---
				0	0	0												0	0	0	---
10-14	---	---	---	---	003	002	---	---	001	---	---	---	---	---	---	---	---	---	003	003	---
					0	0			001										0	001	---
					0	0			0										0	0	---
					0	0			0										0	0	---
15-19	---	---	---	---	---	001	0	001	002	---	---	---	---	---	---	---	---	0	001	003	---
					0	001	0	0	0									001	0	0	---
					0	0	0	0	0									0	0	0	---
					0	0	0	0	0									0	0	0	---
20-24	---	---	---	---	---	---	---	---	0	002	001	001	---	---	---	---	---	002	001	001	---
									001	0	001	0						0	001	001	---
									0	0	0	0						0	0	0	---
									0	0	0	0						0	0	0	---
25-29	---	---	---	---	---	---	---	---	0	---	001	001	---	---	---	---	---	001	---	001	---
									001		001	0						001		001	---
									0		0	0						0		0	---
									0		0	0						0		0	---
>=30	---	---	---	---	---	---	---	---	0	---	0	0	---	0	001	---	---	001	---	0	---
									001		001	001		001	0			002		002	---
									0		0	0		0	0			0		0	---
									0		0	0		0	0			0		0	---
TOTAL	---	---	---	002	005	005	0	001	003	002	001	002	001	---	0	001	---	006	007	010	---
				0	0	001	001	0	002	002	001	002	001		001	0		004	001	006	---
				0	0	0	0	0	0	0	0	0	0		0	0		0	0	0	---
				0	0	0	0	0	0	0	0	0	0		0	0		0	0	0	---

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH
NUMBER WITH MODERATE SHORTNESS OF BREATH

DEMOGRAPHIC DATA FOR 34 WORKERS

CYPRUS THREE PORKS

CYPRUS THREE FORKS											
PRINCIPAL WORK AREA	MEAN AGE	YEAR YEARS EXPOSED	SEX		PERCENT BLACK	RACE		PERCENT WHITE	SMOKING STATUS *		
			PERCENT MALE	PERCENT FEMALE		PERCENT OTHER	PERCENT SMOKERS		PERCENT EXSMOKERS	PERCENT NONSMOKERS	
EXPOSED	36.1	18.1	100.0	0.0	0.0	0.0	100.0	47.1	29.4	23.5	
UNEXPOSED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTALS	36.1	18.1	100.0	0.0	0.0	0.0	100.0	47.1	29.4	23.5	

34 TALE WORKERS
0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKED LESS THEN 6 MONTHS
EX SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHES

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 15 WORKERS BY AGE& SMOKING STATUS,& EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						0															0
						1															1
5-9						0	0	0	0										0	0	0
						1	1	1	1										1	1	2
10-14						0		0				0							0	0	0
						1		2				1							2	1	1
15-19								0		0									0	0	
								1		1									1	1	
20-24									0												0
									1												1
25-29												0									0
												1									1
>=30														0							0
														2							2
TOTAL						0	0	0	0	0	0	0		0					0	0	0
						1	2	3	2	2	1	2		2					4	3	8

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH PLEURAL THICK FOR 15 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=4						0															0
						1															1
5-9						0	0	0	0									0	0	0	0
						1	1	1	1									1	1	2	2
10-14						0		0				0						0	0	0	0
						1		2				1						2	1	1	1
15-19									0		0							0	0		
									1		1							1	1		
20-24										0											0
									1												1
25-29												0								0	0
												1								1	1
>=30															0					0	0
															2					2	2
TOTAL						0	0	0	0	0	0	0			0			0	0	0	0
						1	2	3	2	2	1	2			2			4	3	8	8

