

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE	CLIENT	OB	PM							
6834	6	7:00				CLEAR MODERATE	GRAVEL ROAD	7 30 86	COCORP	FOREMAN/MOORE	BINNS							
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)	C. D. P.	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS	
		TR 1 TR 84 TR 85 TR 96	POSITION		PAMPS or "K"	TAPE	MEMORY MISSED SWEEPS	SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE			
900	ALL ONES	1-6 SEC		686	48								5	8		48/469		MONTANA CHUTEAU
933	PULSE	2-6 SEC						ARRIVE FIELD									8:50	5VIBS IN LINE 82.5' SPACING
934/935	EINT	2-6 SEC																8 SWEEPS 26 SEC SWEEP LENGTH 12-48 HZ SWEEP FREQ
936/939	DRD	4-6 SEC																42 SEC REC LENGTH 4 MS SAMPLE RATE
953/954	SUM	2-6 SEC																62.5 HZ ALIAS FREQ 9 HZ LOW CUT 18 db/OCT
960/961	NRJ	2-6 SEC																5 STA GAP BETWEEN 84 & 85
932	SIMILARITY	1-26 SEC						SIMS TAKEN WITH CAMERA AT VIBS					1	30%		9:50		
412	WIND TEST STRIP		1											6db				
413	483	397 480 486 497	1											50%		10:00		
414	484	398 481 487 498	2											50%				
415	485	399 482 488 499	3											50%				
416	486	400 483 489 500	4											50%				FILE # 416 BAD PARITY BAD SPOT ON TAPE
417	486	400 483 489 500	4											50%				
418	487	401 484 490 501	5	686										50%				EOT # 686 TAPE MARKS
419	488	402 485 491 502	6	687										50%				BOT # 687
420	489	403 486 492 503	7											50%				
421	490	404 487 493 504	8											50%				
422	491	405 488 494 505	9											50%				1ST HALF
SKIP	492													SKP				STA # 492 & 493 SKIPPED DUE TO WELL & PUMPHOUSE
SKIP	493													SKIP				
423	494	408 491 497 508	12											50%				2ND HALF
424	495	409 492 498 509	13											50%				
425	496	410 493 499 510	14											50%				
426	497	411 494 500 511	15											50%				
427	498	412 495 501 512	16											50%				
428	499	413 496 502 513	17											50%				
429	500	414 497 503 514	18											50%				
430	501	415 498 504 515	19											50%				
431	502	416 499 505 516	20											50%				
432	503	417 500 506 517	21											50%				
433	504	418 501 507 518	22											50%				
434	505	419 502 508 519	23	687										50%				1ST HALF EOT # 687 TAPE MARKS

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

GEO-252-D

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN/MOORE	PM BINNS										
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS or "K"	PARITY TAPE	MEMORY MISSED SWEEPS	SIZE	TOP	BOT.	NO CAPS	U.H.T.	N. UNITS	NO. SUMS	DRIVE	INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS	
		TR 1	TR 84	TR 85	TR 96																		
SKIP	506							48								5	8	SKIP	468/469			MONTANA CHOUTEAU	STA # 506 & 507 SKIPPED Pump House
SKIP	507																	SKIP					
435	508	422	505	511	522	26	688											50%				BOT # 688 2ND HALF	
436	509	423	506	512	523	27												50%					
437	510	424	507	513	524	28												50%					
438	511	425	508	514	525	29												50%					
439	512	426	509	515	526	30												50%					
440	513	427	510	516	527	31												50%					
441	514	428	511	517	528	32												50%					
442	515	429	512	518	529	33												50%					
443	516	430	513	519	530	34												50%					
444	517	431	514	520	531	35												50%					
445	518	432	515	521	532	36												50%					
446	519	433	516	522	533	37												50%					
447	520	434	517	523	534	38												50%					
448	520	434	517	523	534	38												50%				FILE # 448 BAD - BAD SPOT ON TAPE	
449	521	435	518	524	535	39												50%					
450	522	436	519	525	536	40	688											50%				EOT # 688 TAPE MARKS	
451	523	437	520	526	537	41	689											50%				BOT # 689	
452	524	438	521	527	538	42												50%					
453	525	439	522	528	539	43												50%					
454	526	440	523	529	540	44												50%					
455	527	441	524	530	541	30												50%	483/484			NEW RECORDER LOCATION	
456	528	442	525	531	542	31												50%					
457	WIND TEST	STRIP				31												60db					
458	529	443	526	532	543	32												50%					
459	530	444	527	533	544	33												50%					
460	531	445	528	534	545	34												50%					
461	532	446	529	535	546	35												50%					
462	533	447	530	536	547	36												50%					
463	534	448	531	537	548	37												50%				STA # 549 E.O.L. # 6, 535 is last VP	
464	535	449	532	538	549	38	689											50%				EOT # 689 TAPE MARKS	

