

**Unione Europea  
REPUBBLICA ITALIANA**



***Regione Siciliana***

**Assessorato delle Infrastrutture e della Mobilità  
Dipartimento Regionale Tecnico**

*Servizio 5 - Espletamento di servizi di ingegneria di competenza  
regionale e/o per conto di enti locali  
(per le Province di Palermo, Caltanissetta, Agrigento, Trapani)*

**INTERVENTO DI SISTEMAZIONE DEL PIANO VIARIO DELLE STRADE SAN MAURO  
CASTELVERDE - GANGI SP 52 ED SP 60**

IMPORTO COMPLESSIVO LAVORI € **13.500.000,00**- CUP D97H21001660002

RIFERIMENTO ELABORATO

N. 2

DATA: 14/07/2021

SCALA:

**RELAZIONE GEOLOGICA E INDAGINI  
PARTE SESTA**

**I PROGETTISTI  
p.p.v.**

F.to Arch. Vincenzo Viscardi

F.to Arch. Giuseppe Pedone

F.to Geom. Paolo Franzone

F.to Geom. Francesco Carollo

**COLLABORATORI TECNICI**

Arch. Fabiola Fucile

Ing. Piero Fabio

**COORDINATORE DELLA  
SICUREZZA IN FASE DI  
PROGETTAZIONE  
(Geom. Francesco Carollo)**

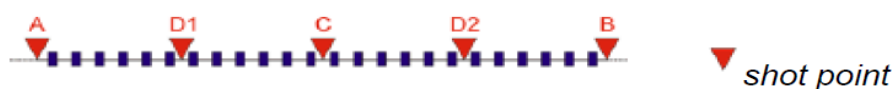
Visto: Il Dirigente  
Servizio 5 -D.R.T  
Ing. Giuseppe Pirrello

**IL SUPPORTO AL R.U.P.  
F.to Fabrizio Pirrone**

**IL R.U.P.  
F.to Ing. Giuseppe Pirrello**

### 3.2 Risultati Prove Sismiche a Rifrazione in Onde P

Tale indagini sono state eseguite impiegando il medesimo array geofonico adoperato per le suddette MASW, effettuando registrazioni multiple per l'elaborazione della sismica a Rifrazione in Onde P. Le acquisizioni dei segnali, di lunghezza temporale  $T=546\text{ms}$ , sono state effettuate con passo di campionamento  $dt=0.14\text{ms}$ . L'interpretazione è stata condotta sulla base di cinque punti di scoppio dei quali due esterni e tre interni, posizionando i tiri intermedi (D1 e D2 in figura) rispettivamente tra il 6° e il 7° ricevitore e tra il 18° e il 19°. La battuta centrale (C) è stata effettuata tra il 12° e il 13° geofono mentre la diretta (A) e l'inversa (B) ad inizio e alla fine della linea.

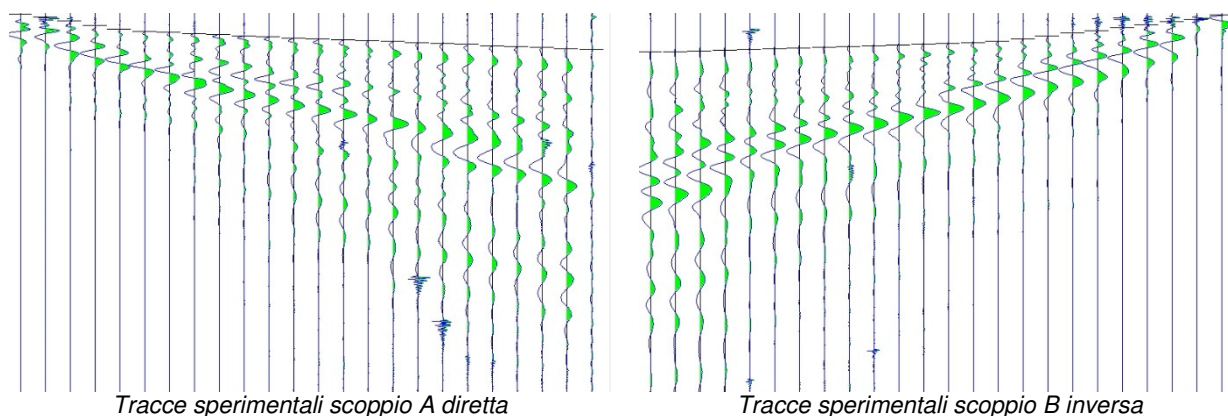


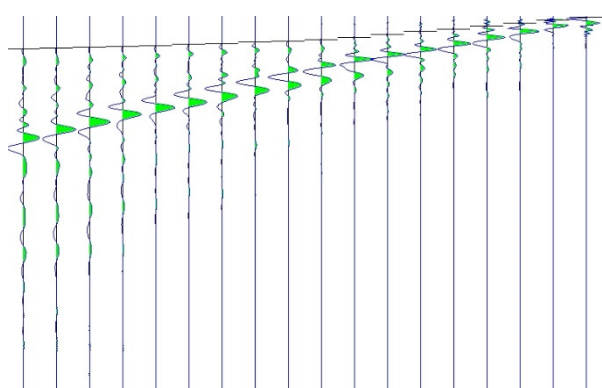
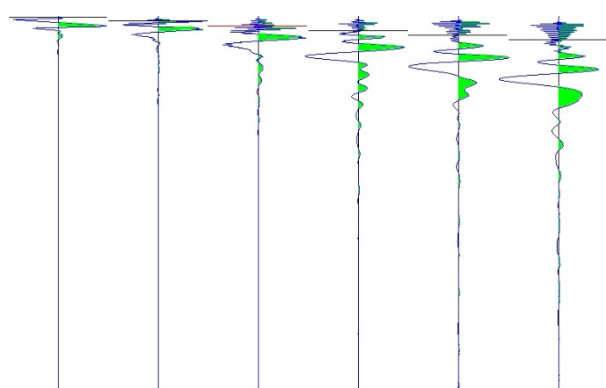
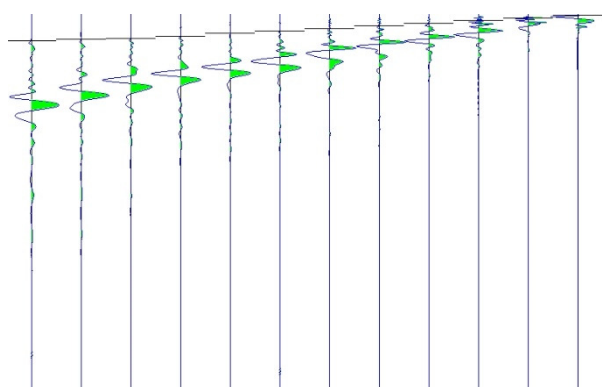
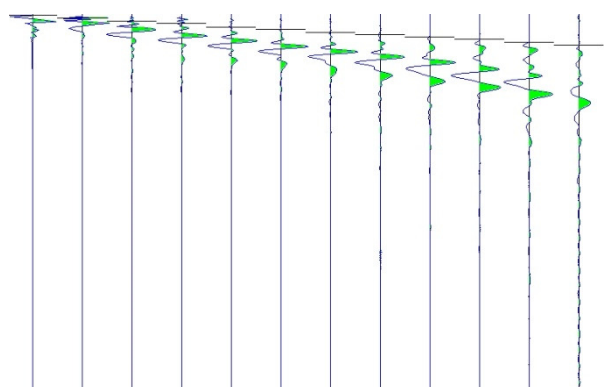
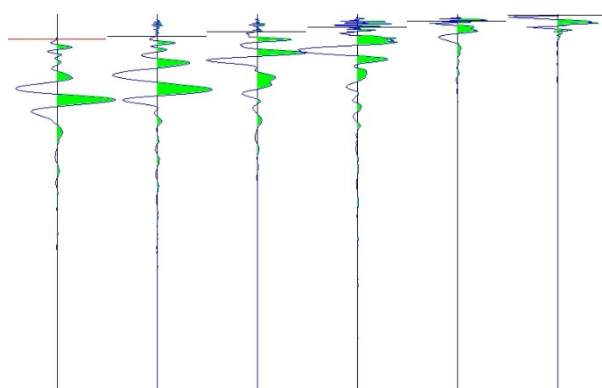
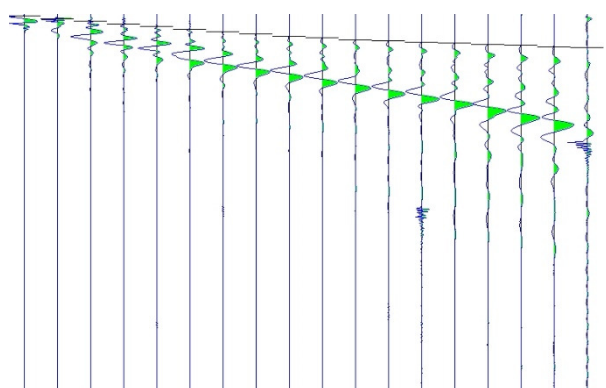
La sezione stratigrafica è stata interpretata sulla base dei valori delle velocità delle onde P considerando il profilo topografico orizzontale e gli strati inclinati in maniera pseudo-uniforme.

#### RIFRAZIONE\_1

- PRIMI ARRIVI -							
-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
1.07 ms	22.13 ms		32.67 ms		39.87 ms		48.00 ms
4.80 ms	19.20 ms		31.07 ms		39.07 ms		47.20 ms
9.47 ms	15.47 ms		29.47 ms		38.00 ms		46.27 ms
14.93 ms	11.47 ms		27.33 ms		36.93 ms		45.33 ms
19.60 ms	6.27 ms		23.73 ms		36.00 ms		44.40 ms
22.40 ms	0.67 ms		20.27 ms		34.80 ms		43.60 ms
23.73 ms		1.87 ms	17.47 ms		33.47 ms		42.80 ms
24.93 ms		5.60 ms	14.27 ms		32.00 ms		41.87 ms
26.13 ms		8.27 ms	11.07 ms		30.53 ms		41.07 ms
27.60 ms		11.73 ms	7.73 ms		28.80 ms		40.27 ms
28.93 ms		14.93 ms	4.40 ms		26.00 ms		39.20 ms
30.40 ms		18.27 ms	1.33 ms		22.40 ms		38.27 ms
31.73 ms		21.07 ms		0.67 ms	19.07 ms		37.33 ms
32.93 ms		24.40 ms		4.80 ms	15.60 ms		36.27 ms
34.00 ms		26.93 ms		8.13 ms	11.87 ms		34.13 ms
34.93 ms		29.33 ms		11.60 ms	8.53 ms		31.73 ms
36.13 ms		31.60 ms		15.73 ms	4.40 ms		28.13 ms
37.60 ms		33.07 ms		19.07 ms	0.67 ms		24.67 ms
38.67 ms		34.27 ms		22.13 ms		0.93 ms	21.20 ms
39.87 ms		35.73 ms		25.07 ms		4.13 ms	17.73 ms
41.20 ms		37.20 ms		28.40 ms		8.67 ms	14.13 ms
42.40 ms		38.40 ms		31.20 ms		12.40 ms	10.53 ms
43.47 ms		39.73 ms		34.40 ms		16.80 ms	7.47 ms
44.40 ms		40.93 ms		38.13 ms		20.93 ms	2.13 ms