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PLEURAL THICK
NUMBER DIAGNOSED PLEURAL THICK
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 15 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						0															0
						1															1
5-9						0	0	0	0										0	0	0
						1	1	1	1										1	1	2
10-14					0		0					0							0	0	0
					1		2					1							2	1	1
15-19								0		0									0	0	
								1		1									1	1	
20-24									0												0
									1												1
25-29												0									0
												1									1
>=30															0						0
															2						2
TOTAL					0	0	0	0	0	0		0			0				0	0	0
					1	2	3	2	2	1		2			2				4	3	8

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

MEAN PEF50 FOR 15 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS BEAVERHEAD

AGE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						532															532
						1															1
5-9						503	292	371	331										292	371	417
						1	1	1	1										1	1	2
10-14						526		234				208							234	526	208
						1		2				1							2	1	1
15-19								497		351									351	497	
								1		1									1	1	
20-24									279												279
									1												1
25-29												437									437
												1									1
>=30														72							72
														2							2
TOTAL						526	517	253	434	305	351		322			72			278	464	304
						1	2	3	2	2	1		2			2			4	3	8

PEF50 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PEF50
NUMBER IN CATEGORY

MEAN FEV1 FOR 15 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						448 1														448 1	
5-9						505 1	381 1	472 1	370 1										381 1	472 1	437 2
10-14						512 1		375 2				349 1							375 2	512 1	349 1
15-19								403 1		421 1									421 1	403 1	
20-24									388 1												388 1
25-29												369 1									369 1
>=30														208 2							208 2
TOTAL						512 1	476 2	377 3	437 2	379 2	421 1	359 2		208 2					388 4	462 3	355 8

FEV1 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1
NUMBER IN CATEGORY

MEAN PVC FOR 15 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPPUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						548															548
						1															1
5-9						669	535	688	529										535	688	599
						1	1	1	1										1	1	2
10-14						631							529						540	631	529
						1							1						2	1	1
15-19										464		584							584	464	
										1		1							1	1	
20-24											551										551
											1										1
25-29													469								469
													1								1
>=30														453							453
														2							2
TOTAL						631	608	538	576	540	584		499			453			549	594	525
						1	2	3	2	2	1		2			2			4	3	8

PVC IS IN CENTILITERS

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PVC
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 15 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	AGE																					TOTAL	
	<20			20-29			30-39			40-49			50-59			>=60							
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S		
<=4						0															0		
						1															1		
5-9						0	0	100	100										0	100	50		
								1	1											1	1		
						1	1	1	1										1	1	2		
10-14						0		50				100							50	0	100		
								1				1							1		1		
						1		2				1							2	1	1		
15-19									0		0								0	0			
									1		1								1	1			
20-24										0											0		
											1										1		
25-29												0									0		
													1								1		
>=30															100						100		
															2						2		
															2						2		
TOTAL						0	0	33	50	50	0	50			100				25	33	50		
								1	1	1		1			2				1	1	4		
						1	2	3	2	2	1	2			2				4	3	8		

E=FX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 15 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						100														100	
						1														1	
						1														1	
5-9						0	0	0	0										0	0	0
						1	1	1	1										1	1	2
10-14						0						0							0	0	0
						1	2					1							2	1	1
15-19										0		0							0	0	
										1		1							1	1	
20-24												0									0
										1											1
25-29												0									0
												1									1
>=30															50					50	
															1					1	
															2					2	
TOTAL						50	0	0	0	0		0			50				0	0	25
						1									1					2	
						1	2	3	2	2	1	2			2				4	3	8

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 15 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4						100														100	
						1														1	
						1														1	
5-9						100	0	0	0									0	0	50	
						1														1	
						1	1	1	1										1	1	2
10-14						0						0							0	0	0
						1						1							2	1	1
15-19								0		0									0	0	
								1		1									1	1	
20-24										0											0
										1											1
25-29												100								100	
												1								1	
												1								1	
>=30															50					50	
															1					1	
															2					2	
TOTAL						100	0	0	0	0		50			50				0	0	50
						2						1			1						4
						1	2	3	2	2	1	2			2				4	3	8