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN/MOORE	PM BINNS									
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS or "K"	PARITY TAPE	MEMORY MISSED SWEEPS	SHOOTING SIZE	TOP	BOT.	NO CAPS	U.H.T.	N. UNITS	NO. SUMS	DRIVE	INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS
6834	6	7:00								7	29	86	COCORP	FOREMAN/MOORE	PM BINNS							MONTANA CHATEAU
390	462	376	459	465	476	25	685	48								5	8	50%	423/424			
391	463	377	460	466	477	7												50%	443/443			NEW RECORDER LOCATION
392	464	378	461	467	478	8												50%				
393	465	379	462	468	479	9												50%				
SKIP	466																	SKIP				466 & 467 SKIPPED DUE TO WELL
SKIP	467																	SKIP				NO FILE # 394 & 395 ON TAPE
396	468	382	465	471	482	12												50%				2ND HALF
397	469	383	466	472	483	13												50%				
398	470	384	467	473	484	14												50%				
399	471	385	468	474	485	15												50%				
400	472	386	469	475	486	16												50%				
401	473	387	470	476	487	17												50%				
402	474	388	471	477	488	18												50%				
403	475	389	472	478	489	19	685											50%				EOT # 685 TAPE MARKS
404	476	390	473	479	490	20	686											50%				BOT # 686
405	477	391	474	480	491	21												50%				
406	478	392	475	481	492	22												50%				
407	479	393	476	482	493	23												50%				
408	480	394	477	483	494	24												50%				
409	WIND TEST STRIP					24												60db				
410	481	395	478	484	495	25												50%				
411	482	396	479	485	496	26												50%		9:30		

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	WIND	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN	PM	REMARKS					
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS
		TR	TR	TR	TR			TAPE	MEMORY	SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE			
350	425	339	422	428	439	28	682	48							4	8	50%	383/384		MONTANA CHOUTEAU
351	426	340	423	429	440	29											50%			
352	427	341	424	430	441	30											50%			
353	428	342	425	431	442	31											50%			
354	429	343	426	432	443	32	682										50%			EOT # 682 TAPC MARKS
355	430	344	427	433	444	33	683										50%			BOT # 683 FILE 355 BAD PARITY (BAD TAPE)
356	430	344	427	433	444	33											50%			
357	431	345	428	434	445	34											50%			
358	WIND TEST STRIP					35											60%			
359	432	346	429	435	446	35											50%			
360	433	347	430	436	447	36											50%			
361	434	348	431	437	448	37											50%			
362	435	349	432	438	449	38											50%			
363	436	350	433	439	450	39											50%			
364	437	351	434	440	451	40											50%	5:30		