#### Tracce sperimentali





## VELOCITÀ STRATI

Velocità strato n.1	616.68 m/s
Velocità strato n.2	1919.43 m/s

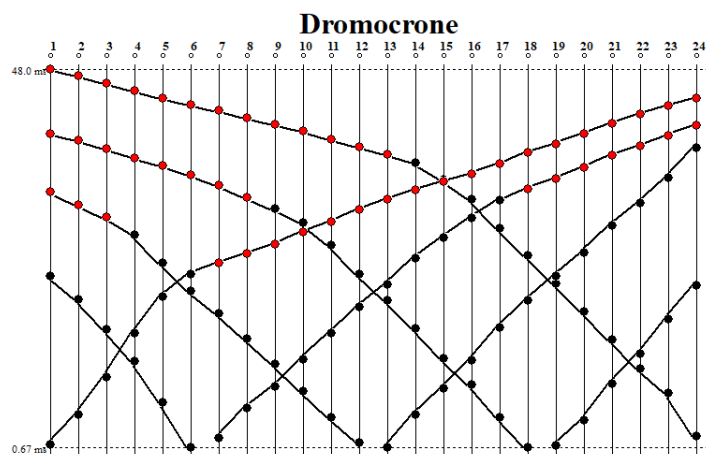


Figura 100: Dromocrone RIFRAZIONE\_1

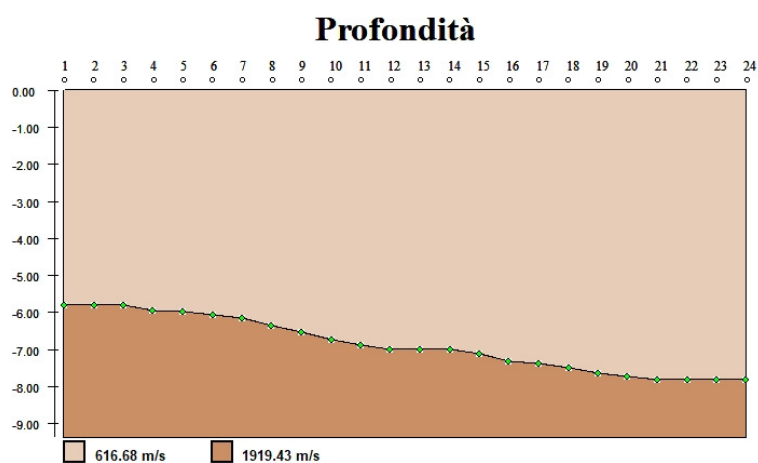
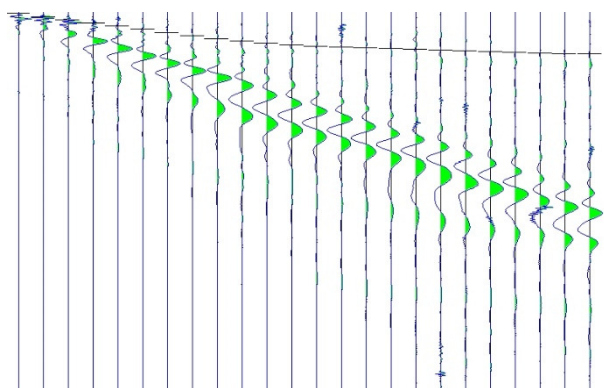
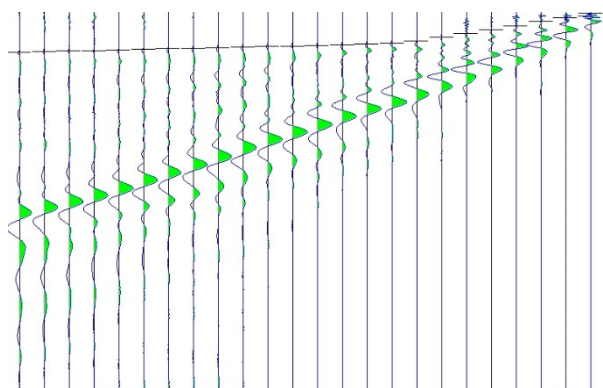
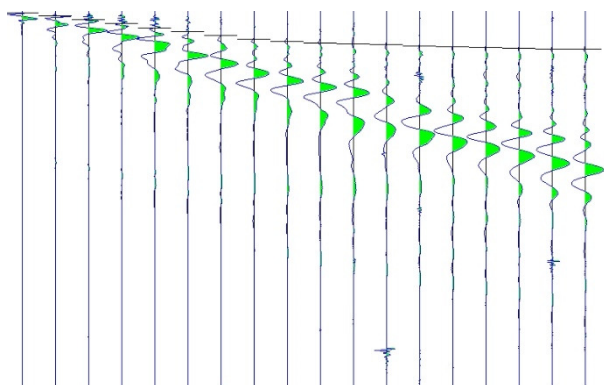
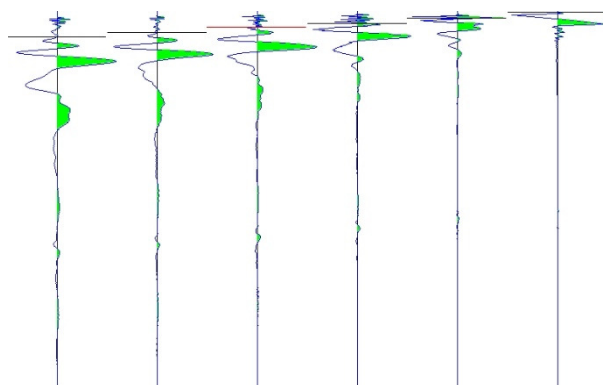
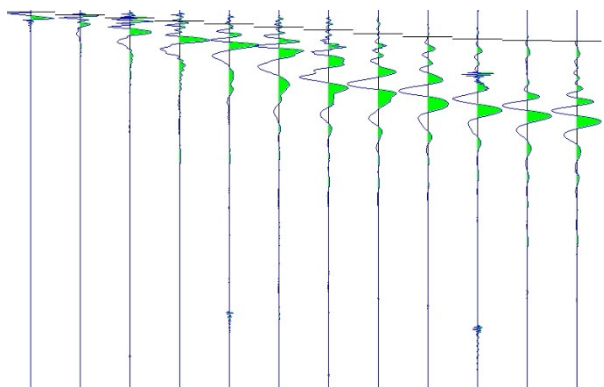
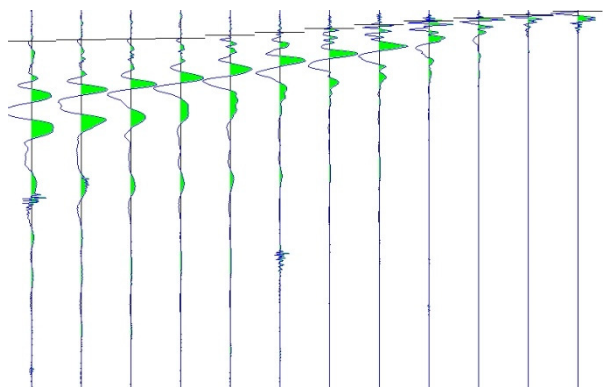
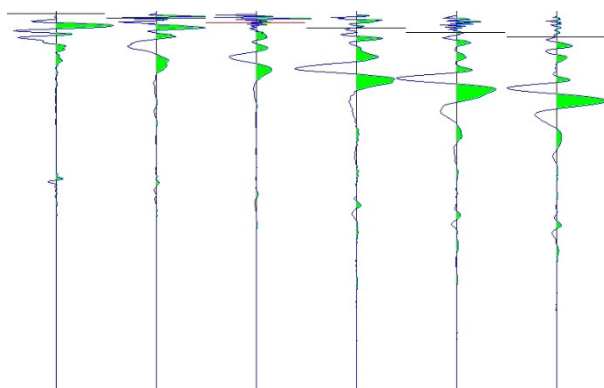
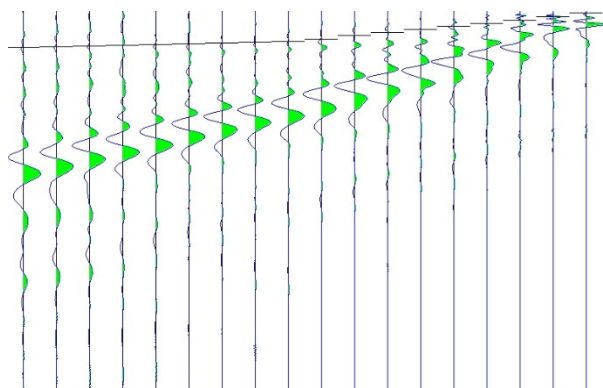


Figura 101: Sezione stratigrafica interpretata RIFRAZIONE\_1

**RIFRAZIONE\_2**

- PRIMI ARRIVI -

-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
1.07 ms	22.67 ms		38.13 ms		44.93 ms		49.07 ms
5.47 ms	18.53 ms		36.80 ms		44.13 ms		48.53 ms
9.20 ms	14.27 ms		35.60 ms		42.93 ms		47.87 ms
13.07 ms	10.53 ms		34.27 ms		42.00 ms		47.20 ms
16.80 ms	5.73 ms		30.53 ms		41.07 ms		46.53 ms
20.67 ms	0.80 ms		26.67 ms		40.27 ms		45.87 ms
25.20 ms		1.60 ms	22.27 ms		39.47 ms		45.20 ms
28.93 ms		5.73 ms	17.47 ms		38.53 ms		44.53 ms
32.40 ms		9.87 ms	13.47 ms		37.20 ms		43.73 ms
35.73 ms		15.20 ms	9.33 ms		34.27 ms		43.07 ms
38.67 ms		20.27 ms	5.33 ms		29.73 ms		42.27 ms
40.53 ms		25.07 ms	1.33 ms		26.27 ms		41.60 ms
42.27 ms		29.73 ms		2.13 ms	22.67 ms		40.80 ms
43.20 ms		34.27 ms		5.87 ms	19.07 ms		40.00 ms
44.13 ms		37.47 ms		9.20 ms	14.93 ms		38.93 ms
44.93 ms		39.33 ms		12.67 ms	10.93 ms		37.87 ms
45.73 ms		40.27 ms		16.80 ms	6.67 ms		35.07 ms
46.80 ms		41.47 ms		20.93 ms	1.47 ms		30.93 ms
47.60 ms		42.53 ms		24.67 ms		1.73 ms	26.13 ms
48.40 ms		43.47 ms		28.93 ms		5.73 ms	21.07 ms
49.20 ms		44.40 ms		32.53 ms		9.73 ms	16.40 ms
50.13 ms		45.33 ms		35.07 ms		14.40 ms	11.47 ms
50.93 ms		46.27 ms		36.93 ms		18.53 ms	6.67 ms
51.60 ms		47.07 ms		38.27 ms		22.67 ms	1.20 ms

**Tracce sperimentali***Tracce sperimentali scoppio A diretta**Tracce sperimentali scoppio B inversa**Tracce sperimentali scoppio D1 diretta**Tracce sperimentali scoppio D1 inversa**Tracce sperimentali scoppio C diretta**Tracce sperimentali scoppio C inversa**Tracce sperimentali scoppio D2 diretta**Tracce sperimentali scoppio D2 inversa*