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED COUGH
NUMBER DIAGNOSED COUGH
NUMBER IN CATEGORY

NUMBER OF WORKERS WITH SHORTNESS OF BREATH FOR 14 WORKERS

CYPRUS BEAVERHEAD

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	---	---	---	---	---	001	---	---	---	---	---	---	---	---	---	---	---	---	---	001	---
						0														0	
						0														0	
						0														0	
5-9	---	---	---	---	---	001	001	001	001	---	---	---	---	---	---	---	---	001	001	002	
						0	0	0	0								0	0	0		
						0	0	0	0								0	0	0		
						0	0	0	0								0	0	0		
10-14	---	---	---	---	001	---	001	---	---	---	---	0	---	---	---	---	001	001	---	0	
					0		0					0					0	0	0		
					0		0				001						0	0	001		
					0		0				0						0	0	0		
15-19	---	---	---	---	---	---	---	0	---	001	---	---	---	---	---	---	001	---	---	---	
								001		0							0	001			
								0		0							0	0			
								0		0							0	0			
20-24	---	---	---	---	---	---	---	---	001	---	---	---	---	---	---	---	---	---	---	---	001
									0											0	
									0											0	
									0											0	
25-29	---	---	---	---	---	---	---	---	---	---	---	001	---	---	---	---	---	---	---	---	001
												0								0	
												0								0	
												0								0	
>=30	---	---	---	---	---	---	---	---	---	---	---	---	---	001	---	---	---	---	---	---	001
														001						001	
														0						0	
														0						0	
TOTAL	---	---	---	---	001	002	002	001	002	001	---	001	---	---	001	---	---	---	003	002	006
					0	0	0	001	0	0		0		001			0	001	001		
					0	0	0	0	0	0		001		0			0	0	0	001	
					0	0	0	0	0	0		0		0			0	0	0		

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH
NUMBER WITH MODERATE SHORTNESS OF BREATH

DEMOGRAPHIC DATA FOR 15 WORKERS

CYPRUS PEPPERHEAD

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSURE	SEX		RACE			SMOKING STATUS *		
			PERCENT MALE	PERCENT FEMALE	PERCENT BLACK	PERCENT OTHER	PERCENT WHITE	PERCENT SMOKERS	PERCENT EXSMOKERS	PERCENT NONSMOKERS
EXPOSED	37.0	15.1	100.0	0.0	0.0	0.0	100.0	53.3	26.7	20.0
UNEXPOSED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	37.0	15.1	100.0	0.0	0.0	0.0	100.0	53.3	26.7	20.0

15 TALEN WORKERS
0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKED LESS THEN 6 MONTHS
EX-SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHS

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 48 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	---	0	0	0	0	---	---	---	---	---	---	---	---	---	---	---	0	0	0
	1	2	---	2	5	1	1	---	---	---	---	---	---	---	---	---	---	---	2	5	5
5-9	---	---	---	0	0	---	---	---	0	0	---	0	---	---	---	---	---	---	0	0	0
	---	---	---	1	2	---	---	---	1	1	---	1	---	---	---	---	---	---	2	2	2
10-14	---	---	---	0	0	---	---	0	---	---	---	---	0	---	0	---	---	---	0	0	0
	---	---	---	1	1	---	---	2	---	---	---	---	1	---	1	---	---	---	3	3	3
15-19	---	---	---	---	---	---	0	0	0	---	---	---	0	0	---	---	---	---	0	0	0
	---	---	---	---	---	---	1	1	3	---	---	---	1	1	---	---	---	---	1	2	4
20-24	---	---	---	---	---	---	0	---	0	---	0	---	0	---	---	---	---	---	0	0	0
	---	---	---	---	---	---	1	---	1	---	2	---	1	---	---	---	---	---	1	1	3
25-29	---	---	---	---	---	---	---	---	0	0	0	---	---	---	---	---	---	---	0	0	0
	---	---	---	---	---	---	---	---	2	1	1	---	---	---	---	---	---	---	2	1	1
>=30	---	---	---	---	---	---	0	---	0	---	0	0	0	---	0	---	0	0	0	0	0
	---	---	---	---	---	---	1	---	2	---	1	2	---	1	---	1	2	5	1	1	1
TOTAL	0	0	---	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	---	4	8	3	1	6	3	4	3	2	5	1	1	1	1	10	19	19	19

