

**General information**

Wellbore name	2/4-15 S
Type	EXPLORATION
Purpose	WILDCAT
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	2/4-15
Seismic location	BB - 87 - 043 SP. 1987
Production licence	146
Drilling operator	Saga Petroleum ASA
Drill permit	602-L
Drilling facility	TREASURE SAGA
Drilling days	410
Entered date	31.01.1989
Completed date	16.03.1990
Release date	16.03.1992
Publication date	13.12.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	26.0
Water depth [m]	68.0
Total depth (MD) [m RKB]	4962.0
Final vertical depth (TVD) [m RKB]	4706.0
Maximum inclination [°]	29.3
Bottom hole temperature [°C]	158
Oldest penetrated age	EARLY CRETACEOUS
Oldest penetrated formation	MANDAL FM
Geodetic datum	ED50
NS degrees	56° 40' 27.25" N
EW degrees	3° 8' 38.79" E
NS UTM [m]	6281273.69
EW UTM [m]	508831.06
UTM zone	31
NPDID wellbore	1371



Wellbore history

General

The primary purpose of well 2/4-15 S was to control and kill the underground blow out in well 2/4-14. Well 2/4-15 S was planned deviated from a location ca 1 km south of the 2/4-14 location to intersect with the 2/4-14 well bore below the bottom hole assembly that had been left in this hole. The well would serve several possible uses:

- Assist in killing 2/4-14 below the BHA.
- To check and verify the extent of underground pressure charging, zone isolation and underground blowouts, and to cure and verify possible cross flows.
- To serve as an emergency relief well to dynamically kill an uncontrolled blow out in well 2/4-14.
- To be used as an exploration well if the top intervention was successful.

Shallow gas was predicted at 611 m where a seismic anomaly corresponds to a gas bearing sand layer in well 2/4-14

Operations and results

Wildcat Relief well 2/4-15 S was spudded 31 January 1989 by the semi-submersible installation Treasure Saga. The well was spudded 1182 m south of the 2/4-14 spud location and drilled to 4962 m where it intersected with the 2/4-14 well bore. This point is recognized as TD of the well. The well was drilled with sea water/gel mud down to 920 m, with KCl mud from 920 m to 3867 m, and with Hi-Temp polymer mud from 3867 m to TD. Shallow gas was encountered at 611 m as prognosed. Thin gas-bearing sands were seen on the resistivity MWD log also at 525 m and at 627 m. Drilling proceeded with significant problems due to rich smectite content between 1800 and 2300 m. The drill string got stuck twice, backed off, and after unsuccessful fishing, technical sidetracks were performed. On 1 May 1989, when drilling the 12 1/4" section in well 2/4-15 S, well 2/4-14 was re-entered with the jack up rig Neddrill Trigon. Both wells were now involved in the killing operations (see well history for 2/4-14 R). When drilling 2/4-15 S at around 4962 m, just prior to pulling above bottom and start circulating samples, the weight was suddenly lost and the string dropped clearly. At the same time mud losses were experienced. Immediately after, changes in the Production Logging Tool (PLT) readings were observed in the 2/4-14 re-entry, indicating clearly communication between wells. Pumping kill-mud and barite into well 2/4-15 S then killed the underground blow out.

No FMT measurements were performed and no open hole wire line logs were run in well 2/4-15 S. Because of the special purpose of the well 2/4-15 S two special logs were run in this well. The Wellspot log was used to determine the distance and direction to the 2/4-14 well. The tool proved to be very reliable with an uncertainty in the determination of distance to the 2/4-14 well of less than one meter. A Sonar (noise) log was run to try to detect the flow path in the 2/4-14 well. The log showed a noise maximum at 4100 m indicating a hole in the drill pipe at this point. After the 2/4-14 well was killed, the Sonar log run over the same interval showed no peaks at this point, confirming that the flow at this time had been stopped. The Sonar log was also run in February and March 1990 to verify a killed well. No sidewall cores were attempted, and only one conventional core, for rock mechanical analyses, was cut in the Tor Formation from 3867 m to 3876.5 m with 26 % recovery

The well kill operations were terminated 19 December 1989, and a cement plug was set with top at 4726 m. The well was now observed until 3 March 1990. After installing corrosion cap the well was suspended on 16 March 1990, 13 months and two days after



spud.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
230.00	4951.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3867.0	3869.5	[m]

Total core sample length [m]	2.5
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
94	NORDLAND GP
1854	HORDALAND GP
3368	ROGALAND GP
3368	BALDER FM
3387	SELE FM
3405	LISTA FM
3456	VIDAR FM
3497	LISTA FM
3547	VÅLE FM
3558	SHETLAND GP
3558	EKOFISK FM
3692	TOR FM
4266	HOD FM
4798	BLODØKS FM
4817	HIDRA FM



4890	CROMER KNOLL GP
4958	TYNE GP
4958	MANDAL FM

Composite logs

Document name	Document format	Document size [MB]
1371	pdf	0.41

Geochemical information

Document name	Document format	Document size [MB]
1371 1	pdf	1.22

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
1371 01 WDSS General Information	pdf	0.24
1371 02 WDSS completion log	pdf	0.23

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
1371 2 4 15 S COMPLETION REPORT AND LOG	pdf	35.98

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AC CBL VDL GR	122	2653
AC CBL VDL GR	3100	4508
AC CBL VDL GR	4303	4890
CDL CNL GR	4460	4891





DIF TEMP GR	650	4878
MWD - GR RES DIR	175	4930
PDK100 GR CCL	4325	4700
SONAN	4000	4892
TEMP	2500	4880

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	216.0	36	216.0	0.00	LOT
INTERM.	20	900.0	26	920.0	1.75	LOT
INTERM.	16	2100.0	22	2096.0	1.85	LOT
INTERM.	13 3/8	2500.0	17 1/2	2662.0	2.03	LOT
INTERM.	13 3/8	2653.0	17 1/2	2662.0	2.03	LOT
INTERM.	9 5/8	4505.0	12 1/4	4543.0	2.11	LOT
LINER	7	4929.0	8 1/2	4930.0	0.00	LOT
OPEN HOLE		4962.0	5 7/8	4962.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
122	1.05			WATER BASED	02.02.1989
216	1.05			WATER BASED	02.02.1989
216	1.05			WATER BASED	03.02.1989
301	1.11	8.0	17.3	WATER BASED	06.02.1989
825	1.57	35.0	5.8	WATER BASED	21.03.1989
840	1.67	29.0	5.8	WATER BASED	21.03.1989
915	1.17	5.0	11.1	WATER BASED	06.02.1989
915	1.16	5.0	10.1	WATER BASED	06.02.1989
920	1.18	5.0	11.1	WATER BASED	08.02.1989
920	1.18			WATER BASED	08.02.1989
920	1.16			WATER BASED	20.02.1989
960	1.22	14.0	8.7	WATER BASED	21.02.1989
1112	1.57	28.0	4.8	WATER BASED	28.03.1989
1250	1.25	19.0	9.6	WATER BASED	22.02.1989
1322	1.57	35.0	7.7	WATER BASED	28.03.1989
1398	1.29	17.0	5.8	WATER BASED	23.02.1989



1613	1.62	30.0	5.8	WATER BASED	28.03.1989
1687	1.45	22.0	4.8	WATER BASED	24.02.1989
1720	1.72	36.0	5.8	WATER BASED	07.04.1989
1720	1.67	27.0	5.8	WATER BASED	03.04.1989
1720	1.67	29.0	5.8	WATER BASED	05.04.1989
1720	1.69	23.0	5.8	WATER BASED	05.04.1989
1755	1.72	27.0	6.3	WATER BASED	07.04.1989
1818	1.59	21.0	4.8	WATER BASED	03.03.1989
1853	1.65	30.0	6.3	WATER BASED	28.03.1989
1900	1.67	35.0	4.4	WATER BASED	28.03.1989
1900	1.67	30.0	6.3	WATER BASED	28.03.1989
1907	1.72	35.0	6.8	WATER BASED	10.04.1989
1920	1.61	25.0	4.4	WATER BASED	07.03.1989
1920	1.61	28.0	4.8	WATER BASED	07.03.1989
1920	1.50	24.0	5.3	WATER BASED	27.02.1989
1988	1.72	35.0	5.8	WATER BASED	10.04.1989
2010	1.72	27.0	4.8	WATER BASED	14.04.1989
2010	1.72	26.0	4.4	WATER BASED	14.04.1989
2010	1.72	24.0	4.8	WATER BASED	18.04.1989
2010	1.72	28.0	3.9	WATER BASED	18.04.1989
2010	1.72	26.0	5.3	WATER BASED	18.04.1989
2010	1.72	34.0	5.3	WATER BASED	11.04.1989
2010	1.72	28.0	5.3	WATER BASED	12.04.1989
2010	1.72	34.0	5.3	WATER BASED	11.04.1989
2093	1.55	27.0	5.8	WATER BASED	27.02.1989
2093	1.50	23.0	5.8	WATER BASED	27.02.1989
2093	1.58	26.0	4.8	WATER BASED	28.02.1989
2093	1.58	24.0	5.8	WATER BASED	01.03.1989
2093	1.59	26.0	5.8	WATER BASED	03.03.1989
2100	1.72	36.0	5.8	WATER BASED	10.04.1989
2120	1.63	28.0	7.2	WATER BASED	07.03.1989
2210	1.63	26.0	6.8	WATER BASED	08.03.1989
2298	1.72	29.0	5.3	WATER BASED	18.04.1989
2331	1.67	30.0	7.7	WATER BASED	28.03.1989
2363	1.63	28.0	6.3	WATER BASED	09.03.1989
2363	1.63	28.0	5.3	WATER BASED	10.03.1989
2363	1.63	29.0	5.8	WATER BASED	13.03.1989
2363	1.63	29.0	4.8	WATER BASED	13.03.1989
2363	1.63	31.0	6.3	WATER BASED	13.03.1989
2363	1.67	33.0	5.8	WATER BASED	15.03.1989



2363	1.63	31.0	5.3	WATER BASED	09.03.1989
2428	1.67	31.0	6.3	WATER BASED	16.03.1989
2428	1.67	25.0	5.3	WATER BASED	30.03.1989
2428	1.67	25.0	5.3	WATER BASED	31.03.1989
2428	1.67	24.0	5.3	WATER BASED	03.04.1989
2428	1.67	24.0	5.3	WATER BASED	03.04.1989
2428	1.67	24.0	4.8	WATER BASED	29.03.1989
2453	1.72	27.0	4.8	WATER BASED	19.04.1989
2644	1.67	33.0	6.3	WATER BASED	16.03.1989
2644	1.67	32.0	5.3	WATER BASED	17.03.1989
2644	1.67	30.0	4.8	WATER BASED	20.03.1989
2644	1.67	32.0	5.8	WATER BASED	20.03.1989
2673	1.72	37.0	5.3	WATER BASED	20.04.1989
2673	1.72	37.0	4.8	WATER BASED	24.04.1989
2673	1.72	32.0	6.3	WATER BASED	24.04.1989
2673	1.72	34.0	5.8	WATER BASED	24.04.1989
2673	1.72	34.0	5.8	WATER BASED	26.04.1989
2673	1.72	32.0	6.3	WATER BASED	24.04.1989
2678	1.72	28.0	5.8	WATER BASED	26.04.1989
2684	1.72	28.0	5.8	WATER BASED	27.04.1989
2803	1.72	34.0	7.7	WATER BASED	28.04.1989
2955	1.72	27.0	5.8	WATER BASED	02.05.1989
3073	1.72	25.0	5.8	WATER BASED	02.05.1989
3126	1.72	25.0	4.8	WATER BASED	02.05.1989
3203	1.72	30.0	7.2	WATER BASED	02.05.1989
3250	1.72	31.0	5.8	WATER BASED	03.05.1989
3400	1.72	26.0	4.4	WATER BASED	05.05.1989
3431	1.72	27.0	5.3	WATER BASED	05.05.1989
3433	1.72	29.0	4.4	WATER BASED	09.05.1989
3462	1.72	29.0	5.3	WATER BASED	09.05.1989
3497	1.72	33.0	5.8	WATER BASED	09.05.1989
3531	1.72	36.0	6.3	WATER BASED	12.05.1989
3558	1.72	35.0	5.8	WATER BASED	12.05.1989
3565	1.72	28.0	5.3	WATER BASED	12.05.1989
3621	1.72	28.0	5.8	WATER BASED	12.05.1989
3670	1.72	29.0	5.8	WATER BASED	16.05.1989
3703	1.72	28.0	6.3	WATER BASED	16.05.1989
3740	1.72	25.0	5.3	WATER BASED	16.05.1989
3811	1.72	29.0	5.8	WATER BASED	16.05.1989
3811	1.72	27.0	5.8	WATER BASED	18.05.1989



3811	1.72	28.0	5.3	WATER BASED	18.05.1989
3811	1.74	27.0	5.8	WATER BASED	19.05.1989
3811	1.74	29.0	6.8	WATER BASED	23.05.1989
3816	1.74	29.0	6.3	WATER BASED	23.05.1989
3867	1.74	24.0	5.3	WATER BASED	23.05.1989
3867	1.74	24.0	5.8	WATER BASED	23.05.1989
3875	1.74	24.0	5.8	WATER BASED	25.05.1989
3880	1.74	25.0	4.8	WATER BASED	25.05.1989
3916	1.74	14.0	5.3	WATER BASED	26.05.1989
3960	1.74	16.0	4.4	WATER BASED	29.05.1989
4017	1.74	20.0	5.3	WATER BASED	30.05.1989
4045	1.74	21.0	4.8	WATER BASED	30.05.1989
4075	1.74	23.0	6.3	WATER BASED	01.06.1989
4137	1.74	22.0	5.3	WATER BASED	01.06.1989
4170	1.74	18.0	5.3	WATER BASED	01.06.1989
4181	1.74	22.0	4.8	WATER BASED	05.06.1989
4219	1.74		9.6	WATER BASED	05.06.1989
4224	1.74	20.0	4.4	WATER BASED	05.06.1989
4275	1.74	22.0	5.3	WATER BASED	06.06.1989
4302	1.74	23.0	4.8	WATER BASED	06.06.1989
4336	1.74	25.0	4.8	WATER BASED	07.06.1989
4344	1.74	21.0	4.8	WATER BASED	08.06.1989
4355	1.74	22.0	3.9	WATER BASED	12.06.1989
4408	1.74	20.0	4.8	WATER BASED	12.06.1989
4431	1.74	18.0	4.4	WATER BASED	12.06.1989
4474	1.74	18.0	4.4	WATER BASED	14.06.1989
4505	1.78	20.0	5.8	WATER BASED	02.08.1989
4525	1.74	20.0	4.8	WATER BASED	14.06.1989
4543	1.74	19.0	5.3	WATER BASED	14.06.1989
4543	1.74	19.0	4.4	WATER BASED	15.06.1989
4543	1.74	18.0	4.4	WATER BASED	19.06.1989
4543	1.74	18.0	4.4	WATER BASED	19.06.1989
4543	1.74	18.0	4.4	WATER BASED	19.06.1989
4543	1.74	18.0	4.4	WATER BASED	20.06.1989
4543	1.74			WATER BASED	20.06.1989
4543	1.74			WATER BASED	21.06.1989
4543	1.74			WATER BASED	26.06.1989
4548	1.76	18.0	4.8	WATER BASED	05.07.1989
4548	1.76	18.0	4.4	WATER BASED	05.07.1989
4548	1.76	19.0	4.8	WATER BASED	05.07.1989



4548	1.76	19.0	4.8	WATER BASED	05.07.1989
4550	1.78	18.0	4.4	WATER BASED	05.07.1989
4551	1.78	18.0	4.8	WATER BASED	05.07.1989
4551	1.78	17.0	3.9	WATER BASED	07.07.1989
4551	1.78	18.0	4.8	WATER BASED	07.07.1989
4551	1.78	18.0	4.4	WATER BASED	10.07.1989
4551	1.78	19.0	4.8	WATER BASED	10.07.1989
4551	1.78	16.0	4.8	WATER BASED	14.07.1989
4551	1.78	17.0	3.9	WATER BASED	14.07.1989
4551	1.78	17.0	4.4	WATER BASED	14.07.1989
4551	1.78	16.0	4.4	WATER BASED	17.07.1989
4551	1.78	17.0	3.9	WATER BASED	17.07.1989
4551	1.78	16.0	3.9	WATER BASED	17.07.1989
4551	1.78	17.0	3.9	WATER BASED	20.07.1989
4551	1.78	17.0	4.4	WATER BASED	20.07.1989
4551	1.78	18.0	4.4	WATER BASED	20.07.1989
4551	1.78	17.0	4.4	WATER BASED	21.07.1989
4551	1.78	17.0	4.8	WATER BASED	25.07.1989
4551	1.78	18.0	5.8	WATER BASED	25.07.1989
4551	1.78	17.0	4.8	WATER BASED	26.07.1989
4551	1.78	18.0	4.4	WATER BASED	31.07.1989
4551	1.78	18.0	4.8	WATER BASED	31.07.1989
4551	1.78	18.0	5.3	WATER BASED	31.07.1989
4551	1.78	18.0	5.3	WATER BASED	31.07.1989
4551	1.78	18.0	5.3	WATER BASED	02.08.1989
4551	1.78	19.0	6.3	WATER BASED	02.08.1989
4551	1.78	18.0	5.3	WATER BASED	03.08.1989
4551	1.78	17.0	4.8	WATER BASED	07.08.1989
4551	1.78	17.0	4.8	WATER BASED	07.08.1989
4551	1.78	18.0	5.3	WATER BASED	07.08.1989
4551	1.78	16.0	4.8	WATER BASED	09.08.1989
4551	1.78	16.0	5.3	WATER BASED	09.08.1989
4551	1.78	17.0	4.4	WATER BASED	09.08.1989
4551	1.78	18.0	4.8	WATER BASED	11.08.1989
4551	1.78	15.0	3.4	WATER BASED	15.08.1989
4551	1.78	17.0	3.9	WATER BASED	15.08.1989
4551	1.78	16.0	4.4	WATER BASED	10.07.1989
4551	1.78	16.0	3.9	WATER BASED	14.07.1989
4551	1.78	17.0	3.4	WATER BASED	25.07.1989
4551	1.78	18.0	5.8	WATER BASED	31.07.1989



4551	1.78	18.0	3.4	WATER BASED	11.08.1989
4600	1.78	20.0	3.4	WATER BASED	15.08.1989
4658	1.78	17.0	3.4	WATER BASED	15.08.1989
4658	1.78	21.0	3.9	WATER BASED	25.08.1989
4658	1.78	21.0	4.4	WATER BASED	25.08.1989
4686	1.80	18.0	9.0	WATER BASED	06.09.1989
4689	1.78	19.0	3.4	WATER BASED	25.08.1989
4714	1.78	18.0	4.4	WATER BASED	25.08.1989
4714	1.78	19.0	4.8	WATER BASED	25.08.1989
4714	1.78	20.0	4.8	WATER BASED	25.08.1989
4714	1.78	19.0	4.4	WATER BASED	25.08.1989
4733	1.78	17.0	4.4	WATER BASED	25.08.1989
4756	1.78	17.0	4.8	WATER BASED	25.08.1989
4757	1.78	19.0	4.4	WATER BASED	25.08.1989
4779	1.78	17.0	3.9	WATER BASED	28.08.1989
4786	1.78	17.0	4.4	WATER BASED	28.08.1989
4811	1.78	18.0	3.9	WATER BASED	29.08.1989
4811	1.78	18.0	5.8	WATER BASED	29.08.1989
4814	1.78	17.0	4.8	WATER BASED	05.09.1989
4845	1.78	17.0	4.4	WATER BASED	05.09.1989
4851	1.78	16.0	4.4	WATER BASED	05.09.1989
4863	1.78	16.0	4.4	WATER BASED	05.09.1989
4863	1.78	16.0	4.4	WATER BASED	05.09.1989
4863	1.78	17.0	4.8	WATER BASED	05.09.1989
4886	1.80	16.0	8.0	WATER BASED	08.09.1989
4886	1.80	16.0	8.0	WATER BASED	07.09.1989
4896	1.80	16.0	8.0	WATER BASED	12.09.1989
4896	1.90	18.0	9.0	WATER BASED	12.09.1989
4905	1.90	17.0	6.0	WATER BASED	12.09.1989
4909	1.95	18.0	7.0	WATER BASED	12.09.1989
4910	1.95	18.0	6.0	WATER BASED	13.09.1989
4930	1.95	18.0	6.0	WATER BASED	19.09.1989
4930	1.95	18.0	6.0	WATER BASED	19.09.1989
4930	1.95	17.0	7.0	WATER BASED	19.09.1989
4930	1.95	18.0	9.0	WATER BASED	20.09.1989
4930	1.95	18.0	8.0	WATER BASED	22.09.1989
4930	1.95	18.0	8.0	WATER BASED	25.09.1989
4930	1.95	17.0	11.0	WATER BASED	26.09.1989
4930	1.95	17.0	12.0	WATER BASED	26.09.1989
4930	1.95	17.0	11.0	WATER BASED	26.09.1989



4930	1.95	17.0	10.0	WATER BASED	27.09.1989
4930	1.95	17.0	10.0	WATER BASED	28.09.1989
4930	1.95	17.0	10.0	WATER BASED	29.09.1989
4930	1.95	18.0	10.0	WATER BASED	29.09.1989
4930	1.95	16.0	10.0	WATER BASED	03.10.1989
4930	1.95	17.0	10.0	WATER BASED	03.10.1989
4930	1.95	17.0	10.0	WATER BASED	03.10.1989
4930	1.95	16.0	10.0	WATER BASED	05.10.1989
4930	1.95	16.0	10.0	WATER BASED	06.10.1989
4930	1.95	17.0	10.0	WATER BASED	09.10.1989
4930	1.95	18.0	10.0	WATER BASED	09.10.1989
4930	1.95	18.0	10.0	WATER BASED	10.10.1989
4930	1.95	18.0	10.0	WATER BASED	10.10.1989
4930	1.95	18.0	11.0	WATER BASED	10.10.1989
4930	1.95	18.0	10.0	WATER BASED	11.10.1989
4930	1.95	16.0	10.0	WATER BASED	16.10.1989
4930	1.95	16.0	10.0	WATER BASED	16.10.1989
4930	1.95	16.0	10.0	WATER BASED	16.10.1989
4930	1.95	16.0	10.0	WATER BASED	18.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	14.0	10.0	WATER BASED	23.10.1989
4930	1.95	15.0	90.0	WATER BASED	27.10.1989
4930	1.95	15.0	9.0	WATER BASED	27.10.1989
4930	1.95	15.0	9.0	WATER BASED	31.10.1989
4930	1.95	16.0	10.0	WATER BASED	31.10.1989
4930	1.95	15.0	9.0	WATER BASED	31.10.1989
4930	1.95	15.0	9.0	WATER BASED	31.10.1989
4930	1.95	15.0	9.0	WATER BASED	31.10.1989
4930	1.95	15.0	11.0	WATER BASED	02.11.1989
4930	1.95	16.0	11.0	WATER BASED	08.11.1989
4930	1.95	15.0	11.0	WATER BASED	08.11.1989
4930	1.95	15.0	10.0	WATER BASED	08.11.1989
4930	1.95	16.0	11.0	WATER BASED	09.11.1989
4930	1.95	14.0	9.0	WATER BASED	10.11.1989
4930	1.95	15.0	10.0	WATER BASED	13.11.1989
4930	1.95	16.0	11.0	WATER BASED	13.11.1989



4930	1.95	16.0	10.0	WATER BASED	14.11.1989
4930	1.95	15.0	12.0	WATER BASED	15.11.1989
4930	1.95	15.0	11.0	WATER BASED	16.11.1989
4930	1.95	15.0	11.0	WATER BASED	17.11.1989
4930	1.95	15.0	11.0	WATER BASED	20.11.1989
4930	1.95	15.0	11.0	WATER BASED	20.11.1989
4930	1.95	14.0	10.0	WATER BASED	21.11.1989
4930	1.95	15.0	10.0	WATER BASED	24.11.1989
4930	1.95	15.0	10.0	WATER BASED	27.11.1989
4930	1.95	16.0	9.0	WATER BASED	27.11.1989
4930	1.95	16.0	9.0	WATER BASED	27.11.1989
4930	1.95	16.0	9.0	WATER BASED	27.11.1989
4930	1.95	16.0	11.0	WATER BASED	29.11.1989
4930	1.95	16.0	11.0	WATER BASED	30.11.1989
4930	1.95	15.0	10.0	WATER BASED	04.12.1989
4930	1.95	15.0	9.0	WATER BASED	05.12.1989
4930	1.95	14.0	10.0	WATER BASED	05.12.1989
4930	1.95	14.0	9.0	WATER BASED	05.12.1989
4930	1.95	15.0	12.0	WATER BASED	07.12.1989
4930	1.95	14.0	10.0	WATER BASED	11.12.1989
4930	1.95	15.0	11.0	WATER BASED	11.12.1989
4930	1.95	14.0	10.0	WATER BASED	11.12.1989
4930	1.95	18.0	6.0	WATER BASED	19.09.1989
4930	1.95	17.0	10.0	WATER BASED	10.10.1989
4930	1.95	16.0	10.0	WATER BASED	13.10.1989
4930	1.95	16.0	10.0	WATER BASED	16.10.1989
4930	1.95	16.0	10.0	WATER BASED	19.10.1989
4930	1.95	15.0	11.0	WATER BASED	02.11.1989
4930	1.95	15.0	10.0	WATER BASED	08.11.1989
4930	1.95	16.0	11.0	WATER BASED	08.11.1989
4930	1.95	15.0	10.0	WATER BASED	13.11.1989
4930	1.95	15.0	10.0	WATER BASED	20.11.1989
4930	1.95	15.0	10.0	WATER BASED	23.11.1989
4930	1.95	16.0	11.0	WATER BASED	28.11.1989
4930	1.95	14.0	9.0	WATER BASED	05.12.1989
4930	1.95	15.0	12.0	WATER BASED	07.12.1989
4930	2.20	58.0	38.0	WATER BASED	28.12.1989
4930	2.20	58.0	38.0	WATER BASED	29.12.1989
4932	1.95	22.0	11.0	WATER BASED	11.12.1989
4932	1.95	17.0	10.0	WATER BASED	13.12.1989



4962	2.20	60.0	32.0	WATER BASED	08.01.1990
4962	2.20	63.0	37.0	WATER BASED	02.01.1990
4962	2.20	63.0	40.0	WATER BASED	02.01.1990
4962	2.20	63.0	37.0	WATER BASED	03.01.1990
4962	2.20	63.0	37.0	WATER BASED	03.01.1990
4962	2.20	63.0	40.0	WATER BASED	03.01.1990
4962	2.13	26.0	14.0	WATER BASED	15.12.1989
4962	2.25	26.0	12.0	WATER BASED	18.12.1989
4962	2.25	15.0	11.0	WATER BASED	18.12.1989
4962	2.20	55.0	45.0	WATER BASED	27.12.1989
4962	2.20	55.0	45.0	WATER BASED	27.12.1989
4962	2.20	63.0	42.0	WATER BASED	27.12.1989
4962	2.20	65.0	39.0	WATER BASED	27.12.1989
4962	2.20	61.0	40.0	WATER BASED	27.12.1989
4962	2.20	63.0	37.0	WATER BASED	02.01.1990
4962	2.20	65.0	34.0	WATER BASED	20.12.1989
4963	2.20	34.0	35.0	WATER BASED	22.12.1989
4963	2.20	63.0	40.0	WATER BASED	03.01.1990
4963	2.20	55.0	30.0	WATER BASED	09.01.1990
4963	2.20	57.0	28.0	WATER BASED	12.01.1990
4963	2.20	58.0	35.0	WATER BASED	15.01.1990
4963	2.20	61.0	30.0	WATER BASED	22.01.1990
4963	2.20	45.0	15.0	WATER BASED	07.02.1990
4963	2.20	45.0	15.0	WATER BASED	09.02.1990
4963	2.20	45.0	14.0	WATER BASED	13.02.1990
4963	2.20	31.0	13.0	WATER BASED	26.02.1990
4963	2.20	38.0	12.0	WATER BASED	01.03.1990
4963	2.20	34.0	19.0	WATER BASED	09.03.1990
4963	2.20	32.0	14.0	WATER BASED	13.03.1990
4963	2.20	65.0	39.0	WATER BASED	27.12.1989
4963	2.12	30.0	15.0	WATER BASED	18.12.1989
4963	2.20	61.0	34.0	WATER BASED	05.01.1990
4963	2.20	61.0	34.0	WATER BASED	05.01.1990
4963	2.20	61.0	34.0	WATER BASED	05.01.1990
4963	2.20	63.0	40.0	WATER BASED	02.01.1990
4963	2.20	63.0	37.0	WATER BASED	08.01.1990
4963	2.20	57.0	28.0	WATER BASED	10.01.1990
4963	2.20	54.0	26.0	WATER BASED	12.01.1990
4963	2.20	54.0	26.0	WATER BASED	12.01.1990
4963	2.20	60.0	32.0	WATER BASED	15.01.1990



4963	2.20	60.0	32.0	WATER BASED	15.01.1990
4963	2.20	61.0	30.0	WATER BASED	16.01.1990
4963	2.20	50.0	28.0	WATER BASED	17.01.1990
4963	2.20	52.0	27.0	WATER BASED	22.01.1990
4963	2.20	53.0	37.0	WATER BASED	22.01.1990
4963	2.20	54.0	35.0	WATER BASED	22.01.1990
4963	2.20	50.0	27.0	WATER BASED	23.01.1990
4963	2.20	51.0	28.0	WATER BASED	24.01.1990
4963	2.20	41.0	19.0	WATER BASED	26.01.1990
4963	2.20	41.0	19.0	WATER BASED	29.01.1990
4963	2.20	42.0	19.0	WATER BASED	29.01.1990
4963	2.20	42.0	20.0	WATER BASED	29.01.1990
4963	2.20	40.0	13.0	WATER BASED	29.01.1990
4963	2.20	40.0	14.0	WATER BASED	30.01.1990
4963	2.20	39.0	14.0	WATER BASED	01.02.1990
4963	2.20	39.0	14.0	WATER BASED	02.02.1990
4963	2.20	37.0	15.0	WATER BASED	05.02.1990
4963	2.20	37.0	15.0	WATER BASED	05.02.1990
4963	2.20	36.0	14.0	WATER BASED	05.02.1990
4963	2.20	36.0	14.0	WATER BASED	05.02.1990
4963	2.20	36.0	14.0	WATER BASED	07.02.1990
4963	2.20	45.0	15.0	WATER BASED	12.02.1990
4963	2.20	45.0	14.0	WATER BASED	13.02.1990
4963	2.20	45.0	14.0	WATER BASED	13.02.1990
4963	2.20	39.0	16.0	WATER BASED	13.02.1990
4963	2.20	39.0	16.0	WATER BASED	14.02.1990
4963	2.20	37.0	17.0	WATER BASED	15.02.1990
4963	2.20	38.0	16.0	WATER BASED	19.02.1990
4963	2.20	37.0	12.0	WATER BASED	19.02.1990
4963	2.20	37.0	13.0	WATER BASED	20.02.1990
4963	2.20	30.0	12.0	WATER BASED	21.02.1990
4963	2.20	30.0	12.0	WATER BASED	23.02.1990
4963	2.20	31.0	13.0	WATER BASED	26.02.1990
4963	2.20	32.0	14.0	WATER BASED	26.02.1990
4963	2.20	32.0	14.0	WATER BASED	26.02.1990
4963	2.20	38.0	12.0	WATER BASED	27.02.1990
4963	2.20	37.0	13.0	WATER BASED	01.03.1990
4963	2.20	38.0	14.0	WATER BASED	05.03.1990
4963	2.20	38.0	14.0	WATER BASED	06.03.1990
4963	2.20	38.0	14.0	WATER BASED	06.03.1990



4963	2.20	34.0	19.0	WATER BASED	06.03.1990
4963	2.20	34.0	19.0	WATER BASED	06.03.1990
4963	2.20	34.0	19.0	WATER BASED	08.03.1990
4963	2.20	32.0	14.0	WATER BASED	12.03.1990
4963	2.20	32.0	14.0	WATER BASED	13.03.1990
4963	2.20	33.0	8.0	WATER BASED	14.03.1990
4963	2.20	33.0	8.0	WATER BASED	14.03.1990
4963	2.20	33.0	8.0	WATER BASED	16.03.1990
4963	1.95	16.0	11.0	WATER BASED	14.12.1989
4963	2.12	31.0	19.0	WATER BASED	19.12.1989
4963	1.95	16.0	11.0	WATER BASED	13.12.1989
4963	2.13	30.0	21.0	WATER BASED	14.12.1989