VELOCITÀ STRATI	
Velocità strato n.1	556.20 m/s
Velocità strato n.2	2613.39 m/s

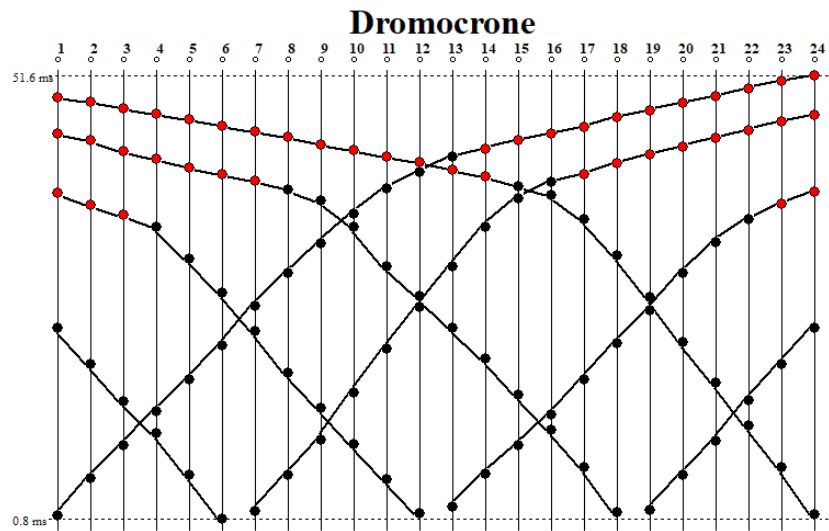


Figura 102: Dromocrone RIFRAZIONE\_2

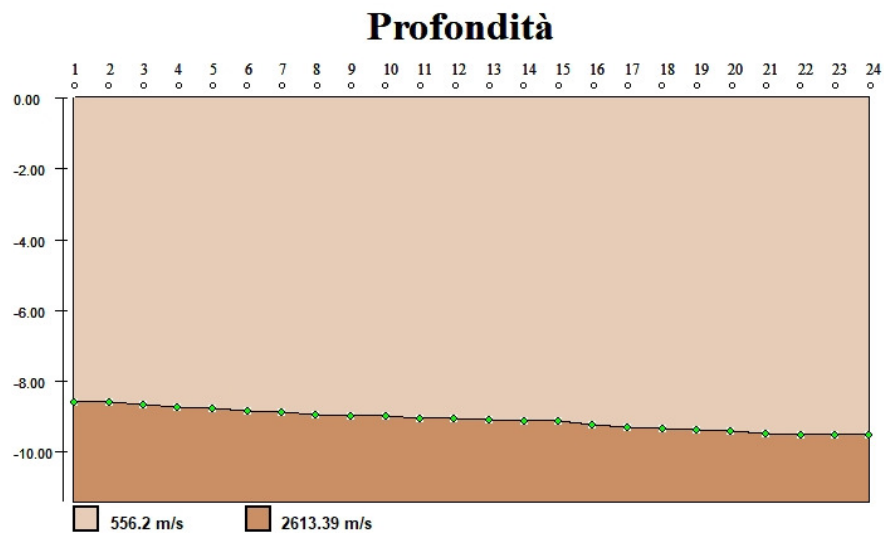


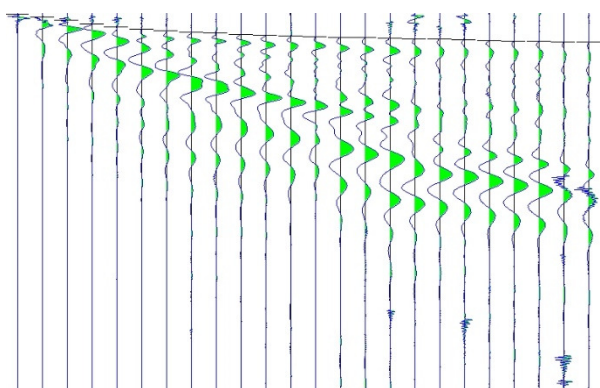
Figura 103: Sezione stratigrafica interpretata RIFRAZIONE\_2



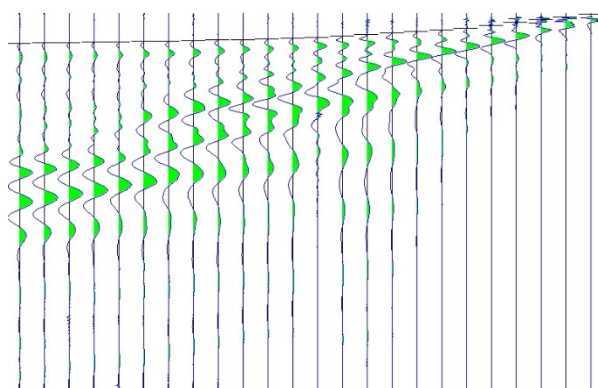
**RIFRAZIONE\_3**

- PRIMI ARRIVI -

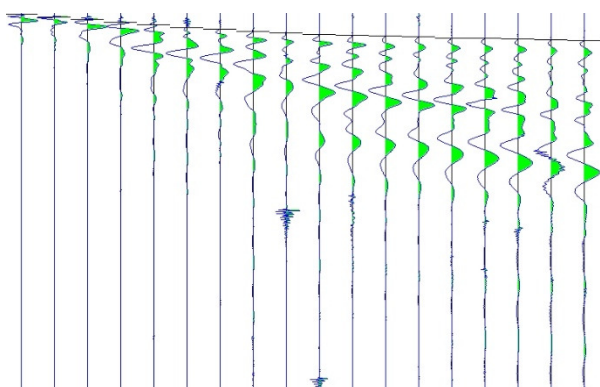
-1.50 mt	8.25 mt [SX]	8.25 mt [DX]	17.25 mt [SX]	17.25 mt [DX]	26.25 mt [SX]	26.25 mt [DX]	36.00 mt
0.67 ms	17.33 ms		27.87 ms		31.20 ms		36.93 ms
4.67 ms	14.27 ms		26.00 ms		30.67 ms		36.53 ms
8.67 ms	10.93 ms		24.00 ms		30.27 ms		36.13 ms
12.93 ms	7.33 ms		22.40 ms		29.73 ms		35.73 ms
16.67 ms	3.73 ms		20.80 ms		29.07 ms		35.33 ms
19.87 ms	0.53 ms		19.07 ms		28.40 ms		34.93 ms
21.87 ms		0.93 ms	16.67 ms		27.33 ms		34.40 ms
23.20 ms		4.27 ms	13.07 ms		26.27 ms		33.87 ms
24.53 ms		7.60 ms	9.47 ms		25.20 ms		33.07 ms
25.87 ms		11.20 ms	6.53 ms		23.87 ms		32.40 ms
27.20 ms		14.27 ms	3.20 ms		22.27 ms		31.73 ms
28.00 ms		17.73 ms	0.40 ms		20.53 ms		30.93 ms
28.93 ms		19.87 ms		1.07 ms	17.33 ms		29.87 ms
29.60 ms		22.00 ms		4.40 ms	14.13 ms		28.27 ms
30.27 ms		24.00 ms		7.87 ms	11.20 ms		26.40 ms
30.80 ms		25.87 ms		11.20 ms	8.00 ms		24.40 ms
31.47 ms		27.20 ms		14.67 ms	4.27 ms		22.53 ms
32.00 ms		28.27 ms		17.73 ms	0.53 ms		20.53 ms
32.67 ms		29.33 ms		20.93 ms		0.80 ms	18.67 ms
33.47 ms		30.40 ms		24.00 ms		4.27 ms	15.20 ms
34.13 ms		31.20 ms		26.13 ms		8.27 ms	11.33 ms
34.67 ms		31.73 ms		27.73 ms		11.33 ms	7.87 ms
35.20 ms		32.53 ms		29.07 ms		15.20 ms	4.53 ms
35.60 ms		33.33 ms		30.00 ms		18.27 ms	1.20 ms

**Tracce sperimentali**

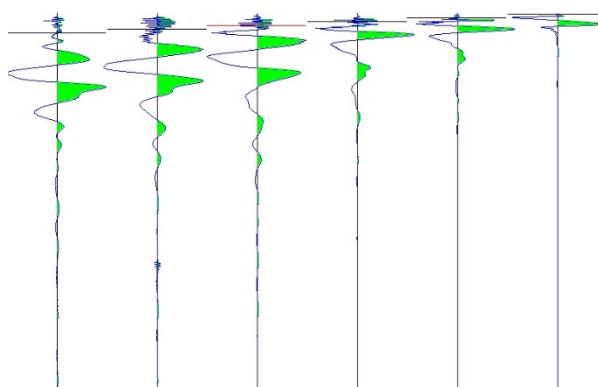
Tracce sperimentali scoppio A diretta



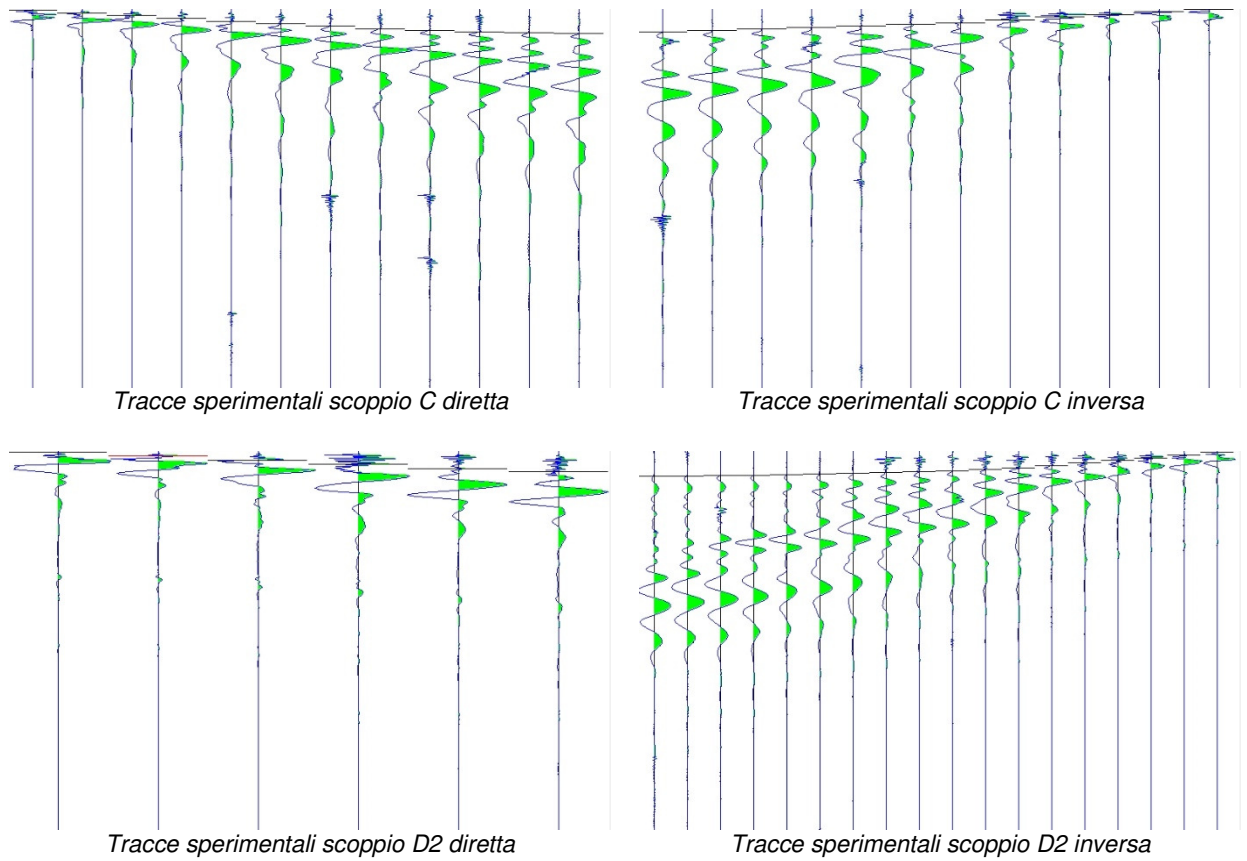
Tracce sperimentali scoppio B inversa



Tracce sperimentali scoppio D1 diretta



Tracce sperimentali scoppio D1 inversa



## VELOCITÀ STRATI

Velocità strato n.1	535.41 m/s
Velocità strato n.2	905.95 m/s
Velocità strato n.3	2636.23 m/s