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

GEO-252-D

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN/MOORE	PM							
6834	6	7:00				CLEAR MODERATE	GRAVEL ROAD	7	25	86	COCORP		BINNS							
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)	C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS or "K"	PARITY TAPE	MEMORY SWEEPS	SHOOTING SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE	INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS	
900	ALL ONES	1-6SEC		677	48								5	8		337/338			MONTANA CHUTEAU	5 VIBS IN LINE 82.5' SPACING
933	PULSE	1-6SEC						ARRIVE	FIELD								8:45			41.25' MOVE UP FIRST VIB 21' PAST FLAG
934/935	EINT	2-6SEC																		8 SWEEPS 26 SEC SWEEP LENGTH 12-48HZ SWEEP REQ
936/939	DRD	4-6SEC																		42 SEC REC LENGTH 4MS SAMPLE RATE
953/954	SUM	2-6SEC																		62.5 HZ ALIAS FREQ 9 HZ LOW CUT 18db/OCT
960/961	NRJ	2-6SEC																		5 STA GAP BETWEEN 84 & 85
932	SIMILARITY	1-26 SEC						SIMS TAKEN WITH CAMERA AT								30%	9:00			
275	WIND TEST STRIP		1													60db				
276	352	266	349	355	366	1										50%	9:45			
277	353	267	350	356	367	2										50%				
278	354	268	351	357	368	3										50%				
279	355	269	352	358	369	4										50%				
280	356	270	353	359	370	5										50%				
281	357	271	354	360	371	6										50%				
282	358	272	355	361	372	7										50%				
283	359	273	356	362	373	8	677									50%				EOT # 677 TAPE MARKS
284	360	274	357	363	374	9	678									50%				BOT # 678
284	361	275	358	364	375	10										50%				NOTE: TWO FILES WITH # 284 ON TAPE
285	362	276	359	365	376	11										50%				
286	363	277	360	366	377	12										50%				
287	364	278	361	367	378	13										50%				
288	365	279	362	368	379	14										50%				
289	366	280	363	369	380	15										50%				
290	367	281	364	370	381	16										50%				
291	368	282	365	371	382	17										50%				
292	369	283	366	372	383	18										50%				
293	370	284	367	373	384	19										50%				
294	371	285	368	374	385	20										50%				
295	372	286	369	375	386	21										50%				
296	373	287	370	376	387	22										50%				
297	374	288	371	377	388	23										50%				
298	375	289	372	378	389	24	678									50%				EOT # 678 TAPE MARKS

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

GEO-252-D

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB	PM										
6834	6	7100				Clear Moderate	GRAVEL ROAD	7	25	86	COCORP	FOREMAN/MOORE	BINNS										
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS OF "K"	PARITY TAPE	MEMORY	SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE	INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS	
299	376	290	373	379	390	25	679	48								5	8	50%	337/338			MONTANA CHUTEAU BOT # 679	
300	377	291	374	380	391	26												50%					
301	378	292	375	381	392	27												50%					
302	379	293	376	382	393	28												50%					
303	380	294	377	383	394	29												50%					
304	381	295	378	384	395	30												50%					
305	382	296	379	385	396	31												50%					
306	383	297	380	386	397	32												50%					
307	384	298	381	387	398	33												50%					
308	385	299	382	388	399	34												50%					
309	386	300	383	389	400	35												50%					
310	387	301	384	390	401	36												50%					
311	388	302	385	391	402	37												50%					
312	389	303	386	392	403	38												50%					
313	390	304	387	393	404	39												50%					
314	391	305	388	394	405	40	679											50%				EOT # 679 TAPE MARKS	
315	392	306	389	395	406	41	680											50%				BOT # 680	
316	393	307	390	396	407	42												50%					
317	394	308	391	397	408	43												50%					
318	395	309	392	398	409	44												50%					
319	396	310	393	399	410	32												50%	350/351			NEW RECORDER LOCATION	
320	WIND TEST STRIP					33												60db					
321	397	311	394	400	411	33												50%					
322	398	312	395	401	412	34												50%					
323	399	313	396	402	413	35												50%					
324	400	314	397	403	414	36	680											50%		4:15		EOT # 680 TAPE MARKS	

