



**MONTGOMERY
& ANDREWS**
LAW FIRM

J. SCOTT HALL

Cell: (505) 670-7362

Email: shall@montand.com

Reply To: Santa Fe Office

www.montand.com

March 31, 2010

HAND DELIVERED

Mr. David Brooks
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

**Re: Case No. 14423: Application of COG Operating LLC for Expansion of
Pool Boundaries, Crow Flats Wolfcamp Oil Pool, Eddy County, New
Mexico**

Dear Mr. Brooks:

As you requested, enclosed are a well location plat with narrative and three well logs for area wells. These materials provide geologic support for COG's Application.

If more information or a different format is needed, please let me know.

Very truly yours,

J. Scott Hall

JSH:kw
cc: Jan Spradlin, w/o enclosures

00175628

REPLY TO:

325 Paseo de Peralta
Santa Fe, New Mexico 87501
Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307
Santa Fe, New Mexico 87504-2307

6301 Indian School Road NE, Suite 400
Albuquerque, New Mexico 87110
Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210
Albuquerque, New Mexico 87176-6210

Comet 22 Fed. # 2H

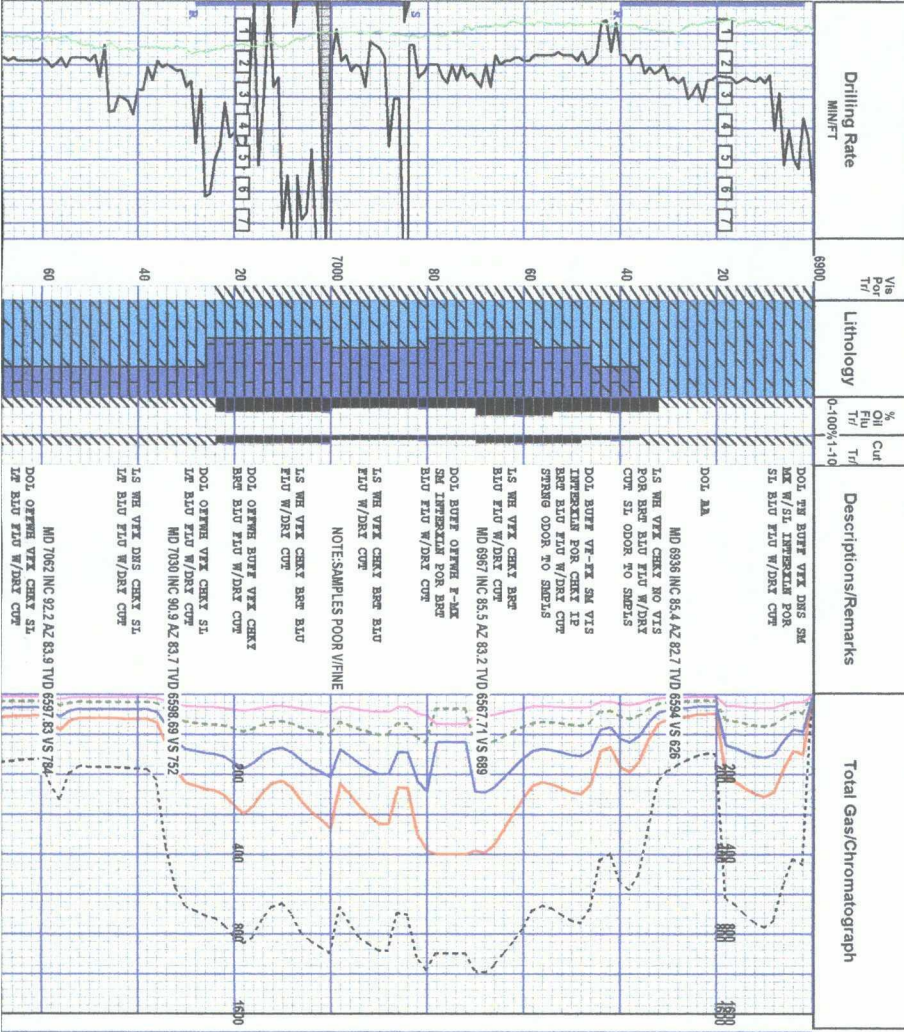
Nearburg Producing Company

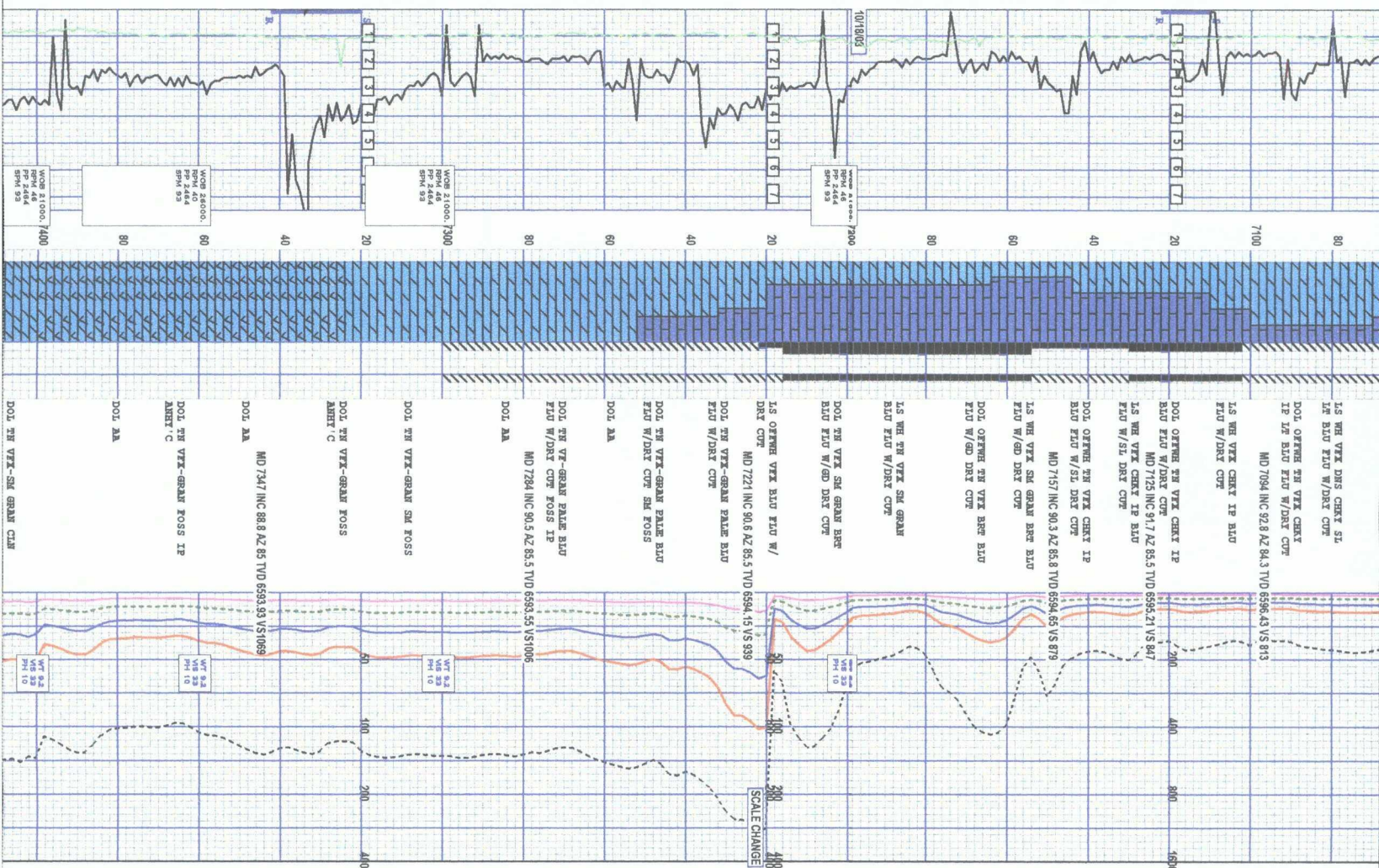
3300 N. A
Bldg. 2, Suite 120
MIDLAND, TEXAS 79706
(432) 686-8236

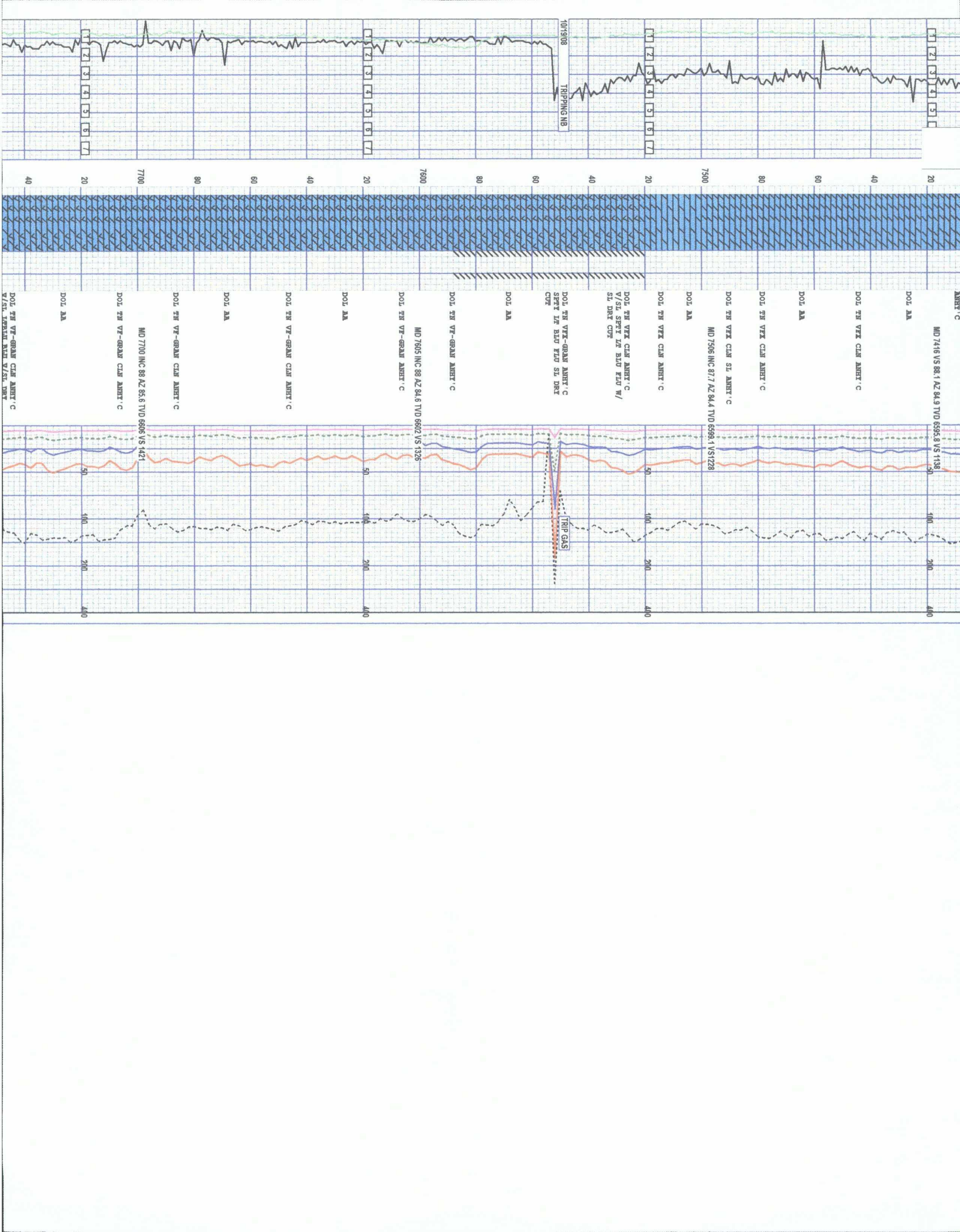
COMPANY: NEARBURG PRODUCING INC. WELL: COMET 22 FED #2H
FIELD: CROW FLATS COUNTY: EDDY STATE: NEW MEXICO
LOCATION: 1980 FSL 330 FWL SEC 22 16S 28E
Interval Logged: 530 To: 10830 G.L.: 3605 K.B.: 3620
Date Logged: 9/15/2008 To: 10/25/2008 Spud Date: 9/15/2008
Rig: UNITED 43 Unit No.: 1
Loggers: KEN BRYANT
Api No.:
Filename: comet-H.mlv
Geologist: BILL ELTON

Mudlog for lateral hole

Abbreviations:	Lithology Symbols:	Gas Chromatograph Analysis:
NO. New Bit CO. Core Out M. Mud TG. Trip Gas WOB. Wt on Bit RPM. Rev/min SG. Survey Gas	DST. Drill Stem Test DS. Directional Survey LAT. Logged After Trip PP. Pump Pressure SPM. Stroke/min DTG. Down Time Gas	Granite Salt Chert Sandstone Conglomerate Limestone Shale Granite Wash Accessories Pyrite Fossils Oolites
Mud Data	WT. Weight PH. Acidity CHL. Chlorides SC. Solids Content	Fractures Cement







1 2 3 4 5

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

10/19/08
TRIPPING NB

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DOT 7416 VS 88.1 AZ 84.9 TYD 6595.8 VS 1138

DOT 7506 INC 87.7 AZ 84.4 TYD 6599.1 VS 1228

DOT 7700 INC 88 AZ 85.6 TYD 6606 VS 1421

DOT 7416 VS 88.1 AZ 84.9 TYD 6595.8 VS 1138

DOT 7506 INC 87.7 AZ 84.4 TYD 6599.1 VS 1228

DOT 7700 INC 88 AZ 85.6 TYD 6606 VS 1421

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DOT 7416 VS 88.1 AZ 84.9 TYD 6595.8 VS 1138

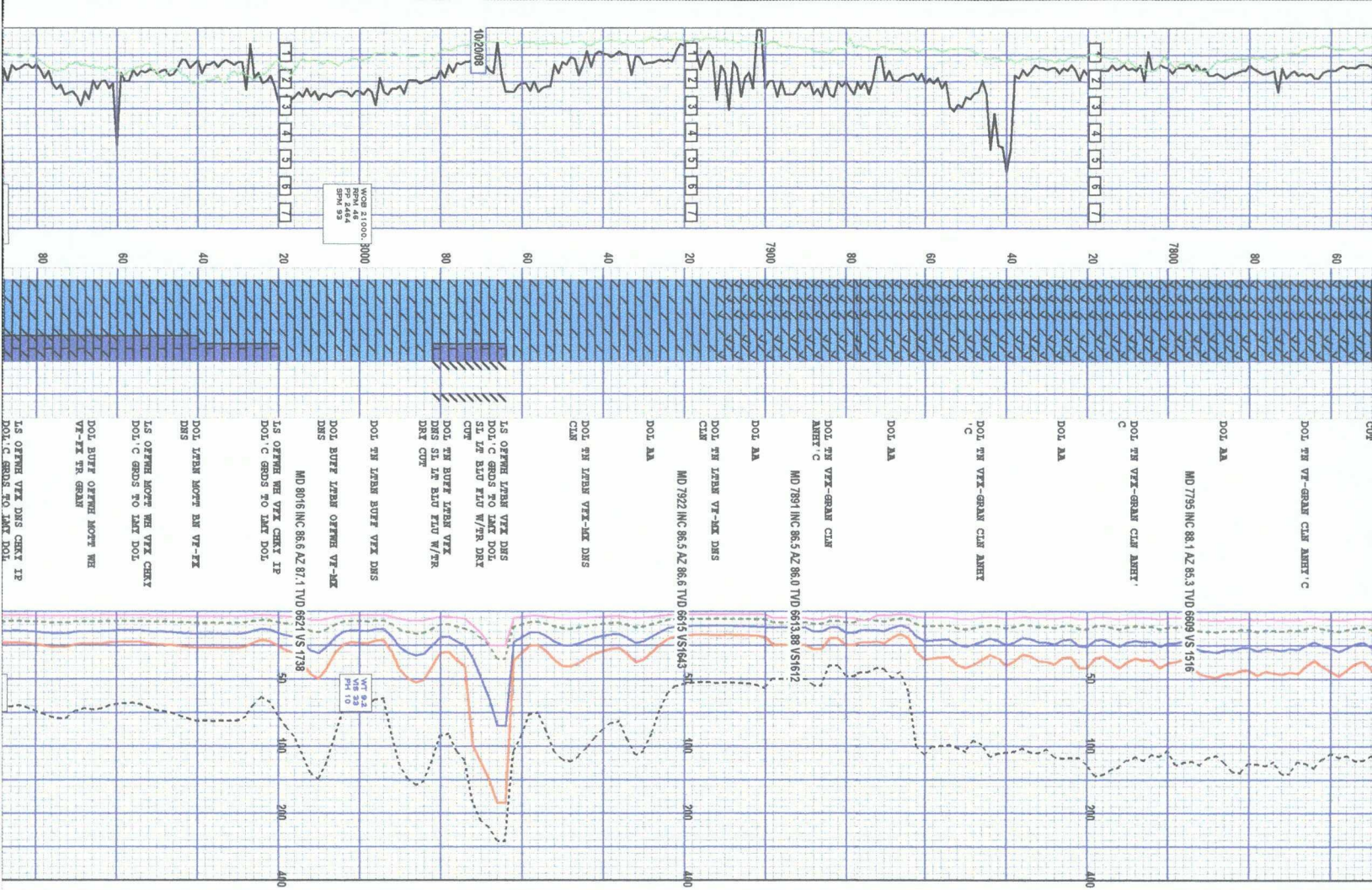
DOT 7506 INC 87.7 AZ 84.4 TYD 6599.1 VS 1228

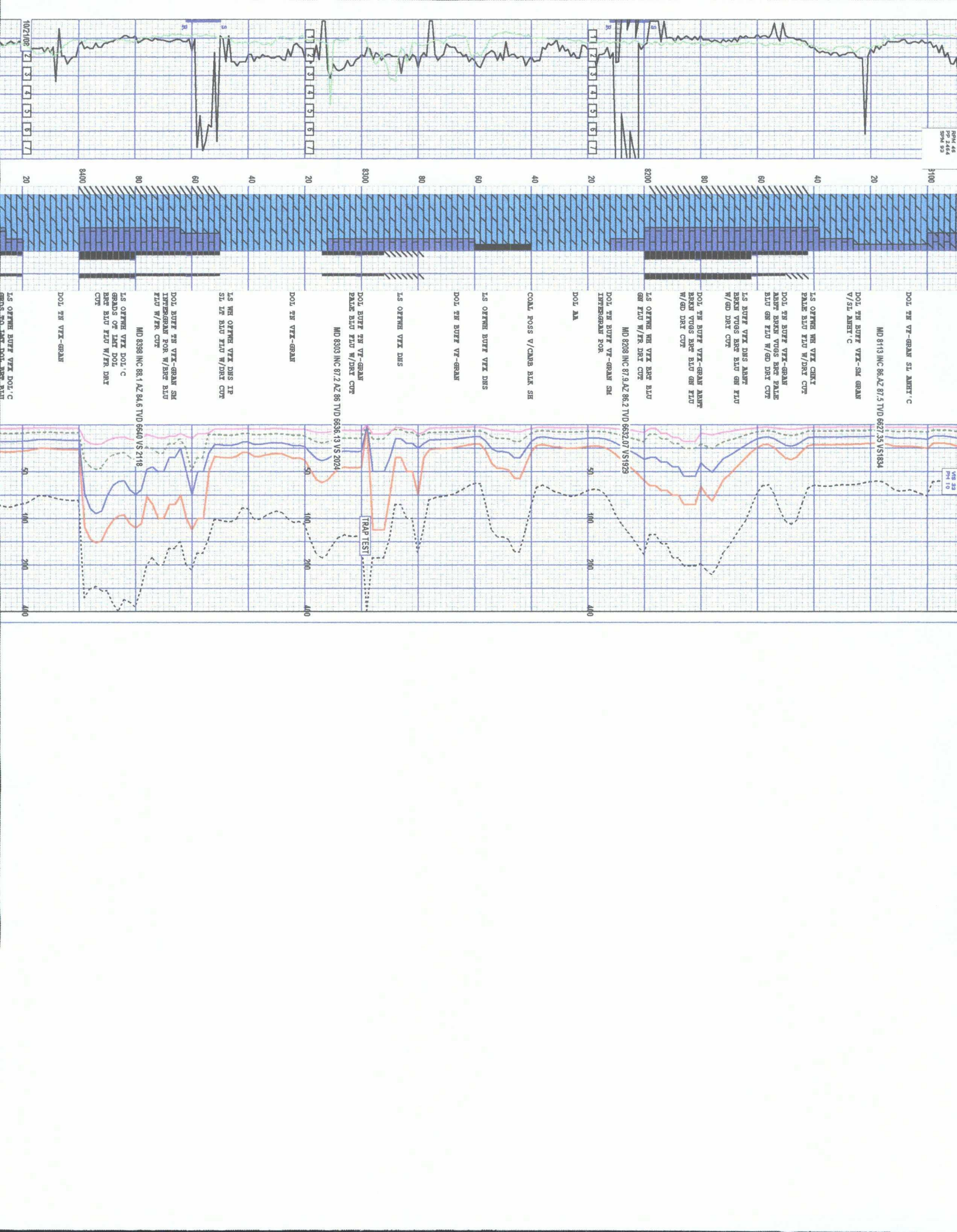
DOT 7700 INC 88 AZ 85.6 TYD 6606 VS 1421

DOT 7416 VS 88.1 AZ 84.9 TYD 6595.8 VS 1138

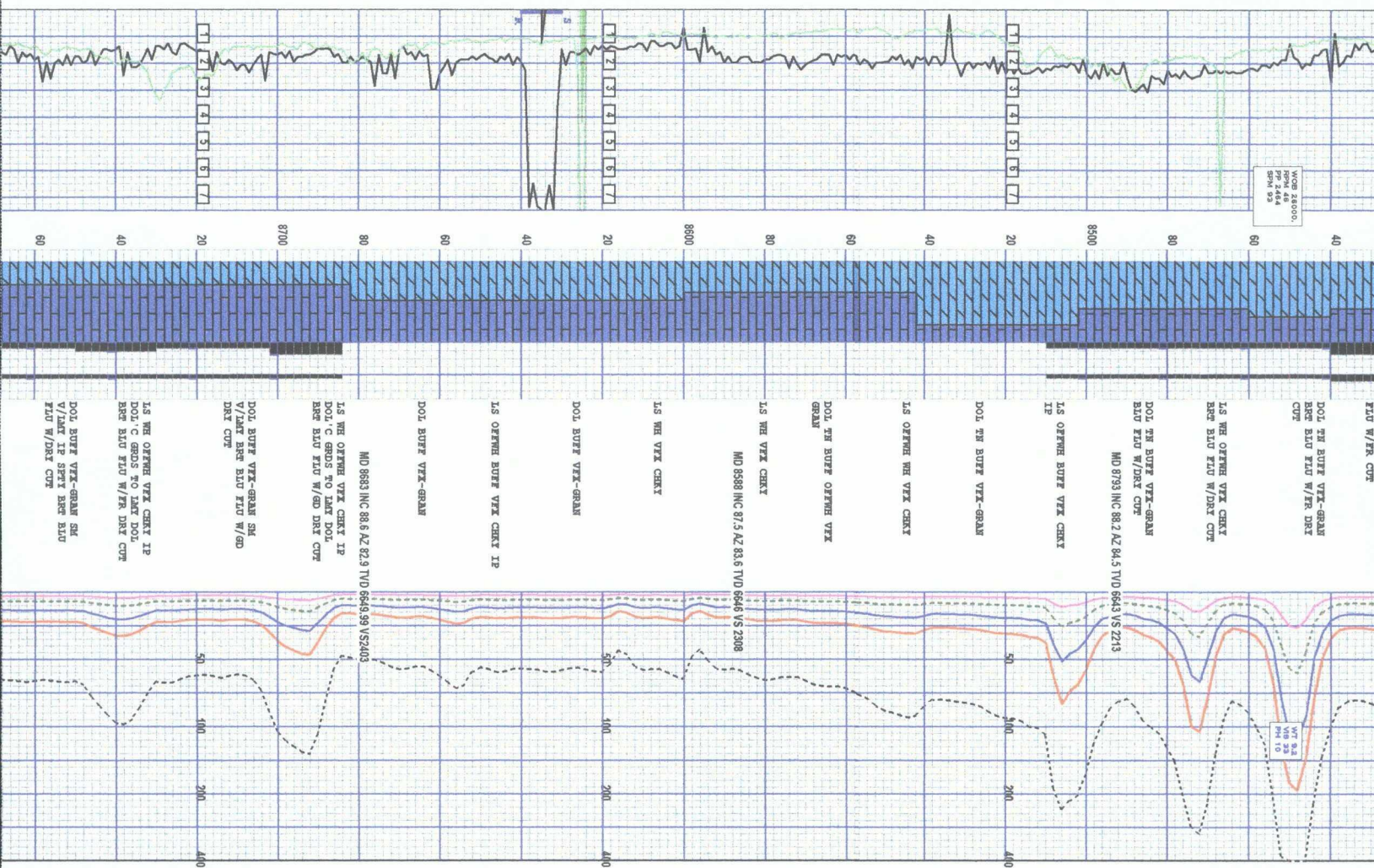
DOT 7506 INC 87.7 AZ 84.4 TYD 6599.1 VS 1228

TRIP GAS





WGS 84
Zone 18
Datum
Spheroid



DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

LS. WH. OFFWH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

LS. WH. OFFWH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

LS. WH. OFFWH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

LS. WH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

LS. WH. OFFWH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

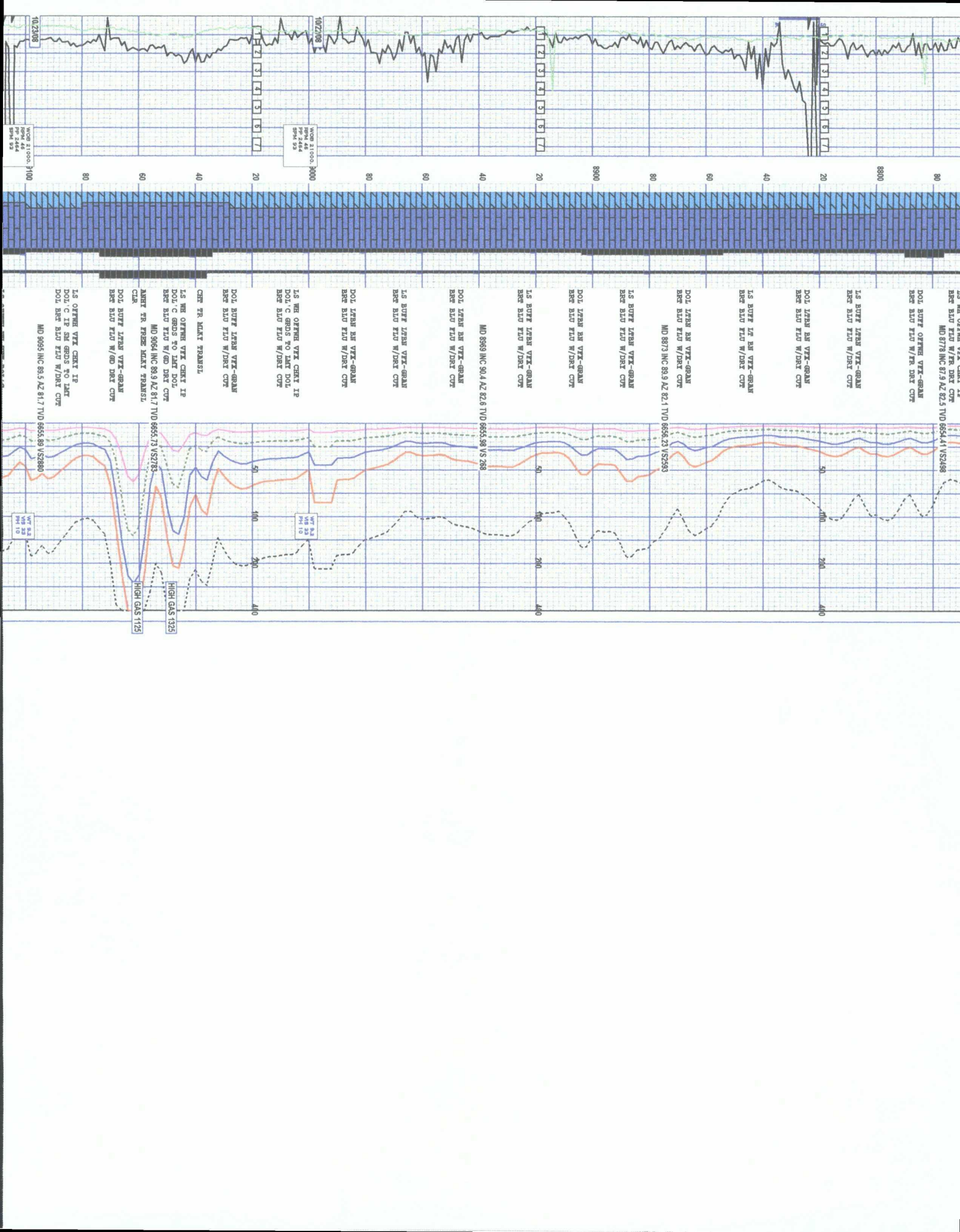
LS. WH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

