FIG. 1

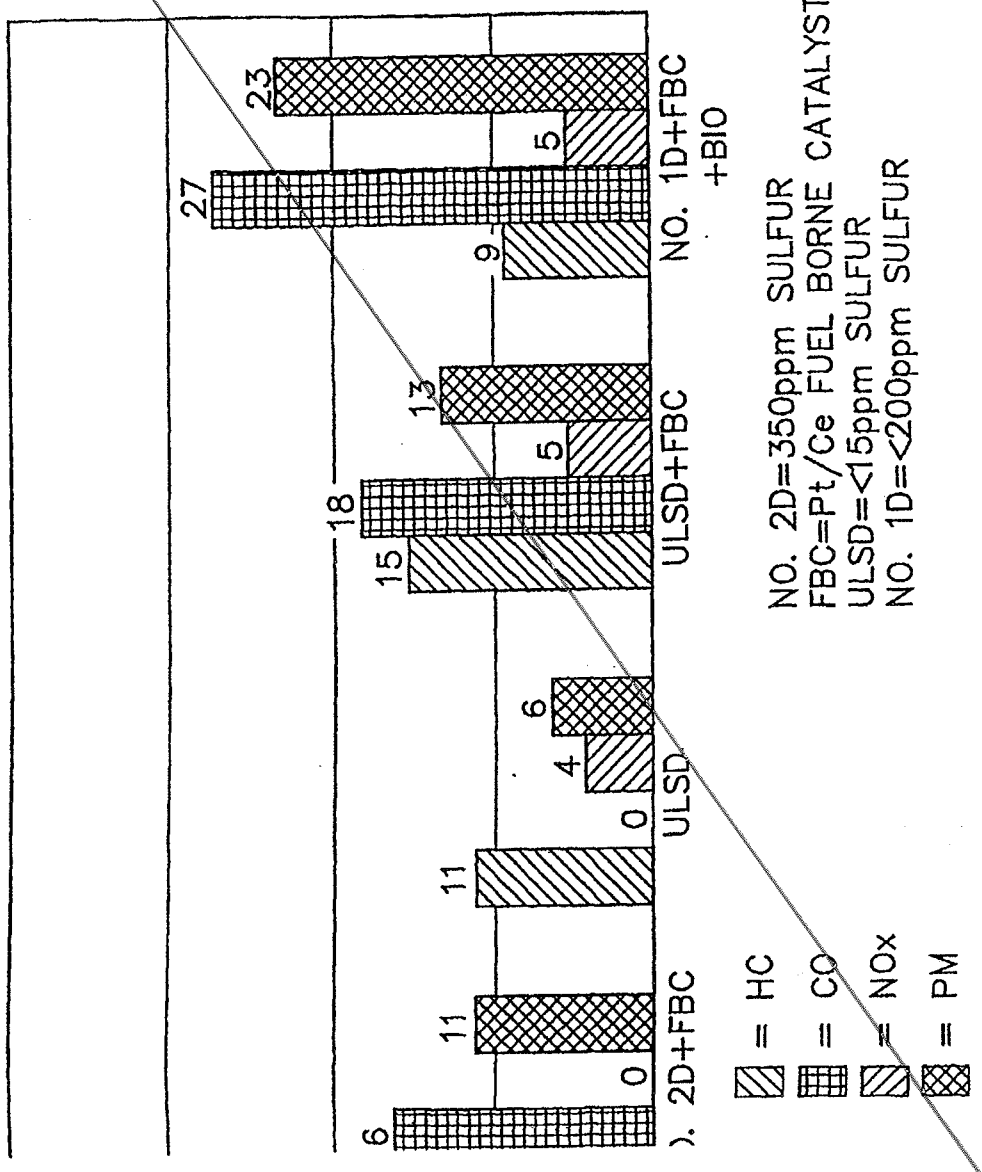

23
5
27
9
NO. 1D+FBC
+BIO
13
5
18
15
ULSD+FBC
6
4
0
ULSD
11
11
0
6
). 2D+FBC
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR
NO. 1D=<200ppm SULFUR
= HC
= CO
= NOx
= PM

FIG. 2

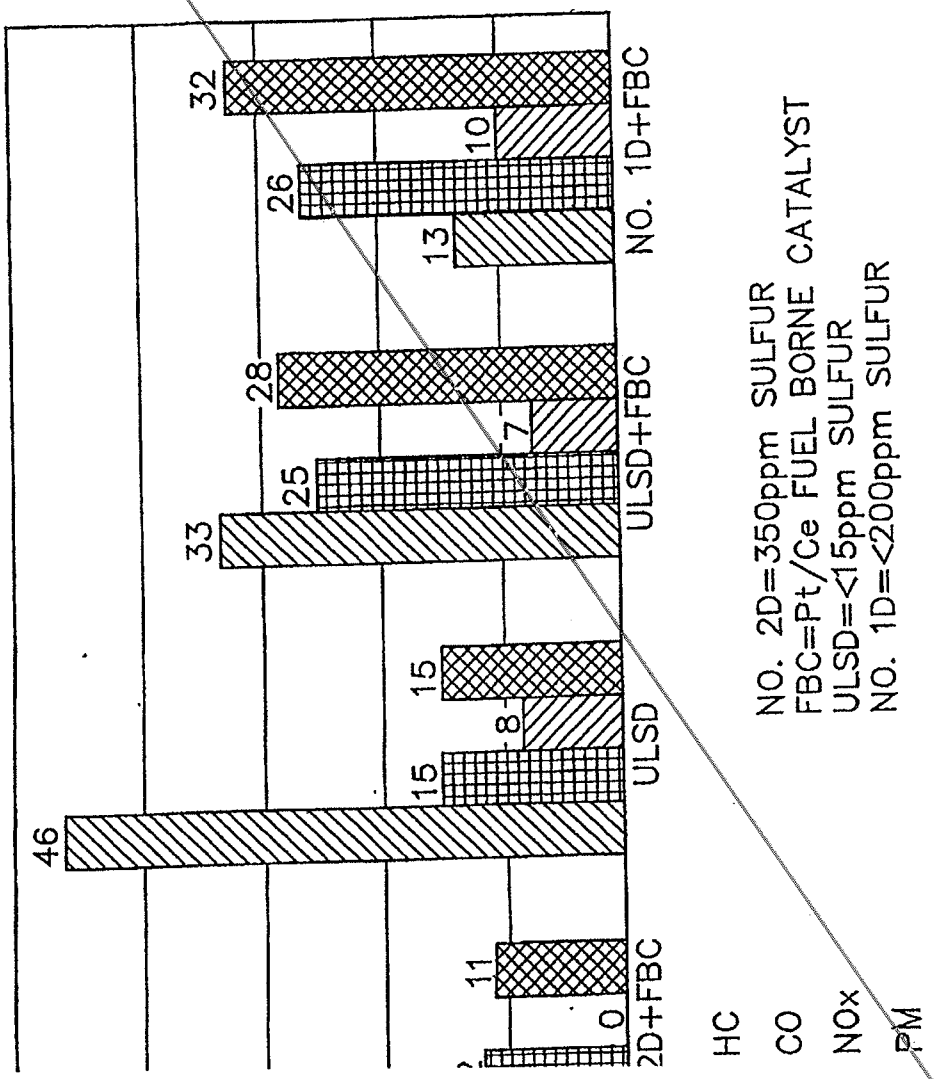

46
15
15
8
ULSD
11
0
2D+FBC
33
25
7
28
ULSD+FBC
32
10
26
13
NO. 1D+FBC
HC
CO
NOx
PM
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR
NO. 1D=<200ppm SULFUR

FIG. 3

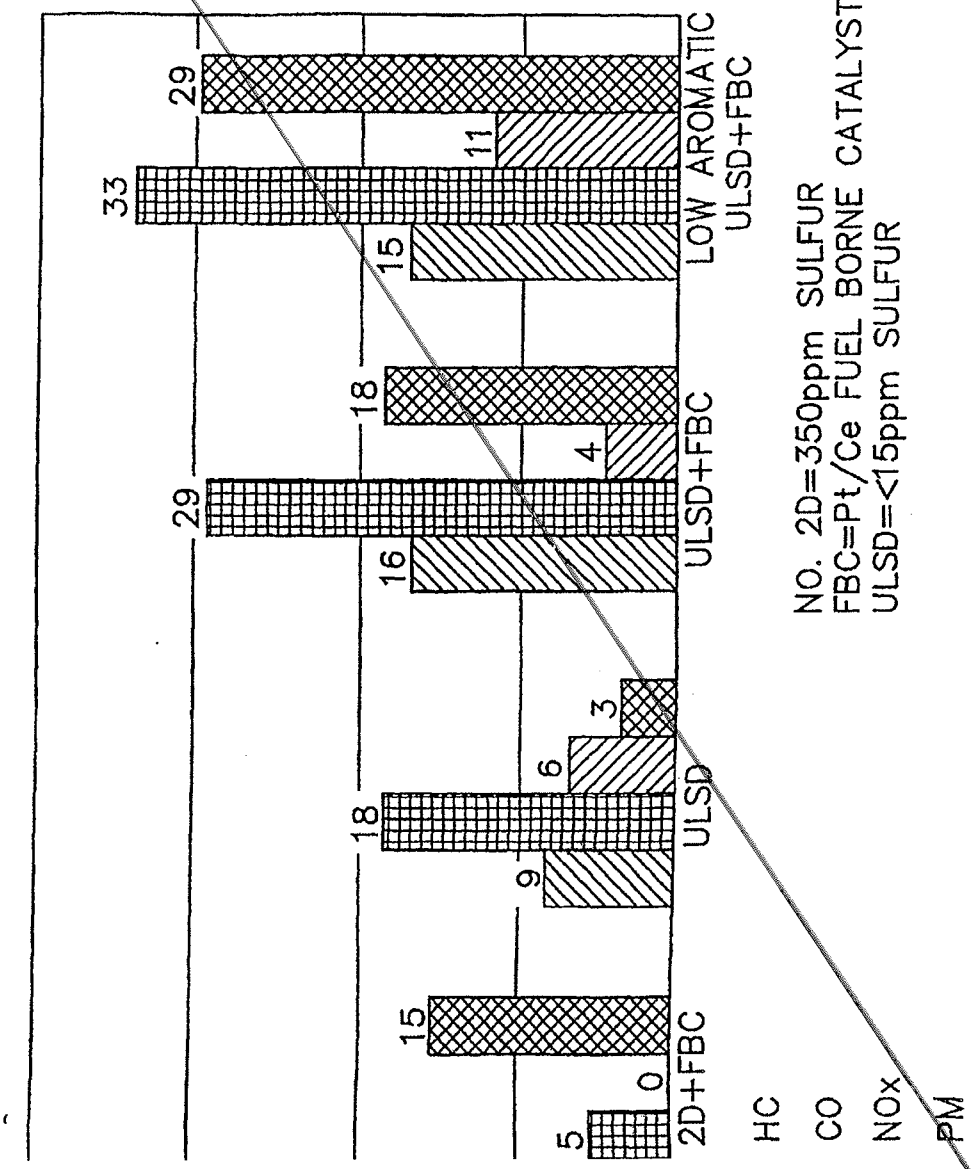

2D+FBC
ULSD
ULSD+FBC
ULSD+FBC
LOW AROMATIC ULSD+FBC
HC
CO
NOx
PM
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR

FIG. 1

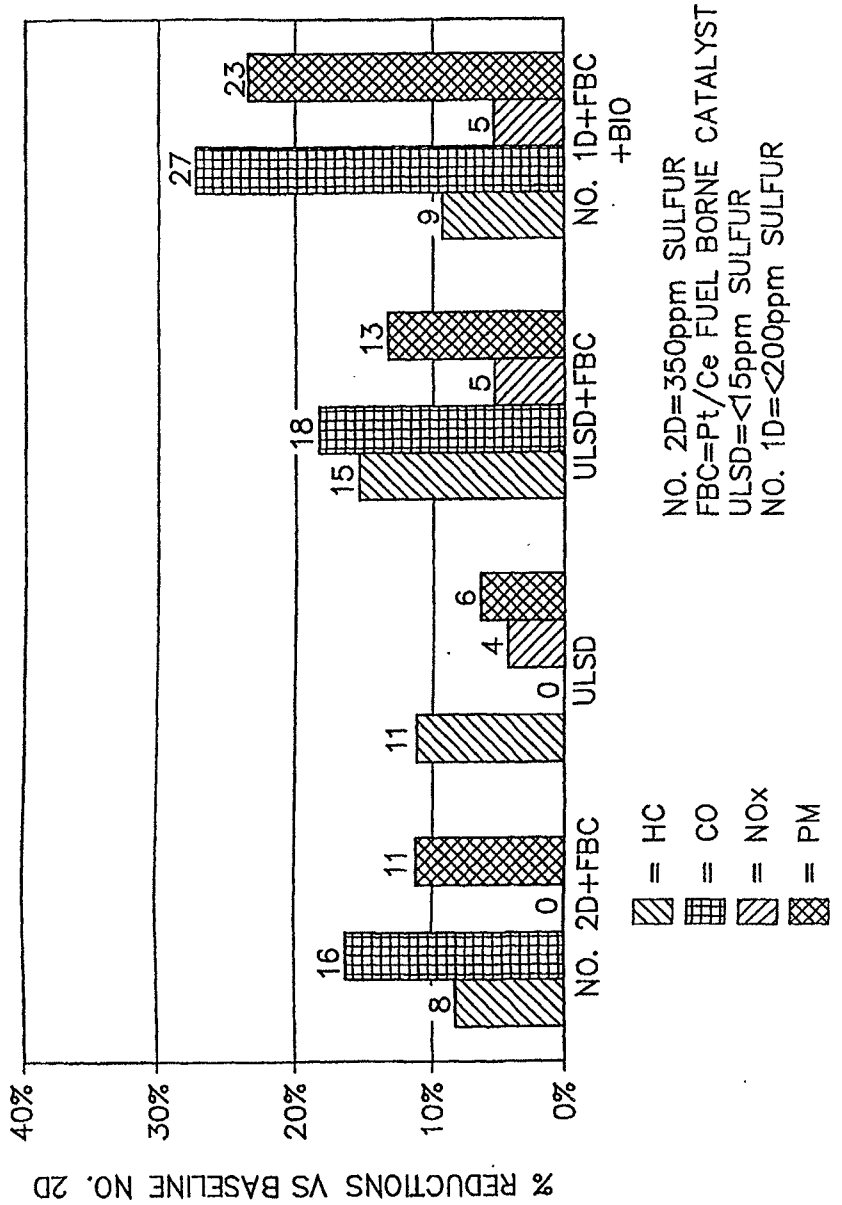

% REDUCTIONS VS BASELINE NO. 2D
40%
30%
20%
10%
0%
NO. 2D+FBC
ULSD
ULSD+FBC
NO. 1D+FBC +BIO
16
8
11
0
11
0
6
4
18
15
13
5
27
9
23
5
= HC
= CO
= NOx
= PM
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR
NO. 1D=<200ppm SULFUR

FIG. 2

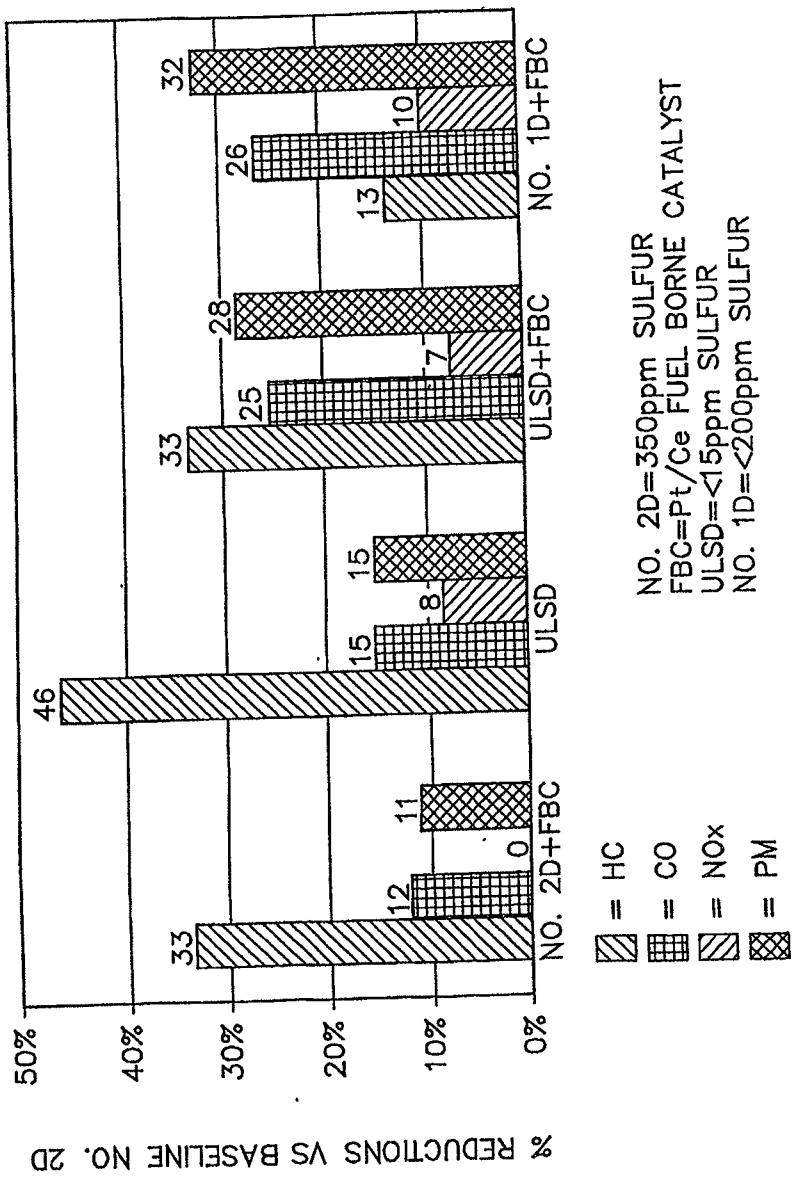
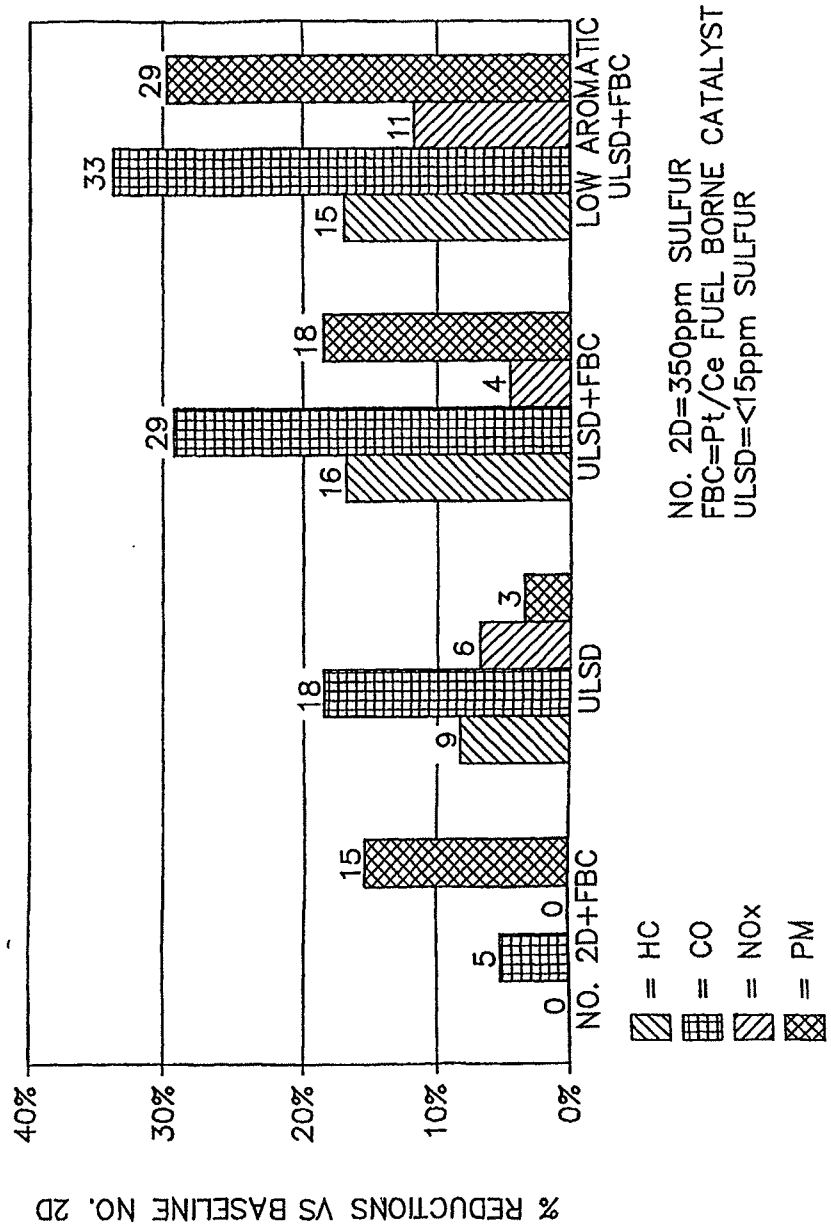

% REDUCTIONS VS BASELINE NO. 2D
50%
40%
30%
20%
10%
0%
NO. 2D+FBC
ULSD
ULSD+FBC
NO. 1D+FBC
33
12
0
11
46
15
8
15
33
25
7
28
13
10
26
32
= HC
= CO
= NOx
= PM
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR
NO. 1D=<200ppm SULFUR

FIG. 3


% REDUCTIONS VS BASELINE NO. 2D
40%
30%
20%
10%
0%
NO. 2D+FBC
0
5
0
15
ULSD
9
18
6
3
ULSD+FBC
16
29
4
18
LOW AROMATIC ULSD+FBC
15
33
11
29
= HC
= CO
= NOx
= PM
NO. 2D=350ppm SULFUR
FBC=Pt/Ce FUEL BORNE CATALYST
ULSD=<15ppm SULFUR