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GEO-252-D

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN	PM												
6834	6	7:00				CLEAR moderate	GRAVEL ROAD	7	29	86	COCORP	FOREMAN/MOORE	BINNS												
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS					
		TR	TR	TR	TR			PAMPS or "K"	TAPE	MEMORY MISSES	SWEEP	SIZE	TOP	BOT.	NO CAPS	U.H.T.	N. UNITS	NO. SUMS	DRIVE						
246	324	238	321	327	338	25	675	48									5	8	50%	285/286					
247	325	339	322	328	339	26													50%						
248	326	340	323	329	340	27													50%						
249	327	241	324	330	341	28													50%						
250	328	242	325	331	342	29													50%						
251	329	243	326	332	343	30													50%						
252	330	244	327	333	344	31	675												50%				EOT # 675	TAPE MARKS	
253	331	245	328	334	345	32	676												50%				BOT # 676		
254	332	246	329	335	346	33													50%						
255	333	247	330	336	347	34													50%						
256	334	248	331	337	348	35													50%						
257	335	249	332	338	349	36													50%						
258	336	250	333	339	350	37													50%						
259	337	251	334	340	351	38													50%						
260	338	252	335	341	352	39													50%						
261	339	253	336	342	353	40													50%						
262	340	254	337	343	354	41													50%						
263	341	255	338	344	355	42													50%						
264	342	256	339	345	356	43													50%						
265	343	257	340	346	357	44													50%						
266	344	258	341	347	358	17													50%	313/314			NEW RECORDER LOCATION		
267	345	259	342	348	359	18													50%						
268	346	260	343	349	360	19	676												50%				EOT # 676	TAPE MARKS	
269	347	261	344	350	361	20	677												50%				BOT # 677		
270	348	262	345	351	362	21													50%						
271	349	263	346	352	363	22													50%						
272		WIND TEST STRIP				23														60db					
273	350	264	347	353	364	23													50%						
274	351	265	348	354	365	24													50%		1145				

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CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB FOREMAN	PM										
6834	6	7:00				CLEAR MODERATE	GRAVEL ROAD	7	23	86	COCORP	FOREMAN/MOORE	BINNS										
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING					SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS		
		TR	TR	TR	TR					SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE						
189	269	183	266	272	283	24	671	48							5	8	50%	231/232			MONTANA CHOTEAU		
190	270	184	267	273	284	25	671										50%				EOT # 671	TAPE MARKS	
191	271	185	268	274	285	26	672										50%				BOT # 672		
192	272	186	269	275	286	27											50%						
193	273	187	270	276	287	28											50%						
194	274	188	271	277	288	29											50%						
195	275	189	272	278	289	30											50%						
196	276	190	273	279	290	31											50%						
197	277	191	274	280	291	32											50%						
198	278	192	275	281	292	33											50%						
199	279	193	276	282	293	34											50%						
200	280	194	277	283	294	35											50%						
201	281	195	278	284	295	36											50%						
202	282	196	279	285	296	37											50%						
203	283	197	280	286	297	38											50%						
204	284	198	281	287	298	39											50%						
205	285	199	282	288	299	40											50%						
206	286	200	283	289	300	41	672										50%					EOT # 672	TAPE MARKS
207	287	201	284	290	301	42	673										50%					BOT # 673	
208	288	202	285	291	302	43											50%						
209	289	203	286	292	303	44											50%						
210	290	204	287	293	304	240											50%	276/277				NEW RECORDER	LOCATION
211	291	205	288	294	305	1											50%						
212	292	206	289	295	306	2											50%						
213	293	207	290	296	307	3											50%						
214	WIND TEST STRIP					4											60dB						
215	294	208	291	297	308	4											50%						
216	295	209	292	298	309	5											50%						
217	296	210	293	299	310	6											50%						
218	297	211	294	300	311	7											50%						
219	298	212	295	301	312	8											50%						
220	299	213	296	302	313	9											50%		4:45				