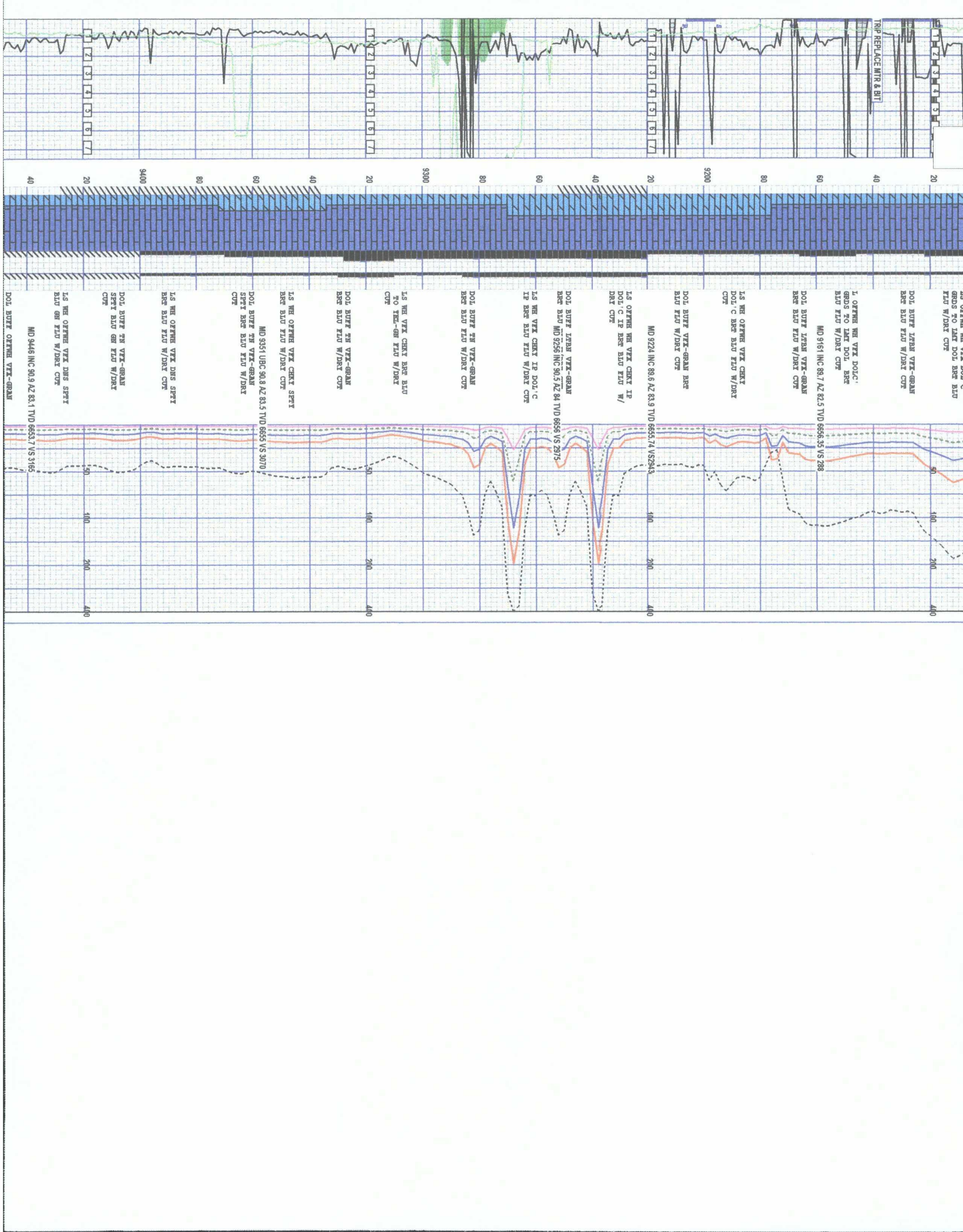
DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

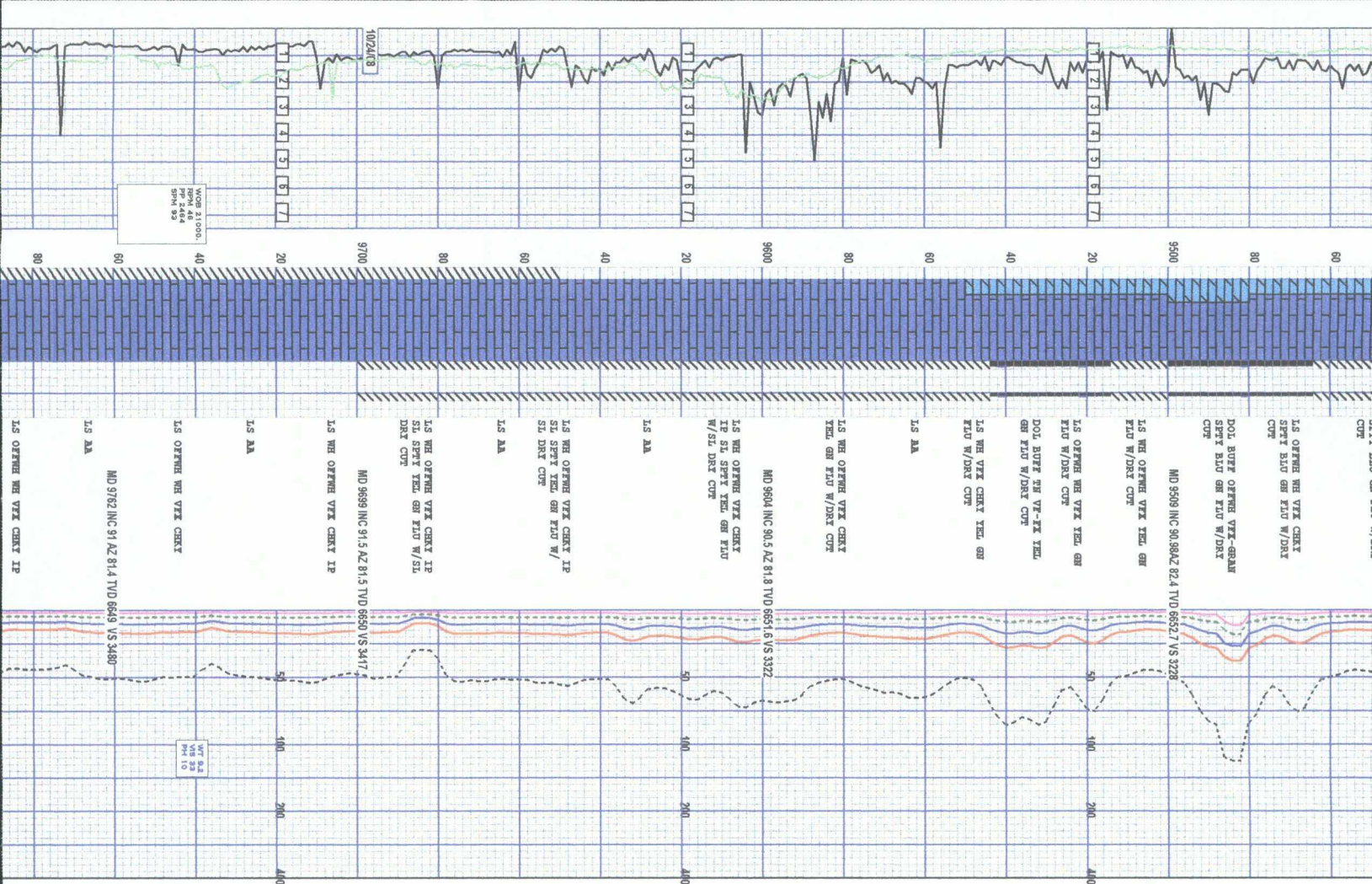
LS. WH. OFFWH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

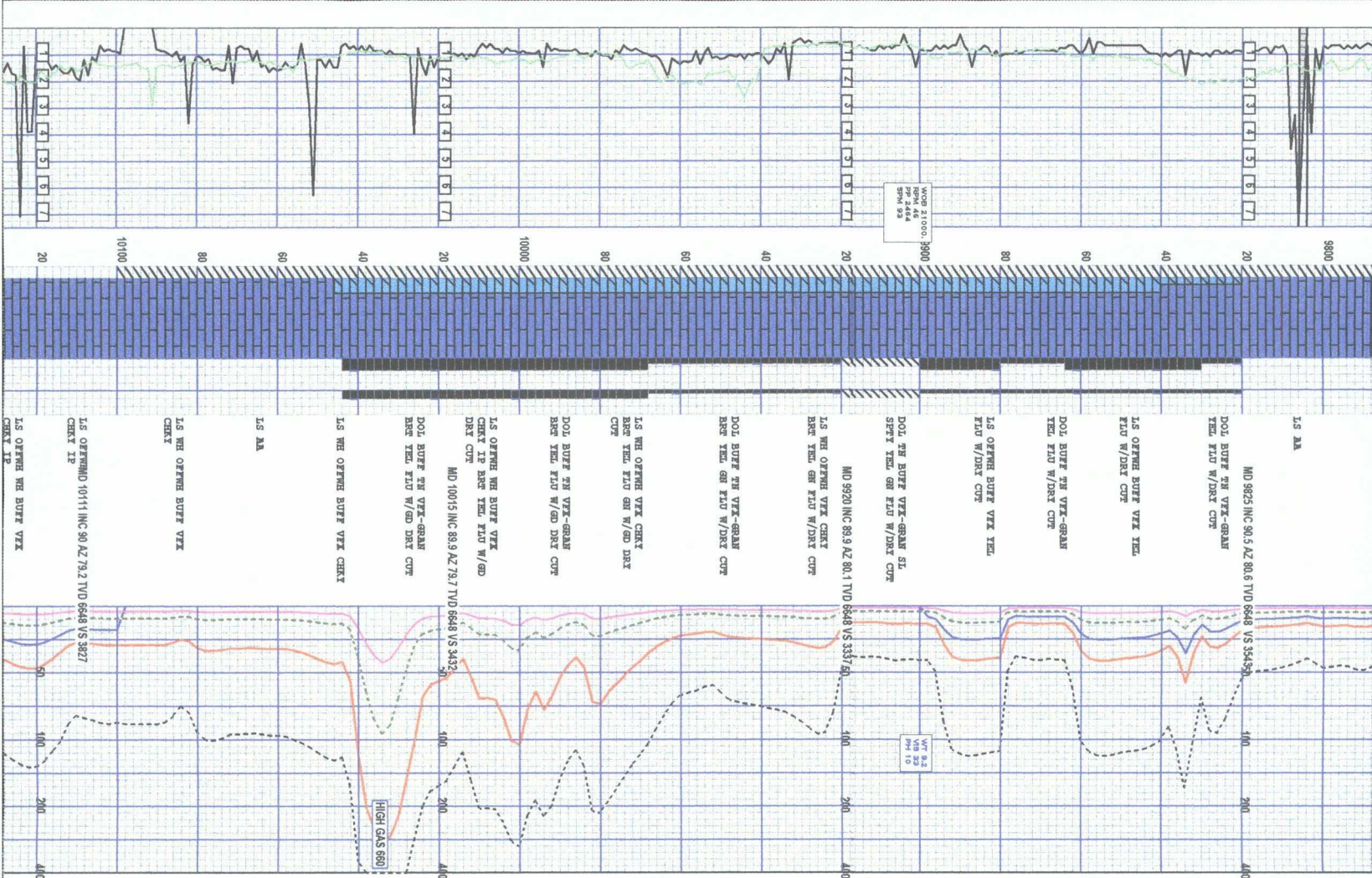
DOL. TYP. BUFE. VTX-GRAN
BET. ELO. ELO. W/FR. DRY
COT