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH PLEURAL THICK FOR 48 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	---	0	0	0	0	---	---	---	---	---	---	---	---	0	0	0	0	0	0
	1	2		2	5	1	1									2	5	5			
5-9	---	---	---	0	0	---	---	---	0	0	---	0	---	---	---	0	0	0	0	0	0
				1	2				1	1		1				2	2	2			
10-14	---	---	---	0	0	---	0	---	---	---	---	0	---	---	0	---	---	0	0	0	0
				1	1		2					1		1		3	3				
15-19	---	---	---	---	---	0	0	0	---	---	---	0	0	---	---	0	0	0	0	0	0
						1	1	3				1	1			1	2	4			
20-24	---	---	---	---	---	0	---	0	---	0	---	0	---	---	---	0	0	0	0	0	0
						1		1		2		1				1	1	3			
25-29	---	---	---	---	---	---	---	---	0	0	0	---	---	---	---	0	0	0	0	0	0
									2	1	1					2	1	1			
>=30	---	---	---	---	---	---	0	---	0	---	0	---	0	0	---	0	0	0	0	0	0
							1		2		1	2		1		1	2	5	1		
TOTAL	0	0	---	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2		4	8	3	3	6	3	4	3	2	5	1	1	1	1	10	19	19	

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED PLEURAL THICK
NUMBER DIAGNOSED PLEURAL THICK
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 48 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	---	0	0	0	0	0	---	---	---	---	---	---	---	---	---	---	0	0	0
5-9	1	2	---	2	5	1	1	---	---	---	---	---	---	---	---	---	---	---	2	5	5
10-14	---	---	---	0	0	---	---	---	---	0	0	---	0	0	---	0	0	---	0	0	0
15-19	---	---	---	1	1	---	---	---	---	2	1	1	1	---	---	---	---	---	2	2	2
20-24	---	---	---	---	---	---	0	0	0	---	---	---	0	0	---	0	0	---	0	0	0
25-29	---	---	---	---	---	---	1	1	3	---	---	---	1	1	---	1	2	4	1	2	4
>=30	---	---	---	---	---	---	0	0	0	---	---	---	0	0	---	0	0	---	0	0	0
TOTAL	0	0	---	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	---	4	6	3	3	6	3	4	3	2	5	1	1	1	1	10	19	19	19

E=FX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

MEAN PEF50 FOR 48 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	579 1	497 2	---	509 2	536 5	362 1	469 1	---	---	---	---	---	---	---	---	---	---	---	470 2	496 5	536 5
5-9	---	---	---	596 1	356 2	---	---	---	384 1	216 1	---	423 1	---	---	---	---	---	---	403 2	406 2	356 2
10-14	---	---	---	515 1	538 1	---	---	450 2	---	---	---	---	530 1	---	---	164 1	---	---	403 3	479 3	---
15-19	---	---	---	---	---	590 1	347 1	286 3	---	---	---	---	168 1	296 1	---	---	---	590 1	257 2	288 4	
20-24	---	---	---	---	---	609 1	---	102 1	---	---	314 2	---	410 1	---	---	---	---	609 1	410 1	243 3	
25-29	---	---	---	---	---	---	---	---	310 2	287 1	116 1	---	---	---	---	---	---	310 2	287 1	116 1	
>=30	---	---	---	---	---	---	583 1	---	297 2	---	---	379 1	338 2	---	30 1	---	213 1	204 2	370 5	213 1	---
TOTAL	579 1	497 2	---	532 4	491 8	520 3	466 3	310 6	335 3	274 4	248 3	401 2	356 5	296 1	30 1	164 1	213 1	397 10	398 19	370 19	---