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CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB	PM								
6834	6	7:00				CLEAR MODERATE	GRAVEL ROAD	7	22	86	COCORP	FORMAN/MOORE	BINNS								
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS	
		TR 1	TR 2	TR 3	TR 4					SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE				
121	204	118	201	207	218	22	667	48							5	8	50%	168/169			
122	205	119	202	208	219	23											50%				
123	206	120	203	209	220	24											50%				
124	207	121	204	210	221	25											50%				
125	208	122	205	211	222	26											50%				
126	209	123	206	212	223	27	667										50%			EOT # 667 TAPE MARKS	
127	210	124	207	213	224	28	668										50%			BOT # 668	
128	211	125	208	214	225	29											50%				
129	212	126	209	215	226	30											50%				
130	213	127	210	216	227	31											50%				
131	214	128	211	217	228	32											50%				
132	215	129	212	218	229	33											50%				
133	216	130	213	219	230	34											50%				
134	217	131	214	220	231	35											50%				
135	218	132	215	221	232	36											50%				
136	219	133	216	222	233	37											50%				
137	220	134	217	223	234	38											50%				
138	221	135	218	224	235	39											50%				
139	222	136	219	225	236	40											50%				
140	223	137	220	226	237	41											50%				
141	224	138	221	227	238	42											50%				
142	225	139	222	228	239	43	668										50%			EOT # 668 TAPE MARKS	
143	226	140	223	229	240	44	669										50%			BOT # 669	
144	227	141	224	230	241	4											50%	209/210			NEW RECORDER LOCATION
145	228	142	225	231	242	5											50%				
146	229	143	226	232	243	6											50%				
147	230	144	227	233	244	7											50%				
148	231	145	228	234	245	8											50%				
149	232	146	229	235	246	9											50%				
150	233	147	230	236	247	10											50%				
151	234	148	231	237	248	11											50%				
152	235	149	232	238	249	12											50%				

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB	PM								
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)			C. D. P. POSITION	DIGITAL REEL NO.	GAIN	PARITY	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS		
		TR 1	TR 84	TR 85	TR 96		PAMPS or "K"	TAPE	MEMORY	SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS	DRIVE				
153	WIND	TEST	STRIP		13	669	48		MISSED SWEEP						5	8	60db	209/210			MONTANA CHUTEAU
154	236	150	233	239	250	13											50%				
155	237	151	234	240	251	14											50%				
156	238	152	235	241	252	15											50%				
157	239	153	236	242	253	16											50%				
158	240	154	237	243	254	17	669										50%				EOT # 669 TAPR MARKS
159	241	155	238	244	255	18	670										50%				BOT # 670
160	242	156	239	245	256	19											50%				
161	243	157	240	246	257	20			1								50%				
162	244	158	241	247	258	21											50%				
163	245	159	242	248	259	22											50%	5.00			

