pipe tally

Client: Petroleum & Energy Infrastructures Ltd.
Pipeline: 40 km x 10" jet fuel pipeline 'Eshel – Nevatim'
Construction year: 1982
ILI technology: UTWM / XT
Inspection period: October 2020 / April 2021
ROSEN reference: 7-9720-12597 / 10ESHNEV
Revision: 1

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information											
																		Deformations				Cracks and metal losses							
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
2335.766	175944.439	578559.386	252.295	weld	-			2220	longitudinal seam	12.411	260.56	6.27		N		09:32													
2348.177	175956.300	578563.034	252.417	weld	-			2230	longitudinal seam	1.810	260.58	6.26		N		04:04													
2349.987	175958.028	578563.572	252.453	weld	-	קטע 1 התחלה		2240	longitudinal seam	12.484	260.46	6.32		N		00:43													
2362.471	175969.943	578567.289	252.557	weld	-			2250	longitudinal seam	2.633	260.54	6.28		N		08:56													
2362.572	175970.039	578567.320	252.556	anomaly	corrosion							6.30		N	0.101	07:31	EXT					8	14	0.85	5.45	16	16	PITT	0.69	
2364.201	175971.589	578567.819	252.539	anomaly	corrosion	further indications						6.30		N	1.730	05:23	EXT					7	29	1.80	4.50	158	80	GENE	0.80	0.74
2364.393	175971.771	578567.879	252.536	anomaly	corrosion							6.30		N	1.922	05:36	EXT					5	21	1.30	5.00	124	48	GENE	0.75	0.68
2364.563	175971.933	578567.932	252.534	anomaly	corrosion							6.30		N	2.092	05:57	EXT					5	15	0.97	5.33	50	23	AXGR	0.71	
2364.639	175972.005	578567.956	252.533	anomaly	corrosion cluster		4					6.28		N	2.168	05:37	EXT					4	17	1.07	5.21	112	72	GENE	0.74	
2364.699	175972.062	578567.974	252.532	anomaly	corrosion							6.30		N	2.228	11:45	EXT					5	11	0.71	5.59	26	24	PITT	0.69	
2365.104	175972.447	578568.100	252.526	weld	-			2260	longitudinal seam	3.311	260.58	6.26		N		03:36													
2368.415	175975.587	578569.144	252.476	weld	-			2270	longitudinal seam	2.402	260.52	6.29		N		04:19													
2370.817	175977.862	578569.913	252.468	weld	-			2280	longitudinal seam	4.406	260.38	6.36		N		01:55													
2375.223	175982.034	578571.328	252.460	weld	-			2290	longitudinal seam	7.438	260.42	6.34		N		09:09													
2376.244	175983.001	578571.657	252.457	anomaly	corrosion							6.20		N	1.021	06:42	EXT					3	10	0.64	5.56	114	104	GENE	0.71	
2376.410	175983.158	578571.710	252.456	anomaly	corrosion							6.20		N	1.187	06:30	EXT					3	11	0.66	5.54	100	55	GENE	0.71	
2376.706	175983.438	578571.806	252.454	anomaly	corrosion							6.30		N	1.483	06:19	EXT					4	11	0.71	5.59	60	48	GENE	0.70	
2376.970	175983.688	578571.891	252.451	anomaly	corrosion	further indications						6.30		N	1.747	05:53	EXT					3	11	0.71	5.59	114	40	GENE	0.72	
2377.140	175983.849	578571.946	252.450	anomaly	corrosion							6.30		N	1.917	06:20	EXT					5	12	0.74	5.56	30	23	PITT	0.69	
2377.164	175983.872	578571.953	252.450	anomaly	corrosion							6.30		N	1.941	07:00	EXT					6	14	0.91	5.39	36	16	AXGR	0.70	
2377.188	175983.894	578571.961	252.449	anomaly	corrosion							6.30		N	1.965	07:46	EXT					4	10	0.65	5.65	34	8	AXSL	0.69	
2377.194	175983.900	578571.963	252.449	anomaly	corrosion							6.30		N	1.971	05:46	EXT					4	9	0.56	5.74	30	23	PITT		
2377.250	175983.953	578571.981	252.449	anomaly	corrosion							6.30		N	2.027	07:25	EXT					4	10	0.62	5.68	44	24	PITT	0.70	
2377.496	175984.186	578572.060	252.447	anomaly	corrosion							6.30		N	2.273	09:39	EXT					10	14	0.85	5.45	8	23	CISL	0.68	
2378.818	175985.436	578572.488	252.434	anomaly	corrosion							6.20		N	3.595	07:15	EXT					5	12	0.75	5.45	36	55	GENE	0.69	
2380.652	175987.169	578573.088	252.416	anomaly	corrosion							6.30		N	5.429	06:38	EXT					4	20	1.27	5.03	244	24	AXGR	0.85	0.70
2380.946	175987.446	578573.185	252.412	anomaly	corrosion							6.30		N	5.723	06:53	EXT					3	9	0.59	5.71	74	8	AXSL		
2382.661	175989.064	578573.750	252.389	weld	-			2300	longitudinal seam	3.474	260.58	6.26		N		01:51													
2383.914	175990.247	578574.162	252.368	anomaly	corrosion							6.30		N	1.253	05:42	EXT					3	12	0.74	5.56	104	79	GENE	0.72	
2384.062	175990.387	578574.211	252.366	anomaly	corrosion							6.30		N	1.401	06:15	EXT					7	11	0.68	5.62	12	16	PITT	0.68	
2384.238	175990.553	578574.269	252.363	anomaly	corrosion							6.30		N	1.577	04:54	EXT					5	15	0.94	5.36	50	40	GENE	0.71	
2384.373	175990.681	578574.313	252.360	anomaly	corrosion							6.30		N	1.712	04:07	EXT					5	12	0.76	5.54	38	32	GENE	0.70	
2384.759	175991.045	578574.441	252.353	anomaly	corrosion							6.30		N	2.098	03:27	EXT					8	22	1.39	4.91	38	24	PITT	0.71	0.63
2385.059	175991.328	578574.541	252.347	anomaly	corrosion cluster		5					6.26		N	2.398	04:19	EXT					6	29	1.82	4.44	114	56	GENE	0.78	0.72
2385.198	175991.459	578574.587	252.345	anomaly	corrosion							6.30		N	2.537	02:45	EXT					8	13	0.79	5.51	14	16	PITT	0.68	
2386.135	175992.342	578574.897	252.327	weld	-			2310	longitudinal seam	2.468	260.56	6.27		N		02:41													
2387.103	175993.254	578575.220	252.305	anomaly	corrosion							6.30		N	0.968	08:26	EXT					11	27	1.68	4.62	30	24	PITT	0.71	0.63
2387.637	175993.757	578575.398	252.293	anomaly	corrosion							6.30		N	1.502	03:40	EXT					3	11	0.71	5.59	68	32	GENE	0.71	
2387.878	175993.984	578575.478	252.287	anomaly	corrosion							6.30		N	1.743	08:14	EXT					3	8	0.50	5.80	44	32	GENE		
2388.560	175994.627	578575.707	252.273	anomaly	corrosion	GWA						6.30		N	2.425	09:14	EXT					5	12	0.74	5.56	28	31	PITT	0.69	
2388.572	175994.638	578575.711	252.273	anomaly	corrosion	GWA						6.30		N	2.437	07:54	EXT					10	22	1.37	4.93	24	23	PITT	0.70	0.62
2388.603	175994.667	578575.721	252.272	weld	-			2320	longitudinal seam	5.606	260.50	6.30		N		10:12													
2388.734	175994.790	578575.765	252.270	anomaly	corrosion							6.30		N	0.131	04:01	EXT					10	19	1.21	5.09	20	8	AXSL	0.69	
2388.774	175994.828	578575.779	252.270	anomaly	corrosion							6.30		N	0.171	09:07	EXT					8	14	0.91	5.39	16	16	PITT	0.69	
2389.000	175995.041	578575.854	252.266	anomaly	corrosion							6.30		N	0.397	03:34	EXT					9	27	1.68	4.62	48	40	GENE	0.73	0.65
2389.718	175995.716	578576.096	252.255	anomaly	corrosion							6.30		N	1.115	08:36	EXT					7	14	0.88	5.42	20	16	PITT	0.69	
2389.938	175995.924	578576.170	252.252	anomaly	corrosion							6.30		N	1.335	08:10	EXT					8	10	0.62	5.68	10	16	PITT	0.68	
2389.982	175995.965	578576.184	252.251	anomaly	corrosion	further indications						6.30		N	1.379	08:10	EXT					5	11	0.68	5.62	24	32	PITT	0.69	
2391.062	175996.982	578576.547	252.239	anomaly	corrosion							6.30		N	2.459	08:42	EXT					7	10	0.62	5.68	12	16	PITT	0.68	
2393.630	175999.399	578577.412	252.223	anomaly	corrosion							6.30		N	5.027	06:19	EXT					9	16	1.00	5.30	16	16	PITT	0.69	
2393.726	175999.489	578577.445	252.222	anomaly	corrosion							6.30		N	5.123	07:26	EXT					11	20	1.27	5.03	16	32	CIGR	0.69	0.61
2393.746	175999.508	578577.451	252.222	anomaly	corrosion	further indications						6.30		N	5.143	06:06	EXT					6	18	1.12	5.18	50	39	GENE	0.71	
2393.764	175999.525	578577.458	252.222	anomaly	corrosion							6.30		N	5.161	07:26	EXT					5	12	0.74	5.56	26	8	AXSL	0.69	
2393.872	175999.627	578577.494	252.222	anomaly	corrosion	GWA						6.30		N	5.269	07:01	EXT					6	28	1.74	4.56	326	79	GENE	0.95	0.76
2394.090	175999.832	578577.568	252.221	anomaly	corrosion							6.30		N	5.487	08:41	EXT					4	12	0.76	5.54	54	48	GENE	0.70	
2394.174	175999.911	578577.596	252.220	anomaly	corrosion							6.30		N	5.571	09:21	EXT					8	11	0.68	5.62	6	8	PINH	0.68	
2394.209	175999.944	578577.608	252.220	weld	-			2330	longitudinal seam	3.312	260.50	6.30		N		08:57													
2394.220	175999.954	578577.612	252.220	anomaly	corrosion	GWA						6.30		N	0.011	05:41	EXT					7	27	1.68	4.62	124	71	GENE	0.78	0.71
2394.436	176000.157	578577.685	252.219	anomaly	corrosion cluster		6					6.30		N	0.227	05:40	EXT					3	11	0.69	5.61	80	55	GENE	0.71	
2397.521	176003.061	578578.726	252.210	weld	-			2340	longitudinal seam	2.462	260.50	6.30	0.1	N		09:08													
2399.424	176004.856	578579.358	252.211	anomaly	dent plain							6.30		N	1.903	11:47	INT	inw	0.6%	40	107							-		
2399.983	176005.383	578579.542	252.212	weld	-			2350	longitudinal seam	12.521	260.46	6.32		N		02:14													
2403.086	176008.313	578580.563	252.215	anomaly	corrosion							6.40		N	3.103	06:10	EXT					7	13	0.81	5.59	16	16	PITT	0.69	
2403.142	176008.366	578580.581	252.215	anomaly	corrosion cluster		7					6.32		N	3.159	06:10	EXT					3	12	0.76	5.56	40	40	GENE	0.70	
2403.390	176008.600	578580.663	252.215	anomaly	corrosion							6.40		N	3.407	06:46	EXT					9	19	1.19	5.21	22	24	PITT	0.69	
2404.993	176010.113	578581.192	252.217	anomaly	corrosion							6.30		N	5.010	07:17	EXT					11	14	0.91	5.39	10	8	AXSL	0.68	
2412.504	176017.197	578583.683	252.182	weld	-			2360	longitudinal seam	12.504	260.50	6.30		N		09:26													
2425.008	176028.991	578587.809	251.860	weld	-			2370	longitudinal seam	12.497	260.48	6.31		N		01:06													
2429.608	176033.342	578589.281	251.662	anomaly	corrosion							6.30		N	4.600	07:26	EXT					4	9	0.56	5.74	20	24	PITT		
2430.135	176033.841	578589.448	251.638	anomaly	corrosion							6.30		N	5.127	05:40	EXT					6	12	0.74	5.56	18	32	PITT	0.69	
2430.285	176033.983	578589.496	251.631	anomaly	corrosion							6.30		N	5.277	05:34	EXT					11	32	2.04	4.26	52	16	AXGR	0.74	0.67
2435.713	176039.128	578591.191	251.342	anomaly	corrosion							6.30		N	10.705	05:28	EXT					8	26	1.62	4.68	68	24	AXGR	0.74	0.67
2437.505	176040.830	578591.740	251.240	weld	-			2380	longitudinal seam	12.486	260.42	6.34	0.8	N		02:16													
2443.860	176046.874	578593.647	250.847	anomaly	dent complex	LWA						6.34		N	6.355	01:41	INT	inw	0.6%	125	107							-		

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information													
																		Deformations				Cracks and metal losses									
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
2448.358	176051.176	578594.934	250.619	anomaly	corrosion							6.30		N	10.853	05:57	EXT					8	11	0.68	5.62	10	8	AXSL	0.68	
2448.560	176051.370	578594.990	250.610	anomaly	corrosion cluster		8					6.34		N	11.055	04:57	EXT					6	29	1.84	4.50	172	158	GENE	0.80	0.74
2449.991	176052.742	578595.388	250.546	weld	-			2390	longitudinal seam	6.110	260.60	6.25		N		10:51															
2452.086	176054.753	578595.964	250.456	anomaly	corrosion							6.20		N	2.095	05:26	EXT					5	11	0.67	5.53	26	32	PITT	0.69	
2455.660	176058.190	578596.925	250.315	anomaly	corrosion							6.20		N	5.669	07:01	EXT					11	34	2.12	4.08	56	56	GENE	0.75	0.68
2456.101	176058.615	578597.043	250.299	weld	-			2400	longitudinal seam	0.952	260.64	6.23		N		03:56															
2457.053	176059.531	578597.297	250.265	weld	-			2410	longitudinal seam	5.364	260.64	6.23		N		10:51															
2460.532	176062.881	578598.220	250.118	anomaly	corrosion							6.20		N	3.479	06:42	EXT					3	15	0.90	5.30	300	32	GENE	0.80	
2462.417	176064.695	578598.720	250.033	weld	-			2420	longitudinal seam	1.851	260.46	6.32		N		08:10															
2464.268	176066.476	578599.218	249.955	weld	-			2430	longitudinal seam	0.646	260.40	6.35		N		03:34															
2464.395	176066.598	578599.252	249.950	anomaly	corrosion							6.30		N	0.127	08:36	EXT					11	17	1.09	5.21	14	8	AXSL	0.69	
2464.503	176066.701	578599.281	249.946	anomaly	corrosion							6.30		N	0.235	10:15	EXT					3	14	0.88	5.42	186	56	GENE	0.74	
2464.521	176066.719	578599.286	249.945	anomaly	corrosion							6.30		N	0.253	08:22	EXT					5	11	0.71	5.59	26	16	PITT	0.69	
2464.573	176066.769	578599.300	249.944	anomaly	corrosion							6.30		N	0.305	08:35	EXT					5	14	0.91	5.39	48	23	AXGR	0.70	
2464.785	176066.973	578599.358	249.937	anomaly	corrosion cluster	GWA	9					6.35		N	0.517	07:14	EXT					3	15	0.95	5.40	116	56	GENE	0.73	
2464.859	176067.044	578599.378	249.935	anomaly	corrosion							6.30		N	0.591	01:01	EXT					6	13	0.81	5.49	22	8	AXSL	0.69	
2464.914	176067.097	578599.393	249.933	weld	-			2440	longitudinal seam	10.034	260.40	6.35	1.4	N		08:06															
2464.979	176067.159	578599.411	249.931	anomaly	corrosion							6.40		N	0.065	08:48	EXT					4	12	0.78	5.62	60	40	GENE	0.70	
2465.007	176067.186	578599.419	249.930	anomaly	corrosion							6.40		N	0.093	04:55	EXT					4	13	0.81	5.59	82	88	GENE	0.71	
2465.029	176067.207	578599.425	249.929	anomaly	corrosion cluster		10					6.35		N	0.115	03:08	EXT					3	13	0.83	5.52	82	48	GENE	0.71	
2465.099	176067.274	578599.444	249.927	anomaly	corrosion cluster		11					6.35		N	0.185	08:55	EXT					4	15	0.95	5.40	60	32	GENE	0.71	
