

R/RNDV 01

Date 203-05-94

Client :
 Well Name : SAUDONE 1 DIR
 Location : SAUDONE
 : FOGGIA
 :

Page 1 of 2
 Date
 Filename : SAUD01R

No Interpolation

MD	INC	DIR	TVD	LAT	DEP	VS	D'LEG	BUILD	TURN	TOOL
m	deg	deg	m	m	m	m	°/30	°/30	°/30	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
255.0	0.0	0.0	255.0	0.0	0.0	0.0	0.0	0.0	0.0	0
485.0	0.0	0.0	485.0	0.0	0.0	0.0	0.0	0.0	0.0	0
579.0	0.0	0.0	579.0	0.0	0.0	0.0	0.0	0.0	0.0	0
732.0	0.4	76.8	732.0	0.1	0.5	0.2	0.1	0.1	15.1	0
834.0	0.4	111.9	834.0	0.1	1.2	0.3	0.1	0.0	10.3	0
949.0	0.7	96.8	949.0	-0.2	2.3	0.2	0.1	0.1	-3.9	0
977.0	0.5	107.2	977.0	-0.2	2.6	0.2	0.2	-0.2	11.2	0
1005.0	1.2	62.4	1005.0	-0.1	2.9	0.3	1.0	0.7	-48.0	0
1034.0	3.4	33.0	1034.0	0.7	3.7	1.3	2.5	2.3	-30.5	0
1063.0	4.8	25.7	1062.9	2.6	4.7	3.2	1.5	1.4	-7.5	0
1091.0	6.7	21.7	1090.7	5.1	5.8	5.9	2.1	2.0	-4.3	0
120.0	9.1	15.8	1119.5	8.9	7.0	9.9	2.6	2.5	-6.1	0
1149.0	11.7	11.9	1148.0	14.0	8.3	15.1	2.8	2.7	-4.0	0
1177.0	14.5	11.8	1175.3	20.2	9.6	21.4	3.0	3.0	-0.1	0
1205.0	16.7	9.9	1202.2	27.6	11.0	28.9	2.4	2.4	-2.0	0
1234.0	18.8	8.6	1229.8	36.3	12.4	37.8	2.2	2.2	-1.3	0
1262.0	20.3	8.8	1256.2	45.6	13.8	47.2	1.6	1.6	0.2	0
1291.0	21.2	10.3	1283.3	55.7	15.5	57.4	1.1	0.9	1.6	0
1311.0	21.7	13.1	1302.0	62.9	17.0	64.7	1.7	0.8	4.2	0
1339.0	22.2	10.6	1327.9	73.1	19.1	75.2	1.1	0.5	-2.7	0
1367.0	22.3	9.4	1353.8	83.6	21.0	85.8	0.5	0.1	-1.3	0
1396.0	22.5	9.8	1380.7	94.5	22.8	96.8	0.3	0.2	0.4	0
1424.0	22.5	9.7	1406.5	105.0	24.6	107.5	0.0	0.0	-0.1	0
1453.0	22.6	9.1	1433.3	116.0	26.4	118.7	0.3	0.1	-0.6	0
1481.0	22.5	8.6	1459.2	126.6	28.1	129.4	0.2	-0.1	-0.5	0
1509.0	22.2	9.7	1485.1	137.1	29.8	140.0	0.5	-0.2	1.1	0
1537.0	21.9	8.8	1511.0	147.5	31.5	150.6	0.5	-0.3	-0.9	0
1566.0	22.2	9.2	1537.9	158.2	33.2	161.4	0.3	0.3	0.5	0
1594.0	22.4	8.5	1563.8	168.7	34.8	172.1	0.4	0.2	-0.8	0
1623.0	22.3	8.9	1590.6	179.6	36.5	183.1	0.2	-0.1	0.4	0
1651.0	22.5	8.5	1616.5	190.2	38.1	193.8	0.2	0.2	-0.4	0
1680.0	22.2	8.4	1643.3	201.1	39.7	204.8	0.2	-0.2	-0.1	0
1708.0	22.1	8.1	1669.3	211.5	41.2	215.4	0.2	-0.1	-0.4	0
1736.0	22.5	8.5	1695.2	222.1	42.8	226.0	0.4	0.4	0.5	0
1764.0	22.3	9.8	1721.1	232.6	44.5	236.6	0.6	-0.2	1.4	0
1793.0	21.9	9.8	1747.9	243.3	46.3	247.5	0.4	-0.4	-0.1	0
1821.0	21.9	9.7	1773.9	253.6	48.1	258.0	0.1	0.0	-0.1	0
1849.0	21.5	9.5	1799.9	263.8	49.8	268.4	0.5	-0.5	-0.2	0
1900.0	20.4	10.3	1847.6	281.8	52.9	286.6	0.7	-0.6	0.5	0

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No Interpolation

MD	INC	DIR	TVD	LAT	DEP	VS	D'LEG	BUILD	TURN	TOOL
m	deg	deg	m	m	m	m	°/30	°/30	°/30	
1928.0	19.1	11.0	1873.9	291.1	54.7	296.0	1.4	-1.4	0.8	0
1976.0	17.5	11.7	1919.5	305.9	57.7	311.1	1.0	-1.0	0.4	0
2042.0	14.9	12.9	1982.8	323.9	61.6	329.5	1.2	-1.2	0.5	0
2071.0	12.0	15.4	2011.0	330.4	63.2	336.2	3.1	-3.0	2.5	0
2087.0	11.9	18.5	2026.7	333.6	64.2	339.5	1.2	-0.2	5.8	0
2102.0	11.9	18.5	2041.4	336.5	65.2	342.5	0.0	0.0	0.0	0

Origin of Bottom Hole Closure PLATFORM CENTRE
 Bottom Hole Closure 343 m 11.0°

± TOTAL WELL DEPTH 2102m MD -

* Extrapolated the BTM with the last SURVEY
 at 2087m.

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No Interpolation

MD	INC	DIR	TVD	LAT	DEP	VS	D'LEG	BUILD	TURN	TOOL	CASE
m	deg	deg	m	m	m	m	°/30	°/30	°/30		
0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0	0
255	0.0	0.0	255	0	0	0	0.0	0.0	0.0	0	0
485	0.0	0.0	485	0	0	0	0.0	0.0	0.0	0	0
579	0.0	0.0	579	0	0	0	0.0	0.0	0.0	0	0
732	0.4	76.8	732	0	1	0	0.1	0.1	15.1	0	0
834	0.4	111.9	834	0	1	0	0.1	0.0	10.3	0	0
949	0.7	96.8	949	-0	2	0	0.1	0.1	-3.9	0	0
977	0.5	107.2	977	-0	3	0	0.2	-0.2	11.2	0	0
1005	1.2	62.4	1005	-0	3	0	1.0	0.7	-48.0	0	0
1034	3.4	33.0	1034	1	4	1	2.5	2.3	-30.5	0	0
1063	4.8	25.7	1063	3	5	3	1.5	1.4	-7.5	0	0
1091	6.7	21.7	1091	5	6	6	2.1	2.0	-4.3	0	0
1120	9.1	15.8	1119	9	7	10	2.6	2.5	-6.1	0	0
1149	11.7	11.9	1148	14	8	15	2.8	2.7	-4.0	0	0
1177	14.5	11.8	1175	20	10	21	3.0	3.0	-0.1	0	0
1205	16.7	9.9	1202	28	11	29	2.4	2.4	-2.0	0	0
1234	18.8	8.6	1230	36	12	38	2.2	2.2	-1.3	0	0
1262	20.2	8.8	1256	46	14	47	1.5	1.5	0.2	0	0
1291	21.2	10.3	1283	56	16	57	1.2	1.0	1.6	0	0
1311	21.7	13.1	1302	63	17	65	1.7	0.8	4.2	0	0
1339	22.2	10.6	1328	73	19	75	1.1	0.5	-2.7	0	0
1367	22.3	9.4	1354	84	21	86	0.5	0.1	-1.3	0	0
1396	22.5	9.8	1381	94	23	97	0.3	0.2	0.4	0	0
1424	22.5	9.7	1407	105	25	107	0.0	0.0	-0.1	0	0
1453	22.6	9.1	1433	116	26	119	0.3	0.1	-0.6	0	0
1481	22.5	8.6	1459	127	28	129	0.2	-0.1	-0.5	0	0
1509	22.3	9.7	1485	137	30	140	0.5	-0.1	1.1	0	0
1537	21.9	8.8	1511	147	31	151	0.6	-0.4	-0.9	0	0
1566	22.2	9.2	1538	158	33	161	0.3	0.3	0.5	0	0
1594	22.4	8.5	1564	169	35	172	0.4	0.2	-0.8	0	0
1623	22.3	8.9	1591	180	36	183	0.2	-0.1	0.4	0	0
1651	22.5	8.5	1617	190	38	194	0.2	0.2	-0.4	0	0
1680	22.2	8.4	1643	201	40	205	0.2	-0.2	-0.1	0	0
1708	22.1	8.1	1669	212	41	215	0.2	-0.1	-0.4	0	0
1736	22.4	8.5	1695	222	43	226	0.3	0.3	0.5	0	0
1764	22.3	9.3	1721	233	44	237	0.4	-0.2	0.8	0	0
1793	21.9	9.8	1748	243	46	248	0.4	-0.4	0.5	0	0
1821	21.9	9.7	1774	254	48	258	0.1	0.0	-0.1	0	0
1849	21.5	9.5	1800	264	50	268	0.5	-0.5	-0.2	0	0
1900	20.0	10.3	1848	282	53	286	0.9	-0.9	0.5	0	0

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No Interpolation

MD	INC	DIR	TVD	LAT	DEP	VS	D'LEG	BUILD	TURN	TOOL	CASE
m	deg	deg	m	m	m	m	°/30	°/30	°/30		
1928	19.1	11.1	1874	291	55	296	1.0	-1.0	0.8	0	0
1976	17.5	11.8	1920	306	58	311	1.0	-1.0	0.4	0	0
2042	14.9	12.9	1983	324	61	329	1.2	-1.2	0.5	0	0
2071	12.0	15.4	2011	330	63	336	3.1	-3.0	2.5	0	0
2087	11.9	18.5	2027	333	64	339	1.2	-0.2	5.8	0	0
2102	11.9	18.5	2041	336	65	342	0.0	0.0	0.0	0	0

Origin of Bottom Hole Closure PLATFORM CENTRE
Bottom Hole Closure 343 m 10.9°

R/ VVCR 01

BOREHOLE SEISMIC ANALYSIS

FOR

AGIP

PREPARED BY



WESTERN ATLAS
INTERNATIONAL
A LITTON/DRESSER COMPANY

DOWNHOLE
SEISMIC
SERVICES

WELL : SAUDONE-1 DIR
LOCATION : FOGGIA, ITALY
ENGINEER : G. CECCONE
DATE : 02-MAY-94

RECORDING SYSTEM

1. **RECORDING SYSTEM** - This system is designed to record and process seismic data. It consists of several components, including geophones, amplifiers, and a recording unit. The system is capable of recording data at a rate of 1000 samples per second. The recording unit is connected to the geophones via a cable. The amplifiers are used to amplify the signals from the geophones before they are recorded. The system is designed to be used in a variety of environments, including on land and at sea. The recording unit is housed in a rugged, weather-resistant enclosure. The system is easy to operate and maintain. It is a reliable and accurate recording system for seismic data.

GEOPHONES

1. **GEOPHONES** - These are the sensors that detect seismic waves. They are typically made of a coil of wire surrounded by a permanent magnet. When a seismic wave passes through the coil, it induces a current in the wire. This current is then amplified and recorded. Geophones are available in a variety of sizes and types, depending on the application. They are typically used in pairs to record seismic data. The geophones are connected to the recording system via a cable. They are designed to be durable and reliable, and they can operate in a wide range of temperatures and environments.

DIGITALIZER

1. **DIGITALIZER** - This is the component that converts the analog signals from the geophones into digital data. It typically consists of an analog-to-digital converter (ADC) and a digital filter. The ADC converts the continuous analog signal into a discrete digital signal. The digital filter is used to remove any noise or unwanted signals from the data. The digitalizer is connected to the recording system via a cable. It is designed to be accurate and reliable, and it can process data at a high rate.

SPECIAL FEATURES

1. **SPECIAL FEATURES** - This section describes the unique features of the recording system. These features include the ability to record data at a high rate, the ability to process data in real-time, and the ability to store data for a long period of time. The system is also capable of operating in a variety of environments, including on land and at sea. The special features make the recording system a valuable tool for seismic data collection and analysis.

PROCESSING INSTRUCTION

SOURCE AND INITIALS RECEIVED

1. **SOURCE AND INITIALS RECEIVED** - This section is used to record the source of the data and the initials of the person who received it. It typically consists of a table with columns for the source and the initials. The source can be a specific location, a company, or a person. The initials are used to identify the person who received the data. This section is important for ensuring the accuracy and reliability of the data.

AIR GUNS

AIRCUN SURVEY

OFFSET NO. 1	OFFSET NO. 2	OFFSET NO. 3
1. DIST FROM REAR WEL	DISTANCE FROM REAR	DISTANCE FROM REAR
2. DIST FROM FRONT WEL	DISTANCE FROM FRONT	DISTANCE FROM FRONT
3. ELEVATION	ELEVATION	ELEVATION
4. WATER DEPTH	WATER DEPTH	WATER DEPTH
5. GUN DEPTH	GUN DEPTH	GUN DEPTH
6. NUMBER OF GUNS	NUMBER OF GUNS	NUMBER OF GUNS
7. GUN TO GUN DISTANCE	GUN TO GUN DISTANCE	GUN TO GUN DISTANCE
8. GUN VOLUMES	GUN VOLUMES	GUN VOLUMES
9. GUN UNIT NO	GUN UNIT NO	GUN UNIT NO
10. GUN DEPTH (METER)	GUN DEPTH (METER)	GUN DEPTH (METER)

COMPRESSORS	TYPE & NO.	TYPE & NO.
1. TYPE & NO.	TYPE & NO.	TYPE & NO.
2. TYPE & NO.	TYPE & NO.	TYPE & NO.

SURVEY CONFIGURATION	SURVEY DISTANCE	INCLUDE SOURCES AND RECEIVERS (NOT TO SCALE)
1. DISTANCE	DISTANCE	DISTANCE
2. DISTANCE	DISTANCE	DISTANCE



TIME BREAK PHONES	REFERENCE PHONE	OFFSET NO.
1. TIME BREAK PHONES	REFERENCE PHONE	OFFSET NO.
2. TIME BREAK PHONES	REFERENCE PHONE	OFFSET NO.

TYPE	TYPE	TYPE
1. TYPE	TYPE	TYPE
2. TYPE	TYPE	TYPE
3. TYPE	TYPE	TYPE
4. TYPE	TYPE	TYPE
5. TYPE	TYPE	TYPE
6. TYPE	TYPE	TYPE
7. TYPE	TYPE	TYPE
8. TYPE	TYPE	TYPE
9. TYPE	TYPE	TYPE
10. TYPE	TYPE	TYPE

TOOL STATIONS

1. DISTANCE	2. DISTANCE	3. DISTANCE
1. DISTANCE	2. DISTANCE	3. DISTANCE
1. DISTANCE	2. DISTANCE	3. DISTANCE

TOOL STATIONS

TOOL STATIONS

R/ R 666 01

AGIP DORT ORTONA
SAUDONE 1D

CASTELLUCCIO DEI SAURI
FODGIA

TYPE OF SURVEY	MEASURED DEPTH (M)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (M)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (M)	VERTICAL SECTION (M)	DOGLEG SEVERITY (DEG/30 M)
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MWD	1262.00	20.20	8.80	28.00	1256.24	45.56 N 13.80 E	47.13	1.50
MWD	1281.00	21.20	10.30	19.00	1274.01	52.18 N 14.92 E	53.85	1.79

INIZIO FASE 8 1/2 RUN CON BATTERIA N3

MWD	1311.00	21.70	13.10	30.00	1301.93	62.92 N 17.15 E	64.80	1.14
MWD	1339.00	22.20	10.60	28.00	1327.90	73.16 N 19.29 E	75.25	1.14
MWD	1367.00	22.30	9.40	28.00	1353.82	83.60 N 21.14 E	85.85	.50
MWD	1396.00	22.50	9.76	29.00	1380.63	94.50 N 22.97 E	96.90	.25
MWD	1424.00	22.50	9.67	28.00	1406.50	105.06 N 24.78 E	107.61	.04
MWD	1453.00	22.59	9.06	29.00	1433.28	116.03 N 26.59 E	118.73	.26
MWD	1481.00	22.46	8.62	28.00	1459.15	126.63 N 28.24 E	129.46	.23
MWD	1509.00	22.33	9.67	28.00	1485.04	137.16 N 29.94 E	140.12	.45
MWD	1537.00	21.93	8.79	28.00	1510.97	147.57 N 31.63 E	150.67	.56
MWD	1566.00	22.20	9.23	29.00	1537.85	158.33 N 33.33 E	161.56	.33
MWD	1594.00	22.40	8.50	28.00	1563.75	168.83 N 34.97 E	172.19	.37
MWD	1623.00	22.28	8.88	29.00	1590.58	179.73 N 36.64 E	183.21	.19
MWD	1651.00	22.46	8.53	28.00	1616.47	190.26 N 38.25 E	193.87	.24
MWD	1680.00	22.24	8.44	29.00	1643.29	201.17 N 39.88 E	204.90	.23
MWD	1708.00	22.15	8.09	28.00	1669.22	211.64 N 41.40 E	215.47	.17
MWD	1736.00	22.42	8.53	28.00	1695.13	222.14 N 42.93 E	226.09	.34
MWD	1764.00	22.28	9.32	28.00	1721.02	232.66 N 44.58 E	236.74	.36
MWD	1793.00	21.89	9.76	29.00	1747.89	243.41 N 46.39 E	247.64	.44
MWD	1821.00	21.93	9.67	28.00	1773.87	253.71 N 48.15 E	258.09	.06
MWD	1849.00	21.49	9.50	28.00	1799.89	263.92 N 49.88 E	268.44	.48

PERFORATO CON BATTERIA N4

MWD	1900.00	20.04	10.29	51.00	1847.57	281.74 N 52.98 E	286.52	.87
MWD	1928.00	19.12	11.08	28.00	1873.95	290.96 N 54.72 E	295.90	1.03
MWD	1976.00	17.49	11.78	48.00	1919.52	305.73 N 57.70 E	310.96	1.03
MWD	2042.00	14.94	12.92	66.00	1982.89	323.74 N 61.63 E	329.35	1.17
MWD	2071.00	12.00	15.38	29.00	2011.09	330.29 N 63.27 E	336.07	3.10
MWD	2087.00	11.91	18.46	16.00	2026.74	333.46 N 64.23 E	339.35	1.21

FONDO POZZO NT 2102

BOTTOM HOLE CLOSURE: 339.59 Meters at 10.90 Degrees

AGIP DORT ORTONA
 SAUDONE 1D
 CASTELLUCCIO DEI SAURI
 FOGGIA
 INIZIO LAVORO:17 04 1994

ASSISTENTE AGIP: NARRONE

D.DRILLER : DI CREDITO LUCIO

FINE LAVORO:02 05 1994

RIG NAME : IDECO E 2100
 PERGEMINE

File Name: SAUDONES

RECORD OF SURVEY
 Calculated by Smith International's CADDS System

Minimum Curvature Method
 All Angles are Decimal
 Vertical Section Plane: 8.77 Degs

TYPE OF SURVEY	MEASURED DEPTH (M)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (M)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (M)		VERTICAL SECTION (M)	DOGLEG SEVERITY (DEG/30 M)
NSS	0.00	0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
NSS	255.00	0.00	0.00	255.00	255.00	0.00 N	0.00 E	0.00	0.00
NSS	485.00	0.00	0.00	230.00	485.00	0.00 N	0.00 E	0.00	0.00

INIZIO FASE 12 1/4 RUN CON BATTERIA NI

MWD	579.00	0.00	0.00	94.00	579.00	0.00 N	0.00 E	0.00	0.00
MWD	732.00	.40	76.80	153.00	732.00	.12 N	.52 E	.20	.08
MWD	834.00	.40	111.89	102.00	834.00	.07 N	1.20 E	.25	.07
MWD	949.00	.70	96.77	115.00	949.99	.16 S	2.27 E	.19	.09
MWD	977.00	.53	107.23	28.00	976.99	.22 S	2.56 E	.17	.22
MWD	1005.00	1.19	62.41	28.00	1004.99	.12 S	2.94 E	.33	.96
MWD	1034.00	3.40	32.96	29.00	1033.96	.74 N	3.68 E	1.29	2.52
MWD	1063.00	4.80	25.70	29.00	1062.89	2.55 N	4.67 E	3.23	1.54
MWD	1091.00	6.70	21.70	28.00	1090.75	5.13 N	5.78 E	5.95	2.08
MWD	1120.00	9.10	15.80	29.00	1119.47	8.90 N	7.03 E	9.87	2.62
MWD	1149.00	11.70	11.90	29.00	1147.99	13.99 N	8.26 E	15.09	2.77
MWD	1177.00	14.50	11.80	28.00	1175.26	20.20 N	9.57 E	21.42	3.00
MWD	1205.00	16.70	9.90	28.00	1202.23	27.60 N	10.98 E	28.95	2.42
MWD	1234.00	18.80	8.60	29.00	1229.84	36.32 N	12.39 E	37.79	2.21