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

GEO-252-D

CREW NO.	LINE NO.	LEAVE TOWN/CAMP	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER	TRAIL CONDITIONS	DATE MONTH	DAY	YEAR	CLIENT	OB	PM												
6834	6	7:00				CLEAR MODERATE	GRAVEL ROAD	7	21	86	COCORP	FOLEMAN/MOORE	BINNS												
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P.	DIGITAL	GAIN	PARITY	SHOOTING					SUR. SOURCES	INST.	TIME	STA.	REMARKS						
		TR 1	TR 84	TR 85	TR 96	POSITION	REEL NO.	PAMPS or "K"	TAPE	MEMORY MISSED SURBERS	SIZE	TOP	BOT.	NO CAPS	U.H.T.	N. UNITS	NO. SUMS	DRIVE	SET UP	DAY	OFFSET TO LINE				
060	143	57	140	146	157	25	663	48								5	8	50%	109/109						
061	144	58	141	147	158	26												50%							
062	145	59	142	148	159	27												50%							
063	146	60	143	149	160	28	663											50%					EOT #663	TAPE MARKS	
064	147	61	144	150	161	29	664											50%						BOT #664	
065	148	62	145	151	162	30												50%							
066	149	63	146	152	163	31												50%							
067	150	64	147	153	164	32												50%							
068	151	65	148	154	165	33												50%							
069	152	66	149	155	166	34												50%							
070	153	67	150	156	167	35												50%							
071	154	68	151	157	168	36												50%							
072	155	69	152	158	169	37												50%							
073	156	70	153	159	170	38												50%							
074	157	71	154	160	171	39												50%							
075	158	72	155	161	172	40												50%							
076	159	73	156	162	173	41												50%							
077	160	74	157	163	174	42												50%							
078	161	75	158	164	175	43												50%							
079	162	76	159	165	176	44	664											50%						EOT #664	TAPE MARKS
080	163	77	160	166	177	22	665											50%	127/128					BOT #665	NEW RECORDER LOCATION
081	163	77	160	166	177	22												50%							
082	164	78	161	167	178	23												50%							
083	165	79	162	168	179	24												50%							
084	166	80	163	169	180	25												50%							
085	167	81	164	170	181	26												50%							
086	168	82	165	171	182	27												50%							
087	169	83	166	172	183	28												50%							
088	170	84	167	173	184	29												50%							
089	171	85	168	174	185	30												50%							
090	WIND TEST	STEIP				31												60db							
091	172	86	169	175	186	31												50%							

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO. 6834		LINE NO. 6	LEAVE TOWN/CAMP 7:00		ARRIVE TOWN/CAMP		TOTAL TR. TIME	DOWN TIME	WEATHER CLEAR Moderate	TRAIL CONDITIONS GRAVEL ROAD	DATE MONTH 7 DAY 21 YEAR 86	CLIENT Cocorp	OB Foreman/Moore	PM BINNS												
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS or "K"	PARITY TAPE	MEMORY MISSED SWEEPS	SHOOTING				SUR. SOURCES			INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS					
		TR	TR	TR	TR						SIZE	TOP	BOT.	NO CAPS	U. H. T.	N. UNITS	NO. SUMS					DRIVE				
092	173	87	170	176	187	32	665	48							5	8	50%	127/128								
093	174	88	171	177	188	33											50%									
094	175	89	172	178	189	34											30%									1ST HALF PIPELINE
SKIP	176																SKIP									# 176 SKIPPED PIPELINE
095	177	91	174	180	191	36	665										30%									2ND HALF EOT # 665 TAP MARKS
096	178	92	175	181	192	37	666										50%									BOT # 666
097	179	93	176	182	193	38											50%		5:00							