PEF50 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PEF50
NUMBER IN CATEGORY

MEAN FEV1 FOR 49 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	453 1	381 2			449 2	407 5	274 1	448 1											363 2	422 5	407 5
5-9					395 1	355 2				272 1	280 1		282 1						277 2	337 2	355 2
10-14					471 1	428 1				341 2			298 1			199 1			322 3	370 3	
15-19							453 1	264 1	328 3				250 1	259 1					453 1	257 2	310 4
20-24							534 1		170 1			270 2	294 1						534 1	294 1	236 3
25-29										253 2	358 1	222 1							253 2	358 1	222 1
>=30								465 1		255 2			381 1	336 2		91 1		343 1	236 2	329 5	343 1
TOTAL	453 1	381 2			441 4	396 8	420 3	392 3	306 6	259 3	287 4	254 3	331 2	303 5	259 1	91 1	199 1	343 1	324 10	345 19	335 19

FEV1 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1
NUMBER IN CATEGORY

MEAN FVC FOR 48 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	AGE																				
	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	542 1	431 2	---	548 2	474 5	335 1	580 1	---	---	---	---	---	---	---	---	---	---	---	438 2	507 5	474 5
5-9	---	---	---	430 1	475 2	---	---	---	346 1	404 1	---	348 1	---	---	---	---	---	---	347 2	417 2	475 2
10-14	---	---	---	600 1	552 1	---	---	406 2	---	---	---	---	362 1	---	---	283 1	---	---	---	415 3	454 3
15-19	---	---	---	---	---	570 1	309 1	451 3	---	---	---	---	375 1	345 1	---	---	---	---	570 1	342 2	424 4
20-24	---	---	---	---	---	673 1	---	285 1	---	---	356 2	---	384 1	---	---	---	---	---	673 1	384 1	332 3
25-29	---	---	---	---	---	---	---	---	414 2	551 1	373 1	---	---	---	---	---	---	---	414 2	551 1	373 1
>=30	---	---	---	---	---	---	599 1	---	---	318 2	---	529 1	481 2	---	195 1	---	584 1	---	362 2	439 5	584 1
TOTAL	542 1	431 2	---	531 4	484 8	526 3	496 3	408 6	391 3	397 4	361 3	438 2	416 5	345 1	195 1	283 1	584 1	436 10	443 19	438 19	

FVC IS IN CENTILITERS

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FVC
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 48 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	0	0	---	0	0	0	0	---	---	---	---	---	---	---	---	0	0	0	0	0	0
	1	2	---	2	5	1	1	---	---	---	---	---	---	---	---	2	5	5	2	5	5
5-9	---	---	---	0	50	---	---	---	0	100	---	0	---	---	---	0	50	50	0	50	50
	---	---	---	1	1	---	---	---	1	1	---	1	---	---	---	2	2	2	1	1	1
	---	---	---	1	2	---	---	---	1	1	---	1	---	---	---	2	2	2	2	2	2
10-14	---	---	---	0	0	---	---	---	0	---	---	0	---	---	0	0	---	0	0	0	0
	---	---	---	1	1	---	---	---	2	---	---	1	---	---	1	3	3	3	3	3	3
15-19	---	---	---	---	---	---	0	0	67	---	---	100	0	---	---	0	50	50	0	50	50
	---	---	---	---	---	---	1	1	2	---	---	1	---	---	---	1	1	2	1	2	2
	---	---	---	---	---	---	1	1	3	---	---	1	1	---	---	1	2	4	1	4	4
20-24	---	---	---	---	---	---	0	---	100	---	---	0	---	---	---	0	0	33	0	0	33
	---	---	---	---	---	---	1	---	1	---	---	2	---	---	---	1	1	1	1	1	1
	---	---	---	---	---	---	1	---	1	---	---	2	---	---	---	1	1	3	1	3	3
25-29	---	---	---	---	---	---	---	---	50	100	100	---	---	---	---	50	100	100	50	100	100
	---	---	---	---	---	---	---	---	1	1	1	---	---	---	---	1	1	1	1	1	1
	---	---	---	---	---	---	---	---	2	1	1	---	---	---	---	2	1	1	2	1	1
>=30	---	---	---	---	---	---	0	---	---	0	---	0	50	---	100	100	50	20	100	100	100
	---	---	---	---	---	---	1	---	---	2	---	1	2	---	1	1	1	1	1	1	1
	---	---	---	---	---	---	1	---	---	2	---	1	2	---	1	2	5	1	2	5	1
TOTAL	0	0	---	7	13	0	0	50	33	50	33	0	40	0	100	0	100	20	21	32	32
	1	2	---	4	8	3	3	6	3	4	3	2	5	1	1	1	10	19	6	19	19

