

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY Nemaha	DATE 4/23/81
CREW NO. 6834	TERRAIN Rolling Hills	WEATHER Clear & Windy	LINE NO. 3	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			REMARKS
							LOCUT	60 ~	AMP	
1	933 Pulse	1-6sec.				341	OUT	IN		Recorder set at 70-71
2	934 935 EINT	2-"								
3	936 939 D.R.D	4-"								
4	953 954 Jam test	2-"								
5	960 961 N.R.J. test	2-"								
6	952 Similarity	1-31sec.	225	5					50%	
7	001 Wind Strip	1-6sec.								
8	002 100	1-96	3	5					70%	Reshaking sta. #100 at 4ms. sample rate
9	003 101	2-97	4						70%	to check out correlator.
10	004 102	3-98	5	4					70%	Vib #14256 Down due to servo valve
11	005 103	4-99	6						70%	being changed out. sta #103 stacked 1 st half.
12	Skip 104	5-100	7						Skip	
13										
14										Finished For The Day.
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO. MD5-16
SWEEP FREQUENCY 8 → 32	SWEEP PATTERN 4163	SWEEPS PER PATTERN 8	SWEEP PATTERNS PER SETUP 1	PATCH PATTERN 11111222172221111	
GEOPHONES PER PATCH 24	NO. OF RECORDING PATCHES 96	TYPE VIBRATOR 4-V1100's 1-V900	TYPE GEOPHONE ETLEV22-B	FREQUENCY 7.5 Hz.	STATION INTERVAL 330'
REMARKS 8ms. Sample Rate / 51 sec. Record Length	OBSERVER R. Patton J. Wingo	PARTY MGR. L. Davis			

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

Exploration Services 2
Division
Geosource Inc.

CLIENT <i>COCORP</i>	AREA <i>Kansas</i>	STATE <i>Kansas</i>	COUNTY <i>Nemaha</i>	DATE <i>4/24/81</i>
CREW NO. <i>6834</i>	TERRAIN <i>Rolling Hills</i>	WEATHER <i>Clear</i>		LINE NO. <i>3</i>

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS
							LOCUT	60 ~	AMP	
1	<i>933 Pulse</i>	<i>1-6sec.</i>				<i>341</i>	<i>OUT</i>	<i>IN</i>		<i>Recorder Set at 75-76</i>
2	<i>934 ETWT</i>	<i>2- " "</i>								<i>Farm house AT STA 71-72 Also Electric Fence</i>
3	<i>936 D.R.D.</i>	<i>4- " "</i>								<i>Running Along line From 64-80 Also Tractor work-</i>
4	<i>953 Sumtest</i>	<i>2- " "</i>								<i>ing OFF line AT 73-74.</i>
5	<i>960 N.R.T. test</i>	<i>2- " "</i>								
6	<i>932 Similarity</i>	<i>1-3/1sec.</i>	<i>225</i>	<i>5</i>					<i>50%</i>	
7	<i>006 Wind Strip</i>	<i>1-6sec.</i>	<i>3</i>							
8	<i>Skip 105</i>	<i>6-101</i>	<i>3</i>	<i>5</i>					<i>70%</i>	<i>Skip #105 Skipped due to house</i>
9	<i>007 106</i>	<i>7-102</i>	<i>4</i>						<i>70%</i>	
10	<i>008 107</i>	<i>8-103</i>	<i>5</i>						<i>70%</i>	
11	<i>009 108</i>	<i>9-104</i>	<i>6</i>						<i>70%</i>	
12	<i>010 109</i>	<i>10-105</i>	<i>7</i>			<i>341</i>			<i>70%</i>	<i>EOT # 341 Tape MKTs.</i>
13	<i>012 110</i>	<i>11-106</i>	<i>8</i>	<i>4</i>		<i>342</i>			<i>70%</i>	<i>BOT # 342 #900 10sec Allowes *011 6sec wind strip.</i>
14	<i>013 111</i>	<i>12-107</i>	<i>9</i>						<i>70%</i>	<i>vib # 12667 Down</i>
15	<i>014 112</i>	<i>13-108</i>	<i>10</i>	<i>5</i>					<i>70%</i>	<i>vib # 12667 Back on line</i>
16	<i>Skip 113</i>	<i>14-109</i>	<i>11</i>						<i>70%</i>	<i>Skip Due to house's</i>
17	<i>015 114</i>	<i>15-110</i>	<i>12</i>						<i>70%</i>	<i>#114 Stacked last half</i>
18	<i>016 115</i>	<i>16-111</i>	<i>13</i>						<i>70%</i>	
19	<i>Skip 116</i>	<i>17-112</i>	<i>14</i>						<i>70%</i>	<i>Skip #116 skip due to house</i>
20	<i>Skip 117</i>	<i>18-113</i>	<i>15</i>						<i>70%</i>	<i>Skip #117 skip due to Bridge</i>
21	<i>017 118</i>	<i>19-114</i>	<i>16</i>						<i>70%</i>	<i>#118 Stacked last half</i>
22	<i>018 119</i>	<i>20-115</i>	<i>17</i>	<i>4</i>					<i>70%</i>	<i>vib # 12667 Down NOT Receiving Tones.</i>
23	<i>019 120</i>	<i>21-116</i>	<i>18</i>						<i>70%</i>	
24	<i>020 121</i>	<i>22-117</i>	<i>19</i>						<i>70%</i>	
25	<i>021 122</i>	<i>23-118</i>	<i>20</i>						<i>70%</i>	