OBSERVER REPORT PETTY-RAY GEOPHYSICAL

CREW NO. 6834		LINE NO. 6	LEAVE TOWN/CAMP 7:00	ARRIVE TOWN/CAMP	TOTAL TR. TIME	DOWN TIME	WEATHER CLEAR MODERATE GRAVEL ROAD	TRAIL CONDITIONS	DATE MONTH 7 DAY 19 YEAR 86	CLIENT COCORP	OB FOREMAN/MOORE	PM BINNS							
FILE NO.	STA. NO.	STA. NO'S (LIVE GRPS.)				C. D. P. POSITION	DIGITAL REEL NO.	GAIN PAMPS or "K"	PARITY TAPE	MEMORY MISSED SWEETS	SHOOTING					INST. SET UP	TIME DAY	STA. OFFSET TO LINE	REMARKS
		TR 1	TR 84	TR 85	TR 96						SIZE	TOP	BOT.	NO CAPS	U. H. T.				
001	WIND TEST STRIP				7	660	48											5 VIBS IN LINE 82.5' SPACING	
002	87	1	89	90	101	7												41.25' MOVE UP FIRST VIB 21' PAST FLAG	
003	88	2	85	91	102	8												8 SWEETS 26 SEC SWEEP LENGTH 12-48 HZ SWEEP REQ	
004	89	3	86	92	103	9												42 SEC REC LENGTH 4MS SAMPLE RATE	
005	90	4	87	93	104	10												62.5 HZ ALIAS REQ 9 HZ LOW CUT 48db/OCT	
006	91	5	88	94	105	11												5 STA GAP BETWEEN 84 & 85	
007	92	6	89	95	106	12													
008	93	7	90	96	107	13												STAND BY FOR LAYOUT OF LINE # 6	
009	94	8	91	97	108	14												NO DAILY TESTS MONTHLY TESTS TO HOUSTON	
010	95	9	92	98	109	15													
011	96	10	93	99	110	16													
012	97	11	94	100	111	17													
013	98	12	95	101	112	18													
014	99	13	96	102	113	19													
015	100	14	97	103	114	20													
016	101	15	98	104	115	21	660											EOT # 660 TAPE MARKS	
017	102	16	99	105	116	22	661											BOT # 661	
018	103	17	100	106	117	23													
019	104	18	101	107	118	24													
020	105	19	102	108	119	25													
021	106	20	103	109	120	26													
022	107	21	104	110	121	27													
023	108	22	105	111	122	28													
024	109	23	106	112	123	29													
025	110	24	107	113	124	30													
026	111	25	108	114	125	31													
027	112	26	109	115	126	32													
028	113	27	110	116	127	33													
029	114	28	111	117	128	34													
030	115	29	112	118	129	35													
031	WIND TEST STRIP					36													
032	116	30	113	119	130	36	661											EOT # 661 TAPE MARKS	



This cover sheet must be completed at the beginning of each line, or when parameters change.

GENERAL

Crew No. 6834 Contract No. 799

Client COCORP

Area Montana
Country Montana

County Chouteau

State Montana

Party Mgr. Binns OB/JO MOORE FOREMAN

Line No. 6 Date Start of Line 7-19-86

Sta. Int. 330' Feet Meters Fold 48%

Spread Dimensions 1-84 55-85-96

VP's Increase N E S W
W → E

GEOPHONES

Manufacture MP-100's Array Length 322'
Frequency 8hz Array Width inline

No. per string 2@12 Array Across Between Sta
per trace 24 total Centered

Separation Ser Par Coil Res. 335 Ohms
String Connected String Phone

Shunt Res.
Connected at Sta Ser Par Separation between elements in the array 14.34'
 14'