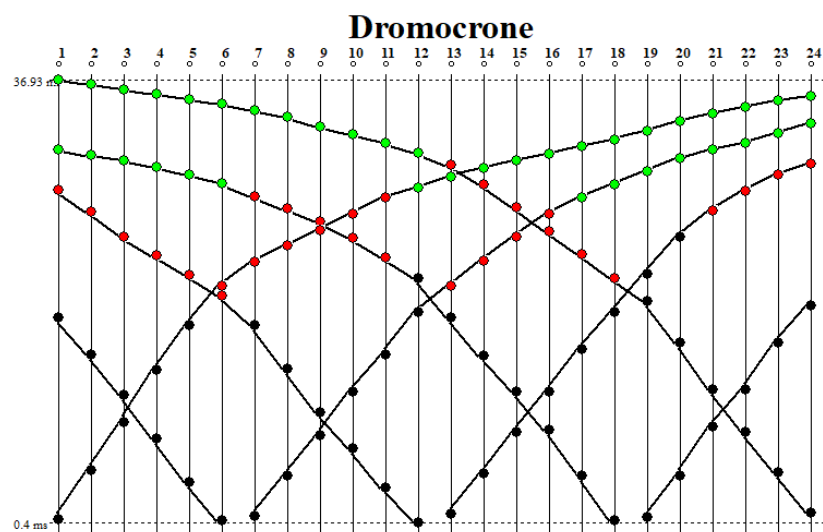


Figura 104: Dromocrone RIFRAZIONE\_3



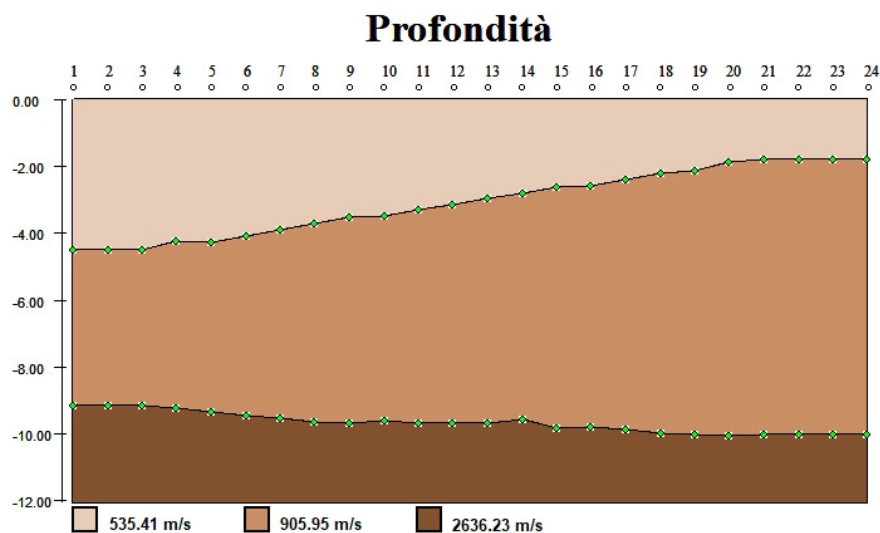
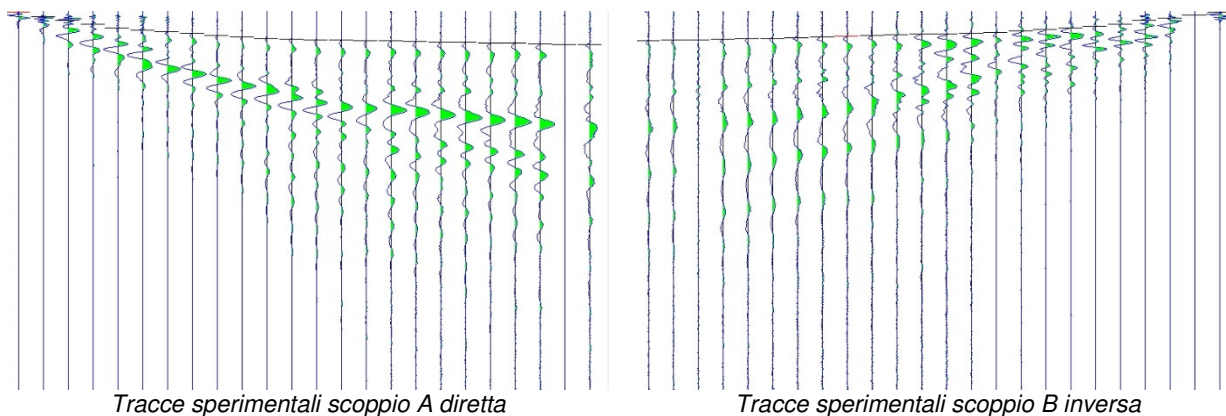


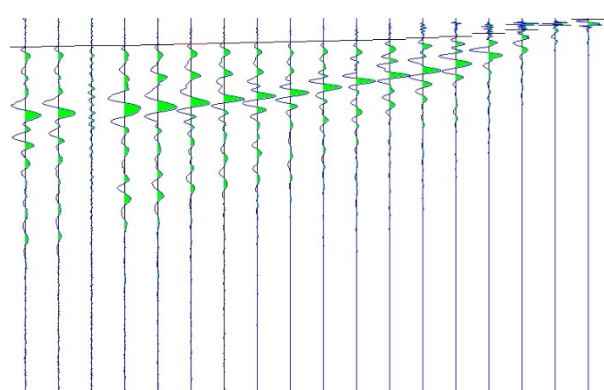
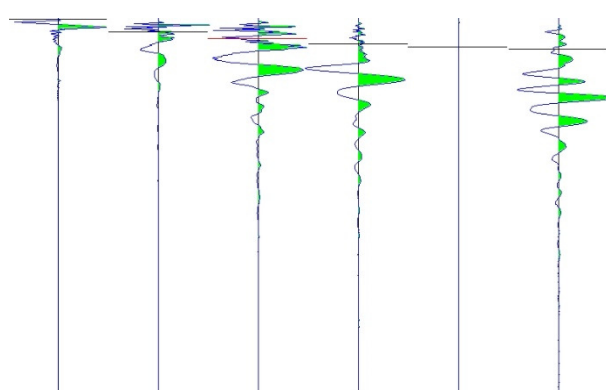
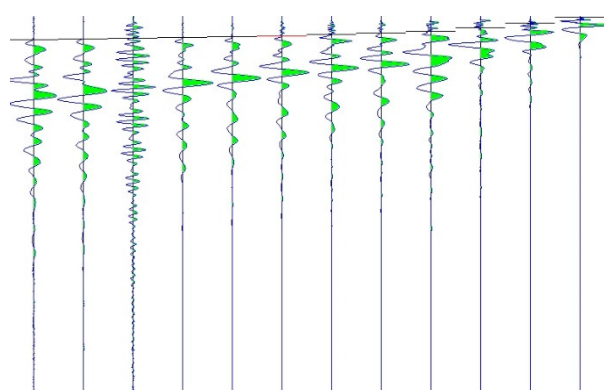
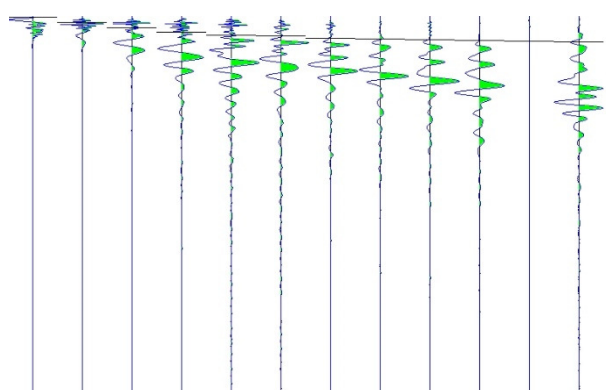
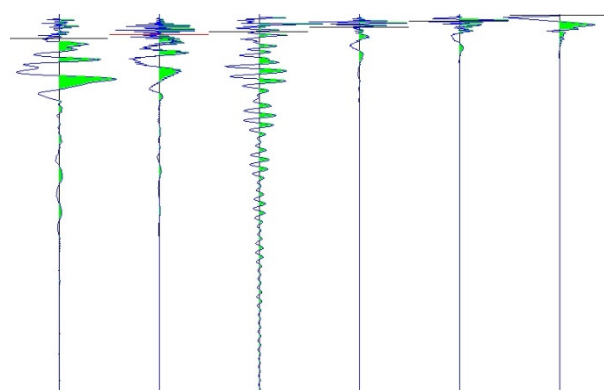
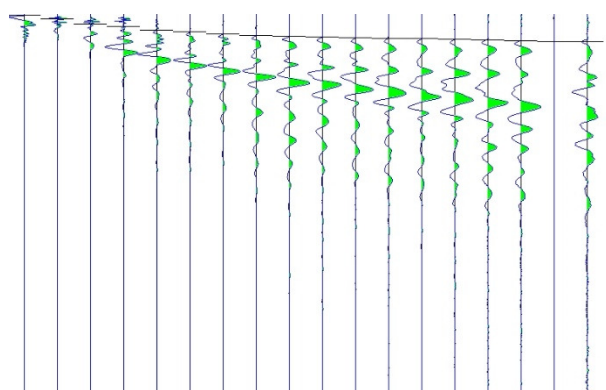
Figura 105: Sezione stratigrafica interpretata RIFRAZIONE\_3

**RIFRAZIONE\_4**

- PRIMI ARRIVI -

-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
0.93 ms	21.07 ms		28.53 ms		35.47 ms		36.27 ms
6.13 ms	18.13 ms		27.60 ms		34.67 ms		35.87 ms
11.07 ms	15.07 ms		26.80 ms		34.00 ms		35.20 ms
15.87 ms	11.33 ms		26.00 ms		33.20 ms		34.67 ms
20.40 ms	5.73 ms		25.20 ms		32.40 ms		33.87 ms
23.07 ms	0.53 ms		24.27 ms		31.47 ms		33.20 ms
25.20 ms		0.80 ms	22.67 ms		30.53 ms		32.40 ms
27.07 ms		6.00 ms	20.67 ms		29.60 ms		31.60 ms
29.47 ms		11.73 ms	18.40 ms		28.80 ms		30.80 ms
31.47 ms		15.33 ms	14.13 ms		28.13 ms		30.13 ms
33.33 ms		19.73 ms	8.13 ms		27.33 ms		29.20 ms
34.40 ms		21.87 ms	0.93 ms		25.87 ms		28.40 ms
35.07 ms		24.13 ms		1.07 ms	23.87 ms		27.60 ms
35.60 ms		26.00 ms		7.47 ms	22.27 ms		26.80 ms
36.40 ms		26.93 ms		14.13 ms	18.67 ms		26.00 ms
36.80 ms		28.00 ms		19.87 ms	13.73 ms		24.67 ms
37.60 ms		28.67 ms		22.93 ms	8.27 ms		22.53 ms
38.00 ms		29.47 ms		24.67 ms	0.93 ms		20.53 ms
38.40 ms		30.13 ms		27.07 ms		0.67 ms	18.53 ms
38.93 ms		31.07 ms		28.27 ms		9.47 ms	16.13 ms
39.60 ms		31.87 ms		29.07 ms		14.67 ms	11.60 ms
40.13 ms		32.67 ms		29.87 ms		18.00 ms	8.00 ms
40.67 ms		33.47 ms		30.67 ms		20.13 ms	4.80 ms
41.20 ms		34.00 ms		31.47 ms		21.73 ms	0.67 ms

**Tracce sperimentali**



## VELOCITÀ STRATI

Velocità strato n.1	494.54 m/s
Velocità strato n.2	967.13 m/s
Velocità strato n.3	3120.33 m/s

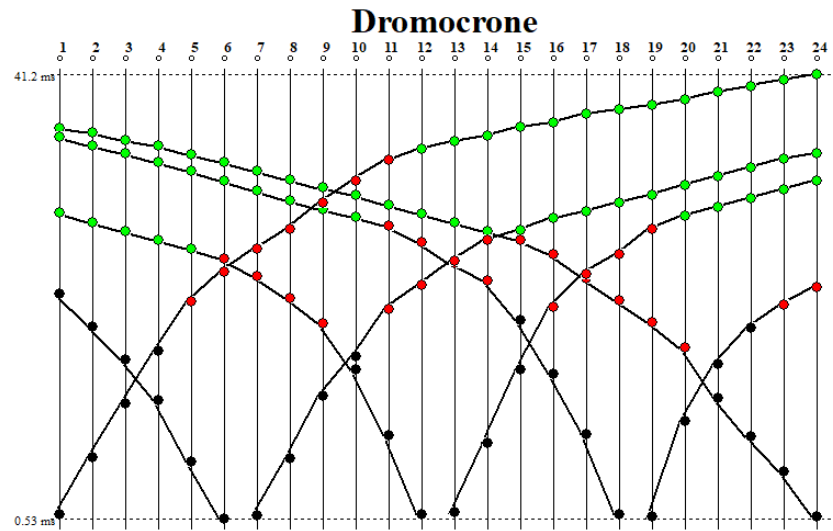


Figura 106: Dromocrone RIFRAZIONE\_4

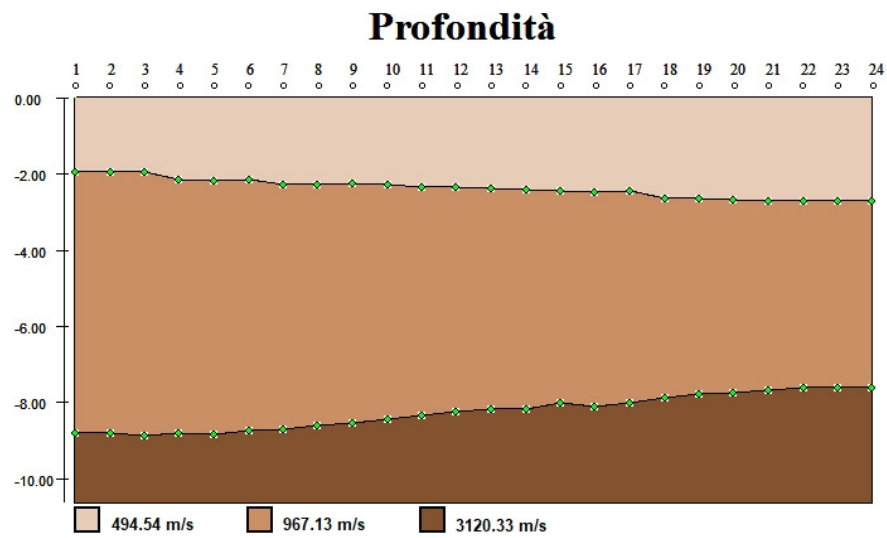


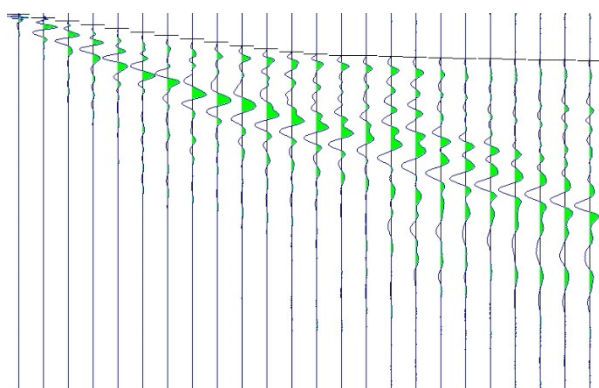
Figura 107: Sezione stratigrafica interpretata RIFRAZIONE\_4

**RIFRAZIONE\_5**

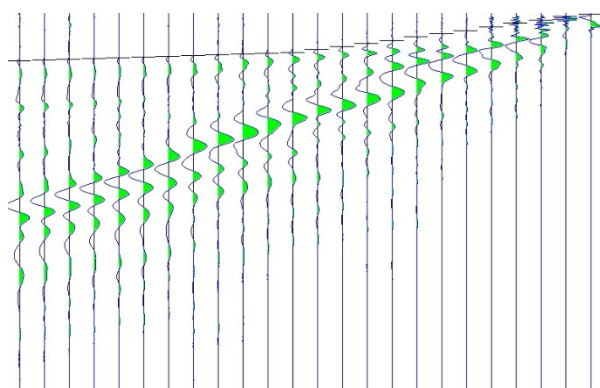
- PRIMI ARRIVI -

-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
0.93 ms	23.60 ms		46.00 ms		57.20 ms		58.67 ms
5.20 ms	20.13 ms		44.27 ms		56.40 ms		57.87 ms
9.07 ms	15.33 ms		42.67 ms		55.73 ms		57.07 ms
13.87 ms	10.67 ms		39.60 ms		54.80 ms		56.13 ms
18.53 ms	5.87 ms		34.93 ms		53.73 ms		55.33 ms
23.20 ms	0.80 ms		29.87 ms		52.40 ms		54.53 ms
27.47 ms		1.07 ms	25.20 ms		49.73 ms		53.47 ms
31.87 ms		4.93 ms	20.80 ms		46.00 ms		52.67 ms
35.87 ms		8.93 ms	15.33 ms		42.00 ms		51.73 ms
40.40 ms		13.73 ms	10.67 ms		37.60 ms		50.53 ms
44.27 ms		18.13 ms	5.60 ms		33.07 ms		49.47 ms
47.33 ms		23.20 ms	0.53 ms		28.53 ms		48.13 ms
50.27 ms		28.13 ms		0.40 ms	23.87 ms		45.20 ms
51.87 ms		32.67 ms		3.73 ms	19.47 ms		41.33 ms
52.67 ms		37.07 ms		7.60 ms	14.53 ms		37.73 ms
53.47 ms		41.33 ms		10.67 ms	10.00 ms		33.47 ms
54.40 ms		44.80 ms		14.53 ms	5.20 ms		29.20 ms
55.07 ms		48.13 ms		18.93 ms	0.67 ms		25.20 ms
55.73 ms		51.20 ms		23.33 ms		0.67 ms	21.20 ms
56.40 ms		52.40 ms		27.87 ms		4.40 ms	16.80 ms
56.93 ms		53.47 ms		32.00 ms		9.33 ms	12.27 ms
57.60 ms		54.27 ms		36.00 ms		13.73 ms	8.27 ms
58.27 ms		54.93 ms		40.13 ms		19.47 ms	4.13 ms
58.93 ms		55.73 ms		42.80 ms		26.80 ms	0.67 ms

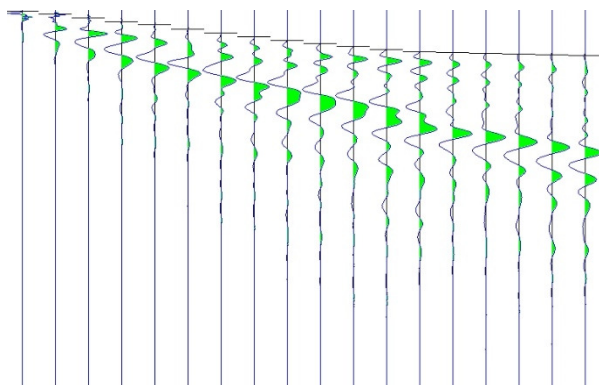
## Tracce sperimentali



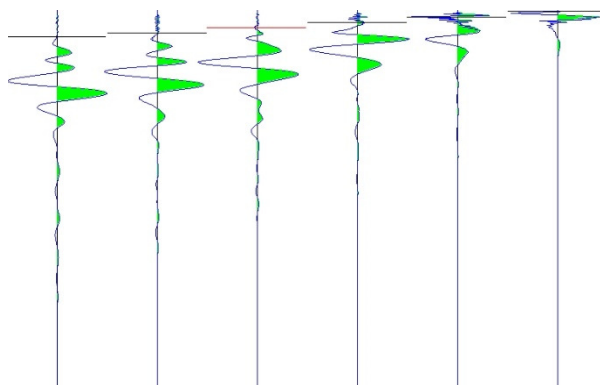
Tracce sperimentali scoppio A diretta



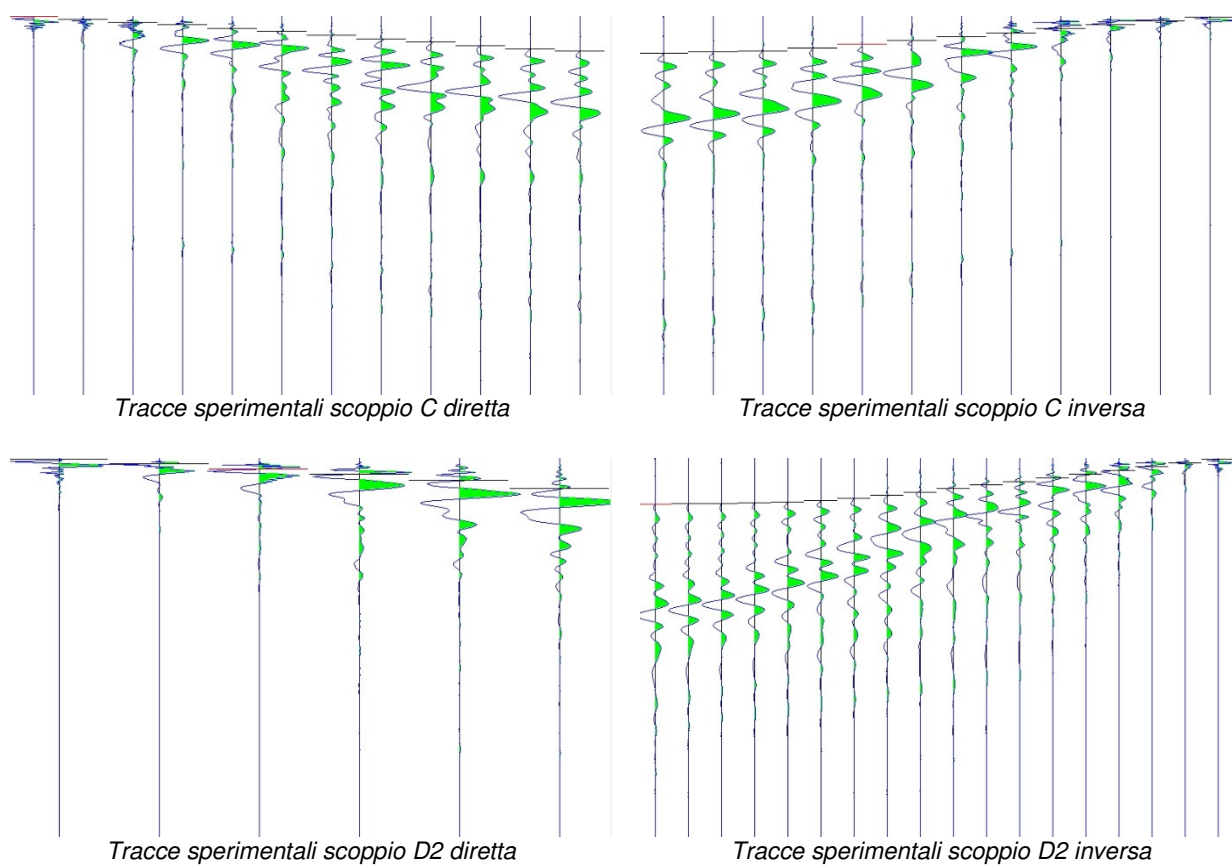
Tracce sperimentali scoppio B inversa



Tracce sperimentali scoppio D1 diretta



Tracce sperimentali scoppio D1 inversa



## VELOCITÀ STRATI

Velocità strato n.1	533.06 m/s
Velocità strato n.2	2517.41 m/s

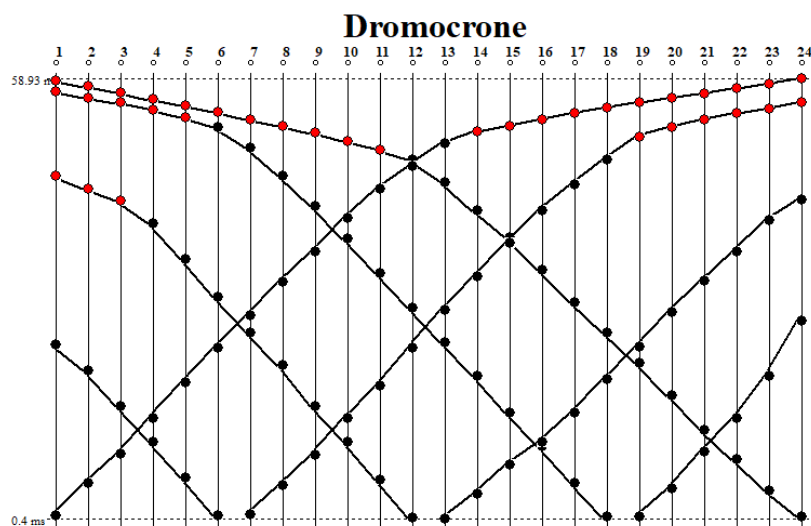


Figura 108: Dromocrone RIFRAZIONE\_5

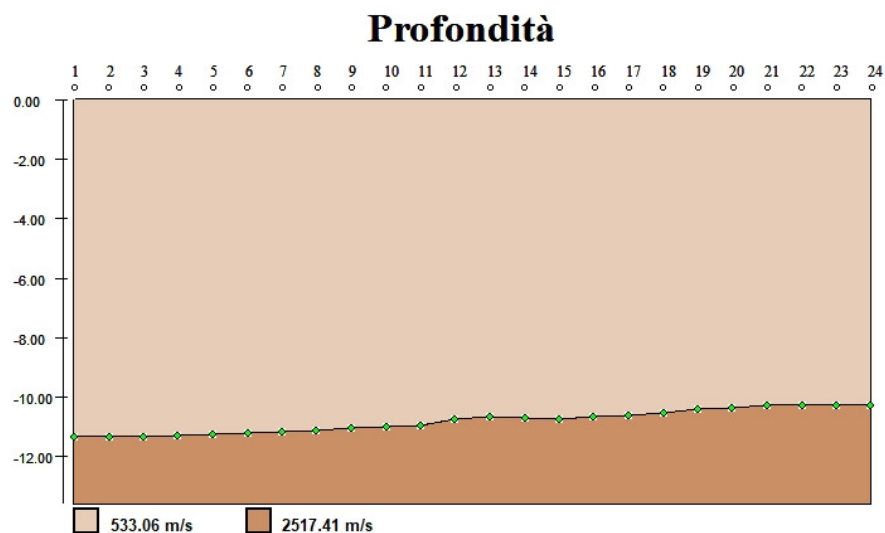


Figura 109: Sezione stratigrafica interpretata RIFRAZIONE\_5

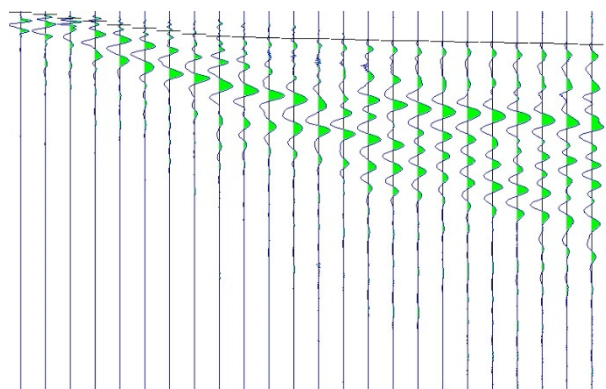
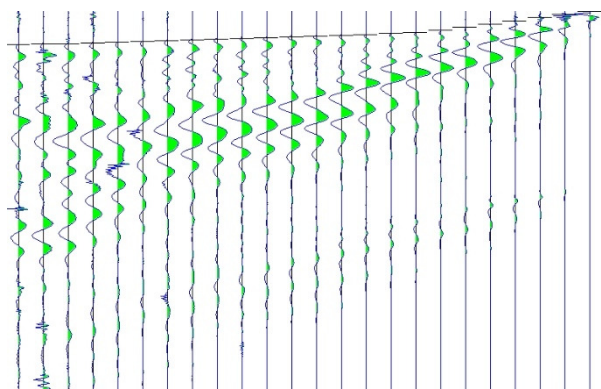
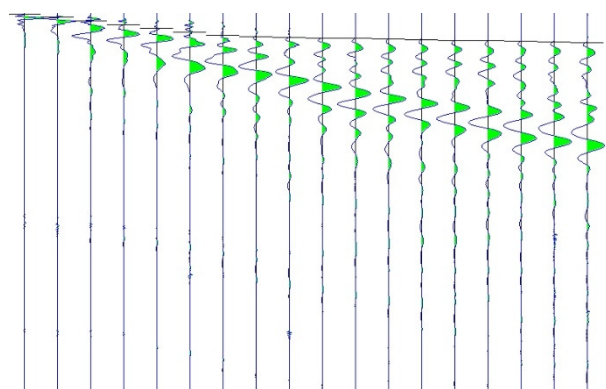
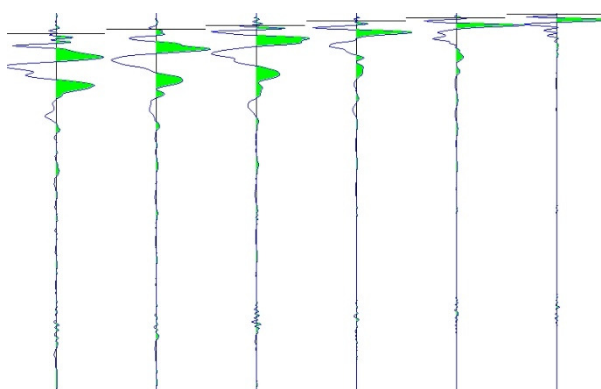
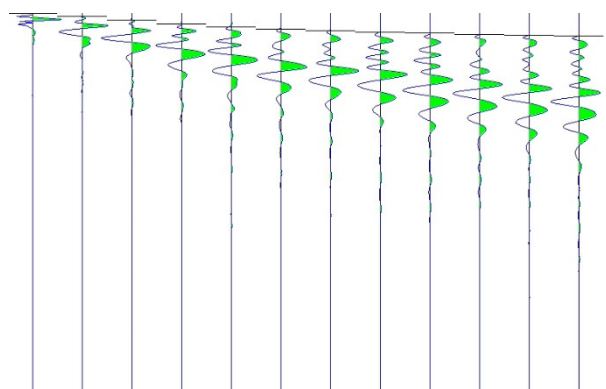
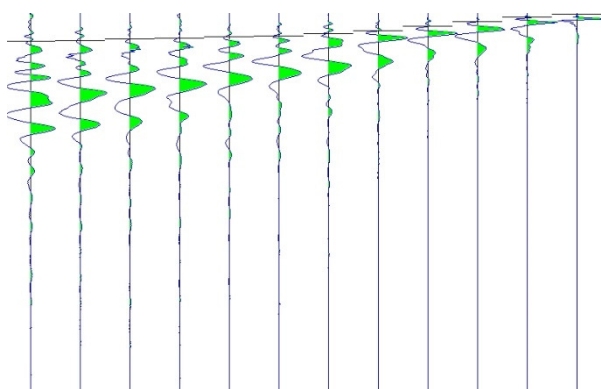
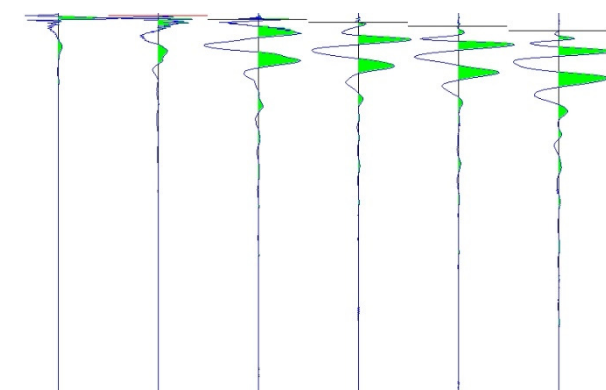
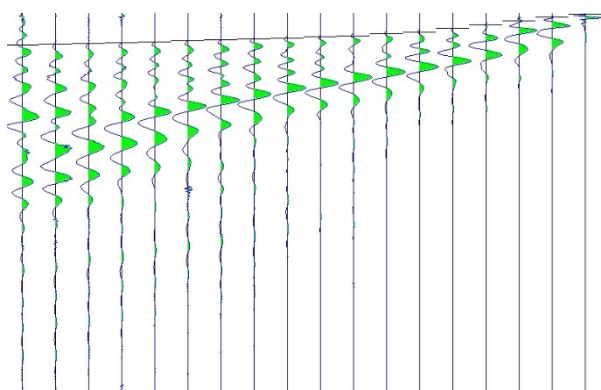
**RIFRAZIONE\_6**

- PRIMI ARRIVI -

-1.50 mt	8.25 mt [SX]	8.25 mt [DX]	17.25 mt [SX]	17.25 mt [DX]	26.25 mt [SX]	26.25 mt [DX]	36.00 mt
0.67 ms	17.73 ms		34.53 ms		39.47 ms		41.20 ms
4.00 ms	14.13 ms		33.33 ms		38.53 ms		40.53 ms
8.13 ms	10.80 ms		31.87 ms		37.47 ms		39.87 ms
12.13 ms	6.93 ms		30.40 ms		36.40 ms		39.20 ms
16.53 ms	3.73 ms		29.07 ms		35.20 ms		38.40 ms
20.27 ms	0.67 ms		27.60 ms		34.00 ms		37.60 ms
24.13 ms		0.67 ms	25.47 ms		32.93 ms		36.53 ms
28.00 ms		4.53 ms	21.07 ms		31.60 ms		35.73 ms
30.67 ms		8.93 ms	15.73 ms		30.40 ms		34.80 ms
31.87 ms		13.87 ms	10.13 ms		29.20 ms		33.87 ms
32.53 ms		18.93 ms	4.93 ms		27.87 ms		32.93 ms
33.20 ms		22.93 ms	0.80 ms		25.60 ms		31.87 ms
33.87 ms		27.07 ms		0.40 ms	23.20 ms		30.80 ms
34.67 ms		28.53 ms		4.13 ms	18.67 ms		29.73 ms
35.33 ms		29.60 ms		8.67 ms	14.27 ms		28.80 ms
36.00 ms		30.67 ms		12.67 ms	9.47 ms		27.33 ms
36.80 ms		31.07 ms		16.80 ms	4.80 ms		25.73 ms
37.33 ms		31.87 ms		19.87 ms	0.53 ms		22.93 ms
37.87 ms		32.67 ms		21.60 ms			19.20 ms
38.40 ms		33.33 ms		22.93 ms		2.27 ms	15.60 ms
38.93 ms		34.00 ms		24.53 ms		5.07 ms	11.73 ms
39.47 ms		34.93 ms		25.87 ms		8.00 ms	7.73 ms
40.13 ms		35.87 ms		27.20 ms		11.33 ms	4.00 ms
40.67 ms		36.67 ms		28.40 ms		15.47 ms	0.40 ms

**Tracce sperimentali**



*Tracce sperimentali scoppio A diretta**Tracce sperimentali scoppio B inversa**Tracce sperimentali scoppio D1 diretta**Tracce sperimentali scoppio D1 inversa**Tracce sperimentali scoppio C diretta**Tracce sperimentali scoppio C inversa**Tracce sperimentali scoppio D2 diretta**Tracce sperimentali scoppio D2 inversa*

