

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/19/2024 12:02:19
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm159.chr ()
 Sample: 2000ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/19/2024 12:02:19
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID159.chr ()
 Sample: 2000ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/19/2024 12:02:19
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD159.chr ()
 Sample: 2000ppmNH3 in room air

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

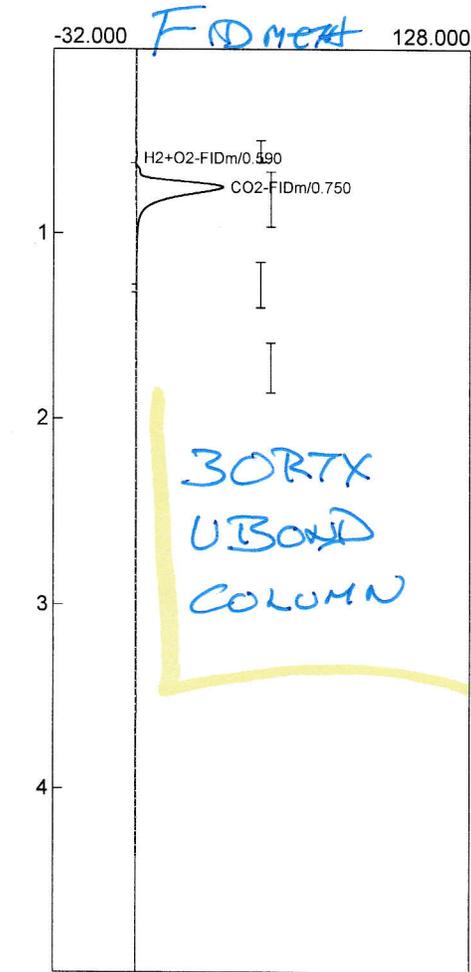
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

Init temp Hold Ramp Final temp

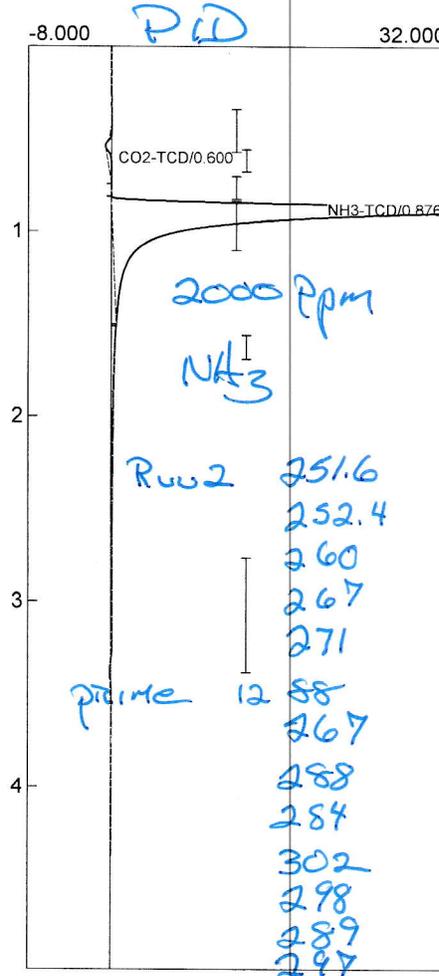
Events:

Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



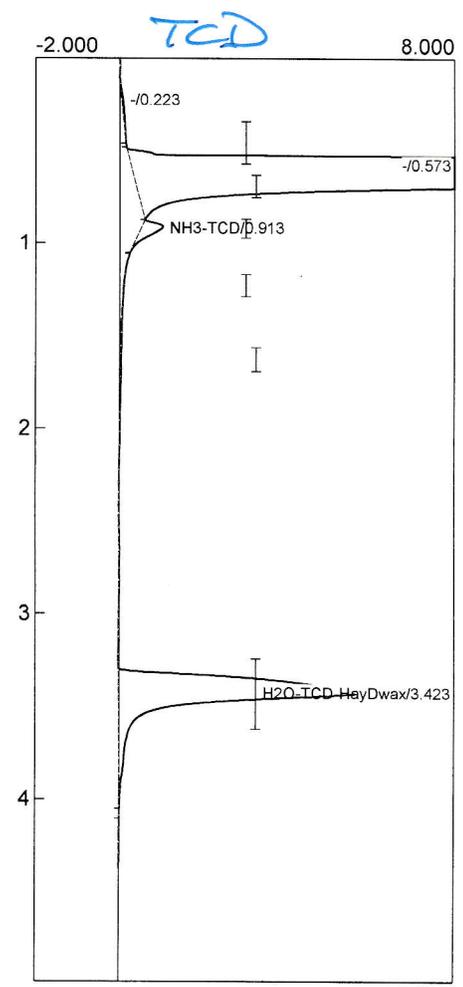
| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.590 | 1.1693 | 0.8185 | % |
| CO2-FIDm | 0.750 | 198.5182 | 518.6099 | ppm |
| | | 199.6875 | 519.4285 | |

THIS SHOWS UBOND COLUMN AREAS REMAIN STABLE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|-----------|-------|
| CO2-TCD | 0.600 | 2.4403 | 0.0000 | ppm |
| NH3-TCD | 0.876 | 247.1819 | 2000.0000 | ppm |
| | | 249.6222 | 2000.0000 | |

Next Day
 387
 294
 288
 252
 268
 265
 276
 278
 280



| Component | Retention | Area | Internal | Units |
|-----------------|-----------|---------|------------|-------|
| NH3-TCD | 0.913 | 2.3370 | 2000.0000 | ppm |
| H2O-TCD-HayDwax | 3.423 | 48.0104 | 14000.0000 | ppm |
| | | 50.3474 | 16000.0000 | |

Day 3
 300
 313
 312
 302

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/16/2024 11:31:02
 Method: No BF Dopantgas=1psi high
 Description: FIDmeth medgain 300C
 Column: 3' Haysep D+15MXTwax 2mic
 Carrier: C3=H2@10 C4=Dopant@11psi
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm135.chr ()
 Sample: 4000ppm C2mix+breath

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/16/2024 11:31:02
 Method: No BF Dopantgas=1psi high
 Description: PID low gain 150C
 Column: 3' Haysep D+15MXTwax 2mic
 Carrier: C3=H2@10 C4=Dopant@11psi
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID135.chr ()
 Sample: 1000ppm C2 mix in breath

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/16/2024 11:31:02
 Method: No BF Dopantgas=1psi high
 Description: TCD lowcurrent 100C
 Column: 3' Haysep D+15MXTwax 2mic
 Carrier: C3=H2@10 C4=Dopant@11psi
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD135.chr ()
 Sample: 4000ppm C2 mix in breath

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

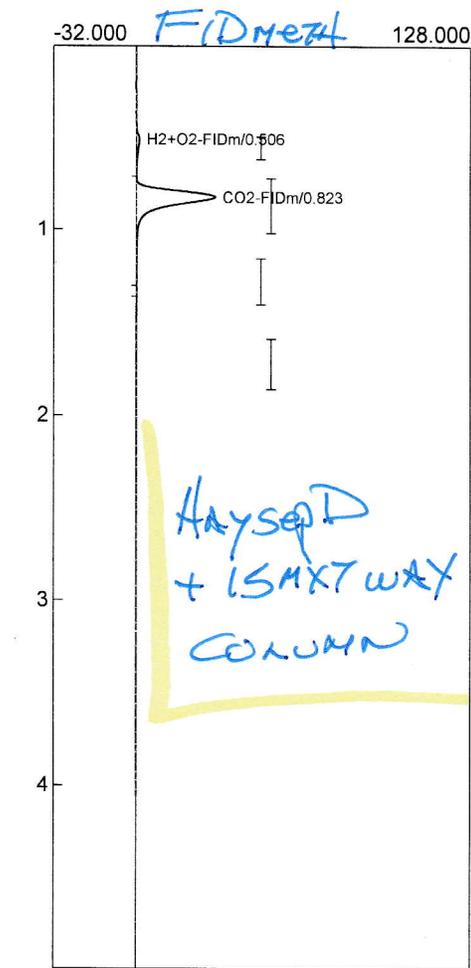
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 0.950 INTEG BASED IMMEDIATE

Temperature program:

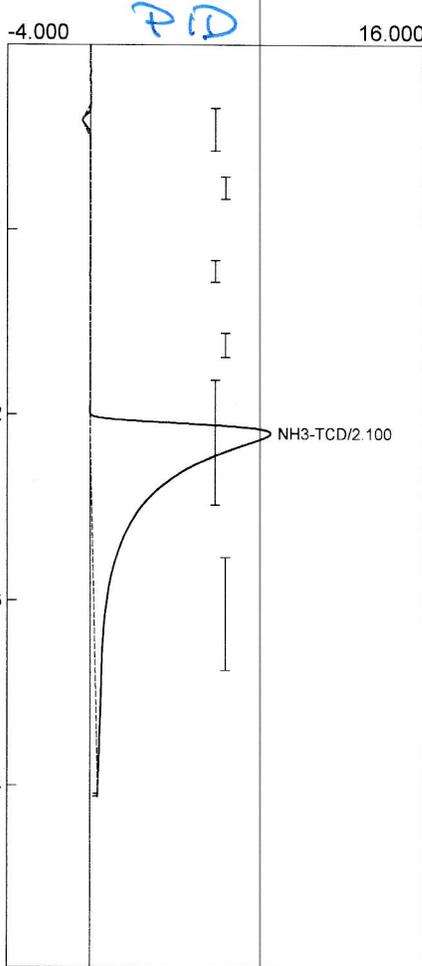
Init temp Hold Ramp Final temp

Events:

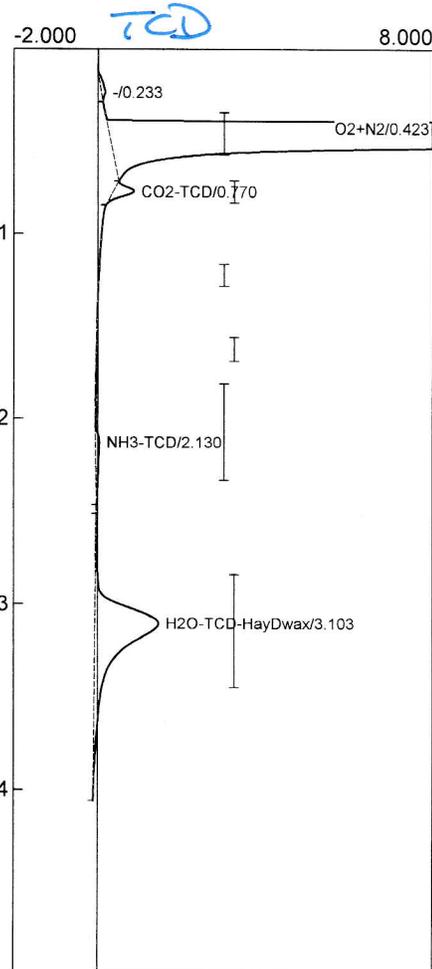
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.506 | 7.8264 | 5.4786 | % |
| CO2-FIDm | 0.823 | 160.7714 | 420.0000 | ppm |
| | | 168.5978 | 425.4786 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|-----------|-------|
| NH3-TCDD | 2.100 | 199.9305 | 2000.0000 | ppm |
| | | 199.9305 | 2000.0000 | |



| Component | Retention | Area | Internal | Units |
|------------------|-----------|-----------|----------|-------|
| O2+N2 | 0.423 | 3698.5477 | 0.0000 | ppm |
| CO2-TCDD | 0.770 | 1.6761 | 420.0000 | ppm |
| NH3-TCDD | 2.130 | 1.3248 | 0.0000 | ppm |
| H2O-TCDD-HayDwax | 3.103 | 25.5859 | 2.0000 | % |
| | | 3727.1345 | 422.0000 | |

Run 2

205.66

THIS SHOW AREA
 DECREASING AS
 PRIMING EFFECT
 GOES AWAY

195.3 167
 188.12 189
 185.99 151
 192.09 147
 175.33 145
 175.03 168
 163
 144

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:33:36
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm194.chr ()
 Sample: 1000ppm C2mix+NH3

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:33:36
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID194.chr ()
 Sample: 1000ppm C2mix+NH3

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:33:36
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD194.chr ()
 Sample: 1000ppm C2mix+NH3

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

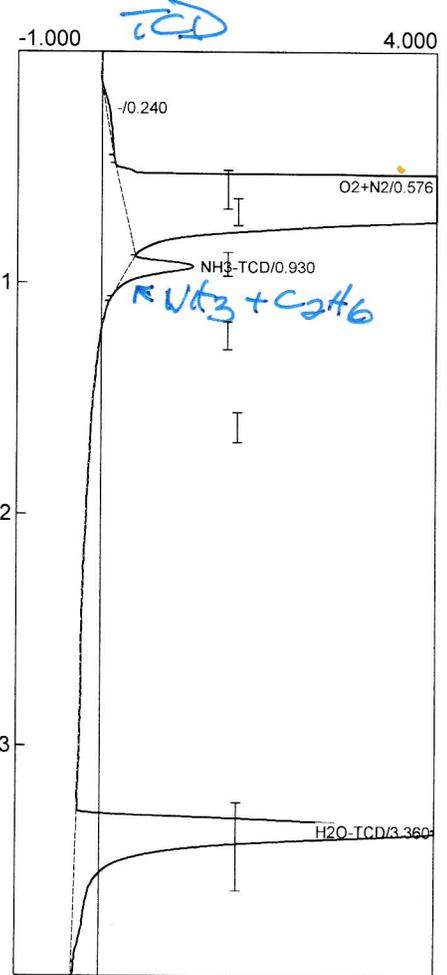
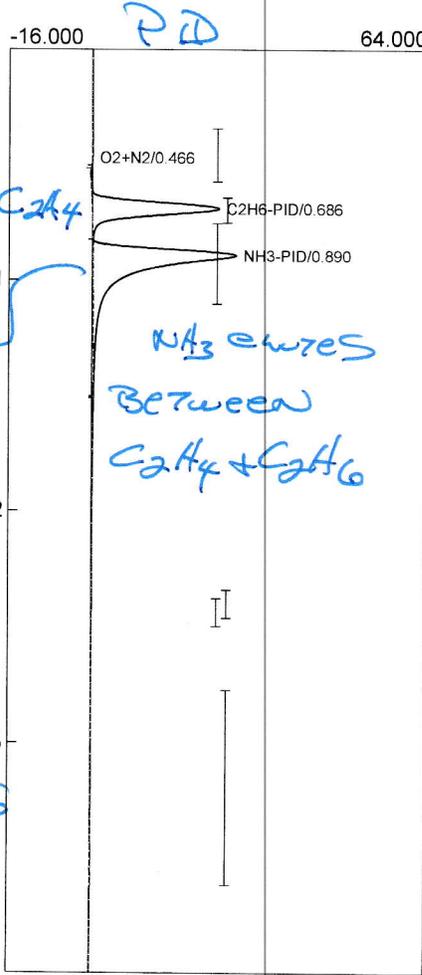
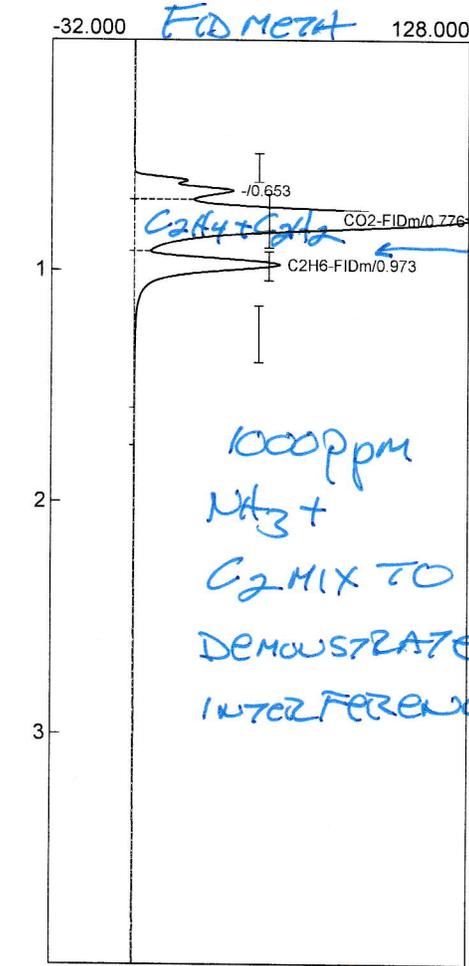
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

Init temp Hold Ramp Final temp

Events:

Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|-----------|-------|
| CO2-FIDm | 0.776 | 821.2718 | 2515.6082 | ppm |
| C2H6-FIDm | 0.973 | 253.9090 | 0.0000 | ppm |
| | | 1075.1808 | 2515.6082 | |

| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|-----------|-------|
| O2+N2 | 0.466 | 1.7040 | 0.0000 | ppm |
| C2H6-PID | 0.686 | 92.1572 | 0.0000 | ppm |
| NH3-PID | 0.890 | 163.7914 | 1169.7999 | ppm |
| | | 257.6526 | 1169.7999 | |

| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|------------|-------|
| O2+N2 | 0.576 | 5158.4790 | 0.0000 | ppm |
| NH3-TCD | 0.930 | 2.8759 | 2343.6558 | ppm |
| H2O-TCD | 3.360 | 31.9500 | 11130.6867 | ppm |
| | | 5193.3049 | 13474.3424 | |

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:45:35
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm195.chr ()
 Sample: 1000ppm C2mix only

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:45:35
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID195.chr ()
 Sample: 1000ppm C2mix+NH3

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/21/2024 11:45:35
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD195.chr ()
 Sample: 1000ppm C2mix+NH3

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

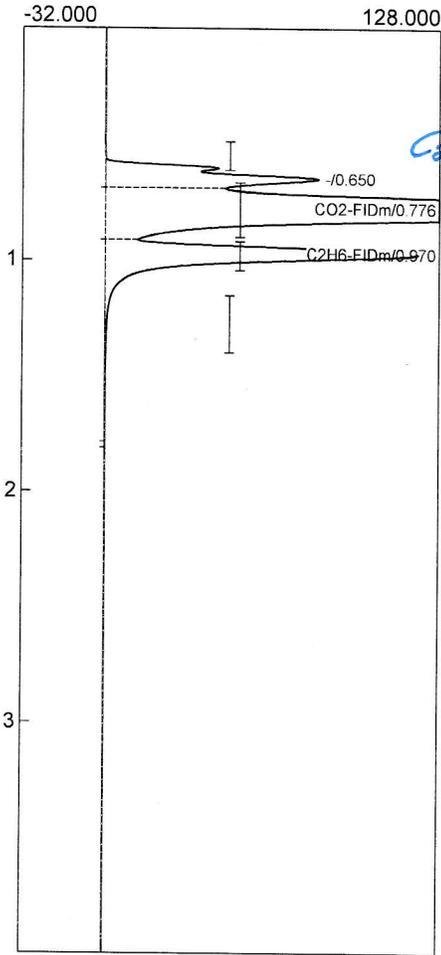
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

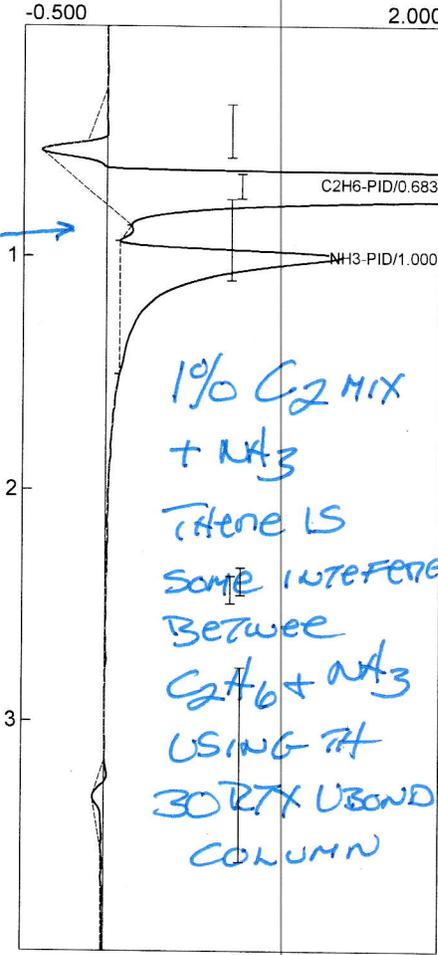
Init temp Hold Ramp Final temp

Events:

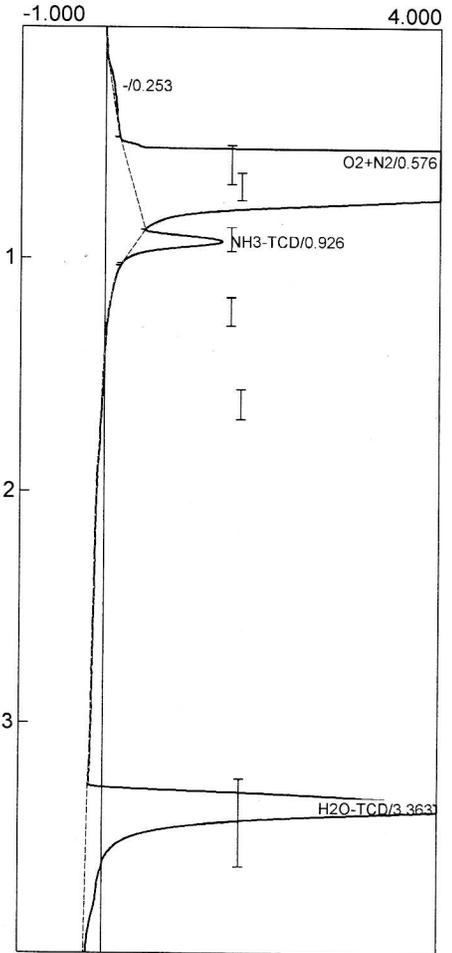
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|-----------|-------|
| CO2-FIDm | 0.776 | 1561.0290 | 4781.5319 | ppm |
| C2H6-FIDm | 0.970 | 542.2907 | 0.0000 | ppm |
| | | 2103.3197 | 4781.5319 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|----------|-------|
| C2H6-PID | 0.683 | 169.9248 | 0.0000 | ppm |
| NH3-PID | 1.000 | 10.5870 | 75.6125 | ppm |
| | | 180.5118 | 75.6125 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|------------|-------|
| O2+N2 | 0.576 | 5156.6936 | 0.0000 | ppm |
| NH3-TCD | 0.926 | 3.4339 | 2798.3864 | ppm |
| H2O-TCD | 3.363 | 35.1884 | 12258.8749 | ppm |
| | | 5195.3159 | 15057.2614 | |

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:07:41
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm182.chr ()
 Sample: 2000ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:07:41
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID182.chr ()
 Sample: 2000ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:07:41
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD182.chr ()
 Sample: 2000ppmNH3 in room air

Temperature program:

Init temp Hold Ramp Final temp
 50.00 5.000 0.000 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

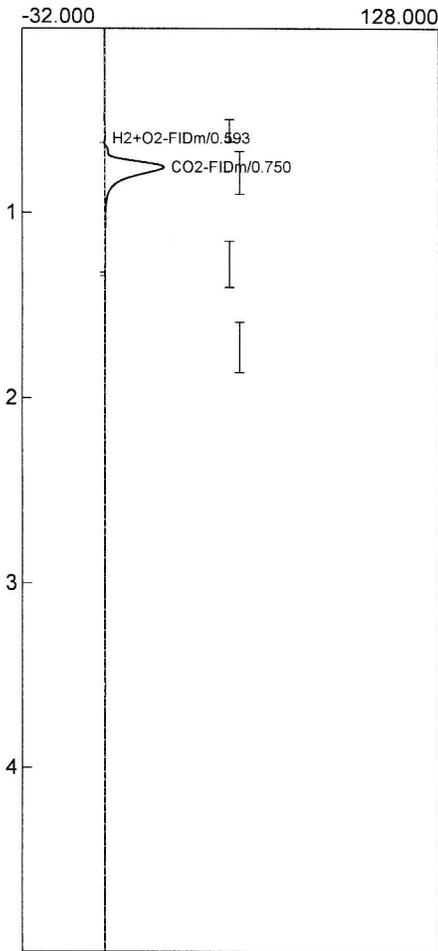
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

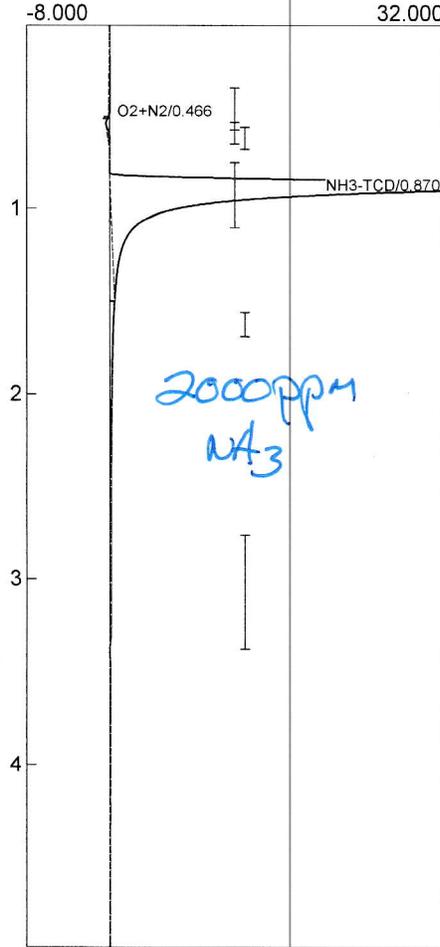
Init temp Hold Ramp Final temp

Events:

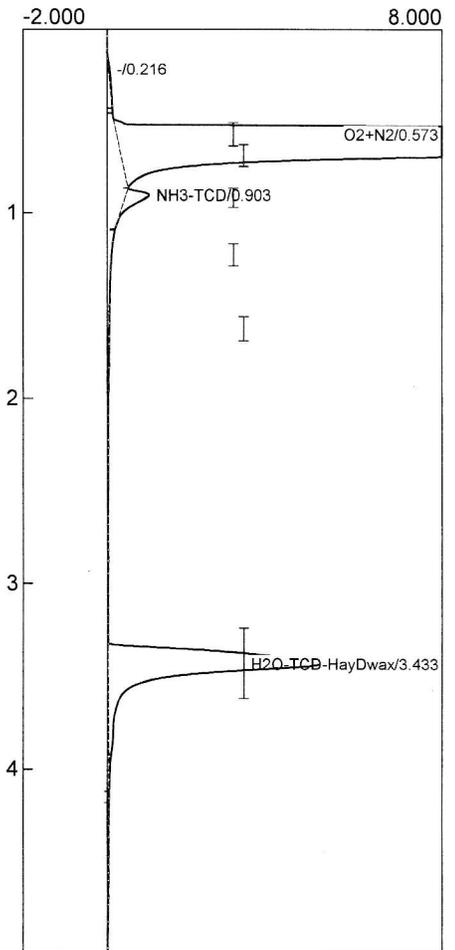
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.593 | 1.0063 | 0.7044 | % |
| CO2-FIDm | 0.750 | 137.1176 | 420.0000 | ppm |
| | | 138.1239 | 420.7044 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|-----------|-------|
| O2+N2 | 0.466 | 1.9510 | 0.0000 | ppm |
| NH3-TCD | 0.870 | 280.0332 | 2000.0000 | ppm |
| | | 281.9842 | 2000.0000 | |



| Component | Retention | Area | Internal | Units |
|-----------------|-----------|-----------|------------|-------|
| O2+N2 | 0.573 | 5204.6292 | 0.0000 | ppm |
| NH3-TCD | 0.903 | 2.4542 | 2000.0000 | ppm |
| H2O-TCD-HayDwax | 3.433 | 40.1862 | 14000.0000 | ppm |
| | | 5247.2696 | 16000.0000 | |

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:43:40
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm183.chr ()
 Sample: 200ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:43:40
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID183.chr ()
 Sample: 200ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 14:43:40
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD183.chr ()
 Sample: 200ppmNH3 in room air

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

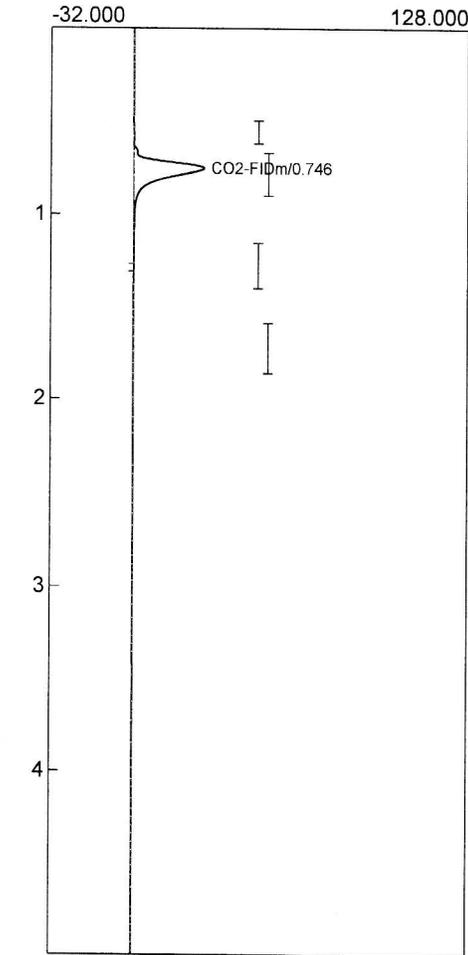
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

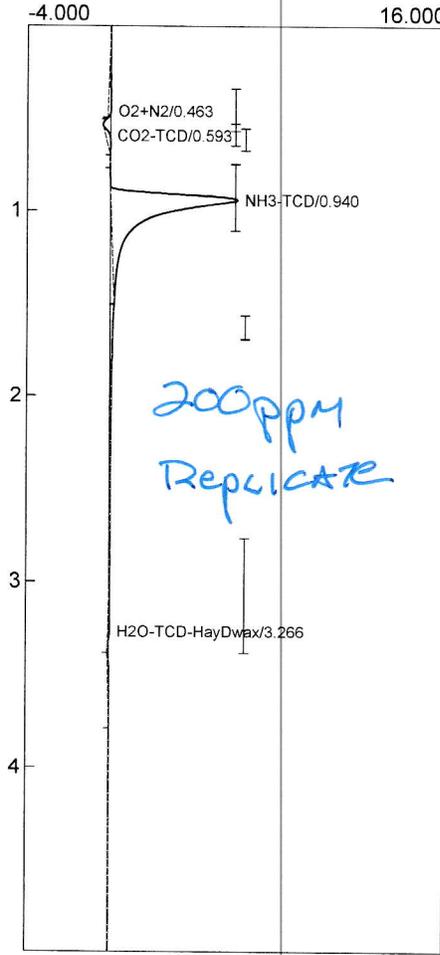
Init temp Hold Ramp Final temp

Events:

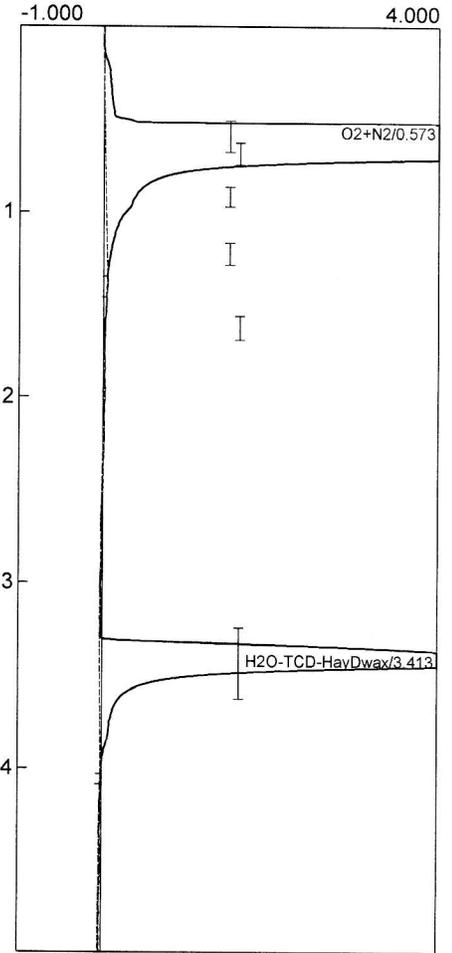
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|----------|-------|
| CO2-FIDm | 0.746 | 160.5926 | 491.9054 | ppm |
| | | 160.5926 | 491.9054 | |



| Component | Retention | Area | Internal | Units |
|-----------------|-----------|---------|----------|-------|
| O2+N2 | 0.463 | 2.1447 | 0.0000 | ppm |
| CO2-TCD | 0.593 | 1.1302 | 0.0000 | ppm |
| NH3-TCD | 0.940 | 44.7894 | 319.8864 | ppm |
| H2O-TCD-HayDwax | 3.266 | 1.2612 | 0.0118 | % |
| | | 49.3255 | 319.8981 | |



| Component | Retention | Area | Internal | Units |
|-----------------|-----------|-----------|------------|-------|
| O2+N2 | 0.573 | 5202.9036 | 0.0000 | ppm |
| H2O-TCD-HayDwax | 3.413 | 43.9280 | 15303.5619 | ppm |
| | | 5246.8316 | 15303.5619 | |

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:08:58
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm184.chr ()
 Sample: 200ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:08:58
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID184.chr ()
 Sample: 200ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:08:58
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD184.chr ()
 Sample: 200ppmNH3 in room air

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

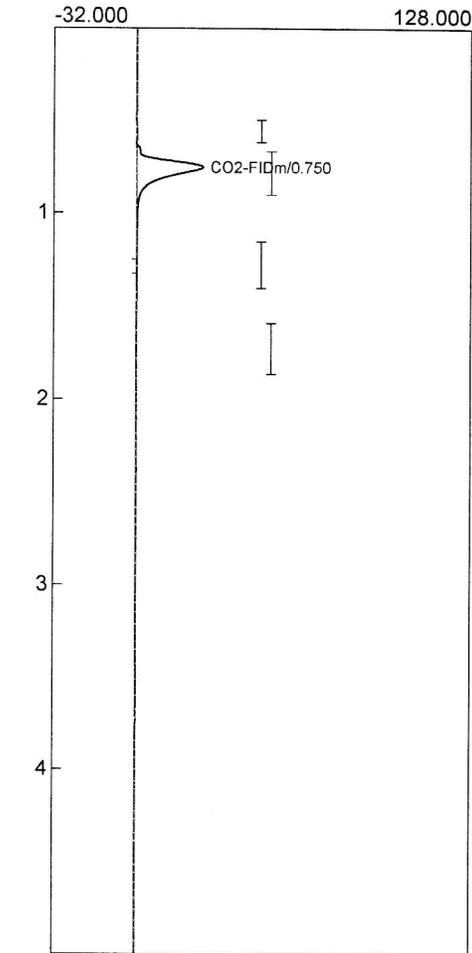
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

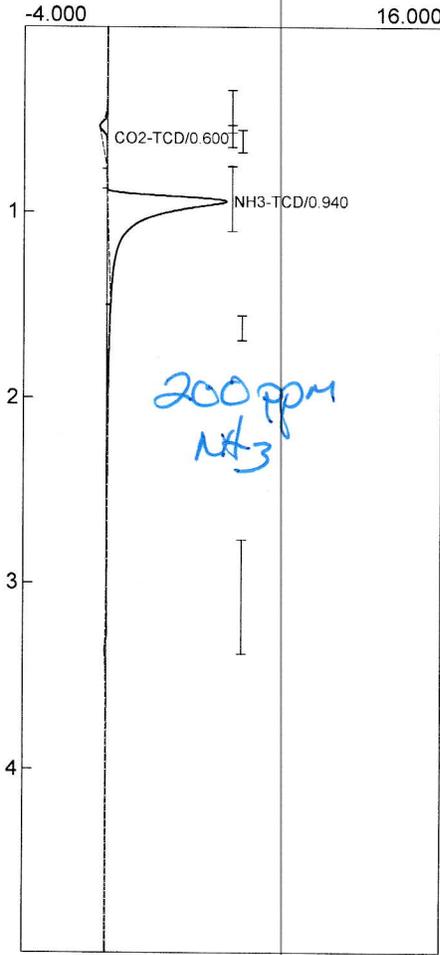
Init temp Hold Ramp Final temp

Events:

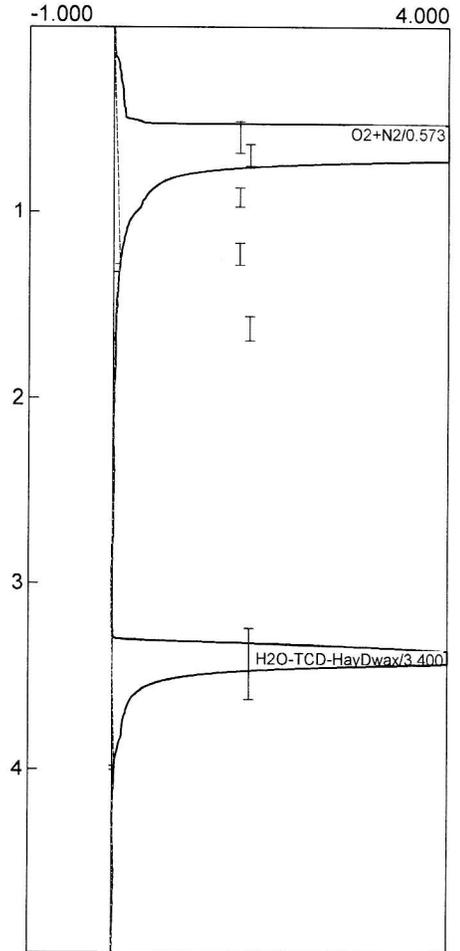
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|----------|----------|-------|
| CO2-FIDm | 0.750 | 152.9856 | 468.6047 | ppm |
| | | 152.9856 | 468.6047 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|---------|----------|-------|
| CO2-TCD | 0.600 | 1.7504 | 0.0000 | ppm |
| NH3-TCD | 0.940 | 42.2753 | 301.9306 | ppm |
| | | 44.0257 | 301.9306 | |



| Component | Retention | Area | Internal | Units |
|-----------------|-----------|-----------|------------|-------|
| O2+N2 | 0.573 | 5209.2039 | 0.0000 | ppm |
| H2O-TCD-HayDwax | 3.400 | 40.8208 | 14221.0809 | ppm |
| | | 5250.0247 | 14221.0809 | |

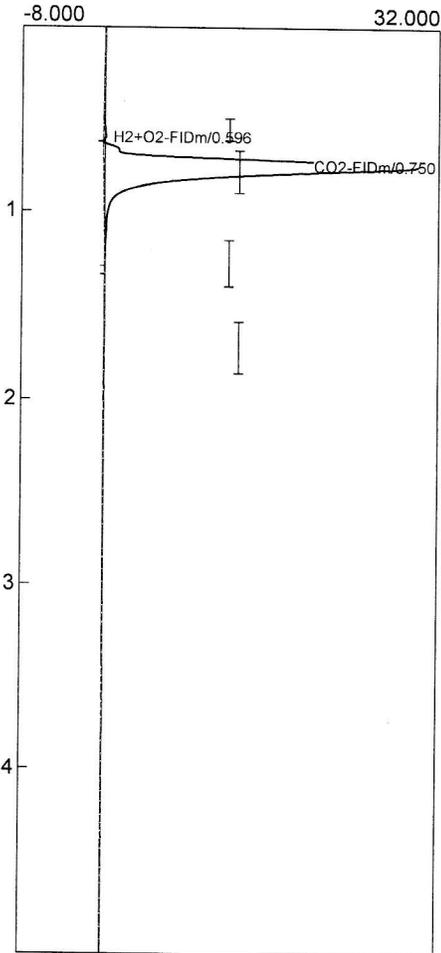
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:26:09
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm185.chr ()
 Sample: 20ppmNH3 in room air

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)



| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.596 | 1.0173 | 0.7121 | % |
| CO2-FIDm | 0.750 | 178.6862 | 547.3273 | ppm |
| | | 179.7035 | 548.0394 | |

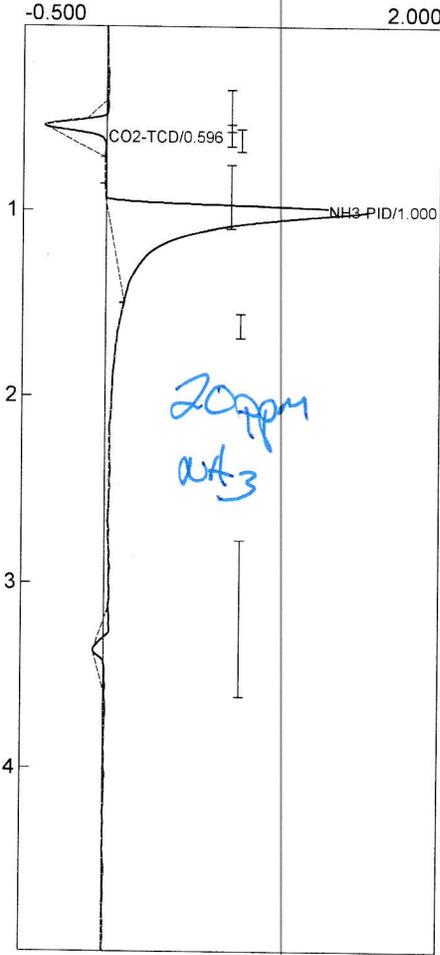
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:26:09
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID185.chr ()
 Sample: 20ppmNH3 in room air

Temperature program:

Init temp Hold Ramp Final temp

Events:

Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|---------|----------|-------|
| CO2-TCD | 0.596 | 1.1702 | 0.0000 | ppm |
| NH3-PID | 1.000 | 13.4825 | 96.2922 | ppm |
| | | 14.6527 | 96.2922 | |

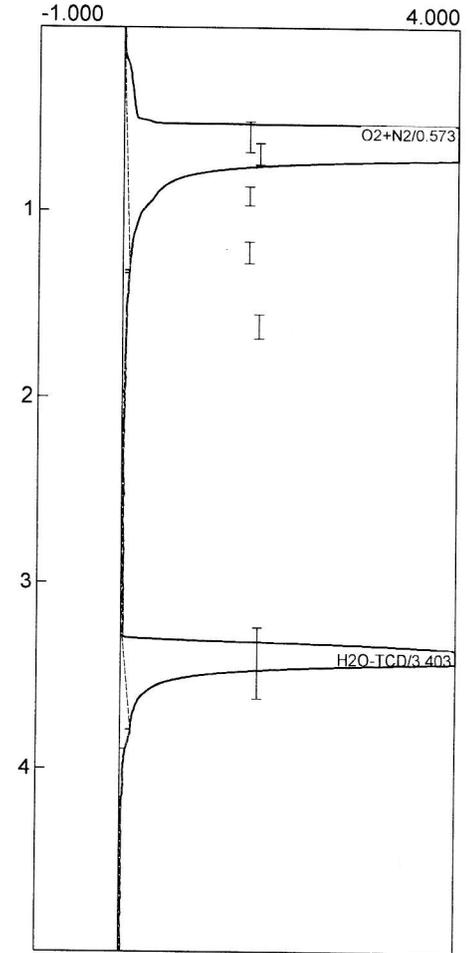
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:26:09
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD185.chr ()
 Sample: 20ppmNH3 in room air

Temperature program:

Init temp Hold Ramp Final temp

Events:

Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|------------|-------|
| O2+N2 | 0.573 | 5206.6111 | 0.0000 | ppm |
| H2O-TCD | 3.403 | 39.3542 | 13710.1493 | ppm |
| | | 5245.9653 | 13710.1493 | |

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:32:18
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm186.chr ()
 Sample: 2ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:32:18
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID186.chr ()
 Sample: 2ppmNH3 in room air

Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:32:18
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD186.chr ()
 Sample: 2ppmNH3 in room air

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)

Temperature program:

Init temp Hold Ramp Final temp

Events:

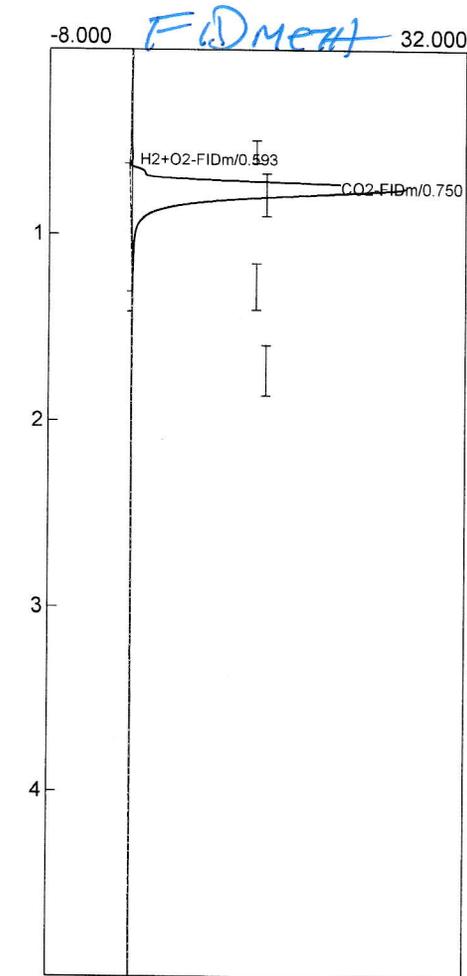
Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE

Temperature program:

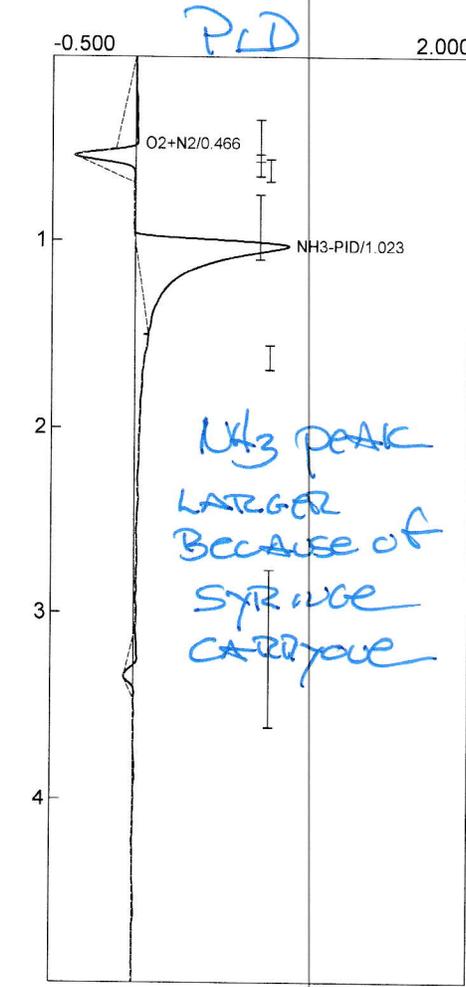
Init temp Hold Ramp Final temp

Events:

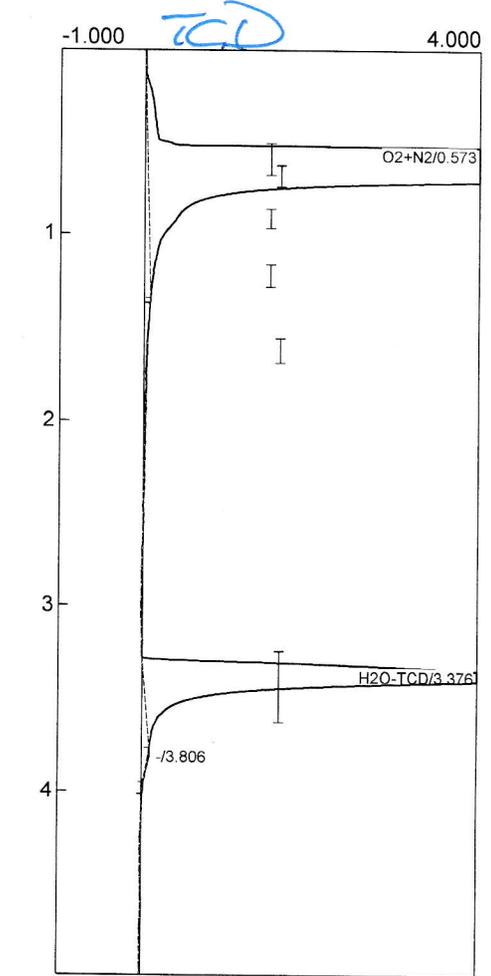
Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.593 | 1.1238 | 0.7867 | % |
| CO2-FIDm | 0.750 | 158.3481 | 485.0304 | ppm |
| | | 159.4719 | 485.8171 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|---------|----------|-------|
| O2+N2 | 0.466 | 1.9240 | 0.0000 | ppm |
| NH3-PID | 1.023 | 8.6020 | 61.4356 | ppm |
| | | 10.5260 | 61.4356 | |



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|------------|-------|
| O2+N2 | 0.573 | 5220.3037 | 0.0000 | ppm |
| H2O-TCD | 3.376 | 35.5091 | 12370.5999 | ppm |
| | | 5255.8128 | 12370.5999 | |

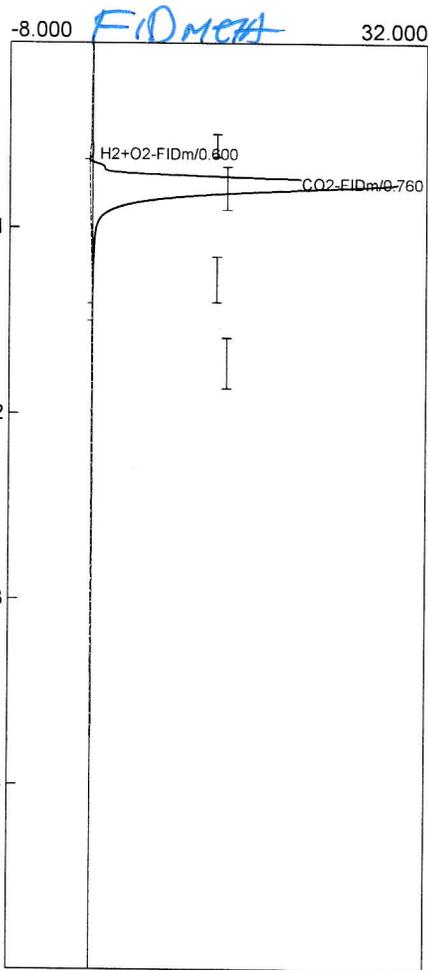
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:42:32
 Method: No BF No dopant
 Description: FIDmeth medgain 300C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3FIDm188.chr ()
 Sample: room air suck with syringe

Temperature program:

Init temp 50.00 Hold 5.000 Ramp 0.000 Final temp 50.00

Events:

Time Event
 0.000 ZERO
 0.020 G OFF (Valve1)
 0.040 E ON (Valve3)
 0.300 F OFF (TrapHeat)
 0.300 E OFF (Valve3)
 0.450 G OFF (Valve1)
 12.000 F OFF (TrapHeat)



| Component | Retention | Area | Internal | Units |
|------------|-----------|----------|----------|-------|
| H2+O2-FIDm | 0.600 | 1.2402 | 0.8682 | % |
| CO2-FIDm | 0.760 | 178.9065 | 548.0021 | ppm |
| | | 180.1467 | 548.8702 | |

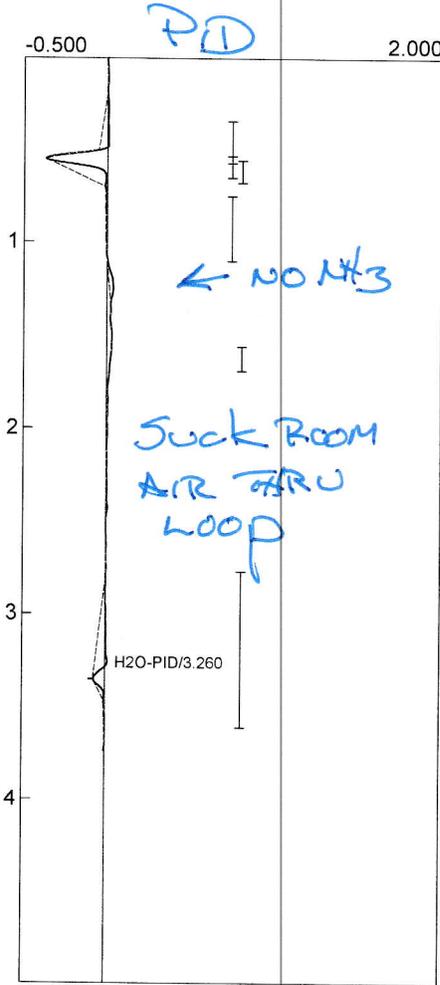
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:42:32
 Method: No BF No dopant
 Description: PID low gain 150C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=95.0 Base sens=60.0
 Data file: NH3PID188.chr ()
 Sample: room air suck with syringe

Temperature program:

Init temp Hold Ramp Final temp

Events:

Time Event
 0.000 ZERO
 0.500 INTEG BASED IMMEDIATE
 1.500 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|--------|----------|-------|
| H2O-PID | 3.260 | 1.1264 | 0.0105 | % |
| | | 1.1264 | 0.0105 | |

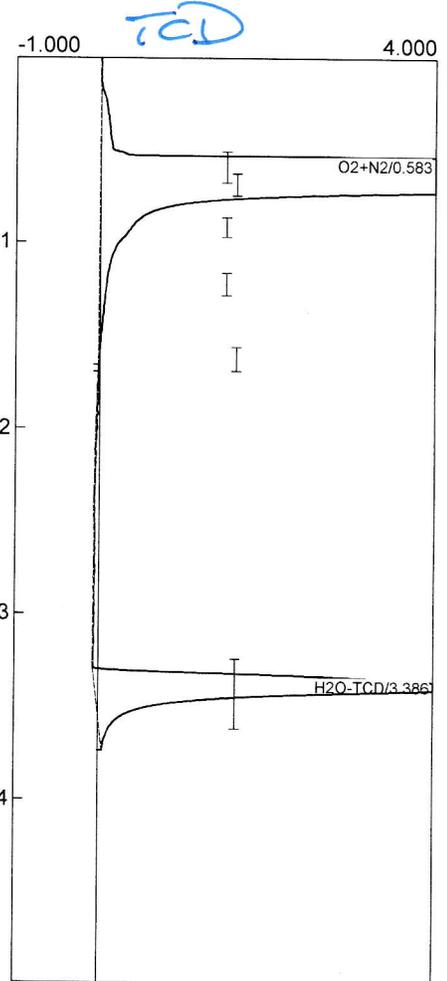
Lab name: SRI Instruments
 Client: Columbia Univ
 Client ID: N12689
 Analysis date: 08/20/2024 15:42:32
 Method: No BF No dopant
 Description: TCD lowcurrent 100C
 Column: 30RTX Ubondic
 Carrier: C3=H2@10
 Integration: Peak sens=90.0 Base sens=60.0
 Data file: NH3TCD188.chr ()
 Sample: room air suck with syringe

Temperature program:

Init temp Hold Ramp Final temp

Events:

Time Event
 0.000 ZERO
 1.750 INTEG BASED IMMEDIATE
 11.000 INTEG BASED IMMEDIATE
 18.000 INTEG BASED IMMEDIATE



| Component | Retention | Area | Internal | Units |
|-----------|-----------|-----------|------------|-------|
| O2+N2 | 0.583 | 5228.9832 | 0.0000 | ppm |
| H2O-TCD | 3.386 | 32.8905 | 11458.3364 | ppm |
| | | 5261.8737 | 11458.3364 | |