RECORDING SYSTEM

Type: MDS-10

Format: SEG-B

No. of Channels: 96

Sample Rate: 4ms

Record Length: 42 SEC

BPI: 1600

Low-Cut Filter Freq: 9hz Slope: 18db

High-Cut Filter Freq: 62.5hz Slope: 72db

Static Filter In Out

Notch Filter 60Hz In Out

UH Ch. Wireline On Tape N/A

On Tape Radio On Tape N/A

Sweep Ch. Aux # 2 Salv # 52

On Tape " 4 " 52

ENERGY SOURCE

Type: Falling Y-1100's

Manufacturer: Falling

Source Control: RCU-310

Dynamite Holes/Shotpoint: N/A

Charge/Shotpoint: N/A

Pattern Length: N/A Feet Meters

Array Length: 489' Feet Meters

No. of drops, sweeps, etc. in array: 8

Sweep Freq: 12 → 48hz

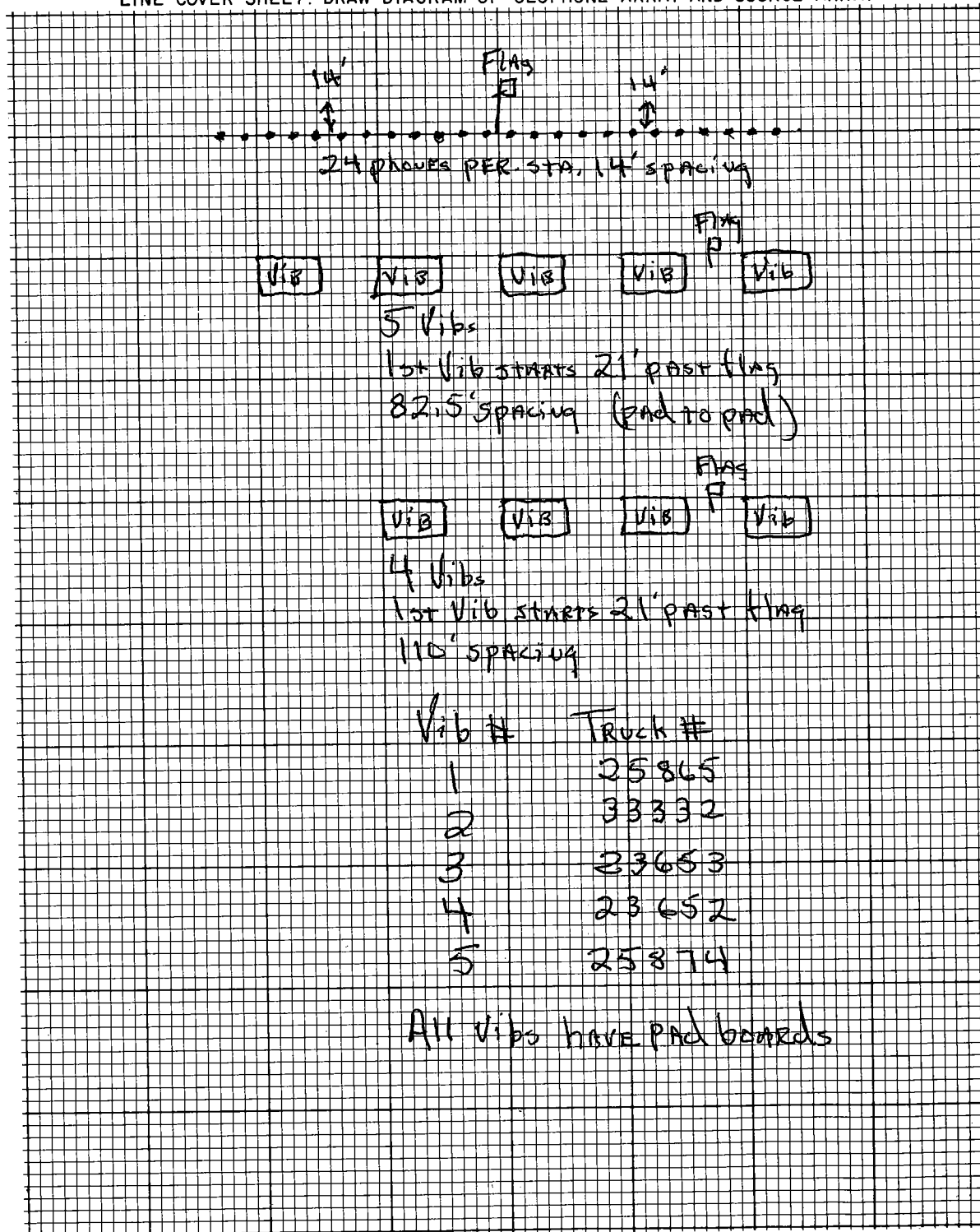
Sweep Length: 26 SEC

Unit Separation: 82.5' Feet Meters

Unit Moveup: 41.25' Feet Meters

Array Centered: Across Sta Between Sta

LINE COVER SHEET: DRAW DIAGRAM OF GEOPHONE ARRAY AND SOURCE ARRAY



REMARKS: Air Gun Delay, etc.

VARI SOURCE USED Yes No Invalid Channels: