APPENDIX G

G.1

GEONET INVENTORY

FEBRUARY 1993 917-1203

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST SAMPLED	CONFORMANCE TEST RESULTS	MONITOR
626922	004	7105	06/26/92	YES	PASS	CAW
624923	007	7105	06/24/92	NO	---	CAW
624923	008	7105	06/24/92	NO	---	CAW
626922	011	7105	06/26/92	YES	PASS	CAW
624923	013	7105	06/24/92	NO	---	CAW
624923	014	7105	06/24/92	NO	---	CAW
624923	015	7105	06/24/92	YES	PASS	CAW
624923	016	7105	06/24/92	NO	---	CAW
624923	017	7105	06/24/92	NO	---	CAW
624923	018	7105	06/24/92	NO	---	CAW
709922	004	9383	07/09/92	NO	---	CAW
709922	005	9383	07/09/92	NO	---	CAW
709922	006	9383	07/09/92	NO	---	CAW
709922	007	9383	07/09/92	NO	---	CAW
709922	008	9383	07/09/92	NO	---	CAW
709922	009	9383	07/09/92	NO	---	CAW
709922	010	9383	07/09/92	NO	---	CAW
709922	011	9383	07/09/92	NO	---	CAW
709922	012	9383	07/09/92	NO	---	CAW
709922	013	9383	07/09/92	NO	---	CAW
709922	014	9383	07/09/92	NO	---	CAW
709922	015	9383	07/09/92	NO	---	CAW
709922	016	9383	07/09/92	NO	---	CAW
626922	017	9383	06/26/92	NO	---	CAW
626922	018	9383	06/26/92	NO	---	CAW
626922	019	9383	06/26/92	NO	---	CAW
626922	020	9383	06/26/92	NO	---	CAW
626922	022	9383	06/26/92	NO	---	CAW
626922	023	9383	06/26/92	NO	---	CAW
626922	024	9383	06/26/92	NO	---	CAW
626922	025	9383	06/26/92	NO	---	CAW
626922	026	9383	06/26/92	NO	---	CAW
626922	027	9383	06/26/92	NO	---	CAW
626922	028	9383	06/26/92	NO	---	CAW
626922	029	9383	06/26/92	NO	---	CAW
626922	030	9383	06/26/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
626922	031	9383	06/26/92	NO	---	CAW
626922	032	9383	06/26/92	NO	---	CAW
626922	033	9383	06/26/92	NO	---	CAW
626922	034	9383	06/26/92	NO	---	CAW
626922	035	9383	06/26/92	NO	---	CAW
624923	036	9383	06/24/92	NO	---	CAW
624923	037	9383	06/24/92	NO	---	CAW
624923	038	9383	06/24/92	NO	---	CAW
624923	039	9383	06/24/92	NO	---	CAW
624923	040	9383	06/24/92	NO	---	CAW
624923	041	9383	06/24/92	NO	---	CAW
624923	042	9383	06/24/92	NO	---	CAW
624923	043	9383	06/24/92	NO	---	CAW
624923	044	9383	06/24/92	NO	---	CAW
624923	045	9383	06/24/92	NO	---	CAW
624923	046	9383	06/24/92	YES	PASS	CAW
624922	047	9383	06/24/92	NO	---	CAW
624922	048	9383	06/24/92	NO	---	CAW
624923	049	9383	06/24/92	NO	---	CAW
624922	050	9383	06/24/92	NO	---	CAW
624922	051	9383	06/24/92	NO	---	CAW
624922	053	9383	06/24/92	NO	---	CAW
624923	054	9383	06/24/92	NO	---	CAW
624922	055	9383	06/24/92	NO	---	CAW
624922	057	9383	06/24/92	NO	---	CAW
624923	057	9383	06/24/92	NO	---	CAW
624922	058	9383	06/24/92	NO	---	CAW
624922	059	9383	06/24/92	NO	---	CAW
624922	060	9383	06/24/92	NO	---	CAW
624922	061	9383	06/24/92	NO	---	CAW
624922	062	9383	06/24/92	NO	---	CAW
709922	063	9383	07/09/92	NO	---	CAW
709922	064	9383	07/09/92	NO	---	CAW
709922	066	9383	07/09/92	NO	---	CAW
709922	067	9383	07/09/92	NO	---	CAW
709922	068	9383	07/09/92	NO	---	CAW

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
709922	070	9383	07/09/92	YES	PASS	CAW
709922	071	9383	07/09/92	NO	---	CAW
709922	072	9383	07/09/92	NO	---	CAW
709922	073	9383	07/09/92	YES	PASS	CAW
709922	074	9383	07/09/92	NO	---	CAW
624922	075	9383	06/24/92	NO	---	CAW
626922	076	9383	06/26/92	NO	---	CAW
626922	077	9383	06/26/92	NO	---	CAW
624922	078	9383	06/24/92	NO	---	CAW
624922	079	9383	06/24/92	NO	---	CAW
626922	080	9383	06/26/92	YES	PASS	CAW
626922	081	9383	06/26/92	NO	---	CAW
626922	082	9383	06/26/92	NO	---	CAW
626922	083	9383	06/26/92	NO	---	CAW
626922	084	9383	06/26/92	NO	---	CAW
626922	085	9383	06/26/92	NO	---	CAW
624921	086	9383	06/24/92	NO	---	CAW
624921	087	9383	06/24/92	YES	PASS	CAW
626922	088	9383	06/26/92	NO	---	CAW
624923	088	9383	06/24/92	NO	---	CAW
626922	090	9383	06/26/92	NO	---	CAW
624923	091	9383	06/24/92	NO	---	CAW
624922	092	9383	06/24/92	NO	---	CAW
624922	093	9383	06/24/92	NO	---	CAW
624922	094	9383	06/24/92	NO	---	CAW
624922	095	9383	06/24/92	NO	---	CAW
624922	096	9383	06/24/92	NO	---	CAW
624923	098	9383	06/24/92	NO	---	CAW
624923	099	9383	06/24/92	NO	---	CAW
624923	100	9383	06/24/92	NO	---	CAW
626922	102	9383	06/26/92	YES	PASS	CAW
624923	105	9383	06/24/92	NO	---	CAW
624923	106	9383	06/24/92	NO	---	CAW
624923	108	9383	06/24/92	NO	---	CAW
624923	109	9383	06/24/92	NO	---	CAW
624923	110	9383	06/24/92	NO	---	CAW

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
624923	111	9383	06/24/92	NO	---	CAW
624922	112	9383	06/24/92	NO	---	CAW
624921	113	9383	06/24/92	NO	---	CAW
624922	114	9383	06/24/92	NO	---	CAW
624921	115	9383	06/24/92	NO	---	CAW
624921	116	9383	06/24/92	NO	---	CAW
624921	117	9383	06/24/92	NO	---	CAW
624922	118	9383	06/24/92	NO	---	CAW
624922	119	9383	06/24/92	NO	---	CAW
624922	120	9383	06/24/92	NO	---	CAW
624921	121	9383	06/24/92	NO	---	CAW
624921	122	9383	06/24/92	NO	---	CAW
624921	123	9383	06/24/92	NO	---	CAW
624921	124	9383	06/24/92	NO	---	CAW
624921	125	9383	06/24/92	NO	---	CAW
709922	126	9383	07/09/92	NO	---	CAW
709922	127	9383	07/09/92	YES	PASS	CAW
709922	128	9383	07/09/92	NO	---	CAW
626922	129	9383	06/26/92	NO	---	CAW
626922	130	9383	06/26/92	NO	---	CAW
626922	131	9383	06/26/92	NO	---	CAW
709922	132	9383	07/09/92	YES	PASS	CAW
709922	133	9383	07/09/92	NO	---	CAW
626922	135	9383	06/26/92	NO	---	CAW
709922	136	9383	07/09/92	NO	---	CAW
626922	137	9383	06/26/92	NO	---	CAW
624923	138	9383	06/24/92	NO	---	CAW
624923	139	9383	06/24/92	NO	---	CAW
624923	140	9383	06/24/92	NO	---	CAW
624923	141	9383	06/24/92	NO	---	CAW
624923	142	9383	06/24/92	NO	---	CAW
624923	144	9383	06/24/92	NO	---	CAW
624923	146	9383	06/24/92	NO	---	CAW
624922	147	9383	06/24/92	NO	---	CAW
624922	148	9383	06/24/92	YES	PASS	CAW
624922	149	9383	06/24/92	NO	---	CAW

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FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
624922	150	9383	06/24/92	NO	---	CAW
624922	151	9383	06/24/92	NO	---	CAW
624922	152	9383	06/24/92	NO	---	CAW
624922	154	9383	06/24/92	NO	---	CAW
624922	155	9383	06/24/92	NO	---	CAW
624922	158	9383	06/24/92	NO	---	CAW
624922	159	9383	06/24/92	NO	---	CAW
624922	160	9383	06/24/92	NO	---	CAW
624922	161	9383	06/24/92	NO	---	CAW
624922	162	9383	06/24/92	NO	---	CAW
624922	163	9383	06/24/92	NO	---	CAW
624921	164	9383	06/24/92	NO	---	CAW
624921	165	9383	06/24/92	NO	---	CAW
624921	166	9383	06/24/92	NO	---	CAW
624921	167	9383	06/24/92	NO	---	CAW
624921	168	9383	06/24/92	NO	---	CAW
624921	169	9383	06/24/92	NO	---	CAW
624921	170	9383	06/24/92	NO	---	CAW
624921	171	9383	06/24/92	NO	---	CAW
624921	172	9383	06/24/92	NO	---	CAW
624921	173	9383	06/24/92	NO	---	CAW
624921	175	9383	06/24/92	NO	---	CAW
624921	176	9383	06/24/92	NO	---	CAW
624921	178	9383	06/24/92	NO	---	CAW
624921	179	9383	06/24/92	NO	---	CAW
624921	180	9383	06/24/92	NO	---	CAW
624921	181	9383	06/24/92	NO	---	CAW
624921	182	9383	06/24/92	NO	---	CAW
624921	183	9383	06/24/92	NO	---	CAW
624921	184	9383	06/24/92	YES	PASS	CAW
624921	186	9383	06/24/92	NO	---	CAW
624921	188	9383	06/24/92	NO	---	CAW
624921	189	9383	06/24/92	NO	---	CAW
624921	190	9383	06/24/92	NO	---	CAW
624921	191	9383	06/24/92	NO	---	CAW
624921	192	9383	06/24/92	NO	---	CAW

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ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
624921	193	9383	06/24/92	NO	---	CAW
624921	194	9383	06/24/92	NO	---	CAW
624921	195	9383	06/24/92	NO	---	CAW
624921	196	9383	06/24/92	NO	---	CAW
624921	197	9383	06/24/92	NO	---	CAW
624921	198	9383	06/24/92	NO	---	CAW
624921	199	9383	06/24/92	NO	---	CAW
713922	005	9559	07/13/92	NO	---	CAW
713922	007	9559	07/13/92	NO	---	CAW
713922	008	9559	07/13/92	NO	---	CAW
713922	009	9559	07/13/92	NO	---	CAW
713922	010	9559	07/13/92	NO	---	CAW
713922	011	9559	07/13/92	NO	---	CAW
713922	012	9559	07/13/92	NO	---	CAW
713922	013	9559	07/13/92	NO	---	CAW
713922	014	9559	07/13/92	NO	---	CAW
713922	015	9559	07/13/92	NO	---	CAW
710921	016	9559	07/10/92	NO	---	CAW
710921	017	9559	07/10/92	NO	---	CAW
710921	018	9559	07/10/92	NO	---	CAW
710921	019	9559	07/10/92	NO	---	CAW
710921	020	9559	07/10/92	NO	---	CAW
710921	021	9559	07/10/92	NO	---	CAW
710921	022	9559	07/10/92	NO	---	CAW
710921	023	9559	07/10/92	NO	---	CAW
709922	024	9559	07/09/92	NO	---	CAW
709922	025	9559	07/09/92	NO	---	CAW
709922	026	9559	07/09/92	NO	---	CAW
709922	027	9559	07/09/92	NO	---	CAW
709922	028	9559	07/09/92	NO	---	CAW
709922	029	9559	07/09/92	NO	---	CAW
709922	030	9559	07/09/92	NO	---	CAW
709922	031	9559	07/09/92	NO	---	CAW
709922	032	9559	07/09/92	NO	---	CAW
709922	033	9559	07/09/92	NO	---	CAW
709922	034	9559	07/09/92	NO	---	CAW

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SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
709922	035	9559	07/09/92	NO	---	CAW
709922	036	9559	07/09/92	NO	---	CAW
710921	037	9559	07/10/92	NO	---	CAW
710921	038	9559	07/10/92	NO	---	CAW
710921	039	9559	07/10/92	NO	---	CAW
710921	040	9559	07/10/92	NO	---	CAW
710921	041	9559	07/10/92	NO	---	CAW
710921	042	9559	07/10/92	NO	---	CAW
710921	043	9559	07/10/92	NO	---	CAW
710921	044	9559	07/10/92	NO	---	CAW
710921	045	9559	07/10/92	NO	---	CAW
710921	046	9559	07/10/92	NO	---	CAW
710921	047	9559	07/10/92	NO	---	CAW
710921	048	9559	07/10/92	NO	---	CAW
710921	049	9559	07/10/92	NO	---	CAW
710921	050	9559	07/10/92	NO	---	CAW
710921	051	9559	07/10/92	NO	---	CAW
710921	052	9559	07/10/92	NO	---	CAW
710921	053	9559	07/10/92	NO	---	CAW
710921	054	9559	07/10/92	NO	---	CAW
710921	055	9559	07/10/92	NO	---	CAW
710921	056	9559	07/10/92	NO	---	CAW
710921	057	9559	07/10/92	NO	---	CAW
710921	058	9559	07/10/92	NO	---	CAW
710921	059	9559	07/10/92	NO	---	CAW
710921	060	9559	07/10/92	NO	---	CAW
710921	061	9559	07/10/92	NO	---	CAW
710921	062	9559	07/10/92	NO	---	CAW
710921	063	9559	07/10/92	NO	---	CAW
710921	064	9559	07/10/92	YES	PASS	CAW
710921	065	9559	07/10/92	NO	---	CAW
710921	066	9559	07/10/92	NO	---	CAW
710921	067	9559	07/10/92	NO	---	CAW
710921	068	9559	07/10/92	NO	---	CAW
710921	069	9559	07/10/92	YES	PASS	CAW
710921	070	9559	07/10/92	NO	---	CAW

Note:
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FEBRUARY 1993 917-1203

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FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
710921	071	9559	07/10/92	YES	PASS	CAW
710921	072	9559	07/10/92	YES	PASS	CAW
710921	073	9559	07/10/92	NO	---	CAW
713922	074	9559	07/13/92	NO	---	CAW
713922	075	9559	07/13/92	NO	---	CAW
713922	076	9559	07/13/92	NO	---	CAW
713922	077	9559	07/13/92	NO	---	CAW
713922	078	9559	07/13/92	NO	---	CAW
713922	079	9559	07/13/92	NO	---	CAW
713922	080	9559	07/13/92	NO	---	CAW
713922	081	9559	07/13/92	NO	---	CAW
713922	082	9559	07/13/92	NO	---	CAW
713922	083	9559	07/13/92	NO	---	CAW
713922	084	9559	07/13/92	NO	---	CAW
713922	085	9559	07/13/92	NO	---	CAW
713922	086	9559	07/13/92	NO	---	CAW
713922	087	9559	07/13/92	NO	---	CAW
713922	088	9559	07/13/92	NO	---	CAW
713922	088	9559	07/13/92	NO	---	CAW
713922	090	9559	07/13/92	NO	---	CAW
713922	091	9559	07/13/92	NO	---	CAW
713922	092	9559	07/13/92	NO	---	CAW
713922	093	9559	07/13/92	NO	---	CAW
713922	094	9559	07/13/92	NO	---	CAW
713922	095	9559	07/13/92	NO	---	CAW
713922	096	9559	07/13/92	NO	---	CAW
713922	097	9559	07/13/92	NO	---	CAW
713922	098	9559	07/13/92	NO	---	CAW
713922	099	9559	07/13/92	NO	---	CAW
713922	100	9559	07/13/92	NO	---	CAW
713922	101	9559	07/13/92	NO	---	CAW
713922	102	9559	07/13/92	NO	---	CAW
713922	103	9559	07/13/92	NO	---	CAW
713922	104	9559	07/13/92	NO	---	CAW
713922	105	9559	07/13/92	NO	---	CAW
713922	106	9559	07/13/92	NO	---	CAW

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
713922	107	9559	07/13/92	NO	---	CAW
713922	108	9559	07/13/92	YES	PASS	CAW
720921	111	9559	07/20/92	NO	---	JAL
720921	112	9559	07/20/92	NO	---	JAL
720921	113	9559	07/20/92	NO	---	JAL
720921	114	9559	07/20/92	NO	---	JAL
720921	115	9559	07/20/92	NO	---	JAL
720921	116	9559	07/20/92	NO	---	JAL
720921	117	9559	07/20/92	NO	---	JAL
720921	118	9559	07/20/92	NO	---	JAL
720921	119	9559	07/20/92	NO	---	JAL
720921	120	9559	07/20/92	NO	---	JAL
720921	121	9559	07/20/92	NO	---	JAL
720921	122	9559	07/20/92	NO	---	JAL
720921	123	9559	07/20/92	NO	---	JAL
720921	124	9559	07/20/92	NO	---	JAL
720921	125	9559	07/20/92	NO	---	JAL
720921	126	9559	07/20/92	NO	---	JAL
720921	127	9559	07/20/92	NO	---	JAL
720921	128	9559	07/20/92	NO	---	JAL
720921	129	9559	07/20/92	NO	---	JAL
720921	130	9559	07/20/92	NO	---	JAL
720921	131	9559	07/20/92	NO	---	JAL
720921	132	9559	07/20/92	NO	---	JAL
720921	133	9559	07/20/92	NO	---	JAL
720921	134	9559	07/20/92	NO	---	JAL
720921	135	9559	07/20/92	NO	---	JAL
720921	136	9559	07/20/92	NO	---	JAL
720921	137	9559	07/20/92	NO	---	JAL
720921	138	9559	07/20/92	NO	---	JAL
716922	139	9559	07/16/92	NO	---	CAW
716922	140	9559	07/16/92	NO	---	CAW
716922	141	9559	07/16/92	NO	---	CAW
716922	142	9559	07/16/92	NO	---	CAW
716922	143	9559	07/16/92	NO	---	CAW
716922	144	9559	07/16/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
716922	145	9559	07/16/92	NO	---	CAW
716922	146	9559	07/16/92	NO	---	CAW
716922	147	9559	07/16/92	NO	---	CAW
716922	148	9559	07/16/92	NO	---	CAW
716922	149	9559	07/16/92	NO	---	CAW
716922	150	9559	07/16/92	NO	---	CAW
716922	151	9559	07/16/92	NO	---	CAW
716922	152	9559	07/16/92	NO	---	CAW
716922	153	9559	07/16/92	NO	---	CAW
716922	154	9559	07/16/92	NO	---	CAW
716921	155	9559	07/16/92	NO	---	CAW
716921	156	9559	07/16/92	NO	---	CAW
716921	157	9559	07/16/92	NO	---	CAW
716921	158	9559	07/16/92	NO	---	CAW
716921	159	9559	07/16/92	NO	---	CAW
716921	160	9559	07/16/92	NO	---	CAW
716921	161	9559	07/16/92	NO	---	CAW
716921	162	9559	07/16/92	NO	---	CAW
716921	163	9559	07/16/92	NO	---	CAW
715922	164	9559	07/15/92	NO	---	TAH
715922	165	9559	07/15/92	NO	---	TAH
715922	166	9559	07/15/92	NO	---	TAH
715922	167	9559	07/15/92	NO	---	TAH
715922	168	9559	07/15/92	NO	---	TAH
715922	169	9559	07/15/92	NO	---	TAH
715922	170	9559	07/15/92	NO	---	TAH
715922	171	9559	07/15/92	NO	---	TAH
715922	172	9559	07/15/92	NO	---	TAH
715922	173	9559	07/15/92	NO	---	TAH
715922	175	9559	07/15/92	NO	---	TAH
715922	177	9559	07/15/92	NO	---	TAH
715922	178	9559	07/15/92	NO	---	TAH
715922	179	9559	07/15/92	NO	---	TAH
715922	180	9559	07/15/92	NO	---	TAH
715922	181	9559	07/15/92	NO	---	TAH
715922	182	9559	07/15/92	NO	---	TAH

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
715922	183	9559	07/15/92	NO	---	TAH
715922	184	9559	07/15/92	NO	---	TAH
715922	185	9559	07/15/92	NO	---	TAH
715922	186	9559	07/15/92	NO	---	TAH
715922	187	9559	07/15/92	NO	---	TAH
715922	188	9559	07/15/92	NO	---	TAH
715922	189	9559	07/15/92	NO	---	TAH
715922	190	9559	07/15/92	NO	---	TAH
715922	191	9559	07/15/92	NO	---	TAH
715922	192	9559	07/15/92	NO	---	TAH
715922	193	9559	07/15/92	NO	---	TAH
715922	194	9559	07/15/92	NO	---	TAH
715922	195	9559	07/15/92	YES	PASS	TAH
715922	196	9559	07/15/92	NO	---	TAH
715922	197	9559	07/15/92	NO	---	TAH
715922	198	9559	07/15/92	NO	---	TAH
715922	199	9559	07/15/92	NO	---	TAH
715922	200	9559	07/15/92	NO	---	TAH
715922	201	9559	07/15/92	NO	---	TAH
715922	202	9559	07/15/92	NO	---	TAH
715922	203	9559	07/15/92	NO	---	TAH
715922	204	9559	07/15/92	NO	---	TAH
715922	205	9559	07/15/92	NO	---	TAH
715922	206	9559	07/15/92	NO	---	TAH
715922	207	9559	07/15/92	NO	---	TAH
715922	208	9559	07/15/92	NO	---	TAH
715922	209	9559	07/15/92	NO	---	TAH
715922	210	9559	07/15/92	NO	---	TAH
715922	211	9559	07/15/92	NO	---	TAH
715922	212	9559	07/15/92	NO	---	TAH
715922	213	9559	07/15/92	NO	---	TAH
716921	214	9559	07/16/92	NO	---	CAW
716921	215	9559	07/16/92	NO	---	CAW
716921	216	9559	07/16/92	NO	---	CAW
716921	217	9559	07/16/92	NO	---	CAW
716921	218	9559	07/16/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
716921	219	9559	07/16/92	NO	---	CAW
716921	220	9559	07/16/92	NO	---	CAW
716921	221	9559	07/16/92	NO	---	CAW
716921	222	9559	07/16/92	NO	---	CAW
716921	225	9559	07/16/92	NO	---	CAW
716921	226	9559	07/16/92	NO	---	CAW
716921	227	9559	07/16/92	NO	---	CAW
716921	228	9559	07/16/92	NO	---	CAW
716921	229	9559	07/16/92	NO	---	CAW
716921	230	9559	07/16/92	NO	---	CAW
716921	231	9559	07/16/92	NO	---	CAW
716921	232	9559	07/16/92	NO	---	CAW
716921	234	9559	07/16/92	NO	---	CAW
716921	235	9559	07/16/92	NO	---	CAW
716921	236	9559	07/16/92	NO	---	CAW
716921	237	9559	07/16/92	NO	---	CAW
716921	238	9559	07/16/92	NO	---	CAW
716921	239	9559	07/16/92	NO	---	CAW
716921	240	9559	07/16/92	NO	---	CAW
716921	241	9559	07/16/92	NO	---	CAW
716921	242	9559	07/16/92	YES	PASS	CAW
716921	243	9559	07/16/92	NO	---	CAW
716921	244	9559	07/16/92	NO	---	CAW
716921	245	9559	07/16/92	NO	---	CAW
716921	246	9559	07/16/92	YES	PASS	CAW
716921	247	9559	07/16/92	NO	---	CAW
716922	248	9559	07/16/92	NO	---	CAW
716922	249	9559	07/16/92	NO	---	CAW
716922	250	9559	07/16/92	NO	---	CAW
716922	251	9559	07/16/92	NO	---	CAW
716922	252	9559	07/16/92	NO	---	CAW
716922	253	9559	07/16/92	NO	---	CAW
716922	254	9559	07/16/92	NO	---	CAW
716922	255	9559	07/16/92	NO	---	CAW
716922	256	9559	07/16/92	NO	---	CAW
716922	257	9559	07/16/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST SAMPLED	CONFORMANCE TEST RESULTS	MONITOR
716922	258	9559	07/16/92	NO	---	CAW
716922	259	9559	07/16/92	NO	---	CAW
716922	260	9559	07/16/92	NO	---	CAW
716922	261	9559	07/16/92	NO	---	CAW
716922	262	9559	07/16/92	NO	---	CAW
716922	263	9559	07/16/92	NO	---	CAW
716922	264	9559	07/16/92	NO	---	CAW
716922	265	9559	07/16/92	NO	---	CAW
716922	266	9559	07/16/92	NO	---	CAW
716922	267	9559	07/16/92	NO	---	CAW
716922	268	9559	07/16/92	NO	---	CAW
716922	269	9559	07/16/92	NO	---	CAW
716922	270	9559	07/16/92	NO	---	CAW
716922	271	9559	07/16/92	NO	---	CAW
716922	272	9559	07/16/92	NO	---	CAW
716922	273	9559	07/16/92	NO	---	CAW
716922	274	9559	07/16/92	NO	---	CAW
716922	275	9559	07/16/92	NO	---	CAW
716922	276	9559	07/16/92	YES	PASS	CAW
720921	277	9559	07/20/92	NO	---	JAL
720921	278	9559	07/20/92	NO	---	JAL
720921	279	9559	07/20/92	NO	---	JAL
720921	280	9559	07/20/92	NO	---	JAL
720921	281	9559	07/20/92	NO	---	JAL
720921	282	9559	07/20/92	NO	---	JAL
720921	283	9559	07/20/92	NO	---	JAL
720921	284	9559	07/20/92	NO	---	JAL
720921	285	9559	07/20/92	NO	---	JAL
720921	286	9559	07/20/92	NO	---	JAL
720921	287	9559	07/20/92	NO	---	JAL
720921	288	9559	07/20/92	NO	---	JAL
720921	289	9559	07/20/92	NO	---	JAL
720921	290	9559	07/20/92	NO	---	JAL
720921	291	9559	07/20/92	NO	---	JAL
720921	292	9559	07/20/92	NO	---	JAL
720921	293	9559	07/20/92	NO	---	JAL

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
720921	294	9559	07/20/92	NO	---	JAL
720921	295	9559	07/20/92	NO	---	JAL
720921	296	9559	07/20/92	NO	---	JAL
720921	297	9559	07/20/92	NO	---	JAL
720921	298	9559	07/20/92	NO	---	JAL
720921	299	9559	07/20/92	NO	---	JAL
720921	300	9559	07/20/92	NO	---	JAL
720921	301	9559	07/20/92	NO	---	JAL
720921	302	9559	07/20/92	NO	---	JAL
720921	303	9559	07/20/92	NO	---	JAL
720921	304	9559	07/20/92	NO	---	JAL
720921	305	9559	07/20/92	NO	---	JAL
720921	306	9559	07/20/92	NO	---	JAL
720921	307	9559	07/20/92	NO	---	JAL
720921	308	9559	07/20/92	NO	---	JAL
720921	309	9559	07/20/92	NO	---	JAL
720921	310	9559	07/20/92	YES	PASS	JAL
720921	311	9559	07/20/92	YES	FAIL	JAL
720921	312	9559	07/20/92	YES	PASS	JAL
720921	313	9559	07/20/92	YES	PASS	JAL
720921	314	9559	07/20/92	NO	---	JAL
720921	315	9559	07/20/92	YES	PASS	JAL
720921	316	9559	07/20/92	NO	---	JAL
720921	319	9559	07/20/92	NO	---	JAL
720921	320	9559	07/20/92	NO	---	JAL
720921	321	9559	07/20/92	NO	---	JAL
720921	322	9559	07/20/92	NO	---	JAL
720921	323	9559	07/20/92	NO	---	JAL
720921	324	9559	07/20/92	NO	---	JAL
720921	325	9559	07/20/92	NO	---	JAL
720921	326	9559	07/20/92	NO	---	JAL
720921	327	9559	07/20/92	NO	---	JAL
720921	328	9559	07/20/92	NO	---	JAL
720921	329	9559	07/20/92	NO	---	JAL
720921	330	9559	07/20/92	NO	---	JAL
720921	331	9559	07/20/92	NO	---	JAL

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST SAMPLED	CONFORMANCE TEST RESULTS	MONITOR
720921	332	9559	07/20/92	NO	---	JAL
720921	333	9559	07/20/92	NO	---	JAL
720921	334	9559	07/20/92	NO	---	JAL
720921	335	9559	07/20/92	NO	---	JAL
720921	336	9559	07/20/92	NO	---	JAL
720921	337	9559	07/20/92	NO	---	JAL
720921	338	9559	07/20/92	NO	---	JAL
720921	339	9559	07/20/92	NO	---	JAL
720921	340	9559	07/20/92	NO	---	JAL
720921	341	9559	07/20/92	NO	---	JAL
720921	342	9559	07/20/92	NO	---	JAL
720921	343	9559	07/20/92	YES	PASS	JAL
727921	344	9559	07/27/92	NO	---	AWJ
727921	355	9559	07/27/92	NO	---	AWJ
727921	356	9559	07/27/92	NO	---	AWJ
727921	357	9559	07/27/92	NO	---	AWJ
727921	358	9559	07/27/92	NO	---	AWJ
727921	359	9559	07/27/92	NO	---	AWJ
724921	362	9559	07/24/92	NO	---	AWJ
724921	363	9559	07/24/92	NO	---	AWJ
724921	364	9559	07/24/92	NO	---	AWJ
724921	365	9559	07/24/92	NO	---	AWJ
724921	366	9559	07/24/92	NO	---	AWJ
724921	367	9559	07/24/92	NO	---	AWJ
724921	368	9559	07/24/92	NO	---	AWJ
724921	369	9559	07/24/92	NO	---	AWJ
724921	370	9559	07/24/92	NO	---	AWJ
724921	371	9559	07/24/92	NO	---	AWJ
724921	372	9559	07/24/92	NO	---	AWJ
724921	373	9559	07/24/92	NO	---	AWJ
724921	374	9559	07/24/92	NO	---	AWJ
724921	375	9559	07/24/92	NO	---	AWJ
724921	376	9559	07/24/92	NO	---	AWJ
724921	377	9559	07/24/92	NO	---	AWJ
723922	378	9559	07/23/92	NO	---	CAW
723922	379	9559	07/23/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
723922	380	9559	07/23/92	NO	---	CAW
722922	381	9559	07/22/92	NO	---	JAL
722922	382	9559	07/22/92	NO	---	JAL
722922	383	9559	07/22/92	NO	---	JAL
722922	384	9559	07/22/92	NO	---	JAL
722922	385	9559	07/22/92	NO	---	JAL
722922	386	9559	07/22/92	NO	---	JAL
722922	387	9559	07/22/92	NO	---	JAL
722922	388	9559	07/22/92	NO	---	JAL
722922	389	9559	07/22/92	NO	---	JAL
722922	390	9559	07/22/92	NO	---	JAL
722922	391	9559	07/22/92	NO	---	JAL
722922	392	9559	07/22/92	NO	---	JAL
722922	393	9559	07/22/92	NO	---	JAL
722922	394	9559	07/22/92	NO	---	JAL
724921	395	9559	07/24/92	NO	---	AWJ
722922	395	9559	07/22/92	NO	---	JAL
722922	396	9559	07/22/92	NO	---	JAL
722922	397	9559	07/22/92	NO	---	JAL
722922	398	9559	07/22/92	NO	---	JAL
722922	399	9559	07/22/92	NO	---	JAL
722922	400	9559	07/22/92	NO	---	JAL
722922	401	9559	07/22/92	NO	---	JAL
722922	402	9559	07/22/92	NO	---	JAL
722922	403	9559	07/22/92	NO	---	JAL
722922	404	9559	07/22/92	NO	---	JAL
722921	405	9559	07/22/92	NO	---	JAL
722921	406	9559	07/22/92	NO	---	JAL
722921	407	9559	07/22/92	NO	---	JAL
722921	408	9559	07/22/92	NO	---	JAL
722921	409	9559	07/22/92	NO	---	JAL
722921	410	9559	07/22/92	NO	---	JAL
722921	411	9559	07/22/92	NO	---	JAL
722921	412	9559	07/22/92	NO	---	JAL
722921	413	9559	07/22/92	NO	---	JAL
722921	414	9559	07/22/92	NO	---	JAL

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
722921	415	9559	07/22/92	NO	---	JAL
722921	416	9559	07/22/92	NO	---	JAL
722921	417	9559	07/22/92	NO	---	JAL
722921	418	9559	07/22/92	NO	---	JAL
722921	419	9559	07/22/92	NO	---	JAL
722921	420	9559	07/22/92	NO	---	JAL
722921	421	9559	07/22/92	NO	---	JAL
722921	422	9559	07/22/92	NO	---	JAL
722921	423	9559	07/22/92	NO	---	JAL
722921	424	9559	07/22/92	NO	---	JAL
722921	425	9559	07/22/92	NO	---	JAL
722921	426	9559	07/22/92	NO	---	JAL
722921	427	9559	07/22/92	NO	---	JAL
722921	428	9559	07/22/92	NO	---	JAL
722921	429	9559	07/22/92	NO	---	JAL
722921	430	9559	07/22/92	NO	---	JAL
722921	431	9559	07/22/92	NO	---	JAL
722921	432	9559	07/22/92	NO	---	JAL
722921	433	9559	07/22/92	NO	---	JAL
722921	434	9559	07/22/92	NO	---	JAL
722921	435	9559	07/22/92	NO	---	JAL
722921	436	9559	07/22/92	NO	---	JAL
722921	437	9559	07/22/92	NO	---	JAL
722921	438	9559	07/22/92	NO	---	JAL
722921	439	9559	07/22/92	NO	---	JAL
722921	440	9559	07/22/92	NO	---	JAL
722921	441	9559	07/22/92	NO	---	JAL
722921	442	9559	07/22/92	NO	---	JAL
722921	443	9559	07/22/92	NO	---	JAL
722921	444	9559	07/22/92	NO	---	JAL
722921	445	9559	07/22/92	NO	---	JAL
722921	446	9559	07/22/92	NO	---	JAL
722921	447	9559	07/22/92	NO	---	JAL
722921	448	9559	07/22/92	NO	---	JAL
722921	449	9559	07/22/92	NO	---	JAL
722921	450	9559	07/22/92	NO	---	JAL

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
722921	451	9559	07/22/92	NO	---	JAL
722921	452	9559	07/22/92	NO	---	JAL
722922	453	9559	07/22/92	NO	---	JAL
722922	454	9559	07/22/92	NO	---	JAL
722922	455	9559	07/22/92	NO	---	JAL
722922	456	9559	07/22/92	NO	---	JAL
722922	457	9559	07/22/92	NO	---	JAL
722922	458	9559	07/22/92	NO	---	JAL
722922	459	9559	07/22/92	NO	---	JAL
722922	460	9559	07/22/92	NO	---	JAL
722922	461	9559	07/22/92	NO	---	JAL
722922	462	9559	07/22/92	NO	---	JAL
722922	463	9559	07/22/92	NO	---	JAL
722922	464	9559	07/22/92	NO	---	JAL
722922	465	9559	07/22/92	NO	---	JAL
722922	466	9559	07/22/92	NO	---	JAL
722922	467	9559	07/22/92	NO	---	JAL
722922	468	9559	07/22/92	NO	---	JAL
722922	469	9559	07/22/92	NO	---	JAL
722922	470	9559	07/22/92	NO	---	JAL
722922	471	9559	07/22/92	NO	---	JAL
722922	472	9559	07/22/92	NO	---	JAL
722922	473	9559	07/22/92	NO	---	JAL
722922	474	9559	07/22/92	NO	---	JAL
722922	475	9559	07/22/92	NO	---	JAL
722922	476	9559	07/22/92	NO	---	JAL
723922	477	9559	07/23/92	NO	---	CAW
723922	478	9559	07/23/92	NO	---	CAW
723922	479	9559	07/23/92	NO	---	CAW
723922	480	9559	07/23/92	NO	---	CAW
723922	481	9559	07/23/92	NO	---	CAW
723922	482	9559	07/23/92	NO	---	CAW
723922	483	9559	07/23/92	NO	---	CAW
723922	484	9559	07/23/92	NO	---	CAW
723922	485	9559	07/23/92	NO	---	CAW
723922	486	9559	07/23/92	NO	---	CAW

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
723922	487	9559	07/23/92	NO	---	CAW
723922	489	9559	07/23/92	NO	---	CAW
723922	490	9559	07/23/92	NO	---	CAW
723922	491	9559	07/23/92	NO	---	CAW
723922	492	9559	07/23/92	NO	---	CAW
723922	493	9559	07/23/92	NO	---	CAW
723922	494	9559	07/23/92	NO	---	CAW
723922	495	9559	07/23/92	NO	---	CAW
723922	496	9559	07/23/92	NO	---	CAW
723922	497	9559	07/23/92	NO	---	CAW
723922	498	9559	07/23/92	NO	---	CAW
723922	500	9559	07/23/92	NO	---	CAW
723922	501	9559	07/23/92	NO	---	CAW
723922	502	9559	07/23/92	NO	---	CAW
723922	503	9559	07/23/92	NO	---	CAW
723922	504	9559	07/23/92	NO	---	CAW
723922	505	9559	07/23/92	NO	---	CAW
723922	506	9559	07/23/92	NO	---	CAW
723922	507	9559	07/23/92	NO	---	CAW
723922	508	9559	07/23/92	NO	---	CAW
723922	509	9559	07/23/92	NO	---	CAW
723922	510	9559	07/23/92	NO	---	CAW
723922	511	9559	07/23/92	NO	---	CAW
723922	512	9559	07/23/92	NO	---	CAW
723922	513	9559	07/23/92	NO	---	CAW
723922	514	9559	07/23/92	NO	---	CAW
723922	515	9559	07/23/92	NO	---	CAW
723922	516	9559	07/23/92	NO	---	CAW
723922	517	9559	07/23/92	NO	---	CAW
724921	519	9559	07/24/92	NO	---	AWJ
724921	520	9559	07/24/92	NO	---	AWJ
724921	521	9559	07/24/92	NO	---	AWJ
724921	522	9559	07/24/92	NO	---	AWJ
724921	524	9559	07/24/92	NO	---	AWJ
724921	525	9559	07/24/92	NO	---	AWJ
724921	526	9559	07/24/92	NO	---	AWJ

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

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GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
724921	527	9559	07/24/92	NO	---	AWJ
724921	528	9559	07/24/92	NO	---	AWJ
724921	529	9559	07/24/92	NO	---	AWJ
724921	530	9559	07/24/92	NO	---	AWJ
724921	531	9559	07/24/92	NO	---	AWJ
724921	532	9559	07/24/92	NO	---	AWJ
724921	533	9559	07/24/92	NO	---	AWJ
724921	534	9559	07/24/92	NO	---	AWJ
724921	535	9559	07/24/92	NO	---	AWJ
724921	537	9559	07/24/92	NO	---	AWJ
724921	538	9559	07/24/92	NO	---	AWJ
724921	539	9559	07/24/92	NO	---	AWJ
724921	540	9559	07/24/92	NO	---	AWJ
724921	541	9559	07/24/92	NO	---	AWJ
724921	542	9559	07/24/92	NO	---	AWJ
724921	543	9559	07/24/92	NO	---	AWJ
724921	544	9559	07/24/92	NO	---	AWJ
724921	545	9559	07/24/92	NO	---	AWJ
724921	546	9559	07/24/92	NO	---	AWJ
724921	547	9559	07/24/92	NO	---	AWJ
724921	548	9559	07/24/92	NO	---	AWJ
727921	550	9559	07/27/92	NO	---	AWJ
727921	550	9559	07/27/92	NO	---	AWJ
727921	551	9559	07/27/92	NO	---	AWJ
727921	552	9559	07/27/92	NO	---	AWJ
727921	553	9559	07/27/92	NO	---	AWJ
727921	554	9559	07/27/92	NO	---	AWJ
727921	555	9559	07/27/92	NO	---	AWJ
727921	556	9559	07/27/92	NO	---	AWJ
727921	557	9559	07/27/92	NO	---	AWJ
727921	558	9559	07/27/92	NO	---	AWJ
727921	559	9559	07/27/92	NO	---	AWJ
727921	560	9559	07/27/92	NO	---	AWJ
727921	561	9559	07/27/92	NO	---	AWJ
727921	562	9559	07/27/92	NO	---	AWJ
727921	563	9559	07/27/92	NO	---	AWJ

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST SAMPLED	CONFORMANCE TEST RESULTS	MONITOR
727921	565	9559	07/27/92	NO	---	AWJ
727921	566	9559	07/27/92	NO	---	AWJ
727921	567	9559	07/27/92	NO	---	AWJ
727921	568	9559	07/27/92	NO	---	AWJ
727921	569	9559	07/27/92	NO	---	AWJ
727921	570	9559	07/27/92	NO	---	AWJ
727921	571	9559	07/27/92	NO	---	AWJ
727921	572	9559	07/27/92	NO	---	AWJ
727921	573	9559	07/27/92	NO	---	AWJ
727921	574	9559	07/27/92	NO	---	AWJ
727921	575	9559	07/27/92	NO	---	AWJ
727921	576	9559	07/27/92	NO	---	AWJ
727921	577	9559	07/27/92	NO	---	AWJ
727921	578	9559	07/27/92	NO	---	AWJ
727921	579	9559	07/27/92	NO	---	AWJ
727921	580	9559	07/27/92	NO	---	AWJ
727921	581	9559	07/27/92	NO	---	AWJ
727921	582	9559	07/27/92	NO	---	AWJ
727921	583	9559	07/27/92	NO	---	AWJ
727921	584	9559	07/27/92	NO	---	AWJ
727921	585	9559	07/27/92	NO	---	AWJ
727921	586	9559	07/27/92	NO	---	AWJ
727921	587	9559	07/27/92	NO	---	AWJ
731921	588	9559	07/31/92	NO	---	JAL
731921	589	9559	07/31/92	NO	---	JAL
731921	590	9559	07/31/92	NO	---	JAL
731921	591	9559	07/31/92	NO	---	JAL
731921	592	9559	07/31/92	NO	---	JAL
731921	593	9559	07/31/92	NO	---	JAL
731921	594	9559	07/31/92	NO	---	JAL
731921	595	9559	07/31/92	NO	---	JAL
731921	596	9559	07/31/92	NO	---	JAL
731921	597	9559	07/31/92	NO	---	JAL
731921	598	9559	07/31/92	NO	---	JAL
731921	599	9559	07/31/92	NO	---	JAL
731921	600	9559	07/31/92	NO	---	JAL

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
731921	601	9559	07/31/92	NO	---	JAL
731921	602	9559	07/31/92	NO	---	JAL
731921	603	9559	07/31/92	NO	---	JAL
731921	604	9559	07/31/92	NO	---	JAL
731921	605	9559	07/31/92	NO	---	JAL
731921	606	9559	07/31/92	NO	---	JAL
731921	607	9559	07/31/92	NO	---	JAL
731921	608	9559	07/31/92	NO	---	JAL
731921	609	9559	07/31/92	NO	---	JAL
731921	610	9559	07/31/92	NO	---	JAL
730921	611	9559	07/30/92	NO	---	BIE
730921	612	9559	07/30/92	NO	---	BIE
730921	613	9559	07/30/92	NO	---	BIE
730921	614	9559	07/30/92	NO	---	BIE
730921	615	9559	07/30/92	NO	---	BIE
730921	616	9559	07/30/92	NO	---	BIE
730921	617	9559	07/30/92	NO	---	BIE
730921	618	9559	07/30/92	NO	---	BIE
730921	619	9559	07/30/92	NO	---	BIE
730921	620	9559	07/30/92	NO	---	BIE
730921	621	9559	07/30/92	NO	---	BIE
730921	622	9559	07/30/92	NO	---	BIE
730921	623	9559	07/30/92	NO	---	BIE
730921	624	9559	07/30/92	NO	---	BIE
730921	625	9559	07/30/92	NO	---	BIE
730921	626	9559	07/30/92	NO	---	BIE
730921	627	9559	07/30/92	NO	---	BIE
730921	628	9559	07/30/92	NO	---	BIE
729921	629	9559	07/29/92	NO	---	TAH
729921	630	9559	07/29/92	NO	---	TAH
729921	631	9559	07/29/92	NO	---	TAH
729921	632	9559	07/29/92	NO	---	TAH
729921	634	9559	07/29/92	NO	---	TAH
729921	635	9559	07/29/92	NO	---	TAH
729921	636	9559	07/29/92	NO	---	TAH
729921	637	9559	07/29/92	NO	---	TAH

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
729921	638	9559	07/29/92	NO	---	TAH
729921	639	9559	07/29/92	NO	---	TAH
729921	640	9559	07/29/92	NO	---	TAH
728922	641	9559	07/28/92	NO	---	TAH
728922	642	9559	07/28/92	NO	---	TAH
728922	643	9559	07/28/92	NO	---	TAH
728922	644	9559	07/28/92	NO	---	TAH
728922	645	9559	07/28/92	NO	---	TAH
728922	646	9559	07/28/92	NO	---	TAH
728922	647	9559	07/28/92	NO	---	TAH
728922	648	9559	07/28/92	NO	---	TAH
728922	649	9559	07/28/92	NO	---	TAH
728922	650	9559	07/28/92	NO	---	TAH
728922	651	9559	07/28/92	NO	---	TAH
728922	652	9559	07/28/92	NO	---	TAH
728922	653	9559	07/28/92	NO	---	TAH
728922	654	9559	07/28/92	NO	---	TAH
728922	655	9559	07/28/92	NO	---	TAH
728922	656	9559	07/28/92	NO	---	TAH
728922	659	9559	07/28/92	NO	---	TAH
728922	660	9559	07/28/92	NO	---	TAH
728922	661	9559	07/28/92	NO	---	TAH
728922	662	9559	07/28/92	NO	---	TAH
728922	663	9559	07/28/92	NO	---	TAH
728922	664	9559	07/28/92	NO	---	TAH
728922	665	9559	07/28/92	NO	---	TAH
728922	666	9559	07/28/92	NO	---	TAH
728922	667	9559	07/28/92	NO	---	TAH
728922	668	9559	07/28/92	NO	---	TAH
728922	669	9559	07/28/92	NO	---	TAH
728922	670	9559	07/28/92	NO	---	TAH
728922	671	9559	07/28/92	NO	---	TAH
728922	672	9559	07/28/92	NO	---	TAH
728922	673	9559	07/28/92	NO	---	TAH
728922	674	9559	07/28/92	NO	---	TAH
728922	675	9559	07/28/92	NO	---	TAH

Note:
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GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
728922	676	9559	07/28/92	NO	---	TAH
728922	677	9559	07/28/92	NO	---	TAH
728922	678	9559	07/28/92	NO	---	TAH
728922	679	9559	07/28/92	NO	---	TAH
728922	680	9559	07/28/92	NO	---	TAH
728922	681	9559	07/28/92	NO	---	TAH
728922	682	9559	07/28/92	NO	---	TAH
728922	683	9559	07/28/92	NO	---	TAH
728922	684	9559	07/28/92	NO	---	TAH
729921	685	9559	07/29/92	NO	---	TAH
729921	686	9559	07/29/92	NO	---	TAH
729921	687	9559	07/29/92	NO	---	TAH
729921	688	9559	07/29/92	NO	---	TAH
729921	689	9559	07/29/92	NO	---	TAH
729921	690	9559	07/29/92	NO	---	TAH
729921	691	9559	07/29/92	NO	---	TAH
729921	693	9559	07/29/92	NO	---	TAH
729921	694	9559	07/29/92	NO	---	TAH
729921	695	9559	07/29/92	NO	---	TAH
729921	696	9559	07/29/92	NO	---	TAH
729921	697	9559	07/29/92	NO	---	TAH
729921	698	9559	07/29/92	NO	---	TAH
729921	699	9559	07/29/92	NO	---	TAH
729921	700	9559	07/29/92	NO	---	TAH
729921	701	9559	07/29/92	NO	---	TAH
729921	702	9559	07/29/92	NO	---	TAH
729921	703	9559	07/29/92	NO	---	TAH
729921	704	9559	07/29/92	NO	---	TAH
729921	705	9559	07/29/92	NO	---	TAH
729921	706	9559	07/29/92	NO	---	TAH
729921	707	9559	07/29/92	NO	---	TAH
729921	708	9559	07/29/92	NO	---	TAH
729921	709	9559	07/29/92	NO	---	TAH
729921	710	9559	07/29/92	NO	---	TAH
729921	711	9559	07/29/92	NO	---	TAH
729921	712	9559	07/29/92	NO	---	TAH

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
729921	713	9559	07/29/92	NO	---	TAH
729921	714	9559	07/29/92	NO	---	TAH
729921	715	9559	07/29/92	NO	---	TAH
729921	717	9559	07/29/92	NO	---	TAH
729921	718	9559	07/29/92	NO	---	TAH
729921	719	9559	07/29/92	NO	---	TAH
730921	721	9559	07/30/92	NO	---	BIE
730921	722	9559	07/30/92	NO	---	BIE
730921	724	9559	07/30/92	NO	---	BIE
730921	725	9559	07/30/92	NO	---	BIE
730921	726	9559	07/30/92	NO	---	BIE
730921	727	9559	07/30/92	NO	---	BIE
730921	728	9559	07/30/92	NO	---	BIE
730921	729	9559	07/30/92	NO	---	BIE
730921	730	9559	07/30/92	NO	---	BIE
730921	731	9559	07/30/92	NO	---	BIE
730921	732	9559	07/30/92	NO	---	BIE
730921	733	9559	07/30/92	NO	---	BIE
730921	734	9559	07/30/92	NO	---	BIE
730921	735	9559	07/30/92	NO	---	BIE
730921	736	9559	07/30/92	NO	---	BIE
730921	738	9559	07/30/92	NO	---	BIE
804921	739	9559	08/04/92	NO	---	BIE
804921	740	9559	08/04/92	NO	---	BIE
804921	741	9559	08/04/92	NO	---	BIE
804921	742	9559	08/04/92	NO	---	BIE
804921	743	9559	08/04/92	NO	---	BIE
730921	744	9559	07/30/92	NO	---	BIE
730921	745	9559	07/30/92	NO	---	BIE
730921	746	9559	07/30/92	NO	---	BIE
730921	747	9559	07/30/92	NO	---	BIE
730921	748	9559	07/30/92	NO	---	BIE
730921	749	9559	07/30/92	NO	---	BIE
730921	750	9559	07/30/92	NO	---	BIE
730921	751	9559	07/30/92	NO	---	BIE
731921	752	9559	07/31/92	NO	---	JAL

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
731921	753	9559	07/31/92	NO	---	JAL
731921	754	9559	07/31/92	NO	---	JAL
731921	755	9559	07/31/92	NO	---	JAL
731921	756	9559	07/31/92	NO	---	JAL
731921	757	9559	07/31/92	NO	---	JAL
731921	758	9559	07/31/92	NO	---	JAL
731921	759	9559	07/31/92	NO	---	JAL
731921	760	9559	07/31/92	NO	---	JAL
731921	761	9559	07/31/92	NO	---	JAL
731921	762	9559	07/31/92	NO	---	JAL
731921	763	9559	07/31/92	NO	---	JAL
731921	764	9559	07/31/92	NO	---	JAL
731921	765	9559	07/31/92	NO	---	JAL
731921	766	9559	07/31/92	NO	---	JAL
731921	767	9559	07/31/92	NO	---	JAL
731921	768	9559	07/31/92	NO	---	JAL
731921	769	9559	07/31/92	NO	---	JAL
731921	771	9559	07/31/92	NO	---	JAL
731921	772	9559	07/31/92	NO	---	JAL
731921	773	9559	07/31/92	NO	---	JAL
731921	774	9559	07/31/92	NO	---	JAL
731921	775	9559	07/31/92	NO	---	JAL
731921	776	9559	07/31/92	NO	---	JAL
731921	777	9559	07/31/92	NO	---	JAL
804921	779	9559	08/04/92	NO	---	BIE
804921	790	9559	08/04/92	NO	---	BIE
804921	791	9559	08/04/92	NO	---	BIE
804921	793	9559	08/04/92	NO	---	BIE
804921	799	9559	08/04/92	NO	---	BIE
804921	800	9559	08/04/92	NO	---	BIE
804921	801	9559	08/04/92	NO	---	BIE
804921	802	9559	08/04/92	NO	---	BIE
804921	803	9559	08/04/92	NO	---	BIE
804921	804	9559	08/04/92	NO	---	BIE
804921	805	9559	08/04/92	NO	---	BIE
804921	806	9559	08/04/92	NO	---	BIE

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

FEBRUARY 1993 917-1203

GEONET INVENTORY
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	CONFORMANCE TEST		MONITOR
				SAMPLED	RESULTS	
804921	807	9559	08/04/92	NO	---	BIE
804921	808	9559	08/04/92	NO	---	BIE
804921	809	9559	08/04/92	NO	---	BIE
804921	810	9559	08/04/92	NO	---	BIE
804921	811	9559	08/04/92	NO	---	BIE
804921	812	9559	08/04/92	NO	---	BIE
804921	813	9559	08/04/92	NO	---	BIE
804921	814	9559	08/04/92	NO	---	BIE
804921	815	9559	08/04/92	NO	---	BIE
804921	816	9559	08/04/92	NO	---	BIE
804921	817	9559	08/04/92	NO	---	BIE
804921	818	9559	08/04/92	NO	---	BIE
804921	819	9559	08/04/92	NO	---	BIE
804921	820	9559	08/04/92	NO	---	BIE
804921	821	9559	08/04/92	NO	---	BIE
804921	822	9559	08/04/92	NO	---	BIE
804921	823	9559	08/04/92	NO	---	BIE
804921	824	9559	08/04/92	NO	---	BIE
804921	825	9559	08/04/92	NO	---	BIE
804921	826	9559	08/04/92	NO	---	BIE
804921	827	9559	08/04/92	NO	---	BIE
804921	828	9559	08/04/92	NO	---	BIE
804921	829	9559	08/04/92	NO	---	BIE
804921	830	9559	08/04/92	NO	---	BIE
804921	831	9559	08/04/92	NO	---	BIE
804921	832	9559	08/04/92	NO	---	BIE
804921	833	9559	08/04/92	NO	---	BIE
804921	834	9559	08/04/92	NO	---	BIE

Note:
All roll of geonet are nominally 7 feet in width; 220 feet in length; and 220 mils thick.

G.2

QUALITY CONTROL CERTIFICATES

Received
7/16/92

NSC

National Seal Company

Construction Division
110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 15, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSC

National Seal Company

Construction Division
110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 20, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSc

National Seal Company

Construction Division
110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 23, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSC

National Seal Company

Construction Division

110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 27, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSC

National Seal Company

Construction Division
110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 30, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSC

National Seal Company

Construction Division

110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

August 3, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

NSC

National Seal Company

Construction Division

110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

August 10, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the Extruded Polyethylene - Drainage Net delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 6/23/92 (Revised)
SHIP DATE: 6/22/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09383/02-07105
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 26th day of June, 1992.

Kathryn S. Kemp My Commission Expires 10-9-95.
NOTARY PUBLIC

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

0479W

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 6/23/92 (Revised)
SHIP DATE: 6/23/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09383
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 26th day of June, 1992.

Kathryn J. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 6/23/92(Revised)
SHIP DATE: 6/23/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09383
QUANTITY: 42 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 15th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 6/24/92 (Revised)
SHIP DATE: 6/23/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09383
QUANTITY: 42 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 26th day of June, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 6/24/92 (Revised)
SHIP DATE: 6/24/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09383
QUANTITY: 38 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 26th day of June, 1992.

Kathryn S. Kemp My Commission Expires 10-9-95.
NOTARY PUBLIC

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/08/92
SHIP DATE: 7/08/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09383
QUANTITY: 42 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 9th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

0479W

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/09/92
SHIP DATE: 7/09/92
CUSTOMER ORDER #: 13412
BATCH/RUN #: 02-09559
QUANTITY: 29 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 9th day of July, 1992.

Kathryn S. Kemp My Commission Expires 10-9-95.
NOTARY PUBLIC

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

0479W

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/09/92
SHIP DATE: 7/09/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 16 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 9th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/10/92
SHIP DATE: 7/10/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 10th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

0479W

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/14/92
SHIP DATE: 7/14/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 48 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 14th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/14/92
SHIP DATE: 7/14/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 14th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/15/92
SHIP DATE: 7/15/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 15th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/16/92
SHIP DATE: 7/16/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 17th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/17/92
SHIP DATE: 7/16/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 30th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

CONWED
ASTICS

* * * P A C K I N G L I S T * * *

NO. 02000529

TO ADDRESS:
MOTOR CO.
ALLEN PARK CLAY MINE LANDFILL
17005 OAKWOOD BLVD.
ATTN: NSG SUPERINTENDENT
(313) 390-3209
ALLEN PARK MI 48101

DATE SHIPPED: 07/16/92
SHIPPED VIA: RANGER
OUR ORDER NO.: 0204123
CUSTOMER PO: 13554
FILLED BY: CP

PART NUMBER	JOB NUMBER	PLT/ROLL/ BOX NO	QTY IN ORD UNITS	WEIGHT
XB8410-220	0209559	134-1	5.00	1985
XB8410-220	0209559	277-3	40.00	15880
T O T A L S ----->			45.00	17865

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/20/92
SHIP DATE: 7/17/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 48 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 23rd day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

CONWED PLASTICS

PAGE: 001

*** PACKING LIST ***

NO. 02000532

SHIP TO ADDRESS: FORD MOTOR CO. ALLEN PARK CLAY MINE LANDFILL 17005 OAKWOOD BLVD. ATTN: NSC SUPERINTENDENT (313) 390-3209 ALLEN PARK MI 48101	DATE SHIPPED: 07/17/92 SHIPPED VIA: RANGER OUR ORDER NO.: 0204123 CUSTOMER PO.: 13554 FILLED BY: RT

PART NUMBER	JOB NUMBER	PLT/ROLL/ BOX NO.	QTY IN ORD. UNITS	WEIGHT
X38410-220	02-09559	319-343	25.00	10000
X38410-220	02-09559	111-133	23.00	9200
TOTALS ------>			48.00	19200

QC Dept

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/23/92
SHIP DATE: 7/22/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 23rd day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

-CONWED
PLASTICS

* * * PACKING LIST * * *

NO. 02000553

SHIP TO ADDRESS: FORD MOTOR CO. LEN PARK CLAY MINE LANDFILL 1/005 OAKWOOD BLVD. ATTN: NSC SUPERINTENDENT (313) 390-3209 ALLEN PARK MI 48101	DATE SHIPPED: 07/22/92 SHIPPED VIA: RANGER OUR ORDER NO.: 0204123 CUSTOMER PO.: 13554 FILLED BY: CP

PART NUMBER	JOB NUMBER	PLT/ROLL/ BOX NO.	QTY IN ORD. UNITS	WEIGHT
XB8410-220	0209559	477-5/8	42.00	16674
XB8410-220	0209559	378-390	3.00	1191
T O T A L S ------>			45.00	17865

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/23/92
SHIP DATE: 7/20/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 48 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 23rd day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

CONWED
ASTICS

PACKING LIST

NO. 02000545

SHIP TO ADDRESS: FORD MOTOR CO. ALLEN PARK CLAY MINE LANDFILL OAKWOOD BLVD. ATTN: NSC SUPERINTENDENT (313) 390-3209 ALLEN PARK MI 48101	DATE SHIPPED: 07/20/92 SHIPPED VIA: RANGER OUR ORDER NO.: 0204123 CUSTOMER PO.: 13554 FILLED BY: CP

PART NUMBER	JOB NUMBER	PLT/ROLL/ BOX NO.	QTY IN ORD. UNITS	WEIGHT
XB8410-220	0209559	452-405	48.00	19056
T O T A L S ------>			48.00	19056

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/24/92
SHIP DATE: 7/23/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 24th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

CONWED
PLASTICS

* * * PACKING LIST * * *

NO. 02000557

SHIP TO ADDRESS: FORD MOTOR CO. EN PARK CLAY MINE LANDFILL 1/005 OAKWOOD BLVD. ATTN: NSC SUPERINTENDENT (313) 390-3209 ALLEN PARK MI 48101	DATE SHIPPED: 07/23/92 SHIPPED VIA: RANGER OUR ORDER NO.: 0204123 CUSTOMER PO.: 13554 FILLED BY: CP

PART NUMBER	JOB NUMBER	PLT/ROLL/ BOX NO.	QTY IN ORD. UNITS	WEIGHT
XB8410-220	0209559	364-3	14.00	5558
XB8410-220	0209559	519-5	31.00	12307
T O T A L S ------>			45.00	17865

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/27/92
SHIP DATE: 7/27/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 42 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 27th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/30/92
SHIP DATE: 7/29/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 42 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 30th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/29/92
SHIP DATE: 7/28/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 45 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 29th day of July, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 7/30/92
SHIP DATE: 7/30/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 48 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 4th day of August, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 8/4/92
SHIP DATE: 8/3/92
CUSTOMER ORDER #: 13554
BATCH/RUN #: 02-09559
QUANTITY: 12 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 4th day of August, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 8/4/92
SHIP DATE: 8/3/92
CUSTOMER ORDER #: 13554-SUP.#1
BATCH/RUN #: 02-09559
QUANTITY: 31 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 4 day of August, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

TO: Ms. Lisa Smith
National Seal Corporation
110 Marshall Drive
Warrendale, PA 15090
Fax # 412-772-2001

DATE: 8/4/92
SHIP DATE: 8/3/92
CUSTOMER ORDER #: 13554-SUP.#1
BATCH/RUN #: 02-09559
QUANTITY: 33 Rolls
PROJECT: Ford Allen Park, MI.

Product Description: Extruded Polyethylene - Drainage Net

Product Identification: XB8410-220

We hereby certify that the subject material as identified above was produced within our manufacturing specifications as derived in accordance with generally accepted statistical methods.

Product was tested at a frequency not less than once per every 40,000 square feet. Representative values of the shipment specified above are outlined below:

PMSF (#'s per square feet):	0.240
Thickness (in.):	0.300
Strand Angle (degree):	64
Product Density (g/cc):	0.700
Width (in.)	83.5

(Thickness done per ASTM D1777 modified)

Respectfully,

Mark Lorenson
Manager, Process and Quality Control

Subscribed and Sworn to before me
on this 4th day of August, 1992.

Kathryn S. Kemp
NOTARY PUBLIC

My Commission Expires 10-9-95.

cc: Lee Richmond, R&D
Patrick Rainbow, Customer Service Administrator

KATHRYN S. KEMP
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My commission expires 10-9-95

G.3

QUALITY ASSURANCE TEST RESULTS

FEBRUARY 1993

917–1203

SUMMARY OF GEONET
CONFORMANCE TEST RESULTS
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

ROLL DESIGNATION		69	71	72	108	195	242	246	276	310	311	312	313	315	343
BATCH NUMBER		09559	09559	09559	09559	09559	09559	09559	09559	09559	09559	09559	09559	09559	09559
	REQUIREMENTS														
WIDE STRIP TENSILE STR. MD/TD (1) (ppi) ASTM D 4595	> 58	67.8	67.3	69.2	66.9	63.5	64.7	64.7	68.6	69.4	69.9	67.7	66.2	68.7	70.7
	> 33	31.2	32.0	32.3	31.3	28.6	31.0	33.0	30.0	30.6	27.0	30.4	32.4	31.7	33.6
MELT INDEX (g/10 min) ASTM D 1238	0.1 to 1.2	0.95	0.95	0.96	0.99	1.00	1.00	1.00	0.97	1.01	1.00	0.98	0.99	1.00	1.10
TRANSMISSIVITY (m^2/sec) MD ASTM D 4716	> 5.0E–04	1.96E–03	1.24E–03	1.17E–03	1.23E–03	6.75E–04	9.08E–04	8.16E–04	1.33E–03	1.97E–03	1.43E–03	1.72E–03	1.78E–03	1.43E–03	1.36E–03

filename: CONFGN.WK1

(1) MD and TD correspond to Machine Direction and Transverse Direction respectively.

FEBRUARY 1993 917-1203

SUMMARY OF GEONET
CONFORMANCE TEST RESULTS
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

ROLL DESIGNATION		004	011	015	046	70	73	080	087	102	127	132	148	184	64
BATCH NUMBER		07105	07105	07105	09383	09383	09383	09383	09383	09383	09383	09383	09383	09383	09559
	REQUIREMENTS														
WIDE STRIP TENSILE STR. MD/TD (1) (ppi) ASTM D 4595	> 58	60.8	72.5	71.6	64.0	62.3	62.3	63.6	65.4	64.2	58.6	59.7	64.4	68.7	68.2
	> 33	38.2	30.5	31.7	30.5	29.0	29.8	28.6	28.6	30.2	30.1	29.6	28.0	35.3	30.3
MELT INDEX (g/10 min) ASTM D 1238	0.1 to 1.2	0.99	1.05	1.10	1.02	0.97	0.98	1.09	0.98	1.07	0.96	0.93	1.02	1.06	0.93
TRANSMISSIVITY (m^2/sec) MD ASTM D 4716	> 5.0E-04	3.01E-03	1.96E-03	6.0E-04	2.39E-03	1.05E-03	8.62E-04	1.96E-03	1.0E-03	1.96E-03	5.45E-04	7.71E-04	9.61E-04	7.18E-04	1.61E-03

filename: CONFGN.WK1

(1) MD and TD correspond to Machine Direction and Transverse Direction respectively.

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 102

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	60.5	31.4	1.	1.07	MD	1.96E-03
2.	67.5	29.4	2.	1.07		
3.	63.5	28.4			TD	7.58E-04
4.	68.3	28.9				
5.	60.6	31.5				
6.	64.6	31.7				
AVG	64.2	30.2	AVG	1.07		

ROLL DESIGNATION: 148

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	72.1	26.0	1.	1.01	MD	9.61E-04
2.	65.1	28.0	2.	1.02		
3.	60.1	30.1			TD	2.57E-03
4.	62.7	31.6				
5.	63.8	27.1				
6.	62.8	25.4				
AVG	64.4	28.0	AVG	1.02		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 132

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	68.4	29.8	1.	0.91	MD	7.71E-04
2.	64.3	30.2	2.	0.94		
3.	57.1	30.1			TD	2.31E-04
4.	55.3	29.0				
5.	56.6	30.3				
6.	56.6	28.0				
AVG	59.7	29.6	AVG	0.93		

ROLL DESIGNATION: 64

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	72.8	32.1	1.	0.92	MD	1.61E-03
2.	66.0	29.3	2.	0.94		
3.	61.1	30.2			TD	4.96E-04
4.	67.5	31.3				
5.	69.5	28.1				
6.	72.5	30.5				
AVG	68.2	30.3	AVG	0.93		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 15

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	72.9	28.2	1.	1.10	MD	6.0E-04
2.	77.3	33.8	2.	1.10		
3.	67.1	32.5			TD	2.87E-03
4.	71.6	39.8				
5.	72.4	35.2				
6.	68.0	20.8				
AVG	71.6	31.7	AVG	1.10		

ROLL DESIGNATION: 46

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	72.5	34.5	1.	1.03	MD	2.39E-03
2.	61.1	36.2	2.	1.01		
3.	60.4	30.4			TD	8.12E-04
4.	63.4	23.9				
5.	63.3	27.1				
6.	63.0	31.1				
AVG	64.0	30.5	AVG	1.02		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 184

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	72.5	33.9	1.	1.04	MD	7.18E-04
2.	69.9	38.7	2.	1.08		
3.	68.6	32.0			TD	2.65E-03
4.	67.1	31.5				
5.	65.8	37.7				
6.	68.1	38.2				
AVG	68.7	35.3	AVG	1.06		

ROLL DESIGNATION: 70

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	67.4	29.9	1.	0.97	MD	1.05E-03
2.	64.5	26.9	2.	0.96		
3.	68.7	27.2			TD	2.50E-04
4.	55.2	29.8				
5.	59.0	30.0				
6.	58.9	30.2				
AVG	62.3	29.0	AVG	0.97		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 195

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	61.1	27.3	1.	1.00	MD	6.75E-04
2.	67.1	31.8	2.	1.00		
3.	59.6	22.9			TD	2.96E-04
4.	64.8	28.4				
5.	68.8	31.1				
6.	59.8	29.9				
AVG	63.5	28.6	AVG	1.00		

ROLL DESIGNATION: 242

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	67.7	30.2	1.	1.00	MD	9.08E-04
2.	64.6	32.4	2.	1.00		
3.	62.2	31.9			TD	3.74E-04
4.	58.4	30.4				
5.	64.9	30.1				
6.	70.3	31.0				
AVG	64.7	31.0	AVG	1.00		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 246

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	69.7	33.5	1.	1.00	MD	8.16E-04
2.	63.7	33.5	2.	1.00		
3.	60.6	33.5			TD	3.70E-04
4.	62.4	33.2				
5.	59.2	30.1				
6.	72.5	34.1				
AVG	64.7	33.0	AVG	1.00		

ROLL DESIGNATION: 276

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	74.1	27.4	1.	0.97	MD	1.33E-03
2.	64.6	28.4	2.	0.97		
3.	64.5	33.5			TD	4.39E-04
4.	65.7	33.9				
5.	68.7	28.4				
6.	74.1	28.4				
AVG	68.6	30.0	AVG	0.97		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 311

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	62.2	28.2	1.	1.00	MD	1.43E-03
2.	65.6	29.6	2.	1.00		
3.	67.5	29.0			TD	4.22E-04
4.	70.4	25.3				
5.	75.3	24.9				
6.	78.2	25.0				
AVG	69.9	27.0	AVG	1.00		

ROLL DESIGNATION: 312

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	65.4	31.5	1.	0.99	MD	1.72E-03
2.	69.1	33.8	2.	0.96		
3.	64.6	28.0			TD	3.99E-04
4.	66.4	27.6				
5.	69.0	30.4				
6.	71.4	31.3				
AVG	67.7	30.4	AVG	0.98		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 313

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	62.9	32.4	1.	0.98	MD	1.78E-03
2.	71.2	32.7	2.	1.00		
3.	63.9	30.4			TD	4.10E-04
4.	66.3	31.4				
5.	64.9	34.4				
6.	67.8	33.3				
AVG	66.2	32.4	AVG	0.99		

ROLL DESIGNATION: 315

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	73.8	31.4	1.	1.00	MD	1.43E-03
2.	70.7	31.2	2.	1.00		
3.	68.8	30.1			TD	4.17E-04
4.	64.5	29.7				
5.	66.3	33.5				
6.	68.3	34.2				
AVG	68.7	31.7	AVG	1.00		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 343

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	72.4	33.1	1.	1.10	MD	1.36E-03
2.	70.9	34.2	2.	1.10		
3.	70.4	32.5			TD	4.20E-04
4.	68.8	33.5				
5.	70.0	33.8				
6.	71.5	34.7				
AVG	70.7	33.6	AVG	1.10		

ROLL DESIGNATION: 310

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	66.5	27.9	1.	0.990	MD	1.97E-03
2.	64.2	32.2	2.	1.030		
3.	65.7	31.0			TD	4.36E-04
4.	73.7	33.1				
5.	71.9	32.4				
6.	74.6	27.2				
AVG	69.4	30.6	AVG	1.01		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 4

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	64.6	40.6	1.	0.99	MD	3.01E-03
2.	55.5	37.3	2.	0.99		
3.	60.3	36.9			TD	6.58E-04
4.	63.8	38.2				
5.	62.2	41.0				
6.	58.1	35.3				
AVG	60.8	38.2	AVG	0.99		

ROLL DESIGNATION: 11

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	71.2	27.2	1.	1.05	MD	1.96E-03
2.	74.6	31.7	2.	1.04		
3.	73.0	31.8			TD	9.33E-04
4.	73.1	33.0				
5.	67.5	30.2				
6.	75.3	29.3				
AVG	72.5	30.5	AVG	1.05		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 69

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	72.5	31.7	1.	0.94	MD	1.96E-03
2.	71.0	29.9	2.	0.96		
3.	62.5	29.9			TD	3.67E-04
4.	62.5	33.4				
5.	67.9	29.9				
6.	70.3	32.3				
AVG	67.8	31.2	AVG	0.95		

ROLL DESIGNATION: 71

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	70.1	27.4	1.	0.96	MD	1.24E-03
2.	68.7	31.3	2.	0.93		
3.	65.0	32.5			TD	3.78E-04
4.	63.9	32.5				
5.	66.1	32.8				
6.	69.7	35.7				
AVG	67.3	32.0	AVG	0.95		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 72

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	72.3	32.7	1.	0.93	MD	1.17E-03
2.	70.2	32.0	2.	0.98	TD	4.85E-04
3.	65.7	31.2				
4.	66.7	34.3				
5.	67.9	30.1				
6.	72.6	33.2				
AVG	69.2	32.3	AVG	0.96		

ROLL DESIGNATION: 108

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m^2/sec)
1.	76.9	29.8	1.	0.99	MD	1.23E-03
2.	68.5	30.3	2.	0.99	TD	3.15E-04
3.	63.8	33.2				
4.	61.2	31.5				
5.	64.0	33.4				
6.	66.9	29.7				
AVG	66.9	31.3	AVG	0.99		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 73

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	70.6	29.8	1.	0.99	MD	8.62E-04
2.	67.7	30.3	2.	0.96		
3.	58.4	32.0			TD	2.57E-04
4.	59.1	29.6				
5.	55.9	28.6				
6.	62.3	28.6				
AVG	62.3	29.8	AVG	0.98		

ROLL DESIGNATION: 127

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	47.0	29.7	1.	0.96	MD	5.45E-04
2.	64.6	30.8	2.	0.96		
3.	63.3	29.3			TD	1.87E-04
4.	55.7	30.5				
5.	57.8	30.6				
6.	62.9	29.6				
AVG	58.6	30.1	AVG	0.96		

July 1992 917-1203

GEONET TEST RESULTS

PROJECT NAME: FORD/CELL 2/DETROIT, MI.
PROJECT NUMBER: 917-1203

ROLL DESIGNATION: 80

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	63.6	26.4	1.	1.11	MD	1.96E-03
2.	61.2	30.0	2.	1.07		
3.	63.2	28.8			TD	6.55E-04
4.	70.8	26.7				
5.	59.7	29.6				
6.	62.9	30.3				
AVG	63.6	28.6	AVG	1.09		

ROLL DESIGNATION: 87

	WIDE STRIP TENSILE STRENGTH (ppi) MD	TD		MELT INDEX (g/10min)		TRANSMISSIVITY (m²/sec)
1.	60.3	28.2	1.	0.98	MD	1.0E-03
2.	62.4	29.5	2.	0.97		
3.	70.0	27.8			TD	2.49E-03
4.	70.6	30.3				
5.	67.2	28.9				
6.	62.1	26.6				
AVG	65.4	28.6	AVG	0.98		

APPENDIX H

H.1

GEOTEXTILE INVENTORY

FEBRUARY 1993

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
623921	0850831	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0850916	0228	06/23/92	600	15	8	9000	YES	PASS	CAW
623921	0850917	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0850918	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0850919	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851033	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851034	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851035	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851036	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851038	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851039	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851149	0228	06/23/92	600	15	8	9000	YES	PASS	CAW
623921	0851150	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851151	0228	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851241	0229	06/23/92	600	15	8	9000	YES	PASS	CAW
623921	0851242	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851243	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851292	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851293	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851294	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851398	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851399	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851400	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851401	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851402	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851438	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851467	0229	06/23/92	600	15	8	9000	YES	PASS	CAW
623921	0851468	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851469	0229	06/23/92	600	15	8	9000	NO	---	CAW
623921	0851470	0229	06/23/92	600	15	8	9000	NO	---	CAW

FILENAME = TEX_INVEN.WK1

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
623921	0851473	0229	06/23/92	600	15	8	9000	NO	---	CAW
625921	0851923	0301	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901004	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901005	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901006	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901032	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901033	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901034	0420	06/25/92	600	15	8	9000	YES	PASS	CAW
625922	0901073	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901074	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901075	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901076	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901078	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901079	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901189	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901190	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901191	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901193	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901194	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901195	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901257	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901258	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901259	0420	06/25/92	600	15	8	9000	YES	PASS	CAW
625922	0901415	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901416	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901451	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901452	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901454	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901455	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901456	0420	06/25/92	600	15	8	9000	NO	---	CAW

FILENAME = TEX_INVEN.WK1

FEBRUARY 1993

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
625922	0901526	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901528	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901529	0420	06/25/92	600	15	8	9000	YES	PASS	CAW
625921	0901530	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901531	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901534	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901553	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901631	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901632	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901633	0420	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901634	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901635	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901636	0420	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901807	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0901808	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901809	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0901810	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902037	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902319	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902320	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902321	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902323	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902324	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902325	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902392	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902394	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902457	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902458	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902494	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902496	0421	06/25/92	600	15	8	9000	NO	---	CAW

FILENAME = TEX_INVEN.WK1

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
625922	0902497	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902498	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902499	0421	06/25/92	600	15	8	9000	YES	PASS	CAW
625921	0902588	0421	06/25/92	600	15	8	9000	YES	FAIL	CAW
625922	0902591	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902592	0421	06/25/92	600	15	8	9000	YES	PASS	CAW
625922	0902710	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902711	0421	06/25/92	600	15	8	9000	YES	PASS	CAW
625922	0902714	0421	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902833	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902834	0421	06/25/92	600	15	8	9000	NO	---	CAW
625921	0902883	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902884	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902952	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902953	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902954	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0902955	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0903085	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0903087	0422	06/25/92	600	15	8	9000	NO	---	CAW
625921	0903088	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0903090	0422	06/25/92	600	15	8	9000	NO	---	CAW
625921	0903163	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0903164	0422	06/25/92	600	15	8	9000	NO	---	CAW
625921	0903165	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0903167	0422	06/25/92	600	15	8	9000	NO	---	CAW
625922	0917631	0505	06/25/92	600	15	8	9000	NO	---	CAW
622921	0917655	0505	06/22/92	600	15	8	9000	YES	PASS	CAW
626921	0925612	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925614	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925615	0513	06/26/92	600	15	8	9000	NO	---	CAW

FILENAME = TEX_INVEN.WK1

FEBRUARY 1993

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
626921	0925617	0513	06/26/92	600	15	8	9000	YES	PASS	CAW
626921	0925618	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925751	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925752	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925753	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925754	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925756	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925881	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925883	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925909	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925910	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925911	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925912	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925964	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925966	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925967	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0925969	0513	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926305	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926375	0514	06/26/92	600	15	8	9000	NO	---	CAW
625921	0926376	0514	06/25/92	600	15	8	9000	NO	---	CAW
626921	0926378	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926379	0514	06/26/92	600	15	8	9000	NO	---	CAW
623921	0926500	0514	06/23/92	600	15	8	9000	NO	---	CAW
623921	0926584	0514	06/23/92	600	15	8	9000	NO	---	CAW
625921	0926585	0514	06/25/92	600	15	8	9000	NO	---	CAW
626921	0926586	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926587	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926588	0514	06/26/92	600	15	8	9000	YES	PASS	CAW
623921	0926649	0514	06/23/92	600	15	8	9000	NO	---	CAW
626921	0926651	0514	06/26/92	600	15	8	9000	NO	---	CAW

FILENAME = TEX_INVEN.WK1

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
626921	0926652	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926654	0514	06/26/92	600	15	8	9000	NO	---	CAW
625921	0926789	0514	06/25/92	600	15	8	9000	NO	---	CAW
625921	0926865	0514	06/25/92	600	15	8	9000	NO	---	CAW
626921	0926866	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926867	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926868	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926869	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926870	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926970	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926971	0514	06/26/92	600	15	8	9000	NO	---	CAW
626921	0926973	0514	06/26/92	600	15	8	9000	YES	PASS	CAW
623921	0926974	0514	06/23/92	600	15	8	9000	YES	PASS	CAW
622921	0927033	0514	06/22/92	600	15	8	9000	NO	---	CAW
622921	0927034	0514	06/22/92	600	15	8	9000	NO	---	CAW
623921	0927035	0514	06/23/92	600	15	8	9000	NO	---	CAW
623921	0927036	0514	06/23/92	600	15	8	9000	NO	---	CAW
622921	0927037	0514	06/22/92	600	15	8	9000	NO	---	CAW
622921	0927038	0514	06/22/92	600	15	8	9000	YES	PASS	CAW
623921	0927124	0514	06/23/92	600	15	8	9000	NO	---	CAW
623921	0927125	0514	06/23/92	600	15	8	9000	NO	---	CAW
623921	0927126	0514	06/23/92	600	15	8	9000	NO	---	CAW
623921	0927127	0514	06/23/92	600	15	8	9000	NO	---	CAW
625921	0927128	0514	06/25/92	600	15	8	9000	NO	---	CAW
626921	0927129	0514	06/26/92	600	15	8	9000	NO	---	CAW
1031921	1095963	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1095964	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1095965	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1095968	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096091	–	10/31/92	600	15	8	9000	NO	---	JAL

FILENAME = TEX_INVEN.WK1

FEBRUARY 1993

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
1031921	1096094	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096096	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096097	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096156	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096602	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096604	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096605	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1096606	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096607	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096710	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096717	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096718	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1096773	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096774	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096775	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096837	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096986	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096987	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096988	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1096989	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1096990	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097073	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097080	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097179	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097183	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1097185	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097435	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1097436	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097437	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097438	–	10/31/92	600	15	8	9000	NO	---	JAL

FILENAME = TEX_INVEN.WK1

GEOTEXTILE INVENTORY
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

SHIPMENT NUMBER	ROLL NUMBER	BATCH NUMBER	DATE OF INVENTORY	LENGTH	WIDTH	UNIT WEIGHT (oz/sq. yd)	AREA (sq. ft)	CONFORMANCE TEST		QA MONITOR
								SAMPLED	RESULTS	
1031921	1097461	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097462	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097463	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097464	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097507	–	10/31/92	600	15	8	9000	YES	PASS	JAL
1031921	1097508	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097516	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097517	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097518	–	10/31/92	600	15	8	9000	NO	---	JAL
1031921	1097519	–	10/31/92	600	15	8	9000	NO	---	JAL

FILENAME = TEX_INVEN.WK1

H.2

QUALITY CONTROL CERTIFICATES

NSC

National Seal Company

Construction Division

110 Marshall Drive
Warrendale, PA 15086
412/772-2000
412/772-2001 FAX

July 22, 1992

Mr. David M. List, P.E.
Golder Construction Services, Inc.
2205 Abbott Road
East Lancing, MI 48826

Re: Allen Park Claymine
Allen Park, MI
Job Number: 6127

Dear Mr. List:

Enclosed, herewith, are Quality Control Certifications for the AMOCO 4508 delivered to Allen Park Claymine.

Sincerely,
NATIONAL SEAL COMPANY

Mark P. Zion
Project Manager

MZ/lhs

Enclosures

cc: Project File
Material File

Amoco Fabrics and Fibers Company
Suite 550
900 Circle 75 Parkway
Atlanta, Georgia 30339
(404) 956-9025 - Telex 54-2963

RECEIVED
APR 06 1993

March 31, 1993

Mr. David List
Golder Construction Services
2205 Abbott Road
East Lansing, MI 48823

RE: Ford Motor Company - Allen Park Clay Mine

Dear David:

We wish to advise that fabric supplied to the above referenced project which was manufactured on consecutive dates should be considered the same batch number. Please contact me if you have further questions or concerns.

Mike Clements
Civil Engineering Fabrics
Amoco Fabrics and Fibers Company

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 21, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Amoco Shipping # N-018, dated June 19, 1992

Amoco Style 4508 is a 100% polypropylene nonwoven needlepunched fabric. This engineered geotextile is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a ph range of 2 to 13 making it one of the most stable polymers available for geotextiles today. The Amoco 4508 conforms to the physical property values listed below:

Property	Unit	Test Method	Typical Value	Minimum Average Roll Value
Weight	oz/yd^2	ASTM-D-3776	9.14	8.0
Thickness	Mils	ASTM-D-1777	108	90
Grab Tensile (CMD/MD)	lbs.	ASTM-D-4632	285/254	200
Grab Tensile Elongation (CMD/MD)	%	ASTM-D-4632	60/67	50
Mullen Burst	psi	ASTM-D-3786	541	450
Puncture Resistance	lbs.	ASTM-D-4833	162	130
Trapezoid Tear (CMD/MD)	lbs.	ASTM-D-4533	105/108	80
Permittivity	$Gal/Min/Ft^2$	ASTM-D-4491	143	80
Apparent Opening Size (% Retained)	Sieve Size	ASTM-D-4751	200	100
Permittivity	Sec^{-1}	ASTM-D-4491	1.8	1.5

CMD - Cross Machine Direction
MD - Machine Direction

William L. Music

William L. Music
Quality Control Supervisor

mom

Mae Moss
Notary Public, Jeff Davis County, Georgia
My Commission Expires May 21, 1994

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 21, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Shipping # N-018, dated June 19, 1992

Piece Number	Style	Weight Yd^2 Oz.	Thickness	Tensile	Elong-ation	Burst	Puncture	Trap Tear	A.O.S.	Permittivity Gal/Min/Ft^2
0850831	4508	9.58	106	248	76	699	194	109	100+	143
0850916	4508	9.89	111	262	75	650	181	136	100+	143
0851473	4508	9.16	108	250	77	675	166	105	100+	143
0926500	4508	9.41	107	251	78	612	188	127	100+	124

THIS DOCUMENT CONTAINS
INFORMATION CLAIMED AS
TRADE SECRET-CONFIDENTIAL
BY AMOCO FABRICS & FIBERS COMPANY

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 22, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Amoco Shipping # N-039, dated June 20, 1992

Amoco Style 4508 is a 100% polypropylene nonwoven needlepunched fabric. This engineered geotextile is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a ph range of 2 to 13 making it one of the most stable polymers available for geotextiles today. The Amoco 4508 conforms to the physical property values listed below:

Property	Unit	Test Method	Typical Value	Minimum Average Roll Value
Weight	oz/yd^2	ASTM-D-3776	9.14	8.0
Thickness	Mils	ASTM-D-1777	108	90
Grab Tensile (CMD/MD)	lbs.	ASTM-D-4632	285/254	200
Grab Tensile Elongation (CMD/MD)	%	ASTM-D-4632	60/67	50
Mullen Burst	psi	ASTM-D-3786	541	450
Puncture Resistance	lbs.	ASTM-D-4833	162	130
Trapezoid Tear (CMD/MD)	lbs.	ASTM-D-4533	105/108	80
Permittivity	$Gal/Min/Ft^2$	ASTM-D-4491	143	80
Apparent Opening Size (% Retained)	Sieve Size	ASTM-D-4751	200	100
Permittivity	Sec^{-1}	ASTM-D-4491	1.8	1.5

CMD - Cross Machine Direction
MD - Machine Direction

William L. Music

William L. Music
Quality Control Supervisor

mom

Mae Moss
Notary Public, Jeff Davis County, Georgia
My Commission Expires May 21, 1994

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 22, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Shipping # N-039, dated June 20, 1992

Piece Number	Style	Weight Yd^2 Oz.	Thickness	Tensile	Elong-ation	Burst	Puncture	Trap Tear	A.O.S.	Permittivity Gal/Min/Ft^2
0901006	4508	9.46	141	244	74	485	158	106	100+	143
0901526	4508	9.26	103	256	68	532	139	127	100+	143
0902499	4508	8.72	90	234	70	556	167	108	100+	143
0902952	4508	9.82	101	251	69	556	149	124	100+	124

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Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 23, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Amoco Shipping # N-126, dated June 23, 1992

Amoco Style 4508 is a 100% polypropylene nonwoven needlepunched fabric. This engineered geotextile is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a ph range of 2 to 13 making it one of the most stable polymers available for geotextiles today. The Amoco 4508 conforms to the physical property values listed below:

Property	Unit	Test Method	Typical Value	Minimum Average Roll Value
Weight	oz/yd^2	ASTM-D-3776	9.14	8.0
Thickness	Mils	ASTM-D-1777	108	90
Grab Tensile (CMD/MD)	lbs.	ASTM-D-4632	285/254	200
Grab Tensile Elongation (CMD/MD)	%	ASTM-D-4632	60/67	50
Mullen Burst	psi	ASTM-D-3786	541	450
Puncture Resistance	lbs.	ASTM-D-4833	162	130
Trapezoid Tear (CMD/MD)	lbs.	ASTM-D-4533	105/108	80
Permittivity	$Gal/Min/Ft^2$	ASTM-D-4491	143	80
Apparent Opening Size (% Retained)	Sieve Size	ASTM-D-4751	200	100
Permittivity	Sec^{-1}	ASTM-D-4491	1.8	1.5

CMD - Cross Machine Direction
MD - Machine Direction

Bennie J. Boutwell
Process & Area Control Superintendent

mom

Mae Moss
Notary Public, Jeff Davis County, Georgia
My Commission Expires May 21, 1994

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 23, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Shipping # N-126, dated June 23, 1992

Piece Number	Style	Weight Yd^2 Oz.	Thickness	Tensile	Elong-ation	Burst	Puncture	Trap Tear	A.O.S.	Permittivity Gal/Min/Ft^2
0851923	4508	8.78	100	227	81	618	168	126	100+	143
0901190	4508	8.00	127	225	72	511	152	124	100+	143
0902588	4508	9.47	91	255	70	557	183	125	100+	143
0927128	4508	10.21	113	293	78	582	169	123	100+	143

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BY AMOCO FABRICS & FIBERS COMPANY

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 24, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Amoco Shipping # N-139, dated June 23, 1992

Amoco Style 4508 is a 100% polypropylene nonwoven needlepunched fabric. This engineered geotextile is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a ph range of 2 to 13 making it one of the most stable polymers available for geotextiles today. The Amoco 4508 conforms to the physical property values listed below:

Property	Unit	Test Method	Typical Value	Minimum Average Roll Value
Weight	oz/yd^2	ASTM-D-3776	9.14	8.0
Thickness	Mils	ASTM-D-1777	108	90
Grab Tensile (CMD/MD)	lbs.	ASTM-D-4632	285/254	200
Grab Tensile Elongation (CMD/MD)	%	ASTM-D-4632	60/67	50
Mullen Burst	psi	ASTM-D-3786	541	450
Puncture Resistance	lbs.	ASTM-D-4833	162	130
Trapezoid Tear (CMD/MD)	lbs.	ASTM-D-4533	105/108	80
Permittivity	$Gal/Min/Ft^2$	ASTM-D-4491	143	80
Apparent Opening Size (% Retained)	Sieve Size	ASTM-D-4751	200	100
Permittivity	Sec^{-1}	ASTM-D-4491	1.8	1.5

CMD - Cross Machine Direction
MD - Machine Direction

Bennie J. Boutwell
Process & Area Control Superintendent

mom

Mae Mess
Notary Public, Jeff Davis County, Georgia
My Commission Expires May 21, 1994

Amoco Fabrics and Fibers Company

Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

June 24, 1992

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127-1A
Shipping # N-139, dated June 23, 1992

Piece Number	Style	Weight Yd^2 Oz.	Thickness	Tensile	Elong-ation	Burst	Puncture	Trap Tear	A.O.S.	Permittivity Gal/Min/Ft^2
0925612	4508	9.59	106	275	64	662	176	123	100+	143
0925751	4508	8.46	100	237	67	552	183	108	100+	143
0926870	4508	10.27	110	270	79	585	194	124	100+	143
0927129	4508	10.21	113	293	78	582	169	123	100+	143

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BY AMOCO FABRICS & FIBERS COMPANY

Amoco Fabrics Company
Quality Control Department
P. O. Box 836
Hazlehurst, Georgia 31539-0451

November 2, 1992

November 1

Ms. Maxine
National S
1245 Corpo
Suite 300
Aurora, IL

Re: Purcha
Shippi

Piece
Number S

1096602 4
1097519 4

Ms. Maxine Prange
National Seal Company
1245 Corporate Drive
Suite 300
Aurora, IL 60504

Re: Purchase Order # 6127/1A
Amoco Shipping # V0760, dated October 31, 1992

Amoco Style 4508 is a 100% polypropylene nonwoven needlepunched fabric. This engineered geotextile is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a ph range of 2 to 13 making it one of the most stable polymers available for geotextiles today. The Amoco 4508 conforms to the physical property values listed below:

Property	Unit	Test Method	Typical Value	Minimum Average Roll Value
Weight	oz/yd^2	ASTM-D-3776	9.14	8.0
Thickness	Mils	ASTM-D-1777	108	90
Grab Tensile (CMD/MD)	lbs.	ASTM-D-4632	285/254	200
Grab Tensile Elongation (CMD/MD)	%	ASTM-D-4632	60/67	50
Mullen Burst	psi	ASTM-D-3786	541	450
Puncture Resistance	lbs.	ASTM-D-4833	162	130
Trapezoid Tear (CMD/MD)	lbs.	ASTM-D-4533	105/108	80
Permittivity	$Gal/Min/Ft^2$	ASTM-D-4491	143	80
Apparent Opening Size (% Retained)	Sieve Size	ASTM-D-4751	200	100
Permittivity	Sec^{-1}	ASTM-D-4491	1.8	1.5

CMD - Cross Machine Direction
MD - Machine Direction

William L. Music

William L. Music
Quality Control Supervisor

mom

Mae Moss
Notary Public, Jeff Davis County, Georgia
My Commission Expires May 21, 1994

H.3

QUALITY ASSURANCE TEST RESULTS

FEBRUARY 1993

917–1203

SUMMARY OF GEOTEXTILE
CONFORMANCE TEST RESULTS
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

ROLL DESIGNATION	REQUIREMENTS	0850916	0851150	0851242	0851468	0901034	0901259	0901529	0902499
THICKNESS (mils) ASTM D 1777	> 70	104.8	104.2	97.8	107.9	125.9	133.9	91.6	–
MASS/UNIT AREA (oz/sq yd) ASTM D 3776	>= 7.2	9.9	9.3	9.3	10.0	9.4	10.0	8.7	–
GRAB STRENGTH (lbs) MD/TD (1) ASTM D 4632	> 200	269.3 377.0	256.5 370.0	327.5 327.4	278.7 355.5	239.5 250.3	267.4 282.4	252.9 286.2	– –
GRAB ELONGATION (%) MD/TD (1) ASTM D 4632	> 50	64.6 54.6	61.3 54.7	52.4 57.1	66.3 50.5	58.0 56.2	59.7 55.5	59.7 53.0	57.1 64.0
TRAPEZOIDAL TEAR STRENGTH (lbs) MD/TD (1) ASTM D 4533	> 80	117.6 161.7	117.0 182.3	104.3 154.3	113.2 161.4	121.7 124.7	115.7 138.0	127.2 146.0	– –
PUNCTURE STRENGTH (lbs) ASTM D 4833	> 100	204.2	202.8	192.2	193.3	189.9	188.1	165.0	–
APPARENT OPENING SIZE (mm) (U.S. SIEVE NO.) ASTM D 4751	0.074 to 0.177	0.117 120	0.121 120	0.125 120	0.117 120	0.125 120	0.125 120	0.125 120	– –
PERMITTIVITY (sec–1)	> 0.30	0.90	0.90	1.01	0.84	1.07	0.82	1.18	–
PERMEABILITY (cm/sec) (2) ASTM D 4491		0.24	0.24	0.25	0.23	0.34	0.28	0.28	–

filename: CONFGT.WK1

(1) MD/TD corresponds to Machine Direction / Transverse Direction.
(2) Permeability calculated by multiplying measured thickness by permittivity.
(3) Sample was retested in the transverse direction and the average is based on twenty specimens.

FEBRUARY 1993

917-1203

SUMMARY OF GEOTEXTILE
CONFORMANCE TEST RESULTS
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

ROLL DESIGNATION		0902588	0902592	0902711	0907655	0925617	0926588	0926973	0926974
	REQUIREMENTS								
THICKNESS (mils) ASTM D 1777	> 70	91.9	-	88.6	90.2	94.1	98.2	109.5	95.5
MASS/UNIT AREA (oz/sq yd) ASTM D 3776	>= 7.2	9.2	-	8.6	9.0	8.8	9.2	9.2	9.0
GRAB STRENGTH (lbs) MD/TD (1) ASTM D 4632	> 200	246.6 256.0	- -	260.0 274.6	263.6 344.1	253.1 269.1	295.9 341.9	250.4 267.8	254.8 294.0
GRAB ELONGATION (%) MD/TD (1) ASTM D 4632	> 50	55.1 (3) 49.6 (3)	61.7 57.8	57.6 56.8	61.2 50.4 (3)	55.8 50.2	73.0 57.1	59.8 55.7	61.2 51.8
TRAPEZOIDAL TEAR STRENGTH (lbs) MD/TD (1) ASTM D 4533	> 80	100.6 128.5	- -	110.3 128.0	101.1 140.9	107.5 138.6	142.3 190.5	105.9 130.1	101.2 132.4
PUNCTURE STRENGTH (lbs) ASTM D 4833	> 100	171.0	-	159.2	192.0	183.3	188.9	179.5	149.4
APPARENT OPENING SIZE (mm) (U.S. SIEVE NO.) ASTM D 4751	0.074 to 0.177	0.125 120	- -	0.125 120	0.117 120	0.125 120	0.117 120	0.125 120	0.117 120
PERMITTIVITY (sec-1)	> 0.30	0.95	-	0.94	0.84	0.97	0.92	1.07	1.03
PERMEABILITY (cm/sec) (2) ASTM D 4491		0.22	-	0.21	0.19	0.23	0.23	0.30	0.25

filename: CONFGT.WK1

(1) MD/TD corresponds to Machine Direction / Transverse Direction.
(2) Permeability calculated by multiplying measured thickness by permittivity.
(3) Sample was retested in the transverse direction and the average is based on twenty specimens.

FEBRUARY 1993

917-1203

SUMMARY OF GEOTEXTILE
CONFORMANCE TEST RESULTS
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

ROLL DESIGNATION		0927038	1095963	1095965	1096606	1096773	1096989	1097185	1097436	1097507
	REQUIREMENTS									
THICKNESS (mils) ASTM D 1777	> 70	106.8	125.8	127.3	125.7	132.7	115.0	111.3	123.4	113.8
MASS/UNIT AREA (oz/sq yd) ASTM D 3776	>= 7.2	9.6	10.3	10.4	9.9	11.8	10.3	8.6	9.9	9.1
GRAB STRENGTH (lbs) MD/TD (1) ASTM D 4632	> 200	279.8 317.4	290.7 341.5	301.6 361.6	274.4 316.8	278.8 302.8	299.6 321.7	247.1 266.5	251.2 293.2	265.0 300.7
GRAB ELONGATION (%) MD/TD (1) ASTM D 4632	> 50	65.4 57.0	68.0 60.8	70.7 53.1	67.4 56.4	69.5 56.8	64.6 55.4	66.8 58.6	66.2 56.0	65.3 56.9
TRAPEZOIDAL TEAR STRENGTH (lbs) MD/TD (1) ASTM D 4533	> 80	119.5 147.0	130.7 146.8	126.8 172.6	119.6 140.4	111.7 142.3	130.4 159.9	109.3 146.1	123.7 141.1	118.3 145.1
PUNCTURE STRENGTH (lbs) ASTM D 4833	> 100	181.8	205.8	227.6	217.8	231.0	225.5	177.7	202.5	206.1
APPARENT OPENING SIZE (mm) (U.S. SIEVE NO.) ASTM D 4751	0.074 to 0.177	0.117 120	0.117 120	0.121 120	0.121 120	0.117 120	0.121 120	0.140 100	0.121 120	0.125 120
PERMITTIVITY (sec-1)	> 0.30	1.02	1.08	0.96	0.97	1.08	1.08	1.36	1.06	1.27
PERMEABILITY (cm/sec) (2) ASTM D 4491		0.28	0.35	0.31	0.31	0.37	0.31	0.38	0.33	0.37

filename: CONFGT.WK1

(1) MD/TD corresponds to Machine Direction / Transverse Direction.
(2) Permeability calculated by multiplying measured thickness by permittivity.
(3) Sample was retested in the transverse direction and the average is based on twenty specimens.

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0850916

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	107.2	1.	0.106	1.	0.88	1.	8.66
2.	106.5	2.	0.106	2.	0.88	2.	10.39
3.	107.6	3.	0.125	3.	0.80	3.	9.74
4.	109.0	4.	0.125	4.	1.04	4.	10.43
5.	94.9	5.	0.125			5.	8.58
6.	107.2			AVG	0.90	6.	10.61
7.	100.6	AVG	0.117			7.	8.54
8.	109.6				PERMEABILITY (cm/sec)	8.	11.43
9.	97.5		EQUIVALENT SIEVE SIZE			9.	10.18
10.	107.9					10.	10.53
					0.24		
AVG	104.8		120			AVG	9.9

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	266.7	342.6	61.3	59.3	121.1	182.0	196.7
2.	260.1	368.0	58.0	56.7	125.4	130.3	254.7
3.	233.8	348.5	74.3	49.3	108.5	137.4	231.4
4.	263.8	380.5	70.3	49.3	101.5	159.8	187.6
5.	225.3	417.8	62.7	52.0	113.3	181.3	174.6
6.	217.3	395.7	69.7	52.3	105.4	151.0	171.4
7.	291.5	360.2	68.0	47.7	124.4	163.4	183.1
8.	266.5	381.2	67.0	56.0	132.8	168.5	204.7
9.	270.0	397.8	55.7	65.7	107.4	185.6	211.0
10.	398.1	377.8	58.7	57.3	136.5	157.2	227.0
AVG	269.3	377.0	64.6	54.6	117.6	161.7	204.2

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0851150

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	109.0	1.	0.106	1.	1.14	1.	9.21
2.	100.3	2.	0.125	2.	1.06	2.	8.45
3.	100.1	3.	0.125	3.	0.65	3.	9.12
4.	95.5	4.	0.125	4.	0.76	4.	8.57
5.	102.4	5.	0.125			5.	9.18
6.	102.9			AVG	0.90	6.	9.07
7.	101.9	AVG	0.121			7.	9.98
8.	111.5				PERMEABILITY (cm/sec)	8.	9.59
9.	103.1		EQUIVALENT SIEVE SIZE			9.	10.41
10.	115.3					10.	9.70
					0.24		
AVG	104.2		120			AVG	9.3

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	243.0	333.5	58.0	63.3	114.4	182.7	258.3
2.	277.0	351.2	54.3	67.7	124.3	210.3	159.1
3.	279.2	378.5	60.3	46.7	109.0	182.5	185.2
4.	251.0	411.8	67.3	47.0	122.9	200.5	199.8
5.	228.8	385.3	63.7	48.7	142.6	222.0	189.2
6.	229.3	415.0	60.3	44.7	95.6	184.5	178.6
7.	282.5	389.8	65.3	49.3	111.1	154.6	191.3
8.	255.5	388.0	69.3	53.0	108.6	163.7	180.2
9.	309.1	346.1	52.0	61.0	129.4	163.3	276.3
10.	209.8	301.0	62.0	65.7	111.8	158.6	210.1
AVG	256.5	370.0	61.3	54.7	117.0	182.3	202.8

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0851242

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	102.0	1.	0.125	1.	1.08	1.	8.53
2.	98.9	2.	0.125	2.	1.14	2.	8.81
3.	92.8	3.	0.125	3.	1.02	3.	8.14
4.	93.5	4.	0.125	4.	0.80	4.	9.23
5.	92.6	5.	0.125			5.	8.96
6.	96.7			AVG	1.01	6.	9.43
7.	98.0	AVG	0.125			7.	8.68
8.	98.8				PERMEABILITY (cm/sec)	8.	10.83
9.	96.3		EQUIVALENT SIEVE SIZE			9.	9.53
10.	108.7					10.	10.36
AVG	97.8		120		0.25	AVG	9.3

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	303.7	329.4	51.0	60.7	124.8	130.6	196.7
2.	309.7	300.6	51.3	57.3	87.8	120.0	180.2
3.	349.8	310.4	49.7	53.3	90.1	113.0	169.3
4.	296.3	327.0	51.7	56.0	128.7	141.0	172.1
5.	330.3	315.1	53.0	53.7	89.3	186.5	171.2
6.	325.4	269.7	53.3	58.0	96.1	130.1	166.2
7.	301.7	351.7	50.7	61.3	89.9	166.2	182.5
8.	368.3	374.2	54.0	52.0	94.8	177.5	216.3
9.	345.0	350.2	48.3	61.0	106.3	201.5	198.1
10.	344.6	346.0	61.0	57.3	135.0	176.8	269.7
AVG	327.5	327.4	52.4	57.1	104.3	154.3	192.2

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0851468

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	112.1	1.	0.125	1.	0.92	1.	10.39
2.	103.7	2.	0.125	2.	0.82	2.	8.64
3.	118.9	3.	0.125	3.	0.71	3.	11.16
4.	91.8	4.	0.106	4.	0.92	4.	8.34
5.	108.0	5.	0.106			5.	10.11
6.	102.7			AVG	0.84	6.	9.06
7.	130.1	AVG	0.117			7.	11.45
8.	97.0				PERMEABILITY (cm/sec)	8.	8.35
9.	112.1		EQUIVALENT SIEVE SIZE			9.	11.88
10.	103.0				0.23	10.18
AVG	107.9		120			AVG	10.0

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	306.1	309.1	64.7	64.0	119.0	82.4	170.2
2.	301.1	314.3	62.7	50.0	106.4	144.2	162.6
3.	254.6	294.7	69.3	55.0	106.0	162.5	197.7
4.	245.1	389.8	65.7	45.0	102.2	135.3	194.8
5.	243.3	368.6	70.7	51.0	98.2	204.7	164.7
6.	259.8	355.5	68.7	45.3	94.9	137.7	191.2
7.	269.0	306.1	69.3	47.3	111.2	164.5	202.5
8.	267.5	429.2	59.0	46.3	112.1	204.7	193.4
9.	291.7	414.1	73.3	49.3	146.3	173.0	229.8
10.	348.7	373.5	59.3	51.7	135.9	204.7	225.8
AVG	278.7	355.5	66.3	50.5	113.2	161.4	193.3

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0901034

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	134.1	1.	0.125	1.	0.88	1.	9.45
2.	142.1	2.	0.125	2.	0.86	2.	9.88
3.	112.9	3.	0.125	3.	1.27	3.	8.43
4.	133.5	4.	0.125	4.	1.27	4.	10.21
5.	118.5	5.	0.125			5.	8.76
6.	130.5			AVG	1.07	6.	9.91
7.	126.1	AVG	0.125			7.	9.61
8.	138.4				PERMEABILITY (cm/sec)	8.	9.38
9.	142.0		EQUIVALENT SIEVE SIZE			9.	11.20
10.	80.9					10.	6.68
					0.34		
AVG	125.9		120			AVG	9.4

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	226.8	229.6	54.3	62.0	130.0	117.4	221.7
2.	227.4	229.1	55.0	56.3	96.4	112.1	189.2
3.	204.0	210.0	56.3	51.0	87.5	98.3	163.0
4.	221.8	240.2	60.0	54.0	111.8	100.4	188.6
5.	198.7	248.1	70.0	53.0	102.9	116.1	150.8
6.	205.0	267.6	58.0	52.3	108.1	109.8	165.7
7.	278.5	260.0	60.0	54.3	109.8	123.0	250.4
8.	222.1	273.1	55.3	55.3	137.8	143.6	215.8
9.	256.0	282.2	58.0	57.7	167.5	158.6	218.3
10.	354.7	263.5	53.0	65.7	165.4	167.6	135.2
AVG	239.5	250.3	58.0	56.2	121.7	124.7	189.9

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0901259

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	126.2	1.	0.125	1.	0.88	1.	9.15
2.	131.0	2.	0.125	2.	0.59	2.	9.42
3.	128.0	3.	0.125	3.	0.92	3.	10.00
4.	115.5	4.	0.125	4.	0.90	4.	8.53
5.	134.3	5.	0.125			5.	8.79
6.	132.8			AVG	0.82	6.	9.91
7.	123.9	AVG	0.125			7.	9.28
8.	163.8				PERMEABILITY (cm/sec)	8.	12.08
9.	120.3		EQUIVALENT SIEVE SIZE			9.	9.54
10.	162.9					10.	12.86
					0.28		
AVG	133.9		120			AVG	10.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	297.3	283.5	54.7	57.7	115.2	129.3	170.2
2.	290.3	310.0	63.0	48.7	139.7	142.3	163.4
3.	296.7	307.0	62.0	49.0	112.5	141.6	178.7
4.	259.5	317.5	65.7	51.3	116.2	131.3	191.6
5.	200.5	304.5	64.3	55.0	87.8	138.7	173.1
6.	269.5	269.7	69.0	53.0	111.0	171.7	199.9
7.	246.5	277.6	54.7	53.7	111.6	128.1	234.5
8.	230.3	258.3	56.0	64.3	106.3	125.2	243.6
9.	251.5	256.7	56.3	56.3	128.8	143.1	147.3
10.	331.5	239.6	51.3	65.7	127.8	128.2	179.1
AVG	267.4	282.4	59.7	55.5	115.7	138.0	188.1

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0901529

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	82.0	1.	0.125	1.	1.69	1.	8.37
2.	102.3	2.	0.125	2.	0.98	2.	9.17
3.	82.4	3.	0.125	3.	1.18	3.	8.22
4.	95.7	4.	0.125	4.	0.86	4.	8.96
5.	81.1	5.	0.125			5.	7.42
6.	107.6			AVG	1.18	6.	8.94
7.	80.1	AVG	0.125			7.	6.82
8.	107.5				PERMEABILITY (cm/sec)	8.	9.60
9.	78.6		EQUIVALENT SIEVE SIZE			9.	8.28
10.	98.9					10.	10.85
					0.28		
AVG	91.6		120			AVG	8.7

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	288.5	328.3	45.3	59.0	169.6	205.5	166.7
2.	275.0	294.1	55.7	56.0	137.3	178.3	146.3
3.	260.0	318.7	59.0	58.0	116.3	145.5	138.2
4.	255.0	327.3	63.3	57.7	111.2	114.2	123.1
5.	254.0	273.0	68.0	55.0	95.1	154.2	140.1
6.	228.3	309.3	69.3	46.7	121.6	119.2	179.2
7.	218.2	253.3	64.0	46.0	144.0	115.5	164.3
8.	265.3	278.8	65.7	48.3	126.6	122.3	178.7
9.	243.2	235.8	60.0	47.3	109.7	171.6	189.6
10.	241.7	243.1	46.3	56.0	140.7	133.6	223.7
AVG	252.9	286.2	59.7	53.0	127.2	146.0	165.0

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0902499

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	-	1.	-	1.	-	1.	-
2.	-	2.	-	2.	-	2.	-
3.	-	3.	-	3.	-	3.	-
4.	-	4.	-	4.	-	4.	-
5.	-	5.	-			5.	-
6.	-			AVG	-	6.	-
7.	-	AVG	-			7.	-
8.	-				PERMEABILITY (cm/sec)	8.	-
9.	-		EQUIVALENT SIEVE SIZE			9.	-
10.	-					10.	-
AVG	-		-		-	AVG	-

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	-	-	53.7	59.3	-	-	-
2.	-	-	60.7	66.7	-	-	-
3.	-	-	67.0	64.3	-	-	-
4.	-	-	55.3	61.7	-	-	-
5.	-	-	59.7	61.7	-	-	-
6.	-	-	53.0	69.7	-	-	-
7.	-	-	52.3	62.3	-	-	-
8.	-	-	62.0	56.3	-	-	-
9.	-	-	52.3	73.0	-	-	-
10.	-	-	54.7	65.3	-	-	-
AVG	-	-	57.1	64.0	-	-	-

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0902588

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	95.1	1.	0.125	1.	0.73	1.	9.81
2.	101.9	2.	0.125	2.	0.80	2.	8.96
3.	105.0	3.	0.125	3.	0.82	3.	10.91
4.	89.5	4.	0.125	4.	1.43	4.	7.88
5.	103.8	5.	0.125			5.	10.44
6.	81.3			AVG	0.95	6.	7.41
7.	105.7	AVG	0.125			7.	11.39
8.	65.0				PERMEABILITY (cm/sec)	8.	5.53
9.	104.4		EQUIVALENT SIEVE SIZE			9.	13.14
10.	67.2					10.	6.64
					0.22		
AVG	91.9		120			AVG	9.2

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)				TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD		TD		MD	TD	
1.	260.5	150.0	57.7	43.7	36.3	58.0	81.0	87.1	182.0
2.	181.8	185.7	62.0	42.7	31.0	55.0	68.1	67.0	111.0
3.	200.0	198.0	60.0	40.3	25.7	52.3	88.6	110.3	179.2
4.	234.8	252.5	74.0	56.0	30.0	53.0	96.1	150.2	160.2
5.	211.7	233.8	50.3	43.0	56.7	47.7	92.4	146.2	204.8
6.	228.3	230.0	64.7	46.0	51.3	52.3	113.6	108.2	115.8
7.	203.6	286.3	64.3	47.3	51.3	60.7	104.0	161.1	247.0
8.	278.0	312.0	69.3	55.0	51.7	53.3	116.5	149.5	165.4
9.	289.3	362.2	57.7	50.7	47.0	57.0	116.3	160.3	234.3
10.	378.0	349.7	63.7	53.3	55.0	66.3	129.6	145.3	110.2
AVG	246.6	256.0		55.1		49.6	100.6	128.5	171.0

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0902592

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	-	1.	-	1.	-	1.	-
2.	-	2.	-	2.	-	2.	-
3.	-	3.	-	3.	-	3.	-
4.	-	4.	-	4.	-	4.	-
5.	-	5.	-			5.	-
6.	-			AVG	-	6.	-
7.	-	AVG	-			7.	-
8.	-				PERMEABILITY (cm/sec)	8.	-
9.	-		EQUIVALENT SIEVE SIZE			9.	-
10.	-					10.	-
AVG	-		-		-	AVG	-

	GRAB STRENGTH (pounds) MD	GRAB STRENGTH (pounds) TD	GRAB ELONGATION (percent) MD	GRAB ELONGATION (percent) TD	TRAPEZOIDAL TEAR (pounds) MD	TRAPEZOIDAL TEAR (pounds) TD	PUNCTURE STRENGTH (pounds)
1.	-	-	60.7	57.0	-	-	-
2.	-	-	58.0	55.7	-	-	-
3.	-	-	68.0	51.0	-	-	-
4.	-	-	70.3	53.3	-	-	-
5.	-	-	66.7	62.7	-	-	-
6.	-	-	61.3	60.0	-	-	-
7.	-	-	62.3	55.0	-	-	-
8.	-	-	62.7	53.3	-	-	-
9.	-	-	57.0	59.7	-	-	-
10.	-	-	50.3	70.3	-	-	-
AVG	-	-	61.7	57.8	-	-	-

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0902711

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	89.3	1.	0.125	1.	0.73	1.	8.91
2.	85.2	2.	0.125	2.	1.08	2.	8.13
3.	98.3	3.	0.125	3.	1.20	3.	8.65
4.	93.9	4.	0.125	4.	0.76	4.	8.45
5.	88.0	5.	0.125			5.	8.17
6.	82.3			AVG	0.94	6.	7.66
7.	98.6	AVG	0.125			7.	9.19
8.	77.8				PERMEABILITY	8.	7.97
9.	86.7		EQUIVALENT		(cm/sec)	9.	9.74
10.	86.0		SIEVE SIZE			10.	8.79
					0.21		
AVG	88.6		120			AVG	8.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	345.5	293.5	54.0	62.7	133.6	195.6	156.5
2.	283.7	310.8	53.0	55.0	145.7	156.2	177.6
3.	283.5	317.5	67.7	52.0	86.0	120.3	175.7
4.	233.7	274.5	59.3	50.3	100.7	107.0	154.6
5.	205.8	283.6	61.0	55.3	104.7	131.0	121.1
6.	209.8	305.1	59.3	50.0	100.8	129.6	155.6
7.	235.1	260.2	55.3	54.0	103.8	102.7	196.5
8.	243.6	245.1	58.3	55.7	116.0	116.8	148.0
9.	227.8	206.2	53.7	65.7	98.8	115.4	155.3
10.	331.0	249.3	54.7	67.7	113.1	105.6	150.7
AVG	260.0	274.6	57.6	56.8	110.3	128.0	159.2

June 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0907655

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	92.1	1.	0.106	1.	0.71	1.	10.51
2.	86.1	2.	0.125	2.	0.76	2.	9.02
3.	107.7	3.	0.106	3.	0.84	3.	10.91
4.	85.2	4.	0.125	4.	1.06	4.	7.81
5.	88.9	5.	0.125			5.	8.45
6.	80.2			AVG	0.84	6.	7.78
7.	86.7	AVG	0.117			7.	7.65
8.	91.0				PERMEABILITY (cm/sec)	8.	9.69
9.	96.1		EQUIVALENT SIEVE SIZE			9.	8.34
10.	88.0					10.	9.64
					0.19		
AVG	90.2		120			AVG	9.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)			TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	TD Retest	MD	TD	
1.	291.1	354.3	57.0	53.7	56.7	126.9	195.0	229.5
2.	310.6	459.6	64.7	50.7	42.3	132.3	160.2	206.0
3.	281.8	391.1	65.0	50.0	47.7	98.4	143.7	182.8
4.	212.2	315.7	66.7	47.3	46.7	95.6	148.7	171.6
5.	240.0	354.1	66.3	41.3	45.3	80.4	109.3	208.0
6.	209.0	348.8	60.3	45.0	48.0	91.7	124.6	168.6
7.	244.6	271.8	63.0	52.7	52.7	91.4	108.1	180.7
8.	280.2	369.8	63.0	47.0	53.7	116.3	146.2	197.5
9.	273.8	272.8	56.3	52.3	59.0	92.2	154.5	163.7
10.	292.2	302.8	49.7	51.0	65.0	86.0	118.7	212.0
AVG	263.6	344.1	61.2	50.4		101.1	140.9	192.0

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0925617

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	97.8	1.	0.125	1.	1.16	1.	9.03
2.	95.8	2.	0.125	2.	0.90	2.	9.13
3.	86.7	3.	0.125	3.	0.88	3.	8.17
4.	93.3	4.	0.125	4.	0.94	4.	8.47
5.	92.8	5.	0.125			5.	8.29
6.	88.4			AVG	0.97	6.	8.74
7.	93.2	AVG	0.125			7.	8.22
8.	87.8				PERMEABILITY (cm/sec)	8.	8.75
9.	95.1		EQUIVALENT SIEVE SIZE			9.	9.33
10.	110.0				0.23	10.	9.64
AVG	94.1		120			AVG	8.8

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	287.0	255.3	50.3	58.3	139.4	149.5	162.4
2.	246.3	284.1	54.0	60.0	120.1	140.7	153.6
3.	234.6	276.2	52.0	47.0	90.0	184.3	170.2
4.	245.2	268.2	69.7	47.3	104.0	150.9	183.0
5.	236.1	278.0	62.7	50.7	108.1	154.3	166.8
6.	231.1	278.6	60.7	45.7	95.8	126.5	217.5
7.	238.8	247.3	53.0	43.7	78.1	108.5	223.5
8.	253.7	278.1	56.7	48.0	127.2	119.6	186.2
9.	248.7	271.1	51.0	48.3	93.6	129.7	172.0
10.	309.6	254.1	48.3	53.0	118.8	121.7	198.0
AVG	253.1	269.1	55.8	50.2	107.5	138.6	183.3

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0926588

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	94.7	1.	0.125	1.	0.71	1.	9.19
2.	96.2	2.	0.125	2.	0.90	2.	9.27
3.	104.2	3.	0.125	3.	1.08	3.	9.28
4.	100.1	4.	0.106	4.	0.98	4.	9.01
5.	89.3	5.	0.106			5.	8.77
6.	94.0			AVG	0.92	6.	8.63
7.	91.2	AVG	0.117			7.	8.98
8.	107.2				PERMEABILITY (cm/sec)	8.	9.73
9.	103.1		EQUIVALENT SIEVE SIZE			9.	9.02
10.	101.8				0.23	10.	9.62
AVG	98.2		120			AVG	9.2

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	271.1	314.1	70.7	59.7	151.7	226.6	194.8
2.	311.0	328.7	70.3	52.7	130.5	178.2	194.6
3.	311.0	316.0	76.7	56.7	162.1	150.8	176.8
4.	323.8	338.6	79.3	52.7	156.7	215.0	161.8
5.	285.2	340.2	76.3	49.3	113.7	167.1	204.8
6.	263.4	341.8	81.3	50.7	145.0	203.6	176.4
7.	254.5	348.1	70.3	51.0	107.7	165.5	193.1
8.	272.2	359.1	73.0	58.7	114.2	178.2	189.0
9.	317.2	316.5	66.7	54.3	158.0	210.3	189.3
10.	350.0	415.7	65.3	84.7	183.6	209.2	208.3
AVG	295.9	341.9	73.0	57.1	142.3	190.5	188.9

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0926973

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	100.6	1.	0.125	1.	1.55	1.	7.91
2.	116.8	2.	0.125	2.	0.92	2.	8.82
3.	94.9	3.	0.125	3.	0.98	3.	7.55
4.	127.2	4.	0.125	4.	0.82	4.	10.49
5.	89.4	5.	0.125			5.	7.38
6.	124.8			AVG	1.07	6.	10.44
7.	98.2	AVG	0.125			7.	8.79
8.	115.4				PERMEABILITY (cm/sec)	8.	9.92
9.	109.2		EQUIVALENT SIEVE SIZE			9.	9.74
10.	118.7					10.	10.65
					0.30		
AVG	109.5		120			AVG	9.2

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	263.3	231.6	53.7	64.0	113.5	124.8	150.5
2.	265.4	280.2	61.3	53.0	109.6	113.6	175.6
3.	232.3	261.6	66.0	52.3	86.4	107.8	190.4
4.	252.8	307.1	55.0	53.3	107.3	141.7	205.0
5.	230.1	273.5	67.3	50.3	101.2	124.6	111.5
6.	225.6	259.8	67.0	51.0	101.5	159.6	223.7
7.	235.6	281.6	63.0	59.3	113.5	142.6	171.8
8.	273.5	297.1	61.0	53.3	118.1	152.1	205.2
9.	264.1	232.8	60.0	52.3	106.5	116.7	138.0
10.	261.1	253.0	44.0	68.0	101.1	117.5	223.2
AVG	250.4	267.8	59.8	55.7	105.9	130.1	179.5

July 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0926974

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	90.3	1.	0.125	1.	1.29	1.	8.15
2.	94.5	2.	0.125	2.	1.04	2.	8.73
3.	81.6	3.	0.125	3.	0.71	3.	7.80
4.	94.5	4.	0.106	4.	1.08	4.	9.05
5.	78.3	5.	0.106			5.	6.77
6.	95.9			AVG	1.03	6.	8.70
7.	98.5	AVG	0.117			7.	8.83
8.	103.1				PERMEABILITY (cm/sec)	8.	11.15
9.	108.3		EQUIVALENT SIEVE SIZE			9.	11.02
10.	109.5					10.	10.24
					0.25		
AVG	95.5		120			AVG	9.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	250.8	234.5	59.0	51.3	87.6	136.5	148.5
2.	228.4	271.1	61.3	52.0	99.5	109.3	135.0
3.	238.4	297.7	67.3	56.3	99.3	142.3	125.0
4.	253.0	285.5	61.7	48.0	104.1	125.1	122.8
5.	207.6	285.3	67.0	52.3	85.1	147.2	122.5
6.	227.3	293.2	66.3	49.7	112.2	113.1	156.6
7.	253.2	355.0	60.0	49.3	115.6	116.7	168.8
8.	278.0	314.2	57.3	50.7	101.5	131.7	133.8
9.	293.1	302.3	55.0	52.0	94.5	162.5	206.1
10.	318.2	301.0	57.0	56.3	112.2	139.5	175.1
AVG	254.8	294.0	61.2	51.8	101.2	132.4	149.4

June 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 0927038

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	98.8	1.	0.125	1.	1.14	1.	7.76
2.	97.1	2.	0.106	2.	0.98	2.	8.80
3.	109.2	3.	0.106	3.	0.86	3.	9.81
4.	102.5	4.	0.125	4.	1.10	4.	9.86
5.	103.1	5.	0.125			5.	8.46
6.	100.6			AVG	1.02	6.	8.95
7.	113.4	AVG	0.117			7.	10.67
8.	104.8				PERMEABILITY (cm/sec)	8.	8.98
9.	123.3		EQUIVALENT SIEVE SIZE			9.	11.63
10.	115.4					10.	11.11
					0.28		
AVG	106.8		120			AVG	9.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	295.3	296.0	60.7	57.0	126.6	143.7	140.6
2.	317.7	343.0	74.0	56.7	107.9	149.0	160.6
3.	283.5	276.2	64.0	59.7	116.6	123.2	189.7
4.	205.7	328.8	58.3	53.0	115.7	148.8	159.5
5.	280.2	318.0	73.0	55.3	107.9	144.8	184.0
6.	256.1	335.6	67.0	51.7	110.2	157.1	201.0
7.	246.6	331.3	66.0	55.3	141.8	142.9	220.3
8.	293.7	326.5	70.0	54.0	111.8	161.9	154.2
9.	287.6	307.1	65.7	56.7	132.3	152.0	202.5
10.	331.5	311.5	55.3	70.7	123.8	146.2	205.6
AVG	279.8	317.4	65.4	57.0	119.5	147.0	181.8

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1095963

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	124.4	1.	0.106	1.	1.11	1.	10.41
2.	112.1	2.	0.106	2.	0.93	2.	10.94
3.	120.1	3.	0.125	3.	1.10	3.	11.79
4.	111.7	4.	0.125	4.	1.17	4.	9.99
5.	132.5	5.	0.125			5.	10.92
6.	120.9			AVG	1.08	6.	9.93
7.	145.0	AVG	0.117			7.	10.05
8.	113.4				PERMEABILITY (cm/sec)	8.	8.76
9.	118.5		EQUIVALENT SIEVE SIZE			9.	9.51
10.	159.1					10.	10.34
					0.35		
AVG	125.8		120			AVG	10.3

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	287.2	306.0	57.3	60.3	214.0	162.0	222.7
2.	339.7	354.2	65.3	64.7	152.5	168.6	209.3
3.	276.0	325.5	64.3	82.0	123.1	126.8	204.3
4.	232.2	332.8	79.3	86.7	117.7	143.2	194.7
5.	274.2	377.1	84.0	52.7	83.9	122.0	267.7
6.	248.2	365.1	71.7	48.0	102.8	178.1	230.7
7.	269.6	322.7	64.0	47.0	117.8	132.6	188.3
8.	294.2	340.6	62.3	52.3	118.8	143.3	145.2
9.	353.0	337.0	61.7	51.7	118.7	144.0	201.9
10.	333.1	354.3	70.3	62.7	158.0	147.3	193.6
AVG	290.7	341.5	68.0	60.8	130.7	146.8	205.8

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1095965

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	144.0	1.	0.125	1.	1.03	1.	9.29
2.	98.2	2.	0.125	2.	0.99	2.	8.88
3.	104.7	3.	0.125	3.	0.78	3.	7.84
4.	111.6	4.	0.125	4.	1.03	4.	7.93
5.	137.0	5.	0.106			5.	10.36
6.	115.7			AVG	0.96	6.	10.23
7.	123.1	AVG	0.121			7.	11.42
8.	127.6				PERMEABILITY (cm/sec)	8.	11.55
9.	148.1		EQUIVALENT SIEVE SIZE			9.	13.63
10.	163.1					10.	13.11
					0.31		
AVG	127.3		120			AVG	10.4

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	338.6	369.3	64.3	56.0	119.2	187.6	179.4
2.	318.3	424.6	68.3	61.3	115.1	222.3	188.9
3.	324.2	442.7	68.7	52.7	160.8	173.5	218.5
4.	251.8	388.8	82.3	43.7	105.8	144.6	168.2
5.	266.2	336.6	78.7	53.3	115.6	164.0	201.3
6.	300.7	309.5	72.3	55.0	104.8	158.0	223.6
7.	294.5	319.7	64.0	46.3	99.9	158.7	253.2
8.	337.2	348.7	68.7	48.7	132.1	170.7	283.9
9.	284.1	397.0	64.0	59.3	164.8	171.3	274.9
10.	300.8	279.1	75.7	55.0	150.2	175.3	283.8
AVG	301.6	361.6	70.7	53.1	126.8	172.6	227.6

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1096606

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	133.3	1.	0.106	1.	1.15	1.	10.33
2.	118.1	2.	0.125	2.	0.99	2.	9.38
3.	107.2	3.	0.125	3.	1.00	3.	9.53
4.	130.6	4.	0.125	4.	0.75	4.	11.00
5.	106.4	5.	0.125			5.	9.92
6.	136.5			AVG	0.97	6.	9.42
7.	137.4	AVG	0.121			7.	10.00
8.	138.7				PERMEABILITY (cm/sec)	8.	8.82
9.	119.8		EQUIVALENT SIEVE SIZE			9.	10.45
10.	128.7					10.	10.63
					0.31		
AVG	125.7		120			AVG	9.9

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	346.6	344.1	70.0	59.7	142.6	144.0	233.3
2.	317.6	287.6	67.7	56.0	132.7	156.8	237.4
3.	289.7	281.8	60.0	56.3	109.3	131.6	203.4
4.	236.3	288.1	62.7	51.7	128.1	123.2	241.2
5.	246.0	330.1	79.3	51.0	93.5	122.0	205.0
6.	229.5	361.1	76.0	51.0	109.3	146.7	231.1
7.	236.8	347.2	74.7	58.0	113.2	137.1	221.7
8.	300.7	309.1	70.7	65.0	117.5	147.6	180.0
9.	265.0	316.2	59.0	56.0	115.7	168.6	227.5
10.	275.7	302.5	54.0	59.0	133.6	126.1	197.0
AVG	274.4	316.8	67.4	56.4	119.6	140.4	217.8

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1096773

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	147.6	1.	0.125	1.	1.30	1.	15.69
2.	116.0	2.	0.125	2.	1.19	2.	10.42
3.	120.3	3.	0.125	3.	0.92	3.	8.05
4.	125.0	4.	0.106	4.	0.92	4.	8.80
5.	129.9	5.	0.106			5.	10.40
6.	144.1			AVG	1.08	6.	12.88
7.	162.0	AVG	0.117			7.	21.10
8.	126.5				PERMEABILITY	8.	10.34
9.	119.7		EQUIVALENT		(cm/sec)	9.	9.79
10.	135.5		SIEVE SIZE			10.	10.84
					0.37		
AVG	132.7		120			AVG	11.8

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	349.0	263.3	49.3	57.3	108.6	135.0	303.9
2.	255.7	261.2	63.3	58.7	108.1	145.7	221.1
3.	278.2	304.2	57.7	54.7	105.7	139.8	182.6
4.	209.7	329.3	81.3	57.3	93.5	125.3	237.7
5.	254.6	335.2	82.0	53.3	92.3	164.7	237.4
6.	239.7	281.0	75.0	58.7	102.0	113.0	247.1
7.	265.3	279.6	56.3	62.3	113.1	126.1	261.1
8.	280.1	320.6	98.7	54.3	115.0	125.8	283.8
9.	310.2	336.2	72.3	49.7	127.0	141.1	150.4
10.	345.7	317.5	59.0	62.0	152.0	206.3	184.6
AVG	278.8	302.8	69.5	56.8	111.7	142.3	231.0

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1096989

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	108.6	1.	0.125	1.	1.24	1.	10.32
2.	109.5	2.	0.125	2.	1.05	2.	10.47
3.	119.8	3.	0.125	3.	1.09	3.	9.70
4.	126.0	4.	0.125	4.	0.94	4.	10.05
5.	120.4	5.	0.106			5.	9.14
6.	117.8			AVG	1.08	6.	11.31
7.	109.0	AVG	0.121			7.	10.77
8.	113.1				PERMEABILITY	8.	10.19
9.	111.0		EQUIVALENT		(cm/sec)	9.	10.79
10.	114.5		SIEVE SIZE			10.	9.94
					0.31		
AVG	115.0		120			AVG	10.3

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	391.5	281.3	64.3	55.0	159.8	134.8	226.3
2.	299.1	295.1	58.3	60.3	111.0	168.8	252.1
3.	329.3	349.5	64.3	56.0	145.0	137.6	207.4
4.	234.1	325.2	67.0	50.0	87.6	130.5	224.7
5.	222.8	339.1	69.0	53.7	123.1	151.1	218.9
6.	242.8	283.1	75.3	60.7	98.3	151.2	181.8
7.	283.6	342.3	60.0	55.3	139.2	172.0	204.2
8.	330.1	294.6	59.3	54.0	138.3	171.7	269.0
9.	340.6	348.2	62.3	53.3	151.6	196.8	250.3
10.	321.8	359.0	66.3	56.0	150.2	184.5	220.0
AVG	299.6	321.7	64.6	55.4	130.4	159.9	225.5

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1097185

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	120.4	1.	0.150	1.	1.55	1.	8.03
2.	95.5	2.	0.150	2.	1.83	2.	8.32
3.	95.7	3.	0.150	3.	1.23	3.	8.80
4.	109.9	4.	0.125	4.	0.83	4.	8.67
5.	105.2	5.	0.125			5.	7.09
6.	103.0			AVG	1.36	6.	6.18
7.	121.5	AVG	0.140			7.	8.25
8.	114.4				PERMEABILITY	8.	8.97
9.	119.0		EQUIVALENT		(cm/sec)	9.	10.21
10.	128.5		SIEVE SIZE			10.	11.11
					0.38		
AVG	111.3		100			AVG	8.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	345.5	270.6	55.7	62.7	137.1	143.7	127.4
2.	238.3	246.8	56.3	64.0	119.5	155.3	194.7
3.	274.6	226.2	64.7	58.0	105.7	133.3	162.2
4.	173.1	248.1	83.7	61.0	91.9	141.5	204.7
5.	205.5	224.2	90.7	63.7	78.1	151.8	146.8
6.	212.2	246.0	76.7	51.7	90.0	161.8	155.7
7.	266.5	295.6	66.0	48.3	120.7	145.0	129.2
8.	252.2	315.6	58.0	50.7	134.8	186.6	226.6
9.	259.7	288.1	55.7	57.3	101.7	132.5	205.6
10.	243.6	304.0	60.0	68.7	113.2	109.7	224.2
AVG	247.1	266.5	66.8	58.6	109.3	146.1	177.7

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1097436

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	118.1	1.	0.106	1.	1.12	1.	9.94
2.	123.9	2.	0.125	2.	0.93	2.	10.32
3.	138.2	3.	0.125	3.	0.81	3.	10.71
4.	124.9	4.	0.125	4.	1.38	4.	9.53
5.	144.8	5.	0.125			5.	9.95
6.	118.6			AVG	1.06	6.	10.64
7.	121.1	AVG	0.121			7.	10.19
8.	102.9				PERMEABILITY	8.	8.84
9.	110.8		EQUIVALENT		(cm/sec)	9.	9.50
10.	130.5		SIEVE SIZE			10.	9.84
					0.33		
AVG	123.4		120			AVG	9.9

	GRAB STRENGTH (pounds)		GRAB ELONGATION (percent)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)
	MD	TD	MD	TD	MD	TD	
1.	277.1	296.1	61.7	51.3	155.6	160.0	232.6
2.	276.1	302.1	63.3	55.3	147.6	188.2	214.9
3.	270.0	341.0	60.0	52.0	119.5	183.0	167.9
4.	283.8	282.3	67.3	55.7	131.8	146.8	187.9
5.	258.5	373.5	75.3	48.0	111.8	136.7	194.0
6.	187.3	327.5	81.7	52.7	106.5	125.3	202.3
7.	184.0	338.1	77.0	56.3	76.5	114.2	185.9
8.	237.6	221.7	53.7	62.7	105.7	124.7	208.2
9.	282.1	181.0	59.0	58.7	120.3	131.8	200.9
10.	255.5	268.2	63.0	67.0	162.0	100.1	230.6
AVG	251.2	293.2	66.2	56.0	123.7	141.1	202.5

November 1992 917-1203

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 917-1203
PROJECT NAME: FORD/CELL 2/DETROIT, MI
ROLL DESIGNATION: 1097507

	THICKNESS (mils)		APPARENT OPENING SIZE (mm)		PERMITTIVITY (sec-1)		MASS PER UNIT AREA (oz/sq yd)
1.	118.1	1.	0.125	1.	1.17	1.	10.41
2.	104.2	2.	0.125	2.	1.61	2.	9.13
3.	116.5	3.	0.125	3.	1.37	3.	7.83
4.	109.0	4.	0.125	4.	0.93	4.	7.24
5.	130.1	5.	0.125			5.	8.70
6.	105.7			AVG	1.27	6.	8.59
7.	106.7	AVG	0.125			7.	9.11
8.	109.9				PERMEABILITY	8.	9.77
9.	115.8		EQUIVALENT		(cm/sec)	9.	9.94
10.	121.5		SIEVE SIZE			10.	10.47
					0.37		
AVG	113.8		120			AVG	9.1

	GRAB STRENGTH (pounds) MD	TD	GRAB ELONGATION (percent) MD	TD	TRAPEZOIDAL TEAR (pounds) MD	TD	PUNCTURE STRENGTH (pounds)
1.	298.0	294.6	52.3	62.4	151.5	152.7	234.4
2.	265.3	280.0	55.7	65.3	110.0	117.3	183.1
3.	266.8	272.1	62.0	56.7	106.6	155.8	211.8
4.	224.6	267.8	83.0	71.0	73.6	124.6	128.5
5.	198.1	270.2	74.3	58.0	101.5	136.2	242.8
6.	245.7	316.6	74.0	49.3	122.2	163.1	180.9
7.	289.3	374.7	70.7	48.0	124.8	133.1	219.7
8.	280.6	330.5	60.0	46.0	145.2	167.0	183.2
9.	322.1	283.6	58.7	56.0	116.1	151.0	215.8
10.	259.5	316.6	62.3	56.7	131.2	150.2	260.5
AVG	265.0	300.7	65.3	56.9	118.3	145.1	206.1

APPENDIX I

Environmental and Safety Engineering Staff
Ford Motor Company

Suite 608
15201 Century Drive
Dearborn, Michigan 48120

September 18, 1991

Mr. Peter Quackenbush
Hazardous Waste Permits Section
Waste Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Subject: Construction Certification Report - Cell II
Ford Allen Park Clay Mine Landfill
EPA ID No. MID 980 568 711

Dear Mr. Quackenbush:

As required in Part III Section C.1.b of the subject facility Act 64 Operating License, enclosed please find the *Construction Certification Statement* (with back-up documentation) dated September 13, 1991. This statement was executed by a licensed Professional Engineer.

The enclosed certification documents that Section V.A of the *Cell II Construction Quality Assurance Plan* was followed for both the removal of water from the cell floor and the subsequent placement of clay fill. Pending completion of final grading, the cell floor has been prepared for liner placement in accordance with the *CQA* specifications.

Should you have any questions regarding this matter, please contact David O'Connor of this Office at 313/322-0701.

Sincerely,

Jerome S. Amber

Jerome S. Amber, P.E., Manager
Industrial Waste and Toxic/
Hazardous Substances
Environmental Quality Office
313/322-4646

Enclosure

cc: Kurt Childs, MDNR
Mayors of Allen Park, Dearborn and Melvindale
Ardys Bennett

September 13, 1991

CONSTRUCTION CERTIFICATION STATEMENT

Ford Allen Park Clay Mine Landfill
Cell II Construction Quality Assurance

Pursuant to Section V.A of the *Cell II Construction Quality Assurance Plan* (Attachment 9 of the facility Act 64 Operating License), this statement together with my licensed professional engineer seal affixed below certifies that the Cell II floor has been constructed in compliance with permeability, shear strength, soil classification, and moisture/density criteria necessary to render a stable cell floor having a maximum permeability of 1.0×10^{-6} cm/sec. I was the on-site CQA Officer at the time the work referenced herein was performed.

The removal of water from the over-excavated cell floor commenced on May 18, 1987 and was completed on May 28, 1987, as detailed in the October 27, 1988 *Preliminary Construction Certification Report* (attached).

In early August 1989, both the brown and grey clay comprising the cell floor were disced to aid in drying the soil. Initial testing of the recompacted brown clay was done on August 14, 1989, using bag sample No. 101. Inasmuch as Test Nos. 8, 9 and 10 were above final design grade, portions of the cell floor containing clay fill had to be reworked.

Following recompaction of both the brown and grey clay, a series of test pits were excavated on October 3, 1989. Test Nos. 195 - 207 and 247 passed the shear strength and moisture/density requirements for these materials (bag sample Nos. 112 and 113). In addition, block sample No. 116 was cut from the cell floor on June 1, 1990 and tested for permeability, *in situ* moisture/density, and soil classification. Criteria were met for these tests. A location map and cross-section drawing are attached for reference.

Attached are copies of the Independent Testing Engineer's *Daily Field Reports* for earth work conducted on the cell floor.

Inasmuch as the cell floor has been rough-graded to final design elevations, all criteria under Section V.A of the *Cell II Construction Quality Assurance Plan* have been met in preparation for liner placement.

Danny L. Booth
SEPT. 13, 1991

Allen Park Clay Mine Landfill
Hazardous Cell II - Preliminary Construction
Certification Report
October 27, 1988

In accordance with Part III, Section C.1.b. of the operating permit, the following information documents that the procedures stipulated in Section V.A.1.b. of the CQA plan were followed to this date.

The over-excavated area of Cell II was dewatered and brown clay fill was placed on the bottom of the cell between May 18 and May 28, 1987. A four-inch gas pump was used in the dewatering process and the clay fill was brought in by trucks from the I-696 Road excavation. The sidewalls of the cell were initially groomed with a Caterpillar D-7 bulldozer and a D-6 and D-8 bulldozers were brought in to move the clay into the cell bottom. The water elevation was maintained at 560 feet msl, while clay fill was used to surcharge the soft sediments towards the low point in the cell bottom. A Caterpillar 225 backhoe was used in the southwesterly portion of the cell to pull the wet sediments from the surcharging operation. These sediments were casts to higher ground and spread by a D-6 bulldozer for drying.

By May 28, 1987, the two bulldozers and the backhoe had completed the cleanup of cell bottom and placement of clay. No compaction tests were done at this time.

In mid-July, 1987, a temporary four-foot diameter sump was installed in the southwesterly area of the cell to facilitate and maintain pumping of stormwater in the cell bottom.

On June 10 and 14, 1988, some preliminary testing and clay fill thickness verification was made in the bottom of Cell II. A grid was placed in this area and checks on compaction were made using an approximate Modified Proctor value. These results indicated the clay fill was compacted to between 85 to 90 percent of the maximum dry density. These results are not acceptable and the clay fill will require removal and recompaction to proper density. No records of these tests were kept. Test holes were also made at these grid points that indicates 1.2 to 3.5 feet of clay backfill was placed in the over-excavated area.

Attached is a drawing showing the test points and a data sheet with coordinates of the grid locations, existing ground elevations (top of clay fill), cuts and fills (C-F) to design elevations, and cuts and elevations of the in situ clay bottom. Samples of the brown clay fill were also retested for classification, grain size distribution, atterberg limits and Modified Proctor in a Neyer, Tiseo & Hindo, Ltd. report.

The next phase will require recompacting the clay fill in small sections prior to the staged subgrade preparation.

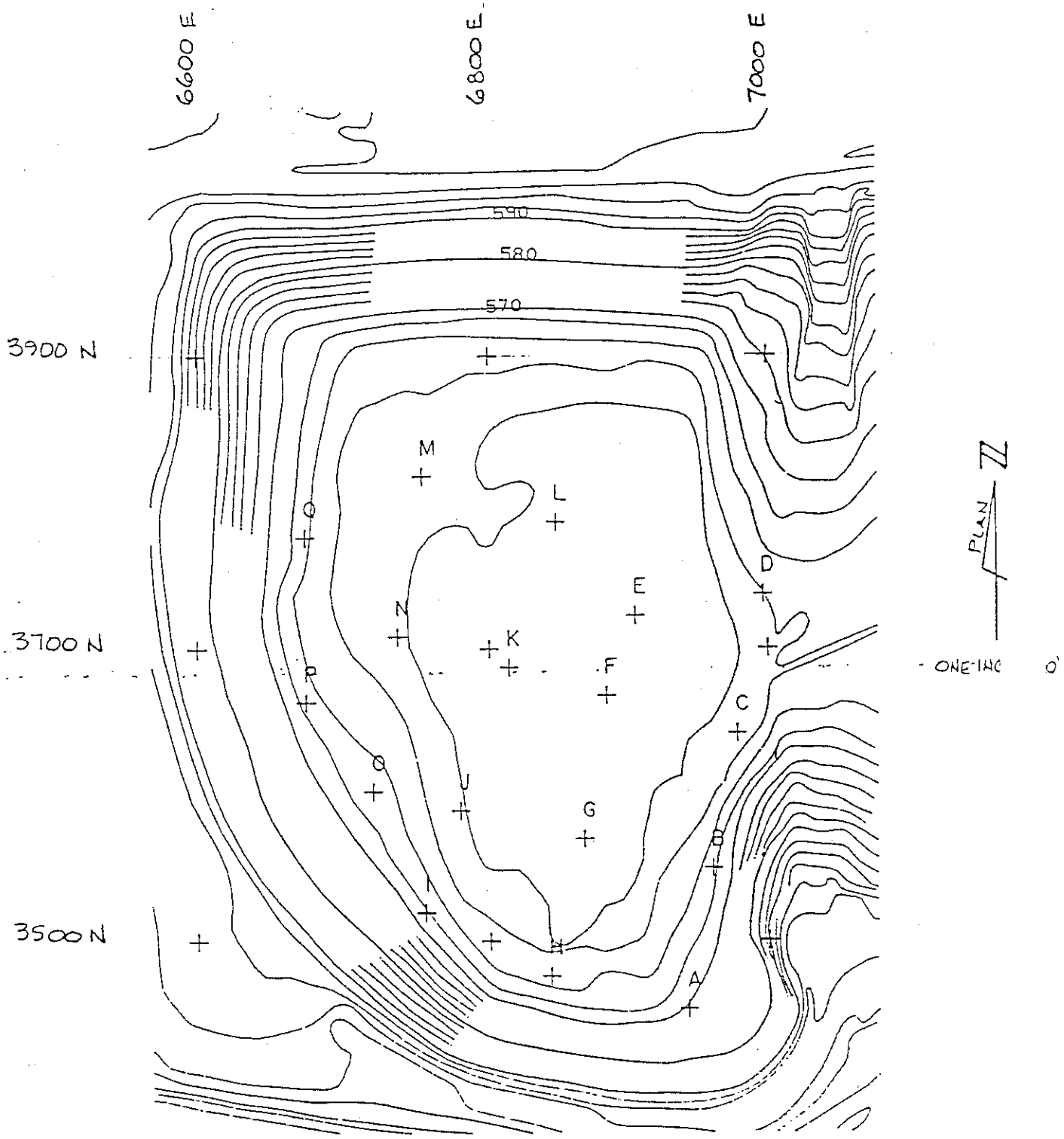
Danny L. Booth, P.E.

Michigan Registered
Professional Engineer No. 25593

APCM - CELL 2 BOTTOM FILL CLAY 6/14/88 11:00 A.M.

	NORTHING	EASTING	GROUND ELEV.	CUT-FILL TO DESIGN	CUT TO INSITU CLAY	ELEV. OF INSITU CLAY
A	3452.9	7041.0	570.2	F 6.8	0.0	570.2
B	3549.4	7059.6	567.1	F 0.8	0.0	567.1
C	3641.7	7078.0	563.5	C 1.7	0.0	563.5
D	3736.4	7096.9	563.9	C 3.9	0.0	563.9
E	3722.6	7003.6	561.1	C 0.1	2.0	559.1
F	3668.0	6983.2	561.0	F 1.0	2.0	559.0
G	3569.8	6967.2	560.9	F 3.3	2.0	558.9
H	3519.1	6855.8	568.1	C 1.8	0.0	568.1
I	3475.6	6943.0	565.3	F 4.2	0.0	565.3
J	3589.0	6880.2	562.6	F 2.1	3.5	559.1
K	3687.1	6913.7	561.0	F 1.3	2.5	558.5
L	3786.4	6947.7	561.2	F 1.3	3.0	558.2
M	3817.7	6854.6	563.1	F 0.9	3.0	560.1
N	3708.0	6837.3	563.0	C 0.4	2.0	561.0
O	3602.2	6820.1	567.1	C 2.1	3.0	564.1
P	3663.2	6774.2	567.0	C 2.9	1.2	565.8
Q	3775.8	6773.9	566.9	C 2.9	3.5	563.4

WEATHER: HOT, 90 DEGREES FAHRENHEIT



FORD ALLEN PARK CLAY MINE
HAZARDOUS CELL II LANDFILL
TEST HOLE LOCATION MAP - JUNE 14, 1988
AERIAL TOPO - APRIL 10, 1988
D. BOOTH OCTOBER 27, 1988

NTH Consultants, Ltd.
A Neyer, Tiseo & Hindo Company

DAILY FIELD REPORT

PROJECT: Allen Park Clay Mine Cell II
LOCATION: I-94 & Oakwood Blvd., Allen Park
CLIENT: Ford Motor Company
CONTRACTOR(S): C.J. Rogers, Inc.

PROJECT NO.: 89365 OW
DATE: 8/14/89
WEATHER: Partly Sunny, 60°F
SHEET 1 OF 3
REPORT NO.: 7

CLIENT'S REPRESENTATIVE(S): Steve Brao (WDI); David O'Connor (FMC)
CONTRACTOR'S REPRESENTATIVE(S): Brian Cruickshank (CJR)

PROGRESS OF WORK:

As of this morning, no work had been started on the test pad area. The west side of the Cell II Floor contains approximately 1 1/2' of water from excessive rainfall over the previous weekend. The contractor utilized a CAT D6 Dozer widetrack for surcharging the standing water to the pump location.

A test pit was excavated utilizing a CAT D6 Dozer to test existing Bag 101 brown clay fill encountered in the Cell II floor. The test pit was cut at location 3700N 800E to a depth of approximately 2.8 feet, where native gray silty clay soils of soft consistency were encountered. A total of 3 in-place moisture density tests were performed on the bag 101 brown silty clay fill soils encountered in the test pit. All test results indicated compliance with job specifications, except test #10 in the lowest foot of the test pit. The failing test was brought to the attention of Mr. Dan Booth (WDI) and Mr. Steve Brao (WDI). Refer to the tabulations of field density tests for specific results and locations.

FIELD REPRESENTATIVE: Maureen Johnson

REVIEWED BY:

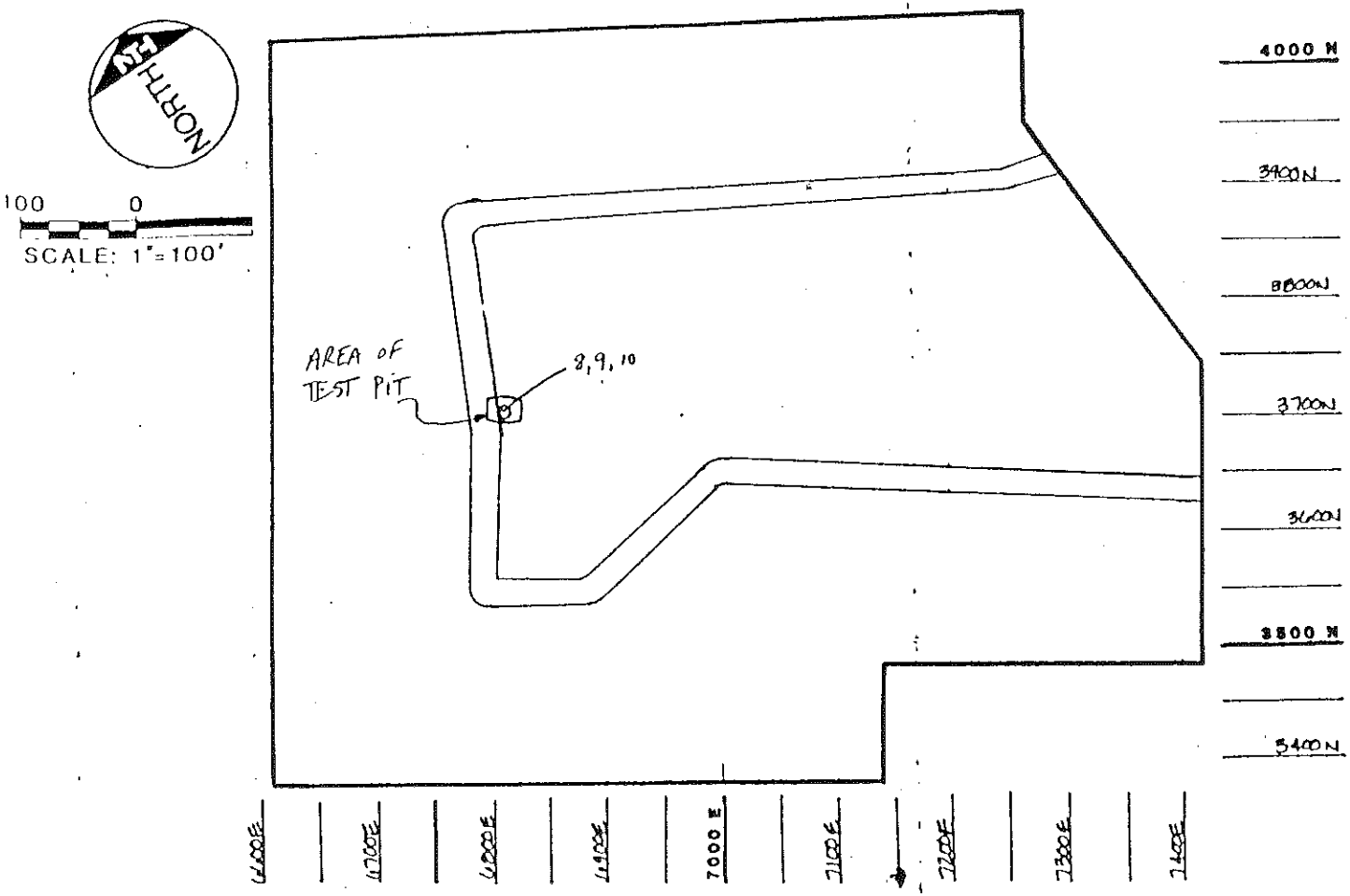
NTH/2.88-001

PROJECT No. 89365 OW	NEYER, TISEO & HINDO, LTD.	SHEET 2 OF 3

TABULATION OF FIELD DENSITY TESTS

PROJECT: Allen Park Clay Mine Cell II
ARCHITECT ENGINEER: NTH Consultants, Ltd.
EARTHWORK CONTRACTOR: C.J. Rogers, Inc.
OWNER: Ford Motor Company

TEST ELEV. DEPTH	TEST NUMBER	MATERIAL	OPTIMUM MOISTURE CONTENT	MAXIMUM DRY DENSITY ☒ MOD. ☐ STD.	IN-PLACE MOISTURE CONTENT	IN-PLACE DRY DENSITY	PERCENT COMPACTION	SPECIFIED PERCENT COMPACTION	LOCATION AND REMARKS	DATE	ENGINEER/ TECHNICIAN
FEET		BAG NO.	%	PCF	%	PCF	%	%	West Stabilization Berm		
563.4	8	101	9.4	132.2	10.5	123.7	93.6	90	3700N 6800E	8/14/89	DHH
562.4	9	101	9.4	132.2	13.1	119.1	90.1	90	3700N 6800E	8/14/89	DHH
561.6	10	101	9.4	132.2	18.4	112.7	85.2	90	3700N 6800E Failing Test	8/14/89	DHH



LEGEND:

8 — 8 MOISTURE DENSITY TEST LOCATION

Construction Monitoring Data

Areas Worked: _____ sq

Fill Placed Today: _____ cu yd Cumulative: _____ cu yd

ALLEN PARK CLAY MINE CELL II

MOISTURE-DENSITY TEST LOCATION PLAN

NTH CONSULTANTS, LTD.

Professional Engineering & Environmental Services

Farmington Hills, Michigan 48018

PROJECT NO 893650W	DRAWN BY MPJ	DATE 8-14-81
SCALE NONE	CHECKED BY DHH	SHEET 3 OF 3

TABULATION OF LABORATORY TEST DATA

NTH Consultants, Ltd.

ALLEN PARK CLAY MINE
ALLEN PARK, MICHIGAN

Date: 08/18/89

NTH Proj. No.: 89365 OW

Sample Designation: Bag 101

Sample Location: Cell II Floor, 3900N, 6900E

Lab Sample No.: 6462

Date Sampled: 08/11/89

Soil Properties and Description

GRAIN SIZE DISTRIBUTION:

Gravel:	1.2	%
Coarse Sand:	2.0	%
Medium Sand:	5.9	%
Fine Sand:	25.2	%
Silt:	30.8	%
Clay:	34.9	%

ATTERBERG LIMITS

Liquid Limit: 26
Plasticity Index: 11

UNIFIED SOIL CLASSIFICATION: CL

SAMPLE DESCRIPTION:
Brown SILTY CLAY with Some Sand and Trace of Gravel

Modified Proctor Test Result
(Per ASTM D 1557-78)

Maximum Dry Density:	132.2	pcf
Optimum Moisture Content:	9.4	%

REMARKS:
1.

2.

Checked By: _____

NTH CONSULTANTS, LTD.

MOISTURE - DENSITY RELATIONS

PROJECT: Allen Park Clay Mine - Cell II

LOCATION: Allen Park, Michigan

SUPPLIER/SOURCE: I-696 Excavation

SAMPLE LOCATION: Cell II Floor; 3700N, 6800E

METHOD OF COMPACTION: ASTM D-1557 Method A

MOLD NO.: A VOLUME: 0.0330 CUBIC FEET

SAMPLE DESCRIPTION: Brown SILTY CLAY with Some Sand and Trace of Gravel

PROJECT NO.: 89365 OW

DATE: 8/15/89

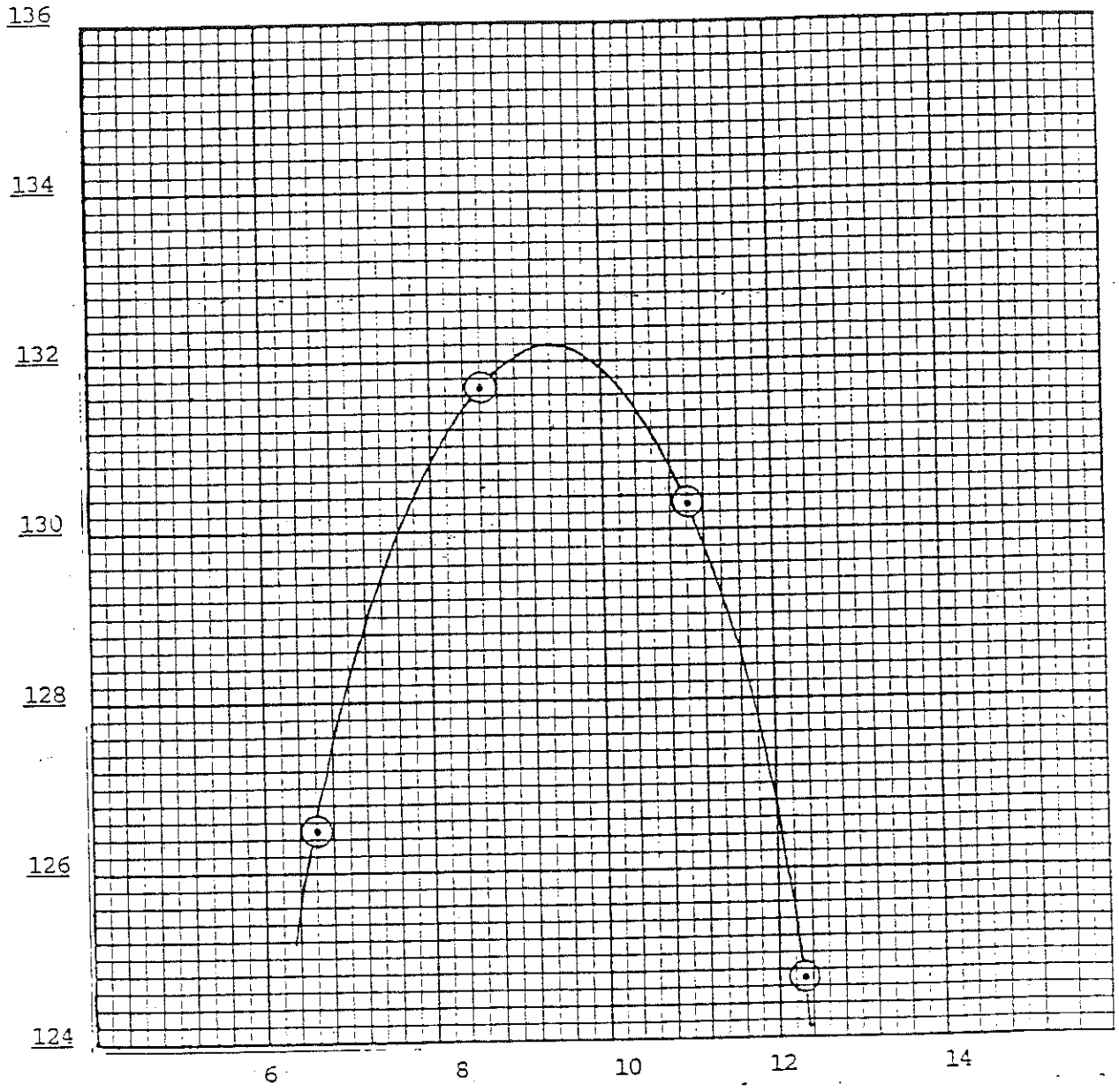
TESTED BY: JRK

CHECKED BY: EW

LAB SAMPLE NO.: 6462

MATERIAL DESIGNATION NO.: Bag 101

MAXIMUM DRY DENSITY: 132.2 PCF OPTIMUM MOISTURE CONTENT: 9.4 %



NTH Consultants, Ltd.

GRAIN SIZE DISTRIBUTION CURVE

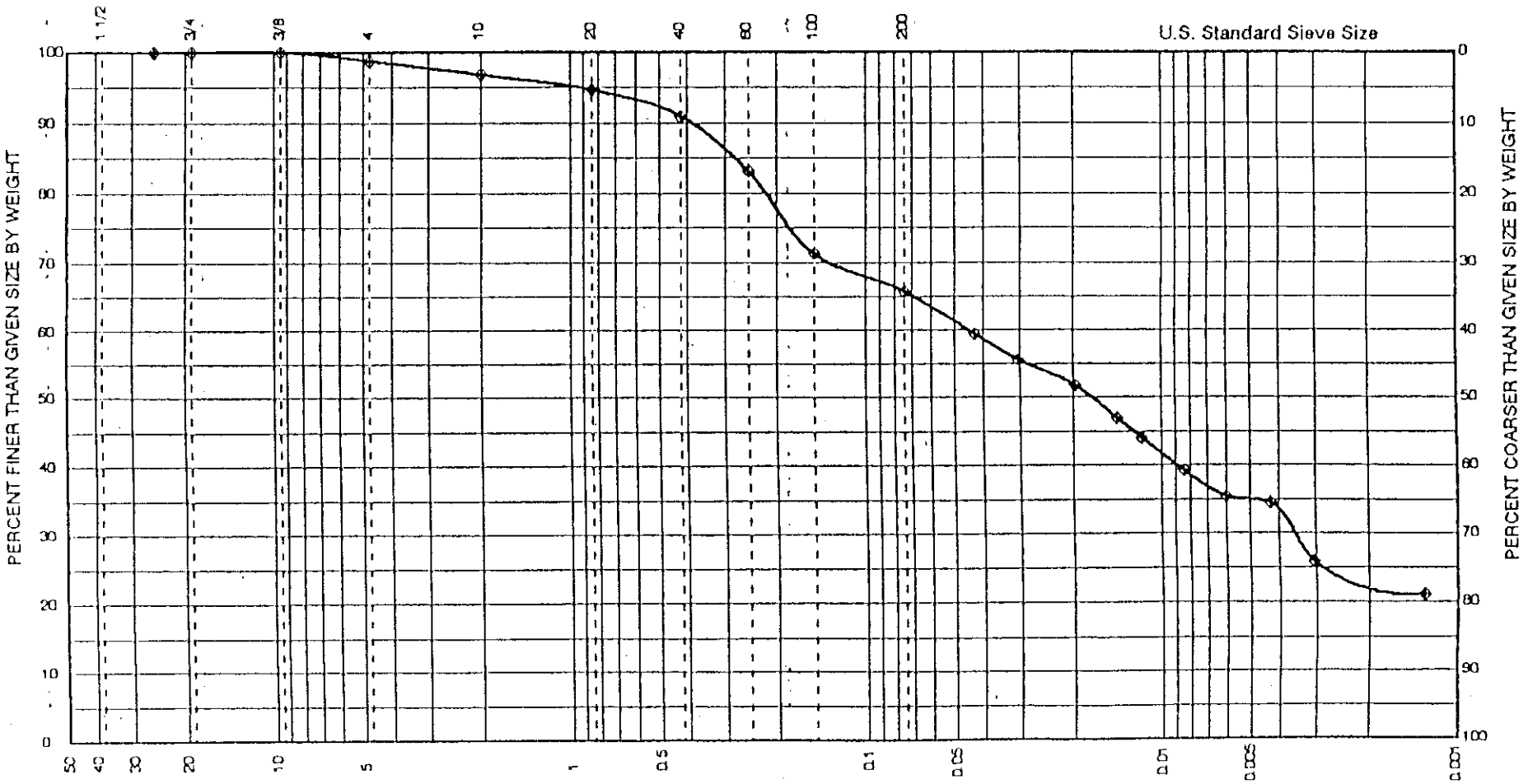
Project No. 89365 OW Lab Sample No. 6462 Source Cell II Floor, I-696 Material 3900N 6900E

Project Location Allen Park, Michigan For Allen Park Clay Mine - Material Characteristics

Boring No. Field Sample No. 101 Sample Depth Sample Elev. (Tip)

Sample Description Brown **SILTY CLAY** with Some Sand and Trace of Gravel

Sampled By MJ Date 8/11/89 Tested By MS Date 8/16/89



Grain Size in MM.

Gravel		Sand			Fines		
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay	Colloids

NTH Consultants, Ltd.
A Neyer, Tiseo & Hindo Company

DAILY FIELD REPORT

PROJECT: Allen Park Clay Mine Cell II
LOCATION: I-94 and Oakwood Blvd., Allen Park, Michigan
CLIENT: Ford Motor Company
CONTRACTOR(S): C.J. Rogers, Inc.

PROJECT NO.: 89365 OW
DATE: 10/3/89
WEATHER: Sunny, 50°F
SHEET 1 OF 4
REPORT NO.: 29

CLIENT'S REPRESENTATIVE(S): Steve Brao(WDI), David O'Connor(FMC)
CONTRACTOR'S REPRESENTATIVE(S): Brian Cruickshank(CJR)

PROGRESS OF WORK:

A visit was made to the above referenced jobsite to monitor earthwork activities and perform necessary tests on fill placed in Cell II.

Today, the contractor placed and compacted bag 113 soils in trench repairs in the north and south berms utilizing Cat 631B scrapers and a John Deere 790D backhoe with a Hoe-Pak attachment. The contractor also placed and compacted 4 lifts of bag 113 soils on the west slope repair utilizing Cat 631B scrapers and a Cat D8 dozer.

A total of 27 in-place moisture/density tests were performed on the above referenced soils. Additionally, 13 in-place moisture/density tests were performed on the bag 112 brown silty clay soils encountered in the cell floor subgrade. All test results indicated compliance with job specifications, except at test locations 176, and 188, where in-place moisture contents slightly exceeded the specified moisture contents of -2% to +3% of optimum moisture content for I-696 clay soils. However, Torvane tests performed at each moisture/density test location yielded results which exceeded the specified shear strengths of 2500 psf. Refer to attached Tabulation of Field Density Tests for specific results and locations, and to attached sketch for geometry of fill placement.

FIELD REPRESENTATIVE: Maureen Johnson

REVIEWED BY:

NTH/2.88-001

PROJECT No. 89365 OW	NEYER, TISEO & HINDO, LTD.	SHEET 2 OF 4

TABULATION OF FIELD DENSITY TESTS

PROJECT: Allen Park Clay Mine Cell II
ARCHITECT ENGINEER: NTH Consultants, Ltd.
EARTHWORK CONTRACTOR: C.J. Rogers, Inc.
OWNER: Ford Motor Company

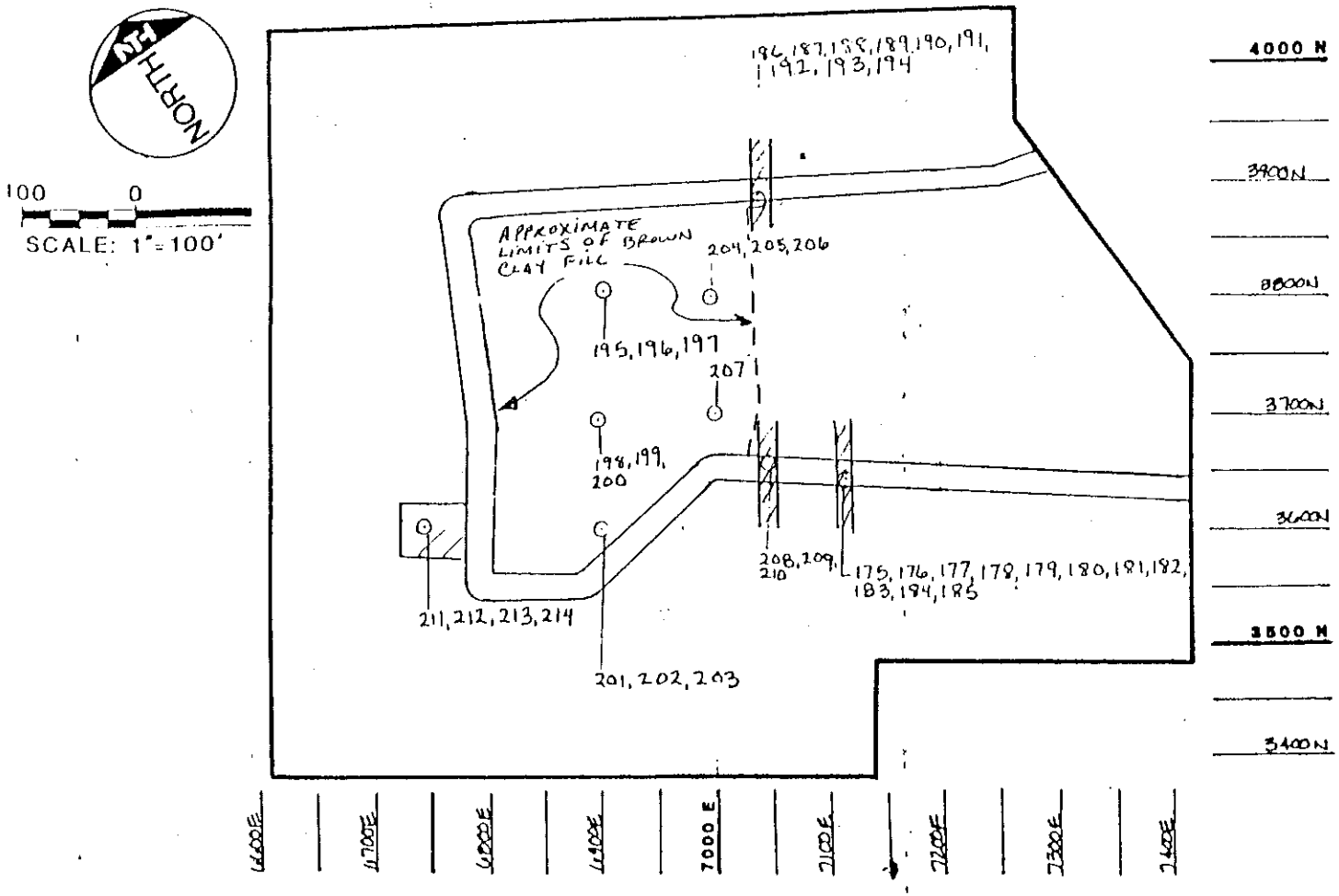
Test Elev. Depth	Test Number	Material	Optimum Moisture Content	Maximum Dry Density ☒ Mod. ☐ Std.	In-Place Moisture Content	In-Place Dry Density	Percent Compaction	Specified Percent Compaction	Location and Remarks	Date	Engineer/ Technician
FEET		BAG NO.	%	PCF	%	PCF	%	%			
564.8	175	113	9.3	132.6	8.8	124.5	93.9	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
565.5	176	113	9.3	132.6	12.6	122.7	92.5	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
566.4	177	113	9.3	132.6	10.9	127.7	96.3	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
567.2	178	113	9.3	132.6	7.6	124.5	93.9	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
568.1	179	113	9.3	132.6	9.0	127.0	95.8	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
568.9	180	113	9.3	132.6	12.0	124.0	93.5	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
569.9	181	113	9.3	132.6	12.3	121.8	91.9	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
570.8	182	113	9.3	132.6	8.9	129.0	97.3	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
571.7	183	113	9.3	132.6	11.0	127.2	95.9	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
572.5	184	113	9.3	132.6	11.0	127.0	95.8	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
573.3	185	113	9.3	132.6	10.4	124.0	93.5	90	3640N 7115E Trench Repair South Berm	10/3/89	MPJ
566.2	186	113	9.3	132.6	10.2	121.3	91.5	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
566.8	187	113	9.3	132.6	10.1	132.1	99.6	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
567.5	188	113	9.3	132.6	12.6	120.5	90.9	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
568.2	189	113	9.3	132.6	10.2	124.3	93.7	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
568.8	190	113	9.3	132.6	11.4	119.7	90.3	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
569.5	191	113	9.3	132.6	9.9	119.9	90.4	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
570.2	192	113	9.3	132.6	9.6	122.2	92.2	90	3880N 7040E Trench Repair North Berm	10/3/89	[illegible]
570.8	193	113	9.3	132.6	9.8	123.2	92.9	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ
571.4	194	113	9.3	132.6	8.9	119.8	90.3	90	3880N 7040E Trench Repair North Berm	10/3/89	MPJ

PROJECT No. 89365 OW	NEYER, TISEO & HINDO, LTD.	SHEET 3 OF 4

TABULATION OF FIELD DENSITY TESTS

PROJECT: Allen Park Clay Mine Cell II
ARCHITECT ENGINEER: NTH Consultants, Ltd.
EARTHWORK CONTRACTOR: C.J. Rogers, Inc.
OWNER: Ford Motor Company

TEST ELEV. DEPTH	TEST NUMBER	MATERIAL	OPTIMUM MOISTURE CONTENT	MAXIMUM DRY DENSITY ☒ MOD. ☐ STD.	IN-PLACE MOISTURE CONTENT	IN-PLACE DRY DENSITY	PERCENT COMPACTION	SPECIFIED PERCENT COMPACTION	LOCATION AND REMARKS	DATE	ENGINEER/ TECHNICIAN
FEET		BAG NO.	%	PCF	%	PCF	%	%			
558.0	195	112	9.7	133.0	11.8	126.5	95.1	90	3800N 6900E Cell Floor Subgrade	10/3/89	MPJ
560.0	196	112	9.7	133.0	8.3	128.5	96.6	90	3800N 6900E Cell Floor Subgrade	10/3/89	MPJ
561.0	197	112	9.7	133.0	11.6	127.3	95.7	90	3800N 6900E Cell Floor Subgrade	10/3/89	MPJ
559.0	198	112	9.7	133.0	11.5	127.5	95.9	90	3700N 6900E Cell Floor Subgrade	10/3/89	MPJ
560.0	199	112	9.7	133.0	10.7	130.5	98.1	90	3700N 6900E Cell Floor Subgrade	10/3/89	MPJ
561.0	200	112	9.7	133.0	12.5	127.5	95.9	90	3700N 6900E Cell Floor Subgrade	10/3/89	MPJ
560.0	201	112	9.7	133.0	10.9	123.0	92.5	90	3600N 6900E Cell Floor Subgrade	10/3/89	MPJ
560.6	202	112	9.7	133.0	12.4	124.5	93.6	90	3600N 6900E Cell Floor Subgrade	10/3/89	MPJ
561.2	203	112	9.7	133.0	12.6	122.8	92.3	90	3600N 6900E Cell Floor Subgrade	10/3/89	MPJ
560.6	204	112	9.7	133.0	10.5	130.3	98.0	90	3800N 7000E Cell Floor Subgrade	10/3/89	MPJ
561.5	205	112	9.7	133.0	10.9	126.3	95.0	90	3800N 7000E Cell Floor Subgrade	10/3/89	MPJ
562.0	206	112	9.7	133.0	12.3	122.2	91.9	90	3800N 7000E Cell Floor Subgrade	10/3/89	MPJ
561.5	207	112	9.7	133.0	11.0	129.5	97.4	90	3700N 7000E Cell Floor Subgrade	10/3/89	MPJ
563.5	208	113	9.3	132.6	9.8	124.8	94.1	90	3650N 7040E Trench Repair South Berm	10/3/89	MPJ
564.3	209	113	9.3	132.6	8.5	125.5	94.6	90	3650N 7040E Trench Repair South Berm	10/3/89	MPJ
565.0	210	113	9.3	132.6	8.4	125.0	94.3	90	3650N 7040E Trench Repair South Berm	10/3/89	MPJ
565.9	211	113	9.3	132.6	12.0	124.0	93.5	90	3600N 6740E West Slope Repair	10/3/89	MPJ
566.5	212	113	9.3	132.6	10.4	126.3	95.2	90	3600N 6740E West Slope Repair	10/3/89	MPJ
567.0	213	113	9.3	132.6	11.4	124.8	94.1	90	3600N 6740E West Slope Repair	10/3/89	MPJ
567.5	214	113	9.3	132.6	11.4	124.5	93.9	90	3600N 6740E West Slope Repair	10/3/89	MPJ



Construction Monitoring Data

Areas Worked: NORTH AND SOUTH STABILIZATION BERM TRENCH REPAIRS
WEST SLOPE REPAIR, CELL FLOOR

Fill Placed Today: 380 cu yd Cumulative: 28915 cu yd

ALLEN PARK CLAY MINE CELL II

MOISTURE-DENSITY TEST LOCATION PLAN

NTH CONSULTANTS, LTD.
Professional Engineering & Environmental Services
Farmington Hills, Michigan 48018

PROJECT NO 893650W	DRAWN BY MPJ	DATE 10-3-89
SCALE NONE	CHECKED BY DHN	SHEET 4 OF 4

TABULATION OF LABORATORY TEST DATA

NTH Consultants, Ltd.

ALLEN PARK CLAY MINE
ALLEN PARK, MICHIGAN

Date: 10/24/89

NTH Proj. No.: 89365 OW

Sample Designation: Bag 112

Sample Location: Cell Floor

Lab Sample No.: 7195

Date Sampled: 10/03/89

Soil Properties and Description

GRAIN SIZE DISTRIBUTION:

Gravel:	2.0	%
Coarse Sand:	2.0	%
Medium Sand:	5.0	%
Fine Sand:	23.0	%
Silt:	34.0	%
Clay:	34.0	%

ATTERBERG LIMITS

Liquid Limit: 34
Plasticity Index: 16

UNIFIED SOIL CLASSIFICATION: CL

SAMPLE DESCRIPTION:
Brown SILTY CLAY with Some Sand and Trace of Gravel

Modified Proctor Test Result
(Per ASTM D 1557-78)

Maximum Dry Density:	133.0	pcf
Optimum Moisture Content:	9.7	%

REMARKS:
1.

2.

Checked By: _____

NTH CONSULTANTS, LTD.

MOISTURE - DENSITY RELATIONS

PROJECT: Allen Park Clay Mine - Cell II

LOCATION: Allen Park, Michigan

SUPPLIER/SOURCE: I-696 Excavation

SAMPLE LOCATION: Cell Floor Subgrade

METHOD OF COMPACTION: ASTM D-1557 Method A

PROJECT NO.: 89365 CW

DATE: 10/04/89

TESTED BY: RH

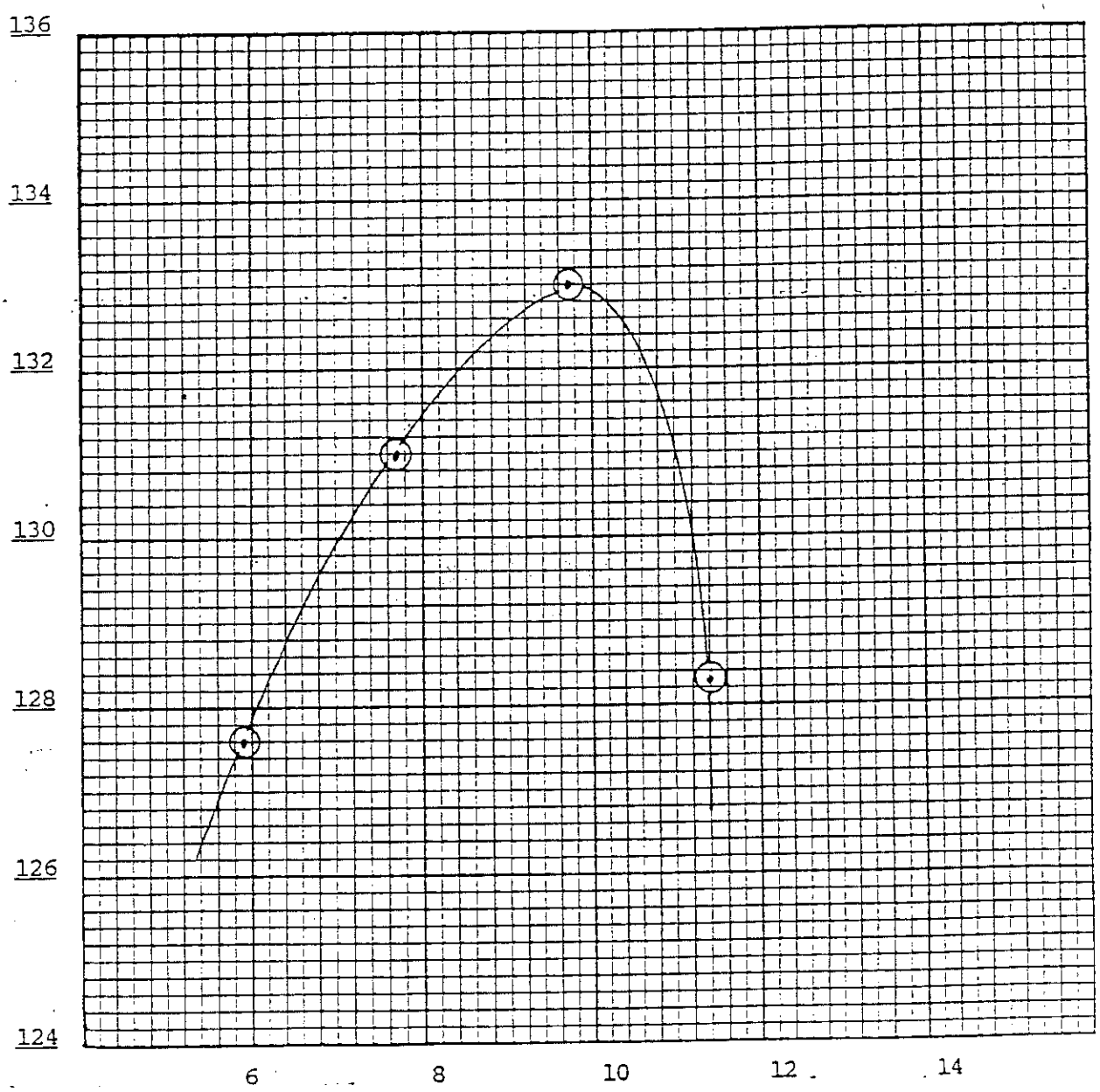
CHECKED BY: SG

LAB SAMPLE NO.: 7195

MOLD NO.: 1 VOLUME: 0.0333 CUBIC FEET MATERIAL DESIGNATION NO.: Bag 112

SAMPLE DESCRIPTION: Brown SILTY CLAY with Some Sand and Trace of Gravel

MAXIMUM DRY DENSITY: 133.0 PCF OPTIMUM MOISTURE CONTENT: 9.7 %



NTH/2.88-006

NTH Consultants, Ltd.

GRAIN SIZE DISTRIBUTION CURVE

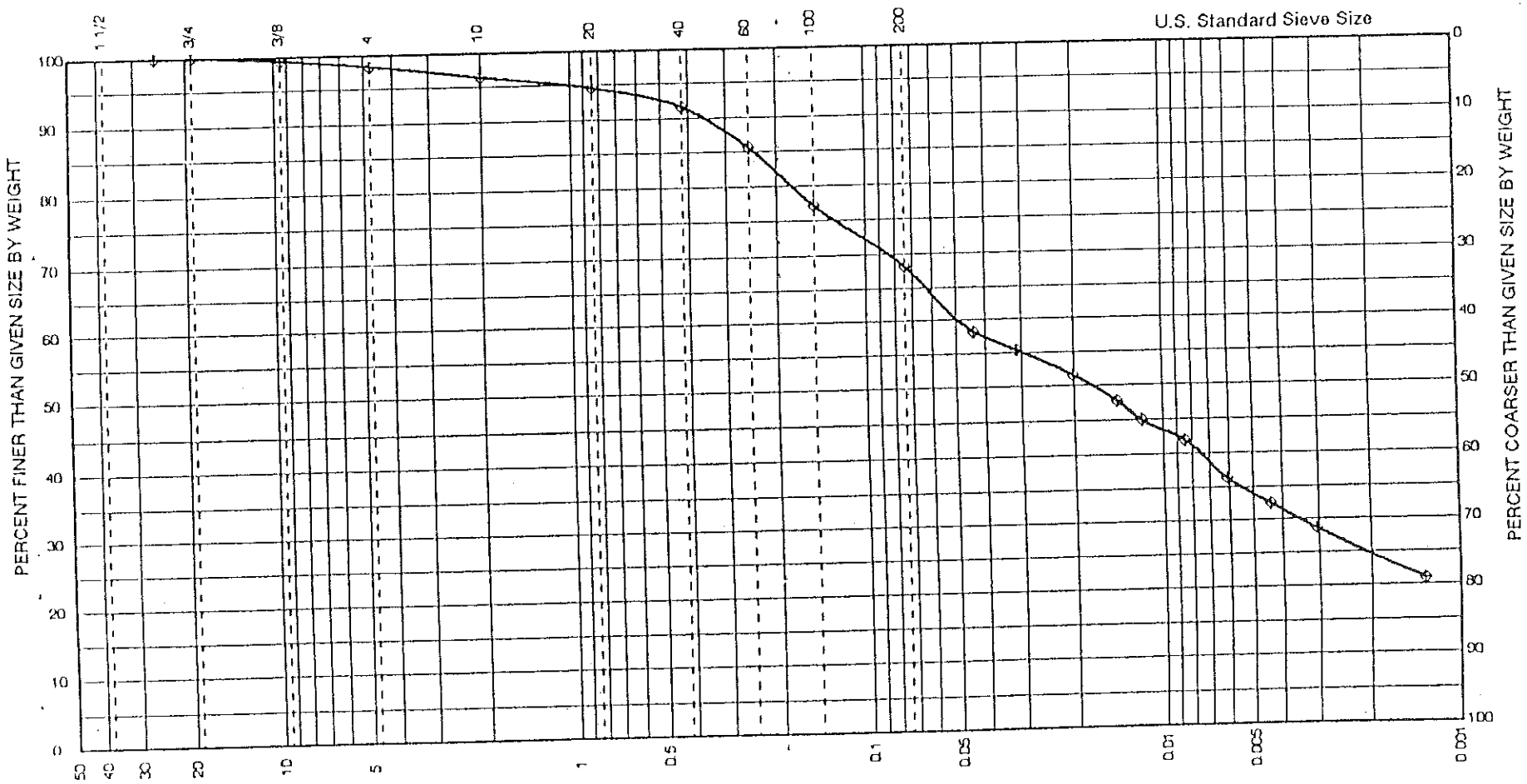
Project No. 89365-CW Lab Sample No. 7195 Source I-696 Excavation

Project Location Allen Park, Michigan For Allen Park Clay Mine - Material Characteristics

Boring No. Field Sample No. Bag 112 Sample Depth Sample Elev. (Tip)

Sample Description Brown **SILTY CLAY** with Some Sand and Trace of Gravel

Sampled By DH Date 10/03/89 Tested By R.O. Date 10-5-89



Gravel		Sand			Fines		
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay	Colloids

NTH Consultants, Ltd.
A Neyer, Tiseo & Hindo Company

DAILY FIELD REPORT

PROJECT: Allen Park Clay Mine Cell II
LOCATION: I-94 and Oakwood Blvd., Allen Park, Michigan
CLIENT: Ford Motor Company
CONTRACTOR(S): C.J. Rogers, Inc.

PROJECT NO.: 89365 OW
DATE: 10/5/89
WEATHER: Sunny, 60°F
SHEET 1 OF 4
REPORT NO.: 31

CLIENT'S REPRESENTATIVE(S): Steve Brao(WDI), David O'Connor(FMC)
CONTRACTOR'S REPRESENTATIVE(S): Brian Cruickshank(CJR)

PROGRESS OF WORK:

A visit was made to the above referenced jobsite to monitor earthwork activities and perform necessary tests on fill placed in Cell II.

Today, the contractor placed and compacted bag 113 fill in the west half of the west stabilization berm trench repair utilizing a John Deere 790D backhoe with a Hoe-Pak attachment. In-place moisture/density tests and Torvane tests performed on these soils indicated compliance with job specifications. The contractor also attempted to repair the east half of the west stabilization berm trench repair, however the Hoe-Pak attachment on the backhoe broke down preventing completion of this work. The trenc. was backfilled and is to be repaired at a later date.

A recent survey performed by MCI indicated that the south stabilization berm from approximately 6800E to 6950E was built too far south by approximately eight feet. Today, the contractor excavated a portion of the north side of the south stabilization berm, then replaced these soils and additional soils on the north side of the south stabilization berm in order to achieve design grades. The soils were built up from floor grade in nine-inch lifts and keyed into the existing stabilization berm.

Additionally, the contractor placed and compacted 1 lift of bag 113 soils on the cell floor from approximately 6830E to 6930E and from 3610N to 3650N, as well as 1 lift on the south stabilization berm from approximately 7260E to 7400E.

Results of in-place moisture/density tests performed on the above referenced soils indicated compliance with job specifications except at test location 235, where in-place moisture contents slightly exceeded the specified moisture contents of -2% to +3% of optimum moisture content for I-696 clay soils. However, Torvane tests performed at each moisture/density test location yielded results which exceeded the specified shear strengths of 2500 psf.

Refer to attached Tabulation of Field Density Tests for specific results ar locations, and to attached sketch for geometry of fill placement.

FIELD REPRESENTATIVE: Maureen Johnson
REVIEWED BY:

NTH/2.88-001

PROJECT No. 89365 OW	NEYER, TISEO & HINDO, LTD.	SHEET 2 OF 4

TABULATION OF FIELD DENSITY TESTS

PROJECT: Allen Park Clay Mine Cell II
ARCHITECT ENGINEER: NTH Consultants, Ltd.
EARTHWORK CONTRACTOR: C.J. Rogers, Inc.
OWNER: Ford Motor Company

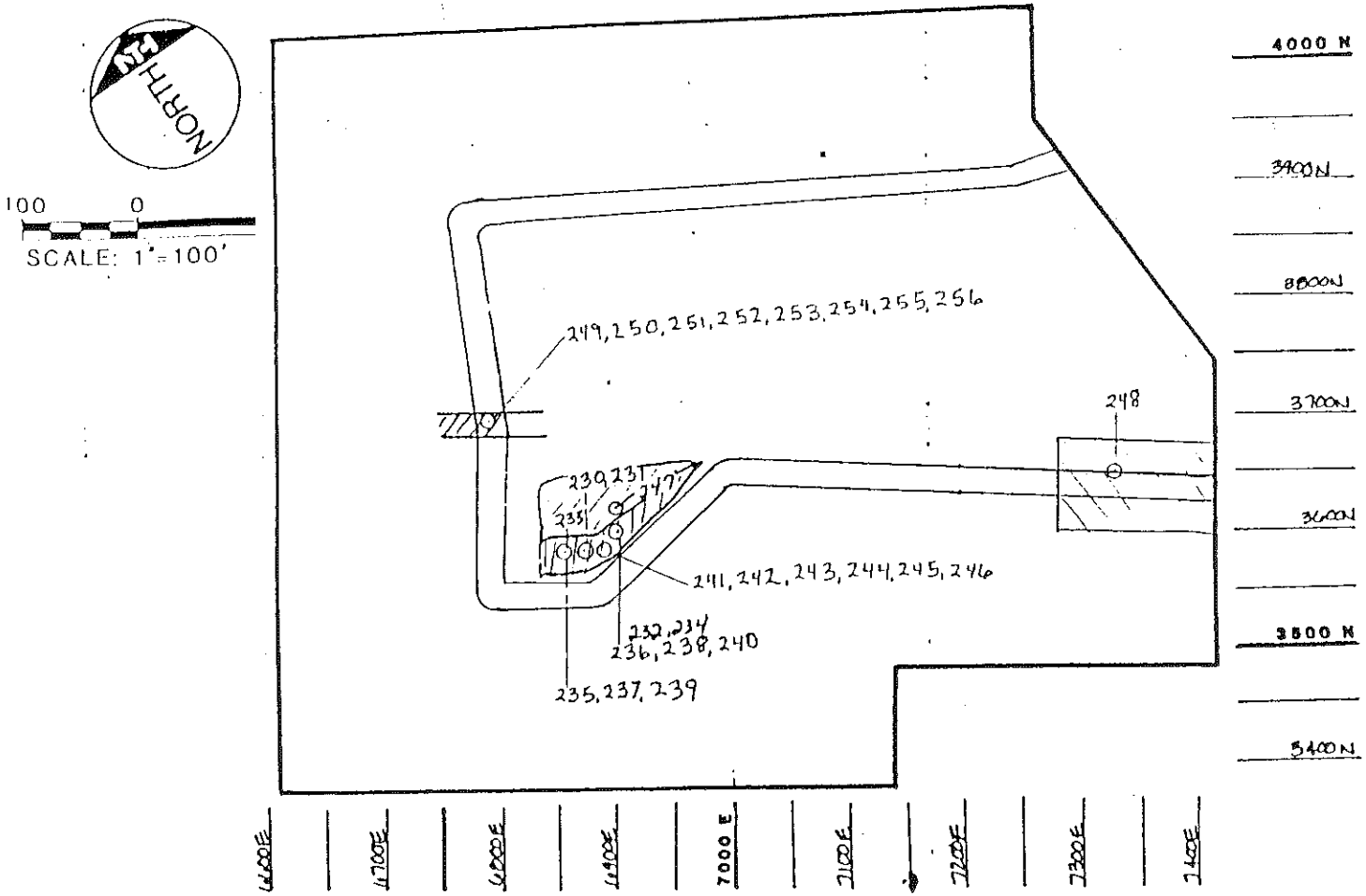
Test Elev. Depth	Test Number	Material	Optimum Moisture Content	Maximum Dry Density ☒ Mod. ☐ Std.	In-Place Moisture Content	In-Place Dry Density	Percent Compaction	Specified Percent Compaction	Location and Remarks	Date	Engineer/ Technician
FEET		BAG NO.	%	PCF	%	PCF	%	%			
564.3	230	113	9.3	132.6	9.0	122.0	92.0	90	3590N 6870E South Stabilization Berm	10/5/89	MPJ
565.1	231	113	9.3	132.6	11.1	119.8	90.3	90	3590N 6870E South Stabilization Berm	10/5/89	MPJ
565.8	232	113	9.3	132.6	11.5	126.0	95.0	90	3600N 6900E South Stabilization Berm	10/5/89	MPJ
566.5	233	113	9.3	132.6	11.5	128.0	96.5	90	3590N 6860E South Stabilization Berm	10/5/89	MPJ
566.3	234	113	9.3	132.6	8.3	123.3	93.0	90	3600N 6900E South Stabilization Berm	10/5/89	MPJ
567.3	235	113	9.3	132.6	12.9	124.0	93.5	90	3590N 6860E South Stabilization Berm	10/5/89	MPJ
567.4	236	113	9.3	132.6	11.3	126.3	95.2	90	3600N 6900E South Stabilization Berm	10/5/89	MPJ
567.9	237	113	9.3	132.6	10.0	129.0	97.3	90	3590N 6860E South Stabilization Berm	10/5/89	MPJ
568.1	238	113	9.3	132.6	11.9	121.5	91.6	90	3600N 6900E South Stabilization Berm	10/5/89	MPJ
568.8	239	113	9.3	132.6	10.9	125.8	94.9	90	3590N 6860E South Stabilization Berm	10/5/89	MPJ
568.7	240	113	9.3	132.6	10.8	126.3	95.2	90	3600N 6900E South Stabilization Berm	10/5/89	MPJ
569.6	241	113	9.3	132.6	11.2	128.5	96.9	90	3590N 6875E South Stabilization Berm	10/5/89	MPJ
570.3	242	113	9.3	132.6	10.5	123.2	92.9	90	3585N 6875E South Stabilization Berm	10/5/89	MPJ
571.0	243	113	9.3	132.6	10.4	120.0	90.5	90	3585N 6875E South Stabilization Berm	10/5/89	MPJ
571.8	244	113	9.3	132.6	8.8	126.0	95.0	90	3585N 6875E South Stabilization Berm	10/5/89	MPJ
572.5	245	113	9.3	132.6	9.5	124.4	93.8	90	3585N 6875E South Stabilization Berm	10/5/89	MPJ
573.1	246	113	9.3	132.6	10.4	121.9	91.9	90	3585N 6875E South Stabilization Berm	10/5/89	MPJ
562.5	247	113	9.3	132.6	11.3	123.8	93.4	90	3630N 6900E Cell Floor	10/5/89	MPJ
563.8	248	113	9.3	132.6	11.1	129.5	97.7	90	3650N 7350E South Stabilization Berm	10/5/89	MPJ
566.5	249	113	9.3	132.6	9.5	127.8	96.4	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ

PROJECT No. 89365 OW	NEYER, TISEO & HINDO, LTD.	SHEET 3 OF 4

TABULATION OF FIELD DENSITY TESTS

PROJECT: Allen Park Clay Mine Cell II
ARCHITECT ENGINEER: NTH Consultants, Ltd.
EARTHWORK CONTRACTOR: C.J. Rogers, Inc.
OWNER: Ford Motor Company

Test Elev. Depth	Test Number	Material	Optimum Moisture Content	Maximum Dry Density ☒ Mod. ☐ Std.	In-Place Moisture Content	In-Place Dry Density	Percent Compaction	Specified Percent Compaction	Location and Remarks	Date	Engineer/ Technician
FEET		BAG NO.	%	PCF	%	PCF	%	%			
567.5	250	113	9.3	132.6	9.5	126.5	95.4	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
568.5	251	113	9.3	132.6	10.2	119.8	90.3	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
569.5	252	113	9.3	132.6	9.4	121.5	91.6	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
570.5	253	113	9.3	132.6	10.0	121.5	91.6	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
571.5	254	113	9.3	132.6	9.3	119.7	90.3	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
571.9	255	113	9.3	132.6	8.8	122.6	92.4	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ
572.5	256	113	9.3	132.6	9.0	122.0	92.0	90	3700N 6785E Trench Repair West Berm	10/5/89	MPJ



Construction Monitoring Data.
Areas Worked: SOUTH STABILIZATION BERM (MOVE), CELL FLOOR
WEST STABILIZATION BERM TRENCH REPAIR

Fill Placed Today: 2100 cu yd Cumulative: 31325 cu yd

ALLEN PARK CLAY MINE CELL II

MOISTURE-DENSITY TEST LOCATION PLAN

NTH CONSULTANTS, LTD.
Professional Engineering & Environmental Services
Farmington Hills, Michigan 48018

PROJECT NO 893650W	DRAWN BY MPJ	DATE 10-5-89
SCALE NONE	CHECKED BY DJH	SHEET 4 of 4

TABULATION OF LABORATORY TEST DATA

NTH Consultants, Ltd.

ALLEN PARK CLAY MINE
ALLEN PARK, MICHIGAN

Date: 11/18/89

NTH Proj. No.: 89365 OW

Sample Designation: Bag 113

Sample Location: Cell II South Slope

Lab Sample No.: 7263

Date Sampled: 10/18/89

Soil Properties and Description

GRAIN SIZE DISTRIBUTION:

Gravel:	1.2	%
Coarse Sand:	1.8	%
Medium Sand:	6.1	%
Fine Sand:	20.7	%
Silt:	34.4	%
Clay:	35.8	%

ATTERBERG LIMITS

Liquid Limit: 27
Plasticity Index: 13

UNIFIED SOIL CLASSIFICATION: CL

SAMPLE DESCRIPTION:
Gray SILTY CLAY with Some Sand and Trace of GRavel

Modified Proctor Test Result
(Per ASTM D 1557-78)

Maximum Dry Density:	132.6	pcf
Optimum Moisture Content:	9.3	%

REMARKS:
1.

2.

Checked By: _____

NTH CONSULTANTS, LTD.

MOISTURE - DENSITY RELATIONS

PROJECT: Allen Park Clay Mine - Cell II

LOCATION: Allen Park, Michigan

SUPPLIER/SOURCE: I-696 Excavation

SAMPLE LOCATION: Cell II South Slope

METHOD OF COMPACTION: ASTM D-1557 Method A

MOLD NO.: A VOLUME: 0.0330 CUBIC FEET

PROJECT NO.: 89365 OW

DATE: 11/18/89

TESTED BY: JN

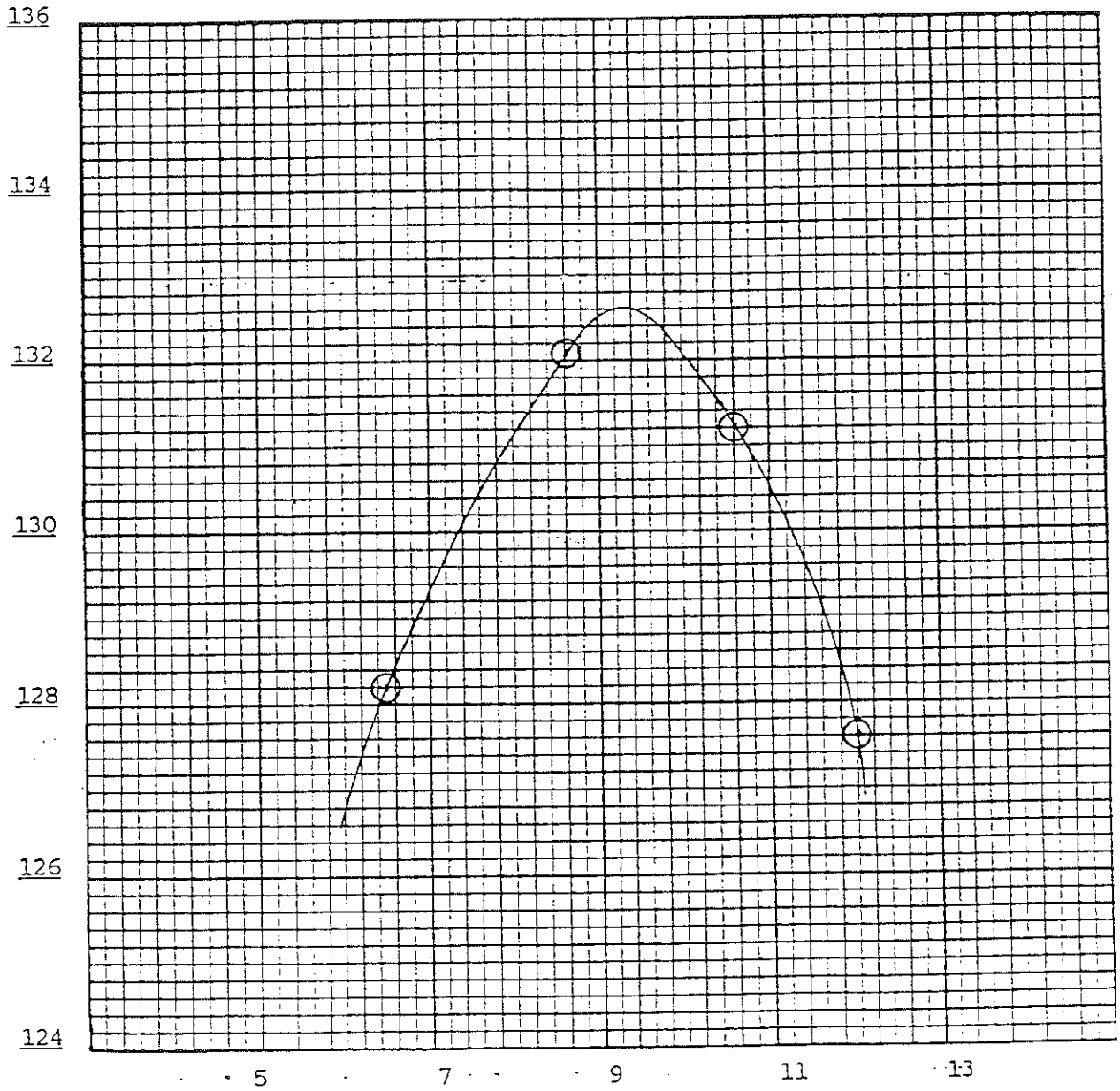
CHECKED BY: SG

LAB SAMPLE NO.: 7263

MATERIAL DESIGNATION NO.: Bag 113

SAMPLE DESCRIPTION: Gray SILTY CLAY with Some Sand and Trace of Gravel

MAXIMUM DRY DENSITY: 132.6 PCF OPTIMUM MOISTURE CONTENT: 9.3 %



NTH Consultants, Ltd.

GRAIN SIZE DISTRIBUTION CURVE

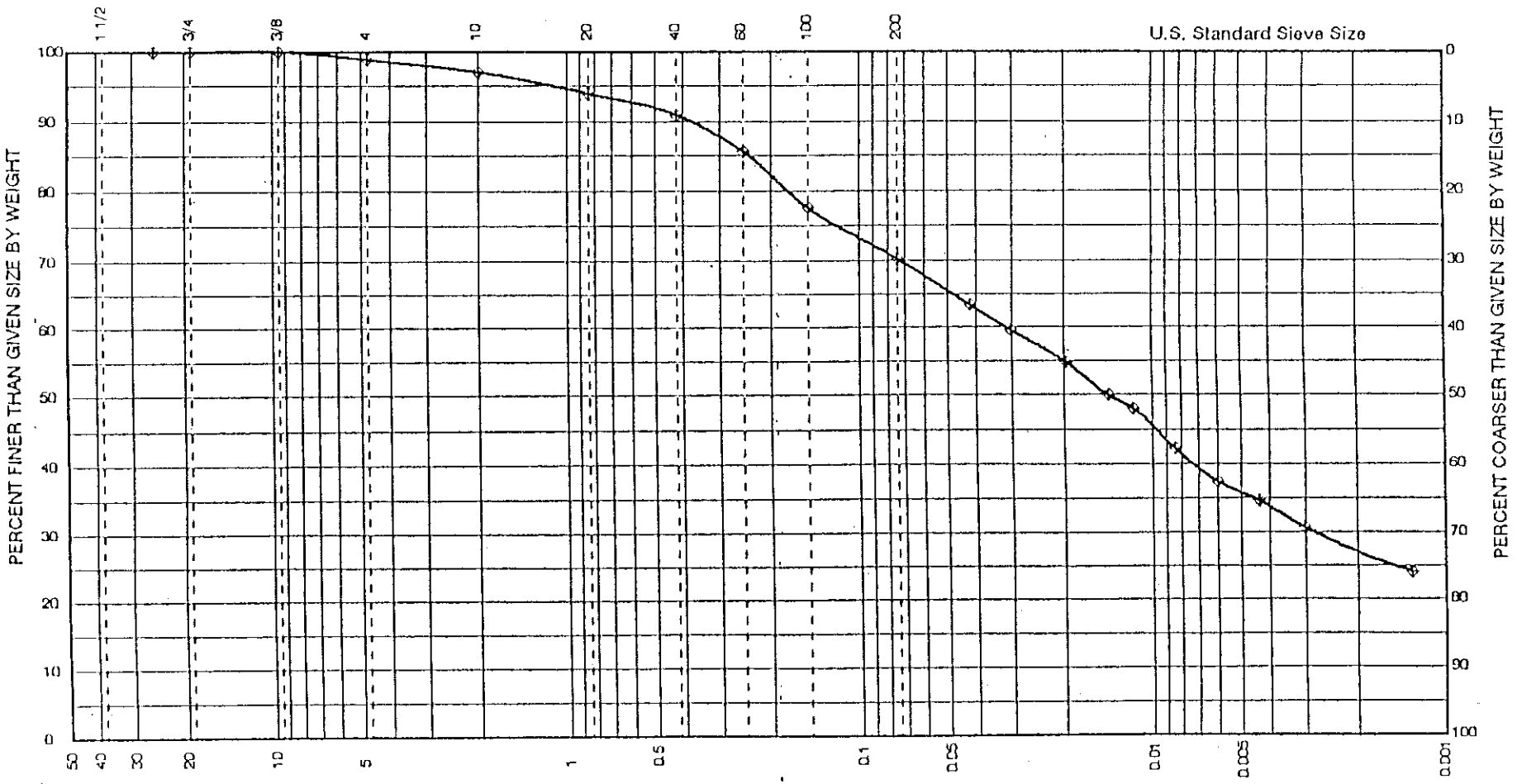
Project No. 89365-OW Lab Sample No. 7263 Source I-696 Excavation

Project Location Dearborn, Michigan For Allen Park Clay Mine - Material Characteristics

Boring No. _____ Field Sample No. Bag 113 Sample Depth _____ Sample Elev. (Tip) _____

Sample Description Gray **SILTY CLAY** with Some Sand and Trace of Gravel

Sampled By DHH Date 10/18/89 Tested By R.O. Date 10-23-89



Gravel		Sand			Fines		
Coarse	Fine	Coarse	Medium	...ne	Silt	Clay	lloids

TABULATION OF LABORATORY TEST DATA

NTH Consultants, Ltd.

ALLEN PARK CLAY MINE
ALLEN PARK, MICHIGAN

Date: 07/07/90

NTH Proj. No.: 89365 CW

Sample Designation: Block 116

Sample Location: Cell II Floor 3750N, 6895E Elev. 561.5

Lab Sample No.: 7723

Date Sampled: 06/01/90

Soil Properties and Description

GRAIN SIZE DISTRIBUTION:

Gravel:	8	%
Coarse Sand:	1	%
Medium Sand:	4	%
Fine Sand:	15	%
Silt	37	%
Clay:	35	%

ATTERBERG LIMITS

Liquid Limit 30
Plasticity Index 14

UNIFIED SOIL CLASSIFICATION: CL

SAMPLE DESCRIPTION:
Brown and Gray SILTY CLAY with Little Sand and Trace of Gravel

Modified Proctor Test Result
(Per ASTM D 1557-78)

Maximum Dry Density: 131.8 pcf
Optimum Moisture Content 9.9 %

Moisture/Density and Permeability Relationship

Moisture Content	Percent of Maximum Dry Density	Coefficient of Permeability (1)
14.6 %	93.4 %	K = 6.5E - 9 cm/sec
%	%	K = E - cm/sec
%	%	K = E - cm/sec
%	%	K = E - cm/sec

REMARKS:
1.

2.

Checked By: CRP

NTH CONSULTANTS, LTD.

MOISTURE - DENSITY RELATIONS

PROJECT: Allen Park Clay Mine - Cell II

LOCATION: Allen Park, Michigan

SUPPLIER/SOURCE: I-696 Excavation

SAMPLE LOCATION: Cell II Floor

METHOD OF COMPACTION: ASTM D 1557-78

MOLD NO.: B VOLUME: 0.0331 CUBIC FEET

PROJECT NO.: 89365 CW

DATE: 06/19/90

TESTED BY: EW

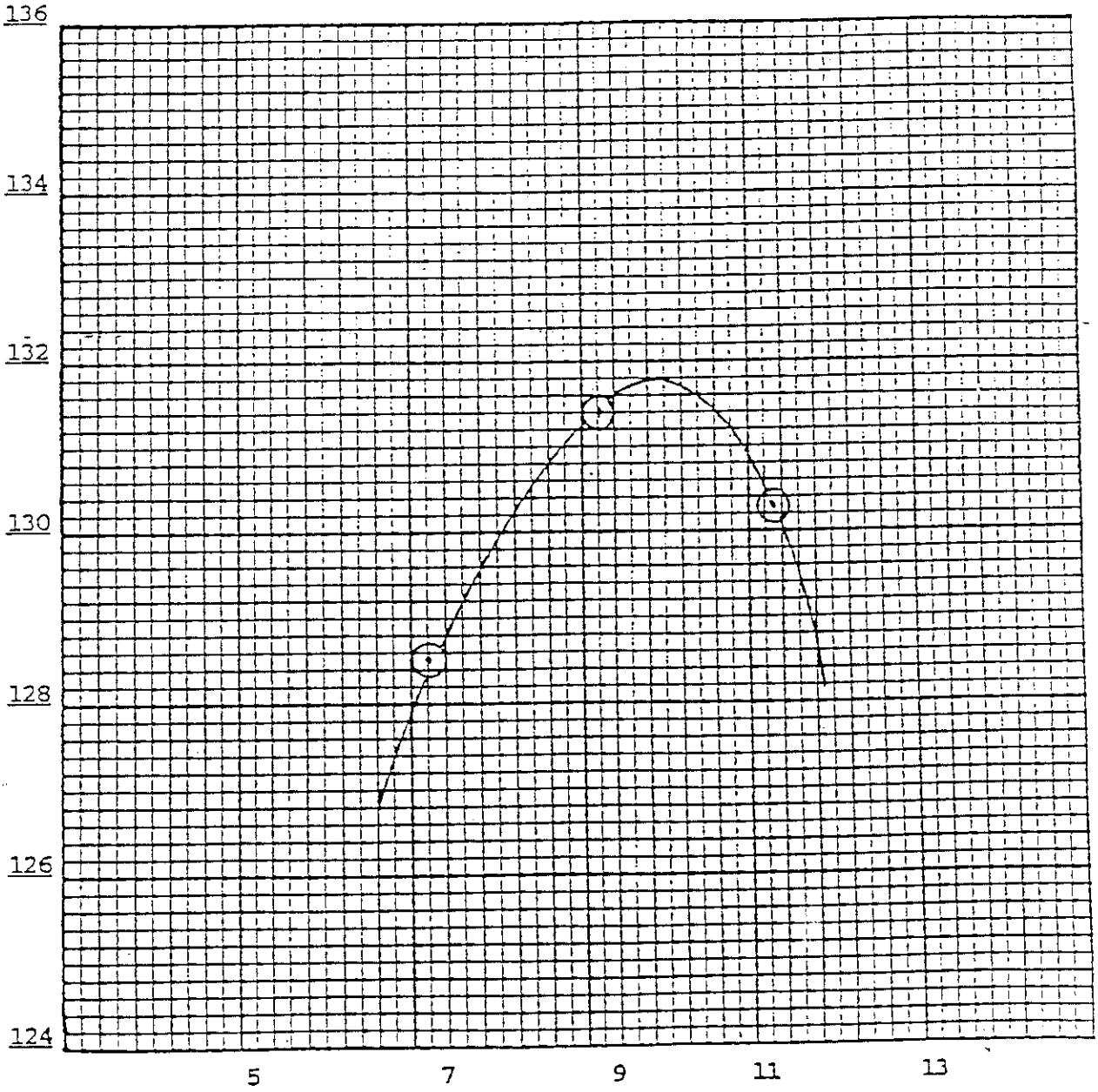
CHECKED BY: SG

LAB SAMPLE NO.: 7723

MATERIAL DESIGNATION NO.: Block 116

SAMPLE DESCRIPTION: Brown and Gray SILTY CLAY with Little Sand and Trace of Gravel

MAXIMUM DRY DENSITY: 131.8 PCF OPTIMUM MOISTURE CONTENT: 9.5%



NTH/2.88-006

NTH Consultants, Ltd.

GRAIN SIZE DISTRIBUTION CURVE

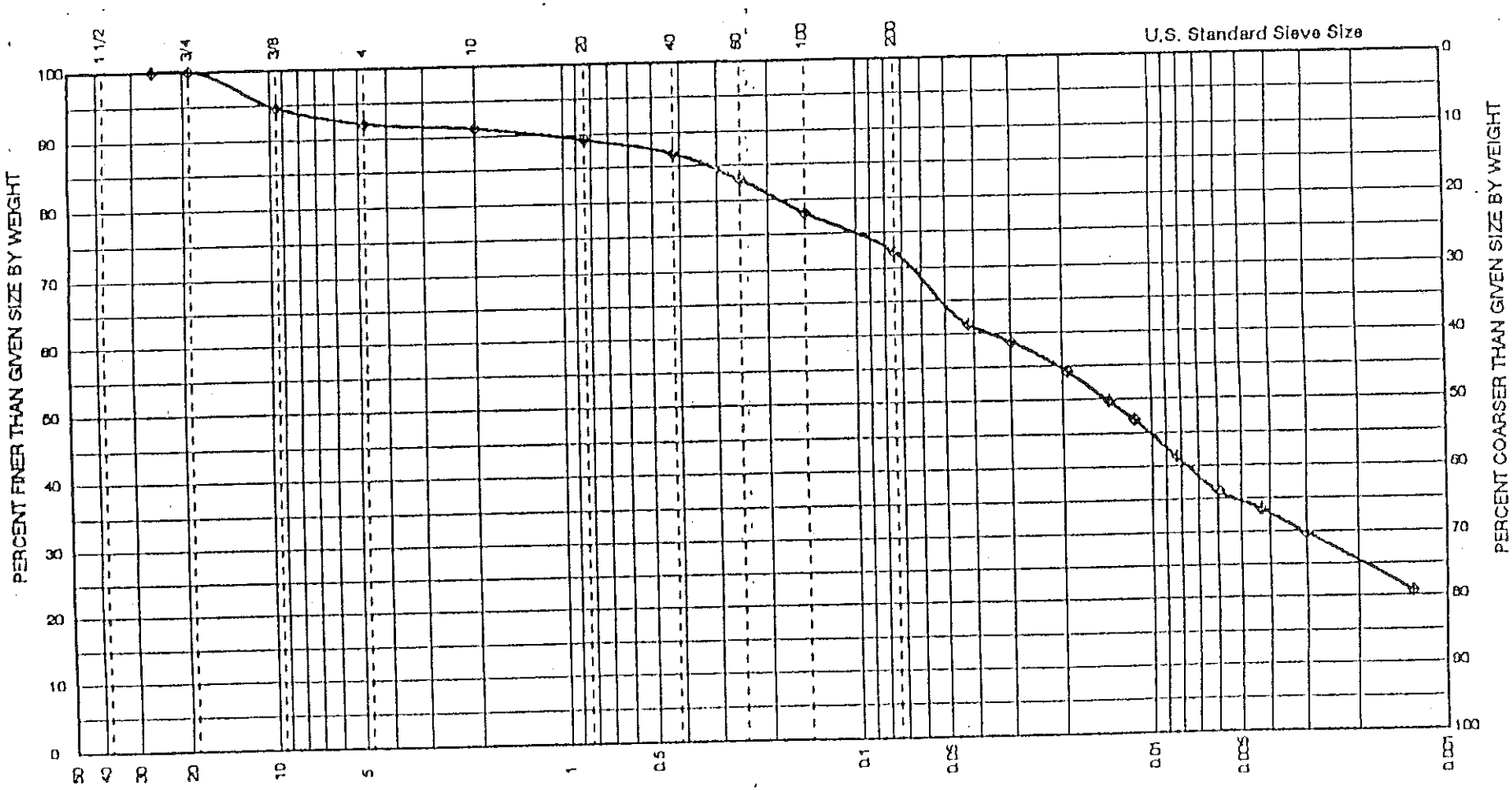
Project No. A9365 OW Lab Sample No. 7723 Source Cell II Floor 3750N,6895E Elev. 561.5

Project Location Allen Park, Michigan For Material Characteristics

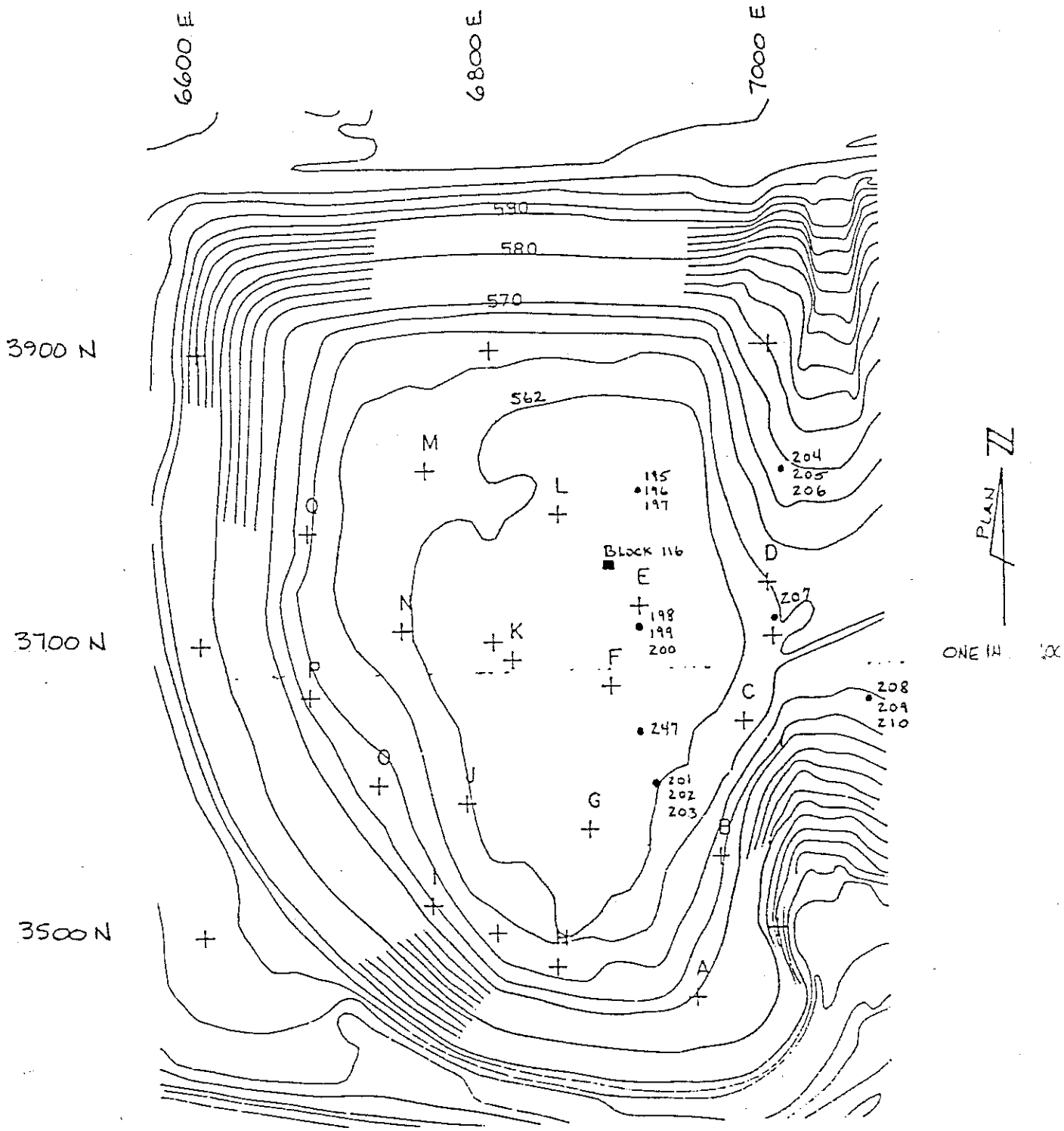
Boring No. Field Sample No. Block 116 Sample Depth Sample Elev. (Tip)

Sample Description Brown and Gray **SILTY CLAY** with Little Sand and Trace of Gravel

Sampled By JR Date 06/01/90 Tested By RO Date 06/15/90



Gravel		Sand			Fines		
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay	Colloids

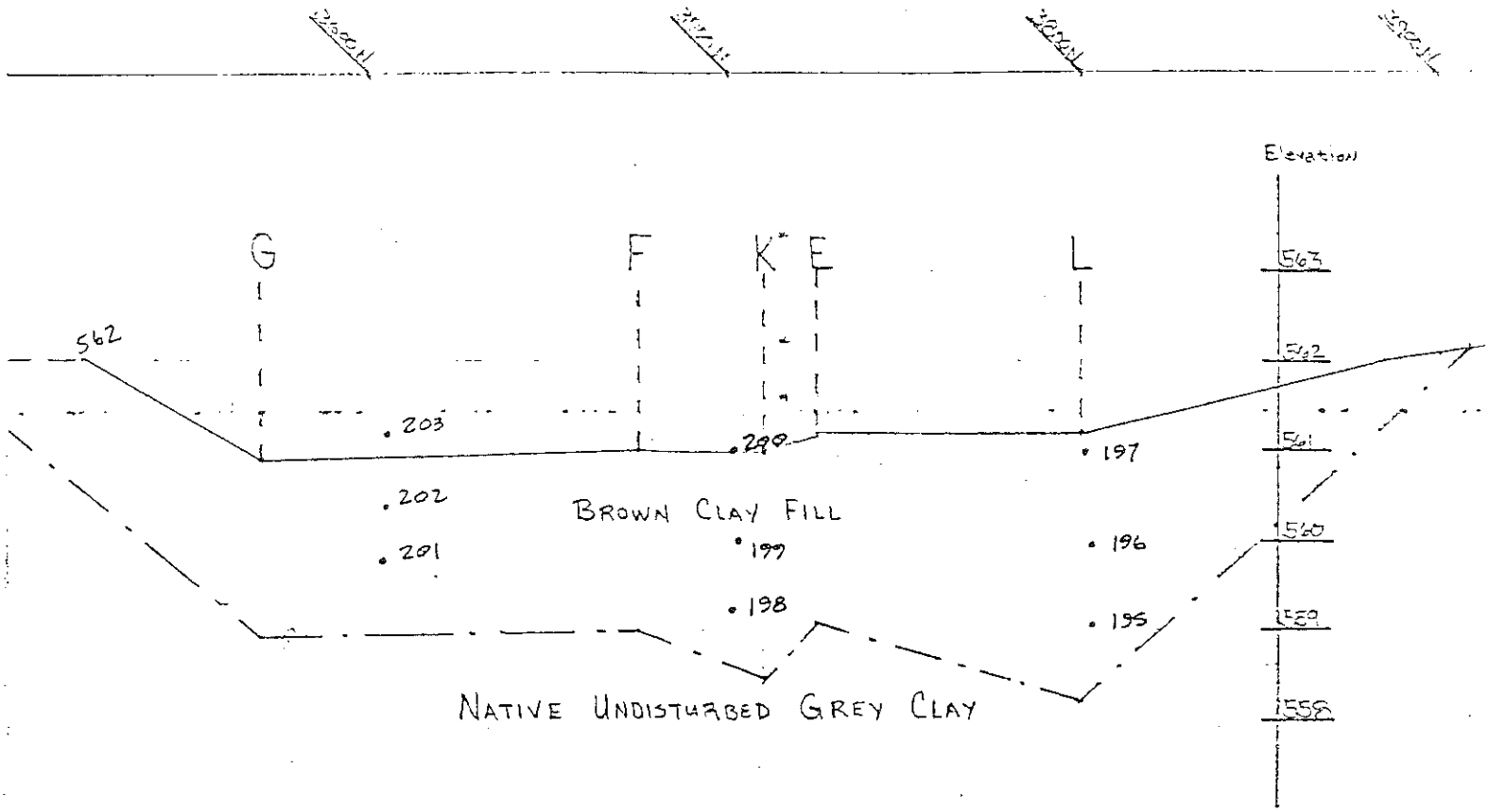


FORD ALLEN PARK CLAY MINE
HAZARDOUS CELL II LANDFILL
TEST HOLE LOCATION MAP - JUNE 14, 1988
AERIAL TOPO - APRIL 10, 1988
D. BOOTH OCTOBER 27, 1988

Rev. 9/10/91

- • MOISTURE/DEN TEST IN CEL FLOOR
- ■ BLOCK

CELL II FLOOR



FORD A.P.C.M
CELL II
X-SECTION
S. BRAO 1/3/90

HORIZONTAL - 1" = 50'
VERTICAL - 1" = 2'

N

• MOISTURE/DENSITY TEST LOCATION

APPENDIX J

J.1

MOISTURE/DENSITY TEST RESULTS

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-1	5/16/90	3400	6683	592	S	126.2	13.0	1	133.6	10.2	94.5	2736	PASS
S-2	5/16/90	3391	6837	599	S	127.8	11.8	1	133.6	10.2	95.7	2526	PASS
S-3	5/16/90	3605	6604	593	S	125.5	13.3	1	133.6	10.2	93.9	2736	PASS
S-4	5/16/90	3872	6609	592	S	121.6	12.6	1	133.6	10.2	91.0	2526	PASS
S-5	5/21/90	3391	6967	592	N	124.2	11.2	1	133.6	10.2	93.0	2947	PASS
S-6	5/21/90	3394	6768	594	N	121.8	12.4	1	133.6	10.2	91.2	2737	PASS
S-7	5/21/90	3409	6635	595	N	122.1	11.8	1	133.6	10.2	91.4	2947	PASS
S-8	5/21/90	3723	6643	594	N	121.9	11.2	1	133.6	10.2	91.2	2737	PASS
S-9	5/21/90	3960	6638	593	N	127.6	9.0	1	133.6	10.2	95.5	3158	PASS
S-10	5/21/90	3408	6982	592	N	117.4	12.2	1	133.6	10.2	87.9	2316	FAIL; SEE S-10R1
S-10R1	5/21/90	3408	6982	592	N	127.0	11.2	1	133.6	10.2	95.1	2737	PASS
S-11	5/21/90	3960	6638	593	N	125.3	11.2	1	133.6	10.2	93.8	3158	PASS
S-12	5/21/90	3390	6826	597	N	128.8	10.8	1	133.6	10.2	96.4	3368	PASS
S-13	5/21/90	3563	6634	596	N	129.3	9.7	1	133.6	10.2	96.8	2974	PASS
S-14	5/21/90	3864	6627	594	N	126.5	10.5	1	133.6	10.2	94.7	2526	PASS
S-15	5/21/90	3390	6960	593	N	130.9	9.7	1	133.6	10.2	98.0	3158	PASS
S-16	5/21/90	3395	6793	598	N	127.9	10.8	1	133.6	10.2	95.7	2737	PASS
S-17	5/21/90	4000	6867	578	N	130.6	9.2	1	133.6	10.2	97.8	2737	PASS
S-18	5/21/90	4005	6870	580	N	127.6	8.9	1	133.6	10.2	95.5	3158	PASS
S-19	5/22/90	4001	6888	580	N	131.1	9.6	1	133.6	10.2	98.1	3579	PASS
S-20	5/22/90	3973	6632	593	N	130.1	9.2	1	133.6	10.2	97.4	2947	PASS
S-21	5/22/90	3728	6624	595	N	129.8	9.7	1	133.6	10.2	97.2	2737	PASS
S-22	5/22/90	3447	6635	596	N	127.4	9.0	1	133.6	10.2	95.4	2947	PASS
S-23	5/22/90	4015	6930	585	N	129.2	11.1	1	133.6	10.2	96.7	3368	PASS
S-24	5/22/90	3989	6687	585	N	125.1	10.8	1	133.6	10.2	93.6	2737	PASS
S-25	5/23/90	3515	6632	599	N	125.2	12.3	1	133.6	10.2	93.7	2947	PASS
S-25	5/23/90	3515	6632	599	N	129.2	10.1	1	133.6	10.2	96.7	2947	PASS
S-26	5/23/90	3685	6638	597	N	131.2	9.8	1	133.6	10.2	98.2	3579	PASS
S-27	5/23/90	3834	6624	596	N	128.4	9.8	1	133.6	10.2	96.1	3368	PASS
S-28	5/23/90	4023	7149	592	N	128.4	9.0	1	133.6	10.2	96.1	2947	PASS
S-29	5/23/90	4023	7051	591	N	130.3	8.7	1	133.6	10.2	97.5	3579	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-30	5/23/90	4015	6862	587	N	126.0	10.1	1	133.6	10.2	94.3	2737	PASS
S-31	5/23/90	4009	6762	585	N	126.4	10.0	1	133.6	10.2	94.6	3158	PASS
S-32	5/23/90	3998	6692	587	N	131.0	9.0	1	133.6	10.2	98.1	3473	PASS
S-33	5/23/90	4007	6895	587	N	125.4	11.7	1	133.6	10.2	93.9	2526	PASS
S-34	5/23/90	3984	6750	587	N	127.1	10.1	1	133.6	10.2	95.1	2842	PASS
S-35	5/23/90	4016	6823	588	N	125.6	10.7	1	133.6	10.2	94.0	3158	PASS
S-36	5/23/90	4020	7108	591	N	117.3	17.3	1	133.6	10.2	87.8	2526	FAIL; SEE S-36R1
S-36R1	5/24/90	4028	7075	592	N	128.6	10.4	1	133.6	10.2	96.3	3158	PASS
S-37	5/24/90	4019	6910	589	N	126.1	10.4	1	133.6	10.2	94.4	2737	PASS
S-38	5/24/90	4000	6675	588	N	125.8	11.3	1	133.6	10.2	94.2	3178	PASS
S-39	5/24/90	3469	6612	599	N	130.9	9.5	1	133.6	10.2	98.0	3368	PASS
S-40	5/24/90	3590	6634	597	N	128.5	10.1	2	133.9	9.0	96.0	3895	PASS
S-41	5/24/90	3778	6617	596	N	129.5	9.3	2	133.9	9.0	96.7	3053	PASS
S-42	5/24/90	4018	6720	591	N	129.9	11.1	2	133.9	9.0	97.0	2737	PASS
S-43	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-44	5/24/90	3949	6625	594	N	122.4	11.5	2	133.9	9.0	91.4	2610	PASS
S-45	5/24/90	4000	6633	593	N	126.5	11.8	2	133.9	9.0	94.5	2947	PASS
S-46	5/24/90	4027	6960	591	N	127.0	10.9	2	133.9	9.0	94.8	3579	PASS
S-47	5/25/90	4030	7180	594	N	127.9	10.4	2	133.9	9.0	95.5	2947	PASS
S-48	5/25/90	4047	6919	592	N	121.5	11.5	2	133.9	9.0	90.7	2100	FAIL; SEE S-48R1
S-48R1	5/25/90	4047	6919	592	N	122.3	11.1	2	133.9	9.0	91.3	2105	FAIL; SEE S-48R2
S-48R2	5/25/90	4047	6919	592	N	125.1	11.2	2	133.9	9.0	93.4	2947	PASS
S-49	5/25/90	4035	6852	592	N	126.7	11.0	2	133.9	9.0	94.6	3158	PASS
S-50	5/25/90	3661	6631	597	N	127.2	10.6	2	133.9	9.0	95.0	2526	PASS
S-51	5/25/90	3783	6632	598	N	128.3	10.7	2	133.9	9.0	95.8	2947	PASS
S-52	5/25/90	3910	6618	596	N	122.9	12.6	2	133.9	9.0	91.8	2105	FAIL; SEE S-52R1
S-52R1	5/25/90	3910	6618	596	N	125.7	11.0	2	133.9	9.0	93.9	3368	PASS
S-53	5/25/90	4031	6760	592	N	130.9	9.7	2	133.9	9.0	97.8	2947	PASS
S-54	5/25/90	3385	6945	592	N	125.9	11.7	2	133.9	9.0	94.0	2947	PASS
S-55	5/25/90	3395	6858	594	N	126.6	11.1	2	133.9	9.0	94.5	2947	PASS
S-56	5/25/90	3368	6710	598	N	127.0	11.2	2	133.9	9.0	94.8	3368	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-57	5/26/90	4030	7030	595	N	128.2	9.7	3	135.5	8.5	94.6	2947	PASS
S-58	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-59	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-60	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-61	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-62	5/29/90	3500	7240	588	N	122.4	10.5	1	133.6	10.2	91.6	4000	PASS
S-63	5/29/90	3500	7240	588	N	131.6	9.4	1	133.6	10.2	98.5	4000	PASS
S-63R1	6/05/90	3507	7250	588	N	130.5	9.5	1	133.6	10.2	97.7	3368	PASS
S-64	5/29/90	3470	7090	572	N	127.2	9.7	3	135.5	8.5	93.9	2600	PASS
S-65	5/29/90	3490	7100	569	N	122.0	10.5	3	135.5	8.5	90.0	2500	PASS
S-66	5/29/90	3500	7088	570	N	129.0	11.1	3	135.5	8.5	95.2	3580	PASS
S-67	5/29/90	3446	6625	602	N	126.9	9.2	3	135.5	8.5	93.7	4100	PASS
S-68	5/29/90	3510	7078	572	N	123.2	10.7	3	135.5	8.5	90.9	3470	PASS
S-69	5/29/90	3605	6611	598	N	128.3	10.7	3	135.5	8.5	94.7	3580	PASS
S-70	5/29/90	3844	6632	597	N	126.2	10.9	3	135.5	8.5	93.1	4210	PASS
S-71	5/29/90	3453	7108	574	N	127.0	10.4	3	135.5	8.5	93.7	3470	PASS
S-72	5/29/90	3486	7124	574	N	123.8	10.7	3	135.5	8.5	91.4	-	PASS
S-73	5/29/90	3444	7115	575	N	126.9	9.8	3	135.5	8.5	93.7	-	PASS
S-74	5/29/90	3547	6630	602	N	124.2	9.4	3	135.5	8.5	91.7	-	PASS
S-75	5/29/90	3730	6638	602	N	125.6	12.6	3	135.5	8.5	92.7	-	FAIL; SEE S-75R1
S-75R1	5/30/90	3730	6638	602	N	128.4	10.1	3	135.5	8.5	94.8	3000	PASS
S-76	5/30/90	3475	7100	575	N	128.4	10.4	3	135.5	8.5	94.8	4500	PASS
S-77	5/30/90	3480	7110	576	N	124.2	9.9	3	135.5	8.5	91.7	3000	PASS
S-78	5/30/90	4040	6640	602	N	126.7	11.5	3	135.5	8.5	93.5	5000	PASS
S-79	5/30/90	4050	7110	595	N	118.2	8.7	*	131.3	9.9	90.0	2600	PASS
S-80	5/30/90	3460	7115	577	N	127.6	9.5	3	135.5	8.5	94.2	3000	PASS
S-81	5/30/90	3455	7100	578	N	117.3	9.1	3	135.5	8.5	86.6	-	FAIL; SEE S-81R1
S-81R1	5/30/90	3455	7100	578	N	126.3	9.2	3	135.5	8.5	93.2	5000	PASS
S-82	5/30/90	3475	7100	579	N	124.7	11.2	3	135.5	8.5	92.0	4000	PASS
S-83	5/30/90	3585	6580	602	N	123.2	13.0	3	135.5	8.5	90.9	2500	FAIL; SEE S-83R1
S-83R1	5/31/90	3585	6580	602	N	125.3	8.7	3	135.5	8.5	92.5	2750	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-84	5/30/90	3990	6570	602	N	127.5	10.3	3	135.5	8.5	94.1	3000	PASS
S-85	5/30/90	3401	6852	597	N	127.9	10.7	3	135.5	8.5	94.4	3150	PASS
S-86	5/30/90	3395	6963	592	N	125.5	11.2	3	135.5	8.5	92.6	3580	PASS
S-87	5/30/90	3434	7086	578	N	129.1	9.2	3	135.5	8.5	95.3	3580	PASS
S-88	5/30/90	3385	6800	598	N	128.4	10.4	3	135.5	8.5	94.8	3370	PASS
S-89	5/30/90	3385	6927	595	N	120.5	11.9	3	135.5	8.5	88.9	3050	FAIL; SEE S-89R1
S-89R1	5/31/90	3384	6927	595	N	124.4	10.4	3	135.5	8.5	91.8	3250	PASS
S-90	5/31/90	3424	7106	---	N	128.1	10.9	3	135.5	8.5	94.5	2950	PASS
S-91	5/31/90	3580	6560	599	N	124.6	10.7	3	135.5	8.5	92.0	2600	PASS
S-92	5/31/90	3445	7110	581	N	125.8	9.7	3	135.5	8.5	92.8	2600	PASS
S-93	5/31/90	3380	6955	595	N	126.2	11.0	3	135.5	8.5	93.1	2600	PASS
S-94	5/31/90	3369	5827	595	N	124.2	10.9	3	135.5	8.5	91.7	4000	PASS
S-95	5/31/90	3368	7078	590	N	127.3	10.3	3	135.5	8.5	93.9	3157	PASS
S-96	5/31/90	3437	7101	589	N	127.1	9.9	3	135.5	8.5	93.8	3789	PASS
S-97	5/31/90	3458	7137	589	N	125.0	11.2	3	135.5	8.5	92.3	3368	PASS
S-98	5/31/90	3371	6907	597	N	126.6	10.7	3	135.5	8.5	93.4	2947	PASS
S-99	5/31/90	3398	7029	591	N	125.0	11.5	3	135.5	8.5	92.3	3368	PASS
S-100	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-101	6/01/90	3460	7125	583	N	128.9	9.6	3	135.5	8.5	95.1	2600	PASS
S-102	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-103	6/01/90	3450	7120	584	N	123.5	7.8	3	135.5	8.5	91.3	2600	PASS
S-104	6/01/90	3850	6610	599	N	130.4	7.2	3	135.5	8.5	96.4	5000	PASS
S-105	6/01/90	3344	6957	597	N	123.1	10.9	3	135.5	8.5	90.8	5000	PASS
S-106	6/01/90	3392	7058	593	N	126.1	9.9	3	135.5	8.5	93.3	9000	PASS
S-107	6/01/90	3486	7117	594	N	127.5	10.7	3	135.5	8.5	94.3	9000	PASS
S-108	6/01/90	3365	7080	593	N	124.9	9.6	3	135.5	8.5	92.4	9000	PASS
S-109	6/01/90	3398	6978	597	N	127.6	8.8	3	135.5	8.5	94.4	9000	PASS
S-110	6/01/90	3461	7137	597	N	124.6	12.1	3	135.5	8.5	92.2	9000	PASS
S-111	6/01/90	3461	7137	595	N	129.3	10.1	3	135.5	8.5	95.4	9000	PASS
S-112	6/02/90	3480	7120	579	N	124.4	10.3	3	135.5	8.5	91.8	9000	PASS
S-113	6/02/90	3480	6610	600	N	124.6	11.6	3	135.5	8.5	92.0	6000	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-114	6/02/90	3380	7000	598	N	122.4	8.4	3	135.5	8.5	90.3	8000	PASS
S-115	6/02/90	3445	7140	586	N	128.6	10.0	3	135.5	8.5	94.9	7000	PASS
S-116	6/02/90	3505	7260	591	N	122.2	9.2	3	135.5	8.5	90.2	5000	PASS
S-117	6/02/90	3470	7120	587	N	123.3	9.6	3	135.5	8.5	91.0	9000	PASS
S-118	6/02/90	3380	7000	598	N	125.3	8.4	3	135.5	8.5	92.5	9000	PASS
S-119	6/02/90	3370	7080	595	N	126.8	10.8	3	135.5	8.5	93.6	9000	PASS
S-120	6/02/90	3503	7135	587	N	124.6	12.0	3	135.5	8.5	92.0	6500	PASS
S-121	6/05/90	3492	7114	589	N	125.6	9.9	3	135.5	8.5	92.7	9000	PASS
S-122	6/05/90	3373	6698	601	N	128.1	10.2	3	135.5	8.5	94.5	9000	PASS
S-123	6/05/90	3390	6905	599	N	128.8	11.1	3	135.5	8.5	95.1	9000	PASS
S-124	6/05/90	3371	7065	598	N	123.6	10.9	3	135.5	8.5	91.2	8000	PASS
S-125	6/05/90	3407	7229	600	N	129.0	10.7	3	135.5	8.5	95.2	3473	PASS
S-126	6/05/90	3388	6746	600	N	126.7	10.4	3	135.5	8.5	93.5	3789	PASS
S-127	6/05/90	3369	6910	599	N	122.0	12.3	3	135.5	8.5	90.0	3158	FAIL; SEE S-127R1
S-127R1	6/05/90	3369	6910	599	N	124.8	11.1	3	135.5	8.5	92.1	3579	PASS
S-128	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-129	6/05/90	3388	7089	595	N	124.2	12.1	3	135.5	8.5	91.7	3157	FAIL; SEE S-129R1
S-129R1	6/05/90	3389	7089	595	N	128.4	10.6	3	135.5	8.5	94.8	3789	PASS
S-130	6/05/90	3453	7145	597	N	121.9	12.6	3	135.5	8.5	90.0	3052	FAIL; SEE S-130R1
S-130R1	6/05/90	3453	7145	597	N	125.1	10.8	3	135.5	8.5	92.3	2947	PASS
S-131	6/05/90	3383	6734	602	N	125.3	10.7	3	135.5	8.5	92.5	4000	PASS
S-132	6/05/90	3482	6941	599	N	123.5	11.2	3	135.5	8.5	91.1	3579	PASS
S-133	6/05/90	3391	6765	602	N	127.7	11.3	4	134.0	8.8	95.3	4210	PASS
S-134	6/05/90	4020	6900	596	N	127.7	10.3	5	132.4	9.4	96.5	3368	PASS
S-135	6/05/90	4020	7125	594	N	128.2	12.8	5	132.4	9.4	96.8	3158	PASS
S-136	6/05/90	3384	6890	601	N	124.4	11.4	4	134.0	8.8	92.8	3704	PASS
S-137	6/05/90	3389	7039	600	N	124.8	11.9	4	134.0	8.8	93.1	3368	PASS
S-138	6/05/90	3444	7142	593	N	124.9	11.2	4	134.0	8.8	93.2	2947	PASS
S-139	6/05/90	3950	6625	599	N	128.9	10.1	4	134.0	8.8	96.2	4000	PASS
S-140	6/06/90	3502	7339	592	N	125.2	11.3	4	134.0	8.8	93.4	3789	PASS
S-141	6/06/90	3378	6836	602	N	124.6	11.1	4	134.0	8.8	93.0	3368	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-142	6/06/90	3489	7456	602	N	126.5	10.6	4	134.0	8.8	94.4	2947	PASS
S-143	6/06/90	3492	7289	593	N	124.5	11.1	4	134.0	8.8	92.9	3368	PASS
S-144	6/07/90	3424	7109	599	N	142.0	10.0	4	134.0	8.8	106.0	3386	PASS
S-145	6/07/90	3485	7145	593	N	142.8	11.6	4	134.0	8.8	106.6	3789	PASS
S-146	6/07/90	3490	7320	597	N	138.6	10.7	4	134.0	8.8	103.4	2947	PASS
S-147	6/07/90	3489	7225	595	N	136.2	10.6	4	134.0	8.8	101.6	2947	PASS
S-148	6/07/90	3387	6762	604	N	140.6	10.4	4	134.0	8.8	104.9	3368	PASS
S-149	6/07/90	3361	6945	602	N	126.4	10.3	4	134.0	8.8	94.3	3999	PASS
S-150	6/07/90	3389	7073	602	N	125.2	11.3	4	134.0	8.8	93.4	4210	PASS
S-151	6/07/90	3483	7157	595	N	122.1	11.5	4	134.0	8.8	91.1	3368	PASS
S-152	6/07/90	3510	7360	597	N	124.7	10.8	4	134.0	8.8	93.1	2947	PASS
S-153	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-154	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-155	6/11/90	3485	7210	598	N	125.8	11.2	4	134.0	8.8	93.9	2736	PASS
S-156	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-157	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-158	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-158R1	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-159	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-160	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-161	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-162	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-163	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-164	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-164R1	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-165	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-166	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-166R1	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-167	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-168	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-169	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-170	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-171	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-172	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-173	6/16/90	4110	7190	582	N	144.4	10.6	1	133.6	10.2	108.1	3789	PASS
S-174	6/16/90	4020	6975	576	N	141.7	10.4	1	133.6	10.2	106.1	3017	PASS
S-175	6/16/90	3990	6900	578	N	139.7	11.2	1	133.6	10.2	104.6	3368	PASS
S-176	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-177	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-178	TEST NUMBER NOT USED						-	-	-	-	-	-	-
S-179	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-180	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-181	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-182	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-183	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-184	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-185	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-186	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-187	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-188	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-189	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-190	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-191	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-192	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-193	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-193R1	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-194	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-195	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-196	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-196R1	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-197	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-198	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-199	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-200	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-201	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-202	6/19/90	3850	6595	597	N	127.6	10.7	1	133.6	10.2	95.5	2947	PASS
S-203	6/19/90	3845	6795	581	N	126.7	8.4	7	133.2	8.5	95.1	3368	PASS
S-204	6/19/90	3900	6750	565	N	119.9	11.8	7	133.2	8.5	90.0	2947	PASS
S-205	6/19/90	3635	7050	577	N	127.3	10.5	7	133.2	8.5	95.6	2947	PASS
S-206	6/19/90	4000	6615	595	N	125.2	11.2	1	133.6	10.2	93.7	3578	PASS
S-207	6/19/90	3958	6584	595	N	125.3	10.3	1	133.6	10.2	93.8	3789	PASS
S-208	6/09/90	3725	6787	-	N	123.0	8.1	3	135.5	8.5	91.1	3782	PASS
S-209	6/19/90	3475	6551	602	N	131.5	8.4	1	133.6	10.2	98.4	4210	PASS
S-210	6/19/90	3776	6590	599	N	110.9	13.7	7	133.2	8.5	83.3	4575	FAIL; SEE S-210R1
S-210R1	6/19/90	3776	6590	599	N	126.6	10.8	7	133.2	8.5	95.0	4210	PASS
S-211	6/19/90	3496	6591	602	N	125.1	12.5	7	133.2	8.5	93.9	4150	FAIL; SEE S-211R1
S-211R1	6/19/90	3496	3496	602	N	125.7	10.1	7	133.2	8.5	94.4	3154	PASS
S-212	6/19/90	3901	6623	596	N	123.9	9.7	7	133.2	8.5	93.0	3189	PASS
S-213	TEST NUMBER NOT USED						-	-	-	-	-	-	-
S-214	6/21/90	3876	6594	600	N	126.5	10.3	7	133.2	8.5	95.0	3333	PASS
S-215	6/21/90	3724	6596	601	N	124.4	11.3	7	133.2	8.5	93.4	3473	PASS
S-216	6/21/90	3550	6592	600	N	124.7	10.1	7	133.2	8.5	93.6	3438	PASS
S-217	6/21/90	3976	6620	598	N	124.5	9.7	7	133.2	8.5	93.5	3122	PASS
S-218	6/21/90	3821	6618	601	N	123.2	9.2	7	133.2	8.5	92.5	3438	PASS
S-219	6/21/90	3650	6590	601	N	123.3	11.2	7	133.2	8.5	92.6	3368	PASS
S-220	6/21/90	3450	6588	604	N	126.5	10.5	7	133.2	8.5	95.0	3508	PASS
S-221	6/21/90	3900	6605	601	N	128.2	8.8	7	133.2	8.5	96.2	3017	PASS
S-222	6/25/90	3900	6600	601	N	123.8	11.6	2	133.9	9.0	92.5	3684	PASS
S-223	6/25/90	3729	6603	602	N	123.2	11.3	2	133.9	9.0	92.0	2912	PASS
S-224	6/25/90	3490	5995	605	N	123.6	11.3	2	133.9	9.0	92.3	3193	PASS
S-225	6/25/90	3990	6620	600	N	121.6	9.6	2	133.9	9.0	90.8	3158	PASS
S-226	6/25/90	3775	6617	602	N	123.8	12.0	2	133.9	9.0	92.5	2947	PASS
S-227	6/25/90	3610	6600	604	N	127.6	10.1	2	133.9	9.0	95.3	3754	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-228	6/25/90	3420	6615	606	N	128.1	10.8	2	133.9	9.0	95.7	3122	PASS
S-229	6/26/90	3905	6615	602	N	123.0	10.3	2	133.9	9.0	91.9	3193	PASS
S-230	6/26/90	3940	7110	566	N	127.6	10.5	7	133.2	8.5	95.8	3649	PASS
S-231	6/26/90	3895	6755	567	N	126.7	10.3	7	133.2	8.5	95.1	2877	PASS
S-232	6/26/90	3905	6765	566	N	105.3	12.8	7	133.2	8.5	79.1	-	FAIL; SEE S232R1
S-232R1	6/26/90	3905	6765	566	N	121.3	9.7	7	133.2	8.5	91.1	3298	PASS
S-233	6/26/90	3905	6790	567	N	124.5	9.8	7	133.2	8.5	93.5	3631	PASS
S-234	6/27/90	3870	6760	567	N	126.0	11.5	7	133.2	8.5	94.6	3403	PASS
S-235	6/27/90	3900	6790	568	N	122.0	11.0	7	133.2	8.5	91.6	3228	PASS
S-236	6/27/90	3885	6770	568	N	123.5	10.9	7	133.2	8.5	92.7	3438	PASS
S-237	6/27/90	3868	6765	569	N	124.0	10.7	7	133.2	8.5	93.1	3052	PASS
S-238	6/27/90	3670	6763	569	N	123.4	12.3	7	133.2	8.5	92.6	-	PASS
S-239	6/27/90	3900	6790	569	N	128.5	9.8	7	133.2	8.5	96.5	3368	PASS
S-240	7/02/90	3855	6795	570	N	125.6	10.6	12	132.8	9.1	94.6	3158	PASS
S-241	7/02/90	3866	6778	571	N	125.2	11.0	12	132.8	9.1	94.3	3158	PASS
S-242	7/02/90	3875	6785	572	N	124.2	11.7	12	132.8	9.1	93.5	3105	PASS
S-243	7/02/90	3860	6780	573	N	128.0	10.3	12	132.8	9.1	96.4	2912	PASS
S-244	7/02/90	3877	6780	576	N	125.4	12.5	12	132.8	9.1	94.4	2989	PASS
S-245	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-246	7/05/90	3720	6750	562	N	128.1	9.4	3	135.5	8.5	94.5	2947	PASS
S-247	7/05/90	3720	6755	563	N	125.6	9.4	3	135.5	8.5	92.7	3579	PASS
S-248	7/05/90	3715	6755	564	N	125.8	10.8	3	135.5	8.5	92.8	3158	PASS
S-249	7/05/90	3725	6760	564	N	125.8	11.2	3	135.5	8.5	92.8	3368	PASS
S-250	7/06/90	3680	6765	566	N	125.9	9.7	3	135.5	8.5	92.9	4210	PASS
S-251	7/06/90	3725	6765	565	N	126.0	9.8	3	135.5	8.5	93.0	3360	PASS
S-252	7/06/90	3755	6755	565	N	130.3	9.9	3	135.5	8.5	96.2	3158	PASS
S-253	7/06/90	3500	6850	567	N	126.0	9.7	3	135.5	8.5	93.0	3368	PASS
S-254	7/06/90	3505	6880	566	N	123.8	11.2	3	135.5	8.5	91.4	3158	PASS
S-255	7/06/90	3495	6825	567	N	127.3	10.2	3	135.5	8.5	93.9	3473	PASS
S-256	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-257	7/06/90	3490	6875	568	N	127.4	11.6	3	135.5	8.5	94.0	-	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-258	7/06/90	3495	6850	568	N	122.4	10.0	3	135.5	8.5	90.3	3579	PASS
S-259	7/06/90	3495	6850	570	N	128.4	9.2	3	135.5	8.5	94.8	3473	PASS
S-260	7/07/90	3490	6875	571	N	125.0	11.6	2	133.9	9.0	93.4	4105	PASS
S-261	7/07/90	3505	6785	567	N	123.3	10.8	2	133.9	9.0	92.1	3052	PASS
S-262	7/07/90	3525	6708	567	N	125.2	10.6	2	133.9	9.0	93.5	3158	PASS
S-263	7/07/90	3515	6925	571	N	123.6	12.4	2	133.9	9.0	92.3	3579	PASS
S-264	7/07/90	3495	6820	568	N	131.8	10.0	2	133.9	9.0	98.4	3578	PASS
S-265	7/07/90	3505	6800	568	N	129.7	10.6	2	133.9	9.0	96.9	3579	PASS
S-266	7/07/90	3490	6785	568	N	129.4	10.7	2	133.9	9.0	96.6	3789	PASS
S-267	7/07/90	3510	6700	572	N	126.1	10.4	2	133.9	9.0	94.2	3789	PASS
S-268	7/07/90	3495	6875	573	N	128.4	9.8	2	133.9	9.0	95.9	3789	PASS
S-269	7/09/90	3530	6940	573	N	133.0	9.2	2	133.9	9.0	99.3	3789	PASS
S-270	7/09/90	3530	6810	573	N	132.5	9.5	2	133.9	9.0	99.0	3789	PASS
S-271	7/09/90	3550	6785	573	N	124.8	11.3	2	133.9	9.0	93.2	3158	PASS
S-272	7/09/90	4020	6610	565	N	129.7	9.6	2	133.9	9.0	96.9	3368	PASS
S-273	7/09/90	4015	6620	566	N	125.9	9.2	4	134.0	8.8	94.0	3158	PASS
S-274	7/09/90	4025	6620	567	N	128.4	9.7	4	134.0	8.8	95.8	3268	PASS
S-275	7/09/90	3499	6950	574	N	127.9	9.5	4	134.0	8.8	95.4	3368	PASS
S-276	7/09/90	3510	6810	575	N	128.2	10.7	4	134.0	8.8	95.7	3684	PASS
S-277	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-278	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-279	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-280	7/09/90	4010	6625	567	N	127.3	8.9	4	134.0	8.8	95.0	4210	PASS
S-281	7/09/90	4010	6630	568	N	124.9	9.4	4	134.0	8.8	93.2	3368	PASS
S-282	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-283	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-284	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-285	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-286	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-287	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-288	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY -1990
ALLEN PARK CLAY MINE LANDFILL - CELL 2
FORD MOTOR COMPANY

TEST NO.	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	INSITU VALUES DRY DENSITY (pcf)	INSITU VALUES MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NO.	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-289	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-290	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-291	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-292	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-293	7/10/90	3595	6610	601	N	130.5	10.2	4	134.0	8.8	97.4	3579	PASS
S-294	7/10/90	3800	6605	602	N	129.5	10.3	4	134.0	8.8	96.6	3789	PASS
S-295	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-296	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-297	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-298	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-299	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-300	7/12/90	3550	6600	602	N	130.0	10.1	4	134.0	8.8	97.0	3368	PASS
S-301	7/12/90	3850	6610	603	N	126.1	8.9	4	134.0	8.8	94.1	3684	PASS
S-302	MATERIAL REMOVED TEST NO LONGER APPLICABLE						-	-	-	-	-	-	-
S-303	7/12/90	3840	7300	563	N	126.2	8.6	4	134.0	8.8	94.2	3688	PASS
S-304	7/12/90	3725	7365	562	N	126.0	9.8	4	134.0	8.8	94.0	3158	PASS
S-305	7/12/90	3800	6615	604	N	127.4	10.2	4	134.0	8.8	95.1	3789	PASS

N=nuclear densometer; S=Sand Cone Test Method

*Test S-79 based on field 3 point Proctor Test

FILE: SOILM90.WK1

SECONDARY SOIL MOISTURE/DENSITY TESTING SUMMARY - 1991
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	IN SITU VALUE DRY DENSITY (pcf)	IN SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX.DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-1	06/20/91	3951	7117	567.6	D	123.2	10.7	1	133.6	10.2	92.3	3837	PASS
S-2	06/20/91	3944	7110	567.0	D	127.8	10.5	1	133.6	10.2	95.7	3325	PASS
S-3	06/20/91	3935	7085	565.5	D	123.2	11.0	1	133.6	10.2	92.2	3070	PASS
S-4	06/20/91	3930	7000	567.3	D	122.9	12.0	1	133.6	10.2	92.0	4093	PASS
S-5	06/20/91	3928	7024	564.4	D	124.3	13.4	1	133.6	10.2	93.0	3837	PASS
S-6	06/21/91	3925	6936	566.9	N	124.6	11.1	1	133.6	10.2	93.2	4093	PASS
S-7	06/21/91	3800	6766	567.7	N	125.1	11.8	1	133.6	10.2	93.7	3837	PASS
S-8	06/21/91	3973	7144	570.3	N	122.9	9.7	1	133.6	10.2	92.0	4133	PASS
S-9	06/24/91	3925	6924	568.9	D	128.8	11.2	1	133.6	10.2	96.4	4093	PASS
S-9	06/24/91	3925	6924	568.9	N	119.4	11.2	1	133.6	10.2	90.0	4093	PASS
S-10	06/24/91	3809	6753	567.7	N	124.2	11.7	1	133.6	10.2	92.9	2813	PASS
S-11	06/24/91	3916	6815	569.2	N	123.1	14.2	1	133.6	10.2	92.1	3837	PASS
S-12	06/24/91	3594	6738	571.9	N	120.6	12.9	1	133.6	10.2	90.3	4604	PASS
S-13	06/24/91	3941	6830	570.0	N	115.6	14.8	1	133.6	10.2	86.5	4093	FAIL; SEE S-13R1
S-13R1	06/24/91	3941	6830	570.0	N	121.4	12.4	1	133.6	10.2	91.0	4098	PASS
S-14	06/24/91	3937	6741	571.6	N	120.8	13.0	1	133.6	10.2	90.5	2558	PASS
S-15	06/25/91	3720	6780	Trench	N	121.3	10.1	1	133.6	10.2	90.8	4093	PASS
S-16	06/25/91	3889	7049	Trench	N	113.4	16.9	1	133.6	10.2	84.9	3070	FAIL; SEE S-16R1
S-16R1	06/25/91	3890	7050	Trench	N	120.7	12.3	1	133.6	10.2	90.3	4093	PASS
S-17	06/25/91	3721	6779	Trench	N	121.8	12.9	1	133.6	10.2	91.2	4093	PASS
S-18	06/25/91	3967	6921	576.0	N	122.5	13.4	1	133.6	10.2	91.7	4093	PASS
S-19	06/25/91	3500	6714	571.4	N	125.1	12.9	1	133.6	10.2	93.6	3581	PASS
S-20	06/25/91	3720	6779	Trench	N	122.1	13.8	1	133.6	10.2	91.4	4093	PASS
S-21	06/25/91	3559	7024	566.4	N	127.5	11.7	1	133.6	10.2	92.7	-	PASS
S-21	06/25/91	3559	7024	566.4	D	131.2	11.7	1	133.6	10.2	98.1	3070	PASS
S-22	06/26/91	3491	6791	571.4	D	131.8	10.6	1	133.6	10.2	98.7	3325	PASS
S-22	06/25/91	3491	6791	571.4	N	124.2	14.5	1	133.6	10.2	93.0	3325	PASS
S-23	06/26/91	3551	7274	568.3	N	123.0	10.0	1	133.6	10.2	92.0	4093	PASS
S-24	06/26/91	3533	6697	585.4	N	120.5	15.0	1	133.6	10.2	90.2	4093	PASS
S-25	06/26/91	3559	7027	570.4	N	122.5	15.1	1	133.6	10.2	91.7	4093	PASS
S-26	06/26/91	3598	7191	568.2	N	125.3	11.3	1	133.6	10.2	93.8	4098	PASS
S-27	06/26/91	3833	6750	574.3	N	123.2	15.0	1	133.6	10.2	92.2	4098	PASS

D = Drive cylinder; N = nuclear densometer; * = Vane shear test

APRIL 1993

917-1203

SECONDARY SOIL MOISTURE/DENSITY TESTING SUMMARY - 1991
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	TEST METHOD	IN SITU VALUE DRY DENSITY (pcf)	IN SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX.DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-28	06/26/91	3592	7247	569.4	N	123.0	11.5	1	133.6	10.2	92.1	4098	PASS
S-29	06/27/91	3497	6867	573.4	N	122.8	14.9	1	133.6	10.2	92.0	4093	PASS
S-29	06/27/91	3497	6867	573.4	D	129.4	10.3	1	133.6	10.2	96.7	4093	PASS
S-30	06/27/91	3565	7220	572.4	N	123.0	11.6	1	133.6	10.2	92.1	3837	PASS
S-31	06/27/91	3620	7035	570.0	N	122.1	13.9	1	133.6	10.2	91.4	4098	PASS
S-32	06/28/91	3524	7080	577.4	D	121.6	14.6	1	133.6	10.2	91.1	3581	PASS
S-33	06/28/91	3724	6770	573.4	N	121.0	12.2	1	133.6	10.2	90.6	2558	PASS
S-34	07/01/91	3994	7027	578.4	D	122.0	10.0	1	133.6	10.2	91.0	2558	PASS
S-35	07/01/91	3730	6675	586.7	N	125.9	12.8	1	133.6	10.2	92.0	4093	PASS
S-36	07/01/91	3494	6670	588.6	N	120.4	12.9	1	133.6	10.2	90.3	2558	PASS
S-37	07/02/91	3915	6700	561.0	N	121.6	11.8	1	133.6	10.2	91.1	2558	PASS
S-37	07/02/91	3915	6700	561.0	D	126.3	11.8	1	133.6	10.2	94.5	2558	PASS
S-38	07/02/91	3548	6678	579.0	N	125.4	10.4	1	133.6	10.2	93.9	3640*	PASS
S-39	07/02/91	3988	7091	580.2	N	123.7	11.4	1	133.6	10.2	92.6	-	PASS
S-40	07/02/91	3959	6697	575.7	N	120.5	10.7	1	133.6	10.2	90.2	-	PASS
S-41	07/02/91	3964	6871	575.4	N	122.2	12.8	1	133.6	10.2	91.5	-	PASS
S-42	07/02/91	3961	6758	578.8	N	118.6	11.0	1	133.6	10.2	88.8	-	FAIL; SEE S-42R1
S-42R1	07/03/91	3963	6764	578.6	N	125.0	12.2	1	133.6	10.2	93.6	3920*	PASS
S-43	07/03/91	3547	7077	575.0	N	126.4	11.2	1	133.6	10.2	94.6	-	PASS

D = Drive cylinder; N = nuclear densometer; * = Vane shear test

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-1	05/13/92	3760	7332	564.0	SG	N	119.7	12.3	5	132.4	9.4	90.4	-	PASS
S-2	05/13/92	3760	7322	564.5	1	N	116.2	3.2	11	128.2	9.8	90.6	-	FAIL; SEE S-2R1
S-2R1	05/13/92	3760	7322	564.5	1	N	121.8	10.0	11	128.2	9.8	95.0	-	PASS
S-3	05/13/92	3876	7260	564.5	2	N	120.0	10.8	11	128.2	9.8	93.6	-	PASS
S-4	05/13/92	3805	7287	565.5	3	N	125.2	10.5	11	128.2	9.8	97.7	-	PASS
S-5	05/13/92	3729	7355	565.5	3	N	123.0	9.8	11	128.2	9.8	95.9	2240	PASS
S-6	05/13/92	3825	7275	566.0	4	N	125.7	9.9	11	128.2	9.8	98.0	-	PASS
S-7	05/13/92	3808	7317	566.5	5	D	119.7	10.3	11	128.2	9.8	93.4	-	PASS
S-8	05/13/92	3712	7325	566.9	6	N	117.4	10.1	11	128.2	9.8	91.6	-	PASS
S-8D	05/13/92	3712	7325	566.9	6	D	117.4	13.7	11	128.2	9.8	91.6	-	PASS
S-9	05/14/92	3855	7262	567.8	9	N	125.5	11.6	1	133.6	10.2	93.9	-	PASS
S-10	05/14/92	3749	7319	566.8	9	N	124.8	11.3	1	133.6	10.2	93.4	-	PASS
S-11	05/14/92	3807	7308	568.0	10	N	120.2	12.2	5	132.4	9.4	90.8	-	PASS
S-12	05/14/92	3703	7351	568.7	11	N	121.5	12.2	5	132.4	9.4	91.8	-	PASS
S-12D	05/14/92	3703	7351	568.7	11	D	125.7	11.9	5	132.4	9.4	94.9	-	PASS
S-13	05/14/92	3750	7292	562.3	1	N	123.2	9.4	11	128.2	9.8	96.1	-	FAIL; SEE S-13R1
S-13R1	05/15/92	3750	7292	562.3	1	N	128.7	10.3	11	128.2	9.8	100.4	-	PASS
S-14	05/14/92	3754	7348	569.4	12	N	124.1	11.8	5	132.4	9.4	93.7	-	PASS
S-15	05/14/92	3879	7250	561.6	12	N	122.3	11.8	11	128.2	9.8	95.4	-	PASS
S-16	05/15/92	3754	7347	571.0	13	N	119.2	12.0	5	132.4	9.4	90.0	2240 *	PASS
S-17	05/15/92	3858	7323	563.0	2	N	124.8	11.8	5	132.4	9.4	94.3	-	PASS
S-18	05/15/92	3734	7310	563.8	3	N	122.5	11.7	5	132.4	9.4	92.5	-	PASS
S-19	05/15/92	3779	7281	564.4	4	N	122.3	12.9	5	132.4	9.4	92.4	-	PASS
S-20	05/15/92	3845	7245	565.5	5	N	125.5	10.7	5	132.4	9.4	94.8	-	PASS
S-21	05/15/92	3709	7328	566.0	6	N	116.5	14.5	5	132.4	9.4	88.0	-	FAIL; SEE S-21R1
S-21R1	05/15/92	3709	7328	566.0	6	N	111.1	16.3	5	132.4	9.4	83.9	-	FAIL; SEE S-21R2

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(2) D = Drive Cylinder; N = Nuclear densometer; * = Vane Shear Test

FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-21R2	05/19/92	3709	7328	566.0	6	N	119.4	13.1	5	132.4	9.4	90.2	2520 *	PASS
S-22	05/19/92	3800	7300	570.4	13	N	119.1	12.8	5	132.4	9.4	90.0	2980	PASS
S-23	05/19/92	3800	7294	567.1	7	N	121.8	10.5	5	132.4	9.4	92.0	2000	PASS
S-24	05/19/92	3851	7262	568.4	8	N	125.9	11.5	5	132.4	9.4	95.1	3400	PASS
S-25	05/19/92	3781	7286	569.1	9	N	126.8	10.6	5	132.4	9.4	95.8	3600	PASS
S-26	05/19/92	3740	7307	569.7	10	N	122.8	12.1	5	132.4	9.4	92.7	3600	PASS
S-26D	05/19/92	3740	7307	569.7	10	D	122.8	12.2	5	132.4	9.4	92.7	–	PASS
S-27	05/19/92	3752	7326	570.6	11	N	120.5	13.7	5	132.4	9.4	91.0	3600	PASS
S-28	05/21/92	3600	6675	584.0	1	D	124.6	11.2	5	132.4	9.2	94.1	–	PASS
S-28D	05/21/92	3600	6675	584.0	1	D	124.6	11.2	5	132.4	9.4	94.1	–	PASS
S-29	05/21/92	3610	6697	606.1	2	N	123.0	10.2	5	132.4	9.2	92.9	–	PASS
S-29D	05/21/92	3610	6697	579.0	2	D	123.5	10.2	5	132.4	9.2	93.3	–	PASS
S-30	05/27/92	3678	6666	579.0	1	N	128.1	10.7	13	132.1	9.1	97.0	–	PASS
S-31	05/27/92	3700	6669	584.5	1	N	122.0	12.3	13	132.1	9.1	92.4	2240 *	PASS
S-32	05/27/92	3674	6660	589.0	3	N	121.1	12.4	13	132.1	9.1	91.7	–	PASS
S-32D	05/27/92	3674	6660	589.0	3	D	120.6	12.9	13	132.1	9.1	91.3	–	PASS
S-33	05/27/92	3678	6703	575.4	4	N	120.2	10.8	13	132.1	9.1	91.0	–	PASS
S-34	05/27/92	3710	6706	576.8	4	N	123.6	10.0	13	132.1	9.1	93.6	–	PASS
S-35	05/28/92	3625	6900	564.0	0	N	124.7	9.6	14	134.9	8.8	92.4	2240 *	PASS
S-36	05/28/92	3700	6925	561.9	0	N	121.9	12.3	14	134.9	8.8	90.4	2072 *	PASS
S-37	05/28/92	3650	6950	564.1	1	N	120.4	13.4	13	132.1	9.1	91.1	1950 *	PASS
S-38	05/28/92	3670	6875	563.6	1	N	123.1	11.5	13	132.1	9.1	93.2	3600	PASS
S-38D	05/28/92	3670	6875	563.6	1	D	122.8	11.6	13	132.1	9.1	93.0	–	PASS
S-39	05/28/92	3700	6900	562.6	1	N	119.5	13.8	13	132.1	9.1	90.5	3600	PASS
S-40	05/29/92	3725	6975	561.1	0	N	122.8	13.0	14	134.9	8.8	91.0	2520 *	PASS
S-41	05/29/92	3700	6995	562.0	1	N	125.2	10.3	13	132.1	9.1	94.8	2520 *	PASS

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FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-42	05/29/92	3775	6975	561.0	0	N	121.5	12.2	14	134.9	8.8	90.1	2240 *	PASS
S-43	06/02/92	3755	7195	560.7	SG	N	125.0	11.5	14	134.9	8.8	92.7	2240 *	PASS
S-44	06/02/92	3725	7215	561.5	1	N	113.8	16.9	14	134.9	8.8	84.4	2240 *	FAIL; SEE S-44R1
S-44R1	06/02/92	3725	7215	561.5	1	N	118.9	12.4	14	134.9	8.8	88.1	3600	FAIL; SEE S-44R2
S-44R2	06/03/92	3725	7215	561.5	1	N	122.8	13.0	14	134.9	8.8	91.0	2240	PASS
S-45	06/02/92	3707	7075	560.3	2	N	121.8	11.4	14	134.9	8.8	90.3	2240 *	PASS
S-46	06/02/92	3715	7065	561.0	4	N	122.5	11.3	14	134.9	8.8	90.8	3600	PASS
S-47	06/02/92	3560	6810	564.5	1	N	123.8	10.3	14	134.9	8.8	91.8	3600	PASS
S-48	06/02/92	3578	6814	565.5	3	N	122.8	10.8	14	134.9	8.8	91.0	3600	PASS
S-49	06/03/92	3583	6809	566.0	4	N	125.6	11.4	14	134.9	8.8	93.1	3600 *	PASS
S-50	06/03/92	3625	6925	561.1	1	N	121.9	10.7	14	134.9	8.8	90.4	2240	PASS
S-51	06/03/92	3600	6875	561.1	2	N	124.6	10.8	14	134.9	8.8	92.4	2240	PASS
S-51D	06/03/92	3600	6875	561.1	2	D	123.0	11.4	14	134.9	8.8	91.2	-	PASS
S-52	06/04/92	3620	6815	564.1	1	N	122.5	11.0	14	134.9	8.8	90.8	2400 *	PASS
S-53	06/04/92	3600	6826	565.1	2	N	126.5	10.6	14	134.9	8.8	93.8	2240	PASS
S-54	06/04/92	3600	6850	562.7	1	N	122.2	10.3	14	134.9	8.8	90.6	-	PASS
S-55	06/04/92	3626	6850	563.3	2	N	128.1	9.5	14	134.9	8.8	95.0	-	PASS
S-55D	06/04/92	3626	6850	563.3	2	D	126.0	9.8	14	134.9	8.8	93.4	-	PASS
S-56	06/04/92	3640	6854	564.1	3	N	125.6	8.9	14	134.9	8.8	93.1	-	PASS
S-57	06/04/92	3600	6850	565.1	4	N	123.2	9.2	14	134.9	8.8	91.3	-	PASS
S-58	06/06/92	3632	6802	574.8	1	N	123.2	11.1	14	134.9	8.8	91.3	2240 *	PASS
S-59	06/06/92	3640	6798	575.3	2	N	123.4	10.7	14	134.9	8.8	91.5	-	PASS
S-60	06/06/92	3615	6800	575.8	3	N	129.6	10.2	14	134.9	8.8	96.1	1700	PASS
S-60D	06/06/92	3615	6800	575.8	3	D	125.7	10.9	14	134.9	8.8	93.2	-	PASS
S-61	06/06/92	3630	6798	576.3	4	N	129.3	10.3	14	134.9	8.8	95.8	1800	PASS
S-62	06/06/92	3612	6796	576.8	5	N	127.0	10.0	14	134.9	8.8	94.1	1600	PASS

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FILENAME – SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-63	06/06/92	3635	6803	577.3	6	N	127.9	10.4	14	134.9	8.8	94.8	1800	PASS
S-64	06/06/92	3619	6799	577.8	7	N	129.5	10.2	14	134.9	8.8	96.0	1700	PASS
S-65	06/06/92	3635	6795	578.3	8	N	128.1	10.0	14	134.9	8.8	95.0	1700	PASS
S-66	06/08/92	3745	6845	560.0	2	N	120.9	9.7	13	132.1	9.1	91.5	2240 *	PASS
S-67	06/08/92	3740	6860	561.2	3	N	122.3	10.6	13	132.1	9.1	92.6	1800	PASS
S-68	06/08/92	3761	6868	561.7	4	N	124.7	9.9	13	132.1	9.1	94.4	1950	PASS
S-69	06/08/92	3765	6872	562.3	5	N	125.5	11.4	13	132.1	9.1	95.0	1850	PASS
S-70	06/08/92	3750	6860	562.4	6	N	125.7	11.3	13	132.1	9.1	95.2	1800	PASS
S-71	06/10/92	3740	6890	559.6	2	N	118.0	10.7	13	132.1	9.1	89.3	-	FAIL; SEE S-71R1
S-71R1	06/10/92	3740	6890	559.6	2	N	121.1	9.5	13	132.1	9.1	91.7	2240 *	PASS
S-72	MATERIAL WAS EXCAVATED AND LATER REPLACED						--	--	--	--	--	--	--	--
S-73	06/11/92	3660	6715	571.1	2	N	121.5	9.3	14	134.9	8.8	90.1	1800	PASS
S-74	06/11/92	3680	6708	571.5	3	N	116.2	9.3	14	134.9	8.8	86.1	-	FAIL; SEE S-74R1
S-74R1	06/11/92	3680	6708	571.5	3	N	122.1	9.7	14	134.9	8.8	90.5	1800	PASS
S-75	06/11/92	3645	6705	572.4	4	N	120.5	9.9	14	134.9	8.8	89.3	-	FAIL; SEE S-75R1
S-75R1	06/11/92	3645	6705	572.4	4	N	124.1	8.9	14	134.9	8.8	92.0	2240 *	PASS
S-78	06/11/92	3660	6700	572.6	6	N	122.7	9.6	14	134.9	8.8	91.0	1800	PASS
S-79	06/11/92	3682	6699	572.8	7	N	122.5	9.6	14	134.9	8.8	90.8	1800	PASS
S-80	06/11/92	3642	6699	573.8	8	N	122.8	9.4	14	134.9	8.8	91.0	1800	PASS
S-81	06/11/92	3681	6702	574.5	9	N	114.5	11.6	14	134.9	8.8	84.9	-	FAIL; SEE S-81R1
S-81R1	06/11/92	3681	6702	574.5	9	N	121.5	10.9	14	134.9	8.8	90.1	1800	PASS
S-82	06/11/92	3641	6699	575.1	10	N	117.1	11.3	14	134.9	8.8	86.8	-	FAIL; SEE S-82R1
S-82R1	06/11/92	3641	6699	575.1	10	N	121.4	9.1	14	134.9	8.8	90.0	1800	PASS
S-83	06/11/92	3678	6999	575.9	11	N	114.0	11.1	14	134.9	8.8	84.5	-	FAIL; SEE S-83R1
S-83R1	06/11/92	3678	6699	575.9	11	N	119.6	9.8	5	132.4	9.4	90.3	2240 *	PASS
S-84	06/11/92	3665	6700	576.7	12	N	119.2	11.7	5	132.4	9.4	90.0	2240 *	PASS

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FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY - 1992
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-85	06/11/92	3685	6702	577.3	13	N	118.4	11.1	5	132.4	9.4	89.4	-	FAIL; SEE S-85R1
S-85R1	06/11/92	3685	6702	577.3	13	N	120.9	10.9	5	132.4	9.4	91.3	2240 *	PASS
S-86	06/11/92	3660	6700	578.3	14	N	120.3	11.3	5	132.4	9.4	90.9	1800	PASS
S-87	06/11/92	3681	6699	579.3	15	N	122.1	12.1	5	132.4	9.4	92.2	1800	PASS
S-88	06/12/92	3595	6699	574.8	1	N	121.8	10.1	5	132.4	9.4	92.0	1800	PASS
S-89	06/12/92	3665	7150	554.6	SG	N	121.4	9.7	5	132.4	9.4	91.7	-	PASS
S-90	06/12/92	3670	7155	555.1	SG	N	119.2	10.1	5	132.4	9.4	90.0	-	PASS
S-91	06/12/92	3665	7160	555.6	SG	N	123.9	10.4	5	132.4	9.4	93.6	-	PASS
S-92	06/12/92	3596	6640	560.4	2	N	116.0	9.7	5	132.4	9.4	87.6	-	PASS
S-92R1	06/13/92	3596	6690	570.4	2	N	120.5	10.0	5	132.4	9.4	91.0	1800	PASS
S-93	06/12/92	3740	6900	559.3	2	N	121.2	9.6	5	132.4	9.4	91.5	2240 *	PASS
S-94	06/12/92	3750	6875	560.1	3	N	120.7	9.4	5	132.4	9.4	91.2	1800	PASS
S-95	06/12/92	3725	6900	560.8	4	N	119.4	11.4	5	132.4	9.4	90.2	1800	PASS
S-96	MATERIAL WAS EXCAVATED AND LATER REPLACED						-	-	-	-	-	-	-	-
S-96R1	MATERIAL WAS EXCAVATED AND LATER REPLACED						-	-	-	-	-	-	-	-
S-97	06/12/92	3740	6880	561.5	5	N	119.2	9.7	5	132.4	9.4	90.0	1800	PASS
S-98	06/12/92	3700	6900	562.0	6	N	108.8	14.8	5	132.4	9.4	82.2	-	FAIL; SEE S-98R1
S-98R1	06/13/92	3750	6900	562.0	6	N	120.7	12.4	5	132.4	9.4	91.2	2240 *	PASS
S-99	06/13/92	3728	6917	562.6	7	N	124.3	10.6	5	132.4	9.4	93.9	-	PASS
S-100	06/13/92	3755	6875	563.0	8	N	119.2	11.9	5	132.4	9.4	90.0	1800	PASS
S-100D	06/13/92	3755	6875	563.0	8	D	119.4	10.7	5	132.4	9.4	90.2	-	PASS
S-101	06/13/92	3680	6693	570.9	1	N	119.5	9.4	5	132.4	9.4	90.3	1800	PASS
S-102	06/13/92	3685	6690	571.6	2	N	119.4	9.4	5	132.4	9.4	90.2	1800	PASS
S-103	06/15/92	3700	6831	561.5	1	N	120.7	10.3	5	132.4	9.4	91.2	-	PASS
S-104	06/15/92	3715	6836	561.9	2	N	119.8	9.5	5	132.4	9.4	90.5	2240 *	PASS
S-105	06/15/92	3720	6816	562.4	3	N	120.5	8.7	5	132.4	9.4	91.0	-	FAIL; SEE S-105R1

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FILENAME - SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY - 1992
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-105R1	06/15/92	3720	6816	562.4	3	N	122.7	9.4	5	132.4	9.4	92.7	1800	PASS
S-106	06/15/92	3755	6821	560.0	1	N	121.4	9.9	5	132.4	9.4	91.7	1800	PASS
S-107	06/15/92	3780	6821	560.5	2	N	115.7	10.2	5	132.4	9.4	87.4	-	FAIL; SEE S-107R1
S-107R1	06/15/92	3780	6821	560.5	2	N	119.2	10.2	5	132.4	9.4	90.0	-	PASS
S-108	06/15/92	3745	6821	562.5	3	N	120.4	10.9	5	132.4	9.4	90.9	-	PASS
S-109	06/15/92	3760	6840	561.0	3	N	120.8	11.4	5	132.4	9.4	91.2	-	PASS
S-110	06/15/92	3795	6836	561.5	4	N	122.6	9.9	5	132.4	9.4	92.6	-	PASS
S-111	06/15/92	3775	6816	562.3	5	N	118.7	8.1	5	132.4	9.4	89.7	-	FAIL; SEE S-111R1
S-111R1	06/16/92	3775	6816	562.3	5	N	122.6	10.7	5	132.4	9.4	92.6	2240 *	PASS
S-112	06/16/92	3700	6715	572.3	2	N	120.2	10.0	5	132.4	9.4	90.8	1800	PASS
S-113	06/16/92	3720	6725	572.9	3	N	124.5	9.7	5	132.4	9.4	94.0	1800	PASS
S-114	06/16/92	3690	6700	573.6	4	N	118.2	10.2	5	132.4	9.4	89.3	-	FAIL; SEE S-114R1
S-114R1	06/16/92	3690	6700	573.6	5	N	121.4	10.2	5	132.4	9.4	91.7	1800	PASS
S-115	06/16/92	3700	6715	574.5	5	N	122.5	9.9	5	132.4	9.4	92.5	1800	PASS
S-116	06/16/92	3715	6705	575.0	6	N	120.2	9.6	5	132.4	9.4	90.8	1800	PASS
S-117	06/16/92	3695	6708	575.6	7	N	119.9	10.4	5	132.4	9.4	90.6	1800	PASS
S-118	06/16/92	3705	6695	576.3	8	N	120.7	9.4	5	132.4	9.4	91.2	1800	PASS
S-119	06/16/92	3710	6710	577.1	9	N	121.5	10.8	5	132.4	9.4	91.8	-	PASS
S-120	06/16/92	3698	6990	578.0	10	N	119.2	10.7	5	132.4	9.4	90.0	1800	PASS
S-121	06/16/92	3715	6990	578.5	11	N	120.3	11.6	5	132.4	9.4	90.9	1800	PASS
S-122	06/16/92	3700	6992	579.5	12	N	119.2	10.6	5	132.4	9.4	90.0	1800	PASS
S-123	06/17/92	3785	6885	558.7	3	N	119.3	11.7	5	132.4	9.4	90.1	1800	PASS
S-124	06/17/92	3770	6890	559.2	4	N	121.0	12.3	5	132.4	9.4	91.4	2240 *	PASS
S-125	06/17/92	3800	6895	560.0	5	N	119.3	11.4	5	132.4	9.4	90.1	1800	PASS
S-126	06/17/92	3770	6885	560.6	6	N	120.4	12.1	5	132.4	9.4	90.9	1800	PASS
S-127	06/17/92	3760	6880	561.0	7	N	119.6	11.6	5	132.4	9.4	90.3	1800	PASS

(1) SG = Subgrade Surface; FG = Final Grade Surface

(2) D = Drive Cylinder; N = Nuclear densometer; * = Vane Shear Test

FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-128	06/17/92	3765	6870	562.0	8	N	122.6	12.7	5	132.4	9.4	92.6	1800	PASS
S-129	06/19/92	3815	6875	559.8	2	N	124.1	10.6	5	132.4	9.4	93.7	1800	PASS
S-130	06/19/92	3815	6888	560.5	3	N	123.4	10.9	5	132.4	9.4	93.2	1800	PASS
S-131	06/19/92	3830	6870	561.0	4	N	125.4	9.9	5	132.4	9.4	94.7	2240 *	PASS
S-132	06/19/92	3815	6875	561.6	5	N	123.0	10.6	5	132.4	9.4	92.9	1800	PASS
S-133	06/19/92	3820	6875	562.3	6	N	122.5	10.1	5	132.4	9.4	92.5	1800	PASS
S-134	06/19/92	3815	6870	563.1	7	N	121.9	10.0	5	132.4	9.4	92.1	1800	PASS
S-135	06/20/92	3800	6900	560.5	2	N	120.6	9.5	5	132.4	9.4	91.1	2240 *	PASS
S-136	06/20/92	3825	6905	561.0	3	N	119.2	9.8	5	132.4	9.4	90.0	1800	PASS
S-137	06/20/92	3770	6910	561.6	4	N	117.9	10.3	5	132.4	9.4	89.0	-	FAIL; SEE S-137R1
S-137R1	06/20/92	3770	6910	561.6	4	N	126.4	10.1	5	132.4	9.4	95.5	1800	PASS
S-138	06/20/92	3815	6910	562.1	5	N	127.3	10.2	5	132.4	9.4	96.1	-	PASS
S-139	06/20/92	3795	6905	562.8	6	N	122.6	10.5	5	132.4	9.4	92.6	1800	PASS
S-140	06/24/92	3814	6834	561.7	1	N	120.1	13.1	5	132.4	9.4	90.7	1800	PASS
S-141	06/24/92	3824	6814	564.2	2	N	119.2	10.3	5	132.4	9.4	90.0	1800	PASS
S-142	06/24/92	3824	6849	562.7	3	N	122.6	10.4	5	132.4	9.4	92.6	2240 *	PASS
S-143	06/24/92	3814	6844	563.1	4	N	121.1	10.5	5	132.4	9.4	91.5	1800	PASS
S-144	06/24/92	3799	6850	563.6	5	N	121.7	11.1	5	132.4	9.4	91.9	1800	PASS
S-145	06/24/92	3810	6830	564.2	6	N	122.0	11.8	5	132.4	9.4	92.1	1800	PASS
S-146	06/27/92	3685	7239	560.8	1	N	117.4	11.2	15	132.8	9.0	88.4	1800	FAIL; SEE S-146R1
S-146R1	06/29/92	3685	7239	560.8	1	N	119.7	10.5	15	132.8	9.0	90.1	-	PASS
S-147	06/27/92	3740	7155	561.2	1	N	113.0	12.4	15	132.8	9.0	85.1	-	FAIL; SEE S-147R1
S-147R1	06/27/92	3740	7155	561.2	1	N	114.8	17.1	15	132.8	9.0	86.4	-	FAIL; SEE S-147R2
S-147R2	06/29/92	3685	7239	560.8	1	N	126.2	10.8	15	132.8	9.0	95.0	1800	PASS
S-148	06/27/92	3805	7020	560.5	1	N	116.7	12.0	15	132.8	9.0	87.9	-	FAIL; SEE S-148R1
S-148R1	06/27/92	3805	7020	560.5	1	N	119.9	11.7	15	132.8	9.0	90.3	2240 *	PASS

(1) SG = Subgrade Surface; FG = Final Grade Surface

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FILENAME = SOILSM92.WK1

APRIL 1993

917-1203

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY - 1992
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-149	06/27/92	3820	7180	560.1	1	N	117.3	12.1	15	132.8	9.0	88.3	-	FAIL; SEE S-149R1
S-149R1	06/27/92	3820	7180	560.1	1	N	120.7	11.6	15	132.8	9.0	90.9	1800	PASS
S-150	06/27/92	3785	7160	561.3	2	N	120.2	12.0	15	132.8	9.0	90.5	1800	PASS
S-151	06/27/92	3800	7093	560.0	2	N	119.7	11.0	15	132.8	9.0	90.1	1800	PASS
S-152	06/27/92	3830	7138	560.5	3	N	120.7	12.6	15	132.8	9.0	90.9	1800	PASS
S-153	06/27/92	3780	7100	561.0	4	N	119.6	12.5	15	132.8	9.0	90.1	-	PASS
S-154	06/27/92	3824	7159	561.3	4	N	123.8	11.2	15	132.8	9.0	93.2	-	PASS
S-155	06/29/92	3692	7157	561.7	2	N	121.8	10.5	15	132.8	9.0	91.7	1800	PASS
S-156	06/29/92	3750	7185	560.5	2	N	120.9	11.5	15	132.8	9.0	91.0	1800	PASS
S-157	06/29/92	3697	7125	561.0	3	N	117.8	10.1	15	132.8	9.0	88.7	-	FAIL; SEE S-157R1
S-157R1	06/29/92	3697	7125	561.0	3	N	119.5	10.1	15	132.8	9.0	90.0	2240 *	PASS
S-158	06/30/92	3702	7220	562.0	4	N	119.9	11.0	15	132.8	9.0	90.3	2240 *	PASS
S-159	06/30/92	3730	7135	561.9	4	N	120.5	11.1	15	132.8	9.0	90.7	1800	PASS
S-160	06/30/92	3836	7038	560.5	1	N	120.6	10.3	15	132.8	9.0	90.8	1800	PASS
S-161	06/30/92	3836	7036	561.0	2	N	123.3	11.2	15	132.8	9.0	92.8	1800	PASS
S-162	06/30/92	3839	7052	561.5	3	N	120.4	11.3	15	132.8	9.0	90.7	-	PASS
S-163	06/30/92	3816	7015	562.0	4	N	123.5	11.9	15	132.8	9.0	93.0	1800	PASS
S-164	06/30/92	3846	7120	561.1	1	N	120.0	10.3	15	132.8	9.0	90.4	1800	PASS
S-165	06/30/92	3841	7115	561.6	2	N	121.1	10.7	15	132.8	9.0	91.2	1800	PASS
S-166	06/30/92	3851	7142	562.0	3	N	119.6	10.0	15	132.8	9.0	90.1	1800	PASS
S-167	06/30/92	3846	7125	562.5	4	N	123.3	10.1	15	132.8	9.0	92.8	-	PASS
S-168	07/01/92	3847	7176	562.4	1	N	115.7	9.7	15	132.8	9.0	87.1	1800	FAIL; SEE S-168R1
S-168R1	07/01/92	3874	7176	562.4	1	N	119.9	10.5	15	132.8	9.0	90.3	-	PASS
S-169	07/01/92	3899	7160	568.5	1	N	114.6	10.4	15	132.8	9.0	86.3	2240	FAIL; SEE S-169R1
S-169R1	07/01/92	3899	7160	568.5	1	N	123.0	9.7	15	132.8	9.0	92.6	2240	PASS
S-170	07/01/92	3846	7162	562.7	2	N	125.7	10.4	15	132.8	9.0	94.7	1800	PASS

(1) SG = Subgrade Surface; FG = Final Grade Surface

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FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION NORTH (ft)	LOCATION EAST (ft)	APPROX. ELEV. (ft-msl)	LIFT NO. (1)	TEST METHOD (2)	IN-SITU VALUE DRY DENSITY (pcf)	IN-SITU VALUE MOISTURE CONTENT (%)	REFERENCE VALUES CURVE NUMBER	REFERENCE VALUES MAX. DRY DENSITY (pcf)	REFERENCE VALUES OPTIMUM MOISTURE (%)	PERCENT COMPACTION (%)	SHEAR STRESS (psf)	REMARKS
S-171	07/01/92	3851	7188	563.2	3	N	122.9	9.5	15	132.8	9.0	92.5	1800	PASS
S-172	07/01/92	3789	7195	562.1	1	N	119.5	10.0	15	132.8	9.0	90.0	1800	PASS
S-173	07/01/92	3846	7194	562.5	4	N	122.5	10.4	15	132.8	9.0	92.2	-	PASS
S-174	07/01/92	3900	7114	569.3	2	N	121.3	10.3	15	132.8	9.0	91.3	1800	PASS
S-175	07/01/92	3804	7210	562.3	2	N	119.6	9.3	15	132.8	9.0	90.1	1800	PASS
S-176	07/01/92	3903	7140	569.6	3	N	124.8	9.8	15	132.8	9.0	94.0	1800	PASS
S-177	07/01/92	3800	7208	562.4	3	N	123.5	9.9	15	132.8	9.0	93.0	1800	PASS
S-178	07/01/92	3908	7173	570.0	4	N	121.4	11.7	15	132.8	9.0	91.4	1800	PASS
S-179	07/01/92	3790	7213	562.8	4	N	124.5	11.0	15	132.8	9.0	93.7	2240	PASS
S-180	07/03/92	3960	7252	581.2	1	N	122.2	9.0	15	132.8	9.0	92.0	2240 *	PASS
S-181	07/03/92	3650	7258	581.7	2	N	122.5	10.6	15	132.8	9.0	92.2	2240	PASS
S-182	07/29/92	3776	6986	559.0	1	N	120.5	9.7	15	132.8	9.0	90.7	2240	PASS
S-183	07/29/92	3812	7017	559.5	2	N	125.5	9.5	15	132.8	9.0	94.1	2240	PASS
S-184	07/29/92	3705	7125	558.8	1	N	122.6	9.1	15	132.8	9.0	92.3	2240 *	PASS
S-185	07/29/92	3780	7017	560.0	3	N	120.2	9.8	15	132.8	9.0	90.2	2240	PASS
S-186	07/29/92	3785	6998	560.5	4	N	119.6	9.0	15	132.8	9.0	90.0	2240	PASS
S-187	07/29/92	3825	7019	560.7	5	N	122.5	9.7	15	132.8	9.0	92.2	2240	PASS
S-188	07/29/92	3694	7130	559.4	2	N	120.6	11.5	15	132.8	9.0	90.8	-	PASS
S-189	07/29/92	3819	7029	561.1	6	N	122.2	10.2	15	132.8	9.0	92.0	-	PASS
S-190	07/29/92	3780	7031	561.5	7	N	122.7	9.4	15	132.8	9.0	92.4	-	PASS
S-191	08/03/92	3780	7050	559.5	1	N	123.7	11.2	15	132.8	9.0	93.1	-	PASS
S-192	08/03/92	3795	7080	560.0	2	N	120.4	11.3	15	132.8	9.0	90.7	-	PASS
S-193	08/03/92	3800	7060	560.7	3	N	121.1	10.6	15	132.8	9.0	91.2	-	PASS
S-194	08/03/92	3780	7087	561.2	4	N	125.3	10.4	15	132.8	9.0	94.3	-	PASS
S-195	08/04/92	3755	7143	559.4	1	N	127.3	10.9	15	132.8	9.0	95.9	-	PASS
S-196	08/04/92	3750	7158	559.9	2	N	123.9	11.2	15	132.8	9.0	93.3	-	PASS

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FILENAME = SOILSM92.WK1

SECONDARY SOILS MOISTURE/DENSITY TESTING SUMMARY – 1992
ALLEN PARK CLAY MINE – CELL 2
FORD MOTOR COMPANY

TEST NUMBER	DATE	LOCATION		APPROX. ELEV.	LIFT NO.	TEST METHOD	IN-SITU VALUE		REFERENCE VALUES			PERCENT COMPACTION	SHEAR STRESS	REMARKS
		NORTH (ft)	EAST (ft)	(ft-msl)	(1)	(2)	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	CURVE NUMBER	MAX. DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	(%)	(psf)	
S-197	08/04/92	3756	7153	560.4	3	N	123.5	11.1	15	132.8	9.0	93.0	-	PASS
S-198	08/05/92	3600	7165	565.6	1	N	127.6	9.5	13	132.1	9.1	96.6	-	PASS
S-199	08/05/92	3602	7162	566.1	2	N	123.7	11.7	13	132.1	9.1	93.7	-	PASS
S-200	08/05/92	3598	7161	565.5	3	N	119.2	11.3	13	132.1	9.1	90.2	-	PASS
S-201	08/05/92	3600	7160	566.2	4	N	124.7	9.8	13	132.1	9.1	94.4	2240	PASS
S-202	08/05/92	3605	7162	566.8	5	N	125.2	9.7	13	132.1	9.1	94.8	2240 *	PASS
S-203	08/05/92	3601	7160	567.3	6	N	121.9	10.7	13	132.1	9.1	92.3	2240	PASS
S-204	08/06/92	3640	7140	568.0	7	N	124.3	9.5	15	132.8	9.0	93.6	-	PASS
S-205	08/06/92	3636	7141	573.0	8	N	123.0	9.4	15	132.8	9.0	92.6	-	PASS
S-206	08/06/92	3630	7142	571.5	9	N	126.1	10.1	15	132.8	9.0	94.9	2240 *	PASS
S-207	08/06/92	3640	7140	573.0	10	N	119.7	10.3	15	132.8	9.0	90.2	-	PASS
S-208	08/06/92	3643	7143	572.5	11	N	121.7	9.5	15	132.8	9.0	91.7	-	PASS
S-209	08/06/92	3670	7135	575.0	1	N	121.3	10.4	15	132.8	9.0	91.3	-	PASS
S-210	08/06/92	3565	7165	575.0	1	N	121.5	11.1	15	132.8	9.0	91.5	-	PASS
S-211	08/07/92	3550	7165	573.0	2	N	121.4	9.8	15	132.8	9.0	91.4	-	PASS
S-212	08/07/92	3570	7167	571.5	3	N	120.8	10.3	15	132.8	9.0	91.0	-	PASS
S-213	08/07/92	3555	7162	573.0	4	N	121.9	9.5	15	132.8	9.0	91.8	-	PASS
S-214	08/07/92	3567	7158	572.5	5	N	125.4	10.2	15	132.8	9.0	94.5	-	PASS
S-215	08/07/92	3550	7165	573.0	6	N	121.9	9.7	15	132.8	9.0	91.8	-	PASS
S-216	08/07/92	3547	7165	573.5	7	N	127.5	9.6	15	132.8	9.0	96.0	-	PASS
S-217	08/07/92	3664	7140	574.0	8	N	124.1	10.6	15	132.8	9.0	93.4	-	PASS
S-218	08/10/92	3664	7140	563.2	2	N	121.4	10.8	13	132.1	9.1	91.9	-	PASS
S-219	08/10/92	3664	7140	563.8	3	N	123.0	10.1	13	132.1	9.1	93.1	-	PASS
S-220	08/16/92	3740	7114	560.5	FG	N	123.1	9.1	17	132.5	9.0	92.9	-	PASS
S-221	08/16/92	3750	7030	560.5	FG	N	123.7	9.2	17	132.5	9.0	93.4	-	PASS
S-222	08/16/92	3779	7076	560.0	FG	N	121.7	9.3	17	132.5	9.0	91.8	-	PASS

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(2) D = Drive Cylinder; N = Nuclear densometer; * = Vane Shear Test

FILENAME = SOILSM92.WK1

J.2

HYDRAULIC CONDUCTIVITY TESTING SUMMARY

SUMMARY OF PERMEABILITY RESULTS
FOR CELL BASE FLOOR
ALLEN PARK CLAY MINE - CELL 2
FORD MOTOR COMPANY

SAMPLE NAME	PERMEABILITY (cm/s)
ST-1	3.0E-08
ST-2	4.0E-08
S-226	5.0E-09
S-140-S	1.0E-08