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO. <i>MDS-10</i>
SWEEP FREQUENCY <i>8-32 1/31sec</i>	SWEEP PATTERN <i>4/63</i>	SWEEPS PER PATTERN <i>8</i>	SWEEP PATTERNS PER SETUP <i>1</i>	PATCH PATTERN <i>11111222112221111</i>	
GEOPHONES PER PATCH <i>24</i>	NO. OF RECORDING PATCHES <i>96</i>	TYPE VIBRATOR <i>4-Y1100'S 1-Y900</i>	TYPE GEOPHONE <i>ETLEVR22B</i>	FREQUENCY <i>7.5 Hz</i>	STATION INTERVAL <i>330'</i>
REMARKS <i>8ms Sample 151 sec Record Length</i>		OBSERVER <i>R. Patton [Signature]</i>		PARTY MGR. <i>L. Davis</i>	

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT <i>Cocorp</i>	AREA <i>Kansas</i>	STATE <i>Kansas</i>	COUNTY <i>Nemaha</i>	DATE <i>4-24-81</i>
CREW NO. <i>6834</i>	TERRAIN <i>Dirt Road Rolling Hills</i>	WEATHER <i>Clear</i>		LINE NO. <i>3</i>

REC.NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL.NO.	F I L T E R			REMARKS
							LOCUT	60 ~	AMP	
1	<i>022</i>	<i>123</i>	<i>24-119</i>	<i>21</i>	<i>4</i>	<i>342</i>	<i>OUT</i>	<i>IN</i>	<i>70%</i>	
2	<i>023</i>	<i>124</i>	<i>25-120</i>	<i>22</i>		<i>342</i>			<i>70%</i>	<i>Foot #342 Tape MKTS</i>
3	<i>025</i>	<i>125</i>	<i>26-121</i>	<i>23</i>	<i>5</i>	<i>343</i>			<i>70%</i>	<i>Bot #343 * 900 10 sec All ones #024 6 sec wind strip.</i>
4	<i>026</i>	<i>126</i>	<i>27-122</i>	<i>24</i>					<i>70%</i>	<i>Nib #12667 Back on line Replaced ANTENNA.</i>
5	<i>027</i>	<i>127</i>	<i>28-123</i>	<i>25</i>					<i>70%</i>	
6										
7										
8										<i>Finished For The Day.</i>
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE			TOTAL FIELD TIME		DRIVING TIME		SYSTEM NO.
SWEEP FREQUENCY			SWEEP PATTERN		SWEEPS PER PATTERN		SWEEP PATTERNS PER SETUP		PATCH PATTERN		
GEOPHONES PER PATCH		NO. OF RECORDING PATCHES		TYPE VIBRATOR		TYPE GEOPHONE		FREQUENCY		STATION INTERVAL	LINE DIR. 1 TO 24
REMARKS							OBSERVER			PARTY MGR.	

OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER

Exploration Services
Division
Geosource Inc.

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CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY Nemaha	DATE 4/25/81
CREW NO. 6834	TERRAIN Rolling Hills	WEATHER Clear + Windy	LINE NO. 3	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			REMARKS
							LOCUT	60 ~	AMP	
1	933 Pulse	1-6sec.				343	OUT	IN		Recorder set AT 100-101
2	934 EINT	2- ...								
3	935 D.R.D.	4- ...								
4	936 Sum test	2- ...								
5	937 N.R.J. test	2- ...								
6	932 Similarity	1-31 sec.	225	5						50%
7	028 Wind Strip	1-6sec.	1							
8	029 128	29-124	1	5						70%
9	Skip 129	30-125	2							Skip Due to house
10	030 130	31-126	3							50% *130 stacked last half.
11	031 131	32-127	4							70%
12	032 132	33-128	5							70%
13	033 133	34-129	6							70%
14	034 134	35-130	7							70%
15	035 135	36-131	8			343				70% EOT* 343 Tape MKTs
16	037 136	37-132	9			344				70% BOT* 344* 900 10sec Allowes * 036 6sec windstrip.
17	038 137	38-133	10							70%
18										Shutting down due to wind.
19										
20										
21										
22										
23										
24										
25										

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO.
SWEEP FREQUENCY 8 → 32 / 31 sec.	SWEEP PATTERN 4/16.3	SWEEPS PER PATTERN 8	SWEEP PATTERNS PER SETUP 1	PATCH PATTERN 111112221122211111	
GEOPHONES PER PATCH 24	NO. OF RECORDING PATCHES 96	TYPE VIBRATOR 4-411000 1-4900	TYPE GEOPHONE ETLFV22B	FREQUENCY 7.5 Hz.	STATION INTERVAL 330'
REMARKS 8 ms Sample Rate / 51 sec Record	OBSERVER R. Patton / J. Winger	PARTY MGR. L. Davis	LINE DIR. 1 TO 24 N → S		

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY Nemaha
CREW NO. 6834	TERRAIN Rolling Hills	WEATHER Clear & Windy	DATE 4/27/81
LINE NO. 3			

REC.NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL.NO.	F I L T E R			REMARKS
							LOCUT	60 ~	AMP	
1	933 Pulse	1-6sec.				344	OUT	IN		Recorder set at 110-111
2	934 935 FIINT	2-... ..								
3	939 939 D.R.D.	4-... ..								
4	953 954 Sum Test	2-... ..								
5	960 961 N.R.T Test	1-... ..								
6	932 Similarity	1-21sec	225	5						50%
7	039 Wind Strip	1-6sec.	1							
8	040 138	39-134	1	5						70%
9	041 139	40-135	2							70%
10	042 140	41-136	3							70%
11	043 141	42-137	4							70% #141 stacked 1st half due to a house.
12	Skip 142	43-138	5							Skip #142 + 143 Skipped due to housing.
13	Skip 143	44-139	6							Skip
14	044 144	45-140	7							70%
15	045 145	46-141	8							70%
16	Skip 146	47-142	9							Skip #146 Skipped due to house.
17	Skip 147	48-143	10							Skip #147 Skipped due to Well.
18	046 148	49-144	11							70%
19	047 149	50-145	12			344				70% E.O.T. #344 Tape MKTS.
20	049 150	51-146	13			345				70% B.O.T. #345 #900 10sec Allones #048 6sec. Wind
21	050 151	52-147	14							70% Strip Wind picking up.
22	051 152	53-148	15							70%
23	052 153	54-149	16							70%
24	053 154	55-150	17							70% Wind Picking up. Standing by for 1 hour.
25	054 155	56-151	18							70% Wind Still to high to ward. Shutting down.

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO. MDS-10
SWEEP FREQUENCY 8 → 32 1/3 sec	SWEEP PATTERN 4/63	SWEEPS PER PATTERN 8	SWEEP PATTERNS PER SETUP 1	PATCH PATTERN 11111222112221111	
GEOPHONES PER PATCH 24	NO. OF RECORDING PATCHES 96	TYPE VIBRATOR 4-Y1100's 1-Y900	TYPE GEOPHONE ETLEVR2B	FREQUENCY 7.5 Hz.	STATION INTERVAL 330'
REMARKS 8ms. Sample Rate 15/sec. Record	OBSERVER R. Patton	PARTY MGR. J. Wings	LINE DIR. 1 TO 24 N → S		

OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER

Exploration Services
Division
Geosource Inc.

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CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY Nemaha	DATE 4/28/81
CREW NO. 6834	TERRAIN Rolling Hills	WEATHER Partly Cloudy + Windy	LINE NO. 3	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	FILTER			REMARKS
							LOCUT	60 ~	AMP	
1	933	Pulse	1-6 sec.			345	OUT	IN		Recorder set at 128-129
2	934	EINT	2-"							
3	936	D.R.D.	4-"							
4	953	Sum test	2-"							
5	969	N.R.J. test							
6	932	Similarity	1-21 sec.	225	5					50%
7	055	Wind Strip	1-6 sec.	1						
8	056	156	57-152	1	5					70%
9	057	157	58-153	2						70%
10	058	158	59-154	3						70%
11	059	159	60-155	4		345				70% EOT*345 TAPE MKTS
12	061	160	61-156	5		346				70% BOT*346 *900 10sec All ones *060 6sec windstrip.
13	062	161	62-157	6						70%
14	063	162	63-158	7						70%
15	064	163	64-159	8	4					70% Vib#17311 OFF line. Could not pick up tones.
16	065	164	65-160	9						50% " " on line. Vib#16344 OFF line, Radio
17	066	165	66-161	10	5					50% Trouble.
18	Skip	166	67-162	11						Skip Sta#166+167 Skipped due to housing. Vib#16344
19	Skip	167	68-163	12						Skip on line.
20	067	168	69-164	13						50% Stacked 1st half due to housing.
21	Skip	169	70-165	14						Skip due to house.
22	068	170	71-166	3						50% Stacked last half. Moved Recorder to 140-141
23	069	171	72-167	4						50%
24	Skip	172	73-168	5						Skip due to water well.
25	070	173	74-169	6						50% Stacked last half.

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO. MDS-10
SWEEP FREQUENCY 8-32/31 sec.	SWEEP PATTERN 4/63	SWEEPS PER PATTERN 8	SWEEP PATTERNS PER SETUP 1	PATCH PATTERN 111122212221111	
GEOPHONES PER PATCH 24	NO. OF RECORDING PATCHES 96	TYPE VIBRATOR 4-V11005 1-Y900	TYPE GEOPHONE ETHEV22B	FREQUENCY 7.5 Hz.	STATION INTERVAL 3.30'
REMARKS 8 ms. Sample Rate 151 sec. Record		OBSERVER R. Patton J. Wingo	PARTY MGR. L. Davis		

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT <i>COCORP</i>		AREA <i>Kansas</i>			STATE <i>Kansas</i>		COUNTY <i>Nemaha</i>		DATE <i>4/28/81</i>		
CREW NO. <i>6834</i>		TERRAIN <i>Rolling Hills</i>			WEATHER <i>Partly Cloudy & Windy</i>				LINE NO. <i>3</i>		
REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS	
							LOCUT	60 ~	AMP		
1	071	174	75-170	7	5	346	DUT	TW	70%		
2	072	175	76-171	8		346			70%	E.O.T. #346 Tape MKTS.	
3	074	176	77-172	9		347			70%	B.O.T. #347 #900 10sec. Allones. #07.3 6sec. Wind	
4	075	177	78-173	10					70%	Strip.	
5	076	178	79-174	11					70%		
6	077	179	80-175	12					70%		
7	078	180	81-176	13					70%		
8	079	181	82-177	14					70%		
9	Skip	182	83-178	15					Skip	due to house.	
10	080	183	84-179	16					70%		
11										Finished For The Day.	
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE			TOTAL FIELD TIME		DRIVING TIME		SYSTEM NO.
SWEEP FREQUENCY		SWEEP PATTERN		SWEEPS PER PATTERN			SWEEP PATTERNS PER SETUP		PATCH PATTERN		
GEOPHONES PER PATCH		NO. OF RECORDING PATCHES		TYPE VIBRATOR		TYPE GEOPHONE		FREQUENCY		STATION INTERVAL	LINE DIR. 1 TO 24
REMARKS						OBSERVER			PARTY MGR.		

OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER

Exploration Services
Division
Geosource Inc.

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CLIENT COCORP		AREA Kansas		STATE Kansas		COUNTY Nemaha		DATE 4/29/81			
CREW NO. 6834		TERRAIN Rolling Hills		WEATHER Partly Cloudy				LINE NO. 3			
REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS	
							LOCUT	60 ~	AMP		
1	933	Pulse	1-6 sec.			347	OUT	IN		Recorder set at 156-157	
2	934 935	EINT	2-... ..								
3	936 939	D. R. D.	4-... ..								
4	953 954	Samtest	2-... ..								
5	960 961	N.R.J. Test	2-... ..								
6	932	Similarity	1-3/1 sec.	225	4				50%	Vib #14256 Down Temp.	
7	081	Wind Strip	1-6 sec.								
8	082	184	85-180	1	4				70%		
9	083	185	86-181	2					70%		
10	084	186	87-182	3	5	347			70%	Vib #14256 on line. E.O.T #342 Tape MKTS	
11	Skip	187	88-183	4		348			70%	Skip B.O.T #348 #900 10sec. All ones. #085 6sec. Wind Strip	
12	086	188	89-184	5					70%	Sta #187. Skipped due to water well. Sta #188 stacked	
13	087	189	90-185	6					70%	last half.	
14	088	190	91-186	7					70%		
15	089	191	92-187	8					70%		
16	090	192	93-188	9					70%		
17	091	193	94-189	10					70%		
18	092	194	95-190	11					70%		
19	093	195	96-191	12					50%	Stacked First half due to water well.	
20	Skip	196	97-192	13					70%	Skip due to water well.	
21	094	197	98-193	14					70%		
22	095	198	99-194	15					70%		
23	096	199	100-195	16					70%		
24	097	200	101-196	17		348			70%	E.O.T. Tape MKTS.	
25	099	201	102-197	18		349			70%	B.O.T. #900 10sec. All ones #098 6sec. Wind Strip	
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE		TOTAL FIELD TIME		DRIVING TIME		SYSTEM NO.	
										MDS-10	
SWEEP FREQUENCY 8 → 32 / 31 sec.		SWEEP PATTERN 4/63		SWEEPS PER PATTERN 8		SWEEP PATTERNS PER SETUP 1		PATCH PATTERN 1111222112221111			
GEOPHONES PER PATCH 24		NO. OF RECORDING PATCHES 96		TYPE VIBRATOR 4-Y11005 1-Y900		TYPE GEOPHONE ETLEV22B		FREQUENCY 7.5 Hz.		STATION INTERVAL 330'	
REMARKS 3ms. Sample Rate / 5sec. Record						OBSERVER R. Patten / J. Wingo		PARTY MGR. J. Davis			

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT <i>COCORP</i>	AREA <i>Kansas</i>	STATE <i>Kansas</i>	COUNTY <i>Nemaha + Jackson</i>	DATE <i>4/29/81</i>
CREW NO. <i>6834</i>	TERRAIN <i>Rolling Hills</i>	WEATHER <i>Partly Cloudy</i>	LINE NO. <i>3</i>	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS
							LOCUT	60 ~	AMP	
1	100	202	103-198	19	5	349	OUT	IN	70%	
2	101	203	104-199	20	4				70%	Vib #12667 Down Temp.
3	102	204	105-200	21	5				70%	" " on line.
4	103	205	106-201	22					70%	
5	104	206	107-202	23					70%	
6	105	207	108-203	24					70%	
7	106	208	109-204	25					70%	
8	107	209	110-205	26					70%	800' offset west.
9	108	210	111-206	27					70%	Stacked last half.
10	109	211	112-207	4		349			70%	E.O.T. Tape MKTS
11	111	212	113-208	5		350			70%	B.O.T. " 900 10sec. All ones. #110 6sec. Wind Strip.
12	112	213	114-209	6					70%	
13	113	214	115-210	7					70%	
14	114	215	116-211	8					70%	
15	115	216	117-212	9					70%	
16	116	217	118-213	10					70%	
17	117	218	119-214	11					70%	
18	118	219	120-215	12					70%	
19	119	220	121-216	13					70%	
20	120	221	122-217	14					70%	
21	121	222	123-218	15					70%	Finished For The Day.
22										
23										
24										
25										

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO.
SWEEP FREQUENCY	SWEEP PATTERN	SWEEPS PER PATTERN	SWEEP PATTERNS PER SETUP	PATCH PATTERN	
GEOPHONES PER PATCH	NO. OF RECORDING PATCHES	TYPE VIBRATOR	TYPE GEOPHONE	FREQUENCY	STATION INTERVAL
REMARKS			OBSERVER	PARTY MGR.	

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT COCORP		AREA Kansas		STATE Kansas		COUNTY Nemaha + Jackson		DATE 4/30/81			
CREW NO. 6834		TERRAIN Rolling Hills		WEATHER Clear to Partly Cloudy				LINE NO. 3			
REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	FILTER			REMARKS	
							LOCUT	60~	AMP		
1	933	Pulse	1-6 sec			351	OUT	IN		Recorder set at 194-195 B.O.T. #351	
2	934 935	ETNT	2- " "							#900 10 sec. All ones.	
3	936 939	D.R.D.	4- " "								
4	953 954	Sum test	2- " "								
5	960 961	N.R.T. test	2- " "								
6	932	Similarity	1-31 sec	225	5					50%	
7	122	Wind Strip	1-6 sec.	2							
8	123	223	124-219	2						70%	
9	124	224	125-220	3						70%	
10	125	225	126-221	4						70%	
11	126	226	127-222	5						70%	
12	127	227	128-223	6						70%	
13	128	228	129-224	7						70%	
14	129	229	130-225	8						70%	
15	130	230	131-226	9						70%	
16	131	231	132-227	10						70%	
17	132	232	133-228	11		351				70% E.O.T. Tape MKTS	
18	134	233	134-229	12		352				70% B.O.T. #900 10 sec. All ones #133 6 sec. Wind	
19	135	234	135-230	13						70% strip. Sta #134 stacked 1 st half.	
20	SKip	235	136-231	14						SKip Due to water well.	
21	136	236	137-232	15						70%	
22	137	237	138-233	16						70%	
23	138	238	139-234	17						70%	
24	139	239	140-235	18						70%	
25	140	240	141-236	19						70%	
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE		TOTAL FIELD TIME		DRIVING TIME		SYSTEM NO. MD.S-10	
SWEEP FREQUENCY 8-32		SWEEP PATTERN 4163		SWEEPS PER PATTERN 8		SWEEP PATTERNS PER SETUP 1		PATCH PATTERN 1111122212221111			
GEOPHONES PER PATCH 24		NO. OF RECORDING PATCHES 96		TYPE VIBRATOR 4- Y11005 1-V900		TYPE GEOPHONE ETLEV22B		FREQUENCY 7.5 Hz.		STATION INTERVAL 330'	
REMARKS 8ms. sample rate / 51 sec. Record		OBSERVER R. Patten / J. Whingo		PARTY MGR. J. Davis							

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

CLIENT <i>COCORP</i>			AREA <i>Kansas</i>			STATE <i>Kansas</i>		COUNTY <i>Nemaha + Jackson</i>		DATE <i>4/30/81</i>	
CREW NO. <i>6834</i>		TERRAIN <i>Rolling Hills</i>			WEATHER <i>Partly cloudy</i>				LINE NO. <i>3</i>		
REC.NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL.NO.	F I L T E R			REMARKS	
							LOCUT	60 ~	AMP		
1	141	241	142-237	20	5	352	OUT	IN	70%		
2	142	242	143-238	21					70%		
3	143	243	144-239	22					70%		
4	144	244	145-240	23					70%		
5	145	245	146-241	24		352			50%	<i>E.O.T. Tape MKTS.</i>	
6	<i>5Kip</i>	246	147-242	25					<i>5Kip</i>		
7	<i>5Kip</i>	247	148-243	26					<i>5Kip</i>		
8	147	248	149-244	27		353			50%	<i>B.O.T. #900 10sec. All ones. #146 6sec. Wind Strip</i>	
9	148	249	150-245	28					70%	<i>Light Rain starting.</i>	
10	149	250	151-246	29					70%		
11	150	251	152-247	30					70%		
12	151	252	153-248	31					70%		
13	152	253	154-249	32					70%		
14	153	254	155-250	33					70%		
15	154	255	156-251	34					70%		
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE			TOTAL FIELD TIME		DRIVING TIME	SYSTEM NO.	
SWEEP FREQUENCY		SWEEP PATTERN		SWEEPS PER PATTERN		SWEEP PATTERNS PER SETUP		PATCH PATTERN			
GEOPHONES PER PATCH		NO. OF RECORDING PATCHES		TYPE VIBRATOR		TYPE GEOPHONE		FREQUENCY		STATION INTERVAL	LINE DIR. 1 TO 24
REMARKS						OBSERVER			PARTY MGR.		

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT <i>COCORP</i>	AREA <i>Kansas</i>	STATE <i>Kansas</i>	COUNTY <i>Nemaha + Jackson</i>	DATE <i>5/11/81</i>
CREW NO. <i>6834</i>	TERRAIN <i>Rolling Hills</i>	WEATHER <i>Clear + Windy</i>		LINE NO. <i>3</i>

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS
							LOCUT	60 ~	AMP	
1	933 Pulse	1-6sec.				353	OUT	IN		Recorder Set at 228-229
2	934 FINT	2-... ..								
3	936 D.R.D.	4-... ..								
4	953 Sum test	2-... ..								
5	960 N. R.J. test	2-... ..								
6	932 Similarity	1-31sec.	225	4					50%	
7	155 Wind Strip	1-6sec.	1						70%	Having to lay out more cables + jugs, a tractor pulled up part of the line.
8	156 256	157-252	1						70%	F.D.T. Tape MKTS.
9	157 257	158-253	2			353			70%	B.O.T. #900 10sec. All ones. #158 6sec. Wind Strip.
10	159 258	159-254	3			354			70%	
11	160 259	160-255	4						70%	
12	161 260	161-256	5						70%	
13	162 261	162-257	6						70%	
14	163 262	163-258	7						70%	
15	164 263	164-259	8						50%	Stacked 1 st half.
16	Skip 264	165-260	9						Skip	due to house.
17	Skip 265	166-261	10						Skip	
18	165 266	167-262	11						70%	Wind Picking up to about 25-3 mph. with gust.
19	166 267	168-263	12						70%	
20	Skip 268	169-264	13						Skip	due to pipe line.
21										
22										Finished For the Day
23										
24										
25										

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO. <i>MDS-10</i>
SWEEP FREQUENCY <i>8 → 32 Hz / 31 sec.</i>	SWEEP PATTERN <i>4163</i>	SWEEPS PER PATTERN <i>8</i>	SWEEP PATTERNS PER SETUP <i>1</i>	PATCH PATTERN <i>11111222112221111</i>	
GEOPHONES PER PATCH <i>24</i>	NO. OF RECORDING PATCHES <i>96</i>	TYPE VIBRATOR <i>4-Y1100G 1-Y900</i>	TYPE GEOPHONE <i>ETLEV22B</i>	FREQUENCY <i>7.5 Hz.</i>	STATION INTERVAL <i>330'</i>
REMARKS <i>8ms. Sample Rate / 51 sec. Record</i>			OBSERVER <i>R. Patton / J. Wingo</i>	PARTY MGR. <i>L. Davis</i>	

OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER

Exploration Services
Division
Geosource Inc.

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CLIENT COCORP		AREA Kansas		STATE Kansas		COUNTY Nemaha + Jackson		DATE 5/6/81			
CREW NO. 6834		TERRAIN Rolling Hills		WEATHER Cloudy + Windy				LINE NO. 3			
REC.NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL.NO.	F I L T E R			REMARKS	
							LOCUT	60 ~	AMP		
1	933 Pulse	1-6 sec.				354	OUT	IN		Recorder set at 241-242.	
2	934 935 EINT	2- " "									
3	936 839 D.R.D.	4- " "									
4	953 854 Sum Test	2- " "									
5	960 961 N.R.T. Test	2- " "									
6	932 Similarity	1-31 sec.	225	4					50%	Vib #14256 Down due to inst. problems.	
7	167 Wind Strip	1-6 sec.	1								
8	168 269	170-265	1						50%	High Pressure Gas line at Sta's. 268-269.	
9	169 270	171-266	2			354			70%	E.O.T. Tape MKTS.	
10	171 271	172-267	3			355			70%	B.O.T. #900 10sec. All ones. #170 6sec. Wind Strip.	
11	172 272	173-268	4						70%		
12	173 273	174-269	5						70%		
13	174 274	175-270	6						70%		
14	175 275	176-271	7						70%		
15	176 276	177-272	8						50%		
16	5Kip 277	178-273	9						5Kip	due to house.	
17	177 278	179-274	10						70%	Stacked last half.	
18	178 279	180-275	11						70%		
19	179 280	181-276	12						70%		
20	180 281	182-277	13						70%		
21	181 282	183-278	14						70%		
22	182 283	184-279	15			355			70%	EOT # 355 Tape MKTS	
23	184 284	185-280	16			356			70%	Bot #356 #900 10sec All ones #183 6sec windstrip.	
24	185 285	186-281	17						70%		
25	186 286	187-282	18						70%		
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE		TOTAL FIELD TIME		DRIVING TIME		SYSTEM NO. MDS-10	
SWEEP FREQUENCY 8 → 32 Hz / 31 sec.		SWEEP PATTERN 4/63		SWEEPS PER PATTERN 8		SWEEP PATTERNS PER SETUP 1		PATCH PATTERN 1111222112221111			
GEOPHONES PER PATCH 24		NO. OF RECORDING PATCHES 96		TYPE VIBRATOR 4-Y1100S 1-Y900		TYPE GEOPHONE ETLEVR2B		FREQUENCY 7.5Hz.		STATION INTERVAL 330'	
REMARKS 8ms. Sample Rate 15/sec. Record		OBSERVER R. Patton / J. Wingo		PARTY MGR. L. Davis		LINE DIR. 1 TO 24 N-75		PAGE 1 OF 2			

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

**Exploration Services
Division
Geosource Inc.**

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CLIENT <i>COCORP</i>			AREA <i>Kansas</i>			STATE <i>Kansas</i>			COUNTY <i>Nemaha + Jackson</i>			DATE <i>5/6/81</i>		
CREW NO. <i>6834</i>			TERRAIN <i>Rolling Hills</i>			WEATHER <i>Cloudy + Windy</i>			LINE NO. <i>3</i>					
REC.NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL.NO.	F I L T E R			RE MARKS				
							LOCUT	60 ~	AMP					
1	187	287	188-283	19	4	356	OUT	IN	70%					
2	188	288	189-284	20					70%					
3	189	289	190-285	21					70%					
4	190	290	191-286	22					70%					
5	191	291	192-287	23					50%	<i>Stacked 1st half.</i>				
6	<i>Skip</i>	292	193-288	24					<i>Skip</i>	<i>due to house.</i>				
7	192	293	194-289	25					50%	<i>Stacked last half.</i>				
8	193	294	195-290	26					70%					
9	194	295	196-291	27					70%					
10	195	296	197-292	28		356			70%	<i>E.O.T. Tape MKTS.</i>				
11														
12														
13										<i>Finished For The Day.</i>				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
TOTAL SETUPS		TOTAL SWEEPS		TOTAL COVERAGE			TOTAL FIELD TIME			DRIVING TIME		SYSTEM NO.		
SWEEP FREQUENCY			SWEEP PATTERN			SWEEPS PER PATTERN			SWEEP PATTERNS PER SETUP		PATCH PATTERN			
GEOPHONES PER PATCH		NO. OF RECORDING PATCHES		TYPE VIBRATOR		TYPE GEOPHONE		FREQUENCY		STATION INTERVAL		LINE DIR. 1 TO 24		
REMARKS							OBSERVER				PARTY MGR.			

**OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER**

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Geosource Inc.**

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CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY Nemaha + Jackson	DATE 5/11/81
CREW NO. 6834	TERRAIN Rolling Hills	WEATHER Partly Cloudy + wet.	LINE NO. 3	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS
							LOCUT	60 ~	AMP	
1	933	Pulse	1-6sec.			357	OUT	IN		Recorder set at 268-269
2	934 935	FINT	2-"							Piple line AT*268
3	936 937	D.R.D.	4-"							
4	953 954	Sum Test	2-"							
5	960 961	N.R.J. Test	2-"							Vib # 14256 Down.
6	932	Similarity	1-31sec.	225	4				50%	
7	196	Wind Strip	1-6sec.	2						
8	197	297	198-293	2	4				70%	
9	198	298	199-294	3					70%	
10	199	299	200-295	4					70%	
11	200	300	201-296	5					70%	
12	201	301	202-297	6					70%	
13	202	302	203-298	7					70%	
14	203	303	204-299	8					70%	
15	204	304	205-300	9					70%	
16	205	305	206-301	10					70%	
17	206	306	207-302	11		357			70%	EOT* 357 Tape MKTs.
18	208	307	208-303	12		358			70%	Bot* 358 * 900 10sec All ones * 207 6sec windstrip.
19	209	308	209-304	13					70%	
20	210	309	210-305	14					70%	
21	211	310	211-306	15					70%	
22	212	311	212-307	16					70%	
23	213	312	213-308	17					70%	
24	214	313	214-309	18					70%	
25	215	314	215-310	19					50%	* 314 stacked 1st half.

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO.
SWEEP FREQUENCY 8 → 32 Hz / 31 sec.	SWEEP PATTERN 4163	SWEEPS PER PATTERN 8	SWEEP PATTERNS PER SETUP 1	PATCH PATTERN 11111222112221111	
GEOPHONES PER PATCH 24	NO. OF RECORDING PATCHES 96	TYPE VIBRATOR 4-Y1100's 1-Y900	TYPE GEOPHONE ETLEV22B	FREQUENCY 7.5 Hz.	STATION INTERVAL 330'
REMARKS Bans. Sample Rate 15/sec. Record.	OBSERVER R. Patten / J. Wings	PARTY MGR. L. Davis	LINE DIR. 1 TO 24 N → S		

OBSERVER'S REPORT
DIGITAL VIBROSEIS RECORDER

Exploration Services
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CLIENT COCORP	AREA Kansas	STATE Kansas	COUNTY JACKSON	DATE 5-11-81
CREW NO. 6834	TERRAIN Dirt Road Rolling Hills	WEATHER Clear	LINE NO. 3	

REC. NO.	SWEEP POINT	PATCH LOCATIONS	CDP SW.	NO VIB	AMP GAIN	TAPE RL. NO.	F I L T E R			RE MARKS
							LOCUT	60 ~	AMP	
1	SKIP 315	216-311	20	4		358	OUT	IN	SKIP	due TO house.
2	216 316	217-312	21						50%	#316 stacked last half.
3	217 317	218-313	22						70%	
4	218 318	219-314	23						70%	
5	219 319	220-315	24			358			70%	EOT #358 Tape MKTs
6	221 320	221-316	25			359			70%	Bot #359 #900 10 sec All ones #220 6 sec windstrip
7	222 321	222-317	26						70%	stacked 1st half.
8	SKIP 322	223-318	27						SKIP	due TO houses.
9	223 323	224-319	28						70%	EOT #359 Tape MKTs.
10										EOL #3. Picking up rest of line.
11										
12										Finished For The Day.
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

TOTAL SETUPS	TOTAL SWEEPS	TOTAL COVERAGE	TOTAL FIELD TIME	DRIVING TIME	SYSTEM NO.
SWEEP FREQUENCY	SWEEP PATTERN	SWEEPS PER PATTERN	SWEEP PATTERNS PER SETUP	PATCH PATTERN	
GEOPHONES PER PATCH	NO. OF RECORDING PATCHES	TYPE VIBRATOR	TYPE GEOPHONE	FREQUENCY	STATION INTERVAL
REMARKS	OBSERVER	PARTY MGR.			