VELOCITÀ STRATI	
Velocità strato n.1	487.37 m/s
Velocità strato n.2	2022.07 m/s

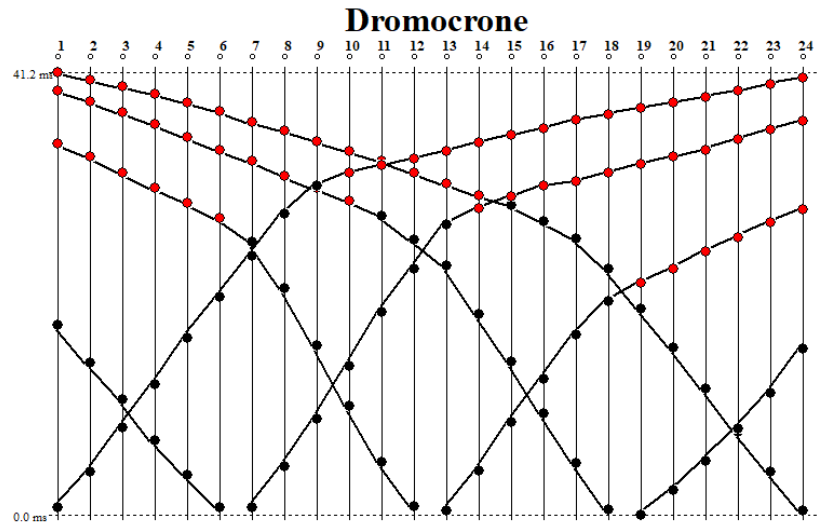


Figura 110: Dromocrone RIFRAZIONE\_6

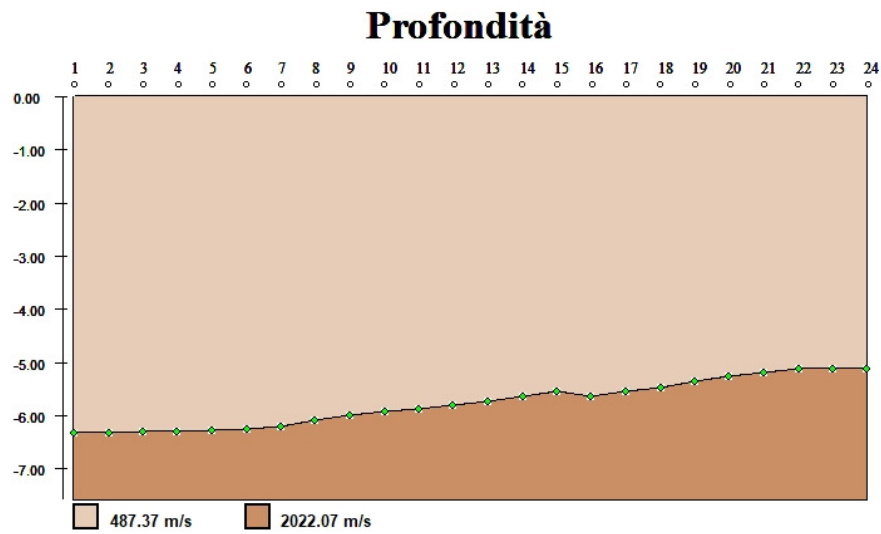


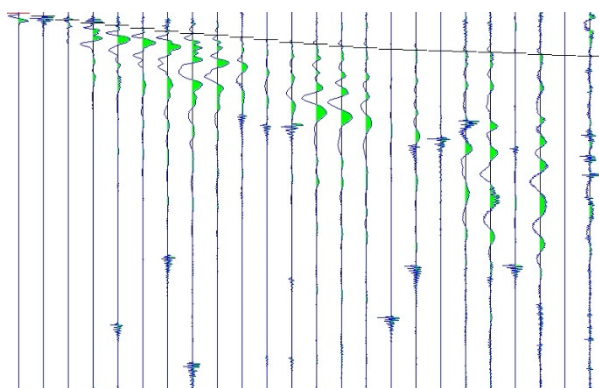
Figura 111: Sezione stratigrafica interpretata RIFRAZIONE\_6

**RIFRAZIONE\_7**

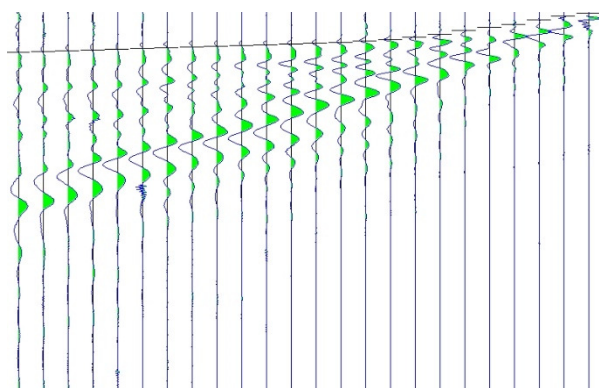
- PRIMI ARRIVI -

-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
0.53 ms	22.27 ms		33.47 ms		41.33 ms		49.07 ms
4.27 ms	18.67 ms		32.53 ms		40.40 ms		48.40 ms
8.93 ms	14.93 ms		31.20 ms		39.60 ms		47.47 ms
12.67 ms	11.07 ms		30.27 ms		38.53 ms		46.53 ms
16.13 ms	6.93 ms		28.93 ms		37.60 ms		45.73 ms
19.87 ms	1.20 ms		27.47 ms		36.40 ms		44.80 ms
23.07 ms		0.80 ms	25.07 ms		35.33 ms		43.87 ms
26.00 ms		5.60 ms	20.00 ms		34.27 ms		43.07 ms
28.27 ms		9.73 ms	15.87 ms		33.20 ms		42.13 ms
31.20 ms		14.00 ms	11.33 ms		31.73 ms		41.07 ms
34.00 ms		17.60 ms	6.40 ms		30.40 ms		40.13 ms
36.93 ms		21.60 ms	0.67 ms		28.13 ms		39.33 ms
39.33 ms		26.13 ms		0.40 ms	23.60 ms		38.40 ms
42.13 ms		28.67 ms		5.60 ms	19.20 ms		37.60 ms
44.27 ms		31.20 ms		10.80 ms	14.67 ms		35.87 ms
45.73 ms		32.67 ms		15.60 ms	10.67 ms		33.33 ms
46.67 ms		33.73 ms		20.93 ms	6.00 ms		30.53 ms
47.60 ms		34.80 ms		24.93 ms	0.80 ms		26.80 ms
48.80 ms		36.00 ms		28.67 ms		0.40 ms	22.67 ms
49.73 ms		37.20 ms		30.13 ms		4.53 ms	18.53 ms
50.80 ms		38.27 ms		32.13 ms		8.80 ms	14.53 ms
51.87 ms		39.60 ms		33.60 ms		12.13 ms	9.73 ms
53.07 ms		41.07 ms		34.93 ms		15.87 ms	4.93 ms
53.73 ms		42.00 ms		36.53 ms		19.87 ms	1.33 ms

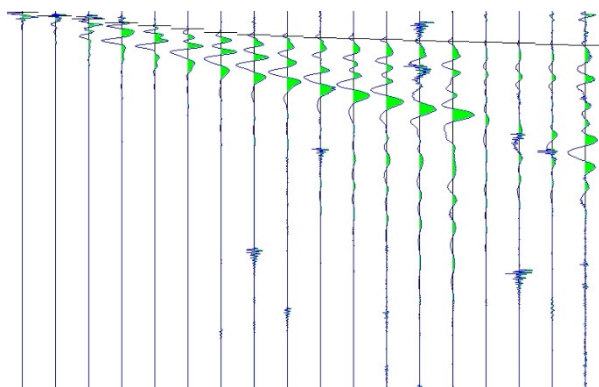
### Tracce sperimentali



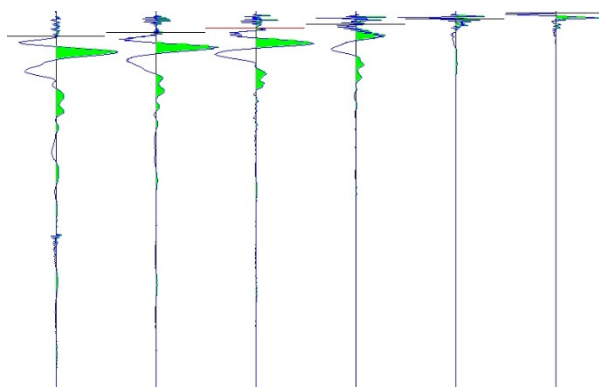
Tracce sperimentali scoppio A diretta



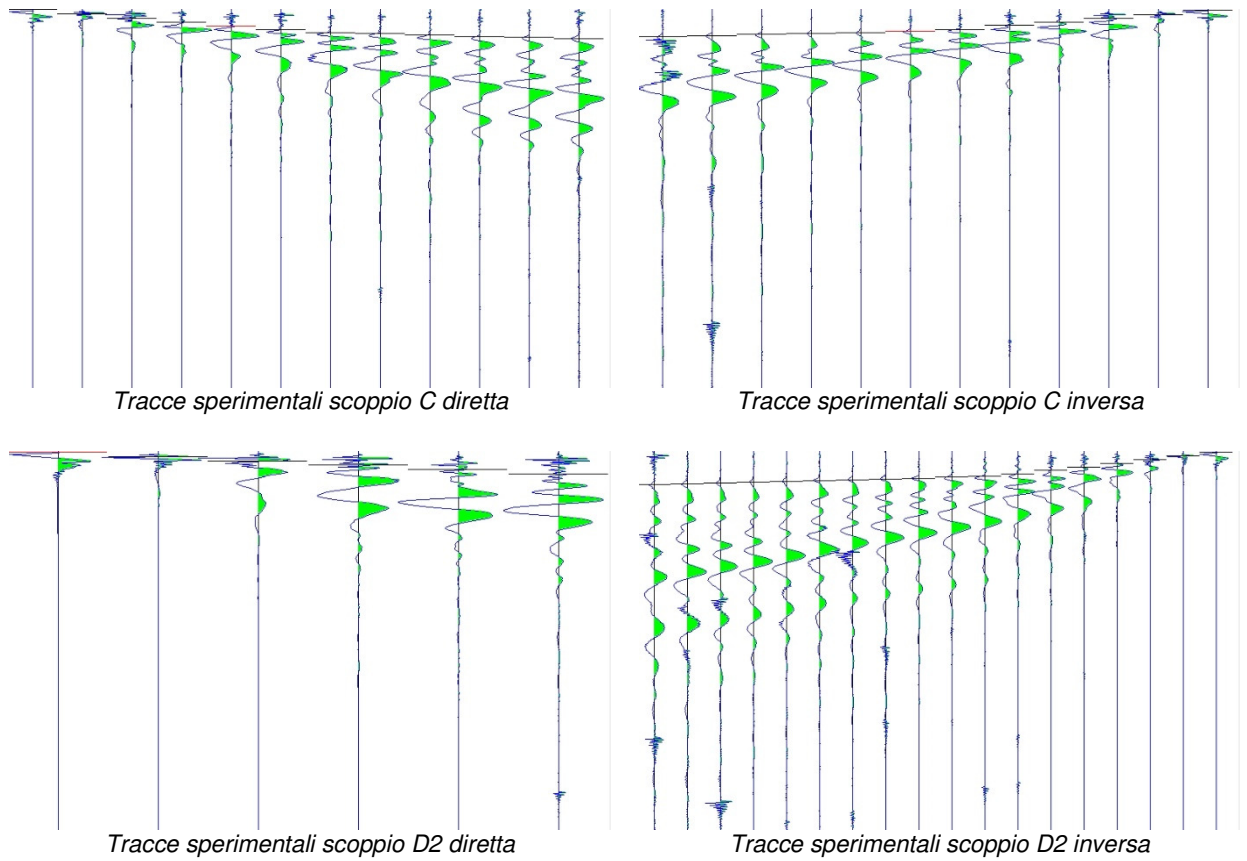
Tracce sperimentali scoppio B inversa



Tracce sperimentali scoppio D1 diretta



Tracce sperimentali scoppio D1 inversa



## VELOCITÀ STRATI

Velocità strato n.1	567.07 m/s
Velocità strato n.2	2082.40 m/s

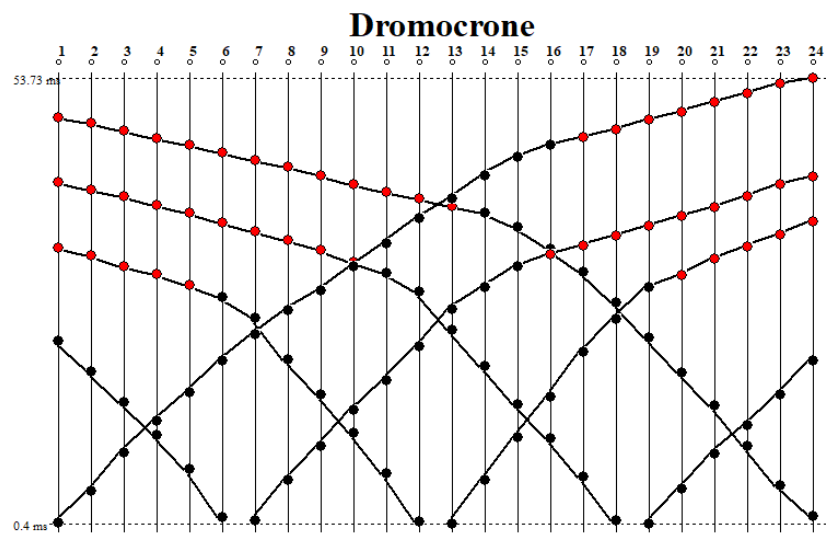


Figura 112: Dromocrone RIFRAZIONE\_7

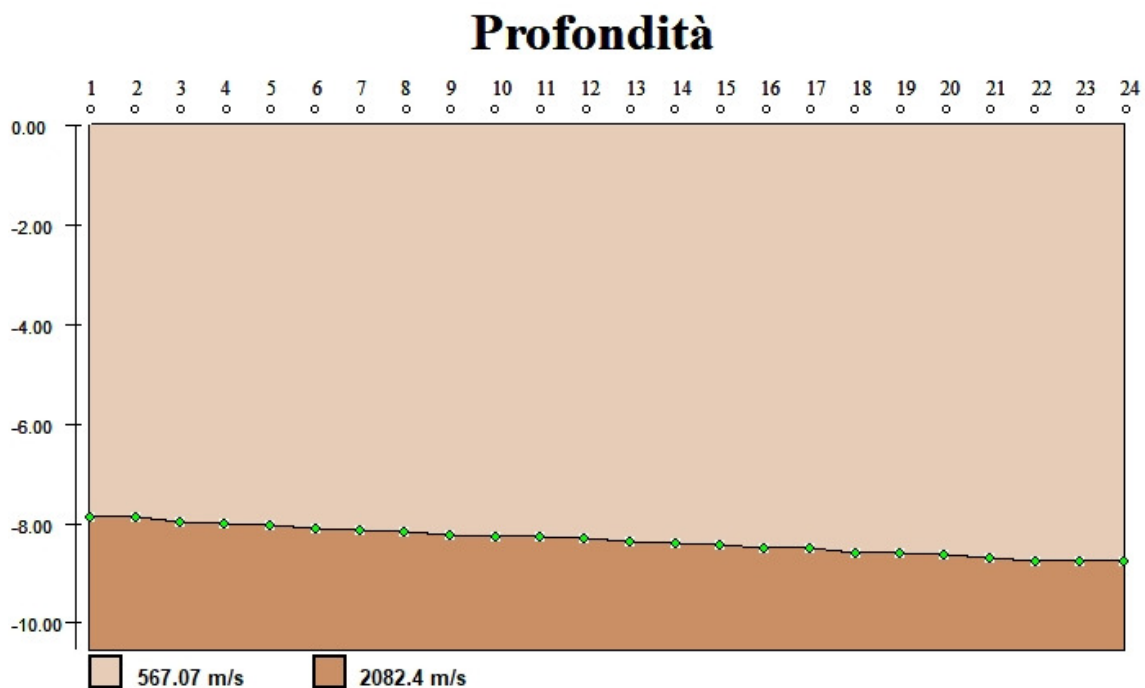


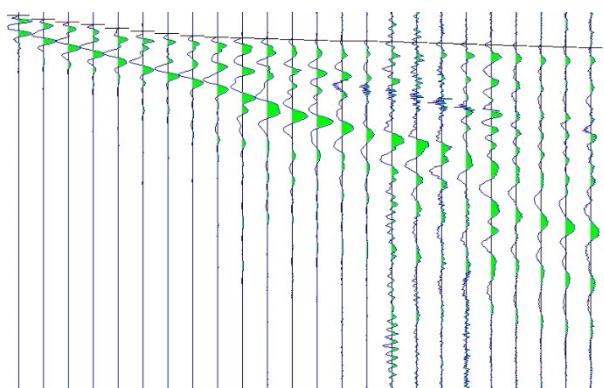
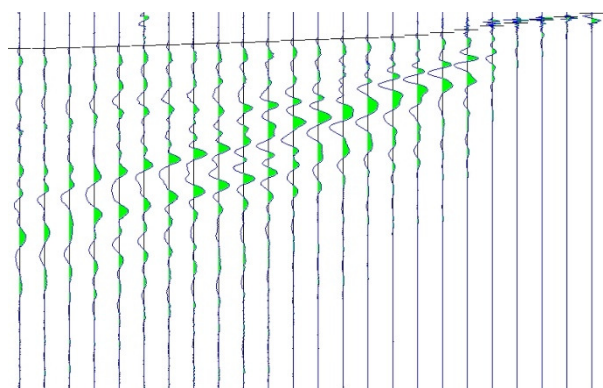
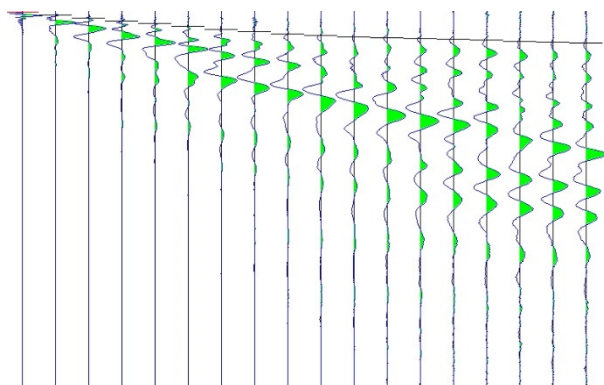
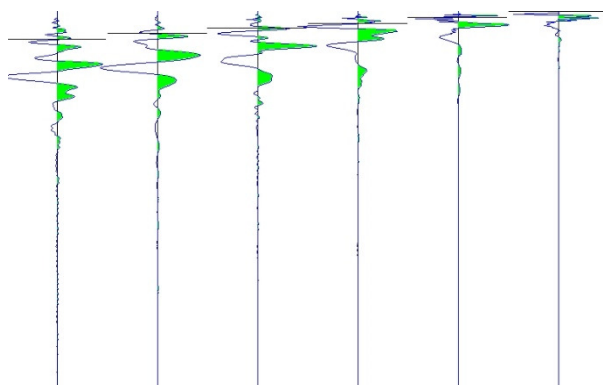
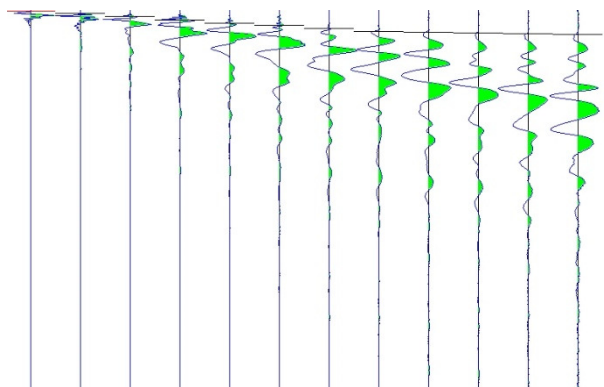
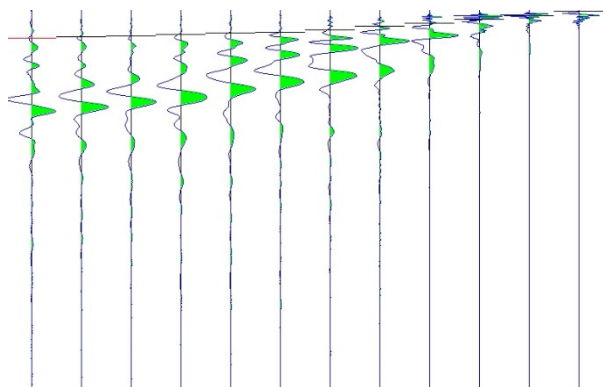
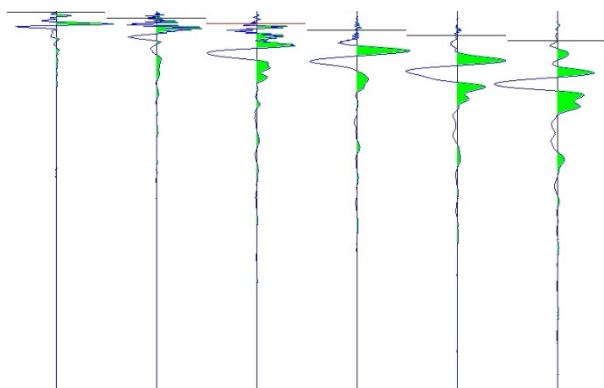
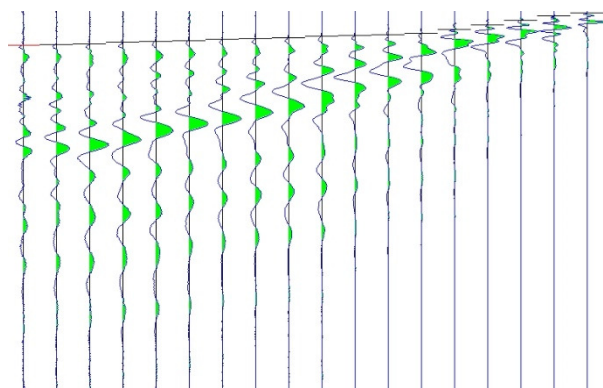
Figura 113: Sezione stratigrafica interpretata RIFRAZIONE\_7

**RIFRAZIONE\_8**

- PRIMI ARRIVI -

-2.00 mt	11.00 mt [SX]	11.00 mt [DX]	23.00 mt [SX]	23.00 mt [DX]	35.00 mt [SX]	35.00 mt [DX]	48.00 mt
4.00 ms	24.40 ms		34.27 ms		42.00 ms		45.20 ms
8.13 ms	19.47 ms		32.93 ms		40.93 ms		44.67 ms
11.73 ms	14.53 ms		31.47 ms		40.00 ms		44.00 ms
15.33 ms	10.40 ms		29.87 ms		38.67 ms		43.07 ms
19.60 ms	5.47 ms		28.27 ms		37.60 ms		42.13 ms
23.07 ms	0.27 ms		27.07 ms		36.27 ms		41.07 ms
25.87 ms		0.80 ms	24.00 ms		34.93 ms		40.13 ms
28.80 ms		4.27 ms	19.73 ms		33.73 ms		39.07 ms
30.40 ms		8.00 ms	15.73 ms		32.53 ms		38.00 ms
31.33 ms		12.00 ms	11.07 ms		31.20 ms		37.07 ms
32.27 ms		15.20 ms	6.27 ms		29.87 ms		36.00 ms
33.20 ms		18.93 ms	1.20 ms		28.53 ms		34.93 ms
34.13 ms		22.13 ms		0.53 ms	26.67 ms		33.87 ms
35.07 ms		25.47 ms		3.87 ms	22.53 ms		32.67 ms
35.87 ms		28.27 ms		7.87 ms	16.80 ms		31.60 ms
36.80 ms		30.13 ms		11.73 ms	11.33 ms		30.40 ms
37.73 ms		31.47 ms		15.47 ms	5.87 ms		28.40 ms
38.53 ms		32.67 ms		18.93 ms	1.47 ms		25.07 ms
39.33 ms		33.73 ms		22.40 ms		0.53 ms	21.33 ms
40.13 ms		34.80 ms		25.87 ms		6.00 ms	16.93 ms
41.07 ms		35.87 ms		27.20 ms		10.80 ms	13.07 ms
42.00 ms		36.93 ms		28.27 ms		16.40 ms	9.47 ms
42.80 ms		38.00 ms		29.20 ms		21.60 ms	5.20 ms
43.60 ms		38.93 ms		30.27 ms		25.87 ms	1.20 ms



**Tracce sperimentali***Tracce sperimentali scoppio A diretta**Tracce sperimentali scoppio B inversa**Tracce sperimentali scoppio D1 diretta**Tracce sperimentali scoppio D1 inversa**Tracce sperimentali scoppio C diretta**Tracce sperimentali scoppio C inversa**Tracce sperimentali scoppio D2 diretta**Tracce sperimentali scoppio D2 inversa*