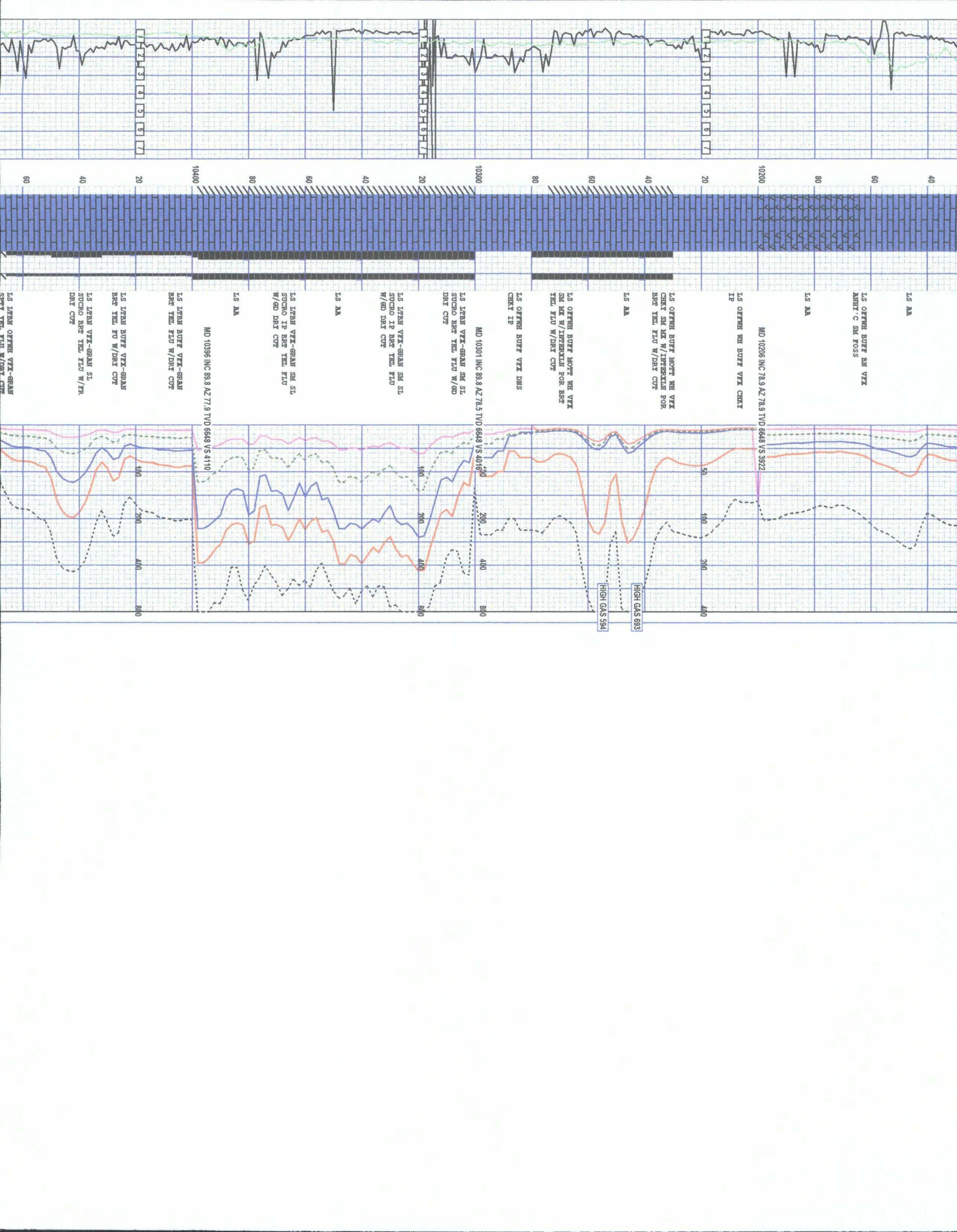
LS. WH. VTX. CENX
BET. ELO. ELO. W/FR. DRY
COT

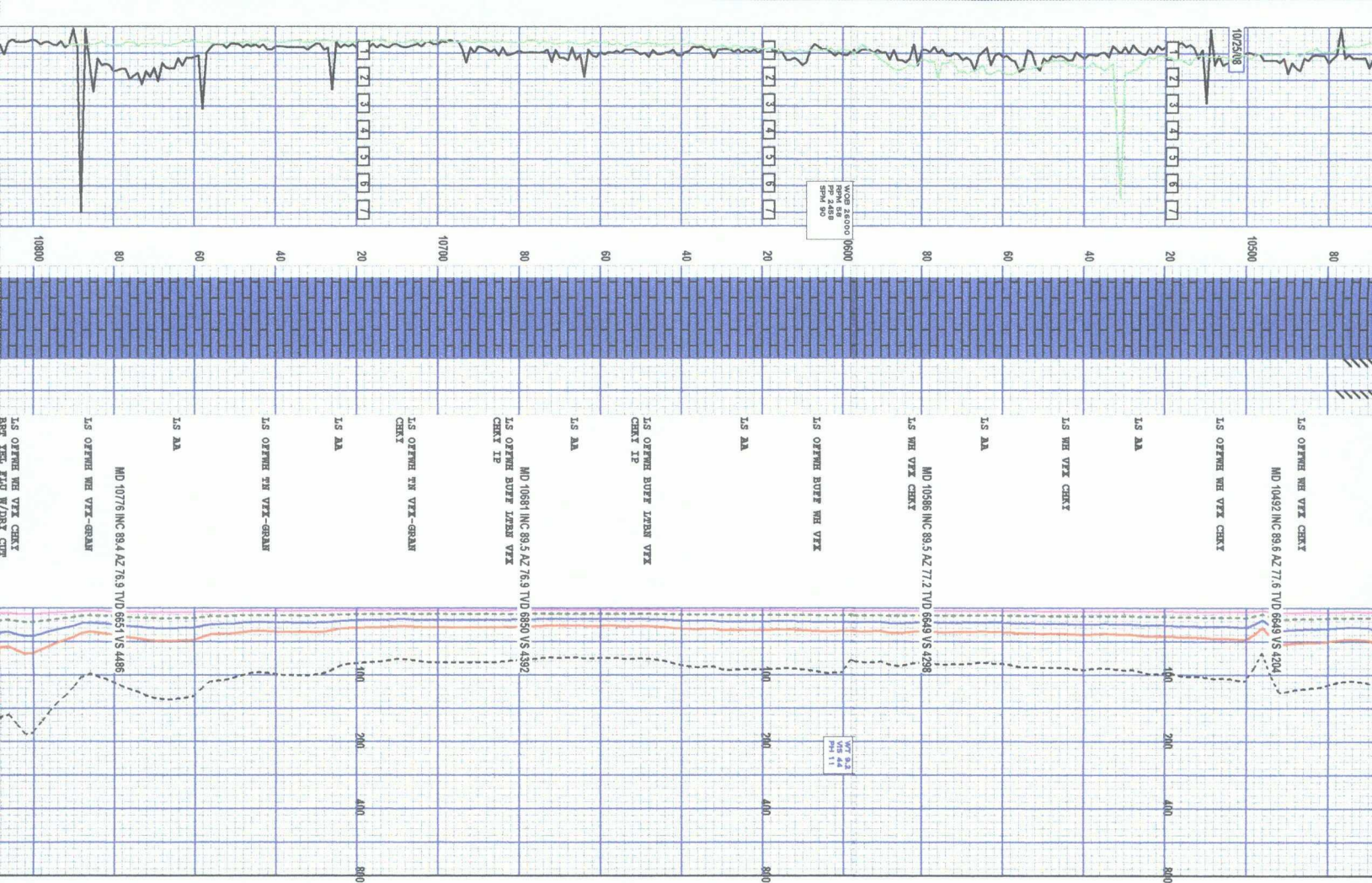


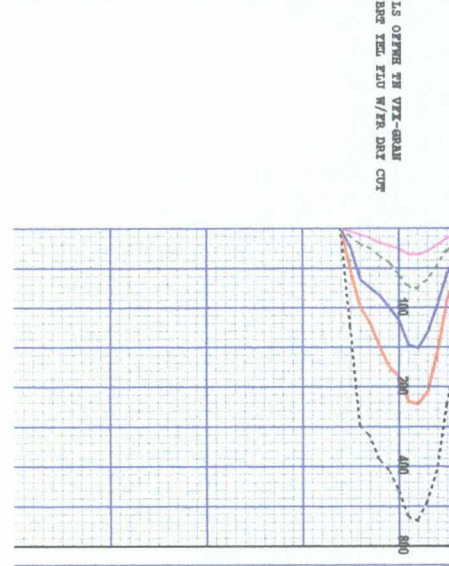
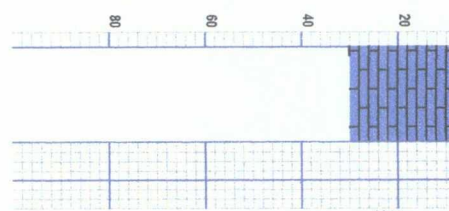
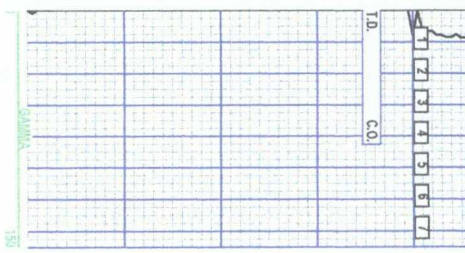












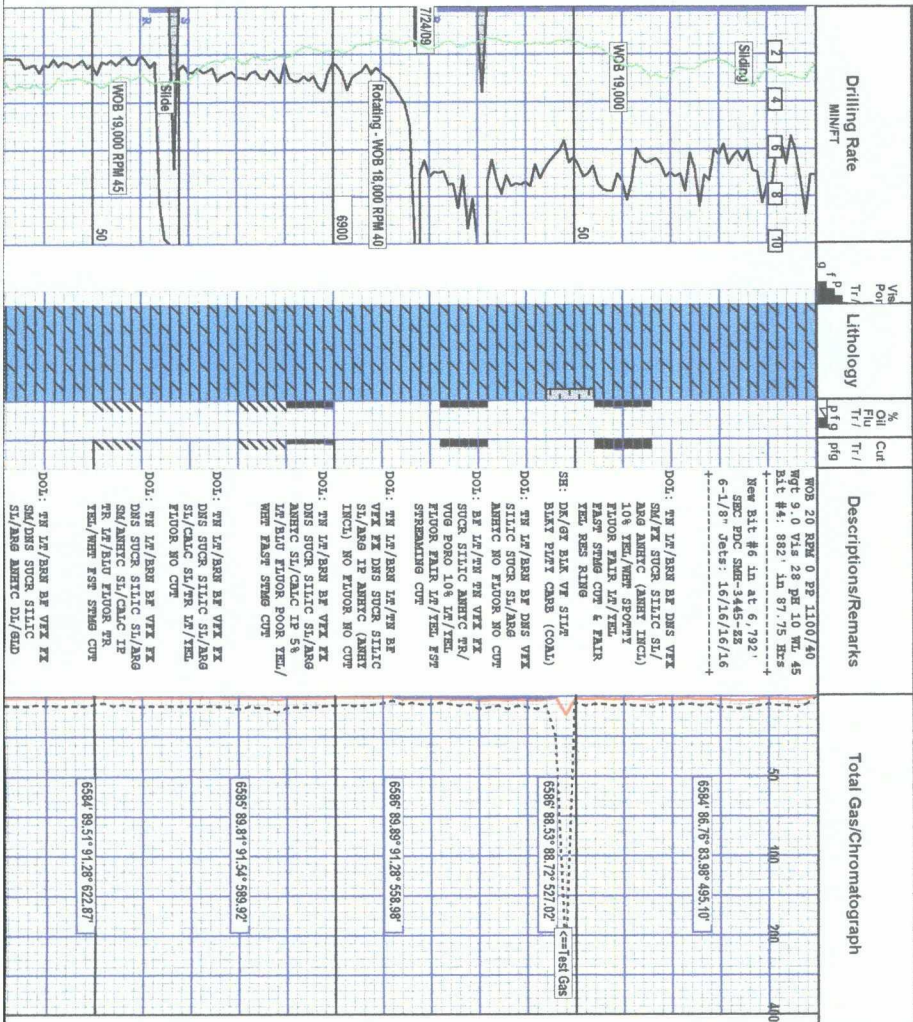
LS OPTIMA 75 VTX-GRAN
BAG YEL FLO W/FR DET COT

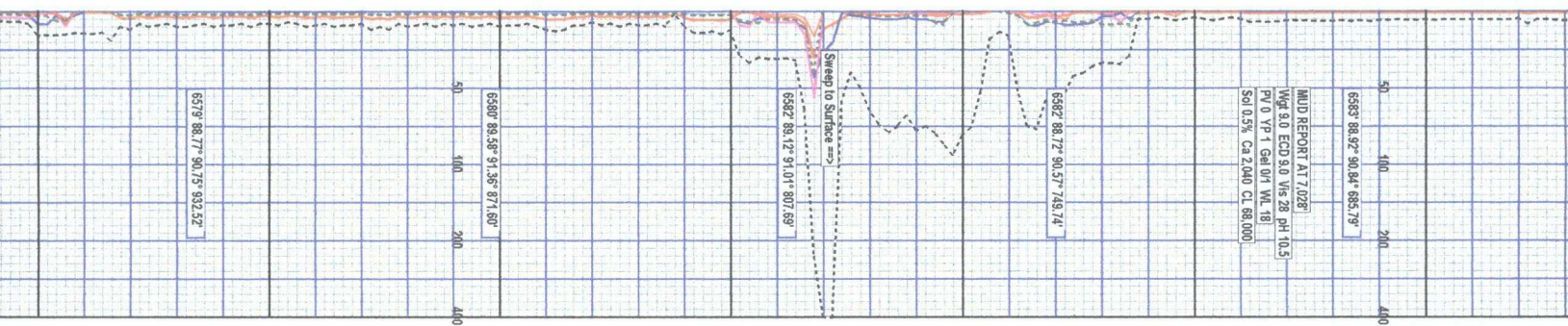
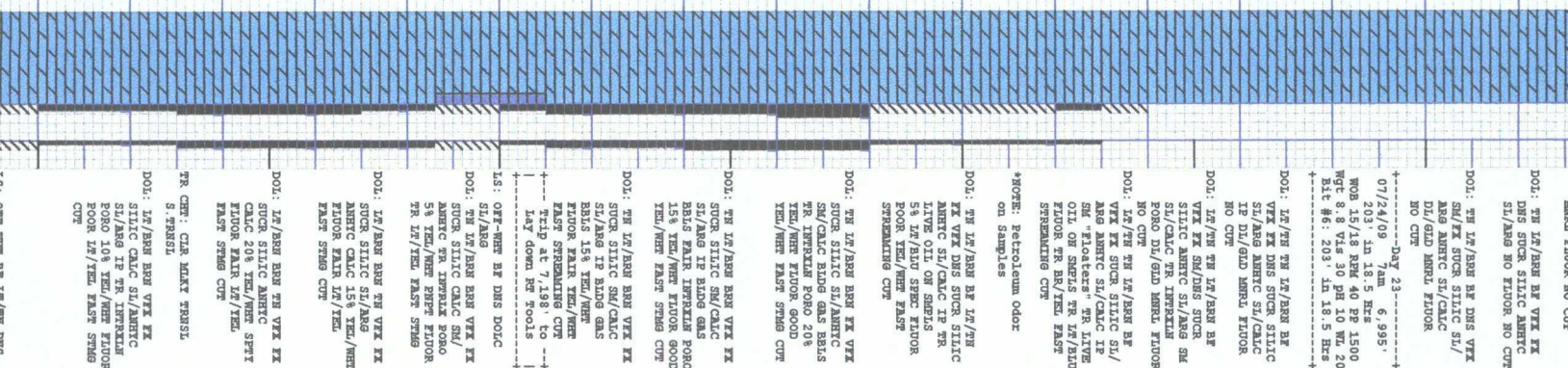
Comet '22' Fed. # 34

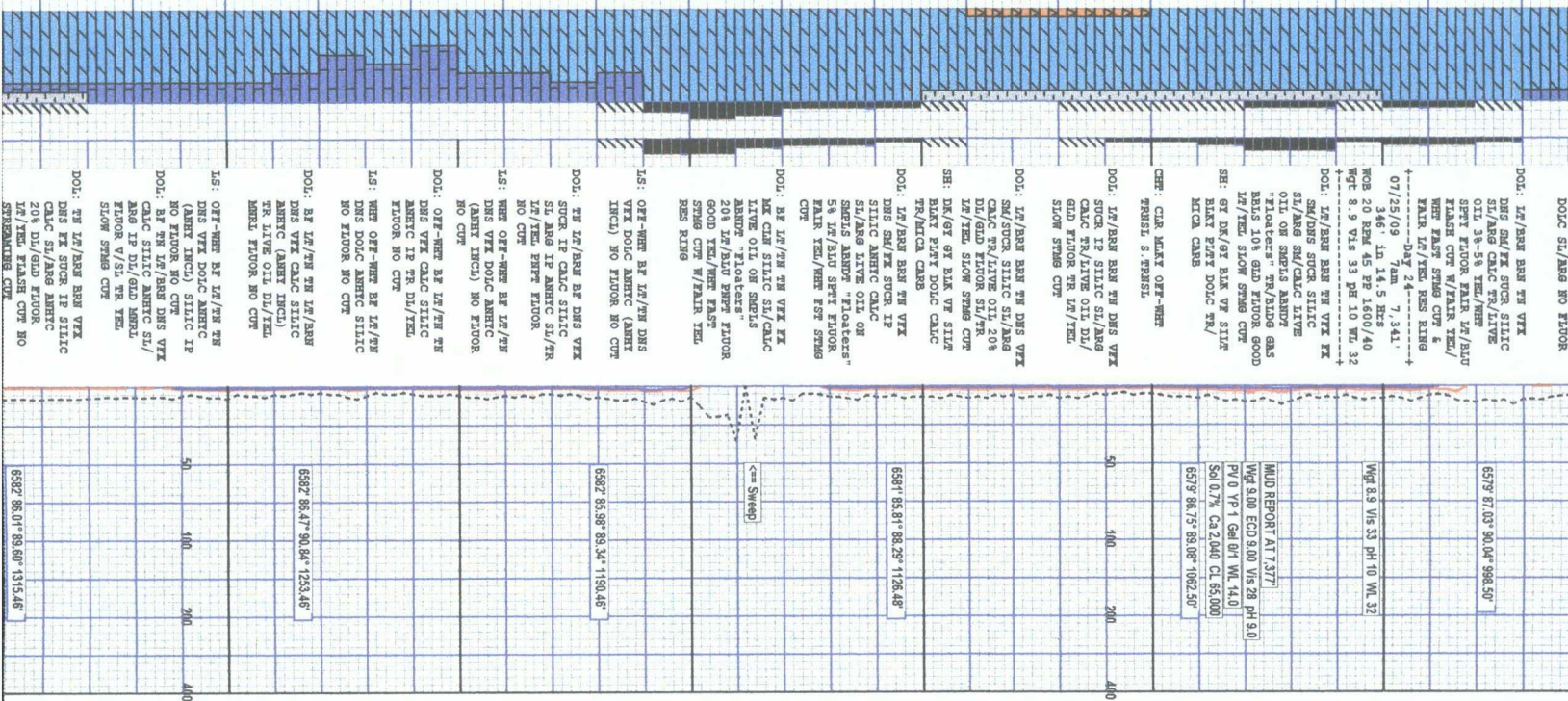
COMPANY:	COG Operating, LLC		WELL:	Comet "22" Fed Com #3-H	
FIELD:	Crow Flats	COUNTRY:	Eddy	STATE:	New Mexico
LOCATION:	1980 FNL & 330' FWL				
Interval Logged:	1800	To:	G.L.:	3611	K.B.:
					3636
Date Logged:	07/10/2009	To:	Spud Date:	07/02/2009	
Rig:	Permian Drilling	Unit No.:	6		
Loggers:	Buddy Faulks				
Api No.:	30-015-35821				
Filename:	Comet 22_Fed Com 3.mlw				
Geologist:	Ted Gawowski				

Mudlog for lateral hole

Mudlog for lateral hole







WOB 17,000 RPM 55

Sliding

7700

WOB 18,000 RPM 54

50

WOB 20,000 RPM 52

7800

WOB 20,000 RPM 52

50

Sliding

Sliding

7900

WOB 15,000 RPM 52

50

Sliding

SH: DR/GR BLK GR VZ SLT/

BLK FLYT DOLC CARB

DOL: 75 12/BSR BSR VTX
DMS SN/PS SUCK IP
SLTIC CALC AMHTC IP
DL/SLD MRL FLTOR
NO STREAMING COT

DOL: 75 12/BSR BSR VTX

FX SN/DMS SUCK IP
SL/CALC TR/LIVE OIL
OR SHAPS DL/SLD MRL
FLTOR 12/TEL FLASH

07/26/09 Jan 7.691

WOB 20 RPM 55 PR 1230/40
Wgt 9.1 Vls 31 PR 10 WL 31
Blt #6: 899 in 55 Hrs

15: 12/BSR BSR VTX

DOLC AMHTC NO FLTOR
NO COT

DOL: 75 12/BSR BSR VTX

CALC SLTIC SL/ARG
AMHTC TR/OIL STAIN
DL/TEL MRL FLTOR
NO COT

15: 12/BSR BSR VTX

DMS VTX DOLC FOSS
(FPMAS) AMHTC NO FLTOR
NO COT

TR SH: GR DR/GR BLK VZ

SLT/BLK FLYT DOLC
TR/MTC CARB

6584 88.02 83.34 143.42

MUD REPORT AT 7.754

Wgt 9.15 ECD 9.15 Vls 28 PR 100

PI 0.77 1 Gd 0.1 WL 13.4

Sol 1.45 Ca 2.60 CL 89.000

15: OFF-WHT 12/BSR

DMS VTX DOLC AMHTC
(FPMAS) NO FLTOR
NO COT

DOL: 75 12/BSR BSR VTX

DMS SN/PS SUCK IP
CALC SLTIC AMHTC TR/
OIL STAIN DL/TEL MRL
FLTOR NO COT

15: OFF-WHT 12/BSR

DMS VTX DOLC SL/ARG
AMHTC NO FLTOR NO COT

DOL: 75 12/BSR BSR VTX

DMS VTX CALC AMHTC
SLTIC IP NO FLTOR
NO COT

15: OFF-WHT 12/BSR

DMS VTX DOLC SL/ARG
TR/STYOLIC NO FLTOR
NO COT

DOL: 75 12/BSR BSR VTX

DMS VTX CALC SLTIC
AMHTC SL/ARG IP
NO FLTOR (FPMAS) NO
FLTOR NO COT

DOL: 75 12/BSR BSR VTX

CALC SLTIC AMHTC IP
TR LIVE OIL OR SHAPS
ABAND "Riolate" 38-58
12/TEL PRPT FLTOR POOR
12/TEL FASE STAG COT

DOL: 75 12/BSR BSR VTX

CALC SLTIC AMHTC SL/
ARG IP TR/OIL STAIN
158 TEL/BSR PRPT FLTOR
POOR 12/TEL FASE
STREAMING COT

DOL: 75 12/BSR BSR VTX

DMS VTX SN/PS SUCK IP
CALC SLTIC AMHTC SL/
ARG SN/PS FLTOR
FLOR 12/BSR FLTOR
FAIR 12/BSR FLTOR
STREAMING COT W/FAIR
12/TEL RES RING

15: OFF-WHT 12/BSR

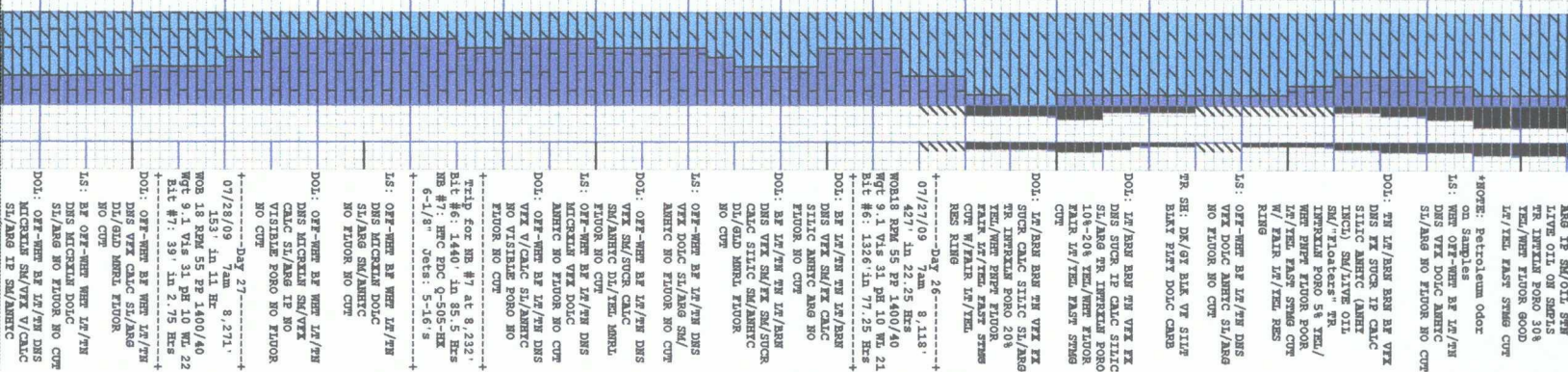
DMS VTX DOLC SL/ARG
AMHTC

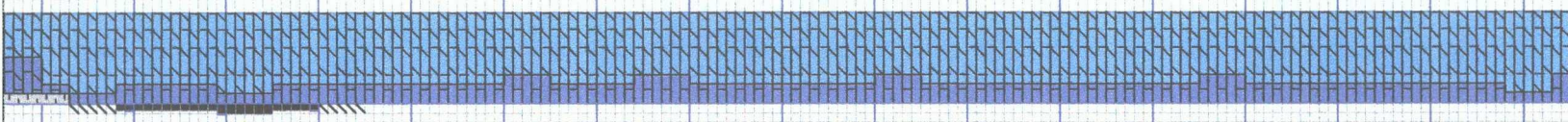
DOL: 75 12/BSR BSR VTX

SUCK CALC SLTIC SL/ARG
TR OIL STAIN TR LIVE
OIL OR SHAPS 408 TEL/
12/BSR FLTOR
FAIR 12/BSR FLTOR
12/TEL RES RING

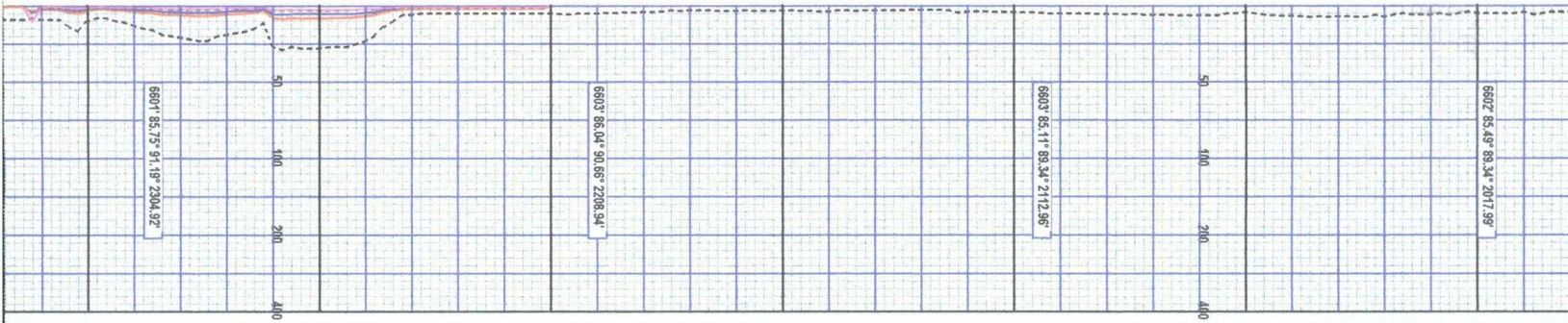
6589 85.35 88.97 165.32

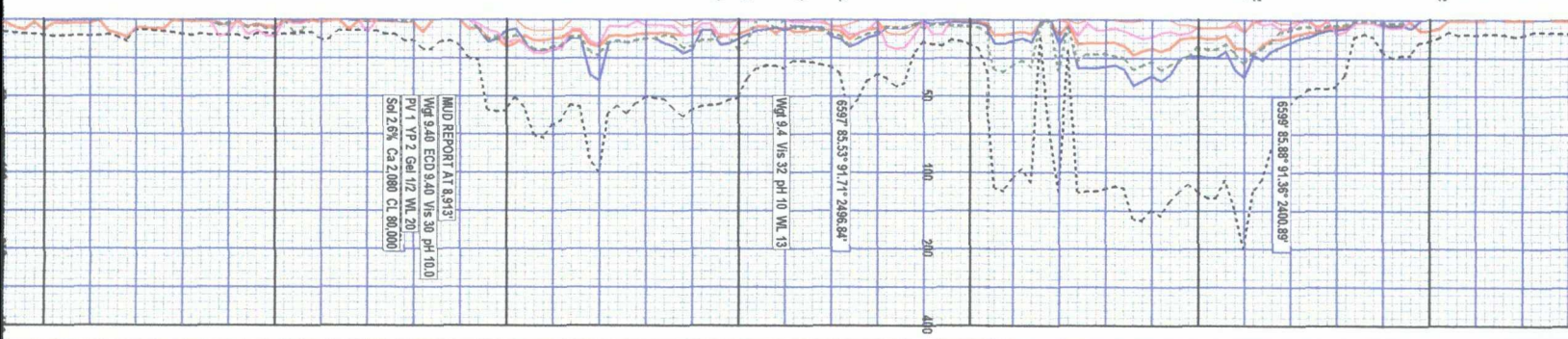
400





SH: DK/GY BLK VF SLTF
PLTY SPLTY DOLC
SM/CARB (COAL) BLDG
GAS BBLS





WOB 12,000 RPM 50

WOB 20,000 RPM 49

9100

WOB 15,000 RPM 50

75009

50

Slide

WOB 15,000 RPM 53

9200

2 4 6 8 10

WOB 18,000 RPM 53

WOB 15,000 RPM 40

50

WOB 16,000 RPM 50

9300

Slide

WOB 16,000 RPM 50

WOB 35,000 RPM 49

LS: OFF-WER BE 1/2/75 DMS VTX
DMS VTX DO/CALC
CEILAY NO FLOOR NO CTV

DOL: OFF-WER BE 1/2/75 75
DMS MICEXLIN VTX CALC
SM/VTX CALC ST/ABG
NO FLOOR NO CTV

LS: OFF-WER BE 1/2/75 DMS
MICEXLIN DO/CALC AMHTC
(AMHT INCL) ST/ABG IP
NO FLOOR NO CTV

DOL: OFF-WER BE 1/2/75 75
MOTR IP DMS MICEXLIN
SM/VTX CALC ST/ABG
AMHTC NO VISIBLE PORO
NO FLOOR NO CTV

LS: OFF-WER BE 1/2/75 MOTR
IP DMS MICEXLIN VTX
DO/CALC ST/ABG AMHTC
NO FLOOR NO CTV

DOL: OFF-WER BE 1/2/75 75
MOTR IP DMS MICEXLIN
SM/VTX CALC ST/ABG
SM/AMHTC NO VISIBLE
PORO NO FLOOR NO CTV

LS: OFF-WER BE 1/2/75 75
MOTR IP DMS MICEXLIN
VTX DO/CALC ST/ABG SM/
CEILAY NO FLOOR NO CTV

DOL: OFF-WER BE 1/2/75 75
MOTR IP DMS VTX SM/
MICEXLIN CALC ABG
NO VISIBLE PORO NO
FLOOR NO CTV

LS: OFF-WER BE 1/2/75 MOTR
IP DMS VTX MICEXLIN
DO/CALC SM/CEILAY ST/ABG
NO FLOOR NO CTV

DOL: OFF-WER BE 1/2/75 75
DMS MICEXLIN VTX CALC
ST/ABG ST/75 1/2/75
FLOOR V/ST 75 1/2/75
SLOW STREAMING CTV

DOL: 75 1/2/75 BSH BSH VTX
DMS SM/75 STOK CALC
ST/75 BSH BSH BSH BSH
ST/75 BSH BSH BSH BSH
PR TEL SLOW STMG CTV

DOL: 1/2/75 BSH 75 VTX 75
DMS STOK ST/75 CALC
75 1/2/75 BSH BSH 5%
TEL/75 BSH BSH BSH
POOR 1/2/75 TEL/75
STREAMING CTV

*NOTES: FINE PETROLEUM
OILS ON SAMPLES

DOL: 1/2/75 BSH 75 VTX 75
DMS ST/75 ST/75 CALC
ST/75 ST/75 ST/75
PR/OIL STAIN 3% 1/2/
TEL FLOOR ST/75 TEL
FAST STMG CTV

DOL: 1/2/75 BSH 75 VTX 75
DMS ST/75 ST/75 CALC
ST/75 ST/75 ST/75
PR/OIL STAIN 3% 1/2/
TEL FLOOR ST/75 TEL
FAST STMG CTV

Day 29-----
07/30/09 7am 9.254'
415' in 22.5 Hrs
WOB 15 RPM 50 PR 1500/40
Wgt 9.4 VLS 32 PH 10 WL 35
Bit #: 1.022' in 47 Hrs

LS: OFF-WER BE 1/2/75 DMS
VTX DO/CALC ST/ABG SM/
CEILAY NO FLOOR NO CTV

DOL: BE 1/2/75 75 DMS VTX
CALC ST/75 ST/ABG
NO FLOOR NO CTV

LS: OFF-WER BE 1/2/75 75
DMS MICEXLIN SM/VTX
DO/CALC ABG SM/AMHTC
NO VISIBLE PORO
NO FLOOR NO CTV

6594 85.16° 89.25° 2688.78°

6595 85.03° 88.16° 2720.77°

6595 85.71° 90.65° 2815.74°

6593 85.97° 91.45° 2911.71°

Wgt 9.4 VLS 32 PH 10 WL 35

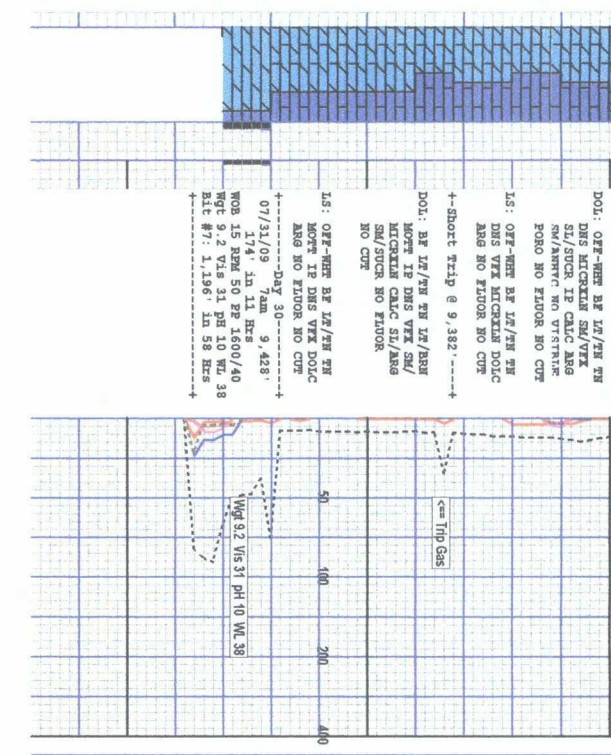
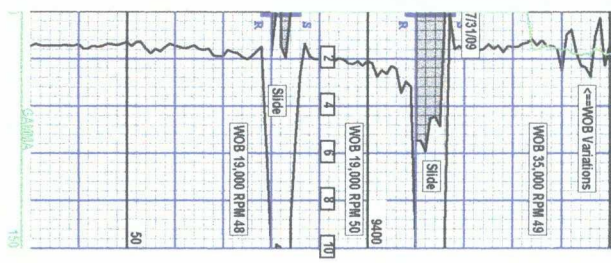
MUD REPORT AT 9.321

Wgt 9.6 ECD 9.60 VLS 29 PH 9.0

FW 1 PP 1 GEL 0.1 WL 70.0

Sol 4.2% Ca 2.200 CL 77.000

6594 86.63° 91.36° 3006.68°



DOT: OFF-WEB BE 12/28 TH
DMS MICKLIN SM/VEK
SI/SUCK IP CALC ARG
SM/SM/VEK NO VSTRATE
PORD NO FLTOR NO CTR
IS: OFF-WEB BE 12/28 TH
DMS VIK MICKLIN DOLC
ARG NO FLTOR NO CTR
+Short Trip @ 9,382'-----+

DOT: BE 12/28 TH 12/28 TH
MOTY IP DMS VIK SM/
MICKLIN CALC SI/ARG
SM/SUCK NO FLTOR
NO CTR
IS: OFF-WEB BE 12/28 TH
DMS VIK MICKLIN DOLC
ARG NO FLTOR NO CTR
+Short Trip @ 9,382'-----+

07/31/09 Day 30-----+
174' in 11 Hrs
WOB 15 RPM 50 PP 1600/40
Wgt 9.2 VAS 31 PH 10 WL 38
Bit #7: 1.196' in 58 Hrs
+-----+

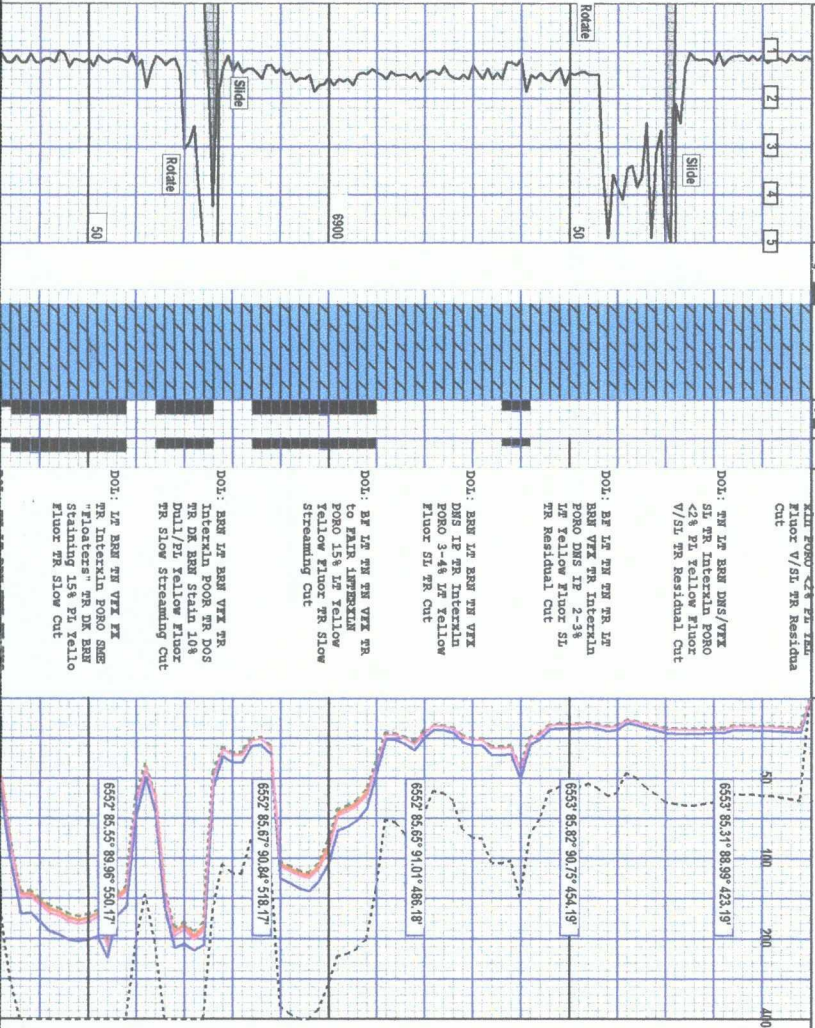
Faulks & Associates, Inc.
Consulting Geologist
Midland, Texas

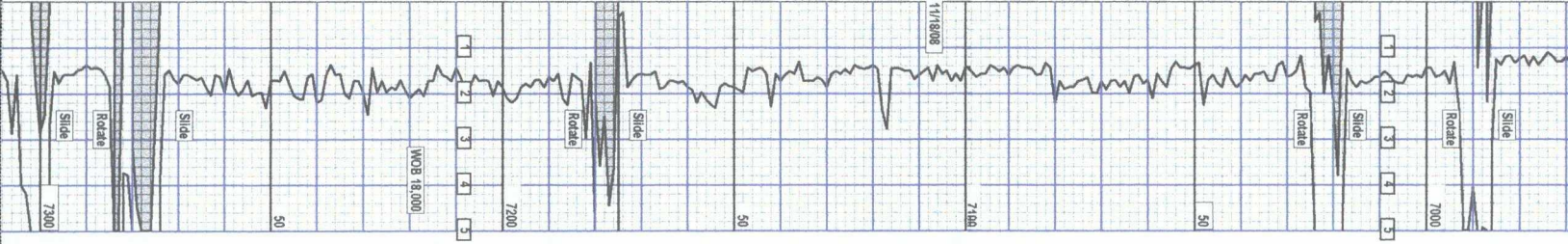
COMPANY: COG Operating WELL: COG Comet 22b Federal No 4H PB
FIELD: COUNTY: Eddy STATE: New Mexico
LOCATION: _____
Interval Logged: 450 To: _____ G.L.: _____ K.B.: _____
Date Logged: _____ To: _____ Spud Date: _____
Rig: _____ Unit No.: _____
Loggers: _____
Rig: _____
Jim Faulks _____
COG Comet 22 Federal No 4H.mtw
Filename: _____
Geologist: _____

Mudlog for lateral hole

mudlog for lateral hole

Drilling Rate MIN/FT	Lithology	% Cut D / I Fu / T T / I	Descriptions/Remarks	Total Gas/Chromatograph
Vide Pore Tr / A MIN/FT	Pdg	p/g		





FR Interkin PORO SL
FR staining 5% FR
Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut SL CALC

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

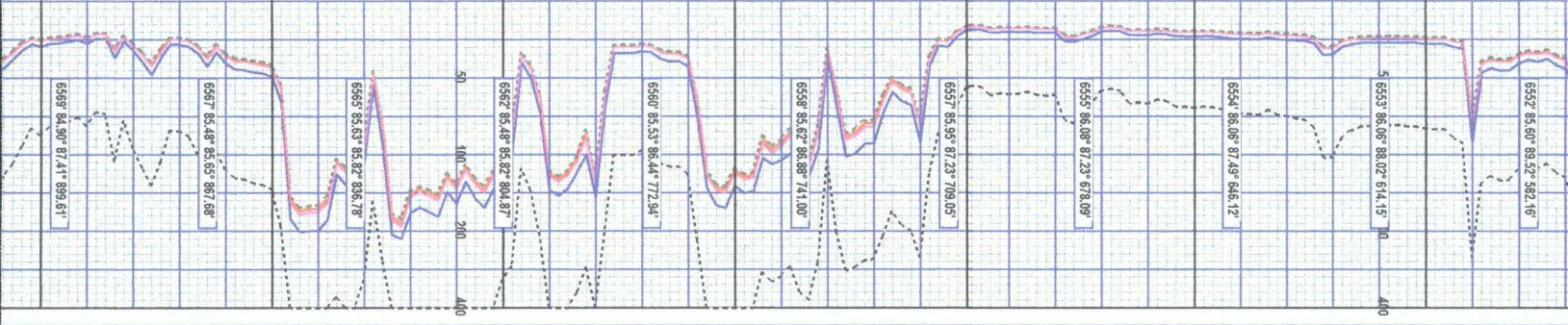
DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut

DOT. 1% 1% 1% 1% 1%
FR Interkin PORO 4-5%
FR Yellow Fluor SL FR
Residual Cut



5552 55.60° 89.52° 582.16°

5553 56.06° 88.02° 614.15°

5554 56.06° 87.49° 646.12°

5555 56.06° 87.23° 678.09°

5557 55.95° 87.23° 709.05°

5558 55.62° 86.88° 741.00°

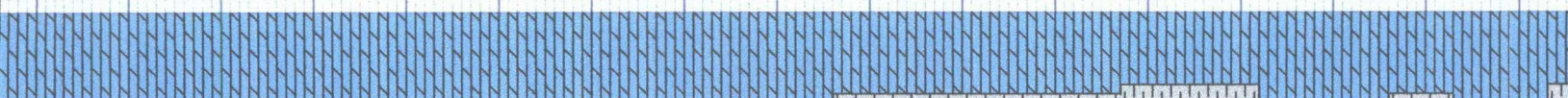
5560 55.53° 86.44° 772.94°

5562 55.48° 85.82° 804.87°

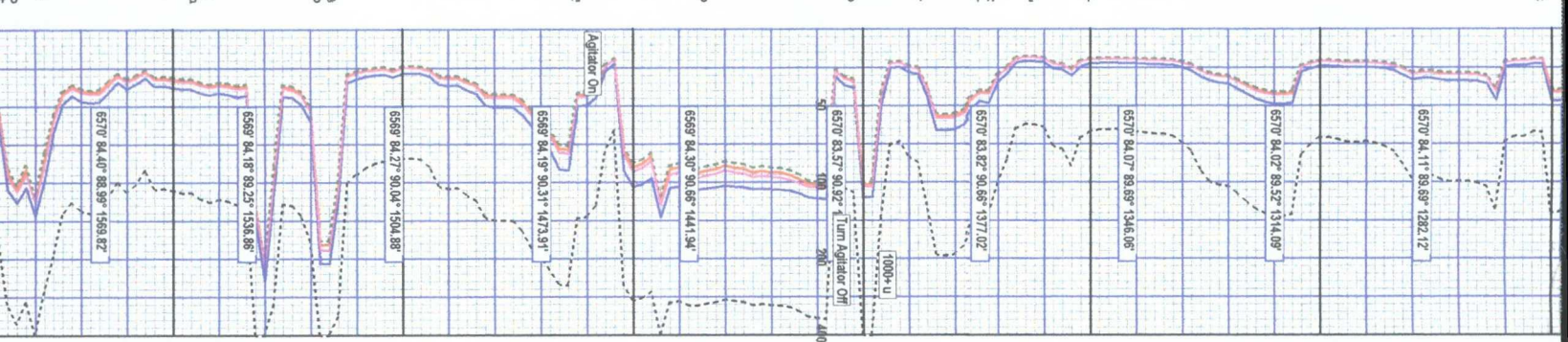
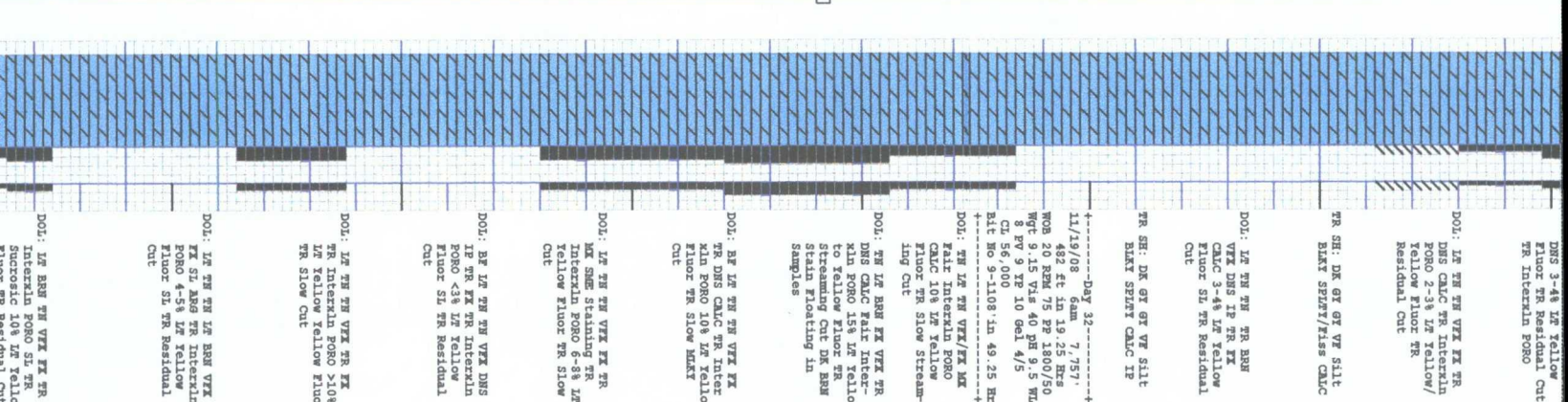
5565 55.53° 85.82° 836.78°

5567 55.48° 85.65° 867.68°

5569 54.90° 87.41° 899.61°



DOL: LF TH TH VIX IX TR





DOT: 1P BRN TR VEX FX TR
DMS CALC TR Interkin
PORO 6-8% 1P Yellow
PL Yellow Fluor TR
Residual Cut

DOT: TR 1P TR VEX FX TR
to Fair Interkin PORO
CALC 10% Yellow/PL
Yellow Fluor TR
Slow Cut

DOT: 1P TR TR VEX FX SL
CALC TR Interkin PORO
4-5% PL Yellow Fluor
SL TR Residual Cut

DOT: 1P TR TR VEX FX TR
Interkin PORO CALC
5% Yellow Fluor
SL TR Residual Cut

DOT: 1P TR TR 1P BRN DMS
VEX FX SL TR Inter-
kin PORO CALC 1P 3-4%
PL Yellow Fluor V/SL
TR Residual Cut

DOT: 1P TR TR VEX FX DMS
1P CALC TR Interkin
PORO 5% 1P/PL Yellow
Fluor SL TR Residual
Cut

DOT: 1P TR BR VEX FX DMS
SL CALC TR Interkin
PORO <3% PL Yellow
Fluor V/SL TR Cut

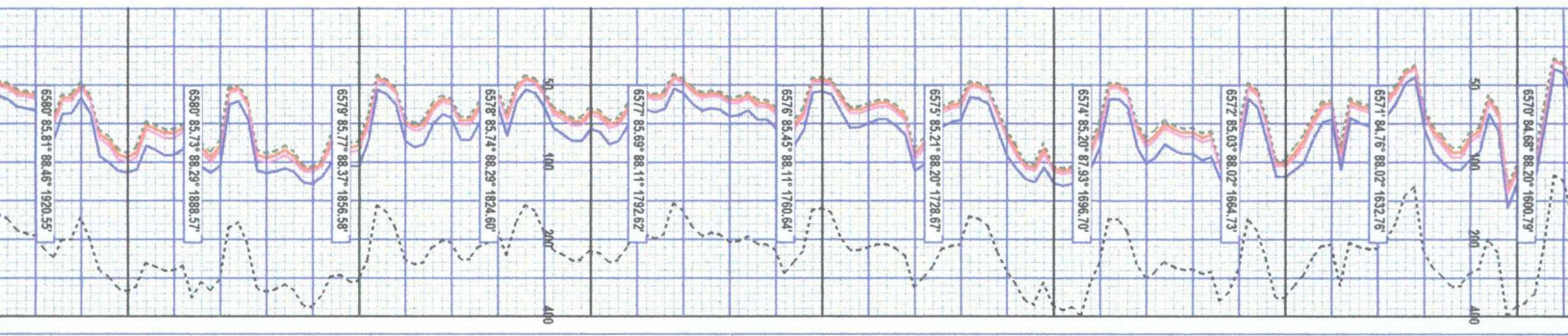
DOT: BR 1P TR TR 1P BRN
VEX FX DMS TR Inter
kin PORO SL ANG 5%
Yellow Fluor TR
Residual Cut

DOT: TR 1P BRN BRN VEX
DMS 1P SL TR Inter
kin PORO <3% Yellow
Fluor SL TR Residual
Cut

DOT: TR 1P BRN DMS V/
Clean <3% PL Yellow
Fluor V/SL TR Residual
Cut

DOT: TR 1P TR VEX DMS SL
CALC SL TR Interkin
PORO 5% 1P Yellow/
Yellow Fluor SL TR
Residual Cut

DOT: TR 1P TR DMS VEX SL
TR Interkin PORO 3-4%
Yellow Fluor SL TR





Residual Cut
DOT: 1% 1% 1% 1% 1% 1%
CALC 5% PL Yellow
Fluor 1% Residual Cut

DOT: 1% 1% 1% 1% 1% 1%
DMS 1% 1% 1% 1% 1% 1%
4-5% PL Yellow Fluor
1% Residual Cut

11/30/08 8:42:21
4% 4% 4% 4% 4% 4%
WOB 20 RRM 65 PR 2100/50
Wgt 9.1 VLS 40 PR 10 WL
10 PR 10 PR 7 GEL 3/5
CL 58,000
Blt No 9-1752 in 67.0Hrs

DOT: 1% 1% 1% 1% 1% 1%
DMS/VFX 1% 1% 1% 1% 1% 1%
Interlin PORO 2-3%
1% Yellow Fluor 1% 1%
Residual Cut

DOT: 1% 1% 1% 1% 1% 1%
SL ARG 1% 1% 1% 1% 1% 1%
PORO 5% PL Yellow
Fluor 1% 1% 1% 1% 1% 1%
Cut

DOT: 1% 1% 1% 1% 1% 1%
SPF 1% 1% 1% 1% 1% 1%
Interlin PORO 2-3%
1% Yellow Fluor 1% 1%
1% Cut

DOT: 1% 1% 1% 1% 1% 1%
V/CALC 1% 1% 1% 1% 1% 1%
No Fluor No Cut

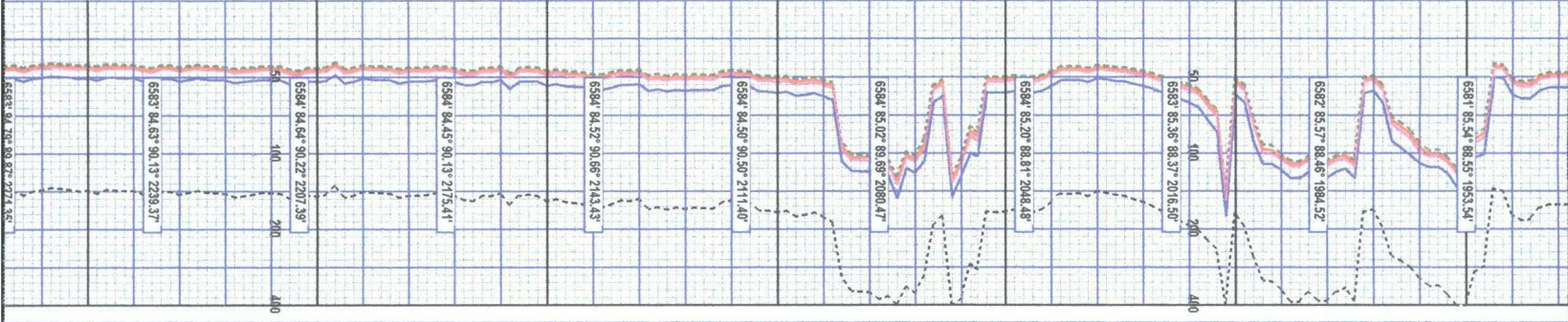
DOT: 1% 1% 1% 1% 1% 1%
TR DMS 1% 1% 1% 1% 1% 1%
TR DMS V/CALC 1% 1% 1% 1% 1% 1%
No Fluor No Cut

DOT: 1% 1% 1% 1% 1% 1%
1% 1% 1% 1% 1% 1%
PORO No Fluor No Cut

DOT: 1% 1% 1% 1% 1% 1%
No Visual PORO No
Fluor No Cut

DOT: 1% 1% 1% 1% 1% 1%
CALC 1% 1% 1% 1% 1% 1%
No Cut

DOT: 1% 1% 1% 1% 1% 1%





DOT: BFM DK BFM DNS VTX
ABG IF BFM BFM DNS
V/CALC No Visual
FORO No Fluor
No Cut

DOT: BFM DK BFM DNS VTX
Becoming V/ABG No
Visual: FORO No Fluor
No Cut

DOT: BFM DK BFM GT VTX
DNS V/ABG No Visual
FORO No Fluor
No Cut

DOT: DK BFM BFM GT DNS
VTX SPV IF No Visual
FORO V/ABG No Fluor
No Cut

DOT: BFM DK BFM GT DNS
VTX ABG No Visual
FORO No Fluor
No Cut

DOT: GT DK BFM BFM VTX
DNS ABG No Fluor
No Cut

DOT: BF IF GT IF TN DNS
VTX No Visual
V/CALC No Fluor
No Cut

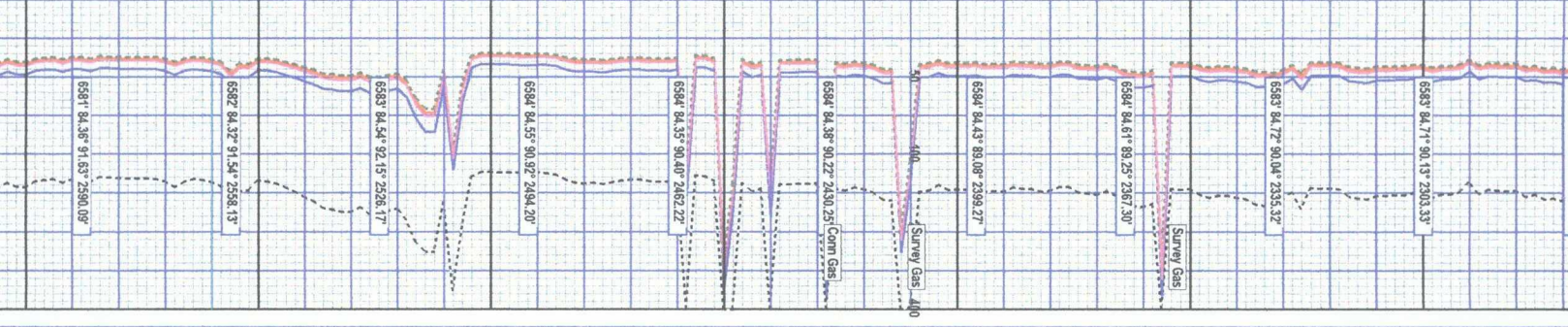
DOT: BF IF TN DNS VTX: GT
IF TN DNS VTX: GT
Visual FORO No Fluor
No Cut

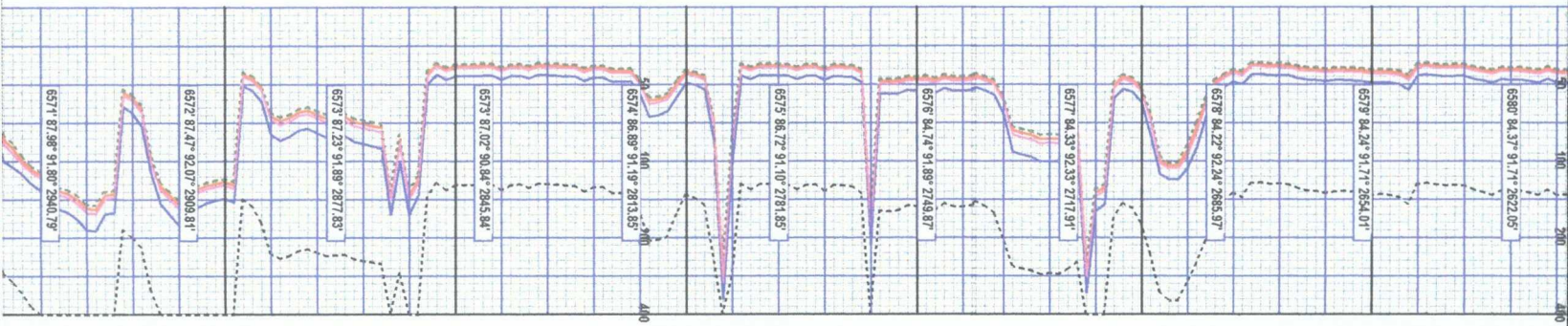
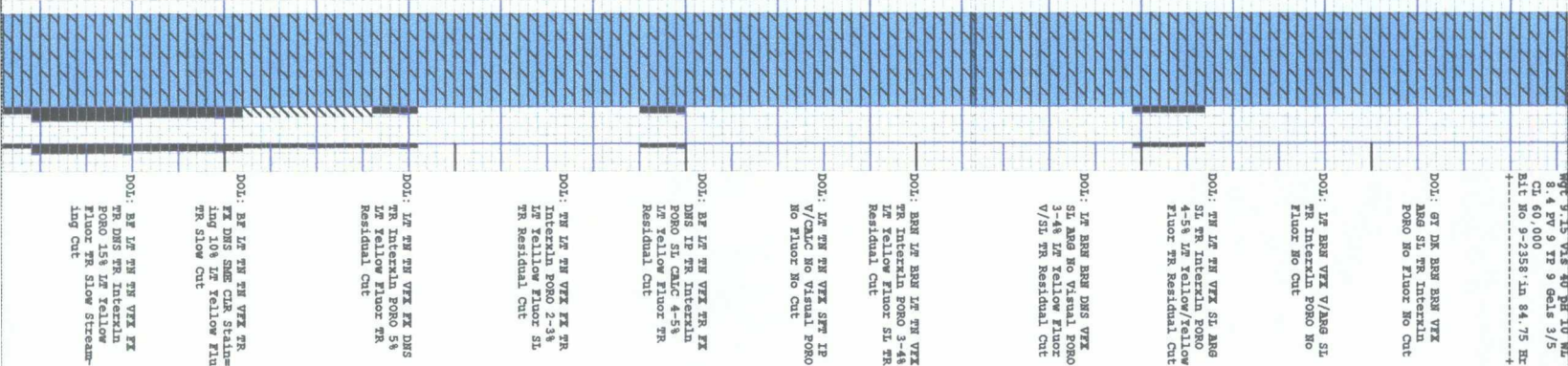
DOT: BF IF TN TN VTX TR
BFM VTX FX No Fluor
No Cut

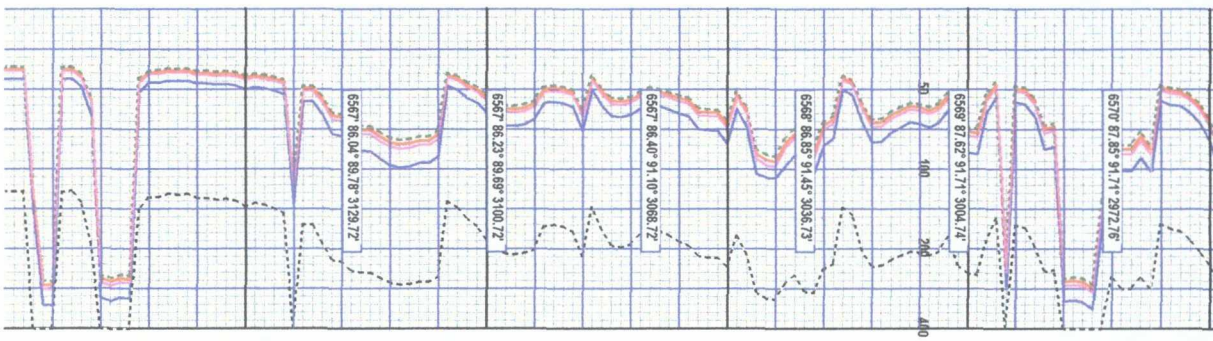
DOT: BF IF TN TN VTX TR
DNS No Visual
FORO No Fluor
No Cut

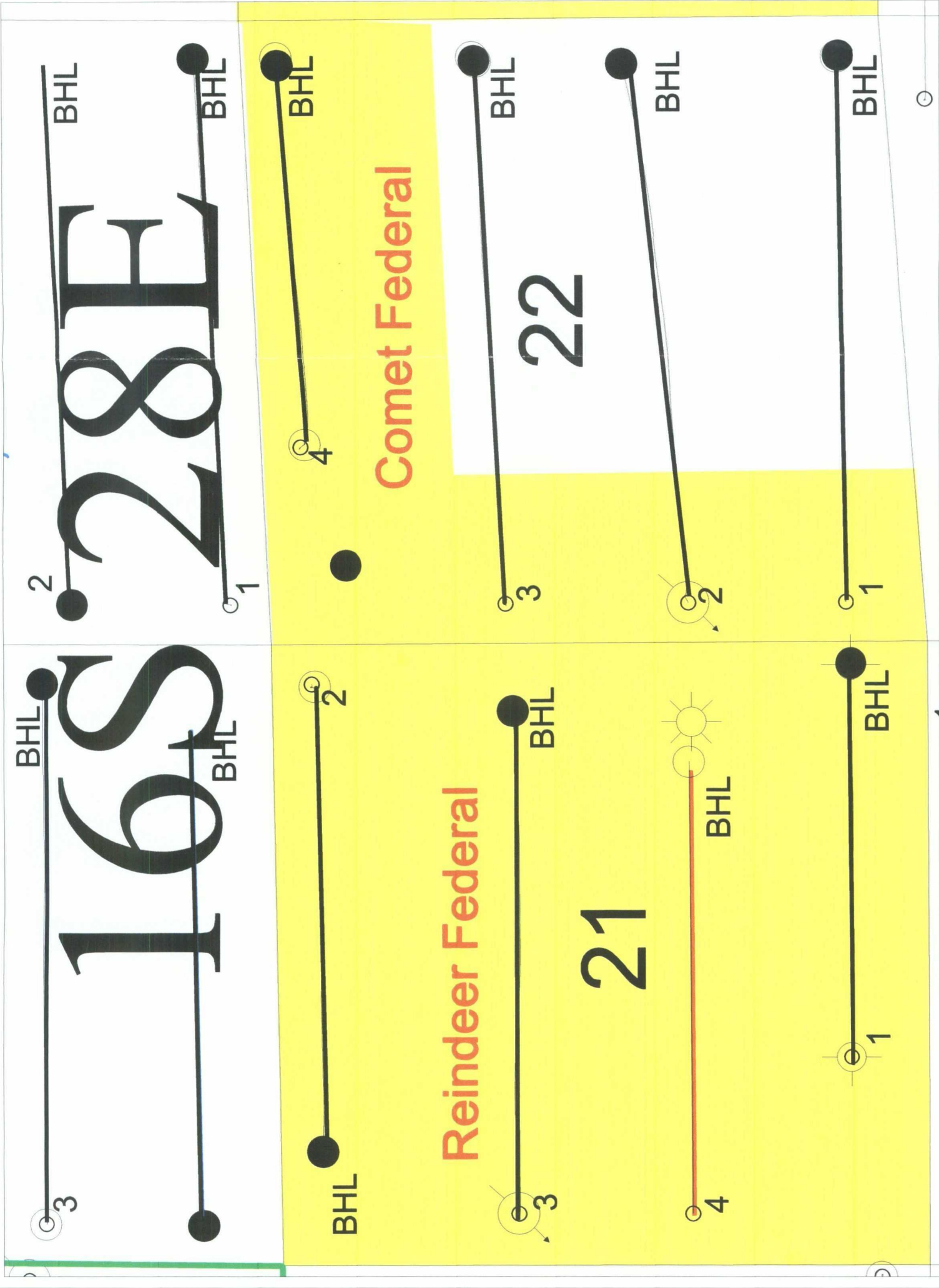
DOT: BF IF TN TN DNS VTX
SI CALC No Visual
FOR No Fluor
No Cut

-----Day 34-----
11/21/08 6am 9,028
606 44 2m 17 20450









The COG, Comet 22 Federal #3H is producing from the same correlative pay interval in the Lower Abo/Wolfcamp as the COG, Comet 22 Federal #4H (north offset) and the Nearburg, Comet 22 Federal #2 (south offset).

Only the Comet 22 Federal #4H was drilled with a pilot hole and is the only well to have open-hole logs thru the pay interval. However, by plotting the TVD depths of the top and bottom of pay for the lateral portion of the wells we can determine that all 3 wells are producing from the same correlative pay zone.

The thickness of the Lower Abo / Wolfcamp pay in the Comet area is 125 ft. The TVD of the pay zone for each of the 3 wells is listed below:

- COG, Comet 22 Fed. #4H - TVD depth 6552-6584' (-2942--2974' subsea)
- COG, Comet 22 Fed. #3H - TVD depth 6579-6620' (-2943--2984' subsea)
- COG, Comet 22 Fed. #2H - TVD depth 6640-6656' (-3020--3036' subsea)

There is very little structural dip in the area of all 3 Comet wells.

The TVD depths of the Lower Abo / Wolfcamp pay interval within the horizontal portions of the Comet 22 Federal #2, 3, & 4 are all within 100 ft. of each other and are therefore within the same reservoir.

CROW FLATS PROSPECT EDDY COUNTY, NEW MEXICO			
LOWER ABO / WOLF CAMP HORIZONTAL PERMITTED LOCATIONS			
Author: TFC/ldm	TD=5800'	Date: 24 March, 2010	Lm_CrowFlatsHorizontal- LocsCometWells.gmp
SENMI	Scale: 1"=1000'		

- Completed Lower Abo / Wolf.
Horiz. Well
- Permitted Lower Abo / Wolf.
Horiz. Well