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 48 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<=4	0	0		51	20	100	0												50	20	20
				1	1	1													1	1	1
	1	2		2	5	1	1												2	5	5
5-9					50				0	0			0						0	0	50
					1																1
				1	2				1	1			1						2	2	2
10-14					100				0				0			0			0		33
					1															1	
				1	1				2				1			1			3	3	
15-19							0	0	33				0	0					0	0	25
									1												1
							1	1	3				1	1					1	2	4
20-24							0		0			0				0			0	0	0
							1		1			2			1				1	1	3
25-29										0	0	100							0	0	100
												1									1
										2	1	1							2	1	1
>=30							0			0			0	0		100		0	50	0	0
																1			1		
							1			2			1	2		1		1	2	5	1
TOTAL	0	0		25	38	33	0	17	0	0	33	0	0	0	100	0	0	20	05	26	
				1	3	1		1			1				1			2	1	5	
	1	2		4	8	3	3	6	3	4	3	2	5	1	1	1	1	10	19	19	

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 48 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

CYPRUS YELLOWSTONE

TALC EXPOSURE (YAPRS)	AGE																		TOTAL		
	<20			20-29			30-39			40-49			50-59			>=60					
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<4	0	0	---	0	0	0	0	0	---	---	---	---	---	---	---	---	---	---	0	0	0
5-9	1	2	---	2	5	1	1	---	---	0	100	---	0	---	---	---	---	---	2	5	5
10-14	---	---	---	0	0	---	---	---	0	---	---	---	0	---	---	100	---	---	33	---	0
15-19	---	---	---	---	---	---	0	0	33	---	---	---	0	0	---	---	---	---	0	0	25
20-24	---	---	---	---	---	---	---	---	100	---	---	---	0	---	---	---	---	---	0	0	33
25-29	---	---	---	---	---	---	---	---	---	0	0	100	---	---	---	---	---	---	0	0	100
>=30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	0	0
TOTAL	0	0	---	0	0	0	0	33	0	25	33	0	0	0	0	100	0	0	11	16	---
	1	2	---	4	8	3	3	6	3	4	3	2	5	1	1	1	1	10	19	19	---

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED COUGH
NUMBER DIAGNOSED COUGH
NUMBER IN CATEGORY

NUMBER OF WORKERS WITH SHORTNESS OF BREATH FOR 48 WORKERS

CYPRUS YELLOWSTONE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	001	002	---	---	002	002	0	001	---	---	---	---	---	---	---	---	---	---	001	005	002
	0	0	---	---	0	003	001	0	---	---	---	---	---	---	---	---	---	---	001	0	003
	0	0	---	---	0	0	0	0	---	---	---	---	---	---	---	---	---	---	0	0	0
	0	0	---	---	0	0	0	0	---	---	---	---	---	---	---	---	---	---	0	0	0
5-9	---	---	---	---	001	002	---	---	---	001	001	---	001	---	---	---	---	---	002	002	002
	---	---	---	---	0	0	---	---	---	0	0	---	0	---	---	---	---	---	0	0	0
	---	---	---	---	0	0	---	---	---	0	0	---	0	---	---	---	---	---	0	0	0
	---	---	---	---	0	0	---	---	---	0	0	---	0	---	---	---	---	---	0	0	0
10-14	---	---	---	---	001	001	---	---	002	---	---	---	---	0	---	001	---	---	002	003	---
	---	---	---	---	0	0	---	---	0	---	---	---	001	---	---	0	---	---	001	0	---
	---	---	---	---	0	0	---	---	0	---	---	---	0	---	---	0	---	---	0	0	---
	---	---	---	---	0	0	---	---	0	---	---	---	0	---	---	0	---	---	0	0	---
15-19	---	---	---	---	---	---	001	001	003	---	---	---	---	001	0	---	---	---	001	002	003
	---	---	---	---	---	---	0	0	0	---	---	---	---	0	001	---	---	---	0	0	001
	---	---	---	---	---	---	0	0	0	---	---	---	---	0	0	---	---	---	0	0	0
	---	---	---	---	---	---	0	0	0	---	---	---	---	0	0	---	---	---	0	0	0
20-24	---	---	---	---	---	---	001	---	001	---	---	001	---	001	---	---	---	---	001	001	002
	---	---	---	---	---	---	0	---	0	---	---	001	---	0	---	---	---	---	0	0	001
	---	---	---	---	---	---	0	---	0	---	---	0	---	0	---	---	---	---	0	0	0
	---	---	---	---	---	---	0	---	0	---	---	0	---	0	---	---	---	---	0	0	0
25-29	---	---	---	---	---	---	---	---	---	001	001	001	---	---	---	---	---	---	001	001	001
	---	---	---	---	---	---	---	---	---	0	0	0	---	---	---	---	---	---	0	0	0
	---	---	---	---	---	---	---	---	---	001	0	0	---	---	---	---	---	---	001	0	0
	---	---	---	---	---	---	---	---	---	0	0	0	---	---	---	---	---	---	0	0	0
>=30	---	---	---	---	---	---	001	---	---	0	---	---	001	002	---	0	---	001	001	003	001
	---	---	---	---	---	---	0	---	---	002	---	---	0	0	---	0	---	0	002	0	---
	---	---	---	---	---	---	0	---	---	0	---	---	0	0	---	0	---	0	0	0	---
	---	---	---	---	---	---	0	---	---	0	---	---	0	0	---	001	---	001	0	0	---
TOTAL	001	002	---	---	004	005	002	003	006	002	002	002	002	004	0	0	001	001	007	016	014
	0	0	---	---	0	003	001	0	0	0	002	001	0	001	001	0	0	001	003	005	---
	0	0	---	---	0	0	0	0	0	001	0	0	0	0	0	0	0	001	0	0	---
	0	0	---	---	0	0	0	0	0	0	0	0	0	0	0	001	0	001	0	0	---

E=EX-SMOKER
N=NON-SMOKER
S=SMOKER

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH

DEMOGRAPHIC DATA FOR 48 WORKERS

CYPRUS YELLOWSTONE

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSURE	SEX		PERCENT BLACK	RACE		PERCENT WHITE	SMOKING STATUS *		
			PERCENT MALE	PERCENT FEMALE		PERCENT OTHER	PERCENT SMOKERS		PERCENT EXSMOKERS	PERCENT NONSMOKERS	
EXPOSED	37.7	15.4	45.8	54.2	0.0	2.1	97.9	39.6	20.8	39.6	
UNEXPOSED	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	
TOTALS	37.7	15.4	45.8	54.2	0.0	2.1	97.9	39.6	20.8	39.6	

48 TALC WORKERS
0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKED LESS THEN 6 MONTHS
EX SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHES