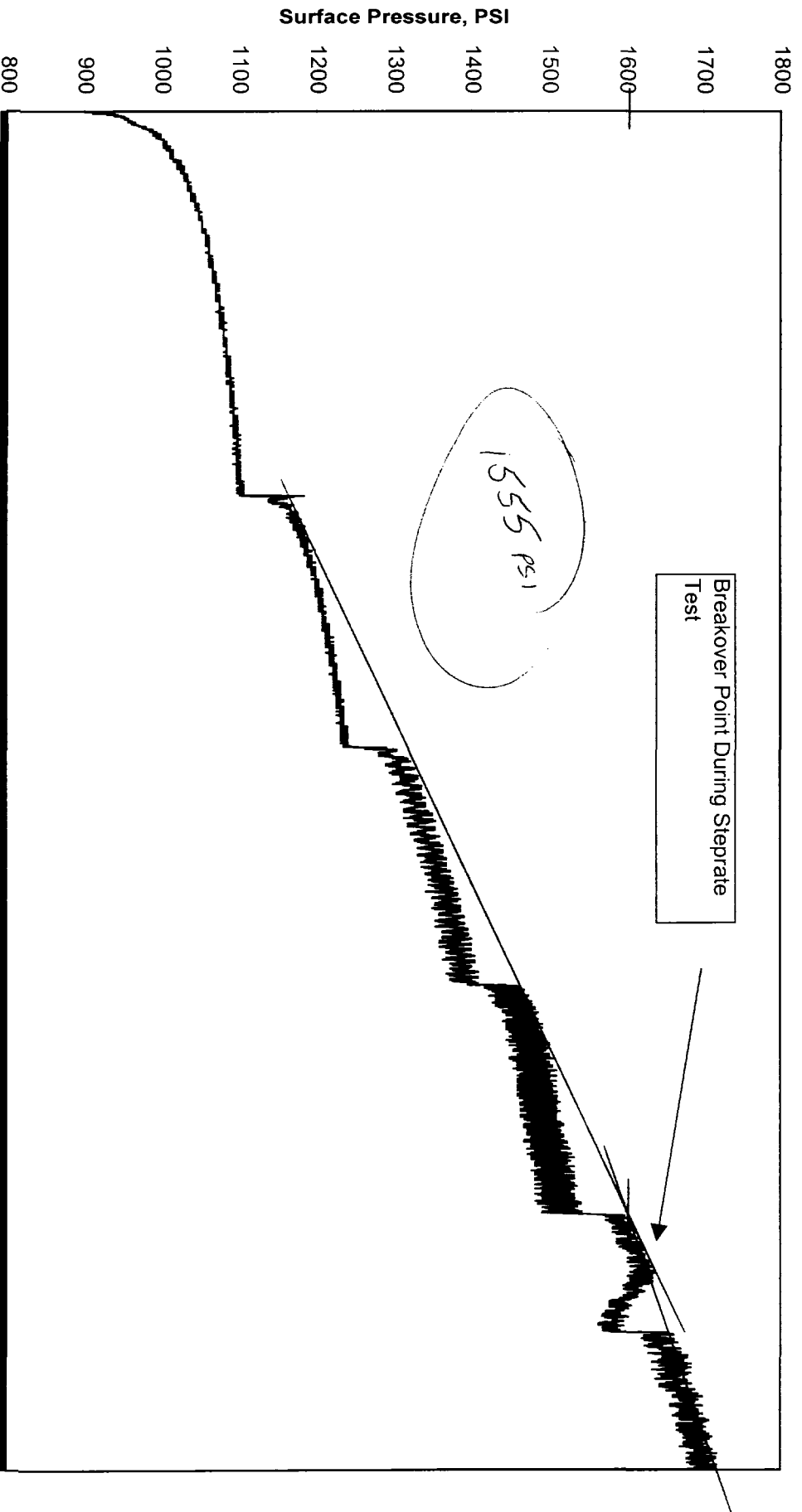


Shugart West 19 Fed #2 SWD



ILLEGIBLE

Schlumberger Dowell

PRISM* V2.23™ ACIDIZING EVALUATION

Operator : KCS Medallion Resources	Well Name : West Shugart 19 Federal #2 SWD
County : Eddy	Field : West Shugart
State : New Mexico	Formation : Acid Ballout

Proposal # : 20141250

Prepared For : **Doug York**

Service Point : Hobbs, New Mexico
Phone : (505) 393-6186

Prepared by : Paul W. Dein
Phone (Mobile) : (505) 370-3173

Date Prepared : January 20, 2000

Disclaimer Notice

This information is presented in good faith, but no warranty is given by and Dowell assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Dowell's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of better tools and procedures which Dowell can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a well, existing well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

The input data estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

From both from infringement of patents of Dowell or others is not to be inferred.

Matrix Job Report

PRISM V2.23

Well WEST SHUGART 19 FED #2

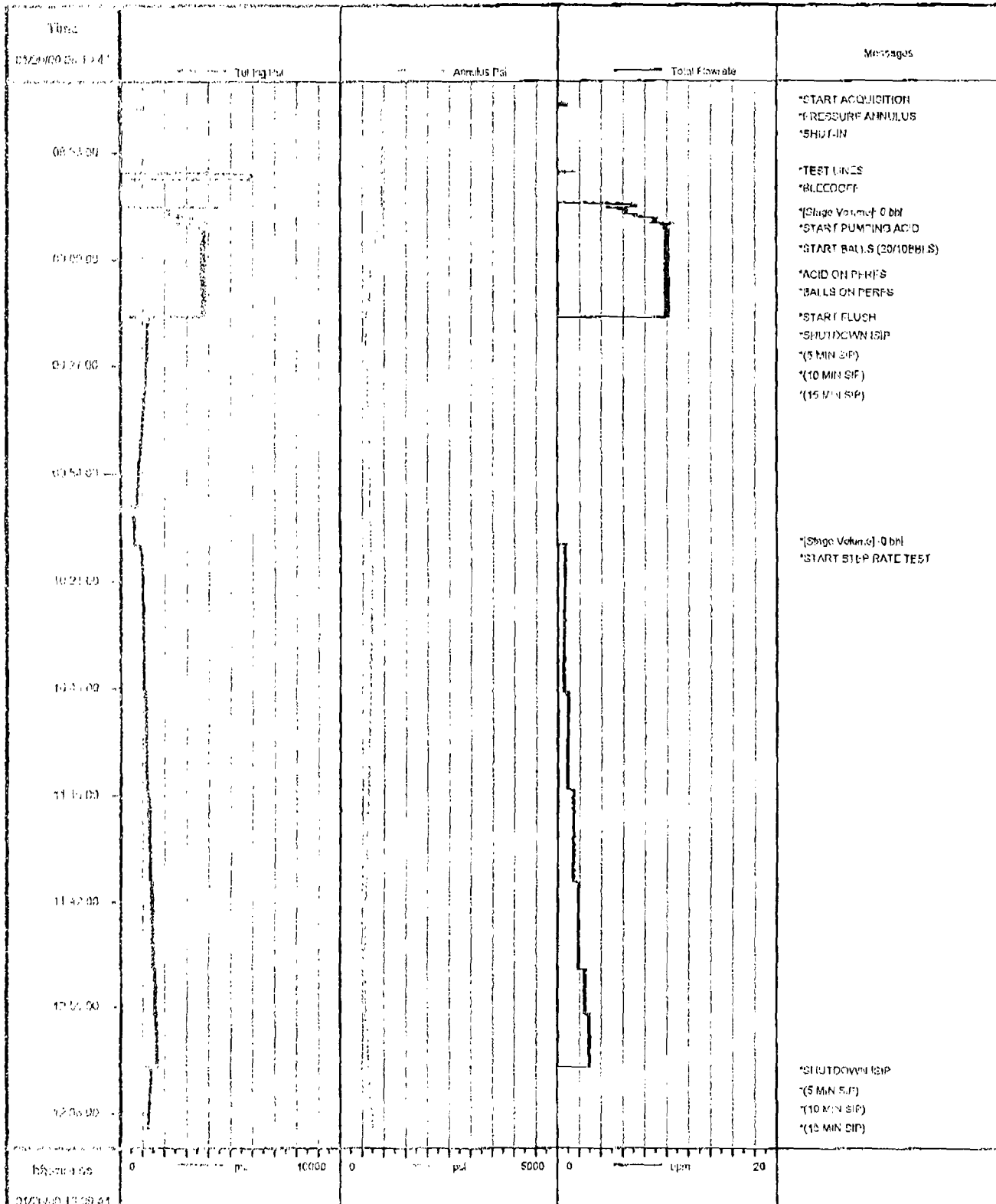
Client KCS MEDALLION RESOURCES

Field

SIR No. 20141250

Country NEW MEXICO

Job Date 1/20/2000 8:19:44 AM



Schlumberger
Dowell

DATE 1/20/00

Figure 1. The effect of the concentration of the initiator on the polymerization of α -methylstyrene in the presence of $\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$ at 50°C for 24 h. The concentration of α -methylstyrene was 0.5 mol/L, and the concentration of $\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$ was 0.005 mol/L.

LOCATION (LEGAL)

TREATMENT NUMBER
20141250

BOTTOM HOLE TEMPERATURE	AGE OF WELL NEW REWORK
	☐ ☒

ALLOWABLE PRESSURE	
TRG 5000	OSD 1000

CASING SIZE	WT	DEPTH
5 1/2	17	
THROTTLE SIZE	WT	DEPTH

ROLLING SIZE	WT	DEPTH
27/8	4.5	5213
PACKER TYPE	PACKER DIE IN	

	5213
TUNING VOLUME	ANNULAR VOL
8312	8311

50.2	02.7
OPEN HOLE	CASING VOL
	73/41

DISPLACEMENT
32.5

SECTION RECORD

PRESSURE	
CH	YBC

NOTATIONS

	DATE	TIME	VOL (LBS)	WELL	DEPTH	TEMP	TEST	REMARKS
0833								Pre-Job Safety Meeting
0600								Pressure Test To 6000 psi
0837								Arrive on Loc - Rig Up
0839								Pressure Annulus
0851			.5			970	1060	Shut In
0857			.5			970	—	Test Lines
0858			.8			970	6000	Bleed Off
0855	5/1/01		240	Ø		970		Start Pumping Acid
0856		73	30			960	100	R/P
—		—	10.0			—	—	Start Balls (20 Balls/hr)
0846		73	6.5			1000	630	Cought-Bi
0847		6.2	100			1030	2200	Start Balls (20 Balls/10 min)
0849		8.7	25			1000	3240	R/P
0850		8.9	32.5			960	3300	Acid on
0851		100	12.5			910	3660	Balls on
0852		100	55			850	3820	R/P
0851		100	70			860	3850	R/P
0852		100	90			820	3860	R/P
0858		100	110			770	3830	R/P
0850		100	130			730	3830	R/P
0858		100	150			740	3790	R/P

FLUID	NITROGEN	FORM AVERAGE INJECTION RATES		TOTAL WIPROF	WATER/ACID	VOLUME FLUID INJECTED		OIL	NITROGEN		CARBON DIOXIDE	
		BARRELS	TONS			BARRELS	TONS		CCF	TONS	CCF	TONS
100					477	82LS						

THE LBS PRESSURE SUMMARY					QUANTITY PROPPANT PLACED	
INJECTOR	INJECT	AVG LBS	INJEC. S.P.	15 MIN S.P.	TOTAL INJECTED	TOTAL OIL-PROD./DESIGNED
3-4-1	3040	3750	1490	1200		
					LBS	LBS

FOR FURTHER REQUEST TO THIS TREATMENT

☐ Test
☐ Stabilized

PAD VOLUME _____ GALS. 5% PAD _____

CRASH SITE REPRESENTATIVE Doug Park	US SCHEDULE SUPERVISOR Paul W. Oem	FRAC'UR GRADIENT .72	PAGE 1 OF 5 PAGES
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ILLEGIBLE

56m-4m
 OF MENTHO LITIGIOUS REPORT
 SUPPLEMENT LOG

DATE: 1/20/00

LOCATION: 19 Feb 23.00

LOCATION: Artesia, New Mexico

TREATMENT NUMBER: 2014/250
PAGE: 2 OF 5

TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	SERVICE LOG DETAIL
0001	0002	0003	0004	0005	0006	0007	0008	0009	
0904	580	700	170	10.0	56m	8.6			Protel/PSi
0905	580	680	170	10.0					RIP
0908	580	670	210	10.0					RIP
0910	580	670	230	10.0					RIP
0911	580	650	325	241	10.0	24m	8.45		Start Flush
0912	580	650	260	10.0					RIP
0913	580	650	270	10.0					RIP
0914	580	630	285	10.0					Shut Down
0914	1470	580	286	—					ISIP
0919	1470	570	286	—					5 min SIP
0924	1240	610	286	—					10 min SIP
0929	1120	630	286	—					15 min SIP
0934	1110	650	286	—					20 min SIP
0939	1020	650	286	—					25 min SIP
0944	1020	660	286	—					30 min SIP
0949	920	680	286	—					35 min SIP
0954	820	680	286	—					40 min SIP
0959	820	660	286	—					45 min SIP
1004	720	700	286	—					Surge Brills
1009	640	700	286	—					PSi
1011	630	730	80		24m	8.45			Start Step Rate Test
1012	720	730	15	.76					Protel/PSi
1013	910	730	10	.76					RIP
1014	1020	740	20	.76					RIP
1015	1120	750	30	.76					RIP
1017	1220	760	40	.76					RIP
1018	1320	770	50	.76					RIP
1019	1420	780	60	.76					RIP
1021	1450	790	70	.76					RIP
1023	1500	800	80	.76					RIP
1024	1510	810	90	.76					RIP
1026	1520	820	100	.76					RIP
1027	1530	830	110	.76					RIP

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CEMENTING SERVICE REPORT SUPPLEMENT LOG

PCE 5110-10-10-00-00

CITY OF LOS ANGELES, CALIF.

Well: Shoshone #1 250

LOCATION (LOCAL)

OS LOCATION

Artesia, New Mexico

DATE

1/20/00

TREATMENT NUMBER

20141250

PAGE

OF

5

PAGES

TIME	PRESSURE	VOLUME	INJECT	FLUID	FLUID	SERVICE LOG DETAIL
Log Time	LOG G.P.	PUMPED GAL	RATE	TYPE	DENSITY	
1028	1070	120	70.68	8.45		Rak/Bc
1030	1080	130	70.68			R/P
1032	1080	140	70.68			R/P
1033	1080	150	70.68			R/P
1035	1090	160	70.68			R/P
1036	1090	170	70.68			R/P
1037	1090	180	70.68			R/P
1039	1090	190	70.68			R/P
1040	1090	200	70.68			R/P
1042	1100	210	70.68			R/P
1043	1100	220	.68			R/P
1045	1100	230	.68			R/P
1047	1100	240	.68			R/P
1048	1100	250	.68			R/P
1050	1110	260	1.02-1.1			R/P
1051	1120	280	1.02-1.1			R/P
1052	1130	300	1.02-1.1			R/P
1053	1130	320	1.02			R/P
1054	1130	330	1.02			R/P
1055	1130	340	1.02			R/P
1056	1130	350	1.02			R/P
1057	1130	360	1.02			R/P
1058	1130	370	1.02			R/P
1059	1130	380	1.02			R/P
1100	1130	390	1.02			R/P
1101	1130	400	1.02			R/P
1102	1130	410	1.02			R/P
1103	1130	420	1.02			R/P
1104	1130	430	1.02			R/P
1105	1130	440	1.02			R/P
1106	1130	450	1.02			R/P
1107	1130	460	1.02			R/P
1108	1130	470	1.02			R/P
1109	1130	480	1.02			R/P

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Stimulac

REMOVAL SERVICE REPORT
SUPPLEMENT LOG

OF ALL REMOVALS

LOCATION (BY TELEPHONE AREA)

Street 17 East 62 500

LOCATION (LEGAL)

DS LOCATION

Artesia, New Mexico

DATE

1/20/00

TREATMENT NUMBER

20141250

PAGE

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OF

5

PAGES

TIME	INCHES	VOLUME	WELL	FLUID	FLUID	SERVICE LOG DETAIL
DATE	INCHES	INCHES	INCHES	TYPE	DENSITY	
1110	1200	620	47	1.02	2.45	RIP/PSI
1111	1200	610	48	1.02		RIP
1112	1200	610	49	1.02		RIP
1113	1200	610	50	1.02		RIP
1113	1200	610	51	1.52		RIP
1114	1200	600	52	1.52		RIP
1115	1200	610	53	1.52		RIP
1116	1200	650	54	1.52		RIP
1116	1200	650	55	1.52		RIP
1117	1200	650	56	1.52		RIP
1118	1200	650	57	1.52		RIP
1119	1200	650	59	1.52		RIP
1120	1200	640	61	1.52		RIP
1121	1200	640	63	1.52		RIP
1123	1200	640	65	1.52		RIP
1124	1200	640	67	1.52		RIP
1125	1200	630	69	1.52		RIP
1127	1200	630	71	1.52		RIP
1128	1200	630	73	1.52		RIP
1129	1200	630	75	1.52		RIP
1131	1200	630	77	1.52		RIP
1132	1200	610	79	1.52		RIP
1133	1200	620	81	1.52		RIP
1134	1200	620	83	1.52		RIP
1136	1200	630	85	1.52		RIP
1137	1200	640	87	1.95-2.03		RIP
1138	1200	640	89	1.95-2.03		RIP
1139	1200	640	91	1.95-2.03		RIP
1140	1200	640	93	1.95-2.03		RIP
1141	1200	640	95	1.95-2.03		RIP
1142	1200	620	97	1.95-2.03		RIP
1143	1200	620	99	1.95-2.03		RIP
1144	1200	620	101	1.95-2.03		RIP
1145	1200	600	103	1.95-2.03		RIP

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(1995) and (1996) are the authors' own calculations.

DATE 1/30/00

TREATMENT NUMBER 20141250

PAGE 5 of 5 PAGE

SECRET 11/10/2000

1984年12月11日

US LOCATION

Artesia, New Mexico

TREATMENT NUMBER 20141232
PAGE 3 of 5

PAGE:

TIME MM:SS	VOLUME		INJECT RATE	TEMP °C	SERVICE DETAILED
	IN	OUT			
1114	120	580	105	125-203	8.45 Bk/Pi
1117	150	580	107	125-203	RIP
1119	150	580	109	125-203	RIP
1122	150	580	111	125-203	RIP
1124	150	580	113	125-203	RIP
1127	150	580	115	125-203	RIP
1129	150	580	117	125-203	RIP
1132	150	580	119	125-203	RIP
1134	150	580	121	125-203	RIP
1135	150	580	123	125-203	RIP
1137	150	580	125	125-203	RIP
1138	150	580	128	125-203	RIP
1138	150	580	130	125-203	RIP
1139	150	580	132	251-262	RIP
1200	150	580	135	251-262	RIP
1202	150	580	140	251-262	RIP
1204	150	600	145	251-262	RIP
1206	150	600	150	251-262	RIP
1208	150	600	155	251-262	RIP
1209	150	60	160	251-262	RIP
1210	160	60	162	296-305	RIP
1212	160	630	165	296-305	RIP
1214	160	630	170	296-305	RIP
1215	160	630	175	296-305	RIP
1217	160	640	180	296-305	RIP
1218	160	640	185	296-305	RIP
1220	170	650	190	296-305	RIP
1222	170	650	195	296-305	RIP
1223	170	650	200	296-305	RIP
1224	170	650	200	296-305	Shutdown
1204	150	660	203	---	ISIP
1228	170	700	203	---	5min SIP
1231	180	720	203	---	10min SIP
1232	180	720	203	---	15min SIP

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