2466.537	176068.656	578599.836	249.881	anomaly	corrosion							6.40		N	1.623	05:46	EXT					13	21	1.37	5.03	14	16	PITT	0.69	0.61
2467.695	176069.769	578600.152	249.854	anomaly	corrosion							6.30		N	2.781	05:15	EXT					6	28	1.74	4.56	202	63	GENE	0.95	0.74
2469.019	176071.042	578600.515	249.825	anomaly	corrosion							6.40		N	4.105	06:28	EXT					5	10	0.66	5.74	22	24	PITT	0.69	
2470.513	176072.477	578600.928	249.796	anomaly	dent plain							6.35		N	5.599	04:15	INT	inw	1.1%	65	107							-		
2473.992	176075.813	578601.906	249.707	anomaly	dent plain							6.35		N	9.078	01:26	INT	inw	0.9%	305	250							-		
2474.713	176076.503	578602.112	249.678	anomaly	corrosion							6.40		N	9.799	05:29	EXT					7	20	1.25	5.15	38	32	GENE	0.71	0.63
2474.948	176076.727	578602.180	249.664	weld	-			2450	longitudinal seam	12.546	260.46	6.32		N		01:43															
4103.005	177617.081	579114.759	262.960	weld	-	אתר 1		3900	longitudinal seam	12.508	260.66	6.22		N		01:06															
4103.270	177617.333	579114.844	262.960	anomaly	corrosion							6.20		N	0.265	08:43	EXT					3	11	0.66	5.54	150	64	GENE	0.72	
4103.490	177617.542	579114.915	262.959	anomaly	corrosion							6.20		N	0.485	08:37	EXT					5	22	1.38	4.82	246	72	GENE	0.87	0.71
4103.804	177617.841	579115.015	262.958	anomaly	corrosion							6.20		N	0.799	08:31	EXT					6	26	1.58	4.62	238	80	GENE	0.92	0.74
4109.558	177623.315	579116.852	262.963	anomaly	corrosion	further indications						6.20		N	6.553	08:33	EXT					4	9	0.58	5.62	38	31	GENE		
4109.775	177623.522	579116.921	262.964	anomaly	corrosion							6.20		N	6.770	08:21	EXT					9	29	1.79	4.41	62	48	GENE	0.75	0.68
4115.513	177628.987	579118.737	262.994	weld	-			3910	longitudinal seam	12.489	260.50	6.30		N		03:04															
4340.598	177842.763	579191.423	267.379	weld	-	קטע 2 התחלה		4140	longitudinal seam	12.521	260.50	6.30		N		11:39															
4343.694	177845.729	579192.312	267.136	anomaly	corrosion	further indications						6.30		N	3.096	03:40	EXT					4	14	0.88	5.42	86	23	AXGR	0.72	
4343.816	177845.846	579192.347	267.127	anomaly	corrosion							6.30		N	3.218	03:21	EXT					3	11	0.68	5.62	82	56	GENE	0.71	
4344.080	177846.098	579192.423	267.107	anomaly	corrosion							6.30		N	3.482	03:42	EXT					8	13	0.79	5.51	14	23	PITT	0.68	
4347.094	177848.985	579193.290	266.880	anomaly	corrosion							6.30		N	6.496	03:59	EXT					6	15	0.97	5.33	30	32	GENE	0.69	
4347.230	177849.116	579193.329	266.870	anomaly	corrosion							6.30		N	6.632	04:08	EXT					3	8	0.53	5.77	36	16	AXGR		
4351.990	177853.670	579194.705	266.471	anomaly	corrosion							6.30		N	11.392	04:20	EXT					2	8	0.53	5.77	208	24	AXGR		
4353.119	177854.748	579195.032	266.365	weld	-			4150	longitudinal seam	1.765	260.40	6.35		N		09:46															
4354.034	177855.622	579195.300	266.281	anomaly	corrosion							6.30		N	0.915	04:11	EXT					5	23	1.45	4.85	368	64	GENE	0.89	0.73
4354.635	177856.196	579195.476	266.227	anomaly	corrosion							6.30		N	1.516	04:12	EXT					3	11	0.71	5.59	84	23	AXGR	0.71	
4354.763	177856.318	579195.514	266.215	anomaly	corrosion							6.30		N	1.644	04:44	EXT					4	13	0.79	5.51	60	24	AXGR	0.71	
4354.884	177856.434	579195.550	266.204	weld	-			4160	longitudinal seam	3.408	260.46	6.32		N		10:34															
4358.292	177859.683	579196.558	265.872	weld	-			4170	longitudinal seam	12.516	260.56	6.27		N		00:07															
4361.631	177862.864	579197.555	265.561	anomaly	corrosion							6.20		N	3.339	05:59	EXT					6	15	0.93	5.27	40	23	PITT	0.70	
4361.737	177862.965	579197.587	265.552	anomaly	corrosion							6.20		N	3.445	05:27	EXT					5	24	1.50	4.70	516	79	GENE	0.90	0.74
4363.452	177864.600	579198.102	265.407	anomaly	corrosion							6.20		N	5.160	06:11	EXT					4	12	0.75	5.45	74	23	AXGR	0.71	
4364.184	177865.298	579198.323	265.348	anomaly	corrosion							6.30		N	5.892	05:51	EXT					6	12	0.76	5.54	20	16	PITT	0.69	
4364.282	177865.391	579198.352	265.340	anomaly	corrosion							6.20		N	5.990	05:18	EXT					3	8	0.52	5.68	50	24	AXGR		
4364.442	177865.544	579198.400	265.327	anomaly	corrosion	further indications						6.20		N	6.150	05:05	EXT					5	15	0.93	5.27	64	32	GENE	0.71	
4370.808	177871.611	579200.323	264.809	weld	-			4180	longitudinal seam	12.513	260.44	6.33		N		10:09															
4482.097	177977.759	579234.635	260.972	weld	-	אתר 2		4290	longitudinal seam	12.535	260.46	6.32		N		08:25															
4487.291	177982.691	579236.283	260.653	anomaly	corrosion							6.30		N	5.194	05:11	EXT					2	10	0.64	5.66	384	127	GENE	0.76	
4488.255	177983.607	579236.588	260.587	anomaly	corrosion							6.30		N	6.158	05:02	EXT					2	14	0.85	5.45	858	143	GENE	0.79	
4489.144	177984.451	579236.869	260.526	anomaly	corrosion							6.30		N	7.047	06:13	EXT					2	9	0.59	5.71	136	63	GENE		
4490.452	177985.693	579237.280	260.426	anomaly	corrosion							6.30		N	8.355	05:31	EXT					3	7	0.44	5.86	34	24	PITT		
4494.632	177989.661	579238.592	260.090	weld	-			4300	longitudinal seam	12.543	260.38	6.36		N		10:20															
4702.791	178188.015	579302.716	260.352	weld	-	אתר 3		4490	longitudinal seam	12.563	260.42	6.34		N		11:22															
4713.740	178198.390	579306.137	261.618	anomaly	corrosion							6.40		N	10.949	05:47	EXT					5	15	0.95	5.45	68	39	GENE	0.71	
4713.857	178198.501	579306.174	261.630	anomaly	corrosion							6.40		N	11.066	04:47	EXT					7	27	1.72	4.68	148	80	GENE	0.79	0.72
4714.617	178199.222	579306.414	261.708	anomaly	corrosion							6.40		N	11.826	05:47	EXT					7	9	0.60	5.80	10	24	CIGR		
4715.354	178199.920	579306.646	261.784	weld	-			4500	longitudinal seam	12.569	260.26	6.42		N		08:57															
4803.222	178283.194	579334.729	266.248	weld	-	אתר 4		4570	longitudinal seam	12.550	260.24	6.43		N		01:18															
4809.239	178288.863	579336.674	266.427	anomaly	corrosion							6.40		N	6.017	04:58	EXT					7	15	0.95	5.45	26	16	PITT	0.69	
4809.493	178289.102	579336.756	266.434	anomaly	corrosion							6.40		N	6.271	05:05	EXT					5	12	0.75	5.65	28	32	PITT	0.69	
4809.797	178289.389	579336.854	266.444	anomaly	corrosion							6.40		N	6.575	04:52	EXT					5	10	0.66	5.74	24	23	PITT	0.69	
4814.667	178293.979	579338.423	266.539	anomaly	corrosion							6.40		N	11.445	04:23	EXT					4	20	1.28	5.12	485	71	GENE	0.85	0.71
4815.363	178294.636	579338.646	266.546	anomaly	corrosion cluster		15					6.43		N	12.141	04:37	EXT					4	21	1.35	5.08	141	46	GENE	0.76	0.69
4815.587	178294.847	579338.718	266.548	anomaly	corrosion cluster		16					6.43		N	12.365	04:20	EXT					6	26	1.67	4.76	72	55	GENE	0.75	0.68
4815.772	178295.021	579338.777	266.550	weld	-			4580	longitudinal seam	12.521	260.42	6.34		N		11:25															
4878.432	178354.369	579358.085	265.895	weld	-	אתר 5		4650	longitudinal seam	12.531	260.52	6.29		N		01:06															
4882.848	178358.553	579359.428	265.713	anomaly	corrosion							6.30		N	4.416	05:19	EXT					5	25	1.56	4.74	512	80	GENE	0.91	0.75
4883.402	178359.078	579359.596	265.692	anomaly	corrosion cluster		17					6.29		N	4.970	05:33	EXT					4	22	1.38	4.91	284	64	GENE	0.87	0.72
4883.864	178359.515	579359.737	265.674	anomaly	corrosion							6.30		N	5.432	06:00	EXT					11	24	1.53	4.77	24	24	PITT	0.70	0.62
4883.954	178359.601	579359.764	265.670	anomaly	corrosion							6.30		N	5.522	05:26	EXT					3	12	0.74	5.56	84	48	GENE	0.71	
4890.963	178366.242	579361.904	265.461	weld	-			4660	longitudinal seam	12.164	260.44	6.33		N		11:22															
6424.074	179815.049	579851.550	290.759	weld	-	אתר 6		5920	longitudinal seam	12.497	260.44	6.33		N		11:55															
6424.779	179815.693	579851.841	290.729	anomaly	corrosion							6.30		N	0.705	07:48	EXT					8	21	1.33	4.97	34	39	GENE	0.70	0.63
6425.593	179816.436	579852.177	290.697	anomaly	corrosion							6.30		N	1.519	08:46	EXT					7	11	0.68	5.62	12	16	PITT	0.68	

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information												
																		Deformations				Cracks and metal losses								
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
6425.707	179816.540	579852.224	290.693	anomaly	corrosion							6.30		N	1.633	07:06	EXT					10	27	1.68	4.62	42	56	GENE	0.72	0.64
6429.330	179819.861	579853.691	290.576	anomaly	corrosion							6.30		N	5.256	06:57	EXT					3	12	0.76	5.54	138	80	GENE	0.72	
6429.658	179820.165	579853.817	290.568	anomaly	corrosion							6.40		N	5.584	09:52	EXT					5	14	0.89	5.51	58	31	GENE	0.71	
6430.025	179820.512	579853.940	290.560	repair	welded sleeve begin					0.258				N	5.951															
6430.092	179820.576	579853.959	290.559	anomaly	repaired anomaly	under sleeve						6.40		N	6.018	01:06	EXT									76	86	-		
6430.283	179820.759	579854.015	290.556	repair	welded sleeve end									N	6.209															
6430.398	179820.869	579854.049	290.554	anomaly	corrosion							6.40		N	6.324	05:59	EXT					5	12	0.78	5.62	28	32	PITT	0.69	
6430.552	179821.017	579854.094	290.551	anomaly	corrosion	LWA						6.40		N	6.478	11:52	EXT					7	19	1.19	5.21	46	39	GENE	0.71	
6430.556	179821.021	579854.096	290.551	anomaly	corrosion							6.40		N	6.482	09:19	EXT					5	12	0.75	5.65	34	40	GENE	0.69	
6430.704	179821.163	579854.139	290.548	anomaly	corrosion	LWA						6.40		N	6.630	00:06	EXT					6	14	0.89	5.51	24	16	PITT	0.69	
6430.791	179821.248	579854.158	290.547	anomaly	corrosion							6.40		N	6.717	09:26	EXT					5	11	0.72	5.68	22	24	PITT	0.69	
6430.837	179821.293	579854.166	290.547	anomaly	corrosion							6.40		N	6.763	08:33	EXT					3	12	0.78	5.62	89	71	GENE	0.71	
6430.890	179821.346	579854.176	290.547	anomaly	corrosion	LWA						6.40		N	6.816	11:59	EXT					4	11	0.72	5.68	43	40	GENE	0.70	
6431.048	179821.501	579854.206	290.546	anomaly	corrosion							6.40		N	6.974	08:39	EXT					4	11	0.72	5.68	48	95	GENE	0.70	
6431.214	179821.664	579854.237	290.544	anomaly	corrosion	LWA						6.40		N	7.140	00:05	EXT					6	14	0.89	5.51	34	24	PITT	0.70	
6431.218	179821.668	579854.238	290.544	anomaly	corrosion							6.40		N	7.144	09:12	EXT					9	15	0.95	5.45	14	16	PITT	0.69	
6431.700	179822.144	579854.318	290.542	anomaly	corrosion	LWA						6.40		N	7.626	00:02	EXT					5	8	0.54	5.86	16	24	PITT		
6432.006	179822.450	579854.351	290.541	anomaly	corrosion	LWA						6.40		N	7.932	00:00	EXT					6	11	0.68	5.72	14	16	PITT	0.68	
6432.491	179822.933	579854.404	290.541	anomaly	corrosion							6.40		N	8.417	03:56	EXT					6	14	0.86	5.54	24	32	PITT	0.69	
6432.553	179822.995	579854.411	290.541	anomaly	corrosion							6.40		N	8.479	03:42	EXT					3	16	1.01	5.39	448	111	GENE	0.81	
6433.283	179823.723	579854.489	290.540	anomaly	corrosion							6.40		N	9.209	03:59	EXT					7	30	1.90	4.50	166	55	GENE	0.81	0.75
6433.677	179824.116	579854.529	290.538	anomaly	corrosion							6.40		N	9.603	04:04	EXT					14	30	1.90	4.50	24	24	PITT	0.70	0.62
6434.840	179825.278	579854.632	290.526	anomaly	corrosion							6.40		N	10.766	03:56	EXT					10	18	1.16	5.24	16	16	PITT	0.69	
6434.914	179825.352	579854.639	290.525	anomaly	corrosion							6.40		N	10.840	07:09	EXT					15	24	1.55	4.85	14	8	AXSL	0.69	0.61
6436.571	179827.008	579854.775	290.509	weld	-			5930	longitudinal seam	11.425	260.40	6.35		N		11:48														
7044.906	180425.266	579770.114	307.634	weld	-	אתר 7		6530	longitudinal seam	12.006	260.46	6.32		N		02:35														
7045.213	180425.568	579770.056	307.643	anomaly	corrosion							6.30		N	0.307	05:43	EXT					6	14	0.91	5.39	30	23	PITT	0.69	
7045.281	180425.635	579770.044	307.645	anomaly	corrosion cluster		25					6.32		N	0.375	04:36	EXT					4	22	1.39	4.93	354	158	GENE	0.87	0.72
7056.912	180437.091	579767.845	307.922	weld	-			6540	longitudinal seam	12.344	260.52	6.29		N		00:31														
8283.242	181582.202	579524.343	345.700	weld	-	אתר 8		7670	longitudinal seam	12.517	260.44	6.33		N		02:15														
8290.267	181588.387	579521.067	345.819	anomaly	corrosion							6.30		N	7.025	05:55	EXT					6	16	1.03	5.27	36	16	AXGR	0.70	
8290.975	181589.010	579520.736	345.819	anomaly	corrosion							6.40		N	7.733	05:09	EXT					4	13	0.84	5.56	50	16	AXGR	0.70	
8294.130	181591.788	579519.263	345.815	anomaly	corrosion							6.40		N	10.888	04:42	EXT					7	16	1.01	5.39	26	23	PITT	0.69	
8294.142	181591.799	579519.257	345.815	anomaly	corrosion							6.40		N	10.900	05:29	EXT					5	24	1.55	4.85	270	88	GENE	0.90	0.73
8294.600	181592.203	579519.044	345.814	anomaly	corrosion cluster		29					6.33		N	11.358	04:37	EXT					4	18	1.14	5.19	102	96	GENE	0.74	
8295.759	181593.224	579518.504	345.814	weld	-			7680	longitudinal seam	12.484	260.56	6.27		N		10:19														
8672.792	181932.160	579356.240	358.904	weld	-	אתר 9		7990	longitudinal seam	12.519	260.58	6.26		N		10:17														
8673.541	181932.850	579355.945	358.926	anomaly	corrosion							6.30		N	0.749	05:39	EXT					6	14	0.85	5.45	22	16	PITT	0.69	
8675.742	181934.876	579355.073	358.993	anomaly	corrosion							6.30		N	2.950	04:48	EXT					10	19	1.21	5.09	18	16	PITT	0.69	
8676.490	181935.565	579354.775	359.015	anomaly	corrosion							6.30		N	3.698	04:43	EXT					13	22	1.42	4.88	16	23	PITT	0.69	0.61
8676.858	181935.903	579354.628	359.024	anomaly	corrosion							6.30		N	4.066	05:06	EXT					15	31	1.95	4.35	22	24	PITT	0.70	0.62
8678.542	181937.451	579353.955	359.063	anomaly	corrosion							6.20		N	5.750	05:24	EXT					10	36	2.23	3.97	94	56	GENE	0.80	0.74
8685.311	181943.661	579351.221	359.174	weld	-			8000	longitudinal seam	12.518	260.46	6.32		N		01:10														
10201.256	183378.288	579159.354	395.708	weld	-	אתר 10		9300	longitudinal seam	12.487	260.62	6.24		N		10:23														
10211.092	183388.096	579159.481	394.953	anomaly	corrosion							6.20		N	9.836	05:40	EXT					7	29	1.82	4.38	142	24	AXGR	0.80	0.73
10213.743	183390.741	579159.539	394.779	weld	-			9310	longitudinal seam	12.492	260.56	6.27		N		00:52														
11066.394	184241.150	579173.790	363.561	weld	-	קטע 3 התחלה		10030	longitudinal seam	12.461	260.30	6.40	0.2	N		10:47														
11077.950	184252.599	579174.149	362.028	anomaly	dent plain							6.40		N	11.556	02:45	INT	inw	1.2%	35	107							-		
11078.280	184252.924	579174.158	361.970	anomaly	corrosion cluster		37					6.40		N	11.886	05:38	EXT					8	41	2.62	3.78	130	64	GENE	0.85	0.80
11078.416	184253.058	579174.162	361.946	anomaly	corrosion							6.40		N	12.022	06:25	EXT					5	11	0.72	5.68	24	16	PITT	0.69	
11078.502	184253.143	579174.164	361.931	anomaly	corrosion							6.40		N	12.108	04:00	EXT					9	13	0.84	5.56	12	23	PITT	0.68	
11078.855	184253.490	579174.174	361.867	weld	-			10040	longitudinal seam	8.411	260.32	6.39		N		03:31														
11087.266	184261.566	579174.470	359.616	weld	-			10050	longitudinal seam	3.196	260.26	6.42		N		03:37														
11090.462	184264.755	579174.496	359.423	weld	-			10060	longitudinal seam	5.817	260.28	6.41		N		03:18														
11090.743	184265.037	579174.496	359.422	anomaly	corrosion							6.30		N	0.281	08:15	EXT					9	16	1.03	5.27	16	16	PITT	0.69	
11090.795	184265.089	579174.496	359.422	anomaly	corrosion	LWA						6.30		N	0.333	03:35	EXT					8	19	1.21	5.09	26	24	PITT	0.69	
11091.343	184265.637	579174.495	359.421	anomaly	corrosion							6.30		N	0.881	03:48	EXT					13	17	1.06	5.24	10	16	PITT	0.68	
11091.558	184265.853	579174.495	359.421	anomaly	corrosion							6.30		N	1.096	00:35	EXT					6	10	0.65	5.65	14	16	PITT	0.68	
11091.943	184266.238	579174.494	359.425	anomaly	corrosion							6.20		N	1.481	09:52	EXT					3	11	0.69	5.51	148	32	GENE	0.72	
11092.113	184266.408	579174.492	359.439	anomaly	corrosion	LWA						6.20		N	1.651	03:12	EXT					8	11	0.69	5.51	12	39	CIGR	0.68	
11092.121	184266.416	579174.492	359.440	anomaly	corrosion							6.20		N	1.659	09:31	EXT					2	11	0.66	5.54	226	40	GENE	0.77	
11092.127	184266.422	579174.492	359.441	anomaly	corrosion							6.20		N	1.665	00:32	EXT					4	16	0.99	5.21	116	32	GENE	0.73	
11092.149	184266.444	579174.492	359.442	anomaly	corrosion							6.20		N	1.687	05:04	EXT					12	25	1.52	4.68	20	32	PITT	0.69	0.62
11092.281	184266.575	579174.490	359.454	anomaly	corrosion							6.20		N	1.819	00:03	EXT					6	25	1.55	4.65	132	32	GENE	0.77	0.71
11093.121	184267.410	579174.477	359.552	anomaly	corrosion							6.30		N	2.659	06:25	EXT					8	14	0.91	5.39	16	8	AXSL	0.69	
11096.279	184270.516	579174.407	360.159	weld	-			10070	longitudinal seam	12.498	260.46	6.32		N		02:45														
11108.777	184282.772	579174.320	362.738	weld	-			10080	longitudinal seam	12.493	260.46	6.32		N		01:57														
11121.270	184295.186	579175.075	364.130	weld	-			10090	longitudinal seam	12.475	260.40	6.35		N		11:00														
11133.745	184307.583	579176.179	365.280	weld	-			10100	longitudinal seam	12.441	260.48	6.31		N		02:38														
11133.952	184307.789	579176.193	365.299	anomaly	corrosion							6.30		N	0.207	07:27	EXT					5	12	0.74	5.56	30	24	PITT	0.69	
11137.849	184311.675	579176.342	365.648	anomaly	corrosion							6.30		N	4.104	06:28	EXT					10	35	2.19	4.11	82	40	GENE	0.79	0.72
11137.991	184311.817	579176.346	365.661	anomaly	corrosion							6.30		N	4.246	06:41	EXT					4	12	0.76	5.54	46	40	GENE	0.70	
11138.107	184311.932	579176.348	365.671	anomaly	corrosion							6.30		N	4.362	06:14	EXT					8	14	0.88	5.42	16	16	PITT	0.69	
11138.473	184312.298	579176.352	365.704	anomaly	corrosion cluster		38					6.31		N	4.728	06:01	EXT					5	21	1.33	4.98	78	64	GENE	0.74	0.66
11138.773	184312.597	579176.356	365.730	anomaly	corrosion							6.30		N	5.028	06:15	EXT					5	14	0.85	5.45	40	64	GENE	0.70	
11138.971	184312.794	579176.358	365.747	anomaly	corrosion							6.30		N	5.226	06:41	EXT					11	23	1.45	4.85	20	16	PITT	0.69	0.62
11139.179	184313.002	579176.360	365.766	anomaly	corrosion							6.30		N	5.434	06:07	EXT					3	12	0.74	5.56	102	24	AXGR	0.72	
11141.017	184314.837	579176.367	365.924	anomaly	corrosion							6.30		N	7.272	05:39	EXT					16	45	2.81	3.49	46	31	GENE	0.77	0.70
11141.131	184314.950	579176.366	365.933	anomaly	corrosion cluster		39					6.31		N	7.386	05:18	EXT					6	33	2.08	4.23	224	119	GENE	1.02	0.78
11141.413	184315.232	579176.365	365.957	anomaly	corrosion							6.30		N	7.668	06:03	EXT					4	13	0.82	5.48	80	16	AXGR	0.71	
11141.559	184315.378	579176.365	365.969	anomaly	corrosion							6.30		N	7.814	05:30	EXT					7	31	1.98	4.32	200	104	GENE	0.99	0.76
11142.607	184316.424	579176.353	366.054	anomaly	corrosion							6.30		N	8.862	06:11	EXT					6	17	1.06	5.24	42	32	GENE	0.70	
11146.061	184319.874	579176.276	366.312	anomaly	corrosion							6.30		N	12.316	07:16	EXT					6	13	0.79	5.51	22	32	PITT	0.69	

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information													
																		Deformations				Cracks and metal losses									
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
11146.099	184319.912	579176.275	366.314	anomaly	corrosion							6.30		N	12.354	05:43	EXT					9	17	1.09	5.21	20	23	PITT	0.69	
11146.186	184319.999	579176.273	366.320	weld	-			10110	longitudinal seam	1.222	260.46	6.32		N		01:48															
11146.423	184320.236	579176.267	366.334	anomaly	corrosion							6.30		N	0.237	03:22	EXT					6	11	0.68	5.62	16	16	PITT	0.68	
11146.471	184320.284	579176.266	366.337	anomaly	corrosion							6.30		N	0.285	05:56	EXT					4	14	0.85	5.45	70	32	GENE	0.71	
11146.585	184320.398	579176.263	366.344	anomaly	corrosion							6.30		N	0.399	05:43	EXT					7	29	1.80	4.50	184	48	GENE	0.81	0.75
11146.985	184320.798	579176.254	366.368	anomaly	corrosion							6.30		N	0.799	05:04	EXT					7	28	1.74	4.56	134	40	GENE	0.79	0.72
11147.227	184321.040	579176.248	366.382	anomaly	corrosion							6.30		N	1.041	06:57	EXT					4	15	0.97	5.33	110	31	GENE	0.73	
11147.408	184321.221	579176.243	366.393	weld	-			10120	longitudinal seam	11.403	260.44	6.33		N		11:08															
11147.459	184321.272	579176.242	366.396	anomaly	corrosion							6.40		N	0.051	06:58	EXT					7	13	0.84	5.56	18	23	PITT	0.69	
11147.716	184321.529	579176.236	366.411	anomaly	corrosion							6.40		N	0.308	04:44	EXT					5	10	0.66	5.74	20	24	PITT	0.69	
11147.770	184321.583	579176.235	366.415	anomaly	corrosion							6.40		N	0.362	05:31	EXT					10	15	0.95	5.45	12	16	PITT	0.68	
11147.782	184321.595	579176.234	366.415	anomaly	corrosion							6.30		N	0.374	04:51	EXT					7	12	0.76	5.54	16	24	PITT	0.69	
11147.810	184321.623	579176.234	366.417	anomaly	corrosion cluster	further indications	40					6.33		N	0.402	06:18	EXT					6	28	1.77	4.56	82	63	GENE	0.76	0.69
11158.811	184332.632	579176.067	366.793	weld	-			10130	longitudinal seam	12.516	260.40	6.35		N		02:26															
11973.126	185143.042	579175.582	384.829	weld	-	אתר 11		10830	longitudinal seam	12.526	260.50	6.30		N		10:13															
11975.560	185145.378	579174.956	384.573	anomaly	corrosion							6.30		N	2.434	04:31	EXT					4	11	0.68	5.62	36	31	GENE	0.69	
11975.868	185145.674	579174.877	384.541	anomaly	corrosion							6.30		N	2.742	04:40	EXT					5	16	1.03	5.27	70	32	GENE	0.72	
11976.078	185145.875	579174.822	384.520	anomaly	corrosion							6.30		N	2.952	04:51	EXT					4	15	0.94	5.36	166	32	GENE	0.74	
11976.364	185146.149	579174.748	384.491	anomaly	corrosion							6.30		N	3.238	04:36	EXT					3	12	0.74	5.56	172	32	GENE	0.73	
11976.650	185146.424	579174.674	384.463	anomaly	corrosion							6.30		N	3.524	04:41	EXT					7	10	0.62	5.68	12	16	PITT	0.68	
11979.162	185148.835	579174.022	384.221	anomaly	corrosion							6.30		N	6.036	04:55	EXT					6	14	0.85	5.45	30	23	PITT	0.69	
11979.362	185149.027	579173.970	384.202	anomaly	corrosion	further indications						6.30		N	6.236	05:08	EXT					6	15	0.97	5.33	32	24	PITT	0.70	
11980.836	185150.442	579173.585	384.069	anomaly	corrosion							6.30		N	7.710	05:15	EXT					4	13	0.79	5.51	50	24	AXGR	0.70	
11980.992	185150.591	579173.544	384.055	anomaly	corrosion							6.30		N	7.866	04:42	EXT					3	14	0.88	5.42	398	63	GENE	0.79	
11981.422	185151.004	579173.432	384.017	anomaly	corrosion cluster		43					6.30		N	8.296	04:03	EXT					4	26	1.64	4.66	1344	124	GENE	0.92	0.77
11982.816	185152.343	579173.068	383.893	anomaly	corrosion							6.30		N	9.690	04:58	EXT					4	10	0.65	5.65	38	55	GENE	0.69	
11982.932	185152.454	579173.038	383.883	anomaly	corrosion							6.30		N	9.806	04:57	EXT					5	17	1.06	5.24	108	48	GENE	0.73	
11983.700	185153.192	579172.837	383.815	anomaly	corrosion							6.30		N	10.574	05:09	EXT					4	14	0.85	5.45	88	39	GENE	0.72	
11985.652	185155.067	579172.329	383.641	weld	-			10840	longitudinal seam	11.350	260.52	6.29		N		00:06															
12156.761	185318.621	579124.337	373.082	weld	-	קטע 4 התחלה		11020	longitudinal seam	12.525	260.66	6.22		N		10:25															
12159.580	185321.313	579123.507	373.184	anomaly	corrosion							6.20		N	2.819	03:29	EXT					3	16	0.99	5.21	418	143	GENE	0.81	
12160.063	185321.774	579123.364	373.198	anomaly	corrosion							6.20		N	3.302	03:28	EXT					5	20	1.26	4.94	130	127	GENE	0.75	0.68
12160.233	185321.936	579123.314	373.203	anomaly	corrosion							6.20		N	3.472	03:13	EXT					4	22	1.38	4.82	1262	175	GENE	0.87	0.74
12161.603	185323.246	579122.914	373.233	anomaly	corrosion							6.20		N	4.842	03:54	EXT					5	22	1.38	4.82	208	111	GENE	0.87	0.71
12161.863	185323.495	579122.838	373.239	anomaly	corrosion							6.20		N	5.102	04:01	EXT					3	12	0.75	5.45	104	111	GENE	0.72	
12162.027	185323.652	579122.790	373.242	anomaly	corrosion							6.20		N	5.266	04:13	EXT					4	20	1.23	4.97	382	111	GENE	0.85	0.71
12162.433	185324.040	579122.671	373.250	anomaly	corrosion							6.20		N	5.672	04:40	EXT					3	11	0.69	5.51	96	79	GENE	0.71	
12163.681	185325.233	579122.307	373.272	anomaly	corrosion							6.20		N	6.920	04:56	EXT					5	15	0.90	5.30	50	55	GENE	0.71	
12163.765	185325.313	579122.283	373.274	anomaly	corrosion							6.20		N	7.004	04:22	EXT					3	14	0.87	5.33	258	127	GENE	0.79	
12164.082	185325.616	579122.190	373.279	anomaly	corrosion							6.20		N	7.321	05:09	EXT					5	15	0.90	5.30	66	48	GENE	0.71	
12164.216	185325.744	579122.151	373.282	anomaly	corrosion	further indications						6.20		N	7.455	05:22	EXT					2	11	0.69	5.51	384	79	GENE	0.77	
12165.336	185326.816	579121.826	373.301	anomaly	corrosion							6.20		N	8.575	05:55	EXT					7	11	0.69	5.51	14	16	PITT	0.68	
12169.286	185330.595	579120.681	373.344	weld	-			11030	longitudinal seam	11.969	260.90	6.10		N		01:30															
12170.719	185331.966	579120.266	373.338	anomaly	corrosion							6.10		N	1.433	05:32	EXT					4	9	0.54	5.56	24	16	PITT		
12170.957	185332.194	579120.197	373.335	anomaly	corrosion							6.10		N	1.671	05:53	EXT					4	8	0.51	5.59	18	16	PITT		
12172.968	185334.118	579119.615	373.307	anomaly	corrosion							6.10		N	3.682	05:14	EXT					3	8	0.51	5.59	62	16	AXGR		
12172.978	185334.128	579119.612	373.306	anomaly	corrosion	further indications						6.10		N	3.692	06:01	EXT					3	8	0.48	5.62	30	39	GENE		
12173.112	185334.256	579119.574	373.304	anomaly	corrosion							6.10		N	3.826	06:14	EXT					2	8	0.48	5.62	88	32	GENE		
12181.255	185342.050	579117.227	373.199	weld	-			11040	longitudinal seam	12.498	260.78	6.16		N		11:57															
12184.178	185344.849	579116.390	373.166	anomaly	corrosion							6.20		N	2.923	05:59	EXT					3	10	0.61	5.59	90	16	AXGR	0.71	
12185.892	185346.489	579115.896	373.133	anomaly	corrosion							6.20		N	4.637	06:01	EXT					5	13	0.78	5.42	44	32	GENE	0.70	
12185.956	185346.551	579115.877	373.131	anomaly	corrosion							6.20		N	4.701	05:55	EXT					6	13	0.81	5.39	24	23	PITT	0.69	
12186.022	185346.614	579115.858	373.130	anomaly	corrosion	further indications						6.20		N	4.767	06:08	EXT					9	14	0.87	5.33	12	16	PITT	0.68	
12186.290	185346.870	579115.781	373.125	anomaly	corrosion							6.20		N	5.035	06:08	EXT					3	8	0.52	5.68	30	24	PITT		
12186.426	185347.000	579115.742	373.121	anomaly	corrosion							6.20		N	5.171	06:08	EXT					4	12	0.75	5.45	48	24	AXGR	0.70	
12186.654	185347.218	579115.676	373.115	anomaly	corrosion							6.20		N	5.399	05:55	EXT					4	13	0.81	5.39	78	32	GENE	0.71	
12193.753	185354.010	579113.639	372.859	weld	-			11050	longitudinal seam	12.520	260.88	6.11	0.2	N		09:32															
12194.226	185354.463	579113.505	372.839	anomaly	corrosion							6.10		N	0.473	06:00	EXT					4	14	0.83	5.27	60	40	GENE	0.71	
12194.514	185354.738	579113.422	372.827	anomaly	corrosion							6.10		N	0.761	06:03	EXT					10	14	0.86	5.24	12	16	PITT	0.68	
12196.030	185356.188	579112.987	372.759	anomaly	corrosion							6.10		N	2.277	05:39	EXT					4	11	0.67	5.43	58	32	GENE	0.70	
12196.315	185356.460	579112.905	372.746	anomaly	corrosion							6.10		N	2.562	05:23	EXT					4	16	0.95	5.15	96	40	GENE	0.73	
12196.749	185356.875	579112.780	372.727	anomaly	corrosion							6.10		N	2.996	04:52	EXT					13	45	2.73	3.37	84	48	GENE	0.84	0.78
12197.403	185357.500	579112.592	372.698	anomaly	corrosion							6.10		N	3.650	05:34	EXT					4	12	0.74	5.36	74	24	AXGR	0.71	
12198.095	185358.162	579112.393	372.667	anomaly	corrosion							6.10		N	4.342	05:37	EXT					4	17	1.01	5.09	136	56	GENE	0.74	
12198.287	185358.345	579112.337	372.659	anomaly	corrosion							6.10		N	4.534	05:43	EXT					6	20	1.25	4.85	78	48	GENE	0.73	0.66
12198.676	185358.717	579112.225	372.641	anomaly	dent plain							6.11		N	4.923	11:53	INT	inw	0.7%	50	143							-		
12198.763	185358.800	579112.200	372.637	anomaly	corrosion							6.10		N	5.010	05:19	EXT					4	12	0.71	5.39	76	55	GENE	0.71	
12199.621	185359.620	579111.952	372.597	anomaly	corrosion							6.10		N	5.868	05:21	EXT					8	18	1.07	5.03	26	40	PITT	0.69	
12199.679	185359.676	579111.935	372.594	anomaly	corrosion cluster		45					6.11		N	5.926	04:46	EXT					3	17	1.04	5.07	410	102	GENE	0.82	
12201.202	185361.131	579111.495	372.521	anomaly	corrosion							6.10		N	7.449	04:37	EXT					7	24	1.45	4.65	84	71	GENE	0.75	0.68
12201.320	185361.243	579111.460	372.515	anomaly	corrosion							6.10		N	7.567	04:57	EXT					5	18	1.07	5.03	90	48	GENE	0.73	
12203.412	185363.242	579110.857	372.407	anomaly	corrosion							6.10		N	9.659	04:57	EXT					5	10	0.62	5.48	24	24	PITT	0.69	
12206.273	185365.975	579110.034	372.238	weld	-			11060	longitudinal seam	12.468	260.60	6.25	0.2	N		00:43															
12429.427	185579.470	579046.643	362.741	weld	-	אתר 12		11250	longitudinal seam	12.536	260.60	6.25	0.3	N		00:38															
12431.485	185581.427	579046.016	362.650	anomaly	corrosion							6.30		N	2.058	03:03	EXT					4	10	0.65	5.65	34	24	PITT	0.69	
12431.565	185581.503	579045.991	362.647	anomaly	dent complex	corrosion, possible gauge						6.25		N	2.138	01:59	EXT	inw	0.5%	55	71	4	18	1.13	5.13	72	63	GENE	0.74	
12432.897	185582.768	579045.582	362.579	anomaly	corrosion							6.20		N	3.470	03:42	EXT					4	10	0.64	5.56	36	24	PITT	0.69	
12441.963	185591.361	579042.787	361.943	weld	-			11260	longitudinal seam	12.378	260.46	6.32		N		10:59															
12516.956	185662.805	579020.296	361.918	weld	-	אתר 13		11320	longitudinal seam	12.520	260.32	6.39		N		11:23															
12520.185	185665.891	579019.330	362.094	anomaly	corrosion							6.40		N	3.229	05:05	EXT					8	22	1.43	4.97	50	16	AXGR	0.72	0.64
12520.433	185666.128	579019.256	362.107	anomaly	corrosion							6.40		N	3.477	06:45	EXT					12	29	1.84	4.56	30	24	PITT	0.71	0.63
12520.691	185666.375	579019.180	362.121	anomaly	corrosion							6.40		N	3.735	04:58	EXT					11	15	0.95	5.45	8	16	CISL	0.68	
12522.539	185668.144	579018.635	362.213	anomaly	corrosion							6.40		N	5.583	04:49	EXT					10	42	2.67	3.73	174	55	GENE	0.88	0.84

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information													
																		Deformations				Cracks and metal losses									
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
12525.454	185670.938	579017.785	362.347	anomaly	corrosion							6.40		N	8.498	04:50	EXT					18	32	2.08	4.32	16	16	PITT	0.69	0.62
12526.682	185672.116	579017.429	362.399	anomaly	corrosion							6.40		N	9.726	05:22	EXT					5	12	0.75	5.65	26	16	PITT	0.69	
12529.476	185674.799	579016.634	362.518	weld	-			11330	longitudinal seam	12.516	260.48	6.31	0.9	N		11:17															
12941.857	186071.662	578902.485	351.783	weld	-	אתר 14		11740	longitudinal seam	12.509	260.54	6.28		N		01:11															
12950.389	186079.895	578900.167	351.760	anomaly	corrosion							6.30		N	8.532	05:46	EXT					4	12	0.74	5.56	48	48	GENE	0.70	
12950.515	186080.016	578900.132	351.761	anomaly	corrosion							6.30		N	8.658	06:27	EXT					3	12	0.74	5.56	176	40	GENE	0.73	
12950.593	186080.091	578900.111	351.761	anomaly	corrosion							6.30		N	8.736	05:29	EXT					4	19	1.21	5.09	222	39	GENE	0.84	
12950.864	186080.352	578900.036	351.763	anomaly	corrosion							6.30		N	9.007	05:18	EXT					5	30	1.92	4.38	819	127	GENE	0.97	0.80
12952.267	186081.704	578899.647	351.771	anomaly	corrosion							6.30		N	10.410	06:27	EXT					5	10	0.62	5.68	18	16	PITT	0.69	
12952.357	186081.791	578899.622	351.772	anomaly	corrosion							6.30		N	10.500	06:27	EXT					5	8	0.50	5.80	12	24	CIGR		
12952.525	186081.953	578899.575	351.773	anomaly	corrosion							6.30		N	10.668	06:06	EXT					3	11	0.68	5.62	64	32	GENE	0.70	
12952.691	186082.113	578899.529	351.774	anomaly	corrosion							6.30		N	10.834	06:06	EXT					4	15	0.94	5.36	124	32	GENE	0.73	
12954.366	186083.726	578899.063	351.783	weld	-			11750	longitudinal seam	12.510	260.48	6.31		N		09:26															
16411.415	188685.095	578051.492	332.092	valve	-	מגוף שוקת								N	0.541																
19939.106	191346.402	575795.851	361.568	weld	-	אתר 15		18080	longitudinal seam	2.004	260.40	6.35		N		09:55															
19940.077	191347.116	575795.194	361.555	anomaly	corrosion							6.30		N	0.971	00:40	EXT					5	13	0.83	5.47	48	16	AXGR	0.70	
19940.199	191347.206	575795.111	361.553	anomaly	corrosion cluster		54					6.35		N	1.093	00:20	EXT					4	24	1.52	4.83	272	64	GENE	0.90	0.73
19940.498	191347.426	575794.909	361.549	anomaly	corrosion							6.30		N	1.392	00:33	EXT					4	15	0.94	5.36	155	32	GENE	0.74	
19941.055	191347.835	575794.531	361.541	anomaly	corrosion							6.30		N	1.949	00:47	EXT					6	14	0.91	5.39	28	16	PITT	0.69	
19941.110	191347.876	575794.494	361.541	weld	-			18090	longitudinal seam	9.327	260.48	6.31		N		11:04															
20221.828	191555.948	575606.335	367.716	weld	-	אתר 16		18330	longitudinal seam	12.512	260.52	6.29		N		01:36															
20222.125	191556.197	575606.173	367.720	anomaly	corrosion							6.30		N	0.297	06:16	EXT					6	12	0.74	5.56	22	16	PITT	0.69	
20226.455	191559.924	575603.972	367.840	anomaly	corrosion							6.30		N	4.627	03:58	EXT					3	7	0.47	5.83	34	24	PITT		
20226.549	191560.007	575603.928	367.845	anomaly	corrosion							6.30		N	4.721	05:12	EXT					4	13	0.82	5.48	72	40	GENE	0.71	
20226.777	191560.209	575603.822	367.857	anomaly	corrosion							6.30		N	4.949	05:11	EXT					4	17	1.09	5.21	206	103	GENE	0.82	
20227.753	191561.072	575603.370	367.908	anomaly	corrosion							6.30		N	5.925	06:18	EXT					3	7	0.47	5.83	48	48	GENE		
20228.351	191561.601	575603.092	367.940	anomaly	corrosion							6.30		N	6.523	03:58	EXT					5	16	1.00	5.30	74	64	GENE	0.72	
20228.387	191561.633	575603.076	367.941	anomaly	corrosion							6.30		N	6.559	06:25	EXT					5	9	0.56	5.74	16	16	PITT		
20228.469	191561.707	575603.041	367.947	anomaly	corrosion							6.30		N	6.641	05:38	EXT					3	7	0.44	5.86	40	48	GENE		
20228.499	191561.734	575603.028	367.949	anomaly	corrosion							6.30		N	6.671	03:25	EXT					3	11	0.71	5.59	172	87	GENE	0.72	
20228.835	191562.037	575602.885	367.970	anomaly	corrosion							6.30		N	7.007	03:11	EXT					3	11	0.68	5.62	128	88	GENE	0.72	
20229.018	191562.203	575602.808	367.982	anomaly	corrosion							6.30		N	7.190	02:51	EXT					3	15	0.97	5.33	742	127	GENE	0.80	
20229.730	191562.846	575602.505	368.028	anomaly	corrosion							6.30		N	7.902	10:44	EXT					4	16	1.03	5.27	270	127	GENE	0.81	
20229.870	191562.972	575602.446	368.037	anomaly	corrosion							6.30		N	8.042	02:51	EXT					3	7	0.47	5.83	26	23	PITT		
20230.098	191563.178	575602.349	368.051	anomaly	corrosion							6.30		N	8.270	03:30	EXT					3	13	0.82	5.48	298	79	GENE	0.78	
20230.408	191563.457	575602.230	368.071	AGM	-	No 22								N	8.580																
20230.448	191563.494	575602.216	368.073	anomaly	corrosion cluster		63					6.29		N	8.620	03:10	EXT					3	21	1.32	4.97	696	135	GENE	0.86	0.73
20230.916	191563.930	575602.046	368.101	anomaly	corrosion							6.30		N	9.088	05:43	EXT					3	7	0.47	5.83	26	24	PITT		
20231.112	191564.112	575601.975	368.112	anomaly	corrosion							6.30		N	9.284	10:36	EXT					8	13	0.79	5.51	14	32	CIGR	0.68	
20231.168	191564.164	575601.955	368.116	anomaly	corrosion							6.30		N	9.340	10:23	EXT					4	13	0.82	5.48	88	80	GENE	0.72	
20231.270	191564.259	575601.918	368.122	anomaly	corrosion cluster		64					6.29		N	9.442	02:29	EXT					2	14	0.88	5.41	350	159	GENE	0.79	
20231.326	191564.311	575601.898	368.125	anomaly	corrosion							6.30		N	9.498	10:50	EXT					3	10	0.62	5.68	46	56	GENE	0.70	
20231.402	191564.382	575601.870	368.130	anomaly	corrosion cluster		65					6.29		N	9.574	10:23	EXT					3	14	0.88	5.41	122	63	GENE	0.73	
20231.576	191564.545	575601.809	368.139	anomaly	corrosion							6.30		N	9.748	10:16	EXT					4	13	0.82	5.48	84	95	GENE	0.72	
20231.680	191564.643	575601.777	368.145	anomaly	corrosion							6.30		N	9.852	10:23	EXT					4	14	0.85	5.45	92	95	GENE	0.72	
20232.002	191564.948	575601.675	368.162	anomaly	corrosion							6.30		N	10.174	10:23	EXT					4	15	0.94	5.36	88	88	GENE	0.72	
20232.132	191565.071	575601.634	368.168	anomaly	corrosion							6.30		N	10.304	10:43	EXT					3	10	0.65	5.65	58	64	GENE	0.70	
20232.212	191565.147	575601.608	368.173	anomaly	corrosion							6.30		N	10.384	10:29	EXT					3	10	0.65	5.65	56	64	GENE	0.70	
20232.336	191565.265	575601.569	368.179	anomaly	corrosion							6.30		N	10.508	10:43	EXT					4	10	0.65	5.65	32	39	GENE	0.69	
20232.410	191565.335	575601.546	368.183	anomaly	corrosion							6.30		N	10.582	10:29	EXT					3	10	0.65	5.65	66	55	GENE	0.70	
20232.530	191565.448	575601.508	368.189	anomaly	corrosion							6.30		N	10.702	10:23	EXT					4	12	0.76	5.54	54	71	GENE	0.70	
20232.832	191565.735	575601.413	368.205	anomaly	corrosion							6.30		N	11.004	10:36	EXT					3	11	0.71	5.59	70	64	GENE	0.71	
20232.942	191565.839	575601.378	368.211	anomaly	corrosion							6.30		N	11.114	10:36	EXT					4	12	0.74	5.56	48	64	GENE	0.70	
20233.030	191565.922	575601.350	368.215	anomaly	corrosion cluster		66					6.29		N	11.202	10:10	EXT					4	20	1.26	5.03	182	103	GENE	0.76	0.69
20233.239	191566.120	575601.284	368.226	anomaly	corrosion cluster		67					6.29		N	11.411	10:10	EXT					3	13	0.82	5.47	162	103	GENE	0.73	
20233.459	191566.329	575601.216	368.237	anomaly	corrosion							6.30		N	11.631	03:23	EXT					3	10	0.65	5.65	130	79	GENE	0.71	
20233.579	191566.444	575601.182	368.242	anomaly	corrosion cluster		68					6.29		N	11.751	11:03	EXT					3	14	0.88	5.41	184	95	GENE	0.74	
20233.817	191566.673	575601.116	368.253	anomaly	corrosion							6.30		N	11.989	11:03	EXT					4	13	0.82	5.48	82	55	GENE	0.71	
20234.025	191566.872	575601.058	368.262	anomaly	corrosion							6.30		N	12.197	07:10	EXT					5	11	0.71	5.59	32	32	GENE	0.69	
20234.139	191566.982	575601.026	368.267	anomaly	corrosion							6.30		N	12.311	00:03	EXT					4	8	0.53	5.77	28	16	PITT		
20234.340	191567.175	575600.970	368.275	weld	-			18340	longitudinal seam	12.556	260.40	6.35		N		10:33															
20246.896	191579.450	575598.390	368.334	weld	-	אתר 17		18350	longitudinal seam	12.532	260.52	6.29		N		02:37															
20247.839	191580.382	575598.252	368.312	anomaly	corrosion							6.30		N	0.943	03:32	EXT					4	7	0.47	5.83	20	31	PITT		
20249.929	191582.450	575597.965	368.256	anomaly	corrosion							6.30		N	3.033	01:30	EXT					5	8	0.50	5.80	14	16	PITT		
20250.393	191582.910	575597.906	368.241	anomaly	corrosion							6.30		N	3.497	04:15	EXT					4	20	1.24	5.06	444	103	GENE	0.85	0.71
20252.523	191585.022	575597.641	368.163	anomaly	corrosion							6.30		N	5.627	04:15	EXT					6	13	0.79	5.51	24	32	PITT	0.69	
20253.305	191585.798	575597.548	368.131	anomaly	corrosion							6.30		N	6.409	05:48	EXT					4	15	0.97	5.33	104	95	GENE	0.73	
20254.001	191586.489	575597.469	368.103	anomaly	corrosion							6.30		N	7.105	06:15	EXT					6	19	1.18	5.12	76	23	AXGR	0.73	
20254.137	191586.623	575597.453	368.098	anomaly	corrosion							6.30		N	7.241	06:21	EXT					5	12	0.76	5.54	34	16	AXGR	0.69	
20254.329	191586.814	575597.432	368.090	anomaly	corrosion							6.30		N	7.433	06:15	EXT					5	15	0.94	5.36	56	40	GENE	0.71	
20254.417	191586.901	575597.422	368.086	anomaly	corrosion							6.30		N	7.521	06:15	EXT					4	15	0.94	5.36	156	48	GENE	0.74	
20254.785	191587.266	575597.381	368.072	anomaly	corrosion							6.30		N	7.889	00:48	EXT					2	8	0.53	5.77	102	8	AXSL		
20254.959	191587.439	575597.361	368.065	anomaly	corrosion							6.30		N	8.063	03:34	EXT					6	9	0.59	5.71	14	23	PITT		
20256.081	191588.553	575597.239	368.022	anomaly	corrosion							6.30		N	9.185	06:06	EXT					8	10	0.65	5.65	10	16	PITT	0.68	
20257.311	191589.775	575597.108	367.977	anomaly	corrosion							6.30		N	10.415	06:17	EXT					5	12	0.76	5.54	32	55	GENE	0.69	
20259.428	191591.879	575596.891	367.900	weld	-			18360	longitudinal seam	5.575	260.40	6.35		N		06:07															
21020.871	192346.381	575498.628	373.216	weld	-	אתר 18		19080	longitudinal seam	4.862	260.32	6.39		N		02:42															
21022.015	192347.519	575498.510	373.220	anomaly	corrosion							6.40		N	1.144	05:02	EXT					7	22	1.43	4.97	75	88	GENE	0.74	0.66
21024.750	192350.238	575498.220	373.214	anomaly	corrosion							6.30		N	3.879	05:35	EXT					4	23	1.45	4.85	524	71	GENE	0.89	0.73
21025.733	192351.214	575498.108	373.194	weld	-			19090	longitudinal seam	0.902	260.46	6.32		N		09:47															
21146.277	192469.939	575478.267	371.254	weld	-	אתר 19		19250	longitudinal seam	12.531	260.52	6.29		N		04:53															
21148.051	192471.666	575477.887	371.162	anomaly	corrosion	LWA						6.20		N	1.774	04:43	EXT					4	17	1.05	5.15	148	16	AXGR	0.74	
21148.829	192472.424	575477.721	371.123	anomaly	corrosion	LWA						6.20		N	2.552	04:42	EXT					3	11	0.65	5.55	136	16	AXGR	0.72	

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information														
																		Deformations				Cracks and metal losses										
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
21149.175	192472.762	575477.648	371.107	anomaly	corrosion	LWA						6.20		N	2.898	05:08	EXT					3	10	0.61	5.59	50	24	AXGR	0.70	
21149.365	192472.947	575477.608	371.098	anomaly	corrosion	LWA						6.20		N	3.088	04:55	EXT					3	6	0.37	5.83	20	16	PITT		
21149.477	192473.056	575477.584	371.093	anomaly	corrosion	LWA						6.20		N	3.200	05:08	EXT					3	7	0.46	5.74	36	31	GENE		
21149.555	192473.132	575477.568	371.090	anomaly	corrosion cluster	LWA	70					6.29		N	3.278	04:35	EXT					3	14	0.88	5.41	250	79	GENE	0.79	
21149.831	192473.401	575477.509	371.077	anomaly	corrosion	LWA						6.20		N	3.554	05:02	EXT					5	13	0.81	5.39	50	32	GENE	0.70	
21149.917	192473.485	575477.491	371.073	anomaly	corrosion cluster	LWA	71					6.29		N	3.640	04:21	EXT					4	22	1.38	4.91	242	159	GENE	0.87	0.71
21149.919	192473.487	575477.491	371.073	anomaly	corrosion							6.20		N	3.642	06:28	EXT					4	7	0.46	5.74	20	40	CIGR		
21150.157	192473.719	575477.440	371.063	anomaly	corrosion	LWA						6.30		N	3.880	05:01	EXT					7	27	1.71	4.59	168	127	GENE	0.79	0.73
21150.235	192473.795	575477.424	371.059	anomaly	corrosion	LWA						6.30		N	3.958	04:21	EXT					4	7	0.44	5.86	18	24	PITT		
21150.295	192473.853	575477.411	371.056	anomaly	corrosion	LWA						6.30		N	4.018	04:21	EXT					3	9	0.56	5.74	42	24	PITT		
21150.349	192473.906	575477.400	371.054	anomaly	corrosion cluster	LWA	72					6.29		N	4.072	04:15	EXT					3	15	0.94	5.35	175	111	GENE	0.74	
21150.465	192474.019	575477.375	371.049	anomaly	corrosion							6.30		N	4.188	06:08	EXT					6	17	1.06	5.24	56	48	GENE	0.71	
21150.575	192474.126	575477.352	371.044	anomaly	corrosion	LWA						6.30		N	4.298	04:28	EXT					6	7	0.47	5.83	10	16	PITT		
21150.579	192474.130	575477.351	371.044	anomaly	corrosion							6.30		N	4.302	05:21	EXT					6	14	0.85	5.45	30	31	GENE	0.69	
21150.605	192474.155	575477.346	371.043	anomaly	corrosion	LWA						6.30		N	4.328	04:28	EXT					5	9	0.59	5.71	20	16	PITT		
21150.627	192474.177	575477.341	371.042	anomaly	corrosion							6.30		N	4.350	06:41	EXT					5	10	0.62	5.68	18	23	PITT	0.69	
21150.691	192474.239	575477.327	371.039	anomaly	corrosion	LWA						6.30		N	4.414	05:01	EXT					6	14	0.85	5.45	22	24	PITT	0.69	
21150.733	192474.280	575477.318	371.037	anomaly	corrosion cluster	LWA	73					6.29		N	4.456	04:21	EXT					4	24	1.51	4.78	934	223	GENE	0.90	0.75
21150.875	192474.418	575477.288	371.030	anomaly	corrosion							6.30		N	4.598	04:14	EXT					4	7	0.47	5.83	16	16	PITT		
21151.413	192474.943	575477.175	371.007	anomaly	corrosion cluster	LWA	74					6.29		N	5.136	04:14	EXT					2	9	0.57	5.72	52	16	AXGR		
21152.084	192475.597	575477.034	370.978	anomaly	corrosion cluster	LWA	75					6.29		N	5.807	04:07	EXT					4	22	1.38	4.91	342	191	GENE	0.87	0.72
21152.252	192475.761	575476.999	370.971	anomaly	corrosion	LWA						6.30		N	5.975	04:00	EXT					4	10	0.62	5.68	24	39	PITT	0.69	
21152.475	192475.978	575476.952	370.961	anomaly	corrosion							6.30		N	6.198	05:54	EXT					8	20	1.24	5.06	30	24	PITT	0.70	0.62
21152.583	192476.083	575476.930	370.956	anomaly	corrosion							6.30		N	6.306	05:47	EXT					4	15	0.94	5.36	136	56	GENE	0.73	
21152.858	192476.351	575476.872	370.944	anomaly	corrosion							6.30		N	6.581	06:07	EXT					7	14	0.88	5.42	18	32	PITT	0.69	
21153.190	192476.675	575476.802	370.930	anomaly	corrosion cluster	LWA	76					6.29		N	6.913	06:01	EXT					3	14	0.88	5.41	192	71	GENE	0.79	
21153.498	192476.976	575476.738	370.916	anomaly	corrosion							6.30		N	7.221	06:34	EXT					7	11	0.68	5.62	14	24	PITT	0.68	
21153.714	192477.186	575476.693	370.907	anomaly	corrosion							6.30		N	7.437	06:41	EXT					6	12	0.76	5.54	24	23	PITT	0.69	
21153.730	192477.202	575476.690	370.906	anomaly	corrosion							6.30		N	7.453	05:48	EXT					4	9	0.56	5.74	20	16	PITT		
21158.808	192482.155	575475.631	370.671	weld	-			19260	longitudinal seam	9.921	260.42	6.34		N		03:06															
21488.236	192804.100	575409.005	370.007	weld	-	**אתר 20**		19540	longitudinal seam	12.532	260.52	6.29		N		09:56															
21499.978	192815.550	575406.489	370.347	anomaly	corrosion							6.30		N	11.742	05:05	EXT					4	12	0.74	5.56	52	40	GENE	0.70	
21500.080	192815.649	575406.466	370.349	anomaly	corrosion							6.30		N	11.844	05:04	EXT					5	21	1.30	5.00	258	64	GENE	0.86	0.71
21500.358	192815.920	575406.404	370.356	anomaly	corrosion							6.30		N	12.122	05:10	EXT					6	16	1.03	5.27	52	24	AXGR	0.71	
21500.768	192816.319	575406.312	370.366	weld	-			19550	longitudinal seam	12.486	260.46	6.32		N		01:23															
21994.650	193298.534	575308.914	364.668	weld	-	**קטע 5 התחלה**		20040	longitudinal seam	12.518	260.38	6.36	0.2	N		11:43															
21995.958	193299.811	575308.660	364.790	anomaly	dent plain							6.36		N	1.308	00:52	INT	inw	0.4%	55	107							-			
22007.168	193310.708	575306.259	365.825	weld	-			20050	longitudinal seam	12.520	260.40	6.35	0.4	N		01:51															
22007.859	193311.378	575306.101	365.887	anomaly	corrosion							6.30		N	0.691	06:02	EXT					4	12	0.76	5.54	42	24	PITT	0.70	
22008.031	193311.544	575306.062	365.903	anomaly	corrosion cluster		78					6.35		N	0.863	05:03	EXT					5	29	1.84	4.51	246	143	GENE	0.96	0.76
22012.676	193316.042	575304.974	366.291	anomaly	corrosion							6.30		N	5.508	03:06	EXT					10	14	0.85	5.45	8	16	CISL	0.68	
22013.675	193317.009	575304.738	366.375	anomaly	dent complex	LWA						6.35		N	6.507	02:07	INT	inw	0.5%	55	71							-			
22015.343	193318.623	575304.345	366.516	anomaly	corrosion							6.30		N	8.175	09:19	EXT					8	19	1.21	5.09	34	55	GENE	0.70	
22016.475	193319.719	575304.079	366.612	anomaly	corrosion	PR #1						6.40		N	9.307	05:05	EXT					21	54	3.44	2.96	34	16	AXGR	0.76	0.69
22017.249	193320.469	575303.898	366.676	anomaly	corrosion							6.40		N	10.081	06:59	EXT					4	10	0.66	5.74	34	63	GENE	0.69	
22017.431	193320.645	575303.856	366.691	anomaly	dent plain	reduced accuracy						6.35		N	10.263	04:20	INT	inw	0.7%	80	143							-			
22018.011	193321.207	575303.720	366.739	anomaly	corrosion							6.40		N	10.843	10:12	EXT					7	15	0.98	5.42	22	16	PITT	0.69	
22018.011	193321.207	575303.720	366.739	anomaly	corrosion							6.40		N	10.843	00:38	EXT					10	23	1.46	4.94	24	24	PITT	0.70	0.62
22018.097	193321.290	575303.700	366.746	anomaly	corrosion							6.40		N	10.929	00:52	EXT					9	19	1.19	5.21	20	24	PITT	0.69	
22018.149	193321.340	575303.688	366.750	anomaly	corrosion							6.40		N	10.981	05:32	EXT					6	11	0.69	5.71	18	24	PITT	0.69	
22018.227	193321.416	575303.670	366.757	anomaly	corrosion							6.40		N	11.059	05:39	EXT					4	13	0.84	5.56	56	39	GENE	0.71	
22018.329	193321.515	575303.646	366.764	anomaly	corrosion cluster		79					6.35		N	11.161	05:18	EXT					7	38	2.41	3.94	192	48	GENE	1.10	0.81
22018.577	193321.755	575303.588	366.783	anomaly	corrosion							6.40		N	11.409	05:38	EXT					10	31	1.96	4.44	56	16	AXGR	0.75	0.67
22018.655	193321.831	575303.570	366.788	anomaly	corrosion cluster		80					6.35		N	11.487	05:45	EXT					6	21	1.33	5.02	38	48	GENE	0.71	0.63
22018.731	193321.905	575303.552	366.794	anomaly	corrosion							6.40		N	11.563	05:18	EXT					6	23	1.49	4.91	100	47	GENE	0.75	0.68
22018.779	193321.951	575303.541	366.797	anomaly	corrosion							6.40		N	11.611	00:51	EXT					6	12	0.78	5.62	20	24	PITT	0.69	
22018.857	193322.027	575303.523	366.803	anomaly	corrosion	LWA						6.40		N	11.689	01:18	EXT					13	23	1.46	4.94	16	16	PITT	0.69	0.61
22018.883	193322.052	575303.517	366.805	anomaly	corrosion							6.40		N	11.715	05:24	EXT					8	13	0.81	5.59	12	24	CIGR	0.68	
22018.941	193322.108	575303.503	366.809	anomaly	corrosion cluster		81					6.35		N	11.773	05:24	EXT					4	15	0.95	5.40	30	64	GENE	0.69	
22018.967	193322.133	575303.497	366.811	anomaly	corrosion	LWA						6.40		N	11.799	01:05	EXT					12	23	1.49	4.91	18	32	PITT	0.69	0.61
22019.023	193322.188	575303.484	366.815	anomaly	corrosion							6.40		N	11.855	05:38	EXT					12	27	1.72	4.68	26	23	PITT	0.70	0.62
22019.085	193322.248	575303.470	366.820	anomaly	corrosion							6.40		N	11.917	05:38	EXT					9	27	1.72	4.68	60	23	AXGR	0.74	0.67
22019.341	193322.496	575303.410	366.838	anomaly	corrosion							6.40		N	12.173	00:38	EXT					10	15	0.95	5.45	12	16	PITT	0.68	
22019.688	193322.832	575303.329	366.864	weld	-			20060	longitudinal seam	11.671	260.38	6.36		N		10:21															
22020.490	193323.610	575303.143	366.919	anomaly	corrosion							6.30		N	0.802	05:03	EXT					6	20	1.27	5.03	104	143	GENE	0.74	0.67
22020.650	193323.766	575303.105	366.928	anomaly	corrosion cluster		82					6.36		N	0.962	04:35	EXT					4	22	1.40	4.96	222	175	GENE	0.87	0.71
22021.092	193324.194	575303.003	366.954	anomaly	corrosion							6.30		N	1.404	04:48	EXT					5	11	0.71	5.59	26	24	PITT	0.69	
22021.136	193324.237	575302.993	366.956	anomaly	corrosion							6.30		N	1.448	05:40	EXT					9	43	2.69	3.61	350	111	GENE	1.20	0.89
22021.532	193324.621	575302.901	366.979	anomaly	corrosion							6.30		N	1.844	05:46	EXT					6	27	1.68	4.62	194	63	GENE	0.93	0.74
22021.886	193324.965	575302.819	367.000	anomaly	corrosion							6.40		N	2.198	05:45	EXT					11	48	3.08	3.32	188	63	GENE	1.31	0.90
22021.962	193325.039	575302.801	367.004	anomaly	corrosion							6.40		N	2.274	01:12	EXT					7	15	0.98	5.42	28	24	PITT	0.69	
22023.298	193326.337	575302.496	367.077	anomaly	corrosion							6.30		N	3.610	03:47	EXT					9	15	0.97	5.33	16	16	PITT	0.69	
22025.343	193328.326	575302.038	367.183	anomaly	corrosion							6.30		N	5.655	05:55	EXT					2	9	0.59	5.71	144	64	GENE		
22025.739	193328.711	575301.950	367.203	anomaly	corrosion							6.30		N	6.051	06:14	EXT					4	12	0.76	5.54	44	32	GENE	0.70	
22026.137	193329.098	575301.862	367.223	anomaly	corrosion							6.30		N	6.449	06:00	EXT					5	10	0.62	5.68	22	48	CIGR	0.69	
22026.191	193329.151	575301.850	367.225	anomaly	corrosion							6.30		N	6.503	06:26	EXT					9	12	0.74	5.56	10	16	PITT	0.68	
22031.230	193334.067	575300.777	367.431	anomaly	mill anomaly cluster		136					6.36		N	11.542	02:29	INT					4	18	1.14	5.22	62	39	GENE	0.72	
22031.359	193334.193	575300.751	367.435	weld	-			20070	longitudinal seam	11.481	260.44	6.33		N		00:57															
22040.276	193342.918	575298.951	367.637	anomaly	corrosion							6.30		N	8.917	03:05	EXT					4	11	0.68	5.62	46	24	PITT	0.70	
22040.823	193343.454	575298.841	367.641	anomaly	corrosion cluster		83					6.33		N	9.464	04:33	EXT					2	14	0.89	5.44	554	79	GENE	0.79	
22041.235	193343.857	575298.758	367.644	anomaly	corrosion							6.30		N	9.876	02:46	EXT					8	20	1.27	5.03	38	23	PITT	0.71	0.63
22042.719	193345.309	575298.458	367.654	anomaly	corrosion	LWA / GWA						6.30		N	11.360	00:59	EXT					6	21	1.33	4.97	114	246	GENE	0.75	0.68
22042.725	193345.315	575298.457	367.654	anomaly	corrosion cluster	GWA	84					6.33		N	11.366	05:33	EXT					3	13	0.82	5.51	112	477	GENE	0.72	
22042.840	193345.428	575298.434	367.654	weld	-			20080	longitudinal seam	3.600	260.62	6.24		N		11:30															

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information													
																		Deformations				Cracks and metal losses									
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
22042.845	193345.433	575298.433	367.655	anomaly	corrosion cluster	LWA / GWA	85					6.24		N	0.005	07:13	EXT					5	30	1.87	4.37	482	659	GENE	0.97	0.79
22043.481	193346.055	575298.304	367.659	anomaly	corrosion							6.20		N	0.641	03:47	EXT					3	10	0.64	5.56	54	24	AXGR	0.70	
22045.029	193347.569	575297.991	367.669	anomaly	corrosion cluster	LWA	86					6.24		N	2.189	05:14	EXT					2	10	0.62	5.62	278	87	GENE	0.76	
22046.440	193348.950	575297.705	367.676	weld	-			20090	longitudinal seam	1.718	260.64	6.23		N		01:21															
22048.158	193350.629	575297.351	367.670	weld	-			20100	longitudinal seam	6.038	260.60	6.25		N		11:31															
22054.196	193356.505	575295.983	367.657	weld	-			20110	longitudinal seam	12.363	260.48	6.31		N		03:40															
22563.745	193851.171	575176.467	360.138	weld	-	קטע 6 התחלה		20530	longitudinal seam	0.674	260.44	6.33		N		00:28															
22564.419	193851.830	575176.327	360.124	weld	-			20540	longitudinal seam	11.481	260.54	6.28		N		02:26															
22571.602	193858.847	575174.839	359.933	anomaly	corrosion							6.30		N	7.183	04:05	EXT					5	18	1.12	5.18	136	135	GENE	0.75	
22571.778	193859.019	575174.802	359.925	anomaly	corrosion							6.30		N	7.359	04:11	EXT					6	24	1.53	4.77	132	64	GENE	0.77	0.70
22572.274	193859.502	575174.697	359.904	anomaly	corrosion							6.30		N	7.855	09:45	EXT					9	14	0.91	5.39	14	8	AXSL	0.68	
22572.578	193859.799	575174.633	359.890	anomaly	corrosion							6.20		N	8.159	08:25	EXT					4	9	0.55	5.65	22	16	PITT		
22573.810	193861.000	575174.373	359.825	anomaly	corrosion							6.20		N	9.391	05:25	EXT					3	12	0.75	5.45	156	55	GENE	0.72	
22574.519	193861.690	575174.222	359.782	anomaly	corrosion							6.20		N	10.100	04:24	EXT					6	18	1.14	5.06	48	39	GENE	0.71	
22574.867	193862.029	575174.148	359.761	anomaly	corrosion							6.20		N	10.448	04:17	EXT					5	15	0.93	5.27	58	48	GENE	0.71	
22574.951	193862.111	575174.130	359.756	anomaly	corrosion							6.20		N	10.532	03:24	EXT					6	21	1.32	4.88	76	49	GENE	0.74	0.66
22575.203	193862.356	575174.077	359.740	anomaly	corrosion							6.20		N	10.784	04:17	EXT					6	14	0.87	5.33	32	40	GENE	0.69	
22575.683	193862.823	575173.975	359.703	anomaly	corrosion							6.20		N	11.264	03:58	EXT					6	14	0.87	5.33	24	16	PITT	0.69	
22575.801	193862.938	575173.950	359.694	anomaly	corrosion	GWA						6.20		N	11.382	02:57	EXT					12	42	2.59	3.61	96	358	GENE	0.83	0.78
22575.900	193863.035	575173.929	359.687	weld	-			20550	longitudinal seam	11.480	260.66	6.22		N		11:21															
22575.905	193863.039	575173.928	359.686	anomaly	corrosion	GWA						6.20		N	0.005	07:18	EXT					4	13	0.81	5.39	74	71	GENE	0.71	
22575.905	193863.039	575173.928	359.686	anomaly	corrosion cluster	GWA	87					6.22		N	0.005	02:37	EXT					9	48	2.99	3.23	160	309	GENE	0.92	0.89
22576.051	193863.181	575173.897	359.675	anomaly	corrosion							6.20		N	0.151	07:58	EXT					11	18	1.11	5.09	14	8	AXSL	0.69	
22576.557	193863.674	575173.789	359.637	anomaly	corrosion							6.20		N	0.657	03:17	EXT					9	22	1.35	4.85	32	23	PITT	0.70	0.63
22576.739	193863.851	575173.750	359.623	anomaly	corrosion cluster		88					6.22		N	0.839	05:37	EXT					4	16	1.00	5.22	80	88	GENE	0.72	
22576.905	193864.012	575173.715	359.610	anomaly	corrosion cluster		89					6.22		N	1.005	06:11	EXT					3	13	0.81	5.41	62	72	GENE	0.71	
22576.999	193864.104	575173.695	359.603	anomaly	corrosion							6.20		N	1.099	06:18	EXT					8	32	2.00	4.20	158	199	GENE	0.82	0.76
22577.003	193864.108	575173.694	359.602	anomaly	corrosion							6.20		N	1.103	05:37	EXT					5	12	0.75	5.45	40	16	AXGR	0.70	
22579.383	193866.420	575173.188	359.388	anomaly	corrosion							6.20		N	3.483	05:18	EXT					8	46	2.86	3.34	920	111	GENE	1.26	0.97
22580.822	193867.816	575172.881	359.238	anomaly	corrosion							6.20		N	4.922	04:45	EXT					5	11	0.69	5.51	30	24	PITT	0.69	
22583.563	193870.469	575172.292	358.916	anomaly	corrosion							6.20		N	7.663	05:52	EXT					7	23	1.40	4.80	74	23	AXGR	0.74	0.67
22584.397	193871.273	575172.110	358.804	anomaly	corrosion							6.20		N	8.497	05:37	EXT					7	16	1.02	5.18	26	32	PITT	0.69	
22584.469	193871.343	575172.094	358.795	anomaly	corrosion							6.20		N	8.569	05:37	EXT					3	8	0.49	5.71	50	56	GENE		
22584.559	193871.430	575172.075	358.783	anomaly	corrosion							6.20		N	8.659	05:18	EXT					8	45	2.77	3.43	888	111	GENE	1.24	0.96
22585.337	193872.180	575171.905	358.677	anomaly	corrosion							6.20		N	9.437	07:11	EXT					8	18	1.11	5.09	24	16	PITT	0.69	
22585.826	193872.650	575171.796	358.607	anomaly	corrosion							6.30		N	9.926	06:04	EXT					10	16	1.03	5.27	14	16	PITT	0.69	
22585.856	193872.679	575171.790	358.602	anomaly	corrosion							6.30		N	9.956	03:30	EXT					6	14	0.88	5.42	34	40	GENE	0.70	
22587.225	193873.997	575171.486	358.405	anomaly	corrosion							6.30		N	11.325	01:04	EXT					5	11	0.68	5.62	26	32	PITT	0.69	
22587.231	193874.003	575171.485	358.404	anomaly	corrosion	LWA						6.30		N	11.331	11:37	EXT					3	8	0.53	5.77	32	80	GENE		
22587.380	193874.146	575171.451	358.381	weld	-			20560	longitudinal seam	11.412	260.46	6.32		N		02:00															
22587.877	193874.623	575171.338	358.304	anomaly	corrosion							6.40		N	0.497	04:31	EXT					8	14	0.92	5.48	16	16	PITT	0.69	
22587.885	193874.630	575171.336	358.302	anomaly	corrosion cluster		90					6.32		N	0.505	03:43	EXT					4	22	1.39	4.93	324	270	GENE	0.87	0.72
22588.129	193874.864	575171.281	358.264	anomaly	corrosion							6.40		N	0.749	11:43	EXT					4	7	0.45	5.95	14	32	CIGR		
22590.548	193877.184	575170.726	357.889	anomaly	corrosion							6.40		N	3.168	06:49	EXT					9	20	1.31	5.09	30	24	PITT	0.70	0.62
22590.862	193877.486	575170.654	357.841	anomaly	corrosion							6.40		N	3.482	05:16	EXT					4	15	0.95	5.45	106	88	GENE	0.73	
22590.868	193877.491	575170.652	357.840	anomaly	corrosion							6.40		N	3.488	04:09	EXT					7	11	0.72	5.68	14	24	PITT	0.68	
22590.924	193877.545	575170.639	357.831	anomaly	corrosion							6.40		N	3.544	03:43	EXT					5	10	0.66	5.74	26	16	PITT	0.69	
22591.002	193877.620	575170.621	357.819	anomaly	corrosion							6.40		N	3.622	04:43	EXT					6	33	2.14	4.26	616	151	GENE	1.02	0.82
22592.503	193879.058	575170.272	357.586	anomaly	corrosion							6.40		N	5.123	04:23	EXT					7	20	1.31	5.09	56	64	GENE	0.72	0.64
22598.792	193885.067	575168.784	356.547	weld	-			20570	longitudinal seam	11.557	260.44	6.33		N		02:20															
22660.493	193944.321	575153.017	356.233	weld	-	אתר 21		20630	longitudinal seam	11.524	260.52	6.29		N		00:36															
22661.080	193944.884	575152.868	356.303	anomaly	corrosion							6.20		N	0.587	03:45	EXT					10	13	0.81	5.39	10	16	PITT	0.68	
22661.496	193945.284	575152.763	356.352	anomaly	corrosion							6.20		N	1.003	08:03	EXT					6	13	0.81	5.39	22	24	PITT	0.69	
22661.708	193945.487	575152.709	356.377	anomaly	corrosion	LWA						6.20		N	1.215	00:03	EXT					8	11	0.66	5.54	10	16	PITT	0.68	
22662.484	193946.232	575152.512	356.468	anomaly	corrosion							6.20		N	1.991	07:43	EXT					7	19	1.17	5.03	36	23	PITT	0.70	
22662.874	193946.606	575152.414	356.514	anomaly	corrosion							6.30		N	2.381	07:09	EXT					12	27	1.68	4.62	24	32	PITT	0.70	0.62
22662.966	193946.695	575152.390	356.525	anomaly	corrosion							6.30		N	2.473	06:56	EXT					29	47	2.98	3.32	14	31	CIGR	0.70	0.62
22664.650	193948.312	575151.964	356.729	anomaly	corrosion							6.20		N	4.157	07:07	EXT					7	12	0.72	5.48	16	16	PITT	0.69	
22666.975	193950.545	575151.380	357.002	anomaly	corrosion							6.30		N	6.482	02:47	EXT					4	14	0.88	5.42	132	24	AXGR	0.73	
22667.051	193950.618	575151.361	357.010	anomaly	corrosion							6.30		N	6.558	05:20	EXT					4	22	1.39	4.91	980	88	GENE	0.87	0.74
22672.017	193955.399	575150.121	357.518	weld	-			20640	longitudinal seam	12.503	260.40	6.35		N		10:21															
22743.288	194024.424	575132.842	360.716	weld	-	אתר 22		20720	longitudinal seam	12.521	260.50	6.30		N		10:51															
22743.299	194024.435	575132.840	360.716	anomaly	corrosion	GWA						6.30		N	0.011	05:37	EXT					3	18	1.15	5.15	818	79	GENE	0.83	
22755.809	194036.632	575129.975	361.143	weld	-			20730	longitudinal seam	12.489	260.46	6.32		N		01:24															
23337.939	194602.820	574995.440	391.627	weld	-	אתר 7 התחלה		21290	longitudinal seam	12.462	260.42	6.34		N		01:01															
23348.706	194613.276	574992.790	391.732	anomaly	corrosion							6.40		N	10.767	07:34	EXT					3	14	0.86	5.54	516	71	GENE	0.79	
23350.088	194614.619	574992.453	391.758	anomaly	corrosion	GWA						6.40		N	12.149	07:00	EXT					5	24	1.55	4.85	308	135	GENE	0.90	0.73
23350.401	194614.923	574992.377	391.763	weld	-			21300	longitudinal seam	12.530	260.40	6.35		N		01:15															
23350.430	194614.952	574992.369	391.763	anomaly	corrosion							6.50		N	0.029	07:14	EXT					5	25	1.65	4.85	454	135	GENE	0.91	0.75
23351.990	194616.467	574991.989	391.789	anomaly	corrosion							6.40		N	1.589	08:27	EXT					3	11	0.69	5.71	74	24	AXGR	0.71	
23352.204	194616.675	574991.937	391.791	anomaly	corrosion							6.40		N	1.803	07:14	EXT					3	20	1.31	5.09	1056	143	GENE	0.85	0.72
23353.296	194617.736	574991.671	391.804	anomaly	corrosion							6.30		N	2.895	07:47	EXT					4	13	0.79	5.51	86	72	GENE	0.72	
23354.606	194619.010	574991.354	391.819	anomaly	corrosion cluster		95					6.35		N	4.205	07:42	EXT					3	19	1.21	5.14	626	80	GENE	0.84	
23362.931	194627.114	574989.382	391.905	weld	-			21310	longitudinal seam	12.465	260.42	6.34		N		03:28															
23373.939	194637.864	574986.923	391.865	anomaly	corrosion cluster		96					6.34		N	11.008	07:21	EXT					5	34	2.16	4.18	888	127	GENE	1.03	0.84
23374.927	194638.830	574986.708	391.841	anomaly	corrosion							6.40		N	11.996	07:36	EXT					5	21	1.37	5.03	158	95	GENE	0.76	0.69
23375.119	194639.018	574986.666	391.837	anomaly	corrosion							6.40		N	12.188	08:29	EXT					8	19	1.22	5.18	28	16	PITT	0.70	
23375.175	194639.073	574986.654	391.835	anomaly	corrosion cluster		97					6.34		N	12.244	07:56	EXT					7	31	1.97	4.37	92	56	GENE	0.78	0.71
23375.396	194639.289	574986.606	391.830	weld	-			21320	longitudinal seam	12.237	260.42	6.34		N		11:28															
23387.633	194651.239	574983.900	391.508	weld	-			21330	longitudinal seam	6.626	260.60	6.25		N		04:45															
25124.204	196335.461	574755.399	417.195	weld	-	אתר 23		22880	longitudinal seam	8.469	260.48	6.31		N		11:28															
25125.644	196336.663	574754.597	417.201	anomaly	corrosion							6.30		N	1.440	02:24	EXT					4	17	1.09	5.21	128	48	GENE	0.74	
25125.914	196336.888	574754.447	417.202	anomaly	corrosion							6.30		N	1.710	02:04	EXT					5	17	1.07	5.23	116	64	GENE	0.74	

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information													
																		Deformations				Cracks and metal losses									
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
25126.062	196337.011	574754.364	417.202	anomaly	corrosion							6.30		N	1.858	01:56	EXT					4	11	0.68	5.62	58	64	GENE	0.70	
25126.298	196337.209	574754.233	417.203	anomaly	corrosion							6.30		N	2.094	01:56	EXT					4	18	1.15	5.15	442	80	GENE	0.83	
25131.993	196341.961	574751.061	417.204	anomaly	corrosion							6.30		N	7.789	01:48	EXT					2	8	0.53	5.77	98	64	GENE		
25132.110	196342.059	574750.995	417.204	anomaly	corrosion cluster	GWA	102					6.31		N	7.906	01:29	EXT					2	13	0.82	5.49	552	95	GENE	0.78	
25132.673	196342.527	574750.679	417.201	weld	-			22890	longitudinal seam	0.826	260.52	6.29		N		02:33														
27261.928	198364.474	574512.345	446.424	weld	-	**אתר 24**		24750	longitudinal seam	12.537	260.66	6.22	0.4	N		10:13														
27268.351	198370.831	574512.137	447.217	anomaly	dent plain							6.22		N	6.423	00:47	INT	inw	0.5%	163	143							-		
27272.043	198374.488	574511.998	447.642	anomaly	corrosion							6.20		N	10.115	04:52	EXT					6	26	1.64	4.56	184	63	GENE	0.79	0.73
27274.465	198376.888	574511.897	447.901	weld	-			24760	longitudinal seam	6.019	260.66	6.22		N		00:49														
27739.187	198835.264	574470.549	428.848	weld	-	**אתר 25**		25210	longitudinal seam	12.509	260.50	6.30		N		01:55														
27741.361	198837.392	574470.327	428.513	anomaly	corrosion	further indications						6.30		N	2.174	06:06	EXT					5	10	0.65	5.65	20	16	PITT	0.69	
27743.051	198839.043	574470.151	428.242	anomaly	corrosion							6.30		N	3.864	05:11	EXT					6	15	0.94	5.36	28	39	PITT	0.69	
27745.432	198841.367	574469.897	427.845	anomaly	corrosion							6.30		N	6.245	05:02	EXT					9	32	2.04	4.26	100	39	GENE	0.79	0.73
27745.606	198841.537	574469.878	427.816	anomaly	corrosion							6.30		N	6.419	08:08	EXT					4	8	0.50	5.80	20	55	CIGR		
27749.143	198844.987	574469.489	427.223	anomaly	corrosion							6.30		N	9.956	02:43	EXT					6	10	0.62	5.68	16	16	PITT	0.68	
27751.213	198847.008	574469.257	426.888	anomaly	corrosion							6.30		N	12.026	02:35	EXT					7	11	0.68	5.62	12	16	PITT	0.68	
27751.696	198847.480	574469.202	426.811	weld	-			25220	longitudinal seam	12.457	260.48	6.31		N		04:42														
27814.094	198909.050	574462.104	425.144	weld	-	**אתר 26**		25270	longitudinal seam	12.485	260.52	6.29		N		10:12														
27814.607	198909.555	574462.048	425.206	anomaly	corrosion							6.30		N	0.513	05:59	EXT					9	25	1.59	4.71	46	40	GENE	0.72	0.65
27814.729	198909.675	574462.035	425.220	anomaly	corrosion							6.30		N	0.635	05:46	EXT					7	29	1.80	4.50	126	48	GENE	0.79	0.73
27816.257	198911.179	574461.867	425.405	anomaly	corrosion							6.30		N	2.163	05:53	EXT					4	7	0.47	5.83	22	32	PITT		
27816.529	198911.447	574461.837	425.439	anomaly	corrosion	further indications						6.30		N	2.435	06:00	EXT					4	13	0.79	5.51	56	31	GENE	0.71	
27817.244	198912.150	574461.759	425.528	anomaly	corrosion							6.30		N	3.150	02:16	EXT					4	11	0.71	5.59	52	80	GENE	0.70	
27817.318	198912.223	574461.751	425.538	anomaly	corrosion							6.30		N	3.224	02:22	EXT					4	9	0.56	5.74	34	32	GENE		
27817.376	198912.280	574461.745	425.545	anomaly	corrosion							6.30		N	3.282	02:36	EXT					4	12	0.74	5.56	56	95	GENE	0.70	
27818.248	198913.138	574461.649	425.655	anomaly	corrosion							6.30		N	4.154	11:06	EXT					6	19	1.21	5.09	66	40	GENE	0.72	
27818.528	198913.413	574461.619	425.691	anomaly	corrosion							6.30		N	4.434	04:20	EXT					10	16	1.00	5.30	14	16	PITT	0.69	
27826.579	198921.326	574460.744	426.775	weld	-			25280	longitudinal seam	12.425	260.40	6.35		N		01:53														
28163.534	199255.015	574424.221	438.080	weld	-	**אתר 27**		25590	longitudinal seam	12.507	260.42	6.34		N		02:39														
28168.516	199259.961	574423.702	438.374	anomaly	corrosion							6.40		N	4.982	07:18	EXT					5	9	0.60	5.80	20	16	PITT		
28168.662	199260.105	574423.687	438.383	anomaly	corrosion	further indications						6.40		N	5.128	07:19	EXT					3	8	0.54	5.86	48	24	AXGR		
28169.336	199260.774	574423.617	438.428	anomaly	corrosion							6.40		N	5.802	06:29	EXT					7	16	1.01	5.39	28	31	PITT	0.69	
28169.516	199260.953	574423.598	438.440	anomaly	corrosion							6.40		N	5.982	06:56	EXT					5	12	0.75	5.65	24	32	PITT	0.69	
28169.602	199261.038	574423.589	438.445	anomaly	corrosion							6.40		N	6.068	07:37	EXT					10	17	1.07	5.33	14	16	PITT	0.69	
28170.201	199261.632	574423.526	438.485	anomaly	corrosion							6.40		N	6.667	07:33	EXT					6	13	0.84	5.56	28	16	PITT	0.69	
28170.315	199261.745	574423.514	438.493	anomaly	corrosion							6.40		N	6.781	07:33	EXT					6	16	1.01	5.39	40	40	GENE	0.70	
28170.485	199261.914	574423.497	438.504	anomaly	corrosion							6.40		N	6.951	07:54	EXT					6	9	0.60	5.80	12	31	CIGR		
28170.945	199262.370	574423.447	438.539	anomaly	corrosion							6.40		N	7.411	07:48	EXT					5	8	0.54	5.86	16	16	PITT		
28171.555	199262.975	574423.382	438.587	anomaly	corrosion							6.40		N	8.021	07:31	EXT					4	13	0.84	5.56	58	48	GENE	0.71	
28171.893	199263.310	574423.346	438.613	anomaly	corrosion							6.40		N	8.359	07:05	EXT					5	14	0.92	5.48	60	56	GENE	0.71	
28172.541	199263.952	574423.276	438.664	anomaly	corrosion							6.40		N	9.007	07:00	EXT					5	11	0.72	5.68	26	24	PITT	0.69	
28172.943	199264.350	574423.233	438.700	anomaly	corrosion							6.40		N	9.409	07:28	EXT					4	9	0.57	5.83	30	16	PITT		
28174.132	199265.527	574423.104	438.805	anomaly	corrosion							6.40		N	10.598	07:50	EXT					8	11	0.72	5.68	12	16	PITT	0.68	
28174.576	199265.967	574423.056	438.845	anomaly	corrosion							6.40		N	11.042	06:43	EXT					6	11	0.69	5.71	16	16	PITT	0.68	
28175.344	199266.727	574422.971	438.916	anomaly	corrosion							6.30		N	11.810	08:54	EXT					8	29	1.80	4.50	82	40	GENE	0.77	0.70
28175.532	199266.913	574422.951	438.933	anomaly	corrosion							6.40		N	11.998	08:52	EXT					12	30	1.90	4.50	32	24	PITT	0.71	0.64
28175.702	199267.081	574422.932	438.949	anomaly	corrosion							6.40		N	12.168	08:52	EXT					7	30	1.90	4.50	146	48	GENE	0.80	0.74
28176.041	199267.416	574422.894	438.981	weld	-			25600	longitudinal seam	12.501	260.20	6.45		N		01:30														
28604.639	199692.208	574371.836	457.807	weld	-	**קטע 8 התחלה**		26010	longitudinal seam	10.864	260.40	6.35		N		07:39														
28615.503	199703.015	574370.796	457.949	weld	-			26020	longitudinal seam	1.617	260.56	6.27		N		04:00														
28617.120	199704.623	574370.636	457.989	weld	-			26030	longitudinal seam	9.692	260.68	6.21		N		09:58														
28619.077	199706.569	574370.438	458.041	anomaly	corrosion							6.20		N	1.957	05:34	EXT					6	31	1.91	4.29	576	95	GENE	0.99	0.80
28619.951	199707.437	574370.348	458.072	anomaly	corrosion							6.20		N	2.831	05:48	EXT					4	12	0.72	5.48	76	48	GENE	0.71	
28626.812	199714.251	574369.647	458.429	weld	-			26040	longitudinal seam	12.541	260.62	6.24		N		01:09														
28639.353	199726.675	574368.367	459.543	weld	-			26050	longitudinal seam	12.551	260.66	6.22		N		10:32														
28642.884	199730.169	574368.011	459.921	anomaly	corrosion cluster		110					6.22		N	3.531	05:06	EXT					4	27	1.68	4.54	881	112	GENE	0.93	0.78
28645.765	199733.020	574367.722	460.210	anomaly	corrosion							6.20		N	6.412	05:34	EXT					2	7	0.43	5.77	66	40	GENE		
28651.904	199739.103	574367.094	460.754	weld	-			26060	longitudinal seam	12.491	260.52	6.29		N		01:21														
28657.419	199744.569	574366.501	461.185	anomaly	corrosion							6.30		N	5.515	04:59	EXT					7	41	2.60	3.70	1532	151	GENE	1.16	0.92
28659.101	199746.236	574366.319	461.314	anomaly	corrosion							6.30		N	7.197	05:44	EXT					4	16	1.00	5.30	106	32	GENE	0.73	
28659.353	199746.486	574366.292	461.333	anomaly	corrosion							6.30		N	7.449	05:11	EXT					6	34	2.13	4.17	1156	111	GENE	1.03	0.84
28664.395	199751.482	574365.732	461.703	weld	-			26070	longitudinal seam	12.550	260.58	6.26		N		11:10														
28676.945	199763.920	574364.241	462.424	weld	-			26080	longitudinal seam	12.550	260.44	6.33		N		01:31														
28679.014	199765.969	574363.986	462.532	anomaly	corrosion							6.30		N	2.069	04:46	EXT					7	47	2.98	3.32	2478	127	GENE	1.29	1.00
28681.555	199768.486	574363.665	462.655	anomaly	corrosion							6.30		N	4.610	04:58	EXT					5	31	1.98	4.32	1128	95	GENE	0.99	0.81
28688.544	199775.412	574362.779	462.881	anomaly	corrosion							6.30		N	11.599	04:46	EXT					2	12	0.75	5.55	504	103	GENE	0.77	
28689.495	199776.355	574362.659	462.893	weld	-			26090	longitudinal seam	12.526	260.52	6.29	0.2	N		10:39														
29282.197	200361.650	574299.411	496.876	weld	-	**אתר 28**		26620	longitudinal seam	12.532	260.40	6.35		N		09:23														
29291.987	200371.326	574298.179	496.171	anomaly	corrosion							6.40		N	9.790	05:58	EXT					4	14	0.87	5.53	130	31	GENE	0.73	
29292.141	200371.478	574298.159	496.159	anomaly	corrosion							6.40		N	9.944	05:44	EXT					3	14	0.86	5.54	148	56	GENE	0.73	
29292.316	200371.651	574298.136	496.145	anomaly	corrosion							6.40		N	10.119	05:31	EXT					6	31	1.96	4.44	414	111	GENE	0.99	0.79
29294.729	200374.032	574297.816	495.951	weld	-			26630	longitudinal seam	12.510	260.54	6.28		N		01:15														
29332.335	200411.173	574292.700	493.608	weld	-	**אתר 29**		26660	longitudinal seam	12.535	260.46	6.32	0.7	N		11:23														
29334.776	200413.591	574292.389	493.534	anomaly	dent kinked							6.32		N	2.441	07:37	INT	inw	0.7%	272	36							-		
29342.348	200421.093	574291.420	493.377	anomaly	dent plain	reduced accuracy						6.32		N	10.013	11:55	INT	inw	1.2%	265	110							-		
29342.605	200421.348	574291.387	493.371	anomaly	corrosion							6.40		N	10.270	05:46	EXT					3	8	0.54	5.86	52	24	AXGR		
29342.727	200421.469	574291.371	493.368	anomaly	corrosion							6.40		N	10.392	05:39	EXT					4	8	0.48	5.92	18	16	PITT		
29343.013	200421.752	574291.334	493.361	anomaly	corrosion							6.40		N	10.678	05:39	EXT					3	10	0.63	5.77	46	16	AXGR	0.70	
29343.283	200422.019	574291.300	493.355	anomaly	corrosion							6.40		N	10.948	05:39	EXT					5	24	1.57	4.83	306	80	GENE	0.90	0.73
29343.511	200422.245	574291.270	493.350	anomaly	dent plain							6.32		N	11.176	07:19	INT	inw	0.7%	580	179							-		
29343.911	200422.642	574291.219	493.340	anomaly	corrosion							6.40		N	11.576	06:25	EXT					3	8	0.51	5.89	54	16	AXGR		
29344.870	200423.591	574291.098	493.307	weld	-			26670	longitudinal seam	12.532	260.46	6.32	0.5	N		02:14														
29345.050	200423.770	574291.075	493.301	anomaly	dent plain							6.32		N	0.180	07:25	INT	inw	0.3%	237	71							-		

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information												
																		Deformations				Cracks and metal losses								
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
29346.266	200424.974	574290.923	493.257	AGM	-	No 32								N	1.396															
29357.402	200436.007	574289.549	492.874	weld	-			26680	longitudinal seam	12.510	260.56	6.27	1.7	N		10:39														
29362.068	200440.636	574288.978	492.794	anomaly	corrosion							6.30		N	4.666	05:33	EXT					3	19	1.21	5.09	802	72	GENE	0.84	
29363.921	200442.473	574288.746	492.760	anomaly	dent plain							6.27		N	6.519	07:21	INT	inw	1.0%	110	107							-		
29366.255	200444.787	574288.448	492.706	anomaly	dent plain							6.27		N	8.853	07:30	INT	inw	1.8%	225	107							-		
29369.912	200448.410	574287.973	492.594	weld	-			26690	longitudinal seam	12.517	260.56	6.27		N		01:15														
30214.511	201280.293	574197.209	528.123	weld	-	אתר 30		27470	longitudinal seam	9.987	260.38	6.36		N		10:49														
30214.542	201280.324	574197.207	528.126	anomaly	corrosion							6.40		N	0.031	05:17	EXT					4	13	0.84	5.56	84	63	GENE	0.72	
30214.742	201280.522	574197.191	528.149	anomaly	corrosion							6.40		N	0.231	05:10	EXT					8	28	1.78	4.62	92	56	GENE	0.77	0.70
30215.016	201280.793	574197.170	528.181	anomaly	corrosion							6.40		N	0.505	05:10	EXT					5	12	0.78	5.62	40	32	GENE	0.70	
30215.810	201281.580	574197.109	528.273	anomaly	corrosion							6.30		N	1.299	04:59	EXT					4	14	0.88	5.42	106	72	GENE	0.72	
30216.124	201281.891	574197.084	528.309	anomaly	corrosion							6.30		N	1.613	04:16	EXT					4	23	1.48	4.82	1006	167	GENE	0.89	0.75
30224.498	201290.210	574196.423	529.028	weld	-			27480	longitudinal seam	10.943	260.34	6.38		N		00:44														
30235.441	201301.096	574195.414	529.497	weld	-			27490	longitudinal seam	2.730	260.38	6.36		N		10:06														
30235.738	201301.392	574195.385	529.507	anomaly	corrosion							6.20		N	0.297	04:27	EXT					6	30	1.88	4.32	410	119	GENE	0.97	0.78
30238.171	201303.813	574195.158	529.579	weld	-			27500	longitudinal seam	4.105	260.64	6.23		N		06:05														
30501.042	201563.138	574191.232	525.825	weld	-	קטע 9 התחלה		27760	longitudinal seam	11.249	260.54	6.28	1.1	N		11:17														
30505.483	201567.492	574191.691	525.111	anomaly	dent plain							6.28		N	4.441	05:51	INT	inw	0.8%	82	107							-		
30509.263	201571.196	574192.085	524.502	anomaly	dent plain							6.28		N	8.221	06:06	INT	inw	0.8%	195	71							-		
30512.291	201574.165	574192.401	524.016	weld	change in wall thickness	NWT. = 6.35 mm / 7.80 mm		27770	seamless	5.892	256.88	8.11		N																
30512.890	201574.753	574192.463	523.924	anomaly	pipe mill anomaly							8.10		N	0.599	04:48	INT					5	11	0.88	7.22	22	16	PITT	0.69	
30518.183	201579.952	574193.017	523.149	weld	change in wall thickness	weld plus end, NWT. = 7.80 mm / 6.35 mm		27780	longitudinal seam	11.106	260.56	6.27		N																
30524.960	201586.605	574193.744	522.131	anomaly	corrosion cluster		112					6.27		N	6.777	06:40	EXT					3	18	1.13	5.14	346	119	GENE	0.83	
30525.332	201586.971	574193.784	522.076	anomaly	corrosion							6.20		N	7.149	06:33	EXT					4	20	1.26	4.94	390	112	GENE	0.85	0.71
30526.452	201588.071	574193.905	521.912	anomaly	corrosion							6.30		N	8.269	06:48	EXT					5	21	1.30	5.00	186	63	GENE	0.86	0.70
30526.668	201588.283	574193.929	521.881	anomaly	corrosion							6.30		N	8.485	07:01	EXT					3	7	0.47	5.83	24	16	PITT		
30528.480	201590.065	574194.124	521.632	anomaly	corrosion	GWA						6.30		N	10.297	05:24	EXT					9	49	3.10	3.20	804	230	GENE	1.34	1.01
30529.289	201590.862	574194.210	521.529	weld	-			27790	longitudinal seam	3.188	260.40	6.35		N		00:10														
30529.302	201590.875	574194.211	521.527	anomaly	corrosion	GWA						6.30		N	0.013	06:24	EXT					6	28	1.74	4.56	406	143	GENE	0.95	0.76
30532.477	201594.007	574194.546	521.148	weld	-			27800	longitudinal seam	1.084	260.40	6.35		N		07:32														
30533.561	201595.077	574194.659	521.028	weld	-			27810	longitudinal seam	6.569	260.26	6.42		N		10:38														
30540.130	201601.571	574195.348	520.375	weld	-			27820	longitudinal seam	10.852	260.28	6.41		N		02:53														
30550.982	201612.269	574196.420	519.002	weld	-			27830	longitudinal seam	12.514	260.38	6.36		N		10:51														
30556.082	201617.293	574196.907	518.309	anomaly	corrosion							6.30		N	5.100	04:32	EXT					6	35	2.18	4.12	1012	183	GENE	1.05	0.85
30563.496	201624.600	574197.632	517.342	weld	-			27840	longitudinal seam	12.529	260.42	6.34		N		02:58														
30565.147	201626.225	574197.802	517.120	anomaly	corrosion							6.30		N	1.651	05:34	EXT					2	11	0.68	5.62	216	71	GENE	0.77	
30565.645	201626.715	574197.854	517.053	anomaly	corrosion							6.30		N	2.149	05:34	EXT					2	9	0.56	5.74	400	71	GENE		
30566.075	201627.139	574197.899	516.995	anomaly	corrosion							6.30		N	2.579	05:34	EXT					4	15	0.97	5.33	122	55	GENE	0.73	
30566.643	201627.698	574197.958	516.919	anomaly	corrosion							6.40		N	3.147	04:53	EXT					4	27	1.75	4.65	1380	159	GENE	0.93	0.78
30576.025	201636.939	574198.945	515.707	weld	-			27850	longitudinal seam	12.510	260.38	6.36		N		00:14														
30578.340	201639.214	574199.190	515.371	anomaly	corrosion							6.40		N	2.315	05:42	EXT					3	12	0.75	5.65	94	80	GENE	0.71	
30578.478	201639.349	574199.204	515.351	anomaly	corrosion							6.40		N	2.453	05:08	EXT					5	26	1.69	4.71	518	143	GENE	0.92	0.76
30579.018	201639.880	574199.261	515.272	anomaly	corrosion							6.40		N	2.993	05:48	EXT					5	13	0.84	5.56	34	32	GENE	0.69	
30579.078	201639.939	574199.267	515.263	anomaly	corrosion							6.40		N	3.053	05:28	EXT					6	24	1.55	4.85	138	79	GENE	0.77	0.70
30579.236	201640.094	574199.284	515.240	anomaly	corrosion cluster		113					6.36		N	3.211	05:27	EXT					3	21	1.34	5.02	674	87	GENE	0.86	0.73
30579.960	201640.805	574199.360	515.133	anomaly	corrosion							6.30		N	3.935	05:40	EXT					3	12	0.74	5.56	140	63	GENE	0.72	
30581.076	201641.901	574199.478	514.968	anomaly	corrosion							6.30		N	5.051	05:52	EXT					3	8	0.50	5.80	46	16	AXGR		
30581.180	201642.003	574199.489	514.953	anomaly	corrosion							6.30		N	5.155	05:39	EXT					4	14	0.85	5.45	94	55	GENE	0.72	
30581.482	201642.300	574199.521	514.908	anomaly	corrosion							6.30		N	5.457	04:51	EXT					6	30	1.92	4.38	666	159	GENE	0.97	0.79
30588.535	201649.229	574200.283	513.889	weld	-			27860	longitudinal seam	12.527	260.42	6.34		N		02:11														
30601.062	201661.567	574201.804	512.452	weld	-			27870	longitudinal seam	12.505	260.36	6.37		N		11:31														
30603.253	201663.728	574202.074	512.232	anomaly	corrosion							6.40		N	2.191	06:33	EXT					4	18	1.16	5.24	174	72	GENE	0.75	
30603.649	201664.118	574202.123	512.191	anomaly	corrosion							6.40		N	2.587	06:26	EXT					4	9	0.60	5.80	32	24	PITT		
30604.303	201664.763	574202.203	512.123	anomaly	corrosion							6.40		N	3.241	06:06	EXT					3	8	0.51	5.89	30	23	PITT		
30613.567	201673.907	574203.283	511.178	weld	-			27880	longitudinal seam	12.423	260.56	6.27		N		01:28														
30625.990	201686.225	574204.694	510.565	weld	-			27890	longitudinal seam	10.914	260.64	6.23		N		10:57														
30636.904	201697.067	574205.923	510.577	weld	-			27900	longitudinal seam	4.532	260.68	6.21		N		01:49														
30641.436	201701.570	574206.412	510.510	weld	-			27910	longitudinal seam	1.774	260.72	6.19		N		09:52														
30643.210	201703.333	574206.594	510.462	weld	-			27920	longitudinal seam	7.958	260.62	6.24		N		06:22														
30644.365	201704.480	574206.712	510.424	anomaly	corrosion cluster		114					6.24		N	1.155	01:50	EXT					2	14	0.87	5.37	434	64	GENE	0.79	
30645.317	201705.423	574206.807	510.357	anomaly	corrosion							6.30		N	2.107	01:50	EXT					3	8	0.50	5.80	34	24	PITT		
30645.451	201705.556	574206.820	510.342	anomaly	corrosion cluster		115					6.24		N	2.241	01:24	EXT					3	24	1.50	4.74	2397	119	GENE	0.90	0.76
30651.168	201711.183	574207.337	509.547	weld	-			27930	longitudinal seam	6.602	260.66	6.22	0.1	N		03:38														
30965.103	202015.649	574199.153	534.634	weld	-	אתר 31		28230	longitudinal seam	12.550	260.54	6.28		N		00:43														
30966.626	202016.971	574198.398	534.676	anomaly	corrosion							6.30		N	1.523	05:24	EXT					3	22	1.42	4.88	1700	120	GENE	0.87	0.74
30968.680	202018.746	574197.365	534.704	anomaly	corrosion cluster		116					6.28		N	3.577	05:12	EXT					3	20	1.26	5.02	1632	142	GENE	0.85	0.73
30970.766	202020.538	574196.300	534.694	anomaly	corrosion							6.30		N	5.663	05:54	EXT					3	13	0.82	5.48	354	71	GENE	0.78	
30977.653	202026.374	574192.666	534.376	weld	-			28240	longitudinal seam	12.548	260.52	6.29	1.7	N		01:16														
31380.203	202361.674	574000.437	449.043	weld	-	אתר 32		28580	longitudinal seam	12.460	260.62	6.24		N		01:57														
31380.994	202362.440	574000.239	449.017	anomaly	corrosion							6.30		N	0.791	07:35	EXT					3	14	0.91	5.39	486	127	GENE	0.79	
31383.597	202364.957	573999.580	448.903	anomaly	corrosion							6.30		N	3.394	08:03	EXT					4	7	0.47	5.83	18	24	PITT		
31383.837	202365.188	573999.519	448.889	anomaly	corrosion	further indications						6.30		N	3.634	08:24	EXT					6	11	0.68	5.62	18	16	PITT	0.69	
31392.663	202373.680	573997.173	448.284	weld	-			28590	longitudinal seam	12.531	260.64	6.23		N		04:03														
31451.550	202430.017	573980.638	446.786	weld	-	קטע 10 התחלה		28650	longitudinal seam	12.520	260.58	6.26		N		02:32														
31458.908	202437.077	573978.656	447.515	anomaly	corrosion							6.30		N	7.358	05:03	EXT					3	14	0.85	5.45	134	143	GENE	0.73	
31459.064	202437.227	573978.614	447.524	anomaly	corrosion cluster		121					6.26		N	7.514	04:57	EXT					4	29	1.82	4.44	1634	159	GENE	0.96	0.80
31464.070	202442.052	573977.275	447.724	weld	-			28660	longitudinal seam	12.525	260.48	6.31	0.6	N		09:04														
31471.657	202449.372	573975.261	447.728	anomaly	corrosion							6.30		N	7.587	03:09	EXT					3	19	1.21	5.09	752	175	GENE	0.84	
31473.523	202451.174	573974.778	447.643	anomaly	dent plain							6.31		N	9.453	10:16	INT	inw	0.3%	370	71							-		
31476.595	202454.142	573973.995	447.482	weld	-			28670	longitudinal seam	12.501	260.38	6.36		N		02:49														
31489.096	202466.287	573971.032	447.013	weld	-			28680	longitudinal seam	11.396	260.38	6.36		N		09:39														
31490.505	202467.657	573970.704	446.976	anomaly	corrosion							6.40		N	1.409	05:48	EXT					5	17	1.07	5.33	62	32	GENE	0.72	
31495.744	202472.747	573969.457	446.825	anomaly	corrosion							6.40		N	6.648	05:39	EXT					6	8	0.51	5.89	8	23	CISL		

	GPS			Feature type and ID				Reference joint					Joint global geometry		Feature location on joint			Anomly sizing and further information												
																		Deformations				Cracks and metal losses								
Log distance [m]	Easting [m]	Northing [m]	Height [m]	Feature type	Feature identification	Comment	Cluster ID	Girth weld Nr	Joint manufacturing type	Joint / component length [m]	Internal diameter [mm]	wall thickness [mm]	Ovality [%]	Bend Y/N	Abs. Dist. to upstream weld [m]	Clock position seam weld / anomaly	Surface location [INT / EXT / MID / N/A]	Inward/outward	depth / height [%] / [mm]	Length [mm]	Width [mm]	Mean depth [%]	Max. depth [%]	Max. depth [mm]	rem. t [mm]	Length [mm]	Width [mm]	Anomaly dimension classification	ERF B31G (metal losses)	ERF [0.58 dL] (metal losses)
31500.492	202477.347	573968.282	446.639	weld	-			28690	longitudinal seam	12.513	260.52	6.29		N		02:26														
31513.005	202489.396	573965.040	445.639	weld	-			28700	longitudinal seam	11.095	260.52	6.29		N		09:34														
31523.525	202499.495	573962.261	444.630	anomaly	corrosion							6.30		N	10.520	05:49	EXT					5	11	0.68	5.62	26	16	PITT	0.69	
31524.100	202500.047	573962.108	444.578	weld	-			28710	longitudinal seam	12.519	260.48	6.31		N		01:51														
31536.619	202512.054	573958.731	443.454	weld	-			28720	longitudinal seam	12.523	260.50	6.30	0.3	N		01:39														
31539.396	202514.719	573957.986	443.206	anomaly	dent plain							6.30		N	2.777	03:23	INT	inw	0.5%	112	143							-		
31549.142	202524.082	573955.383	442.418	weld	-			28730	longitudinal seam	12.505	260.50	6.30		N		10:02														
31561.647	202536.086	573951.967	441.546	weld	-			28740	longitudinal seam	12.503	260.38	6.36		N		01:20														
31574.150	202548.057	573948.459	440.624	weld	-			28750	longitudinal seam	12.510	260.32	6.39		N		10:21														
31586.660	202559.986	573944.818	439.594	weld	-			28760	longitudinal seam	2.645	260.40	6.35		N		00:39														
31589.305	202562.500	573944.039	439.320	weld	-			28770	longitudinal seam	9.765	260.62	6.24		N		00:35														
31589.898	202563.065	573943.869	439.262	anomaly	corrosion cluster		122					6.24		N	0.593	04:49	EXT					6	25	1.56	4.68	56	24	AXGR	0.73	0.66
31599.070	202571.809	573941.283	438.258	weld	-			28780	longitudinal seam	9.903	260.40	6.35		N		09:16														
31608.973	202581.263	573938.496	437.276	weld	bend begin	R:40.0D, A:10.00°, Dir:12:00		28790	longitudinal seam	2.943	260.28	6.41		Y		07:49														
31611.495	202583.673	573937.757	437.350	anomaly	corrosion							6.40		Y	2.522	06:07	EXT					4	8	0.48	5.92	22	40	PITT		
31611.916	202584.075	573937.633	437.383	weld	bend end			28800	longitudinal seam	2.545	260.32	6.39		N		11:44														
31614.461	202586.498	573936.881	437.630	weld	-			28810	longitudinal seam	10.307	260.50	6.30	1.0	N		04:17														
31623.591	202595.140	573934.114	438.767	anomaly	dent plain							6.30		N	9.130	06:53	INT	inw	0.5%	647	107							-		
31624.768	202596.249	573933.749	438.930	weld	-			28820	longitudinal seam	11.989	260.48	6.31		N		09:23														
31636.757	202607.568	573930.051	440.495	weld	-			28830	longitudinal seam	12.503	260.26	6.42		N		01:01														
31644.788	202615.176	573927.643	441.520	anomaly	corrosion							6.40		N	8.031	03:48	EXT					8	21	1.37	5.03	42	24	PITT	0.71	0.63
31644.886	202615.269	573927.613	441.531	anomaly	corrosion							6.40		N	8.129	03:49	EXT					5	17	1.07	5.33	100	48	GENE	0.73	
31649.260	202619.425	573926.301	441.968	weld	-			28840	longitudinal seam	12.505	260.20	6.45	0.6	N		09:01														
31649.437	202619.594	573926.248	441.984	anomaly	corrosion							6.40		N	0.177	06:16	EXT					5	14	0.89	5.51	40	32	GENE	0.70	
31649.589	202619.738	573926.202	441.997	anomaly	corrosion							6.40		N	0.329	05:23	EXT					4	20	1.31	5.09	714	119	GENE	0.85	0.72
31651.014	202621.096	573925.776	442.106	anomaly	corrosion							6.40		N	1.754	03:24	EXT					3	20	1.25	5.15	766	166	GENE	0.85	0.72
31651.840	202621.883	573925.528	442.168	anomaly	corrosion cluster		123					6.45		N	2.580	04:03	EXT					6	30	1.94	4.52	130	63	GENE	0.80	0.73
31652.000	202622.035	573925.481	442.179	anomaly	corrosion cluster		124					6.45		N	2.740	04:22	EXT					5	27	1.74	4.71	154	73	GENE	0.79	0.73
31652.192	202622.218	573925.423	442.191	anomaly	corrosion							6.40		N	2.932	04:01	EXT					4	11	0.72	5.68	34	23	PITT	0.69	
31653.852	202623.801	573924.928	442.302	anomaly	dent plain							6.45		N	4.592	00:57	INT	inw	0.9%	486	107							-		
31656.733	202626.550	573924.072	442.485	anomaly	corrosion							6.40		N	7.473	05:28	EXT					5	23	1.49	4.91	270	48	GENE	0.89	0.72
31656.805	202626.619	573924.051	442.490	anomaly	dent plain							6.45		N	7.545	01:08	INT	inw	0.6%	538	107							-		
31657.049	202626.851	573923.979	442.505	anomaly	corrosion cluster		125					6.45		N	7.789	05:23	EXT					4	26	1.68	4.77	972	63	GENE	0.92	0.77
31661.765	202631.354	573922.588	442.816	weld	-			28850	longitudinal seam	12.507	260.32	6.39		N		02:09														